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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 1701710

Naval Weapons Industrial Reserve Plant Calverton
Riverhead, New York

August 2019

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

N96095_001085
CALVERTON_NWIRP
SSIC 5000-33c

LABORATORY DATA PACKAGE, 1701710, NWIRP CALVERTON NY

12/12/2017

VISTA ANALYTICAL LABORATORY

Approved for public release: distribution unlimited.

December 12, 2017

Vista Work Order No. 1701710

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 November 16, 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,

Karen J. Volpendesta 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. 1701710
Case Narrative

Sample Condition on Receipt:

Eight groundwater samples and three QC water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The client confirmed that the sample IDs on the CoC are correct.

Analytical Notes:

Modified EPA Method 537

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

Holding Times

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

Quality Control

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

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 of the LOQ concentrations. The LCS/LCSD recoveries were within the method acceptance criteria.

The extract of sample "FT-PZ-456-FRB-20171115" was re-injected because one or more Injection Internal Standard Analyte response areas were outside of criteria in the original injection. The results from the second injection have been reported.

The labeled standard recoveries for all QC and field samples were within the 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: _____ Title: QA Manager Date: 12/12/2012

Revision 9
ISG
08/18/16

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1701710-01	FT-MW02I-NP-20171115	15-Nov-17 09:05	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-02	FT-MW02I-P1-20171115	15-Nov-17 09:55	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-03	FT-MW02I-P2-20171115	15-Nov-17 10:36	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-04	FT-MW02I-P3-20171115	15-Nov-17 11:25	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-05	DEET-20171115	15-Nov-17 10:15	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-06	PERMETHRIN-20171115	15-Nov-17 10:20	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-07	FT-PZ-456S-NP-20171115	15-Nov-17 14:30	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-08	FT-PZ-456S-P1-20171115	15-Nov-17 14:45	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-09	FT-PZ-456S-P2-20171115	15-Nov-17 14:55	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-10	FT-PZ-456S-P3-20171115	15-Nov-17 15:05	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-11	FT-PZ-456-FRB-20171115	15-Nov-17 15:10	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

Modified EPA Method 537

Client Data

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

Laboratory Data

Lab Sample: B7K0176-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		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFHxA	ND	1.09	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFHpA	ND	0.296	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFHxS	ND	0.474	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFOA	ND	0.326	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFOS	ND	0.404	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFNA	ND	0.405	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFDA	ND	0.745	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
MeFOSAA	ND	0.825	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFUnA	ND	0.525	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
EtFOSAA	ND	0.685	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFDoA	ND	0.396	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFTrDA	ND	0.247	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFTeDA	ND	0.378	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFHxA	IS	90.9	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C4-PFHpA	IS	96.7	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
18O2-PFHxS	IS	91.7	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFOA	IS	92.5	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C8-PFOS	IS	96.2	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C5-PFNA	IS	91.4	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFDA	IS	94.1	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
d3-MeFOSAA	IS	84.3	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFUnA	IS	73.4	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
d5-EtFOSAA	IS	64.6	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFDoA	IS	79.4	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFTeDA	IS	67.3	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	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: LCS Dup

Modified EPA Method 537

Name:	Tetra Tech	Lab Sample:	B7K0176-BS1/B7K0176-BSD1
Project:	112G08005-WE05	QC Batch:	B7K0176
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	29-Nov-17
		Column:	BEH C18

Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	47.0	40.0	118		43.8	40.0	110	7.07		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFHxA	47.1	40.0	118		42.7	40.0	107	9.85		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFHpA	41.1	40.0	103		45.7	40.0	114	10.6		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFHxS	42.2	40.0	106		35.9	40.0	89.9	16.1		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFOA	41.4	40.0	103		42.3	40.0	106	2.22		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFOS	47.3	40.0	118		44.4	40.0	111	6.35		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFNA	49.6	40.0	124		49.4	40.0	123	0.504		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFDA	45.3	40.0	113		46.5	40.0	116	2.55		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
MeFOSAA	37.3	40.0	93.2		34.4	40.0	85.9	8.05		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFUnA	41.8	40.0	104		36.9	40.0	92.4	12.3		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
EtFOSAA	47.2	40.0	118		48.0	40.0	120	1.59		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFDoA	32.8	40.0	81.9		37.3	40.0	93.2	12.9		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFTrDA	32.9	40.0	82.2		38.8	40.0	97.0	16.5		60-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFTeDA	51.7	40.0	129		38.7	40.0	96.7	28.7		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBS	IS	88.8		102		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFHxA	IS	92.3		98.6		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C4-PFHpA	IS	90.5		91.9		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
18O2-PFHxS	IS	91.3		107		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFOA	IS	85.4		83.0		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C8-PFOS	IS	85.9		86.9		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C5-PFNA	IS	88.2		88.8		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFDA	IS	75.6		97.2		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
d3-MeFOSAA	IS	72.5		73.6		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFUnA	IS	67.1		76.8		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
d5-EtFOSAA	IS	71.8		65.9		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFDoA	IS	85.5		81.6		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFTeDA	IS	70.2		73.8		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1

Sample ID: FT-MW02I-NP-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 09:05

Laboratory Data

Lab Sample: 1701710-01
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.857	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFHxA	ND	1.04	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFHpA	ND	0.283	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFHxS	ND	0.453	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFOA	ND	0.312	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFOS	ND	0.386	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFNA	ND	0.388	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFDA	ND	0.713	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
MeFOSAA	ND	0.790	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFUnA	ND	0.503	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
EtFOSAA	ND	0.656	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFDoA	ND	0.379	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFTrDA	ND	0.236	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFTeDA	ND	0.361	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	107	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFHxA	IS	92.3	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C4-PFHpA	IS	88.4	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
18O2-PFHxS	IS	102	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFOA	IS	87.7	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C8-PFOS	IS	84.8	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C5-PFNA	IS	98.3	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFDA	IS	81.1	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
d3-MeFOSAA	IS	63.7	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFUnA	IS	73.4	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
d5-EtFOSAA	IS	77.2	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFDoA	IS	75.8	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFTeDA	IS	77.6	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	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-MW02I-P1-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 09:55

Laboratory Data

Lab Sample: 1701710-02
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.848	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFHxA	ND	1.03	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFHpA	ND	0.280	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFHxS	ND	0.448	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFOA	ND	0.308	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFOS	ND	0.382	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFNA	ND	0.384	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFDA	ND	0.705	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
MeFOSAA	ND	0.781	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFUnA	0.644	0.497	2.37	3.79	J	B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
EtFOSAA	ND	0.649	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFDoA	ND	0.375	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFTrDA	ND	0.234	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFTeDA	ND	0.357	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	112	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFHxA	IS	85.5	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C4-PFHpA	IS	94.4	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
18O2-PFHxS	IS	99.3	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFOA	IS	107	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C8-PFOS	IS	108	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C5-PFNA	IS	82.6	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFDA	IS	85.2	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
d3-MeFOSAA	IS	89.0	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFUnA	IS	94.8	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
d5-EtFOSAA	IS	78.9	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFDoA	IS	125	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFTeDA	IS	104	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	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-MW02I-P2-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 10:36

Laboratory Data

Lab Sample: 1701710-03
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.849	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFHxA	ND	1.03	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFHpA	ND	0.280	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFHxS	ND	0.449	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFOA	ND	0.309	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFOS	ND	0.383	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFNA	ND	0.384	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFDA	ND	0.707	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
MeFOSAA	ND	0.783	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFUnA	ND	0.498	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
EtFOSAA	ND	0.650	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFDoA	ND	0.376	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFTrDA	ND	0.234	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFTeDA	ND	0.358	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	121	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFHxA	IS	90.9	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C4-PFHpA	IS	99.3	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
18O2-PFHxS	IS	92.3	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFOA	IS	102	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C8-PFOS	IS	97.1	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C5-PFNA	IS	98.5	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFDA	IS	72.8	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
d3-MeFOSAA	IS	72.6	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFUnA	IS	73.0	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
d5-EtFOSAA	IS	75.9	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFDoA	IS	88.1	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFTeDA	IS	98.0	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	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-MW02I-P3-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 11:25

Laboratory Data

Lab Sample: 1701710-04
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.836	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFHxA	ND	1.02	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFHpA	ND	0.276	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFHxS	ND	0.442	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFOA	ND	0.304	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFOS	ND	0.377	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFNA	ND	0.378	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFDA	ND	0.696	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
MeFOSAA	ND	0.771	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFUnA	ND	0.490	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
EtFOSAA	ND	0.640	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFDoA	ND	0.370	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFTrDA	ND	0.231	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFTeDA	ND	0.353	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	116	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFHxA	IS	103	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C4-PFHpA	IS	97.2	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
18O2-PFHxS	IS	101	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFOA	IS	92.4	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C8-PFOS	IS	92.7	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C5-PFNA	IS	90.1	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFDA	IS	84.1	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
d3-MeFOSAA	IS	87.8	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFUnA	IS	83.0	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
d5-EtFOSAA	IS	85.3	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFDoA	IS	104	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFTeDA	IS	112	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	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: DEET-20171115

Modified EPA Method 537

Client Data

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

Matrix: QC Water
Date Collected: 15-Nov-17 10:15

Laboratory Data

Lab Sample: 1701710-05
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.910	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFHxA	ND	1.11	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFHpA	ND	0.301	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFHxS	ND	0.482	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFOA	ND	0.331	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFOS	ND	0.410	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFNA	ND	0.412	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFDA	ND	0.758	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
MeFOSAA	ND	0.839	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFUnA	ND	0.534	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
EtFOSAA	ND	0.697	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFDoA	ND	0.403	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFTrDA	ND	0.251	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFTeDA	ND	0.384	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	92.7	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFHxA	IS	82.8	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C4-PFHpA	IS	85.6	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
18O2-PFHxS	IS	82.5	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFOA	IS	77.3	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C8-PFOS	IS	92.0	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C5-PFNA	IS	76.2	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFDA	IS	75.0	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
d3-MeFOSAA	IS	81.0	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFUnA	IS	79.8	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
d5-EtFOSAA	IS	77.6	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFDoA	IS	102	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFTeDA	IS	81.9	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	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: PERMETHRIN-20171115

Modified EPA Method 537

Client Data

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

Matrix: QC Water
Date Collected: 15-Nov-17 10:20

Laboratory Data

Lab Sample: 1701710-06
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.957	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFHxA	ND	1.17	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFHpA	ND	0.316	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFHxS	ND	0.506	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFOA	ND	0.348	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFOS	ND	0.431	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFNA	ND	0.433	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFDA	ND	0.796	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
MeFOSAA	ND	0.882	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFUnA	ND	0.561	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
EtFOSAA	ND	0.732	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFDoA	ND	0.423	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFTrDA	ND	0.264	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFTeDA	ND	0.404	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFHxA	IS	88.6	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C4-PFHpA	IS	94.0	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
18O2-PFHxS	IS	89.2	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFOA	IS	87.7	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C8-PFOS	IS	89.8	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C5-PFNA	IS	89.9	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFDA	IS	64.9	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
d3-MeFOSAA	IS	75.3	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFUnA	IS	72.7	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
d5-EtFOSAA	IS	65.0	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFDoA	IS	80.2	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFTeDA	IS	72.5	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: FT-PZ-456S-NP-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 14:30

Laboratory Data

Lab Sample: 1701710-07
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.858	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFHxA	ND	1.04	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFHpA	ND	0.283	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFHxS	ND	0.454	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFOA	ND	0.312	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFOS	ND	0.387	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFNA	ND	0.388	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFDA	ND	0.714	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
MeFOSAA	ND	0.791	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFUnA	0.676	0.503	2.39	3.83	J	B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
EtFOSAA	ND	0.657	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFDoA	ND	0.380	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFTrDA	ND	0.237	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFTeDA	ND	0.362	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	93.7	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFHxA	IS	86.0	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C4-PFHpA	IS	82.7	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
18O2-PFHxS	IS	90.9	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFOA	IS	84.8	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C8-PFOS	IS	94.5	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C5-PFNA	IS	68.1	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFDA	IS	87.4	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
d3-MeFOSAA	IS	80.8	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFUnA	IS	71.4	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
d5-EtFOSAA	IS	76.6	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFDoA	IS	83.1	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFTeDA	IS	91.6	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	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: FT-PZ-456S-P1-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 14:45

Laboratory Data

Lab Sample: 1701710-08
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.853	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFHxA	ND	1.04	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFHpA	ND	0.282	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFHxS	ND	0.451	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFOA	ND	0.310	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFOS	ND	0.384	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFNA	ND	0.386	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFDA	ND	0.710	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
MeFOSAA	ND	0.786	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFUnA	ND	0.500	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
EtFOSAA	ND	0.653	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFDoA	ND	0.377	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFTrDA	ND	0.235	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFTeDA	ND	0.360	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	92.0	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFHxA	IS	82.5	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C4-PFHpA	IS	90.1	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
18O2-PFHxS	IS	72.7	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFOA	IS	85.7	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C8-PFOS	IS	97.1	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C5-PFNA	IS	81.8	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFDA	IS	65.5	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
d3-MeFOSAA	IS	71.7	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFUnA	IS	69.5	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
d5-EtFOSAA	IS	64.3	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFDoA	IS	69.0	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFTeDA	IS	68.4	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	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-PZ-456S-P2-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 14:55

Laboratory Data

Lab Sample: 1701710-09
Date Received: 16-Nov-17 09:47

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		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFHxA	ND	1.06	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFHpA	ND	0.286	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFHxS	ND	0.458	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFOA	ND	0.315	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFOS	ND	0.391	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFNA	ND	0.392	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFDA	ND	0.721	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
MeFOSAA	ND	0.799	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFUnA	ND	0.508	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
EtFOSAA	ND	0.663	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFDoA	ND	0.383	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFTrDA	ND	0.239	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFTeDA	ND	0.365	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	102	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFHxA	IS	92.6	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C4-PFHpA	IS	96.5	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
18O2-PFHxS	IS	87.5	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFOA	IS	107	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C8-PFOS	IS	91.7	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C5-PFNA	IS	77.0	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFDA	IS	87.8	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
d3-MeFOSAA	IS	97.2	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFUnA	IS	83.7	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
d5-EtFOSAA	IS	86.3	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFDoA	IS	94.3	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFTeDA	IS	90.4	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	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-PZ-456S-P3-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 15:05

Laboratory Data

Lab Sample: 1701710-10
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.839	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFHxA	ND	1.02	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFHpA	ND	0.277	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFHxS	ND	0.444	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFOA	ND	0.305	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFOS	ND	0.378	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFNA	ND	0.380	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFDA	ND	0.699	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
MeFOSAA	ND	0.774	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFUnA	ND	0.492	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
EtFOSAA	ND	0.642	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFDoA	ND	0.371	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFTrDA	ND	0.232	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFTeDA	ND	0.354	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFHxA	IS	93.2	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C4-PFHpA	IS	96.6	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
18O2-PFHxS	IS	101	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFOA	IS	89.0	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C8-PFOS	IS	117	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C5-PFNA	IS	86.7	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFDA	IS	91.0	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
d3-MeFOSAA	IS	101	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFUnA	IS	90.9	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
d5-EtFOSAA	IS	88.4	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFDoA	IS	89.4	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFTeDA	IS	106	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	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-PZ-456-FRB-20171115

Modified EPA Method 537

Client Data

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

Matrix: QC Water
Date Collected: 15-Nov-17 15:10

Laboratory Data

Lab Sample: 1701710-11
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.843	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFHxA	ND	1.03	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFHpA	ND	0.278	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFHxS	ND	0.446	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFOA	ND	0.306	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFOS	ND	0.380	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFNA	ND	0.381	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFDA	ND	0.701	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
MeFOSAA	ND	0.777	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFUnA	ND	0.494	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
EtFOSAA	ND	0.645	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFDoA	ND	0.373	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFTrDA	ND	0.233	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFTeDA	ND	0.355	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFHxA	IS	98.2	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C4-PFHpA	IS	96.9	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
18O2-PFHxS	IS	111	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFOA	IS	88.1	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C8-PFOS	IS	98.5	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C5-PFNA	IS	91.2	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFDA	IS	82.0	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
d3-MeFOSAA	IS	93.4	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFUnA	IS	81.3	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
d5-EtFOSAA	IS	93.0	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFDoA	IS	76.5	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFTeDA	IS	79.9	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	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
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	1175673
New Hampshire Environmental Accreditation Program	207716
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	013
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	8621
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.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

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

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701710 Temp: 0.6 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: 112G08005-WE05 PO#: _____ Sampler: Jacob Birkett, Beau Benfield, Lauren Donston (name)

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

Invoice to: Name: _____ Company: TetraTech Address: See Contract for billing 5700 Lakewright Dr. Suite 102 City: Norfolk State: VA Ph#: _____ Fax#: _____

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Jacob Birkett	11-15-17	1730	FedEx		
FedEx	11/16/17	0947	Marissa Sparks	11/16/17	1016

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

ATTN: _____

Method of Shipment: FedEx

Tracking No.: 810291870558

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	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	Comments
FT-MW02I-NP-20171115	11-15-17	0905	FT-MW02I	2	P	GW			X						
FT-MW02I-P1-20171115		0955	" "	2	P				X						
FT-MW02I-P2-20171115		1036	" "	2	P				X						
FT-MW02I-P3-20171115		1125	" "	2	P				X						
DEET-20171115		1015	None	2	P	QA			X						
PERMETHRIN-20171115		1020	None	2	P	QA			X						
FT-PZ-4565-NP-20171115		1430	FT-PZ-4565'	2	P	GW			X						
FT-PZ-4565'-P1-20171115		1445	" "	2	P				X						
FT-PZ-4565'-P2-20171115		1455	" "	2	P				X						
FT-PZ-4565'-P3-20171115		1505	" "	2	P				X						
FT-PZ-456-FRB-20171115	11-15-17	1510	" "	2	P	QA			X						

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: Kristi Francisco
Company: Tetra Tech
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____
Email: _____

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: _____
GW-Groundwater
QA- Quality Assurance

Page: 1 of 1

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701710 **TAT** Std

Samples Arrival:	**Date/Time** 11/16/17 0947	**Initials:** WS	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 11/17/17 0725	**Initials:** SR	**Location:** WR-2 **Shelf/Rack:** F4

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

Temp °C: 0.5 (uncorrected)	**Time:** 1014	**Thermometer ID:** IR-1
Temp °C: 0.6 (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 0558	✓		
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	

* Sample Container label ID:

Comments:

Ⓐ* FT-MW02I-NP-~~20117~~ 20171115

* Reid ink on label very smeared, difficult to read, Ⓐ reconciled using collection time

* PERMETHRIN - 20171115

FT-PZ-456-NP-20171115
FT-PZ456S-NP-20171115
FT-PZ456S-P1-20171115
FT-PZ456-P2-20171115
FT-PZ456S-P2-20171115
FT-PZ456S-P3-20171115
FT-PZ456S-FRB-20171115

COC ID:
FT-PZ-456S-NP-20171115

FT-PZ-456S-P1-20171115
FT-PZ-456S-P2-20171115

FT-PZ-456S-P3-20171115
FT-PZ-456-FRB-20171115

Chain of Custody Anomaly/Sample Acceptance Form

Vista Analytical Laboratory

Tetra Tech
Kristi Francisco
Kristi.Francisco@tetratech.com
(757) 466-4902

Workorder Number: 1701710
Date Received: 16-Nov-17 09:47
Documented by/date: S.Roughton 11/17/17

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

Thank you,

Martha Maier
mmaier@vista-analytical.com
916-673-1520

[X] Sample IDs on Chain of Custody do not match Sample Container Labels

Chain of Custody ID	Container Label ID
FT-PZ-456S-NP-20171115	FT-PZ-456-NP-20171115
FT-PZ-456S-P1-20171115	FT-PZ456S-P1-20171115
FT-PZ-456S-P2-20171115	FT-PZ-456-P2-20171115
FT-PZ-456S-P3-20171115	FT-PZ456S-P3-20171115
FT-PZ-456-FRB-20171115	FT-PZ-456S-FRB-20171115

Client Authorization

Proceed with Analysis: (YES) NO Signature and Date Kamaljeet Kaur 12/12/17

Client Comments/Instructions per client email on 11/29/17, the sample IDs on the COC are correct.

EXTRACTION INFORMATION

Process Sheet

Workorder: 1701710

Prep Expiration: 2017-Nov-29
Client: Tetra Tech

Workorder Due: 11-Dec-17 00:00
TAT: 25

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

Prep Batch: B7K0176

Prep Data Entered: 11.30.17 HC
Date and Initials

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

Initial Sequence: STL0025

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1701710-01	A	☐	☑	FT-MW02I-NP-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-02		☑	☑	FT-MW02I-P1-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-03		☑	☑	FT-MW02I-P2-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-04		☑	☑	FT-MW02I-P3-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-05		☑	☑	DEET-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-06		☑	☑	PERMETHRIN-20171115	HN 11/29/17	WR-2 F-4	HDPE Bottle, 250 mL
1701710-07		☑	☐	FT-PZ-456S-NP-20171115	"FT-PZ456S-~~NP~~-NP-20171115	WR-2 F-4	HDPE Bottle, 250 mL
1701710-08		☐	☐	FT-PZ-456S-P1-20171115	"FT-PZ456S-P1-20171115"	WR-2 F-4	HDPE Bottle, 250 mL
1701710-09		☐	☐	FT-PZ-456S-P2-20171115	"FT-PZ456S-P2-20171115"	WR-2 F-4	HDPE Bottle, 250 mL
1701710-10		☐	☐	FT-PZ-456S-P3-20171115	"FT-PZ456S-P3-20171115"	WR-2 F-4	HDPE Bottle, 250 mL
1701710-11		☐	☐	FT-PZ-456-FRB-20171115	"FT-PZ456S-FRB-20171115"	WR-2 F-4	HDPE Bottle, 250 mL

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

Pre-Prep Check Out: HC 11.28.17
Pre-Prep Check In: HC 11-28-17

Prep Check Out: HN 11/28/17
Prep Check In: MB

Prep Reconciled Initals/Date: HC 11-28-17
Spike Reconciled Initals/Date: HN 11/28/17 HN 11/29/17

VialBoxID: Lana

Work Order 1701710

WO#: 1701710 DoD QSM 5.1

Sample Checklist

Due Date: 07-Dec-17

LabNumber	VersionID	Matrix	120717M2	IIS	171209M2	IIS		IIS		IIS
1701710-01	537 (14 Analyte)	Aqueous	✓	✓	N/A					
1701710-02	537 (14 Analyte)	Aqueous								
1701710-03	537 (14 Analyte)	Aqueous								
1701710-04	537 (14 Analyte)	Aqueous								
1701710-05	537 (14 Analyte)	Aqueous								
1701710-06	537 (14 Analyte)	Aqueous								
1701710-07	537 (14 Analyte)	Aqueous								
1701710-08	537 (14 Analyte)	Aqueous								
1701710-09	537 (14 Analyte)	Aqueous								
1701710-10	537 (14 Analyte)	Aqueous								
1701710-11	537 (14 Analyte)	Aqueous		A	✓		✓			
-BLK1										
-BS1			✓							
-BD1			✓							

ICAL Top of Curve*

pg/ul	125mL (ng/L)	250mL (ng/L)	1.00g (ng/g)	5.00mL (ng/mL
100	800	400	100	20
250	2000	1000	250	50
500	4000	2000	500	100

Checkmark run used

R = Run
CO = CCAL Out
E = Over Curve
D = Dilution Run
RT = Retention Time Shift
Cr = Chromotography Issue
A = Area Out
PC = Possible Carryover
Checkmark IIS field for IIS Area has been checked

High Point* ICAL(pg/uL)	100 (250) 500	100 (250) 500	100 250 500	100 250 500
Low Point (pg/uL)	0.25	0.25		
ICALS	Q4-12-6-17-FULL	Q4-12-9-17_FULLOLDRS		
CCALS	-4 -5	-11		
Analyte Info		✓		
ISC	✓	✓		
IIS Areas	✓	✓		
IB	✓	✓		
High Point PC (pg/uL)	100 250 (500)	100 250 (500)	100 250 500	100 250 500

- [✓] All BLKs/BS Included
- [NA] All MS/MSD Included
- [NA] All DUPS Included
- [✓] All Run Logs Included
- [✓] Analyte List Matches Process Sheet
- [ ] Target RLs achieved for all analytes
- [ ] All Initial Wt/Vol Verified
- [ ] Correct ICAL Used
- [✓] Associated CCALS processed with same ICAL
- [ ] Correct Raw Data Files Saved (Archive Not Used)
- [ ] Correct Inst Files Saved (Archive Not Used)
- [ ] All Files Named Correctly

Submitted for Review by _____ **on** 12/11/17

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PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS
Method: 537M PFAS DOD (LOQ as mRL)
Method: 537M PFAS Static RL

B7K0176

Chemist: HC

Prep Date/Time: 28-Nov-17 08:04

11.29.17 HC

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 11.28.17 HC | BalanceID: H2MS-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
☐	B7K0176-BLK1	5	2	0	3	NA	NA	(0.250) ✓	HC HN 11.29.17	HN 11/29/17	VL HN 11/29/17
☐	B7K0176-BS1	5	2	0	3	↓	↓	(0.250) ✓	↓	↓	↓
☐	B7K0176-BSD1	5	2	0	3	↓	↓	(0.250) ✓	↓	↓	↓
☐	1701710-01	5	2	0	3	288.63	27.48	0.26115 ✓	↓	↓	↓
☐	1701710-02	5	2	0	3	291.01	27.01	0.26400 ✓	↓	↓	↓
☐	1701710-03	5	2	0	3	290.70	27.21	0.26349 ✓	↓	↓	↓
☐	1701710-04	5	2	0	3	294.59	26.93	0.26766 ✓	↓	↓	↓
☐	1701710-05	5	2	0	3	273.62	27.87	0.24575 ✓	↓	↓	↓
☐	1701710-06	5	2	0	3	261.14	27.29	0.23385 ✓	↓	↓	↓
☐	1701710-07	5	2	0	3	288.47	27.66	0.26081	↓	↓	↓
☐	1701710-08	5	2	0	3	289.34 (A)	26.96	0.26238 ✓	↓	↓	↓
☐	1701710-09	5	2	0	3	~~286.30~~ 28.02	28.02	0.25828 ✓	↓	↓	↓
☐	1701710-10	5	2	0	3	294.35	27.74	0.26661 ✓	↓	↓	↓
☐	1701710-11	5	2	0	3	292.61	27.09	0.26552 ✓	↓	↓	↓
☐	1701781-01	6	2	0	3	143.65	26.88	0.11677	↓	↓	↓
☐	1701781-02	6	2	0	4	141.46	26.81	0.11465	↓	↓	↓

IS: 17K0822, 10µL (V2)
IS SUP: NA
NS: 17J1820, 10µL (V4)
RS: 17J2604, 10µL (V1)

SPE Chem: Strata-X-AW 33µm 200mg 6mL
Ele SOLV: MeOH/.5% NH4OH in MeOH
Final Volume(s): 1mL

Notes: (A) actual mass 286.30 HC 11.28.17

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS
Method: 537M PFAS DOD (LOQ as mRL)
Method: 537M PFAS Static RL

B7K0176

Chemist: HC

Prep Date/Time: 28-Nov-17 08:04 ~~28-Nov-17~~ 11·29·17 HC

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 11.28.17 HC 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
☐	1701782-01	6	2	0	3	140.90	26.93	0.11397	HC HN 11-29-17	HN 11/29/17	KL HN 11/29/17
☐	1701782-02	6	2	0	3	146.13	26.65	0.11948			
☐	1701782-03	6	2	0	3	141.82	26.84	0.11498			
☐	1701782-04	6	2	0	3	139.40	26.84	0.11256			
☐	1701782-05	6	2	0	3	144.71	26.81	0.11790			
☐	1701782-06	6	2	0	3	142.44	26.97	0.11547			
☐	1701782-07	6	2	0	3	143.86	26.84	0.11702			

IS: 17K0822, 10µL (IZ)
IS SUP: NA
NS: 17J1820, 10µL (V4)
RS: 17J2604, 10mL (V1)

SPE Chem: Strata-X-AW 33µm 200mg/6mL
Ele SOLV: MeOH/.5%NH4OH in MeOH
Final Volume(s): 1mL

Notes:

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

Batch: B7K0176

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701710-01	0.26115	NA	NA	1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-02	0.264			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-03	0.26349			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-04	0.26766			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-05	0.24575			1000	29-Nov-17 08:04	HAC			QC Water	537M PFAS DOD (LOQ as
1701710-06	0.23385			1000	29-Nov-17 08:04	HAC			QC Water	537M PFAS DOD (LOQ as
1701710-07	0.26081			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-08	0.26238			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-09	0.25828			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-10	0.26661			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-11	0.26552			1000	29-Nov-17 08:04	HAC			QC Water	537M PFAS DOD (LOQ as
1701781-01	0.11677			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS Static RL
1701781-02	0.11465			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS Static RL
1701782-01	0.11397			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-02	0.11948			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-03	0.11498			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-04	0.11256			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-05	0.1179			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-06	0.11547			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-07	0.11702			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
B7K0176-BLK1	0.25			1000	29-Nov-17 08:04	HAC				QC
B7K0176-BS1	0.25			1000	29-Nov-17 08:04	HAC	17J1820	10		QC
B7K0176-BSD1	0.25			1000	29-Nov-17 08:04	HAC	17J1820	10		QC

HC 11.30.17

Internal Chain of Custody

1701710

Vista Analytical Laboratory

Client: Tetra Tech | Project Number: 112G08005-WE05 | Received: 16-Nov-17 09:47 | Received By: Marissa N. Sparks

		Sample				Extract	
Vista Sample ID	Bottle	Initials Date/Time New Location	Initials Date/Time New Location	Initials Date/Time New Location	Initials Date/Time New Location	Initials Date/Time New Location	Initials Date/Time New Location
1701710-01		SR 11/29/17 0951 Chemist	HC 11.29.17 0955 (A) WR-2 SR 11/29/17	AC 12/12/17 AC 12/7/17		HN 11/24/17 0957 Prep Lab	Prep Lab AC 12/7/17
1701710-02		SR 11/29/17 0951 Chemist	HC 11.29.17 (B) 0955 WR-2 SR 11/29/17			HN 11/29/17 0957 Prep Lab	
1701710-03							
1701710-04							
1701710-05							
1701710-06							
1701710-07							
1701710-08							
1701710-09							
1701710-10							
1701710-11							

(A) Samples were obtained on 11.28.17 @ 1400 HC 11.29.17 (B) Samples put back on 11.28.17 @ 1500 to WR-2 HC 11.29.17

Note in Work Order if Sample 1701710 are depleted. See Login Checklist for initial location.

SAMPLE DATA – MODIFIED EPA METHOD 537

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 09:05:49 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, 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		1.05e3	0.2500		2.52				
2	4	PFHxA	313.2 > 268.9		2.99e3	0.2500		3.04				
3	5	PFHpA	363.0 > 318.9		6.29e3	0.2500		3.66				
4	6	L-PFHxS	398.9 > 79.6	1.93e0	8.96e2	0.2500		3.80	3.81	0.0269	0.390	
5	9	L-PFOA	413 > 368.7		7.74e3	0.2500		4.20				
6	12	PFNA	463.0 > 418.8		8.81e3	0.2500		4.61				
7	14	L-PFOS	499 > 79.9		2.42e3	0.2500		4.69				
8	16	PFDA	513 > 468.8		8.63e3	0.2500		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.74e3	0.2500		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.32e3	0.2500		5.30				
11	20	PFUdA	563.0 > 518.9		6.35e3	0.2500		5.31				
12	22	PFDoA	612.9 > 569.0		3.45e3	0.2500		5.58				

ANP 12/11/2017

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 09:06:14 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, 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		3.45e3	0.2500		5.75				
2	25	PFTeDA	712.9 > 668.8		2.87e3	0.2500		6.10				
3	33	13C3-PFBS	302. > 98.8	1.05e3	1.07e4	0.2500	0.097	2.52	2.56	1.22	50.440	100.9
4	34	13C2-PFHxA	315 > 269.8	2.99e3	1.07e4	0.2500	0.767	3.04	3.04	3.48	18.174	90.9
5	35	13C4-PFHpA	367.2 > 321.8	6.29e3	1.07e4	0.2500	0.605	3.66	3.66	7.31	48.355	96.7
6	36	18O2-PFHxS	403.0 > 102.6	8.96e2	2.29e3	0.2500	0.427	3.80	3.80	4.89	45.828	91.7
7	37	13C2-6:2 FTS	429.1 > 408.9	2.27e3	7.53e3	0.2500	0.261	4.21	4.12	3.78	57.851	115.7
8	38	13C2-PFOA	414.9 > 369.7	7.74e3	7.53e3	0.2500	1.112	4.20	4.17	12.8	46.242	92.5
9	39	13C5-PFNA	468.2 > 422.9	8.81e3	1.03e4	0.2500	0.939	4.63	4.61	10.7	45.696	91.4
10	40	13C8-PFOSA	506.1 > 77.7	1.47e3	8.00e3	0.2500	0.349	4.67	4.66	2.30	26.328	52.7
11	41	13C8-PFOS	507.0 > 79.9	2.42e3	2.54e3	0.2500	0.991	4.69	4.69	11.9	48.109	96.2
12	42	13C2-PFDA	515.1 > 469.9	8.63e3	7.01e3	0.2500	1.309	5.00	4.98	15.4	47.046	94.1
13	43	13C2-8:2 FTS	529.1 > 508.7	1.05e3	1.07e4	0.2500	0.103	4.98	4.95	1.22	47.214	94.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.74e3	8.00e3	0.2500	0.405	5.15	5.13	4.27	42.172	84.3
15	45	d5-N-EtFOSAA	589.3 > 419	2.32e3	8.00e3	0.2500	0.450	5.30	5.28	3.63	32.277	64.6
16	46	13C2-PFUdA	565 > 519.8	6.35e3	8.00e3	0.2500	1.082	5.31	5.30	9.92	36.683	73.4
17	47	13C2-PFDoA	615.0 > 569.7	3.45e3	8.00e3	0.2500	0.544	5.58	5.58	5.40	39.698	79.4
18	49	13C2-PFTeDA	714.8 > 669.6	2.87e3	8.00e3	0.2500	0.533	6.10	6.04	4.48	33.654	67.3
19	55	13C5-PFHxA	318 > 272.9	1.07e4	1.07e4	0.2500	1.000	3.04	3.04	12.5	50.000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.29e3	2.29e3	0.2500	1.000	3.80	3.81	12.5	50.000	100.0
21	57	13C8-PFOA	421.3 > 376	7.53e3	7.53e3	0.2500	1.000	4.20	4.17	12.5	50.000	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.03e4	1.03e4	0.2500	1.000	4.63	4.61	12.5	50.000	100.0
23	59	13C4-PFOS	503 > 79.9	2.54e3	2.54e3	0.2500	1.000	4.69	4.69	12.5	50.000	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.01e3	7.01e3	0.2500	1.000	5.00	4.98	12.5	50.000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.00e3	8.00e3	0.2500	1.000	5.31	5.30	12.5	50.000	100.0
26	62	Total PFHxS	398.9 > 79.6	1.93e0	8.96e2	0.2500		3.81		0.0269	0.390	
27	63	Total PFOA	413 > 368.7	0.00e0	7.74e3	0.2500		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.42e3	0.2500		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.74e3	0.2500		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.32e3	0.2500		5.30		0.000		

ANP 12/11/2017

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 09:06:14 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	6 L-PFHxS	398.9 > 79.6	3.81	1.927	895.924	0.027	MM	0.4

Total PFOA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7			7737.385		MM-I	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-Me-FOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-EtFOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA+PFOS,Total PFOA,Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7			7737.385		MM-I	

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

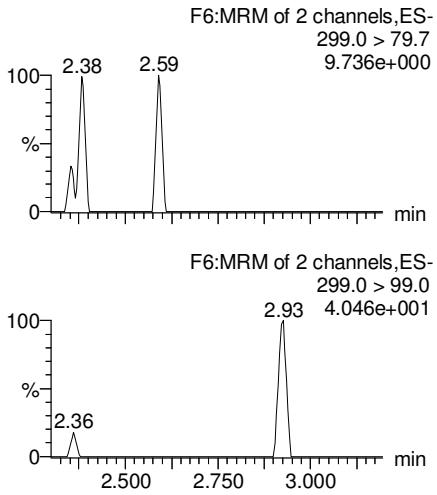
Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 09:06:14 Pacific Standard Time

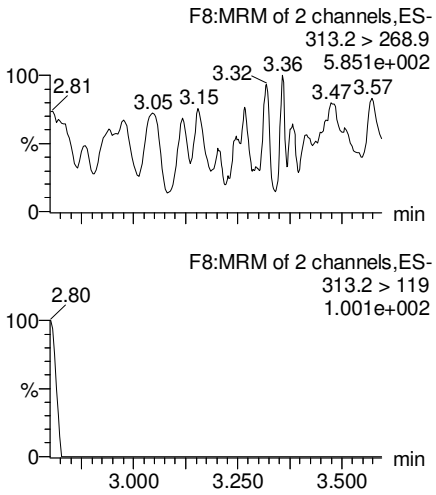
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

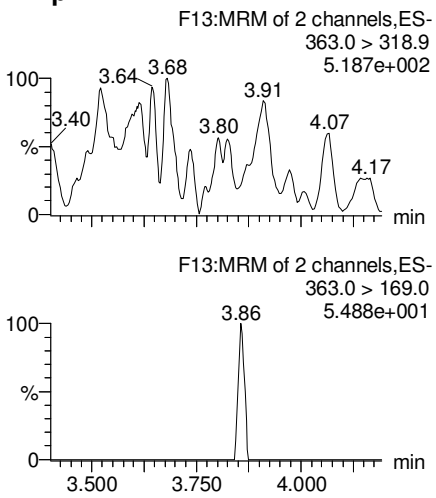
PFBS



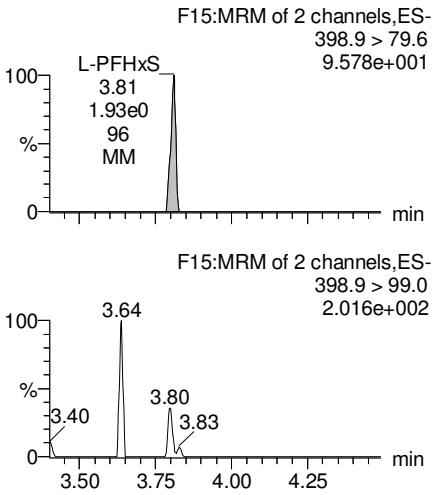
PFHxA



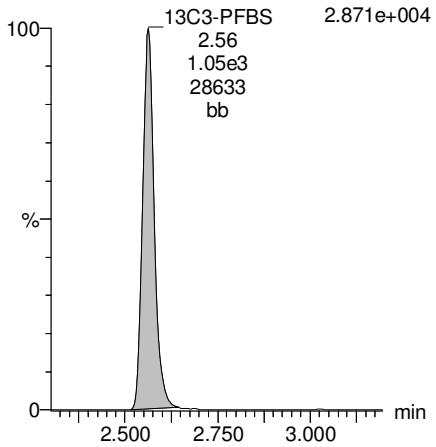
PFHpA



Total PFHxS



13C3-PFBS



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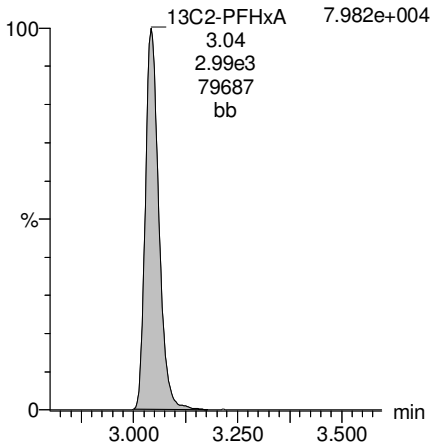

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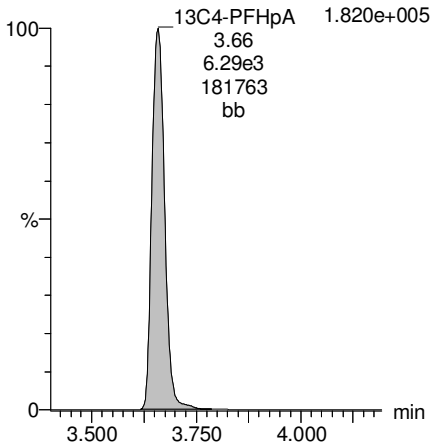
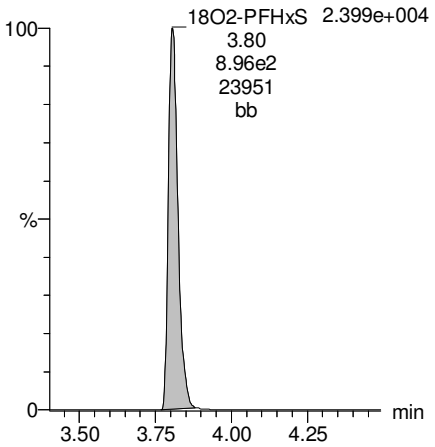


18O2-PFHxS



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

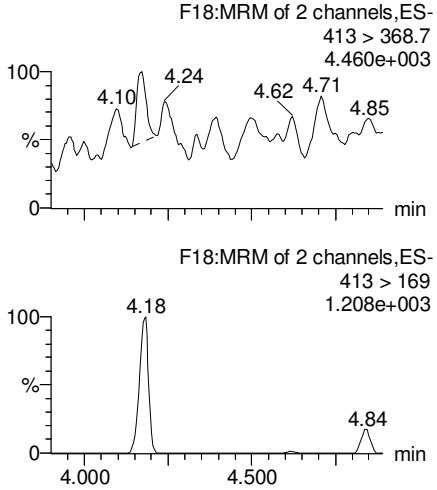
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 09:06:14 Pacific Standard Time

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

Total PFOA



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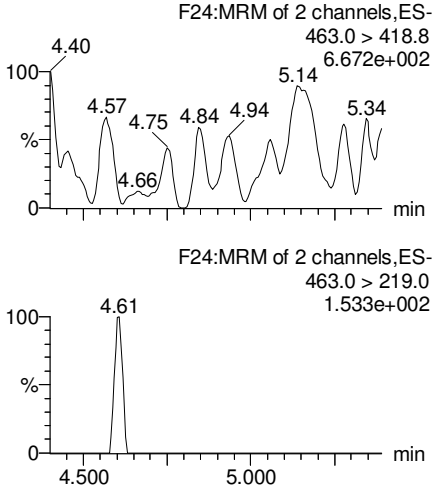
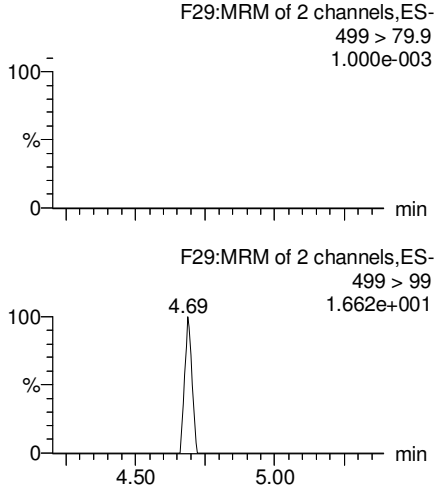


Total PFOS



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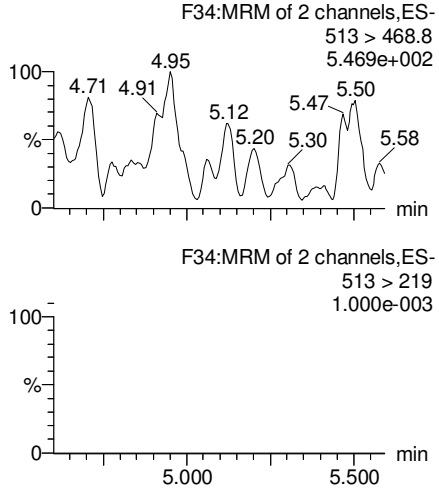
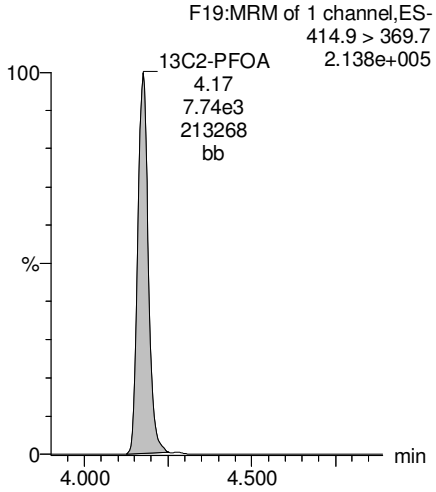
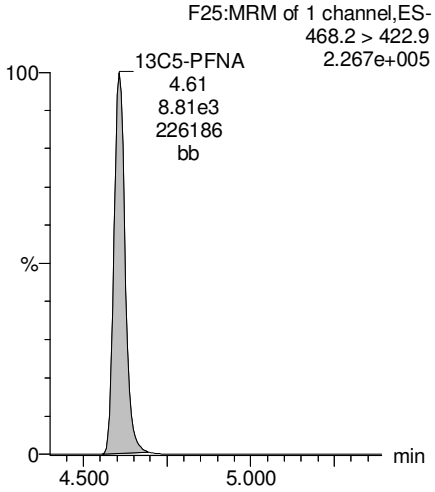


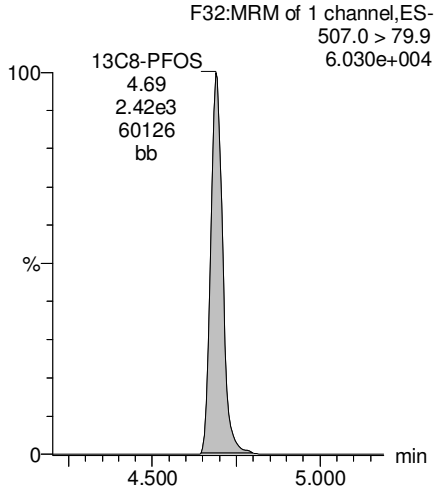
13C2-PFOA



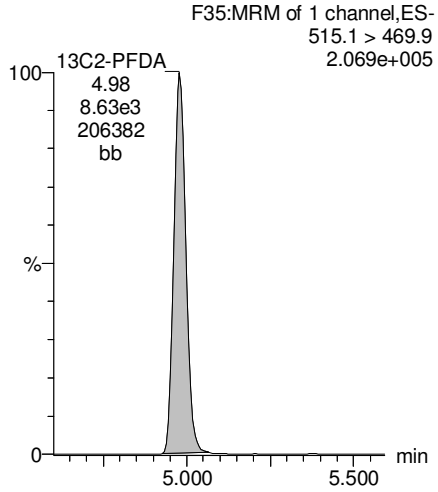
13C5-PFNA



13C8-PFOS



13C2-PFDA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 09:06:14 Pacific Standard Time

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

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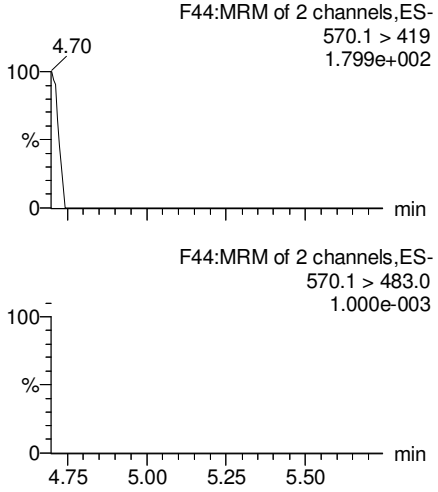

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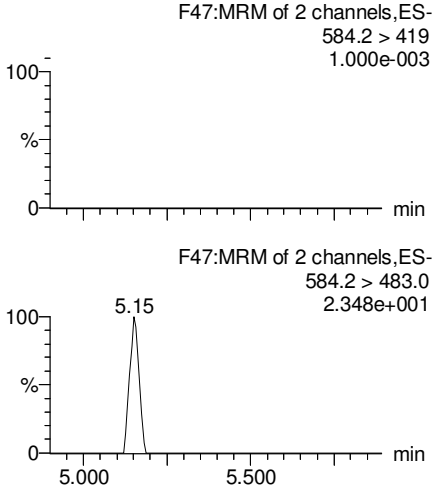
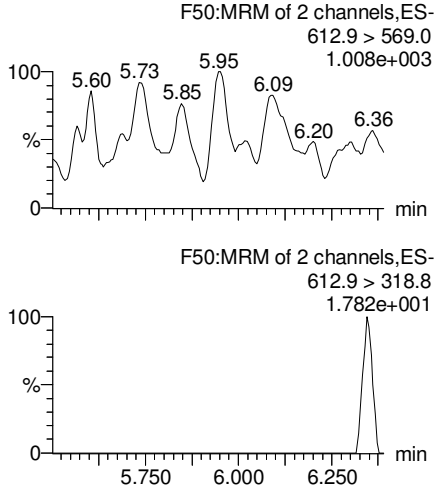
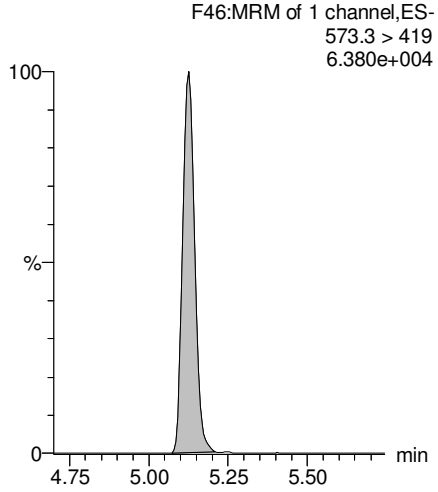


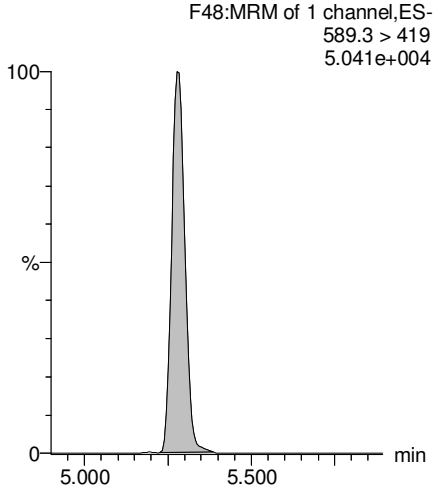
PFDoA



d3-N-MeFOSAA



d5-N-EtFOSAA



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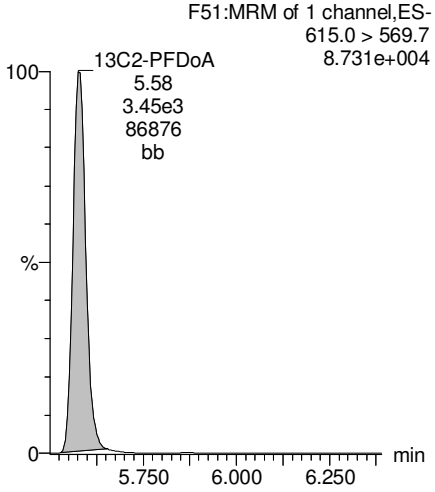

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 09:06:14 Pacific Standard Time

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

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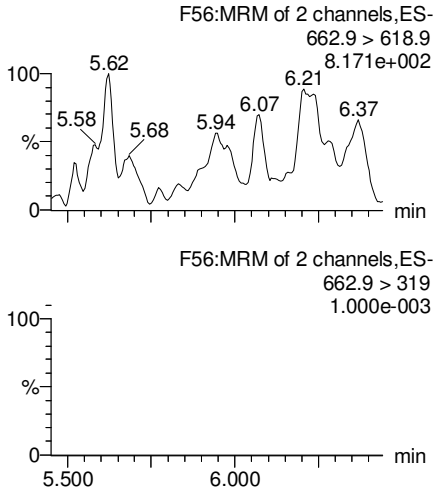
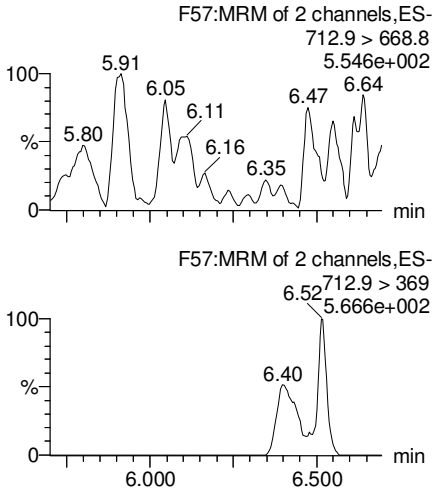
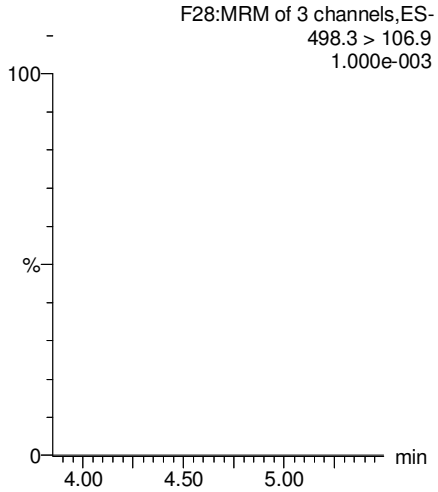


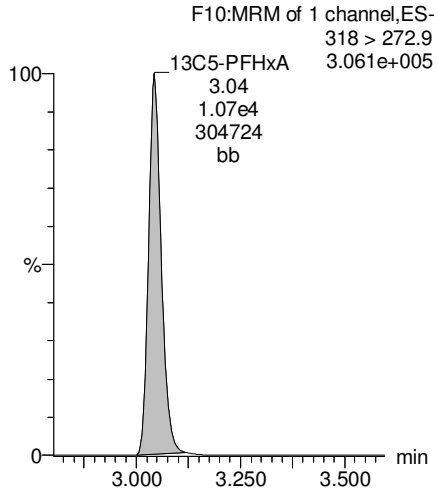
PFTeDA



TCDA



13C5-PFHxA



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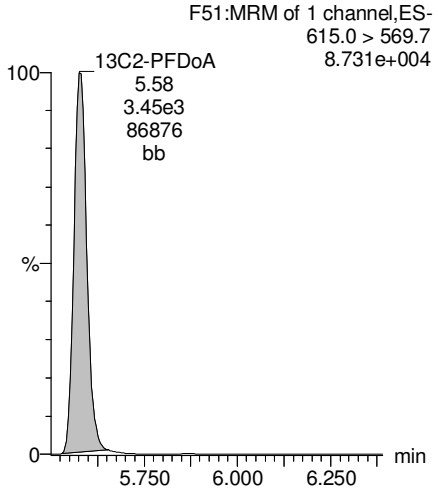

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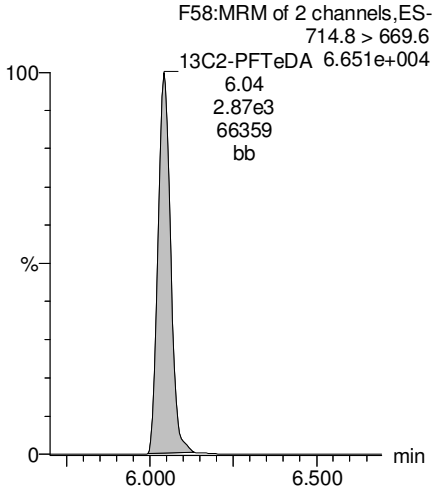
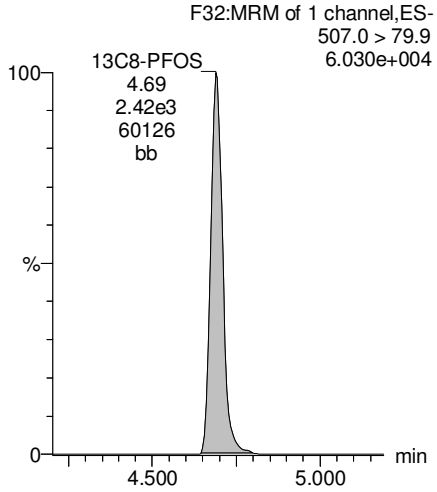


13C8-PFOS



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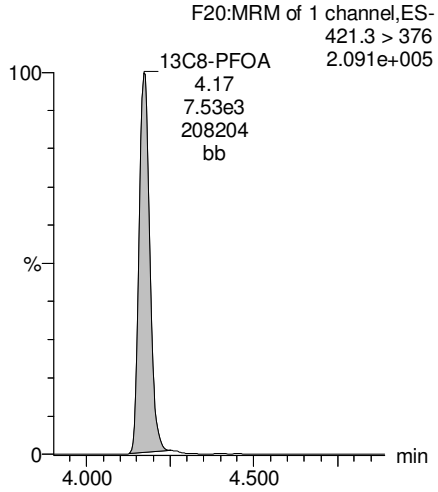

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 09:06:14 Pacific Standard Time

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

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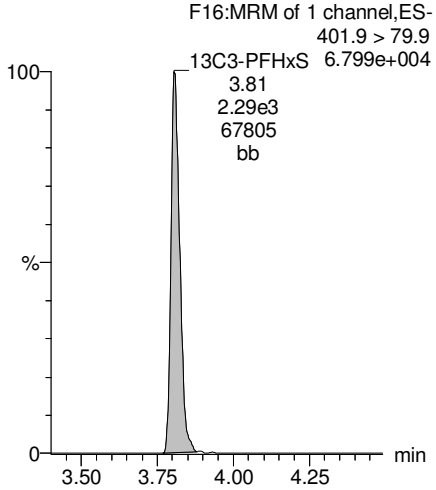
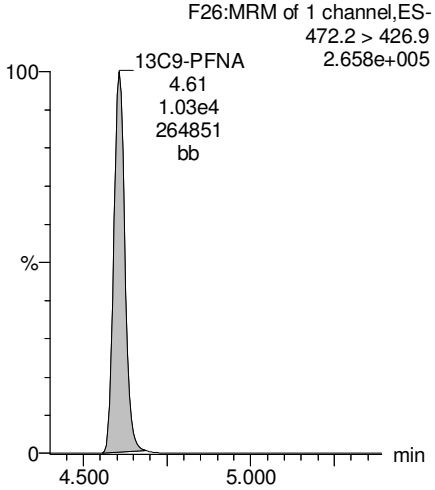


13C9-PFNA



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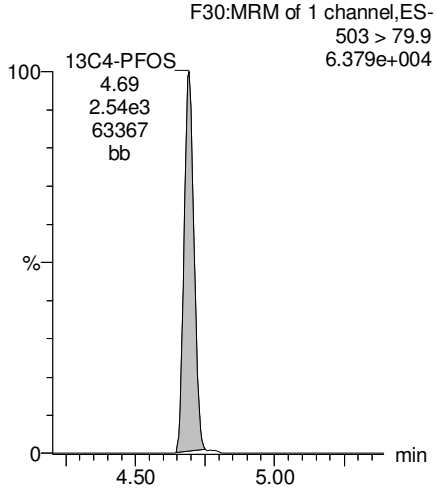

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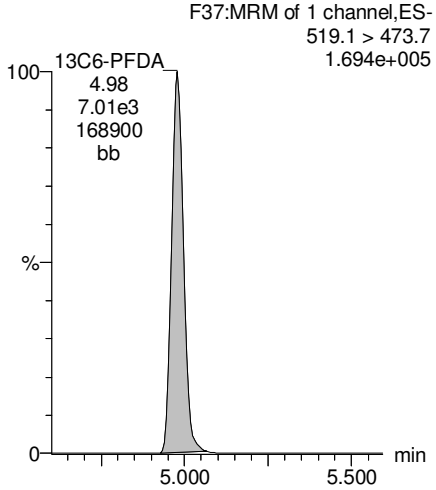


ANP 12/11/2017

Vista Analytical Laboratory

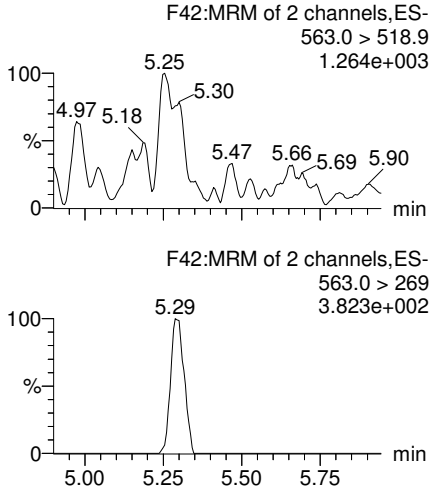
Dataset: U:\Q4.PRO\results\171207M2\171207M2-47.qld

Last Altered: Monday, December 11, 2017 09:04:00 Pacific Standard Time
Printed: Monday, December 11, 2017 12:55:04 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

PFUdA



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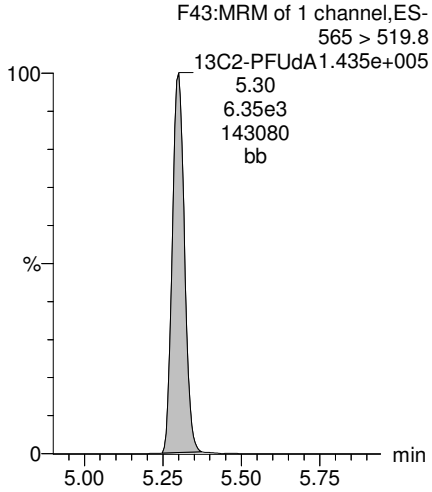

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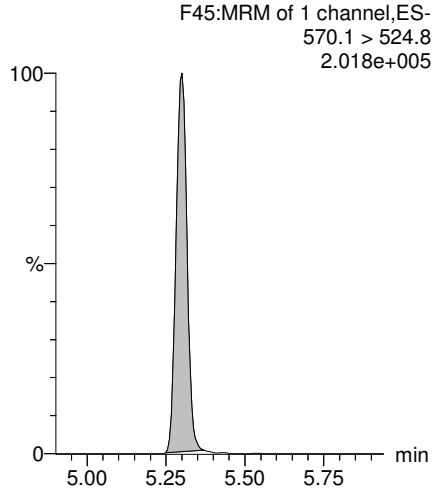

Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-45.qld

Last Altered: Monday, December 11, 2017 08:40:46 Pacific Standard Time
Printed: Monday, December 11, 2017 08:41:00 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

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1	3	PFBS	299.0 > 79.7	2.01e3	9.91e2	0.25000		2.52	2.56	25.4	47.032	117.6
2	4	PFHxA	313.2 > 268.9	1.07e4	3.26e3	0.25000		3.04	3.04	16.4	47.106	117.8
3	5	PFHpA	363.0 > 318.9	7.08e3	6.31e3	0.25000		3.66	3.66	14.0	41.080	102.7
4	6	L-PFHxS	398.9 > 79.6	1.72e3	9.01e2	0.25000		3.80	3.81	23.9	42.247	105.6
5	9	L-PFOA	413 > 368.7	6.42e3	7.42e3	0.25000		4.20	4.17	10.8	41.372	103.4
6	12	PFNA	463.0 > 418.8	1.06e4	8.04e3	0.25000		4.61	4.61	16.4	49.615	124.0
7	14	L-PFOS	499 > 79.9	1.99e3	2.09e3	0.25000		4.69	4.69	11.9	47.332	118.3
8	16	PFDA	513 > 468.8	7.46e3	7.11e3	0.25000		5.00	4.98	13.1	45.345	113.4
9	18	N-MeFOSAA	570.1 > 419	3.38e3	2.61e3	0.25000		5.15	5.13	16.2	37.265	93.2
10	19	N-EtFOSAA	584.2 > 419	2.85e3	2.87e3	0.25000		5.30	5.28	12.4	47.212	118.0
11	20	PFUdA	563.0 > 518.9	6.48e3	6.45e3	0.25000		5.31	5.30	12.6	41.770	104.4
12	22	PFDoA	612.9 > 569.0	7.35e3	4.14e3	0.25000		5.58	5.58	22.2	32.755	81.9

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-45.qld

Last Altered: Monday, December 11, 2017 08:40:46 Pacific Standard Time
Printed: Monday, December 11, 2017 08:41:11 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, 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	6.83e3	4.14e3	0.25000		5.75	5.83	20.6	32.878	82.2
2	25	PFTeDA	712.9 > 668.8	6.11e3	3.33e3	0.25000		6.10	6.04	23.0	51.674	129.2
3	33	13C3-PFBS	302. > 98.8	9.91e2	1.15e4	0.25000	0.097	2.52	2.56	1.07	44.399	88.8
4	34	13C2-PFHxA	315 > 269.8	3.26e3	1.15e4	0.25000	0.767	3.04	3.04	3.54	18.451	92.3
5	35	13C4-PFHpA	367.2 > 321.8	6.31e3	1.15e4	0.25000	0.605	3.66	3.66	6.84	45.230	90.5
6	36	18O2-PFHxS	403.0 > 102.6	9.01e2	2.31e3	0.25000	0.427	3.80	3.81	4.88	45.653	91.3
7	37	13C2-6:2 FTS	429.1 > 408.9	2.22e3	7.82e3	0.25000	0.261	4.21	4.12	3.56	54.483	109.0
8	38	13C2-PFOA	414.9 > 369.7	7.42e3	7.82e3	0.25000	1.112	4.20	4.17	11.9	42.686	85.4
9	39	13C5-PFNA	468.2 > 422.9	8.04e3	9.71e3	0.25000	0.939	4.63	4.61	10.4	44.098	88.2
10	40	13C8-PFOSA	506.1 > 77.7	1.77e3	8.89e3	0.25000	0.349	4.67	4.67	2.49	28.505	57.0
11	41	13C8-PFOS	507.0 > 79.9	2.09e3	2.46e3	0.25000	0.991	4.69	4.69	10.6	42.951	85.9
12	42	13C2-PFDA	515.1 > 469.9	7.11e3	7.19e3	0.25000	1.309	5.00	4.98	12.4	37.786	75.6
13	43	13C2-8:2 FTS	529.1 > 508.7	7.91e2	1.15e4	0.25000	0.103	4.98	4.95	0.859	33.192	66.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.61e3	8.89e3	0.25000	0.405	5.15	5.13	3.68	36.260	72.5
15	45	d5-N-EtFOSAA	589.3 > 419	2.87e3	8.89e3	0.25000	0.450	5.30	5.28	4.03	35.875	71.8
16	46	13C2-PFUdA	565 > 519.8	6.45e3	8.89e3	0.25000	1.082	5.31	5.30	9.07	33.533	67.1
17	47	13C2-PFDoA	615.0 > 569.7	4.14e3	8.89e3	0.25000	0.544	5.58	5.58	5.81	42.749	85.5
18	49	13C2-PFTeDA	714.8 > 669.6	3.33e3	8.89e3	0.25000	0.533	6.10	6.04	4.68	35.100	70.2
19	55	13C5-PFHxA	318 > 272.9	1.15e4	1.15e4	0.25000	1.000	3.04	3.04	12.5	50.000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.31e3	2.31e3	0.25000	1.000	3.80	3.81	12.5	50.000	100.0
21	57	13C8-PFOA	421.3 > 376	7.82e3	7.82e3	0.25000	1.000	4.20	4.17	12.5	50.000	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.71e3	9.71e3	0.25000	1.000	4.63	4.61	12.5	50.000	100.0
23	59	13C4-PFOS	503 > 79.9	2.46e3	2.46e3	0.25000	1.000	4.69	4.69	12.5	50.000	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.19e3	7.19e3	0.25000	1.000	5.00	4.98	12.5	50.000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.89e3	8.89e3	0.25000	1.000	5.31	5.30	12.5	50.000	100.0
26	62	Total PFHxS	398.9 > 79.6	1.72e3	9.01e2	0.25000		3.81		23.9	42.247	
27	63	Total PFOA	413 > 368.7	6.42e3	7.42e3	0.25000		4.20		10.8	41.372	
28	64	Total PFOS	499 > 79.9	1.99e3	2.09e3	0.25000		4.69		11.9	47.332	
29	65	Total N-MeFOSAA	570.1 > 419	3.38e3	2.61e3	0.25000		5.15		16.2	37.265	
30	66	Total N-EtFOSAA	584.2 > 419	2.85e3	2.87e3	0.25000		5.30		12.4	47.212	

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-45.qld

Last Altered: Monday, December 11, 2017 08:40:46 Pacific Standard Time
Printed: Monday, December 11, 2017 08:41:11 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	6	L-PFHxS	398.9 > 79.6	3.81	1721.021	900.550	23.888	MM	42.2
2	7	Br-PFHxS	398.9 > 79.6			900.550		MM-	

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	6422.640	7419.704	10.820	bb	41.4

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	14	L-PFOS	499 > 79.9	4.69	1990.957	2091.895	11.897	MM	47.3
2	15	Br-PFOS	499 > 79.9			2091.895		MM-I	

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	18	N-MeFOSAA	570.1 > 419	5.13	3382.335	2614.422	16.172	bb	37.3

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	19	N-EtFOSAA	584.2 > 419	5.28	2845.513	2869.399	12.396	bb	47.2

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	6422.640	7419.704	10.820	bb	41.4
2	14	L-PFOS	499 > 79.9	4.69	1990.957	2091.895	11.897	MM	47.3
3	15	Br-PFOS	499 > 79.9			2091.895		MM-I	

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

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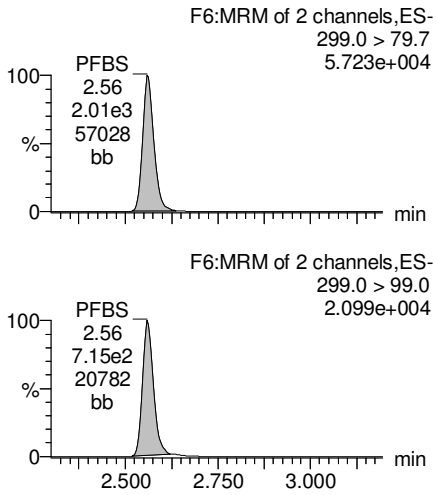

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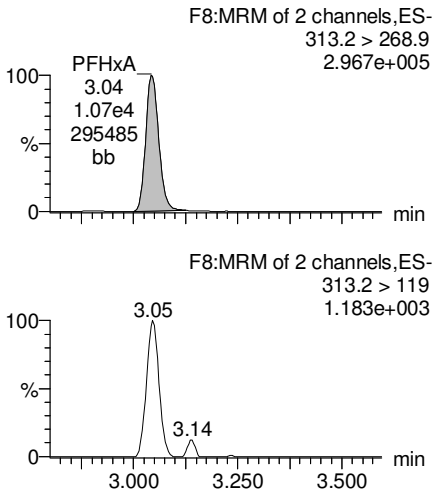

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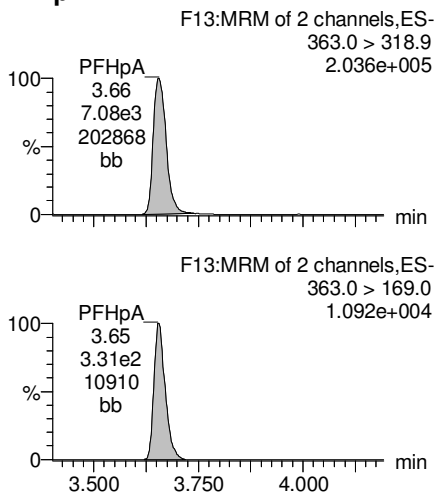

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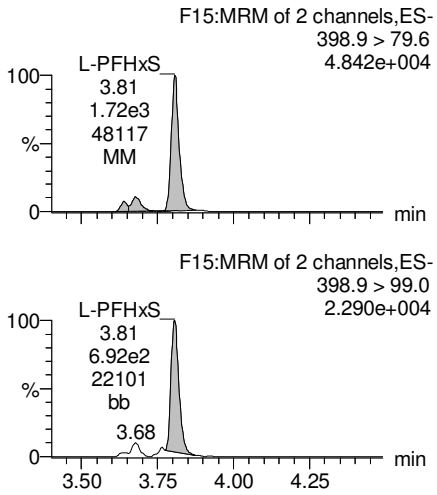

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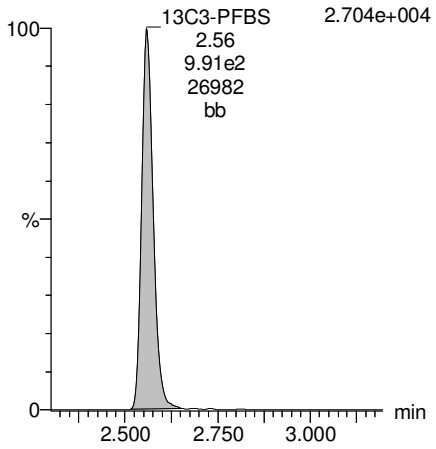

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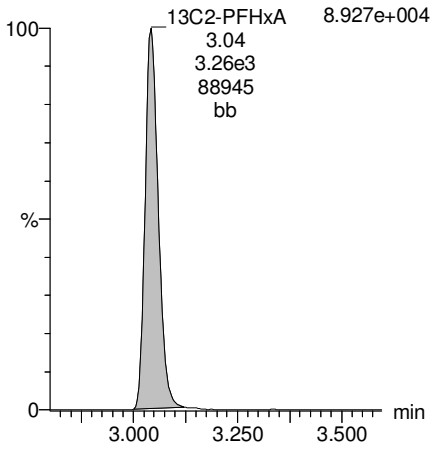

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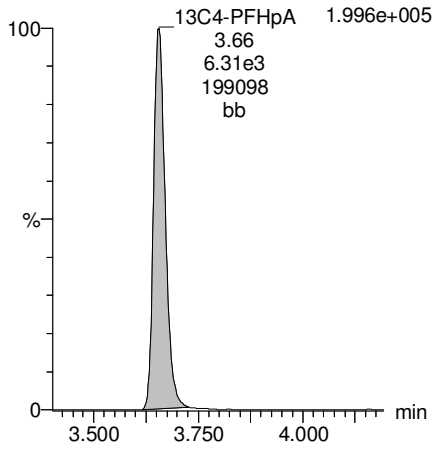

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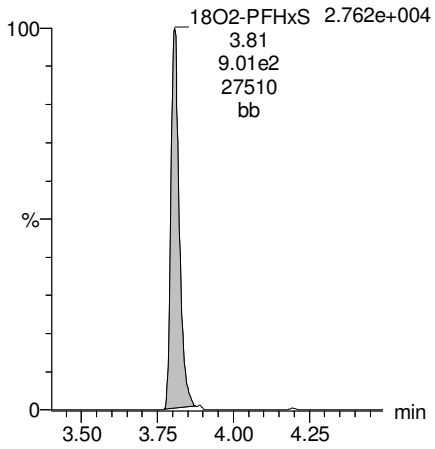

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Vista Analytical Laboratory

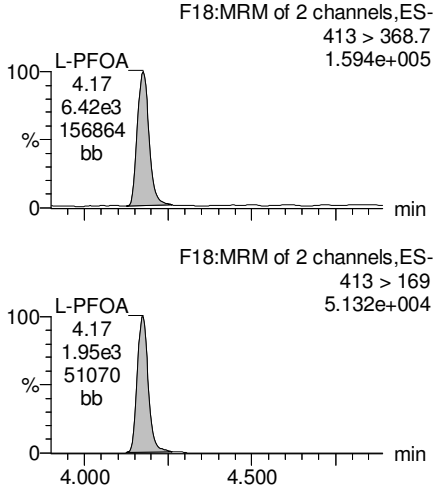
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-45.qld

Last Altered: Monday, December 11, 2017 08:40:46 Pacific Standard Time
Printed: Monday, December 11, 2017 08:41:11 Pacific Standard Time

Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

Total PFOA



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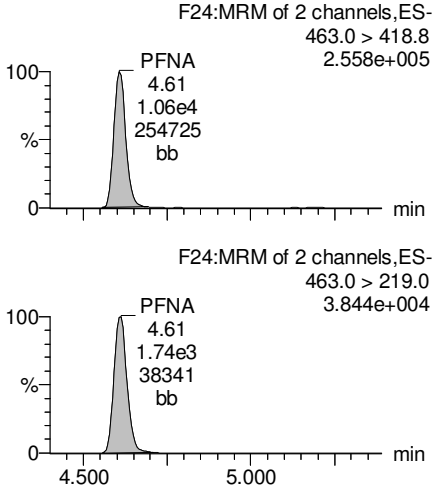

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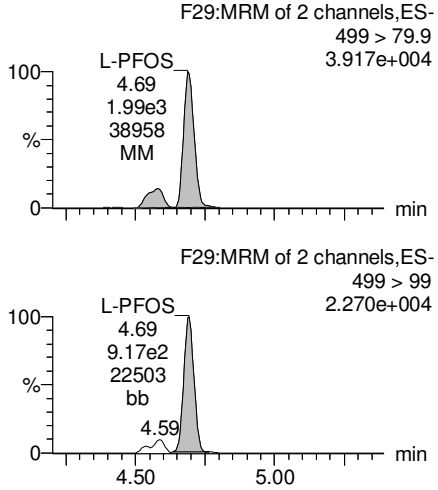

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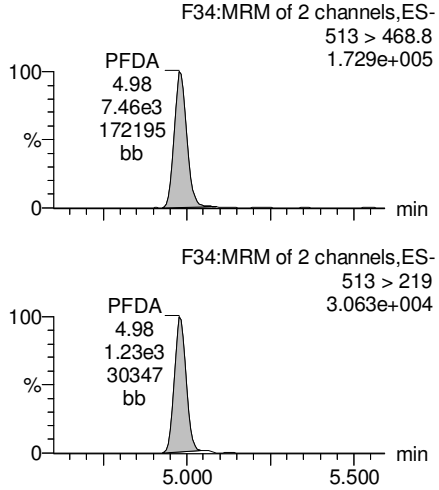

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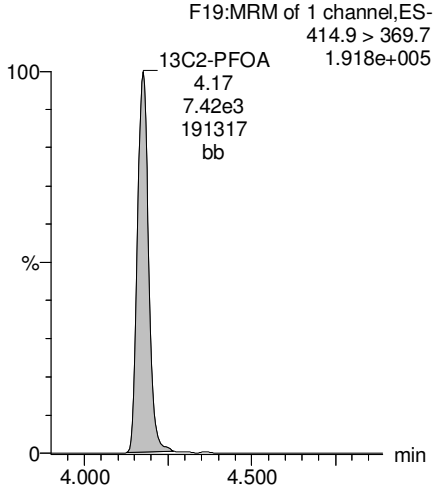

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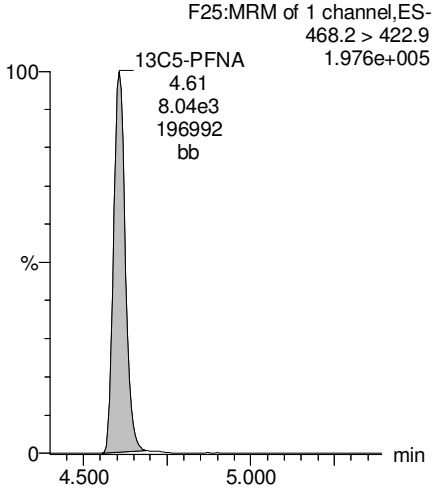

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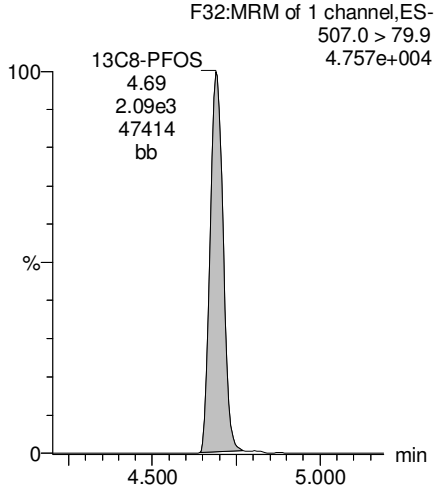

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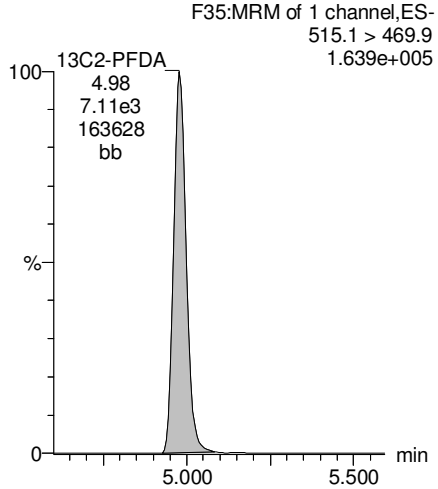

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Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-45.qld

Last Altered: Monday, December 11, 2017 08:40:46 Pacific Standard Time
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Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

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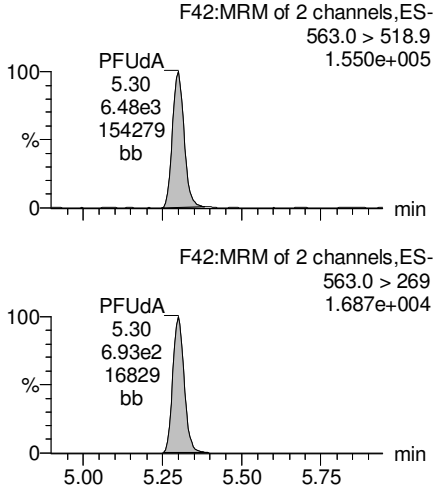

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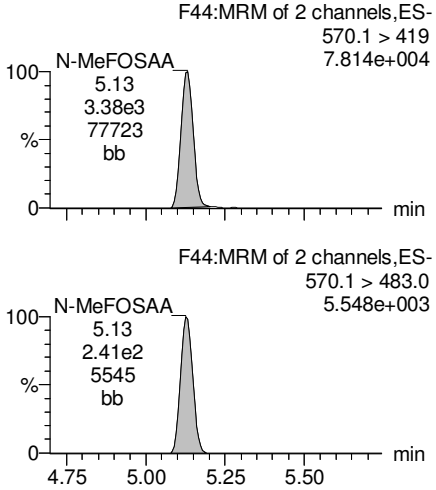

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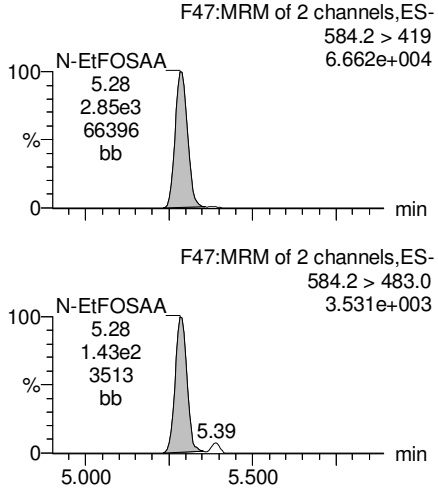

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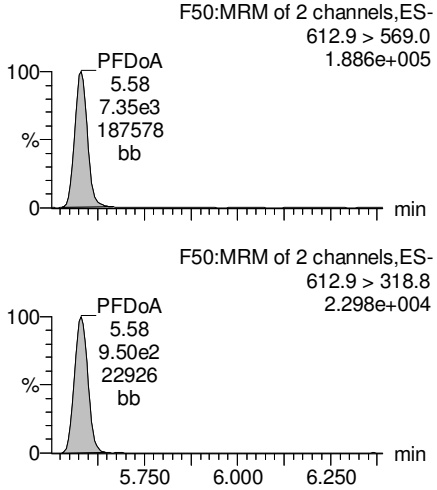

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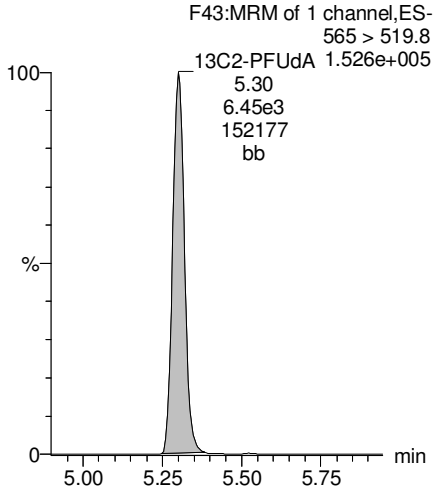

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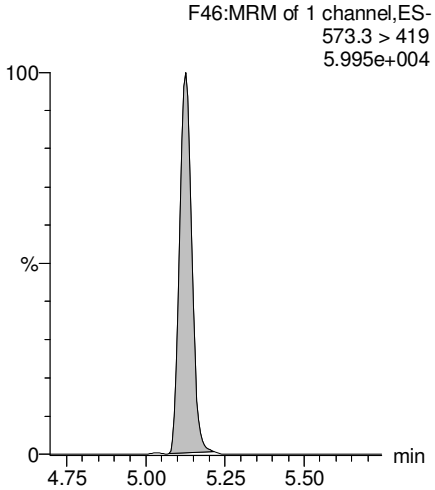

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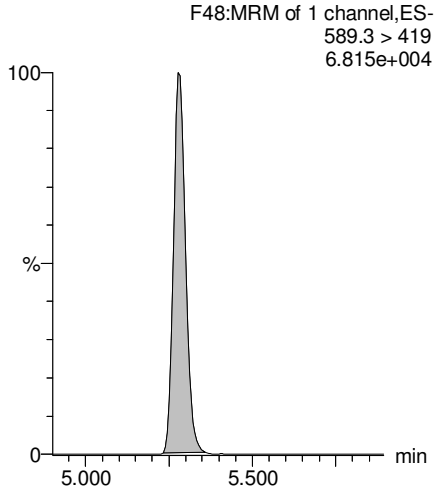

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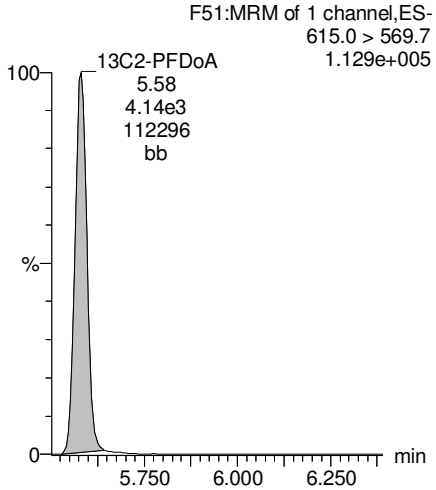

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Dataset: U:\Q4.PRO\results\171207M2\171207M2-45.qld

Last Altered: Monday, December 11, 2017 08:40:46 Pacific Standard Time
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Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

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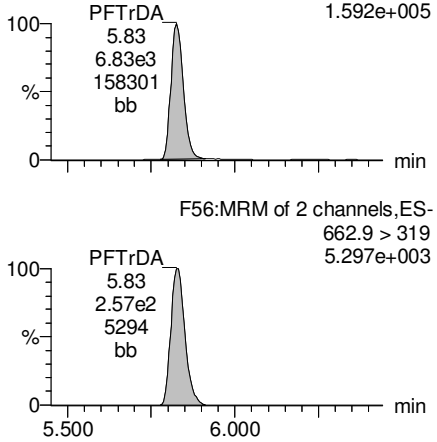

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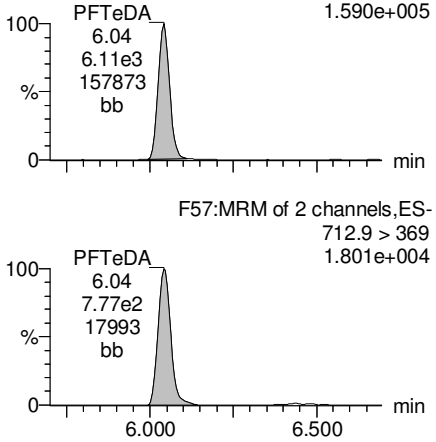

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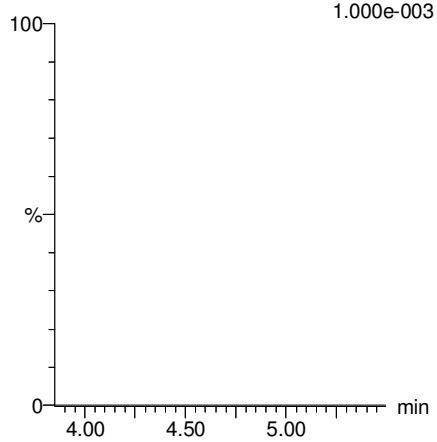

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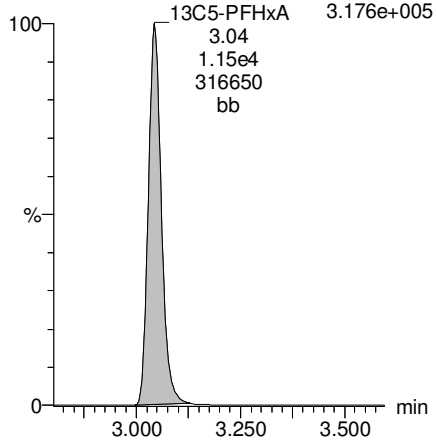
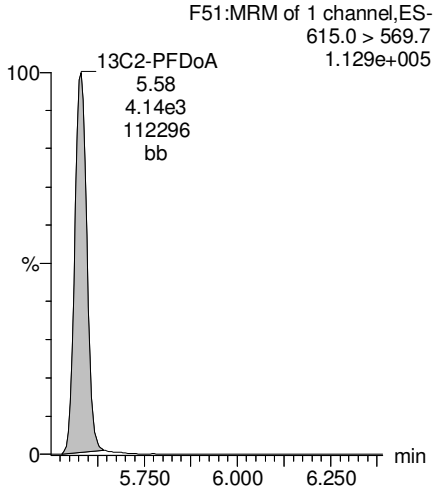
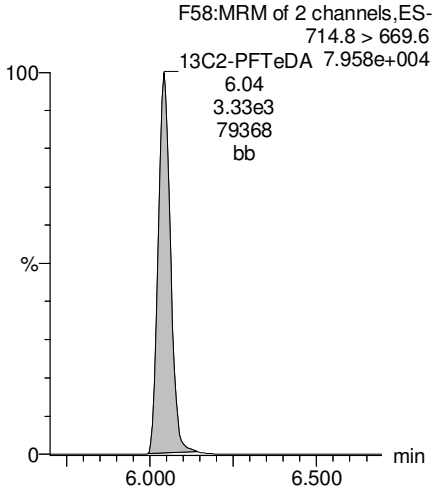


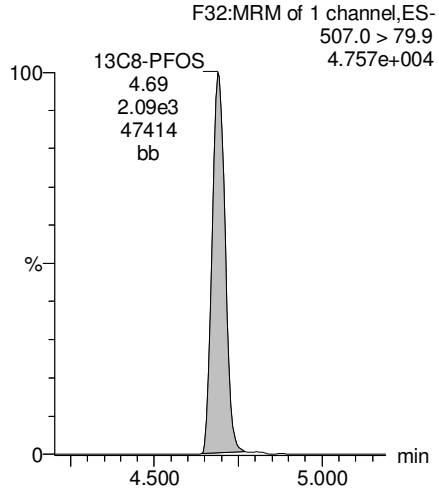
13C2-PFDoA



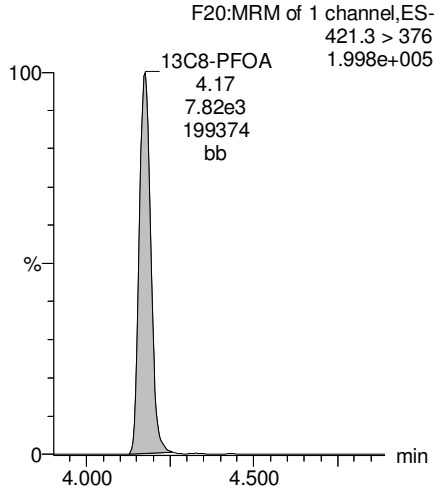
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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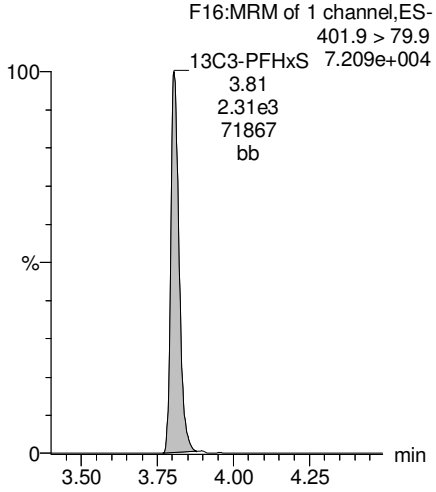
Dataset: U:\Q4.PRO\results\171207M2\171207M2-45.qld

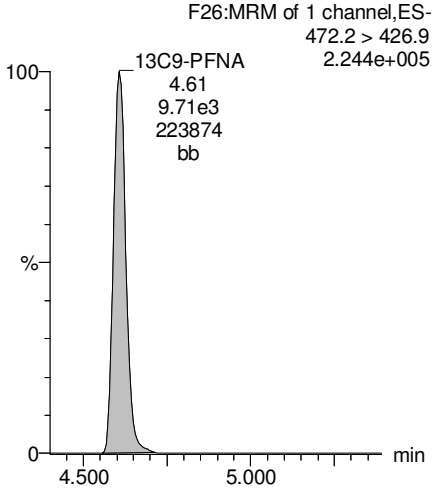
Last Altered: Monday, December 11, 2017 08:40:46 Pacific Standard Time
Printed: Monday, December 11, 2017 08:41:11 Pacific Standard Time

Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

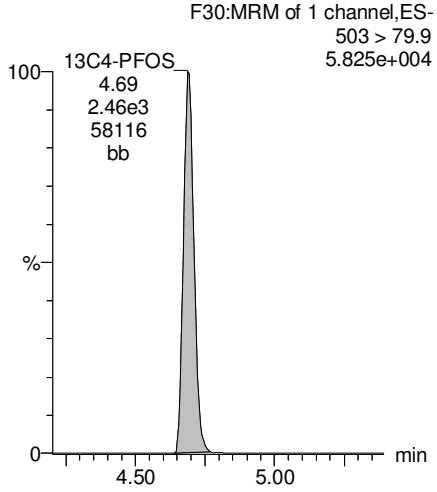
13C3-PFHxS



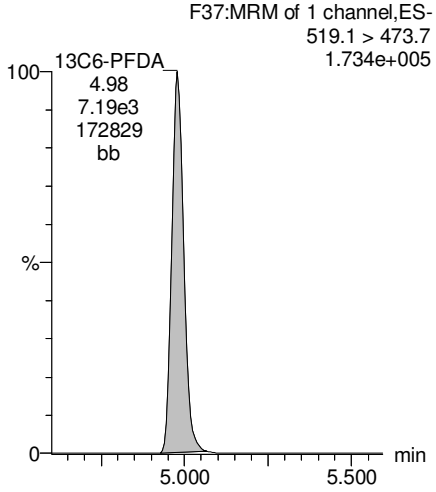
13C9-PFNA



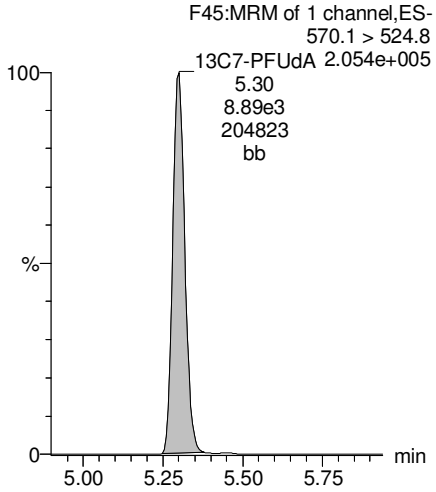
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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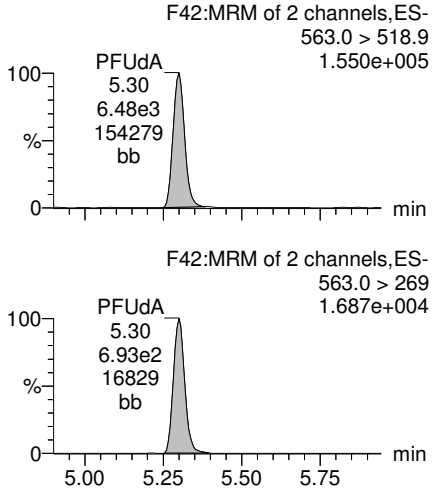
Dataset: U:\Q4.PRO\results\171207M2\171207M2-45.qld

Last Altered: Monday, December 11, 2017 08:40:46 Pacific Standard Time
Printed: Monday, December 11, 2017 12:55:36 Pacific Standard Time

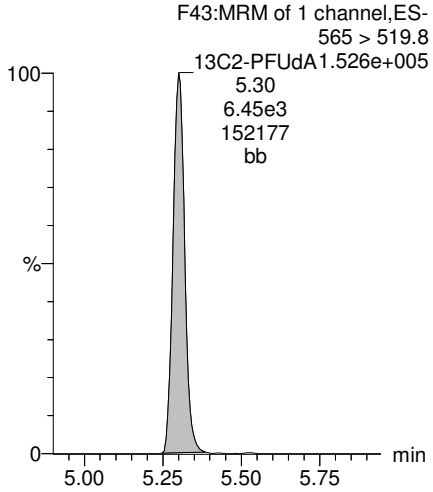
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

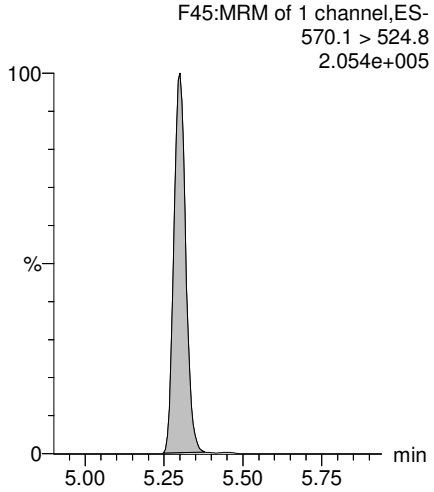
PFUdA



13C2-PFUdA



13C7-PFUdA



Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 08:45:27 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.06e3	1.09e3	0.25000		2.52	2.56	23.7	43.819	109.5
2	4	PFHxA	313.2 > 268.9	9.95e3	3.34e3	0.25000		3.04	3.05	14.9	42.684	106.7
3	5	PFHpA	363.0 > 318.9	7.67e3	6.15e3	0.25000		3.66	3.66	15.6	45.659	114.1
4	6	L-PFHxS	398.9 > 79.6	1.68e3	1.03e3	0.25000		3.80	3.81	20.3	35.942	89.9
5	9	L-PFOA	413 > 368.7	7.24e3	8.19e3	0.25000		4.20	4.17	11.1	42.301	105.8
6	12	PFNA	463.0 > 418.8	9.27e3	7.10e3	0.25000		4.61	4.61	16.3	49.365	123.4
7	14	L-PFOS	499 > 79.9	2.23e3	2.49e3	0.25000		4.69	4.69	11.2	44.417	111.0
8	16	PFDA	513 > 468.8	8.33e3	7.75e3	0.25000		5.00	4.98	13.4	46.517	116.3
9	18	N-MeFOSAA	570.1 > 419	3.69e3	3.10e3	0.25000		5.15	5.13	14.9	34.379	85.9
10	19	N-EtFOSAA	584.2 > 419	3.10e3	3.08e3	0.25000		5.30	5.28	12.6	47.969	119.9
11	20	PFUdA	563.0 > 518.9	7.66e3	8.62e3	0.25000		5.31	5.29	11.1	36.945	92.4
12	22	PFDoA	612.9 > 569.0	9.31e3	4.61e3	0.25000		5.58	5.58	25.3	37.287	93.2

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 08:45:44 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	8.97e3	4.61e3	0.25000		5.75	5.83	24.3	38.795	97.0
2	25	PFTeDA	712.9 > 668.8	5.63e3	4.08e3	0.25000		6.10	6.04	17.2	38.695	96.7
3	33	13C3-PFBS	302. > 98.8	1.09e3	1.11e4	0.25000	0.097	2.52	2.56	1.23	50.765	101.5
4	34	13C2-PFHxA	315 > 269.8	3.34e3	1.11e4	0.25000	0.767	3.04	3.05	3.78	19.717	98.6
5	35	13C4-PFHpA	367.2 > 321.8	6.15e3	1.11e4	0.25000	0.605	3.66	3.66	6.95	45.937	91.9
6	36	18O2-PFHxS	403.0 > 102.6	1.03e3	2.27e3	0.25000	0.427	3.80	3.81	5.69	53.248	106.5
7	37	13C2-6:2 FTS	429.1 > 408.9	2.34e3	8.88e3	0.25000	0.261	4.21	4.12	3.29	50.391	100.8
8	38	13C2-PFOA	414.9 > 369.7	8.19e3	8.88e3	0.25000	1.112	4.20	4.17	11.5	41.514	83.0
9	39	13C5-PFNA	468.2 > 422.9	7.10e3	8.51e3	0.25000	0.939	4.63	4.61	10.4	44.423	88.8
10	40	13C8-PFOSA	506.1 > 77.7	1.98e3	1.04e4	0.25000	0.349	4.67	4.66	2.38	27.343	54.7
11	41	13C8-PFOS	507.0 > 79.9	2.49e3	2.89e3	0.25000	0.991	4.69	4.69	10.8	43.465	86.9
12	42	13C2-PFDA	515.1 > 469.9	7.75e3	6.09e3	0.25000	1.309	5.00	4.98	15.9	48.613	97.2
13	43	13C2-8:2 FTS	529.1 > 508.7	9.74e2	1.11e4	0.25000	0.103	4.98	4.95	1.10	42.578	85.2
14	44	d3-N-MeFOSAA	573.3 > 419	3.10e3	1.04e4	0.25000	0.405	5.15	5.13	3.73	36.798	73.6
15	45	d5-N-EtFOSAA	589.3 > 419	3.08e3	1.04e4	0.25000	0.450	5.30	5.28	3.71	32.963	65.9
16	46	13C2-PFUdA	565 > 519.8	8.62e3	1.04e4	0.25000	1.082	5.31	5.30	10.4	38.382	76.8
17	47	13C2-PFDoA	615.0 > 569.7	4.61e3	1.04e4	0.25000	0.544	5.58	5.58	5.55	40.796	81.6
18	49	13C2-PFTeDA	714.8 > 669.6	4.08e3	1.04e4	0.25000	0.533	6.10	6.04	4.92	36.917	73.8
19	55	13C5-PFHxA	318 > 272.9	1.11e4	1.11e4	0.25000	1.000	3.04	3.04	12.5	50.000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.27e3	2.27e3	0.25000	1.000	3.80	3.81	12.5	50.000	100.0
21	57	13C8-PFOA	421.3 > 376	8.88e3	8.88e3	0.25000	1.000	4.20	4.17	12.5	50.000	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.51e3	8.51e3	0.25000	1.000	4.63	4.61	12.5	50.000	100.0
23	59	13C4-PFOS	503 > 79.9	2.89e3	2.89e3	0.25000	1.000	4.69	4.69	12.5	50.000	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.09e3	6.09e3	0.25000	1.000	5.00	4.98	12.5	50.000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.04e4	1.04e4	0.25000	1.000	5.31	5.30	12.5	50.000	100.0
26	62	Total PFHxS	398.9 > 79.6	1.68e3	1.03e3	0.25000		3.81		20.3	35.942	
27	63	Total PFOA	413 > 368.7	7.24e3	8.19e3	0.25000		4.20		11.1	42.301	
28	64	Total PFOS	499 > 79.9	2.23e3	2.49e3	0.25000		4.69		11.2	44.417	
29	65	Total N-MeFOSAA	570.1 > 419	3.69e3	3.10e3	0.25000		5.15		14.9	34.379	
30	66	Total N-EtFOSAA	584.2 > 419	3.10e3	3.08e3	0.25000		5.30		12.6	47.969	

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 08:45:44 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	6	L-PFHxS	398.9 > 79.6	3.81	1679.281	1033.096	20.319	MM	35.9
2	7	Br-PFHxS	398.9 > 79.6			1033.096		MM-	

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	7244.616	8193.443	11.052	bb	42.3

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	14	L-PFOS	499 > 79.9	4.69	2228.474	2494.328	11.168	MM	44.4
2	15	Br-PFOS	499 > 79.9			2494.328		MM-I	

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	18	N-MeFOSAA	570.1 > 419	5.13	3693.447	3097.392	14.905	bb	34.4

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	19	N-EtFOSAA	584.2 > 419	5.28	3101.047	3077.828	12.594	bb	48.0

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	7244.616	8193.443	11.052	bb	42.3
2	14	L-PFOS	499 > 79.9	4.69	2228.474	2494.328	11.168	MM	44.4
3	15	Br-PFOS	499 > 79.9			2494.328		MM-I	

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Vista Analytical Laboratory

Rev'd: MM 12/11/17

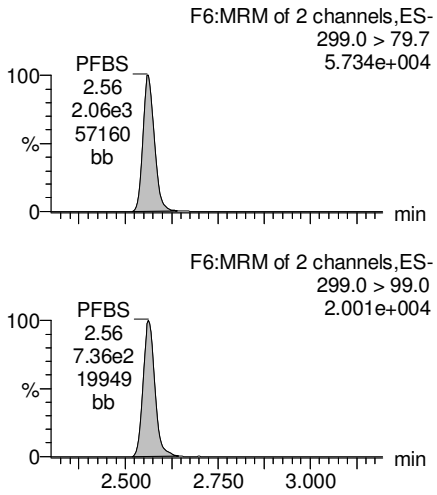
Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 08:45:44 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

PFBS



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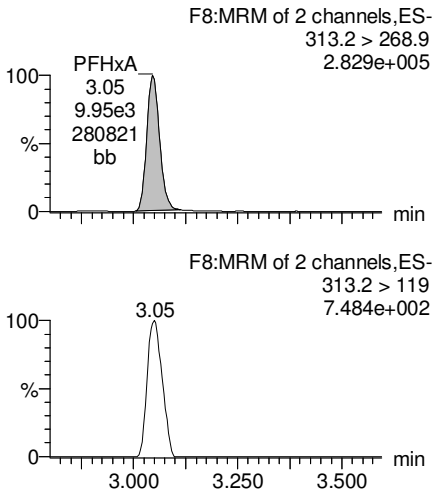
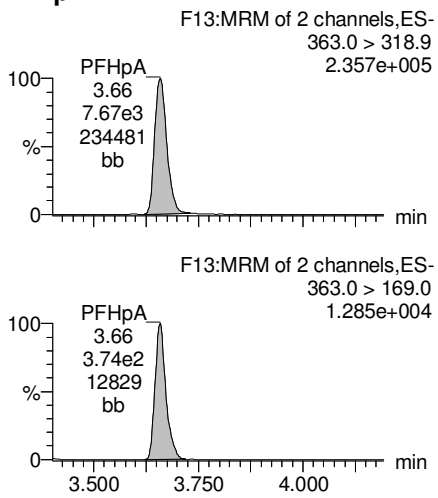
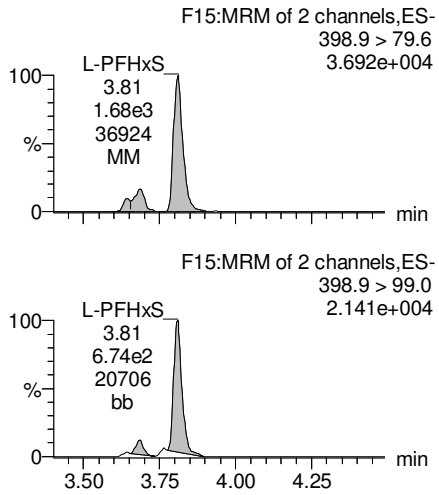


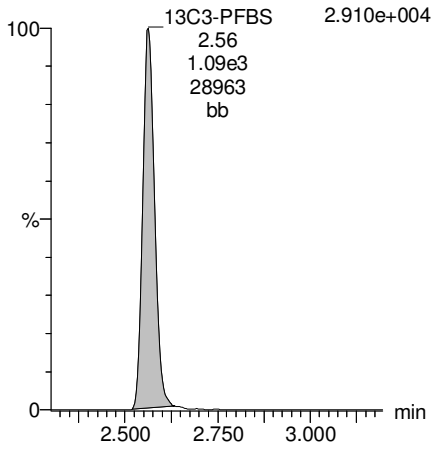
PFHpA



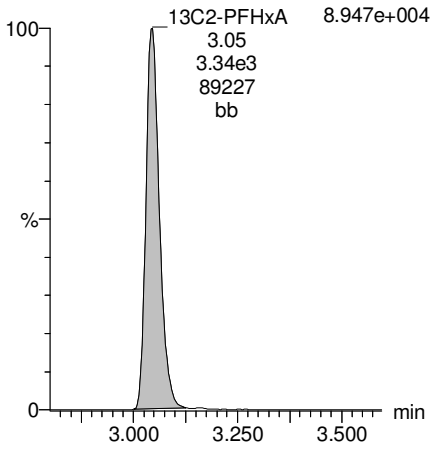
Total PFHxS



13C3-PFBS



13C2-PFHxA



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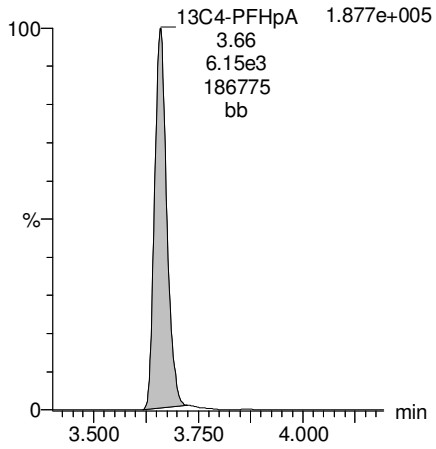
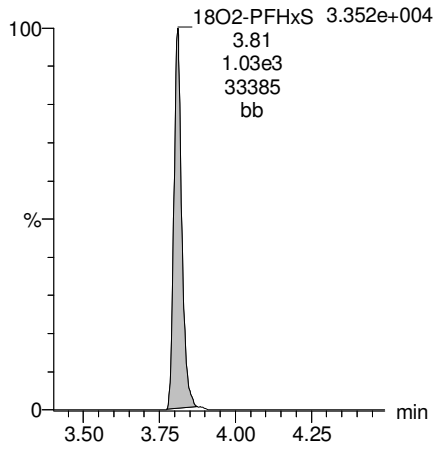


18O2-PFHxS



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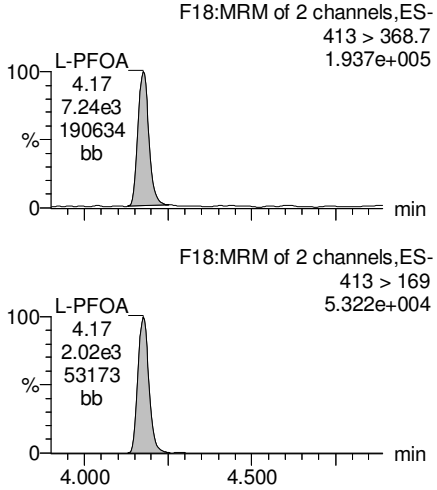
Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 08:45:44 Pacific Standard Time

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

Total PFOA



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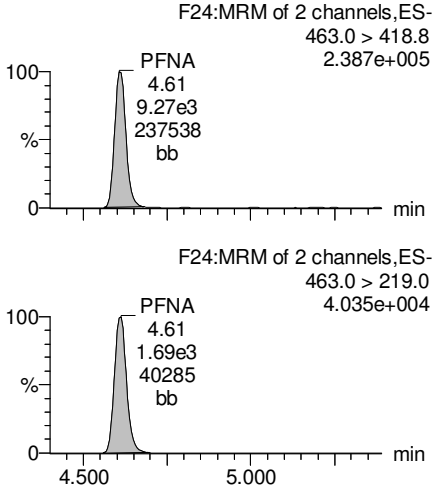
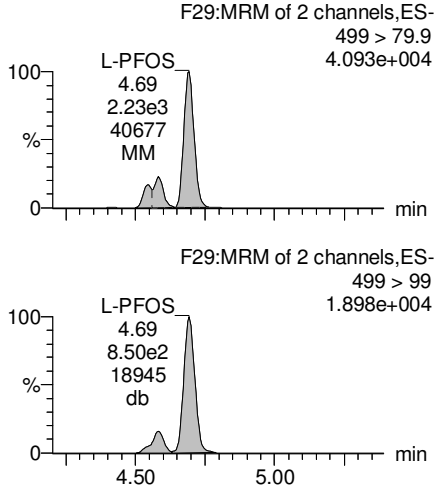
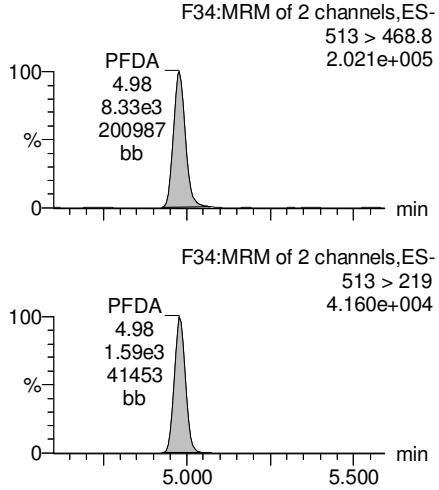


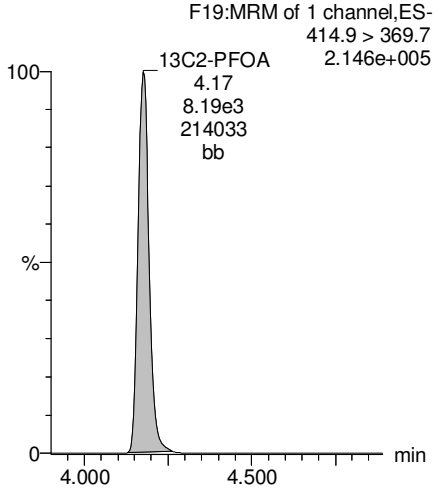
Total PFOS



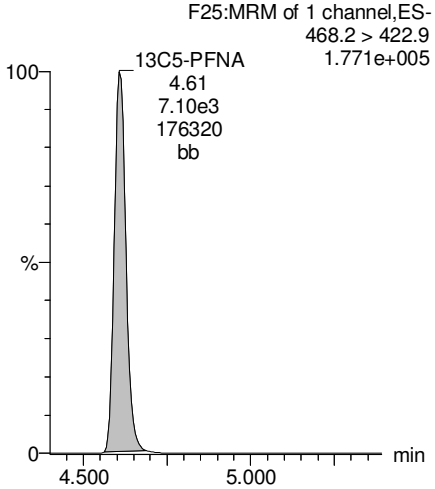
PFDA



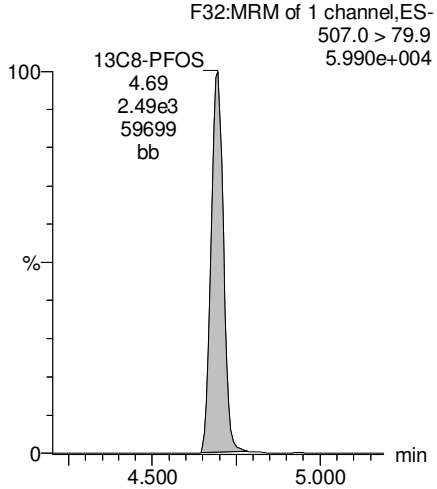
13C2-PFOA



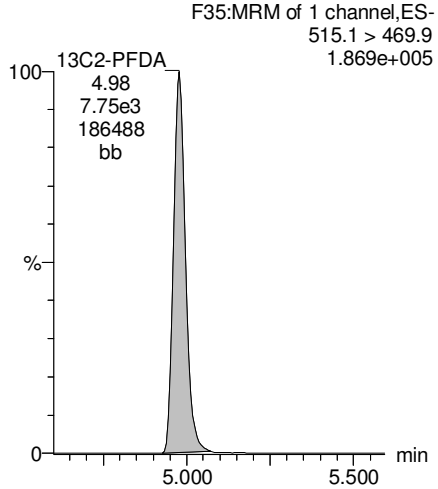
13C5-PFNA



13C8-PFOS



13C2-PFDA



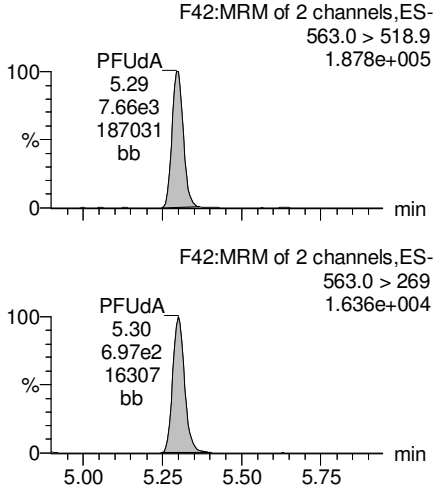
AC 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

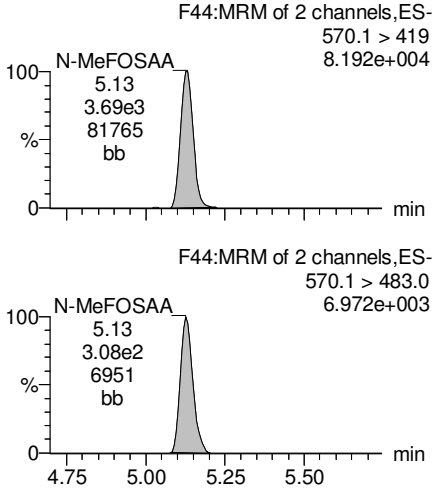
Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 08:45:44 Pacific Standard Time

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

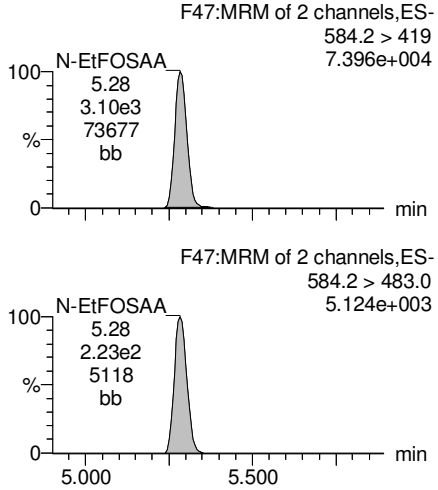
PFUdA



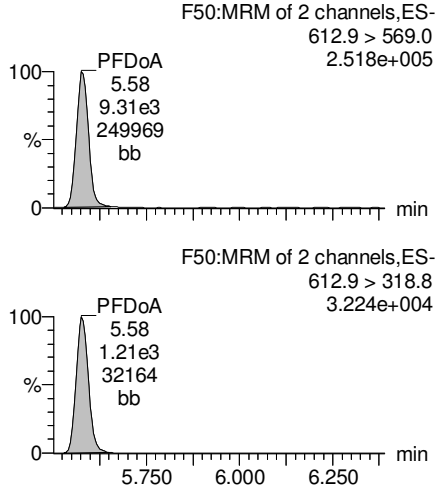
N-MeFOSAA



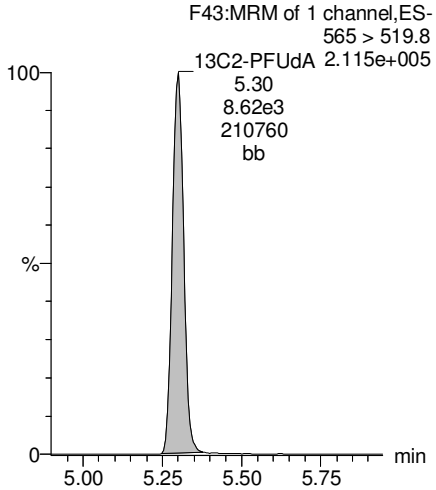
N-EtFOSAA



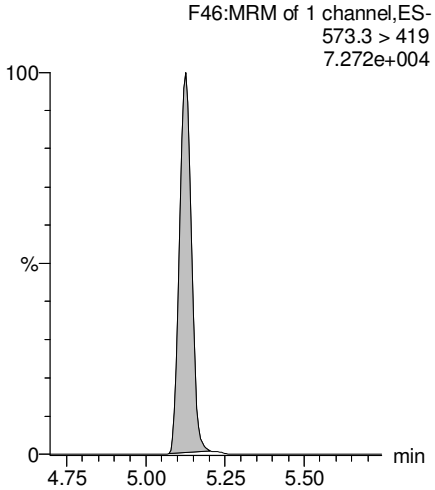
PFDoA



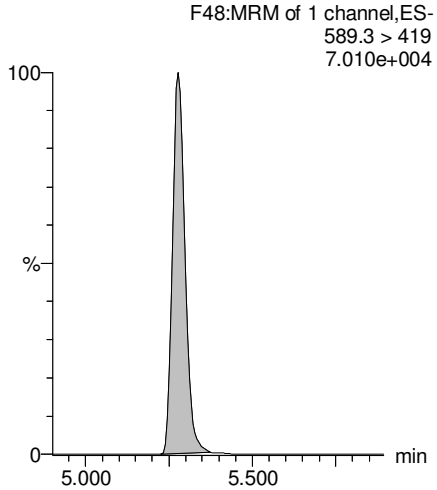
13C2-PFUdA



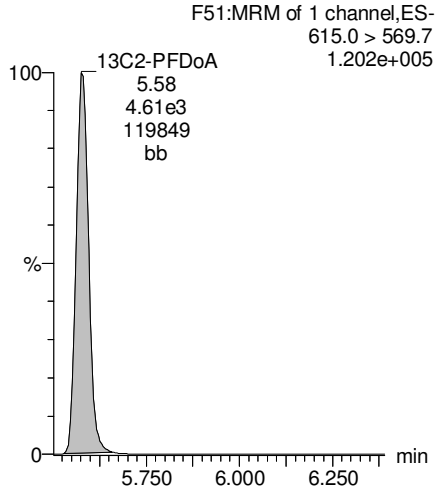
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



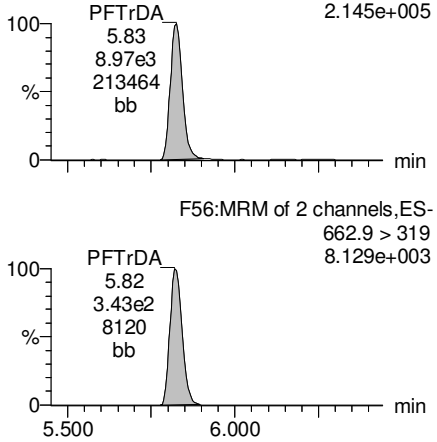
AC 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

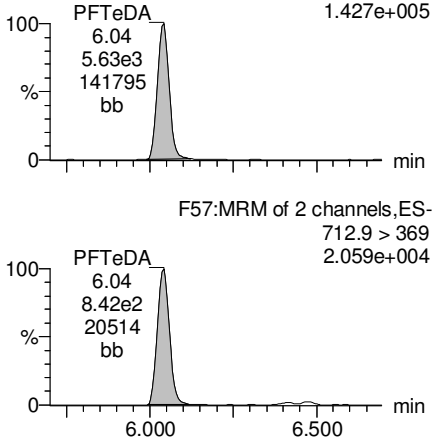
Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 08:45:44 Pacific Standard Time

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

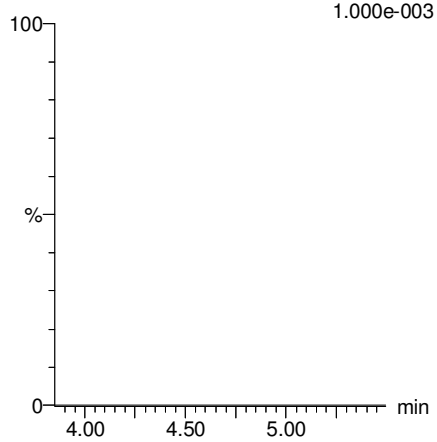
PFTrDA



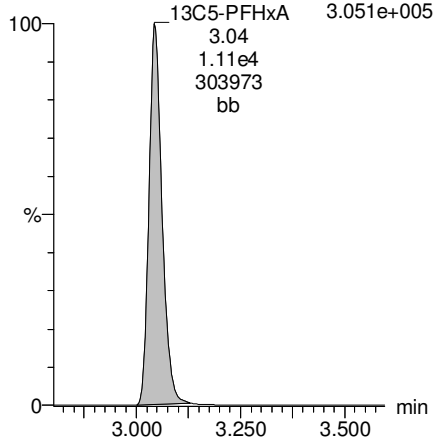
PFTeDA



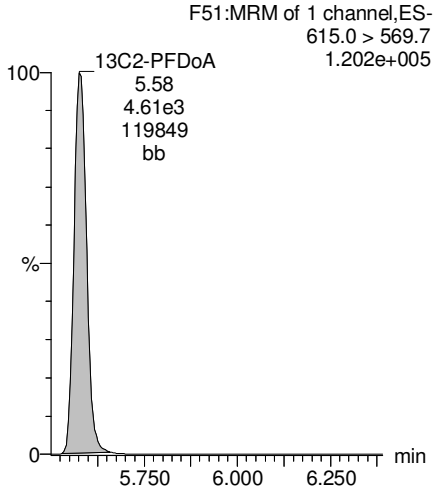
TCDA



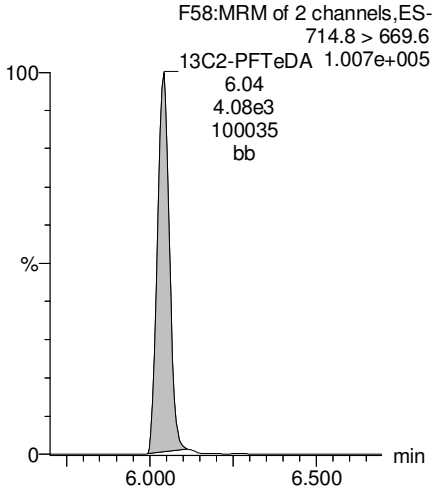
13C5-PFHxA



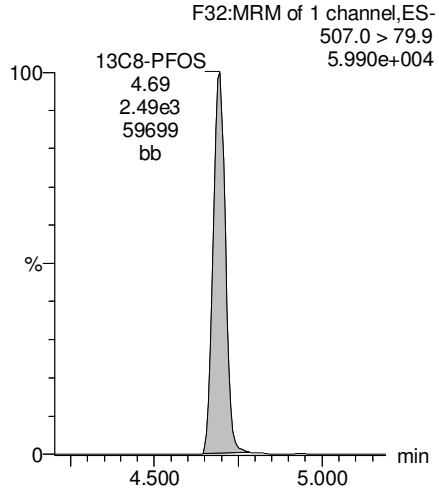
13C2-PFDoA



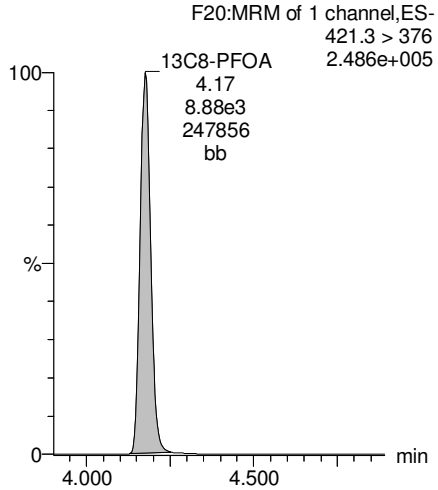
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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Vista Analytical Laboratory

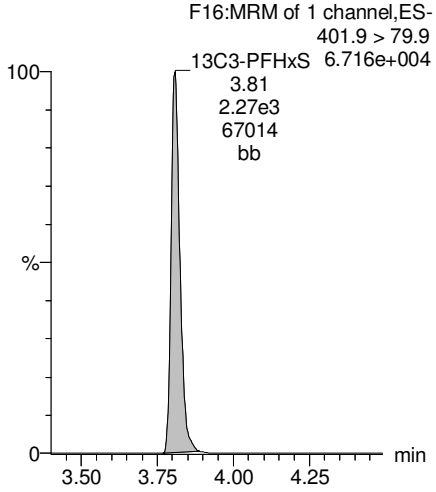
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

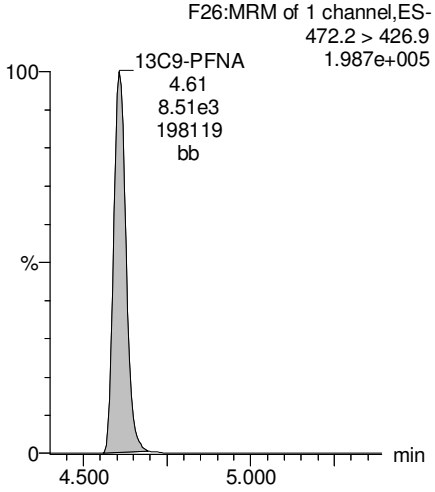
Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 08:45:44 Pacific Standard Time

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

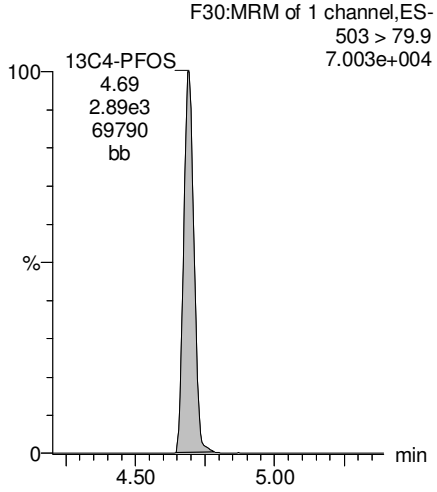
13C3-PFHxS



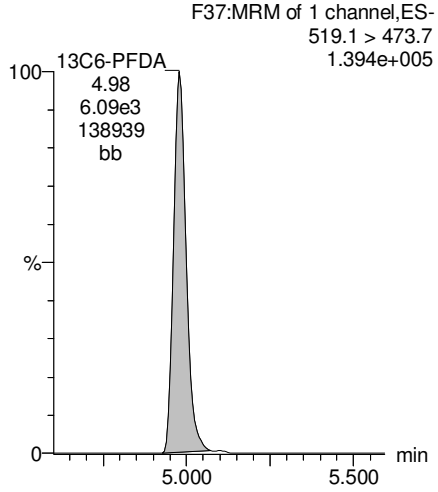
13C9-PFNA



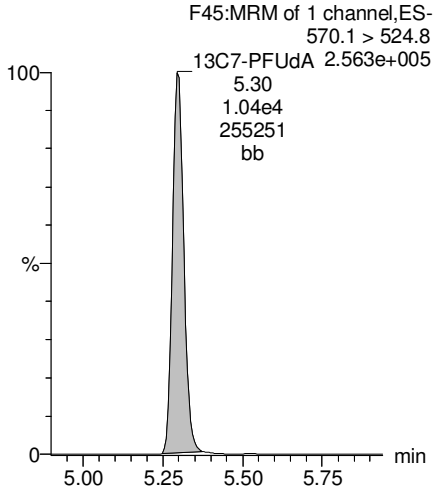
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

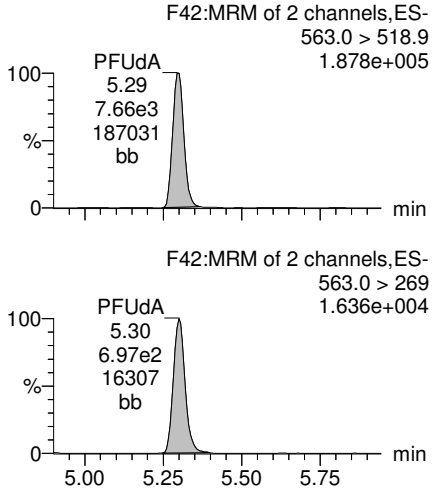
Dataset: U:\Q4.PRO\results\171207M2\171207M2-46.qld

Last Altered: Monday, December 11, 2017 08:44:41 Pacific Standard Time
Printed: Monday, December 11, 2017 12:55:58 Pacific Standard Time

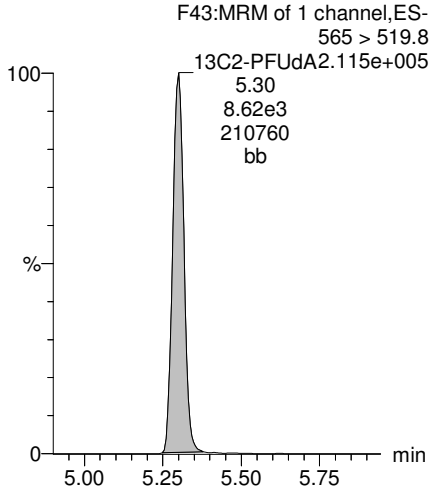
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

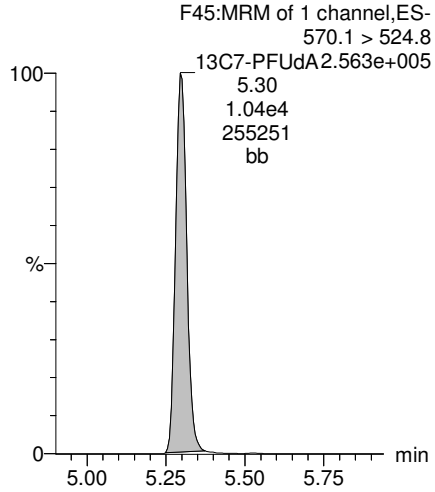
PFUdA



13C2-PFUdA



13C7-PFUdA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 09:11:25 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

	#	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	0.2611		2.52				
2	4	PFHxA	313.2 > 268.9		3.00e3	0.2611		3.04				
3	5	PFHpA	363.0 > 318.9		5.67e3	0.2611		3.66				
4	6	L-PFHxS	398.9 > 79.6	4.21e0	1.03e3	0.2611		3.80	3.81	0.0511	0.413	
5	9	L-PFOA	413 > 368.7	2.13e2	7.91e3	0.2611		4.20	4.18	0.337		
6	12	PFNA	463.0 > 418.8		7.05e3	0.2611		4.61				
7	14	L-PFOS	499 > 79.9		2.32e3	0.2611		4.69				
8	16	PFDA	513 > 468.8		6.44e3	0.2611		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.27e3	0.2611		5.15				
10	19	N-EtFOSAA	584.2 > 419		3.05e3	0.2611		5.30				
11	20	PFUdA	563.0 > 518.9		6.98e3	0.2611		5.31				
12	22	PFDoA	612.9 > 569.0		3.62e3	0.2611		5.58				

ANP 12/11/2017

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 09:11:38 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.62e3	0.2611		5.75				
2	25	PFTeDA	712.9 > 668.8		3.64e3	0.2611		6.10				
3	33	13C3-PFBS	302. > 98.8	1.10e3	1.06e4	0.2611	0.097	2.52	2.56	1.29	51.156	106.9
4	34	13C2-PFHxA	315 > 269.8	3.00e3	1.06e4	0.2611	0.767	3.04	3.04	3.54	17.669	92.3
5	35	13C4-PFHpA	367.2 > 321.8	5.67e3	1.06e4	0.2611	0.605	3.66	3.66	6.69	42.334	88.4
6	36	18O2-PFHxS	403.0 > 102.6	1.03e3	2.35e3	0.2611	0.427	3.80	3.81	5.47	49.007	102.4
7	37	13C2-6:2 FTS	429.1 > 408.9	2.09e3	8.12e3	0.2611	0.261	4.21	4.12	3.22	47.233	98.7
8	38	13C2-PFOA	414.9 > 369.7	7.91e3	8.12e3	0.2611	1.112	4.20	4.17	12.2	41.977	87.7
9	39	13C5-PFNA	468.2 > 422.9	7.05e3	7.64e3	0.2611	0.939	4.63	4.61	11.5	47.033	98.3
10	40	13C8-PFOSA	506.1 > 77.7	1.78e3	8.79e3	0.2611	0.349	4.67	4.67	2.52	27.723	57.9
11	41	13C8-PFOS	507.0 > 79.9	2.32e3	2.77e3	0.2611	0.991	4.69	4.69	10.5	40.583	84.8
12	42	13C2-PFDA	515.1 > 469.9	6.44e3	6.06e3	0.2611	1.309	5.00	4.98	13.3	38.836	81.1
13	43	13C2-8:2 FTS	529.1 > 508.7	1.07e3	1.06e4	0.2611	0.103	4.98	4.95	1.27	46.819	97.8
14	44	d3-N-MeFOSAA	573.3 > 419	2.27e3	8.79e3	0.2611	0.405	5.15	5.13	3.23	30.476	63.7
15	45	d5-N-EtFOSAA	589.3 > 419	3.05e3	8.79e3	0.2611	0.450	5.30	5.28	4.34	36.943	77.2
16	46	13C2-PFUdA	565 > 519.8	6.98e3	8.79e3	0.2611	1.082	5.31	5.30	9.93	35.140	73.4
17	47	13C2-PFDoA	615.0 > 569.7	3.62e3	8.79e3	0.2611	0.544	5.58	5.58	5.15	36.275	75.8
18	49	13C2-PFTeDA	714.8 > 669.6	3.64e3	8.79e3	0.2611	0.533	6.10	6.04	5.17	37.151	77.6
19	55	13C5-PFHxA	318 > 272.9	1.06e4	1.06e4	0.2611	1.000	3.04	3.04	12.5	47.865	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.35e3	2.35e3	0.2611	1.000	3.80	3.81	12.5	47.865	100.0
21	57	13C8-PFOA	421.3 > 376	8.12e3	8.12e3	0.2611	1.000	4.20	4.17	12.5	47.865	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.64e3	7.64e3	0.2611	1.000	4.63	4.61	12.5	47.865	100.0
23	59	13C4-PFOS	503 > 79.9	2.77e3	2.77e3	0.2611	1.000	4.69	4.69	12.5	47.865	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.06e3	6.06e3	0.2611	1.000	5.00	4.98	12.5	47.865	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.79e3	8.79e3	0.2611	1.000	5.31	5.30	12.5	47.865	100.0
26	62	Total PFHxS	398.9 > 79.6	4.21e0	1.03e3	0.2611		3.81		0.0511	0.413	
27	63	Total PFOA	413 > 368.7	2.13e2	7.91e3	0.2611		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.32e3	0.2611		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.27e3	0.2611		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.05e3	0.2611		5.30		0.000		

ANP 12/11/2017

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 09:11:38 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	6	L-PFHxS	398.9 > 79.6	3.81	4.209	1029.264	0.051	MM	0.4

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.18	213.342	7912.309	0.337	MMI	

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.18	213.342	7912.309	0.337	MMI	

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

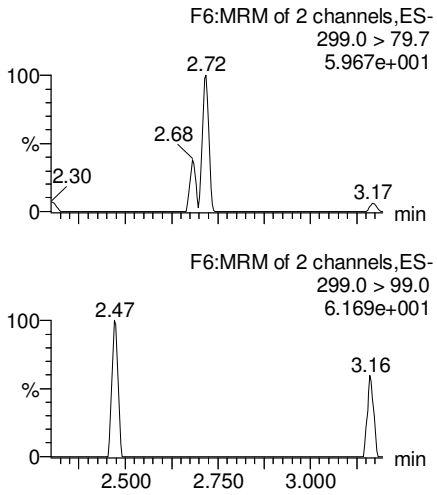
Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 09:11:38 Pacific Standard Time

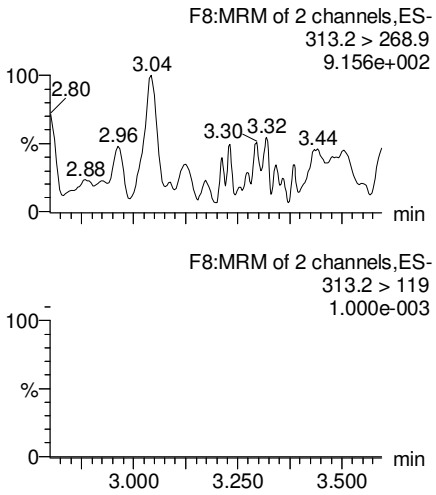
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

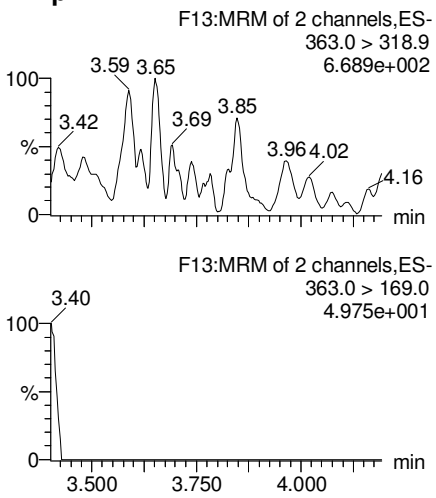
PFBS



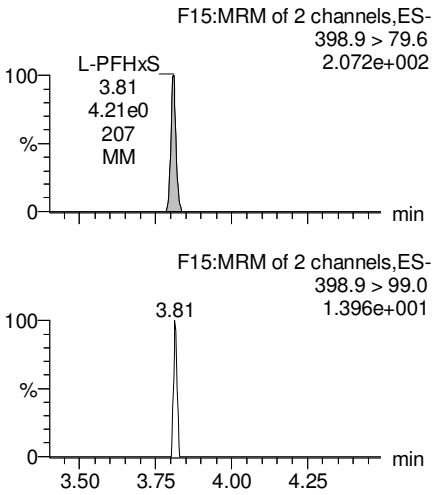
PFHxA



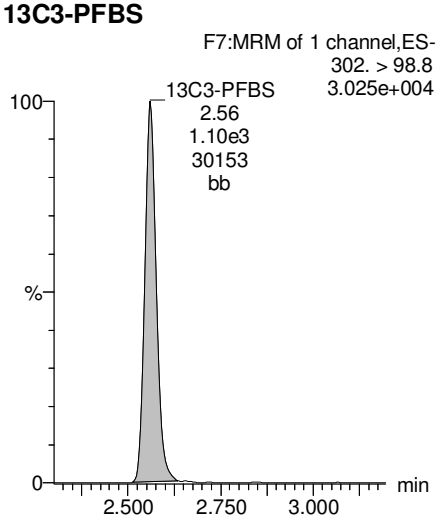
PFHpA



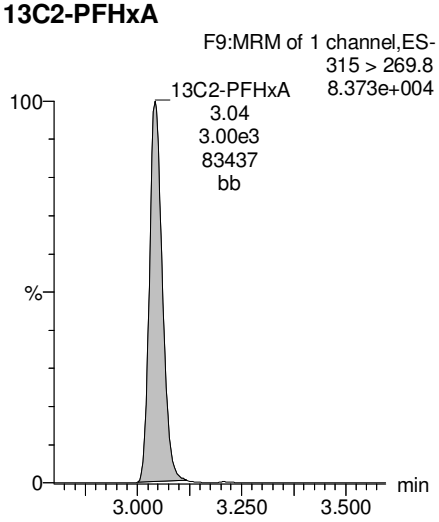
Total PFHxS



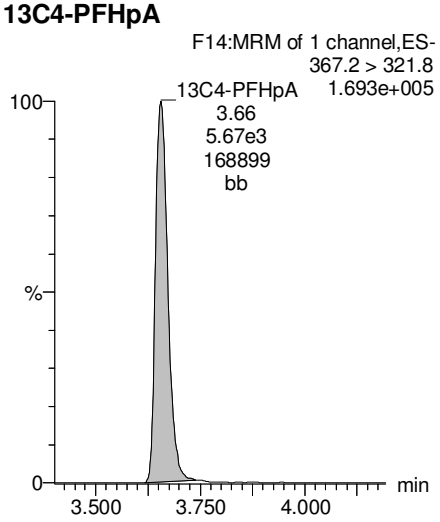
13C3-PFBS



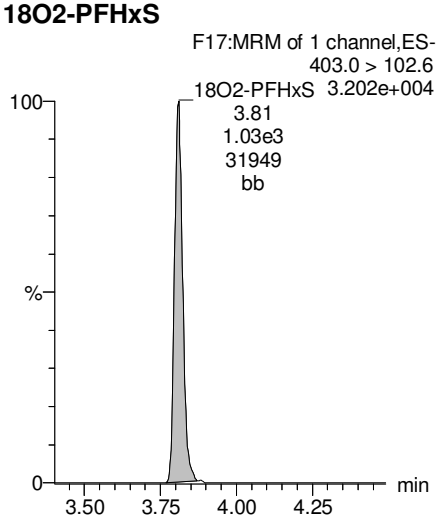
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

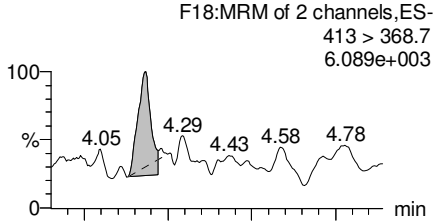
Rev'd: MM 12/11/17

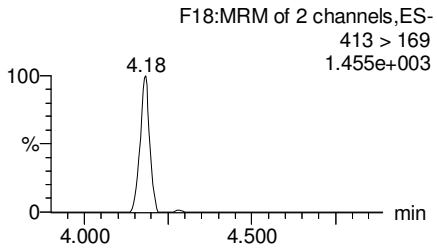
Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 09:11:38 Pacific Standard Time

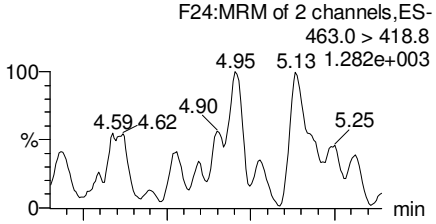
Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

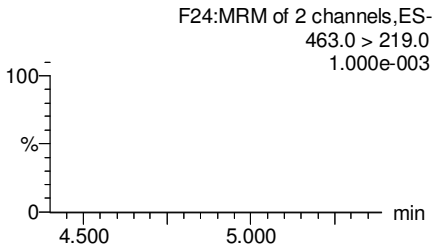
Total PFOA



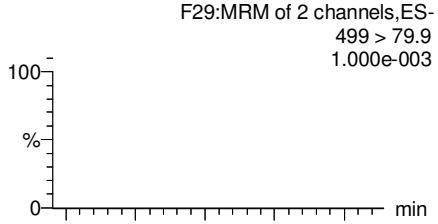


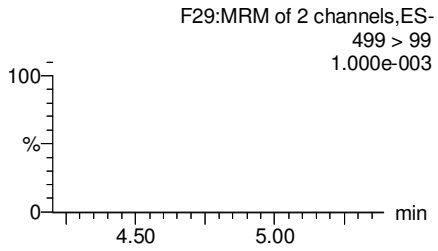
PFNA



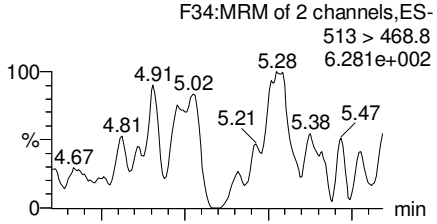


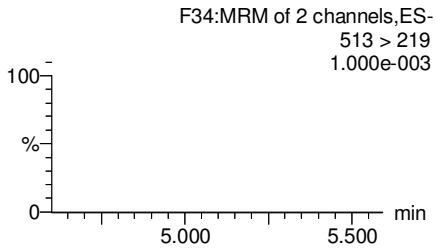
Total PFOS



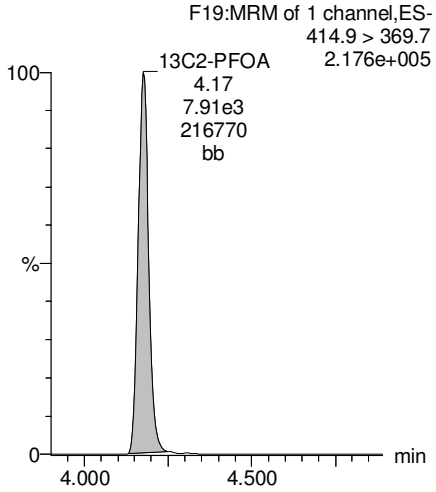


PFDA

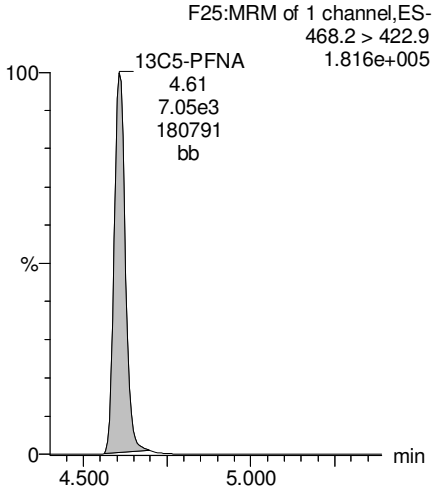




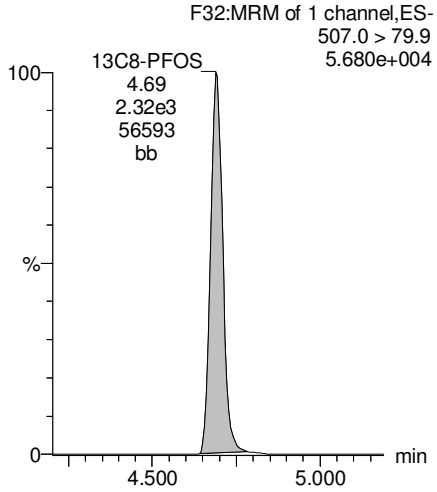
13C2-PFOA



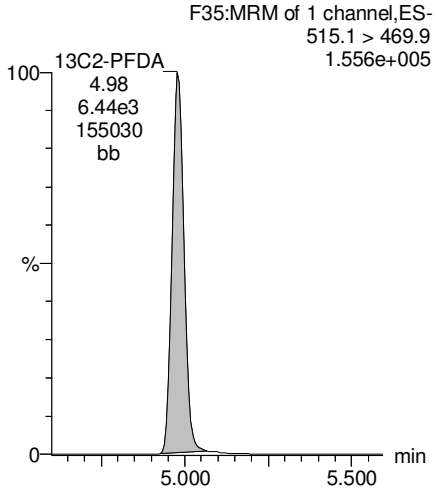
13C5-PFNA



13C8-PFOS



13C2-PFDA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

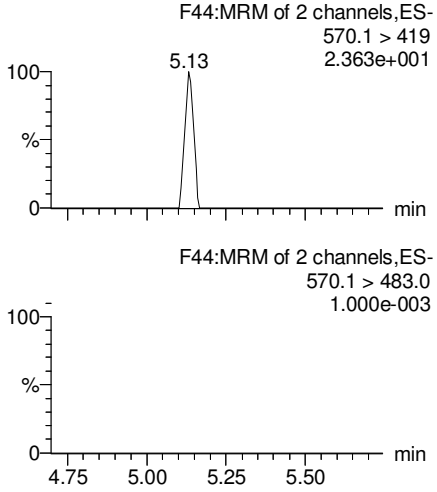
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

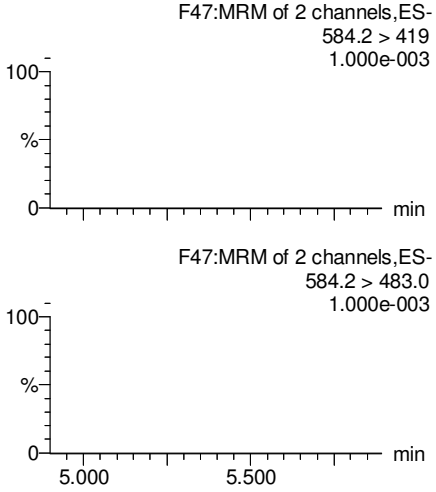
Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 09:11:38 Pacific Standard Time

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

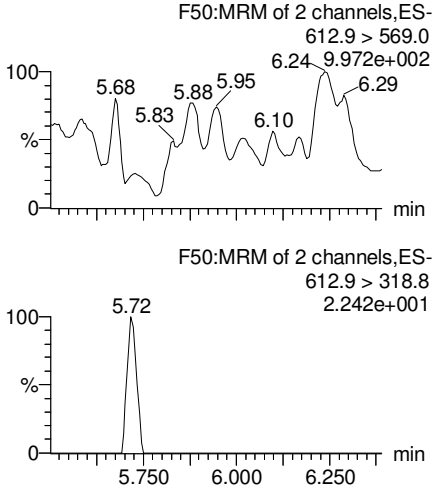
N-MeFOSAA



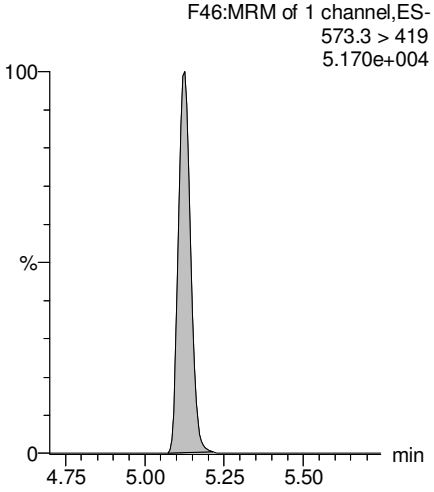
N-EtFOSAA



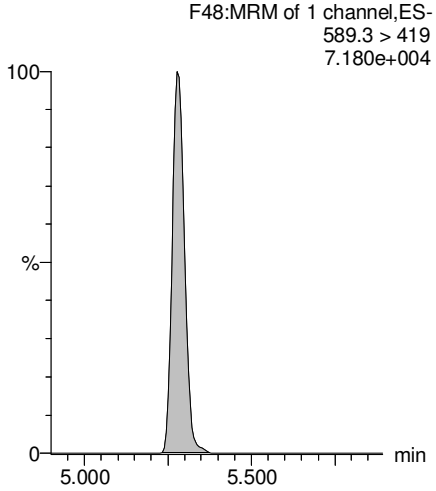
PFDoA



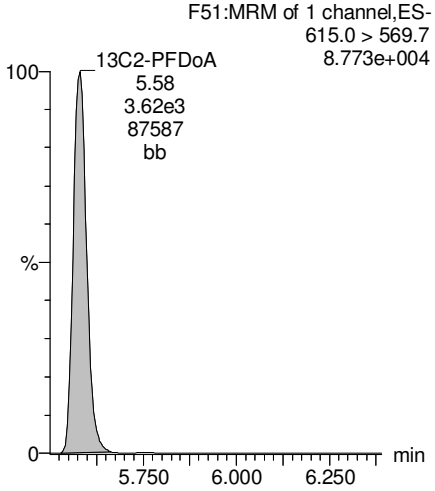
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

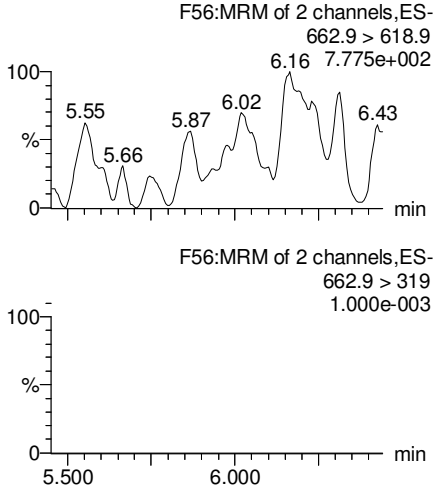
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

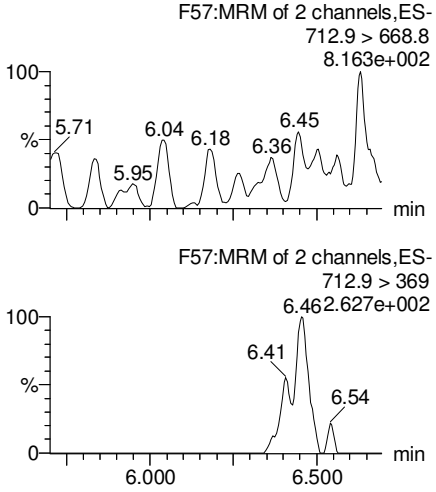
Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 09:11:38 Pacific Standard Time

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

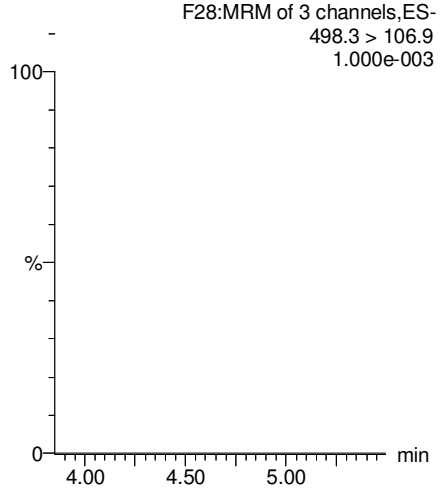
PFTrDA



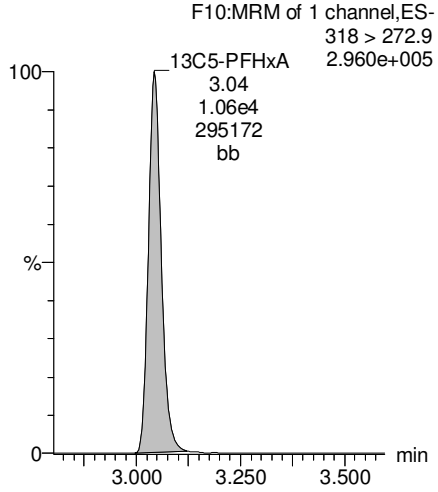
PFTeDA



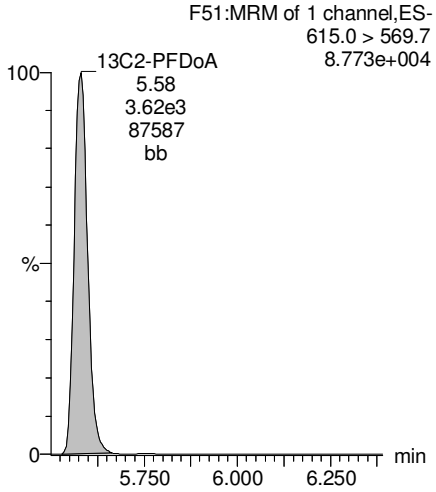
TCDA



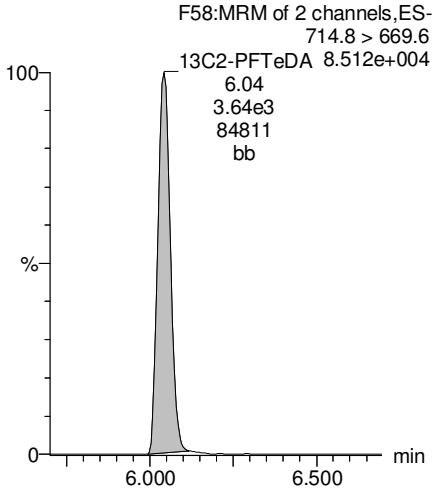
13C5-PFHxA



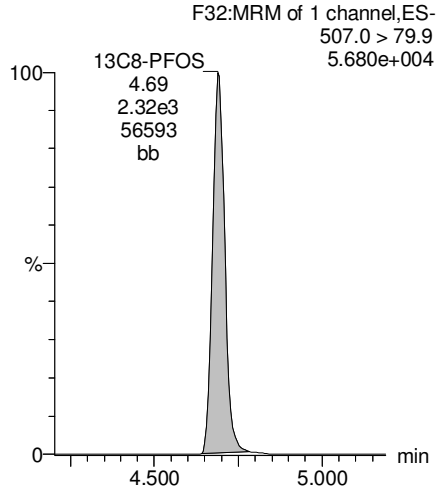
13C2-PFDoA



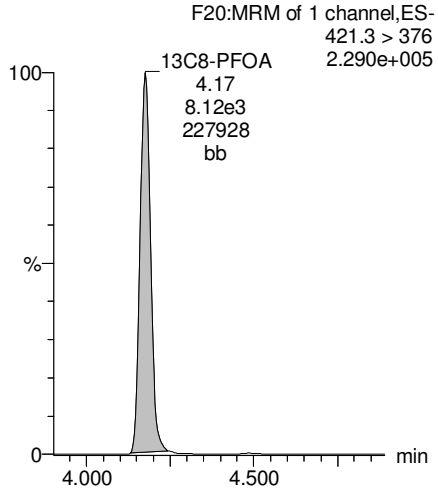
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

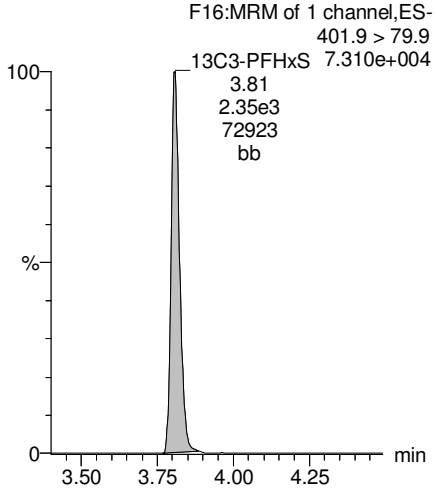
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

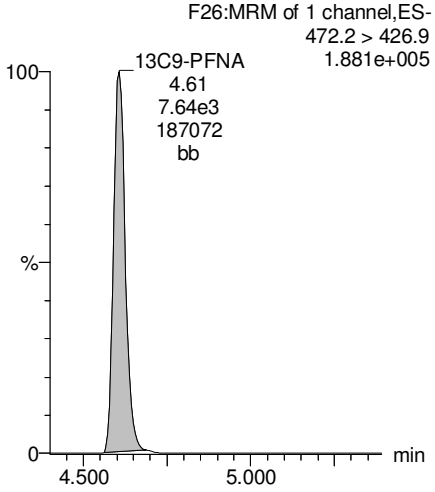
Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 09:11:38 Pacific Standard Time

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

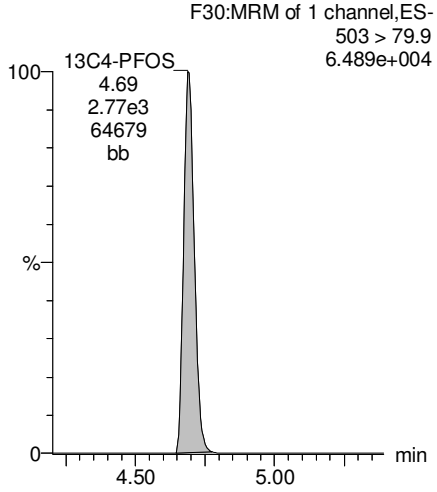
13C3-PFHxS



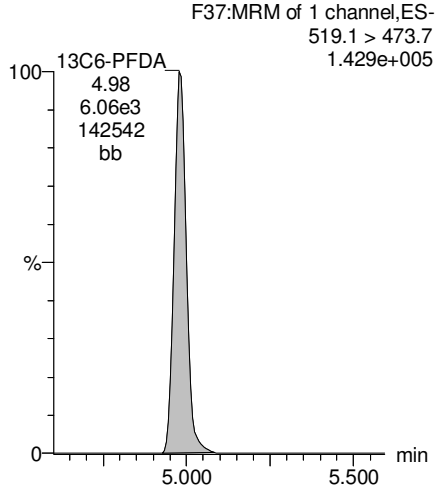
13C9-PFNA



13C4-PFOS



13C6-PFDA



ANP 12/11/2017

Vista Analytical Laboratory

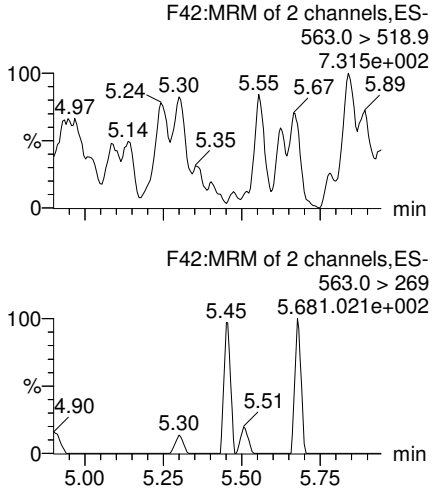
Dataset: U:\Q4.PRO\results\171207M2\171207M2-48.qld

Last Altered: Monday, December 11, 2017 09:10:57 Pacific Standard Time
Printed: Monday, December 11, 2017 12:47:48 Pacific Standard Time

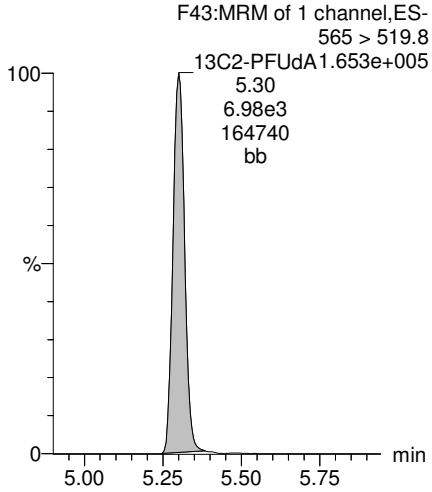
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

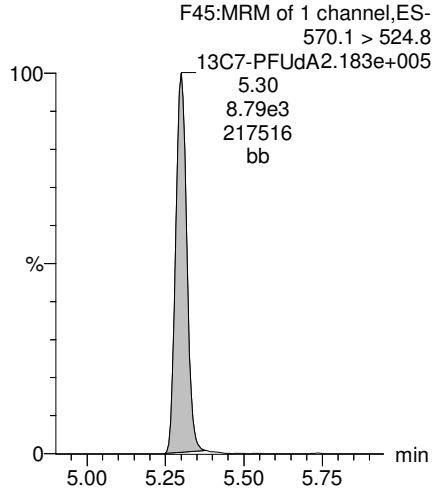
PFUdA



13C2-PFUdA



13C7-PFUdA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:15:48 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.20e3	0.2640		2.52				
2	4	PFHxA	313.2 > 268.9		2.90e3	0.2640		3.04				
3	5	PFHpA	363.0 > 318.9		6.32e3	0.2640		3.66				
4	6	L-PFHxS	398.9 > 79.6		1.05e3	0.2640		3.80				
5	9	L-PFOA	413 > 368.7	1.18e2	9.15e3	0.2640		4.20	4.17	0.161		
6	12	PFNA	463.0 > 418.8		6.63e3	0.2640		4.61				
7	14	L-PFOS	499 > 79.9		2.76e3	0.2640		4.69				
8	16	PFDA	513 > 468.8		8.79e3	0.2640		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.76e3	0.2640		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.72e3	0.2640		5.30				
11	20	PFUdA	563.0 > 518.9	7.32e1	7.85e3	0.2640		5.31	5.30	0.117	0.644	
12	22	PFDoA	612.9 > 569.0		5.19e3	0.2640		5.58				

ANP 12/11/17

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:16:00 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.19e3	0.2640		5.75				
2	25	PFTeDA	712.9 > 668.8		4.24e3	0.2640		6.10				
3	33	13C3-PFBS	302. > 98.8	1.20e3	1.11e4	0.2640	0.097	2.52	2.56	1.35	52.833	111.6
4	34	13C2-PFHxA	315 > 269.8	2.90e3	1.11e4	0.2640	0.767	3.04	3.04	3.28	16.197	85.5
5	35	13C4-PFHpA	367.2 > 321.8	6.32e3	1.11e4	0.2640	0.605	3.66	3.66	7.14	44.696	94.4
6	36	18O2-PFHxS	403.0 > 102.6	1.05e3	2.47e3	0.2640	0.427	3.80	3.81	5.30	46.997	99.3
7	37	13C2-6:2 FTS	429.1 > 408.9	1.88e3	7.69e3	0.2640	0.261	4.21	4.12	3.05	44.290	93.5
8	38	13C2-PFOA	414.9 > 369.7	9.15e3	7.69e3	0.2640	1.112	4.20	4.18	14.9	50.651	107.0
9	39	13C5-PFNA	468.2 > 422.9	6.63e3	8.55e3	0.2640	0.939	4.63	4.61	9.70	39.102	82.6
10	40	13C8-PFOSA	506.1 > 77.7	1.73e3	7.66e3	0.2640	0.349	4.67	4.67	2.82	30.617	64.7
11	41	13C8-PFOS	507.0 > 79.9	2.76e3	2.59e3	0.2640	0.991	4.69	4.69	13.4	51.033	107.8
12	42	13C2-PFDA	515.1 > 469.9	8.79e3	7.88e3	0.2640	1.309	5.00	4.98	13.9	40.355	85.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.27e3	1.11e4	0.2640	0.103	4.98	4.95	1.44	52.540	111.0
14	44	d3-N-MeFOSAA	573.3 > 419	2.76e3	7.66e3	0.2640	0.405	5.15	5.13	4.51	42.157	89.0
15	45	d5-N-EtFOSAA	589.3 > 419	2.72e3	7.66e3	0.2640	0.450	5.30	5.28	4.44	37.357	78.9
16	46	13C2-PFUdA	565 > 519.8	7.85e3	7.66e3	0.2640	1.082	5.31	5.30	12.8	44.890	94.8
17	47	13C2-PFDoA	615.0 > 569.7	5.19e3	7.66e3	0.2640	0.544	5.58	5.58	8.47	58.962	124.5
18	49	13C2-PFTeDA	714.8 > 669.6	4.24e3	7.66e3	0.2640	0.533	6.10	6.04	6.92	49.172	103.9
19	55	13C5-PFHxA	318 > 272.9	1.11e4	1.11e4	0.2640	1.000	3.04	3.04	12.5	47.348	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.47e3	2.47e3	0.2640	1.000	3.80	3.81	12.5	47.348	100.0
21	57	13C8-PFOA	421.3 > 376	7.69e3	7.69e3	0.2640	1.000	4.20	4.17	12.5	47.348	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.55e3	8.55e3	0.2640	1.000	4.63	4.61	12.5	47.348	100.0
23	59	13C4-PFOS	503 > 79.9	2.59e3	2.59e3	0.2640	1.000	4.69	4.69	12.5	47.348	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.88e3	7.88e3	0.2640	1.000	5.00	4.98	12.5	47.348	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.66e3	7.66e3	0.2640	1.000	5.31	5.31	12.5	47.348	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	1.05e3	0.2640		3.81		0.000		
27	63	Total PFOA	413 > 368.7	1.18e2	9.15e3	0.2640		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.76e3	0.2640		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.76e3	0.2640		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.72e3	0.2640		5.30		0.000		

ANP 12/11/17

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:16:00 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	118.154	9148.515	0.161	bbl	

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	118.154	9148.515	0.161	bbl	

ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

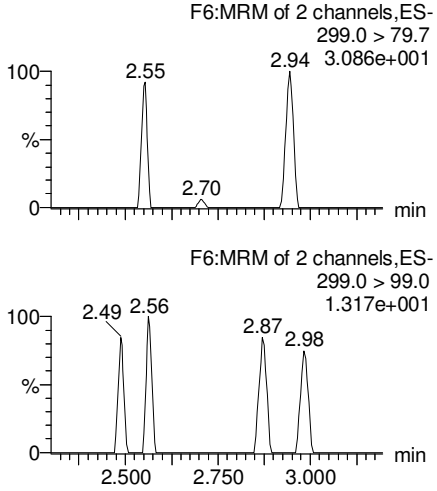
Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:16:00 Pacific Standard Time

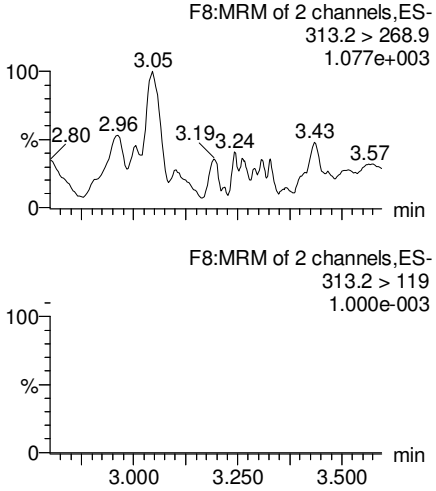
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

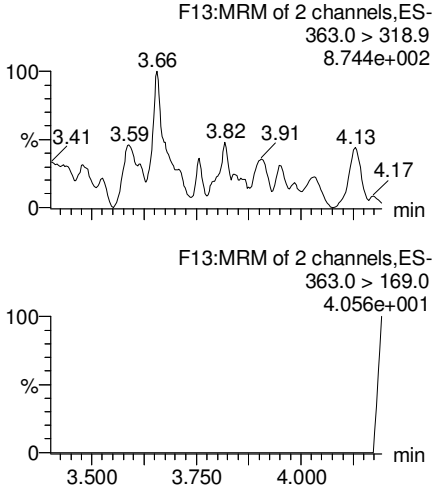
PFBS



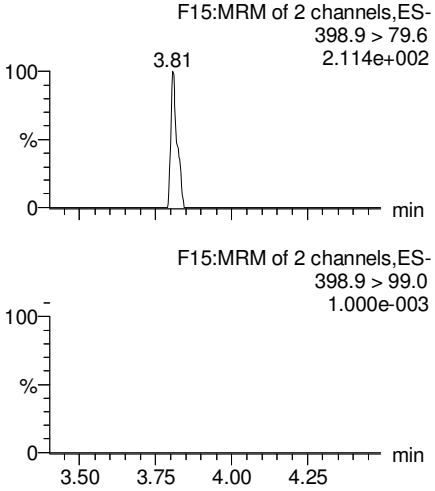
PFHxA



PFHpA



Total PFHxS



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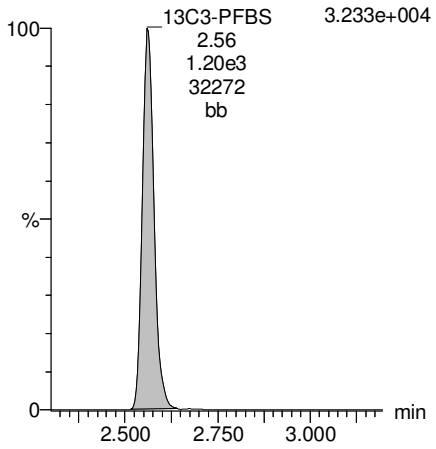

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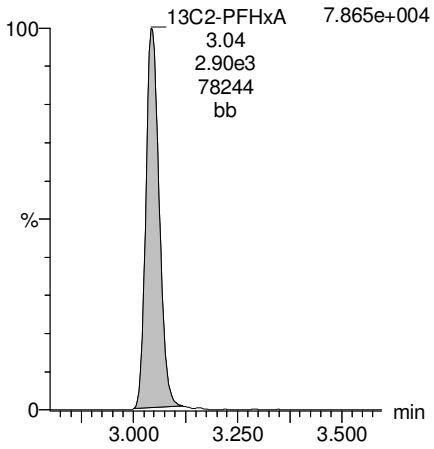

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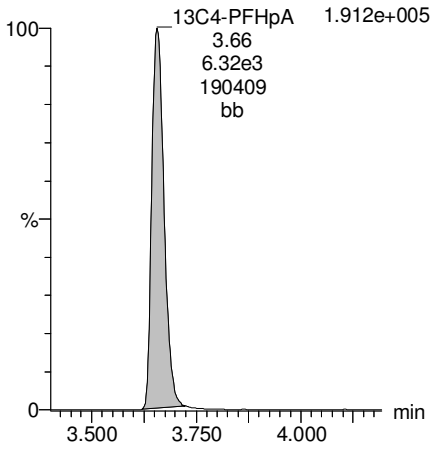

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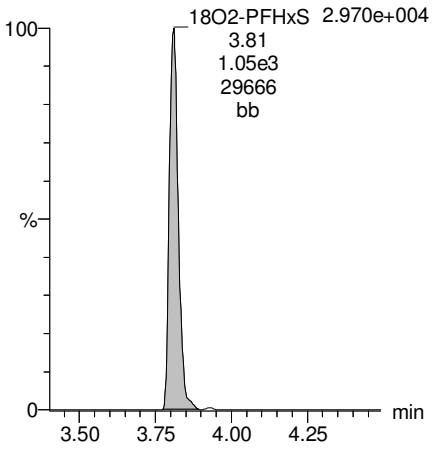


ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

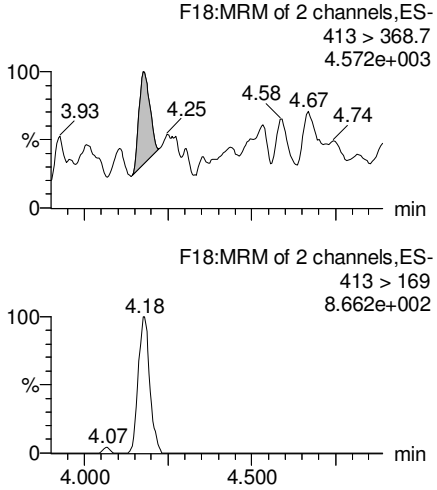
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:16:00 Pacific Standard Time

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

Total PFOA



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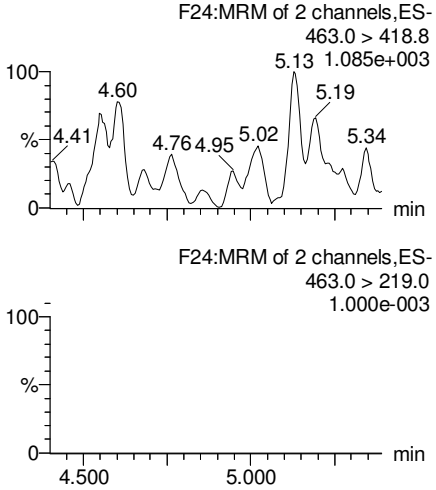
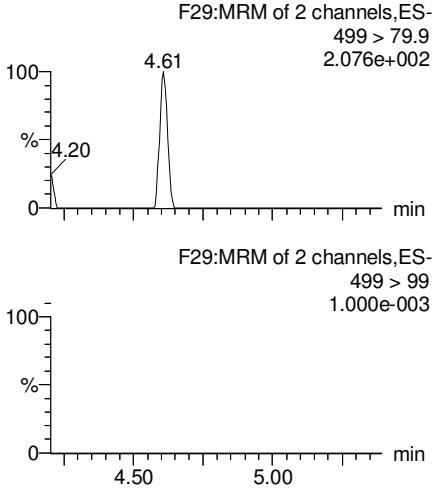
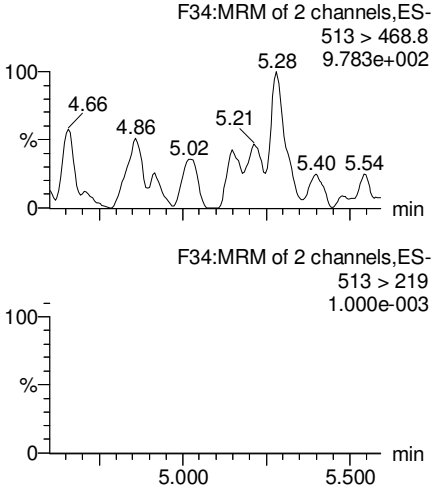


Total PFOS



PFDA



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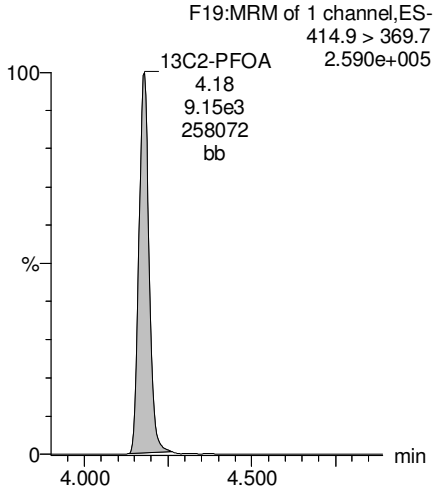

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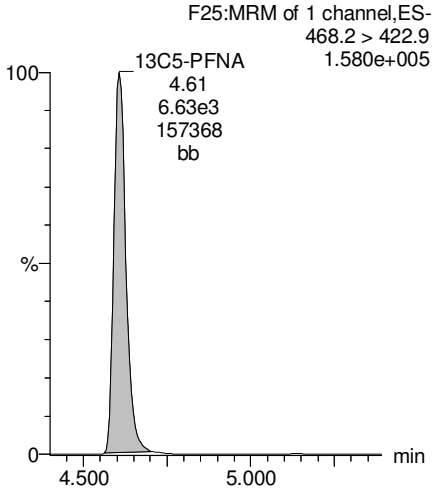

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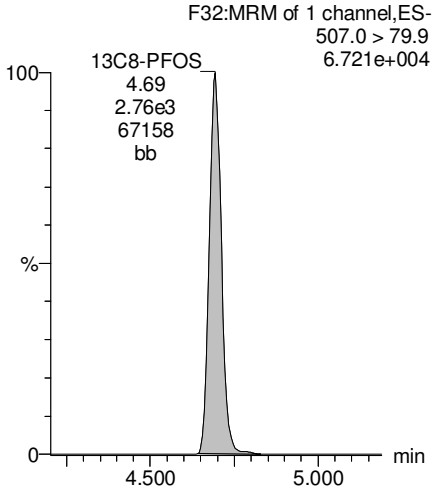

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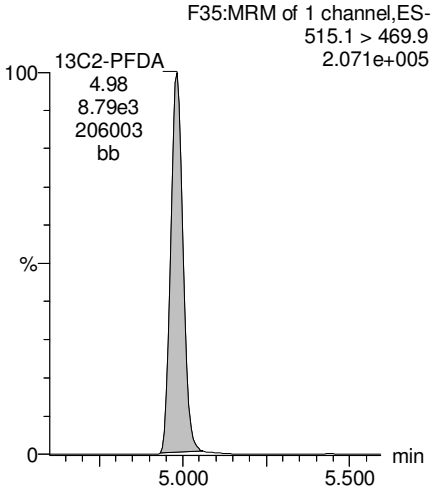


ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

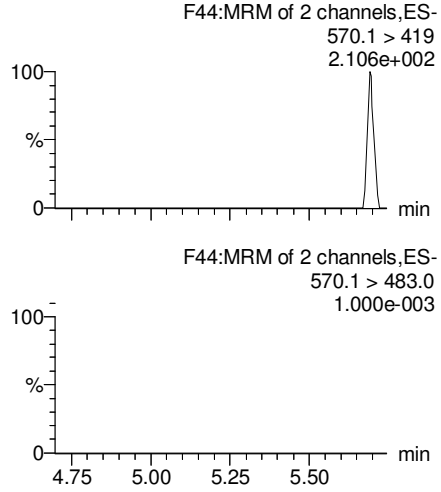
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:16:00 Pacific Standard Time

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

N-MeFOSAA



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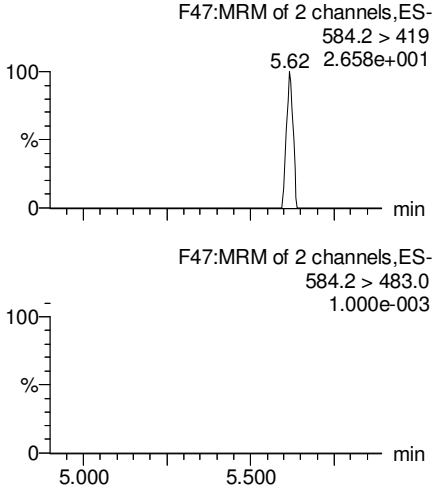
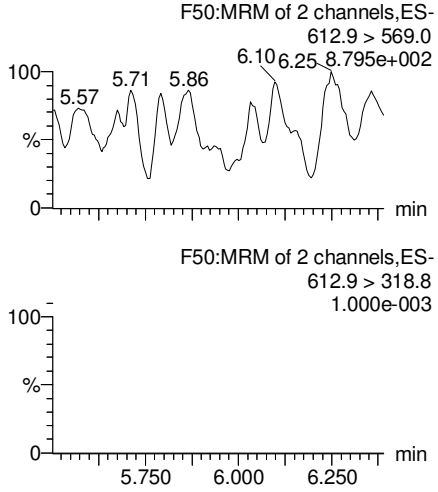


PFDoA



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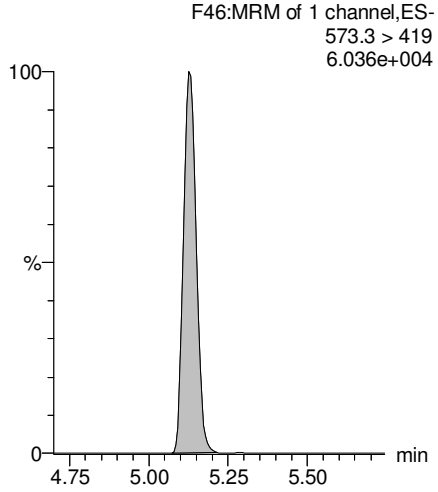

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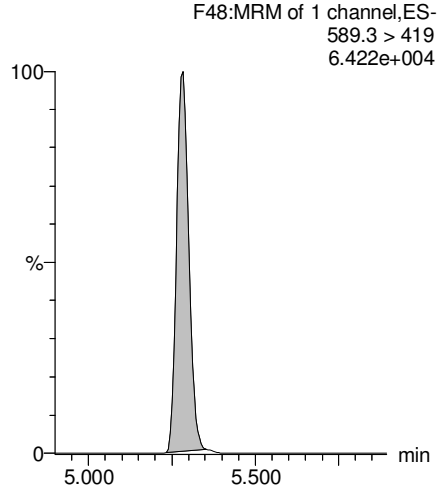

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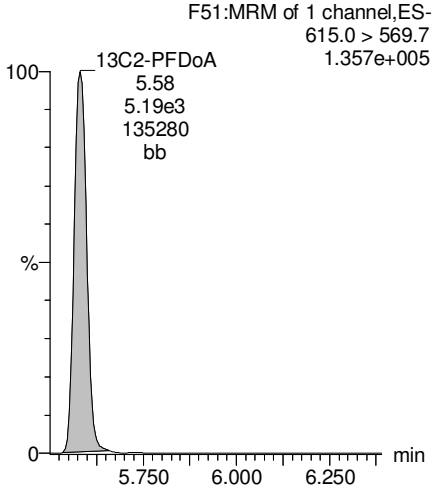


ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

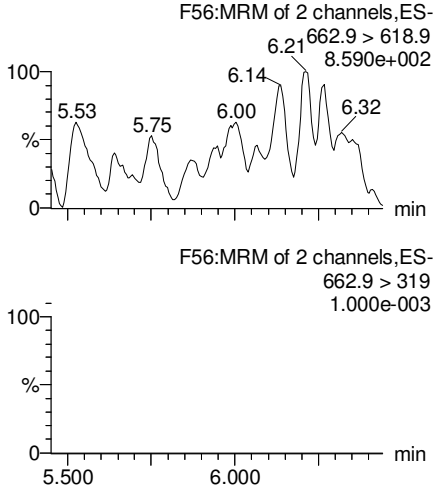
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:16:00 Pacific Standard Time

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

PFTrDA



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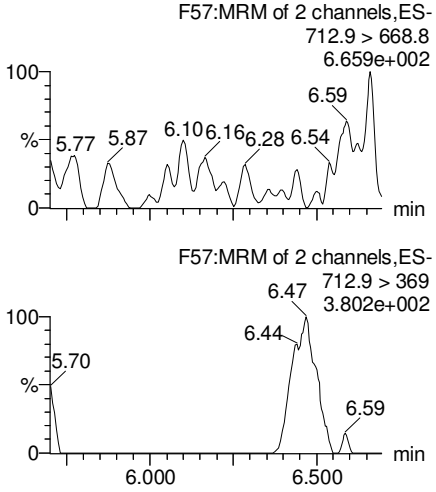
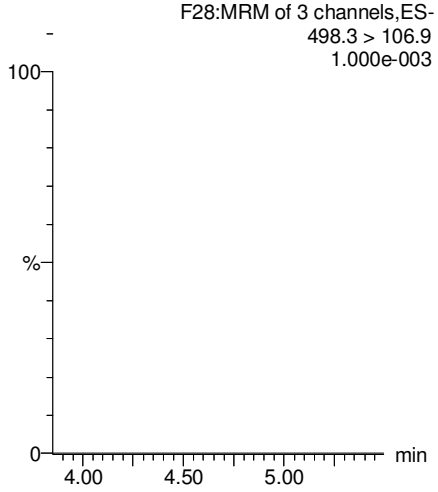


TCDA



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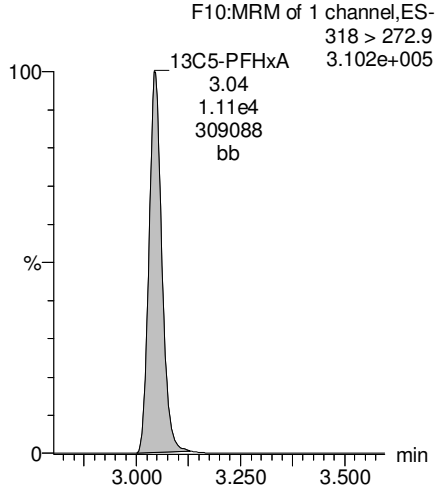

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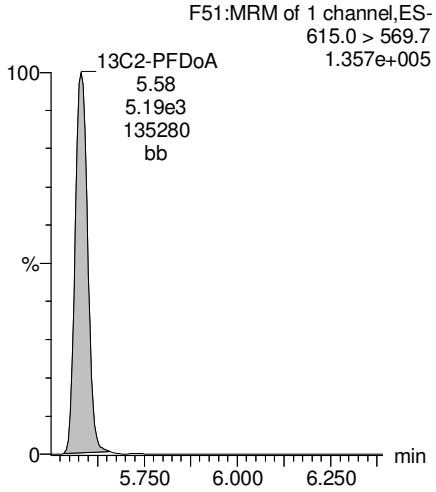
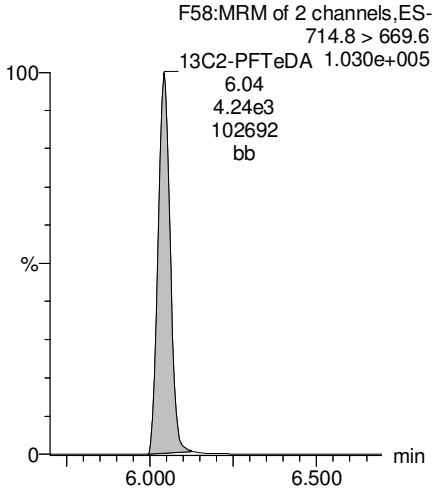
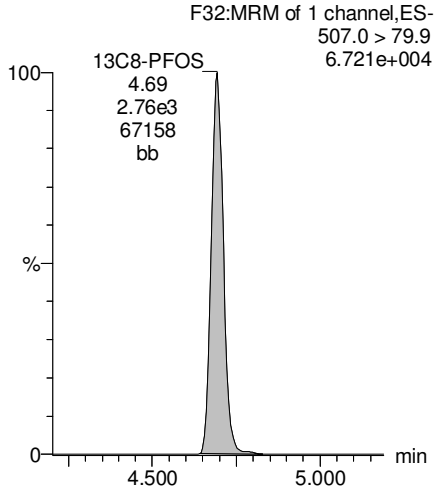


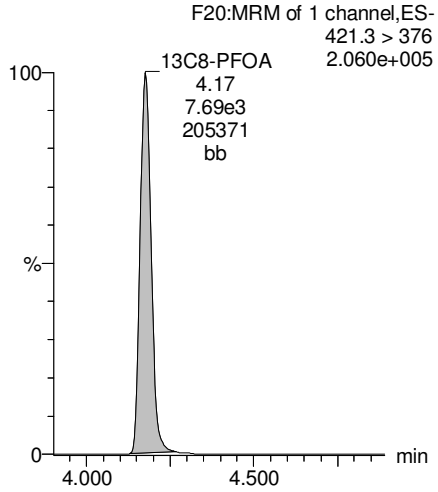
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

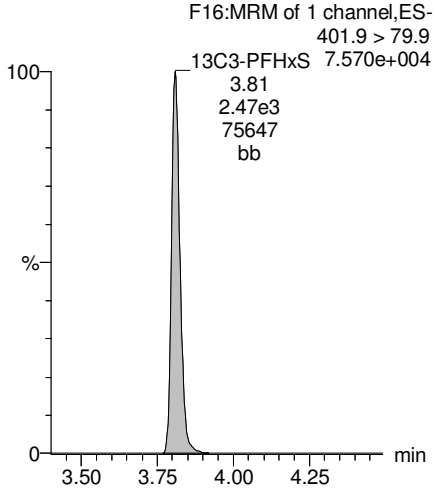
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:16:00 Pacific Standard Time

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

13C3-PFHxS



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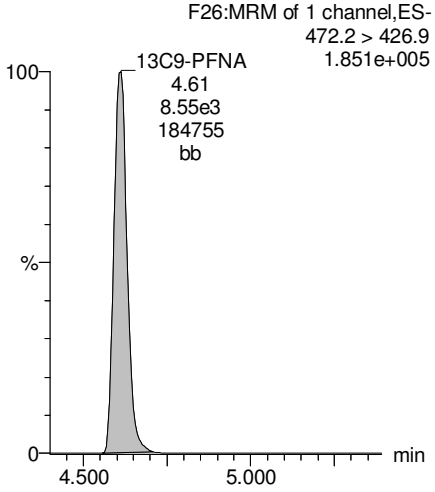
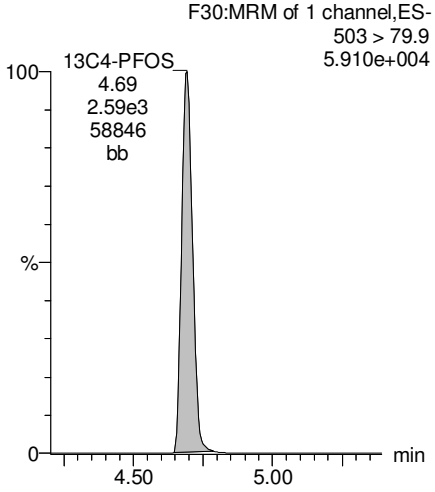
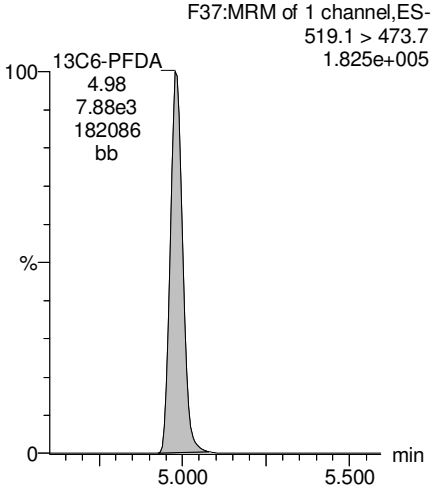


13C4-PFOS



13C6-PFDA



ANP 12/11/17

Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 12:48:12 Pacific Standard Time

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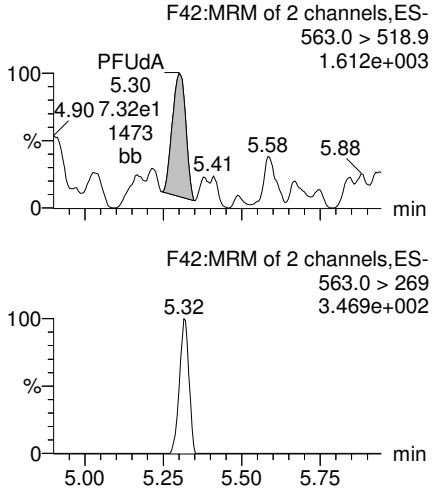
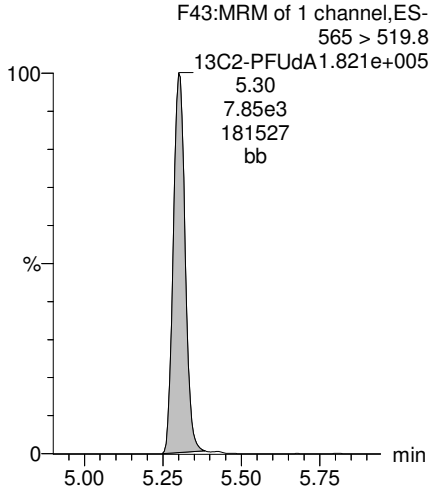
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

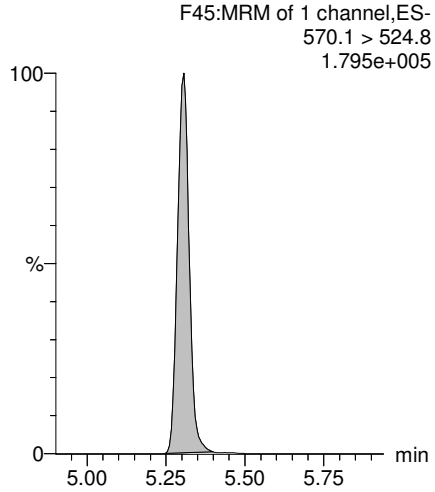
PFUdA



13C2-PFUdA



13C7-PFUdA



ANP 12/11/17

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 09:20:10 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

	#	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	0.2635		2.52				
2	4	PFHxA	313.2 > 268.9		2.70e3	0.2635		3.04				
3	5	PFHpA	363.0 > 318.9		5.82e3	0.2635		3.66				
4	6	L-PFHxS	398.9 > 79.6		8.17e2	0.2635		3.80				
5	9	L-PFOA	413 > 368.7	2.18e2	7.90e3	0.2635		4.20	4.18	0.344		
6	12	PFNA	463.0 > 418.8		7.04e3	0.2635		4.61				
7	14	L-PFOS	499 > 79.9		2.24e3	0.2635		4.69				
8	16	PFDA	513 > 468.8		7.33e3	0.2635		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.55e3	0.2635		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.96e3	0.2635		5.30				
11	20	PFUdA	563.0 > 518.9		6.84e3	0.2635		5.31				
12	22	PFDoA	612.9 > 569.0		4.15e3	0.2635		5.58				

ANP 12/11/2017

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 09:20:32 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.15e3	0.2635		5.75				
2	25	PFTeDA	712.9 > 668.8		4.53e3	0.2635		6.10				
3	33	13C3-PFBS	302. > 98.8	1.14e3	9.68e3	0.2635	0.097	2.52	2.56	1.47	57.553	121.3
4	34	13C2-PFHxA	315 > 269.8	2.70e3	9.68e3	0.2635	0.767	3.04	3.05	3.49	17.255	90.9
5	35	13C4-PFHpA	367.2 > 321.8	5.82e3	9.68e3	0.2635	0.605	3.66	3.66	7.51	47.122	99.3
6	36	18O2-PFHxS	403.0 > 102.6	8.17e2	2.07e3	0.2635	0.427	3.80	3.81	4.93	43.777	92.3
7	37	13C2-6:2 FTS	429.1 > 408.9	1.93e3	6.99e3	0.2635	0.261	4.21	4.12	3.45	50.102	105.6
8	38	13C2-PFOA	414.9 > 369.7	7.90e3	6.99e3	0.2635	1.112	4.20	4.18	14.1	48.238	101.7
9	39	13C5-PFNA	468.2 > 422.9	7.04e3	7.61e3	0.2635	0.939	4.63	4.61	11.6	46.717	98.5
10	40	13C8-PFOSA	506.1 > 77.7	1.82e3	8.66e3	0.2635	0.349	4.67	4.67	2.63	28.614	60.3
11	41	13C8-PFOS	507.0 > 79.9	2.24e3	2.33e3	0.2635	0.991	4.69	4.69	12.0	46.049	97.1
12	42	13C2-PFDA	515.1 > 469.9	7.33e3	7.68e3	0.2635	1.309	5.00	4.98	11.9	34.558	72.8
13	43	13C2-8:2 FTS	529.1 > 508.7	9.19e2	9.68e3	0.2635	0.103	4.98	4.95	1.19	43.543	91.8
14	44	d3-N-MeFOSAA	573.3 > 419	2.55e3	8.66e3	0.2635	0.405	5.15	5.13	3.68	34.446	72.6
15	45	d5-N-EtFOSAA	589.3 > 419	2.96e3	8.66e3	0.2635	0.450	5.30	5.29	4.27	36.023	75.9
16	46	13C2-PFUdA	565 > 519.8	6.84e3	8.66e3	0.2635	1.082	5.31	5.31	9.87	34.622	73.0
17	47	13C2-PFDoA	615.0 > 569.7	4.15e3	8.66e3	0.2635	0.544	5.58	5.58	5.99	41.787	88.1
18	49	13C2-PFTeDA	714.8 > 669.6	4.53e3	8.66e3	0.2635	0.533	6.10	6.05	6.53	46.512	98.0
19	55	13C5-PFHxA	318 > 272.9	9.68e3	9.68e3	0.2635	1.000	3.04	3.05	12.5	47.440	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.07e3	2.07e3	0.2635	1.000	3.80	3.81	12.5	47.440	100.0
21	57	13C8-PFOA	421.3 > 376	6.99e3	6.99e3	0.2635	1.000	4.20	4.18	12.5	47.440	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.61e3	7.61e3	0.2635	1.000	4.63	4.61	12.5	47.440	100.0
23	59	13C4-PFOS	503 > 79.9	2.33e3	2.33e3	0.2635	1.000	4.69	4.69	12.5	47.440	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.68e3	7.68e3	0.2635	1.000	5.00	4.98	12.5	47.440	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.66e3	8.66e3	0.2635	1.000	5.31	5.30	12.5	47.440	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.17e2	0.2635		3.81		0.000		
27	63	Total PFOA	413 > 368.7	2.18e2	7.90e3	0.2635		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.24e3	0.2635		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.55e3	0.2635		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.96e3	0.2635		5.30		0.000		

ANP 12/11/2017

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 09:20:32 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.18	217.540	7902.242	0.344	bbl	

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.18	217.540	7902.242	0.344	bbl	

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 09:20:32 Pacific Standard Time

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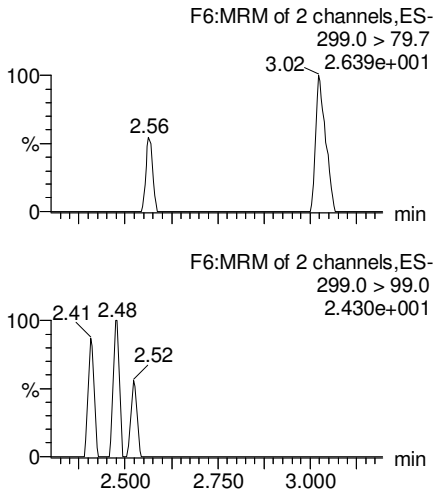
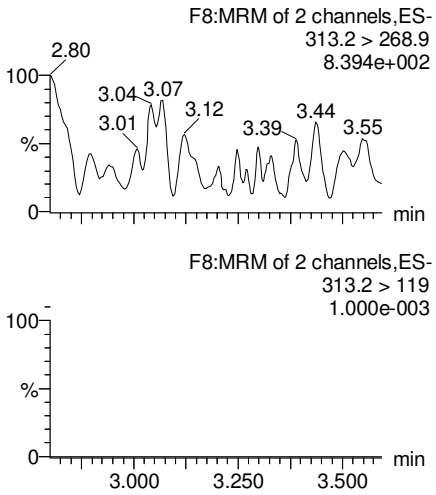
Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

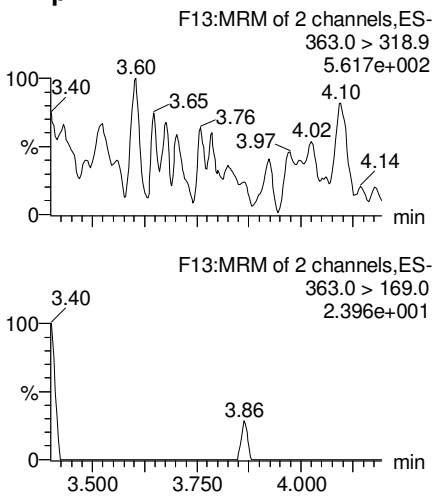
PFBS



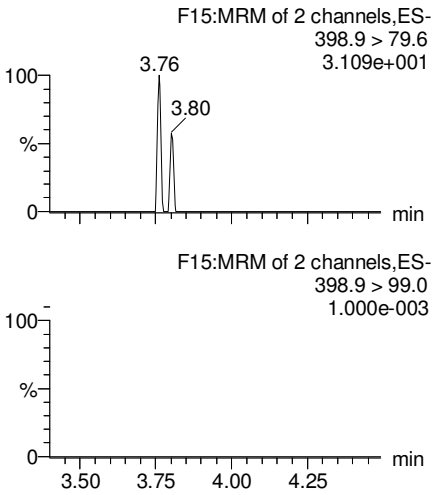
PFHxA



PFHpA



Total PFHxS



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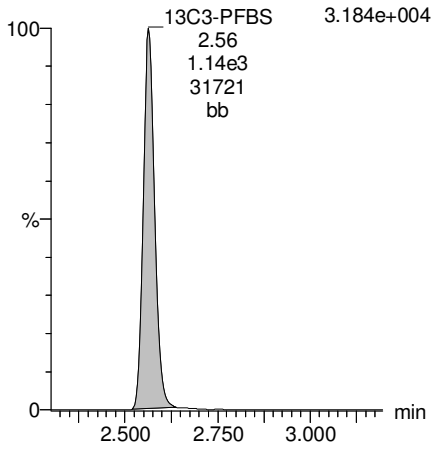

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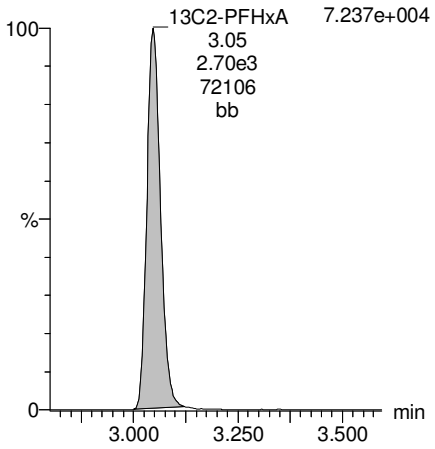

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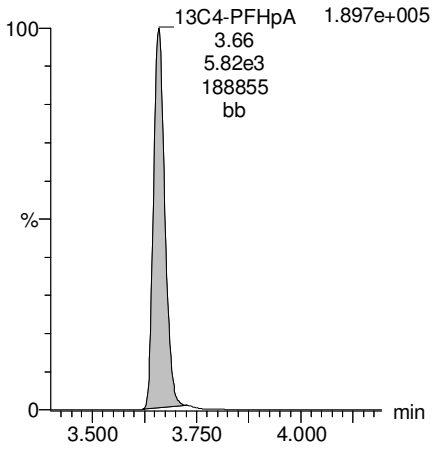

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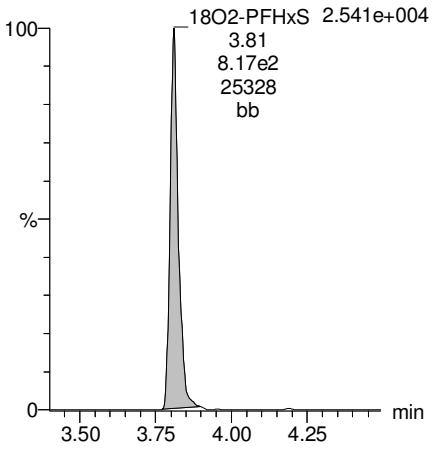


ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

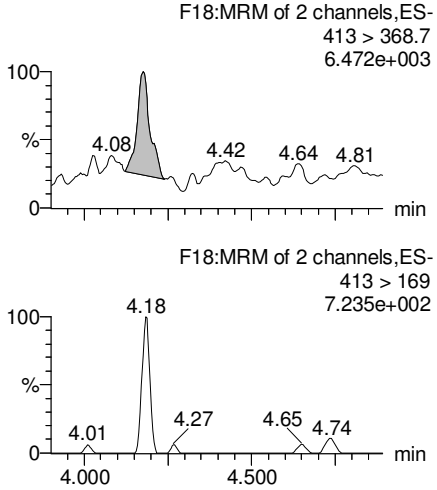
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 09:20:32 Pacific Standard Time

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

Total PFOA



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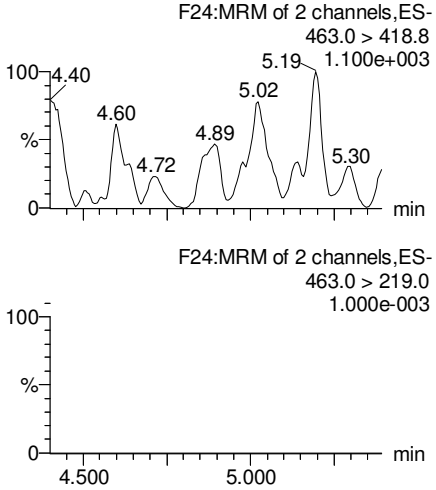
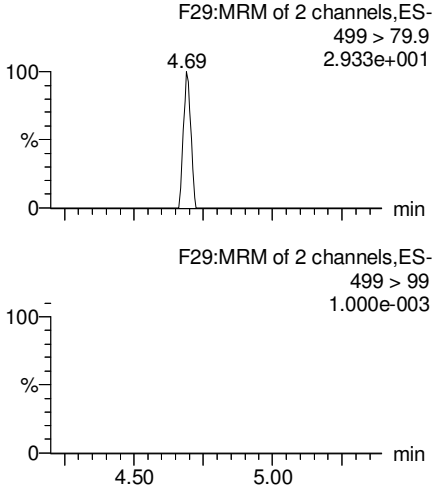


Total PFOS



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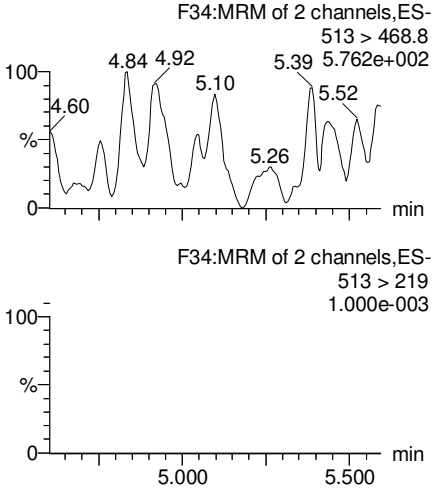
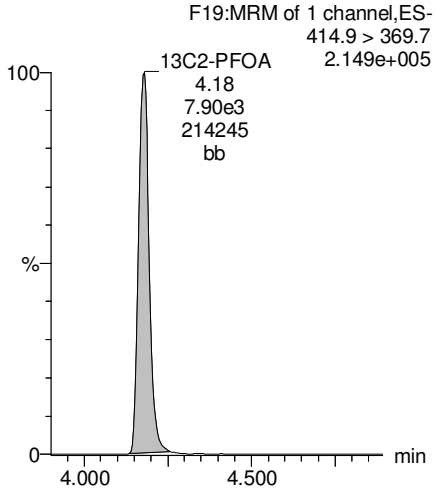


13C2-PFOA



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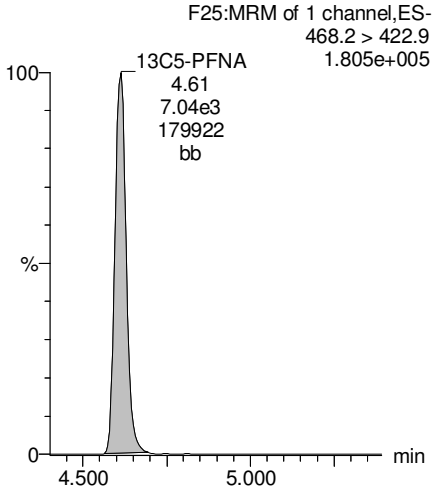

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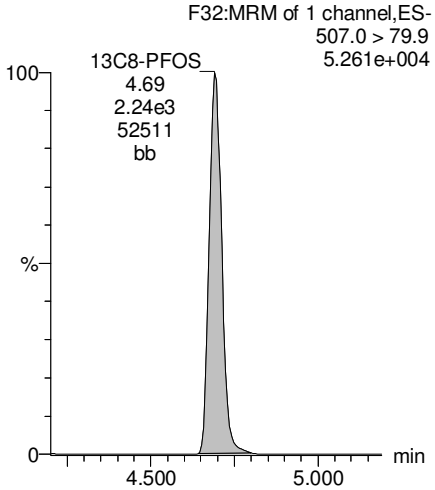

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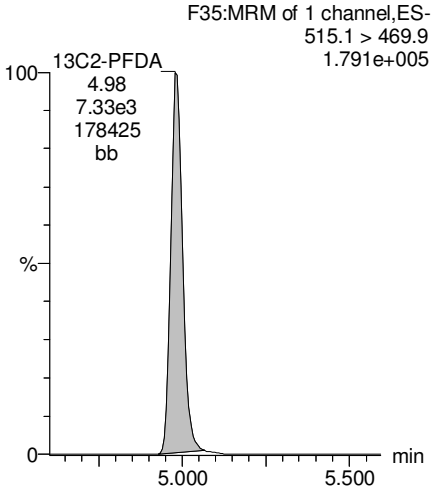


ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

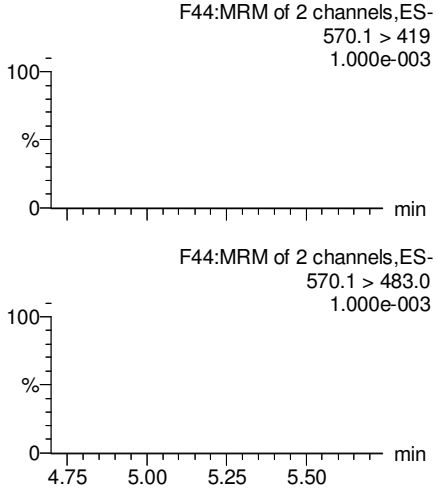
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 09:20:32 Pacific Standard Time

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

N-MeFOSAA



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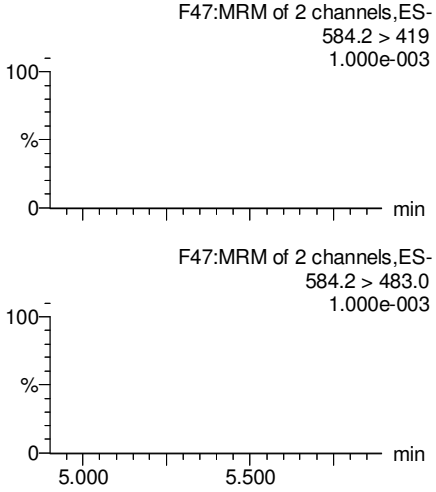
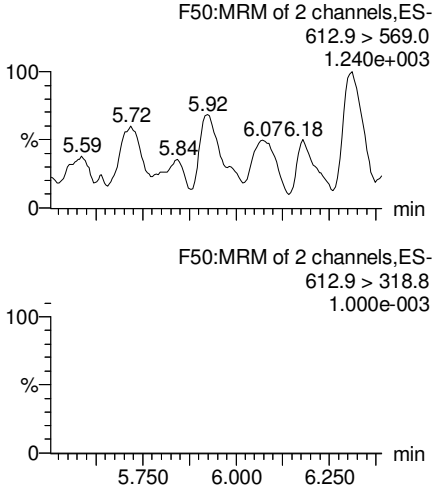


PFDoA



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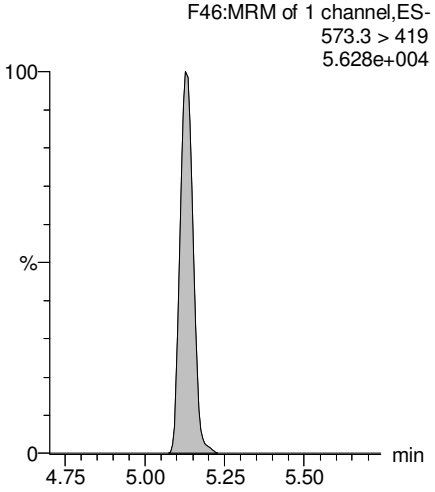

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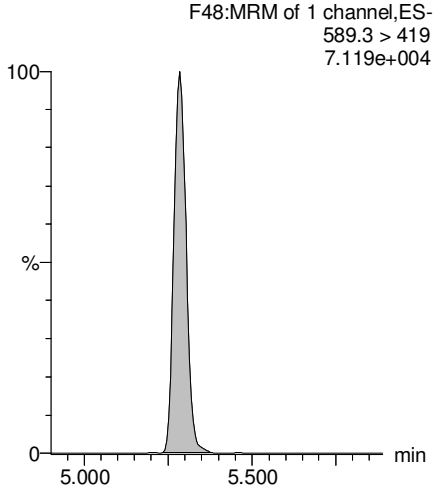
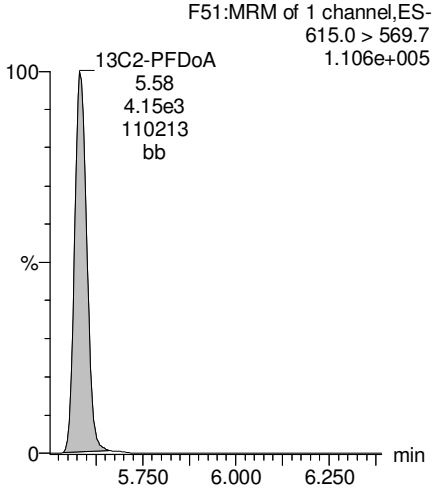


13C2-PFDoA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

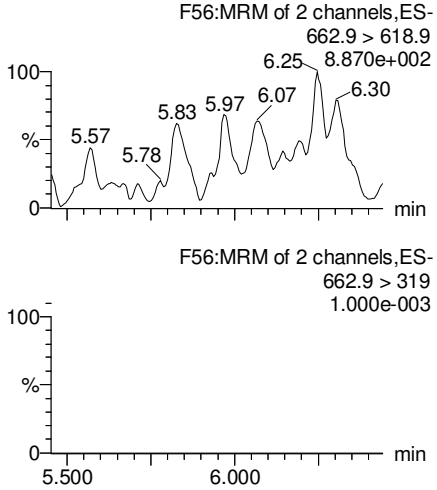
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 09:20:32 Pacific Standard Time

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

PFTrDA



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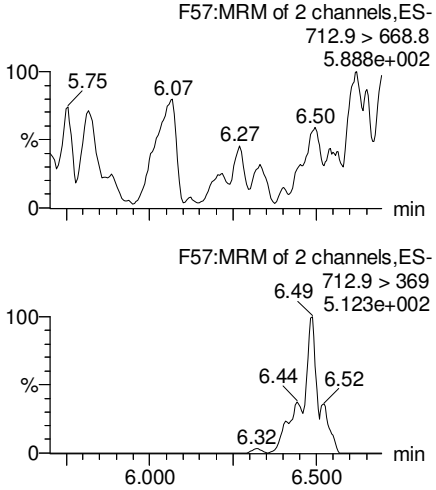

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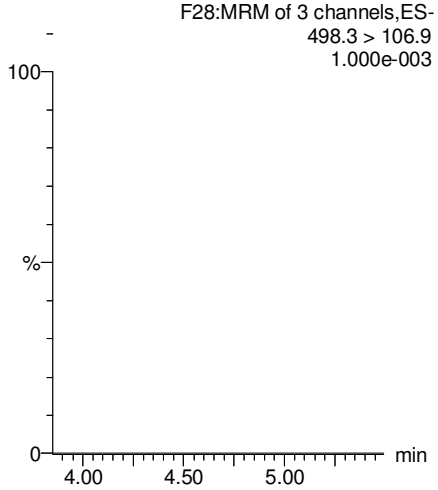
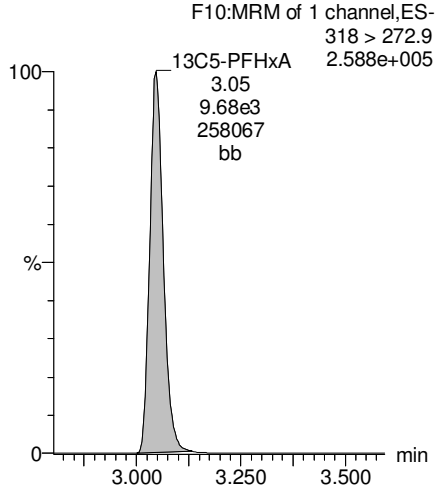


13C5-PFHxA



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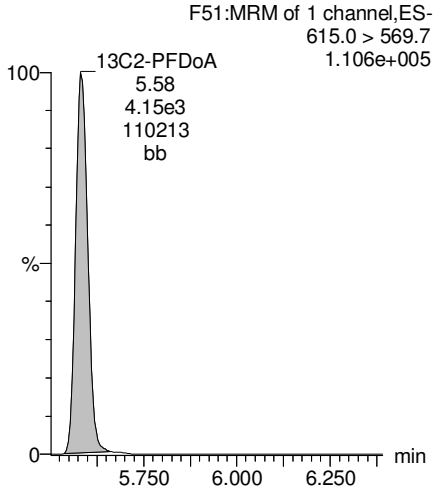
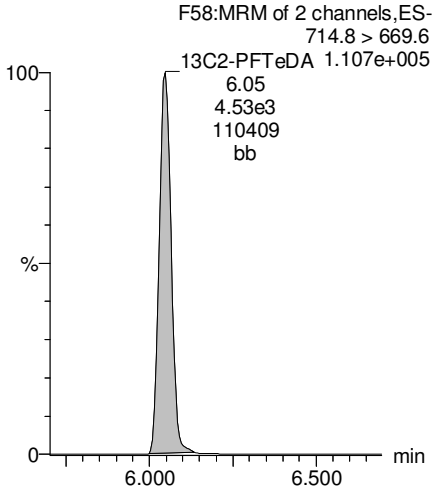
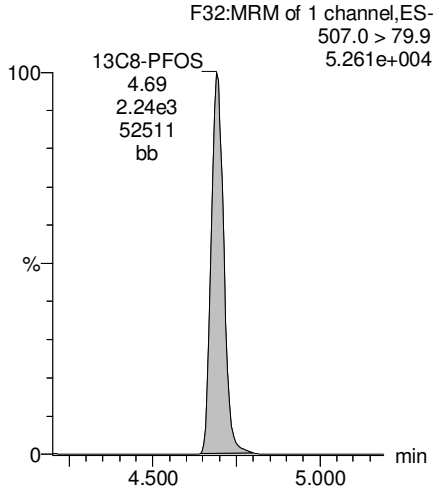


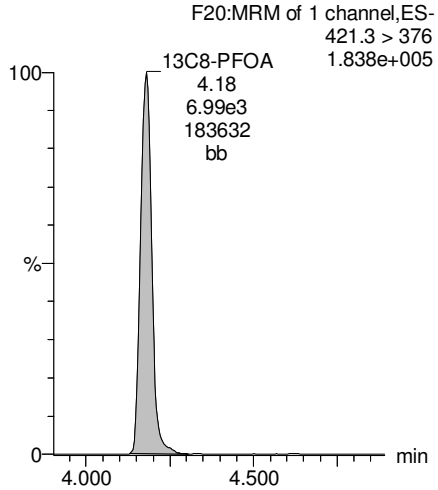
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

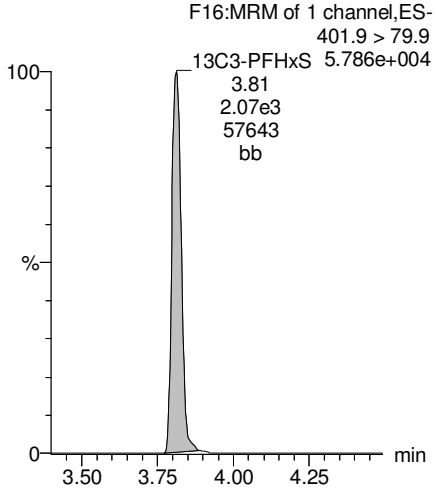
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 09:20:32 Pacific Standard Time

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

13C3-PFHxS



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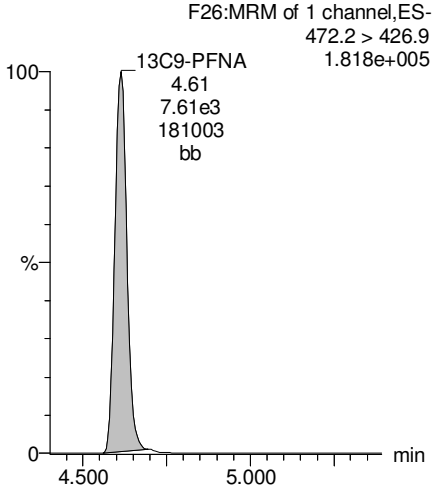

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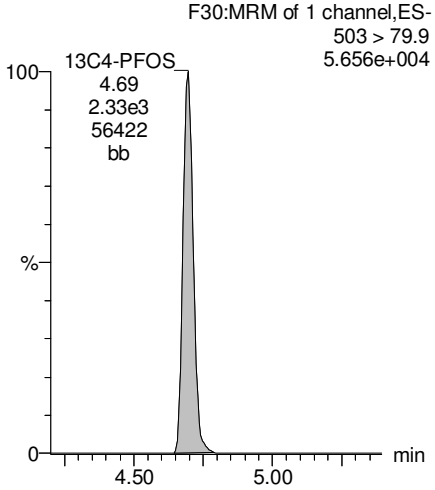
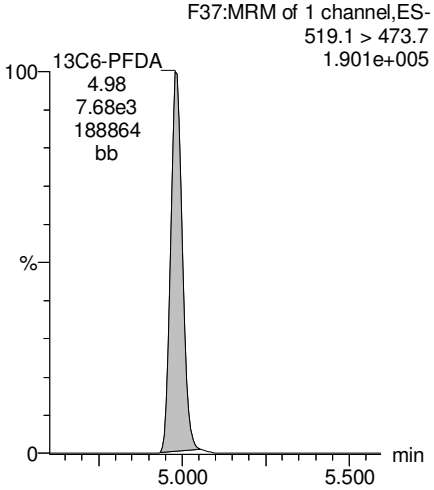


13C6-PFDA



ANP 12/11/2017

Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-50.qld

Last Altered: Monday, December 11, 2017 09:19:30 Pacific Standard Time
Printed: Monday, December 11, 2017 12:48:58 Pacific Standard Time

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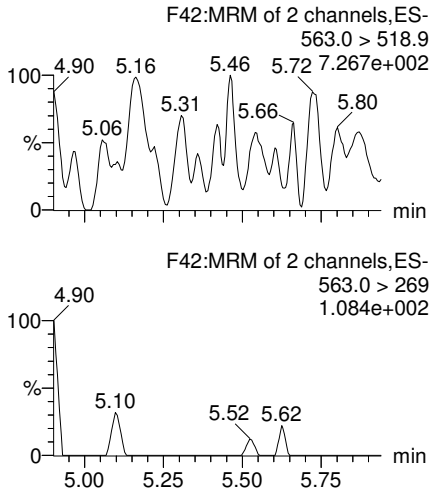
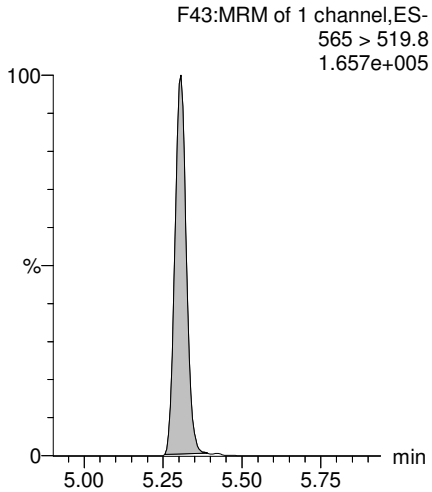
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

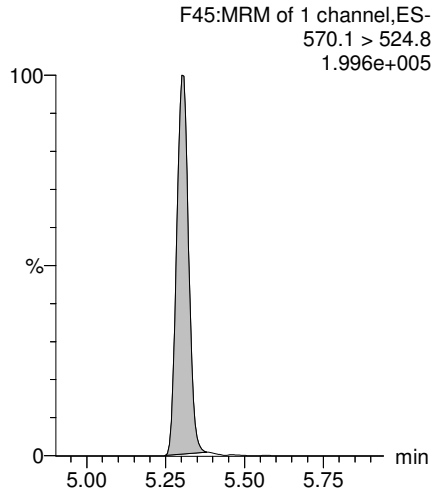
PFUdA



13C2-PFUdA



13C7-PFUdA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
Printed: Monday, December 11, 2017 09:24:13 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.15e3	0.2677		2.52				
2	4	PFHxA	313.2 > 268.9		3.23e3	0.2677		3.04				
3	5	PFHpA	363.0 > 318.9		6.00e3	0.2677		3.66				
4	6	L-PFHxS	398.9 > 79.6	5.35e0	9.30e2	0.2677		3.80	3.80	0.0719	0.437	
5	9	L-PFOA	413 > 368.7		8.08e3	0.2677		4.20				
6	12	PFNA	463.0 > 418.8		7.64e3	0.2677		4.61				
7	14	L-PFOS	499 > 79.9		2.53e3	0.2677		4.69				
8	16	PFDA	513 > 468.8		7.93e3	0.2677		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.69e3	0.2677		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.90e3	0.2677		5.30				
11	20	PFUdA	563.0 > 518.9		6.78e3	0.2677		5.31				
12	22	PFDoA	612.9 > 569.0		4.29e3	0.2677		5.58				

ANP 12/11/2017

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
Printed: Monday, December 11, 2017 09:24:24 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.29e3	0.2677		5.75				
2	25	PFTeDA	712.9 > 668.8		4.52e3	0.2677		6.10				
3	33	13C3-PFBS	302. > 98.8	1.15e3	1.02e4	0.2677	0.097	2.52	2.56	1.41	54.271	116.2
4	34	13C2-PFHxA	315 > 269.8	3.23e3	1.02e4	0.2677	0.767	3.04	3.05	3.96	19.281	103.2
5	35	13C4-PFHpA	367.2 > 321.8	6.00e3	1.02e4	0.2677	0.605	3.66	3.66	7.35	45.397	97.2
6	36	18O2-PFHxS	403.0 > 102.6	9.30e2	2.15e3	0.2677	0.427	3.80	3.81	5.39	47.179	101.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.07e3	7.87e3	0.2677	0.261	4.21	4.12	3.29	47.093	100.8
8	38	13C2-PFOA	414.9 > 369.7	8.08e3	7.87e3	0.2677	1.112	4.20	4.17	12.8	43.130	92.4
9	39	13C5-PFNA	468.2 > 422.9	7.64e3	9.02e3	0.2677	0.939	4.63	4.61	10.6	42.082	90.1
10	40	13C8-PFOSA	506.1 > 77.7	1.86e3	7.56e3	0.2677	0.349	4.67	4.67	3.08	32.998	70.7
11	41	13C8-PFOS	507.0 > 79.9	2.53e3	2.75e3	0.2677	0.991	4.69	4.69	11.5	43.290	92.7
12	42	13C2-PFDA	515.1 > 469.9	7.93e3	7.21e3	0.2677	1.309	5.00	4.98	13.8	39.268	84.1
13	43	13C2-8:2 FTS	529.1 > 508.7	1.19e3	1.02e4	0.2677	0.103	4.98	4.95	1.46	52.707	112.9
14	44	d3-N-MeFOSAA	573.3 > 419	2.69e3	7.56e3	0.2677	0.405	5.15	5.13	4.45	41.004	87.8
15	45	d5-N-EtFOSAA	589.3 > 419	2.90e3	7.56e3	0.2677	0.450	5.30	5.28	4.80	39.837	85.3
16	46	13C2-PFUdA	565 > 519.8	6.78e3	7.56e3	0.2677	1.082	5.31	5.30	11.2	38.759	83.0
17	47	13C2-PFDoA	615.0 > 569.7	4.29e3	7.56e3	0.2677	0.544	5.58	5.58	7.10	48.750	104.4
18	49	13C2-PFTeDA	714.8 > 669.6	4.52e3	7.56e3	0.2677	0.533	6.10	6.05	7.48	52.459	112.3
19	55	13C5-PFHxA	318 > 272.9	1.02e4	1.02e4	0.2677	1.000	3.04	3.04	12.5	46.701	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.15e3	2.15e3	0.2677	1.000	3.80	3.81	12.5	46.701	100.0
21	57	13C8-PFOA	421.3 > 376	7.87e3	7.87e3	0.2677	1.000	4.20	4.17	12.5	46.701	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.02e3	9.02e3	0.2677	1.000	4.63	4.61	12.5	46.701	100.0
23	59	13C4-PFOS	503 > 79.9	2.75e3	2.75e3	0.2677	1.000	4.69	4.69	12.5	46.701	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.21e3	7.21e3	0.2677	1.000	5.00	4.98	12.5	46.701	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.56e3	7.56e3	0.2677	1.000	5.31	5.30	12.5	46.701	100.0
26	62	Total PFHxS	398.9 > 79.6	5.35e0	9.30e2	0.2677		3.81		0.0719	0.437	
27	63	Total PFOA	413 > 368.7	0.00e0	8.08e3	0.2677		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.53e3	0.2677		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.69e3	0.2677		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.90e3	0.2677		5.30		0.000		

ANP 12/11/2017

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
Printed: Monday, December 11, 2017 09:24:24 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	6	L-PFHxS	398.9 > 79.6	3.80	5.348	929.799	0.072	MM	0.4

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
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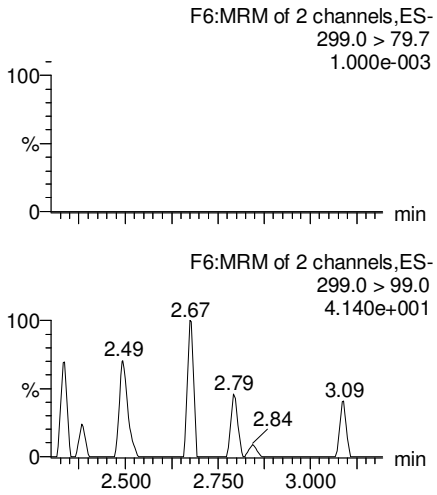
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

PFBS



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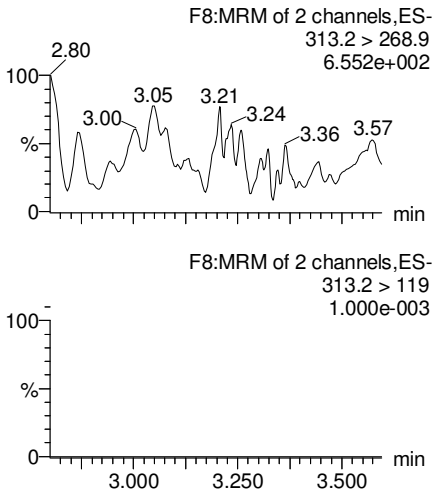

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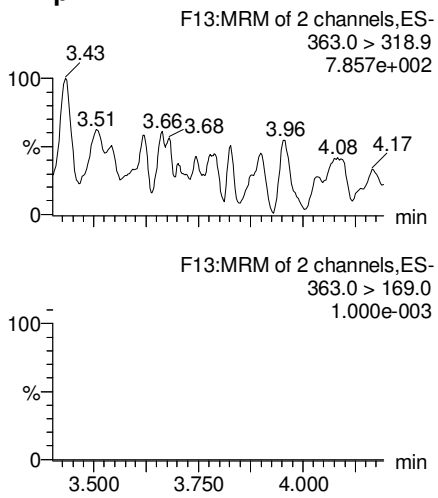
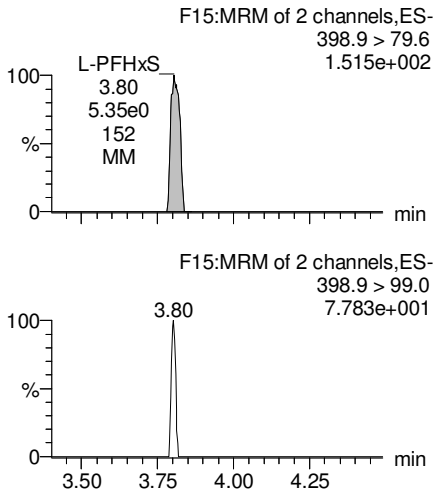


Total PFHxS



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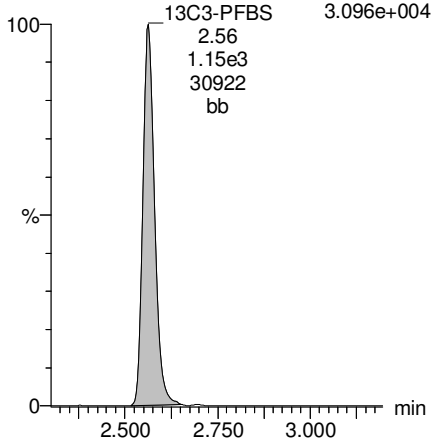
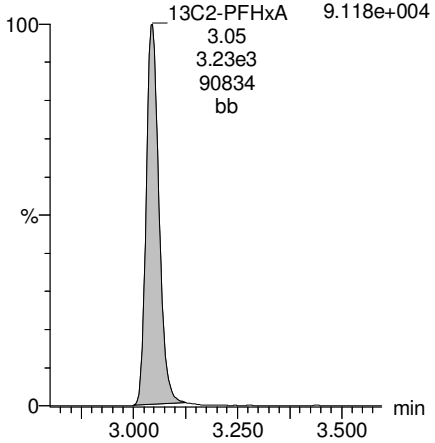


13C2-PFHxA



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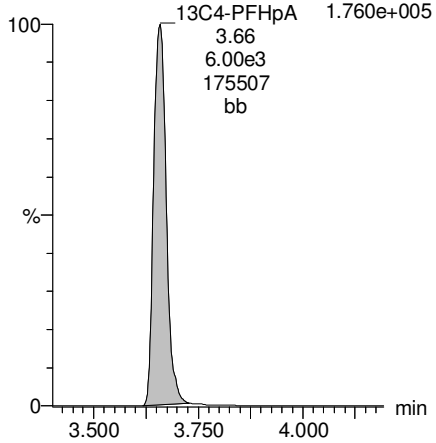
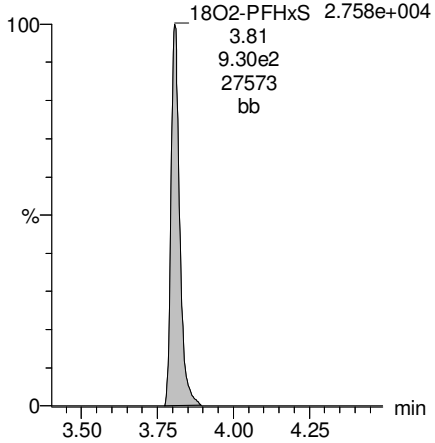


18O2-PFHxS



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

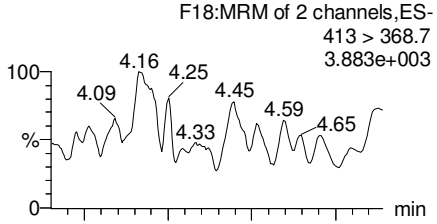
Rev'd: MM 12/11/17

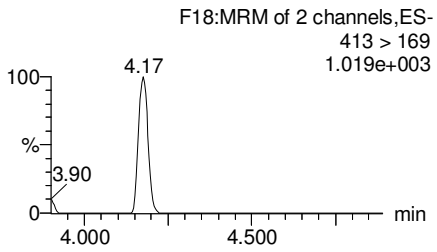
Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
Printed: Monday, December 11, 2017 09:24:24 Pacific Standard Time

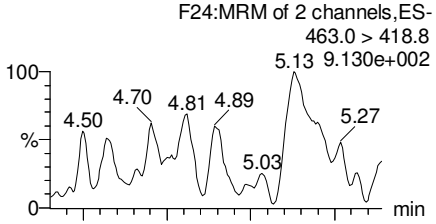
Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

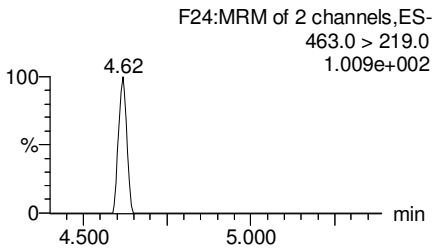
Total PFOA



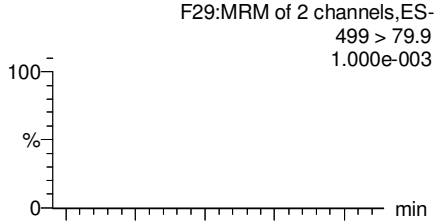


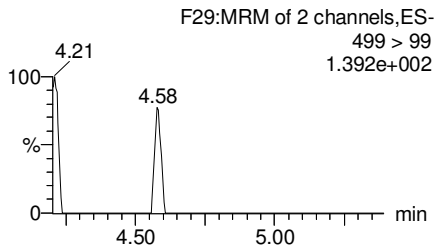
PFNA



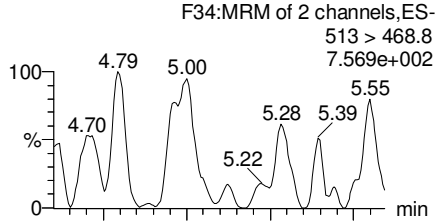


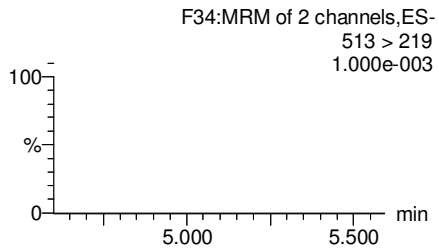
Total PFOS



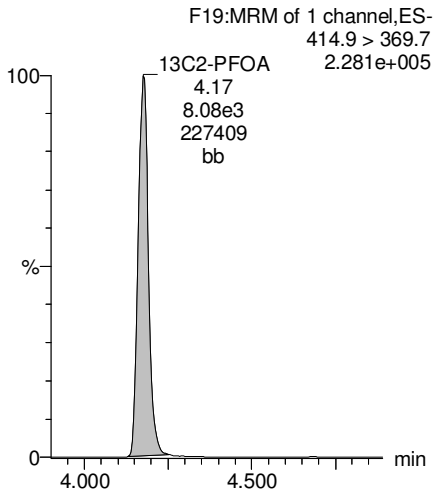


PFDA

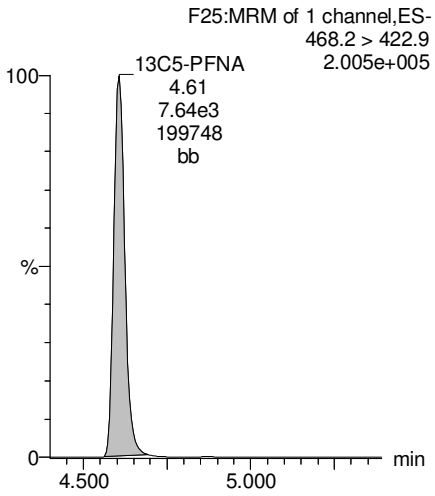




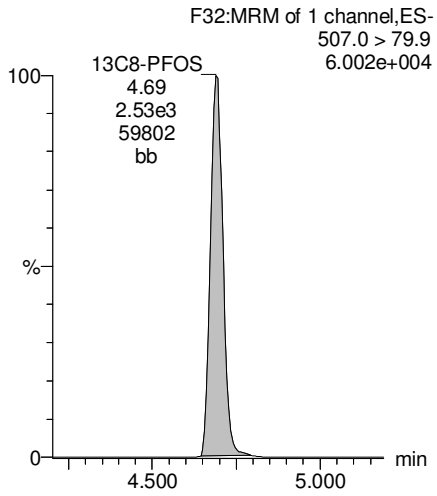
13C2-PFOA



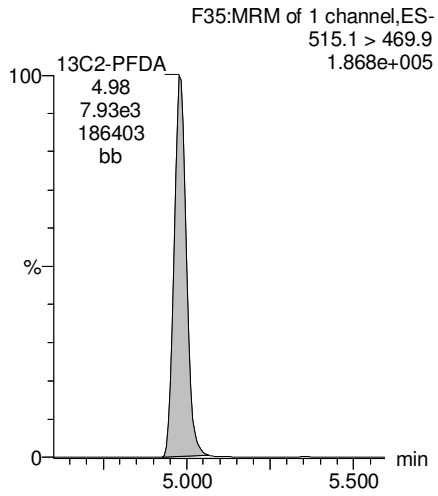
13C5-PFNA



13C8-PFOS



13C2-PFDA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

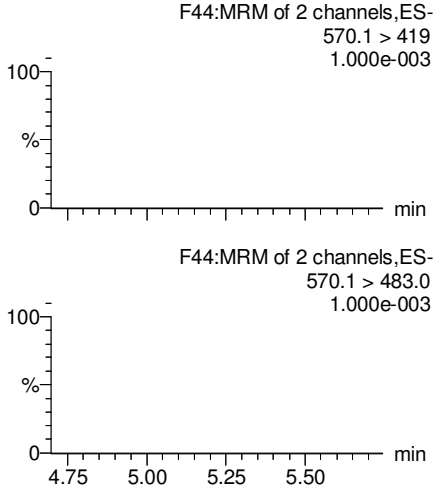
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
Printed: Monday, December 11, 2017 09:24:24 Pacific Standard Time

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

N-MeFOSAA



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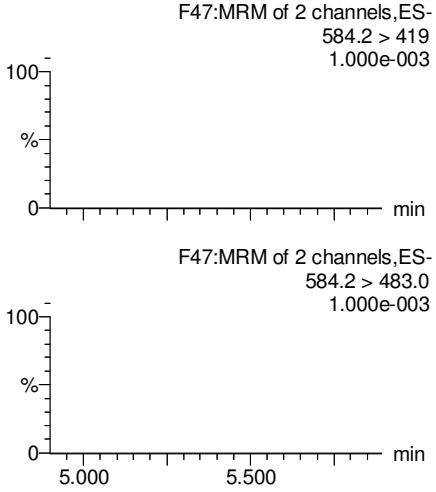
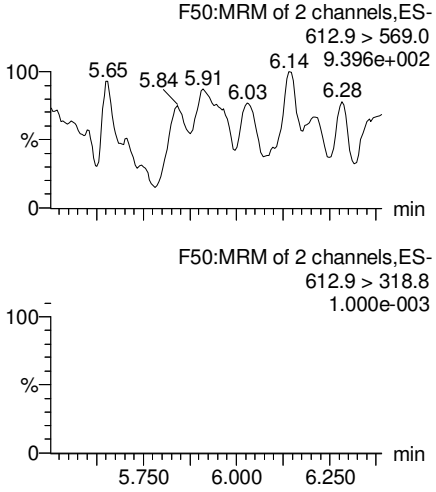


PFDoA



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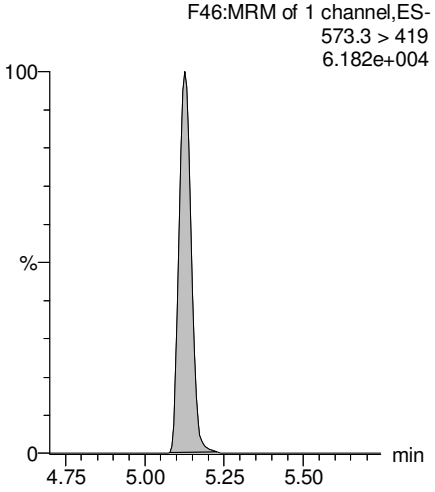
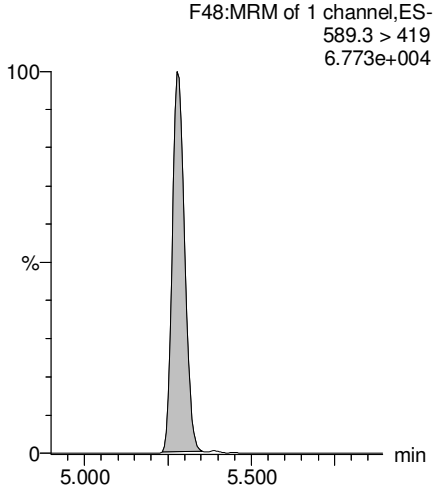
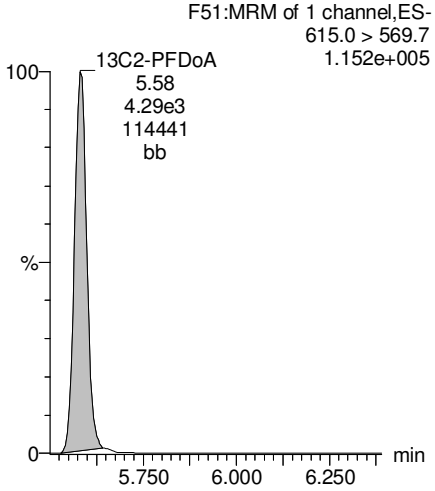


d5-N-EtFOSAA



13C2-PFDoA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

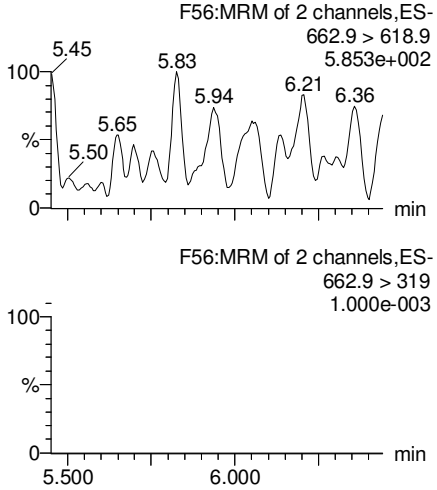
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
Printed: Monday, December 11, 2017 09:24:24 Pacific Standard Time

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

PFTrDA



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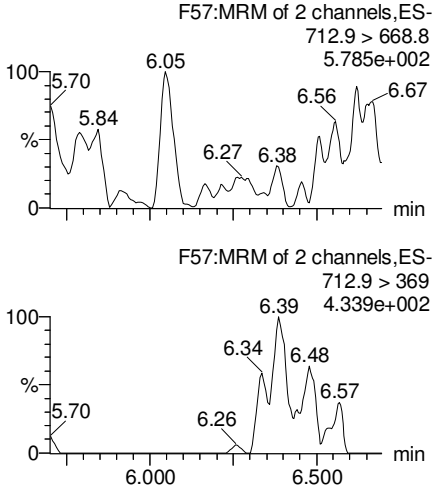

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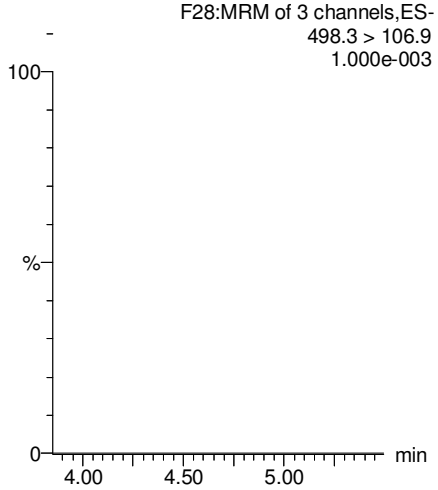
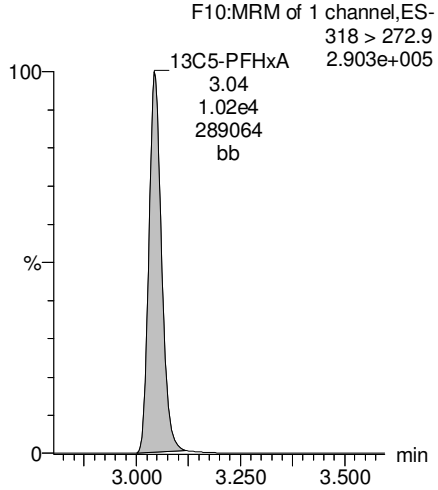
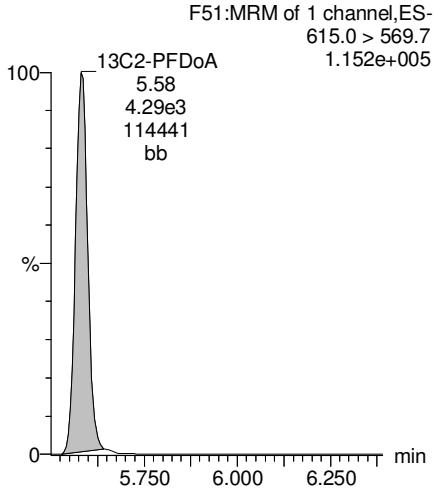


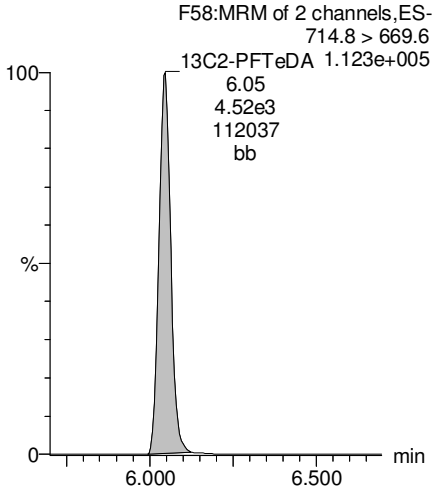
13C5-PFHxA



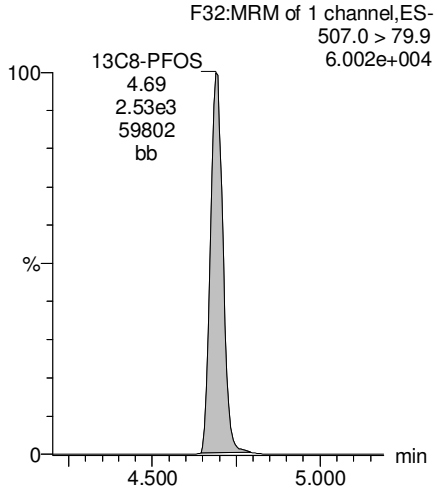
13C2-PFDoA



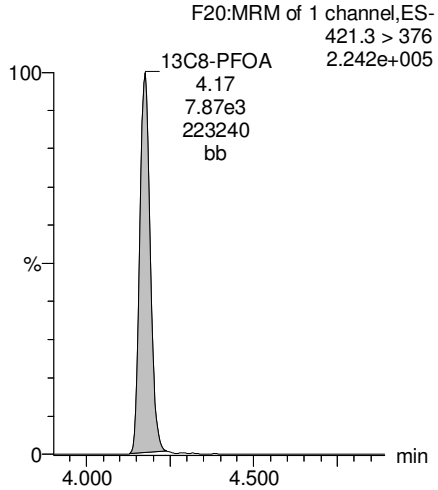
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

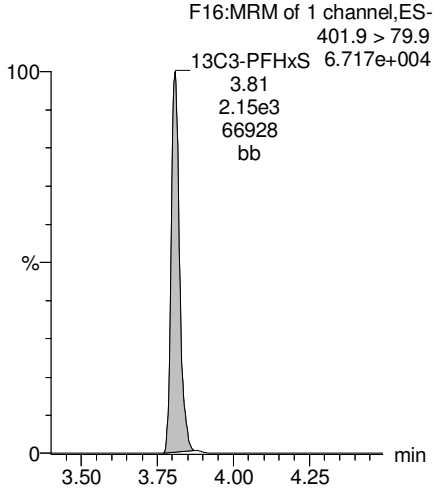
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

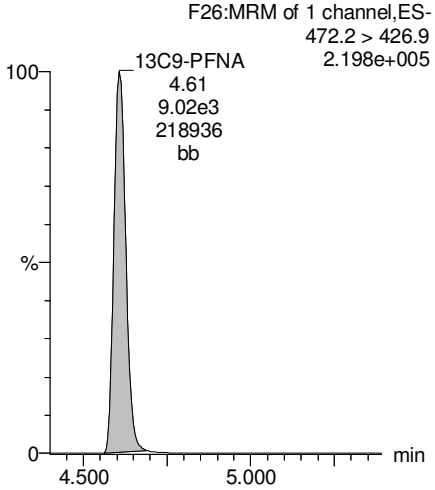
Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
Printed: Monday, December 11, 2017 09:24:24 Pacific Standard Time

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

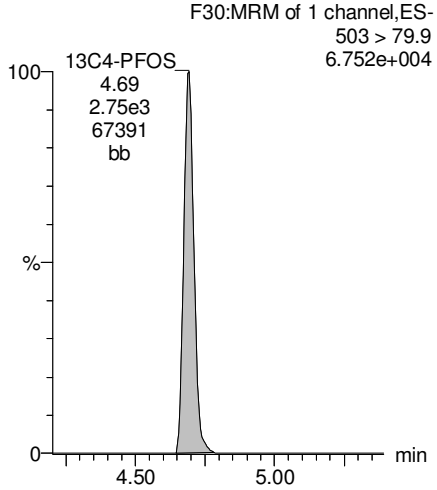
13C3-PFHxS



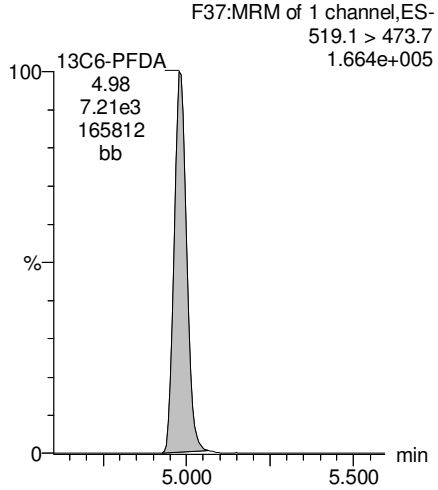
13C9-PFNA



13C4-PFOS



13C6-PFDA



ANP 12/11/2017

Vista Analytical Laboratory

Rev'd: MM 12/11/17

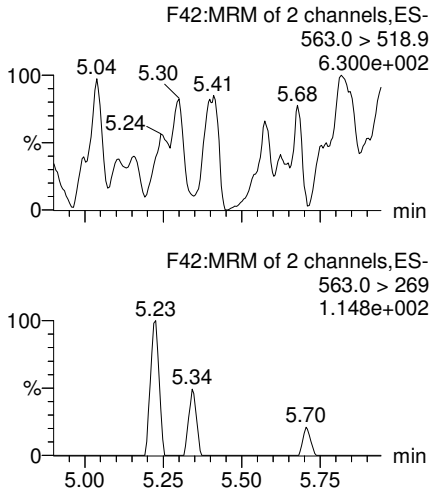
Dataset: U:\Q4.PRO\results\171207M2\171207M2-51.qld

Last Altered: Monday, December 11, 2017 09:22:53 Pacific Standard Time
Printed: Monday, December 11, 2017 12:50:00 Pacific Standard Time

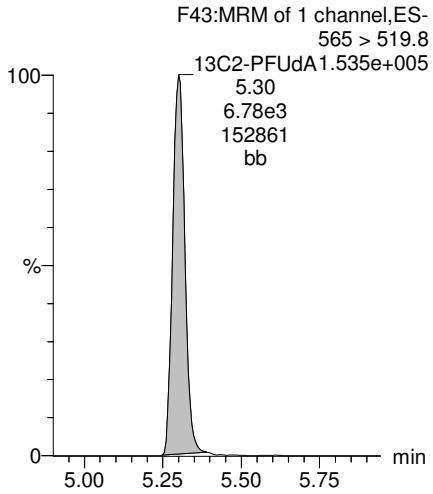
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

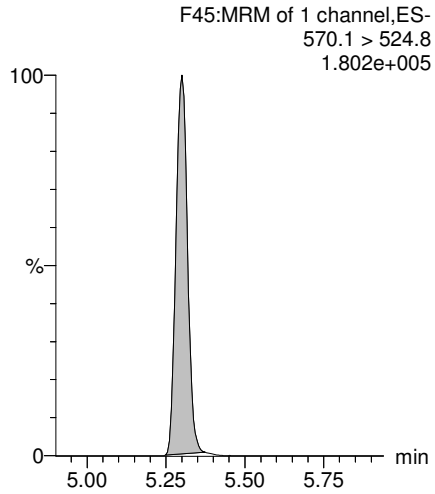
PFUdA



13C2-PFUdA



13C7-PFUdA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
Printed: Monday, December 11, 2017 09:27:53 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.00e3	0.2458		2.52				
2	4	PFHxA	313.2 > 268.9		2.84e3	0.2458		3.04				
3	5	PFHpA	363.0 > 318.9		5.79e3	0.2458		3.66				
4	6	L-PFHxS	398.9 > 79.6	3.55e0	7.93e2	0.2458		3.80	3.81	0.0560	0.448	
5	9	L-PFOA	413 > 368.7	2.16e2	8.49e3	0.2458		4.20	4.17	0.318		
6	12	PFNA	463.0 > 418.8		6.85e3	0.2458		4.61				
7	14	L-PFOS	499 > 79.9		2.20e3	0.2458		4.69				
8	16	PFDA	513 > 468.8		7.21e3	0.2458		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.67e3	0.2458		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.84e3	0.2458		5.30				
11	20	PFUdA	563.0 > 518.9		7.02e3	0.2458		5.31				
12	22	PFDoA	612.9 > 569.0		4.50e3	0.2458		5.58				

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Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
Printed: Monday, December 11, 2017 09:29:06 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.50e3	0.2458		5.75				
2	25	PFTeDA	712.9 > 668.8		3.55e3	0.2458		6.10				
3	33	13C3-PFBS	302. > 98.8	1.00e3	1.12e4	0.2458	0.097	2.52	2.56	1.12	47.173	92.7
4	34	13C2-PFHxA	315 > 269.8	2.84e3	1.12e4	0.2458	0.767	3.04	3.05	3.17	16.850	82.8
5	35	13C4-PFHpA	367.2 > 321.8	5.79e3	1.12e4	0.2458	0.605	3.66	3.66	6.47	43.537	85.6
6	36	18O2-PFHxS	403.0 > 102.6	7.93e2	2.25e3	0.2458	0.427	3.80	3.81	4.41	41.966	82.5
7	37	13C2-6:2 FTS	429.1 > 408.9	2.00e3	9.89e3	0.2458	0.261	4.21	4.12	2.52	39.343	77.3
8	38	13C2-PFOA	414.9 > 369.7	8.49e3	9.89e3	0.2458	1.112	4.20	4.17	10.7	39.307	77.3
9	39	13C5-PFNA	468.2 > 422.9	6.85e3	9.56e3	0.2458	0.939	4.63	4.61	8.95	38.767	76.2
10	40	13C8-PFOSA	506.1 > 77.7	1.92e3	8.13e3	0.2458	0.349	4.67	4.67	2.96	34.502	67.8
11	41	13C8-PFOS	507.0 > 79.9	2.20e3	2.41e3	0.2458	0.991	4.69	4.69	11.4	46.776	92.0
12	42	13C2-PFDA	515.1 > 469.9	7.21e3	7.34e3	0.2458	1.309	5.00	4.98	12.3	38.171	75.0
13	43	13C2-8:2 FTS	529.1 > 508.7	8.27e2	1.12e4	0.2458	0.103	4.98	4.95	0.925	36.360	71.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.67e3	8.13e3	0.2458	0.405	5.15	5.13	4.11	41.204	81.0
15	45	d5-N-EtFOSAA	589.3 > 419	2.84e3	8.13e3	0.2458	0.450	5.30	5.28	4.37	39.491	77.6
16	46	13C2-PFUdA	565 > 519.8	7.02e3	8.13e3	0.2458	1.082	5.31	5.30	10.8	40.588	79.8
17	47	13C2-PFDoA	615.0 > 569.7	4.50e3	8.13e3	0.2458	0.544	5.58	5.58	6.91	51.702	101.6
18	49	13C2-PFTeDA	714.8 > 669.6	3.55e3	8.13e3	0.2458	0.533	6.10	6.04	5.45	41.661	81.9
19	55	13C5-PFHxA	318 > 272.9	1.12e4	1.12e4	0.2458	1.000	3.04	3.04	12.5	50.865	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.25e3	2.25e3	0.2458	1.000	3.80	3.81	12.5	50.865	100.0
21	57	13C8-PFOA	421.3 > 376	9.89e3	9.89e3	0.2458	1.000	4.20	4.17	12.5	50.865	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.56e3	9.56e3	0.2458	1.000	4.63	4.61	12.5	50.865	100.0
23	59	13C4-PFOS	503 > 79.9	2.41e3	2.41e3	0.2458	1.000	4.69	4.69	12.5	50.865	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.34e3	7.34e3	0.2458	1.000	5.00	4.98	12.5	50.865	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.13e3	8.13e3	0.2458	1.000	5.31	5.30	12.5	50.865	100.0
26	62	Total PFHxS	398.9 > 79.6	3.55e0	7.93e2	0.2458		3.81		0.0560	0.448	
27	63	Total PFOA	413 > 368.7	2.16e2	8.49e3	0.2458		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.20e3	0.2458		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.67e3	0.2458		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.84e3	0.2458		5.30		0.000		

ANP 12/11/2017

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
Printed: Monday, December 11, 2017 09:29:06 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	6 L-PFHxS	398.9 > 79.6	3.81	3.554	792.847	0.056	MM	0.4

Total PFOA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.17	215.980	8493.705	0.318	MMI	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-Me-FOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-EtFOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA+PFOS,Total PFOA,Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.17	215.980	8493.705	0.318	MMI	

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
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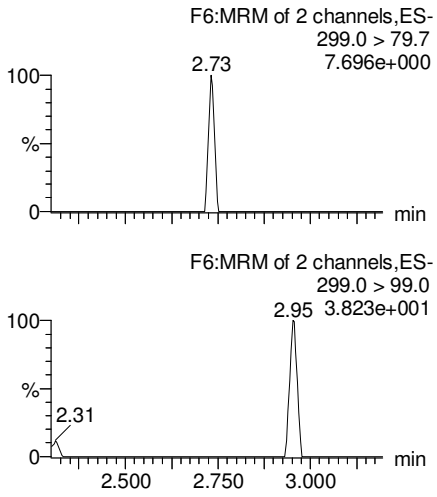
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

PFBS



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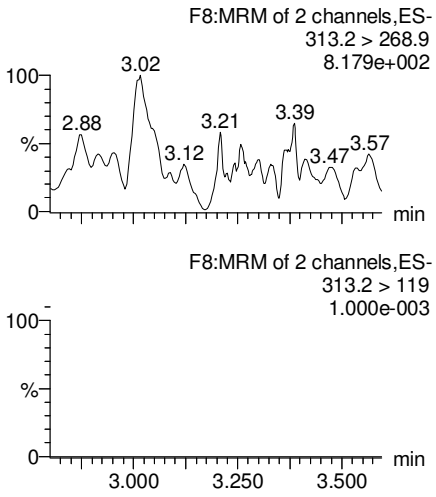

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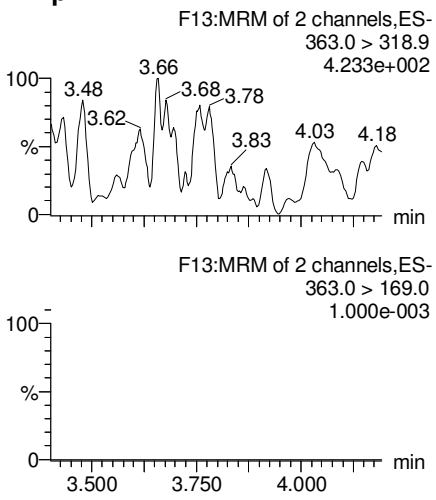
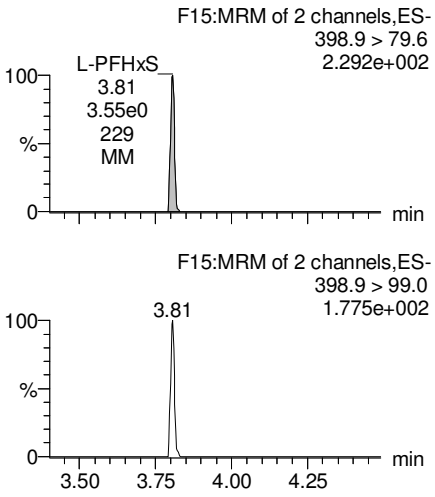
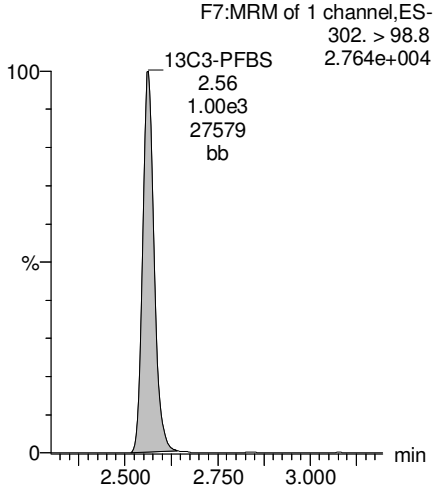


Total PFHxS



13C3-PFBS



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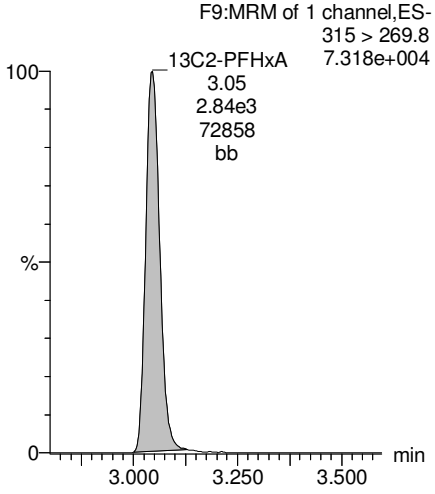

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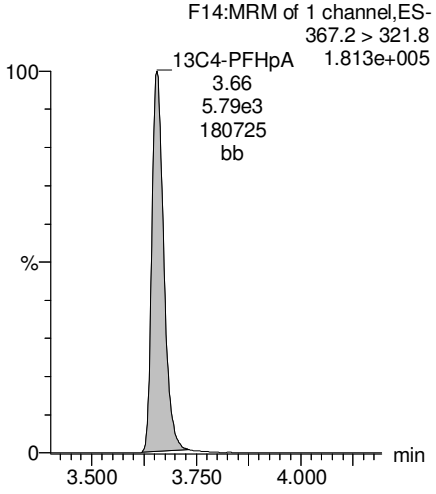

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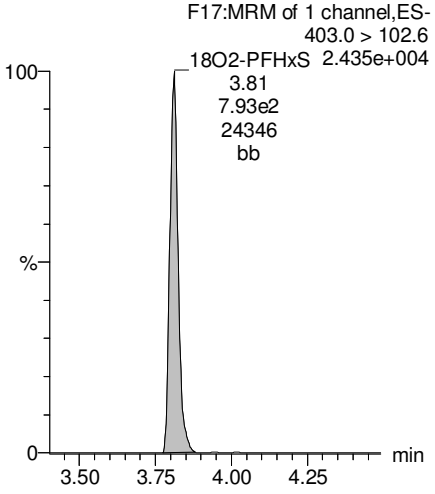


ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

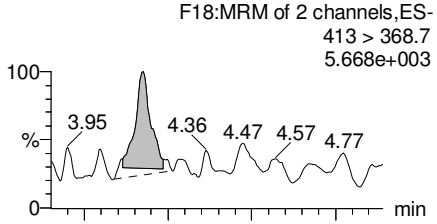
Rev'd: MM 12/11/17

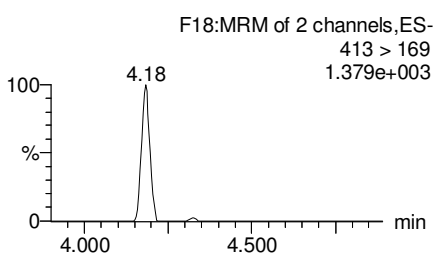
Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
Printed: Monday, December 11, 2017 09:29:06 Pacific Standard Time

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

Total PFOA





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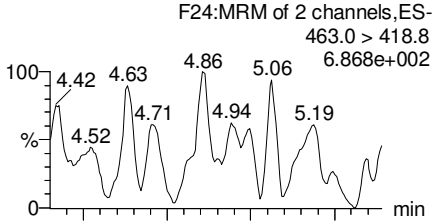

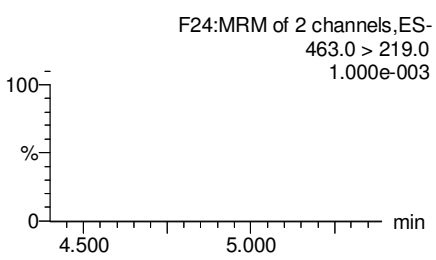

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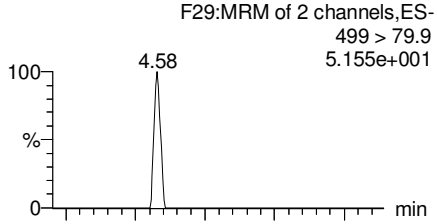

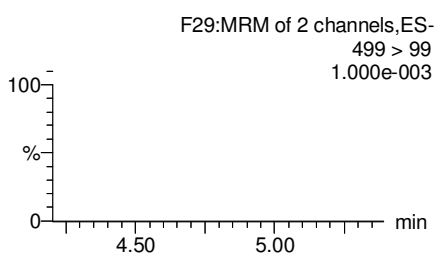

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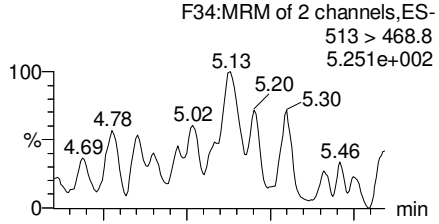

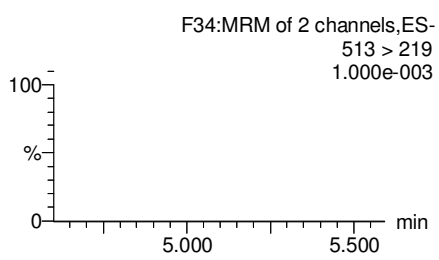

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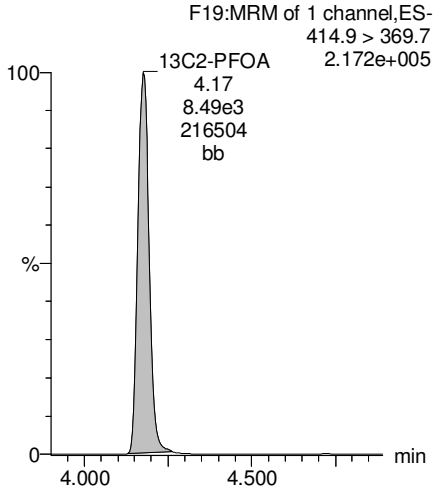

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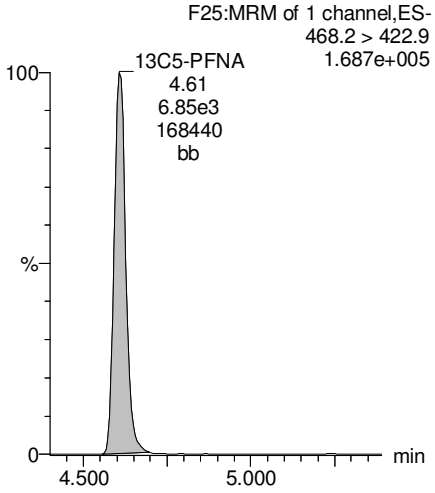

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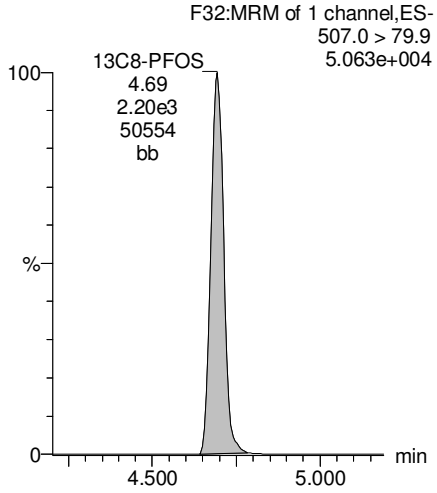

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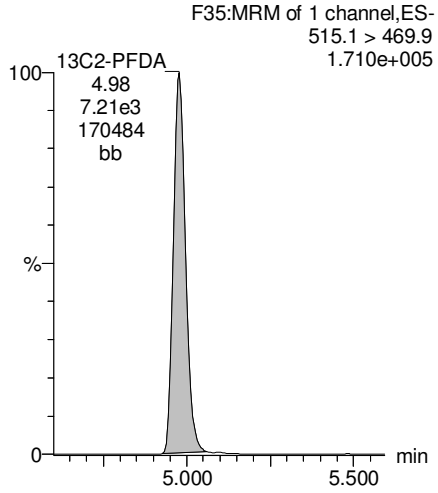

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
Printed: Monday, December 11, 2017 09:29:06 Pacific Standard Time

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

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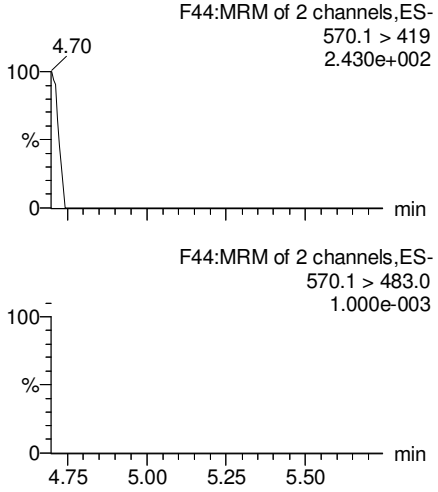

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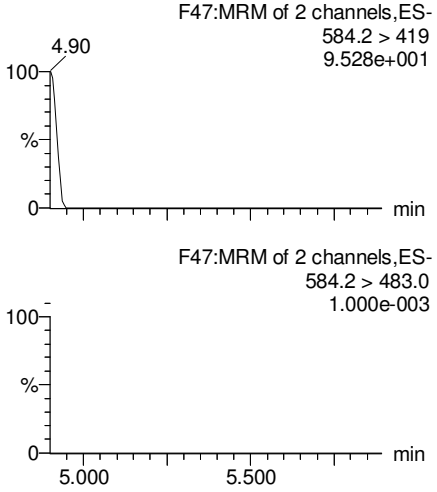

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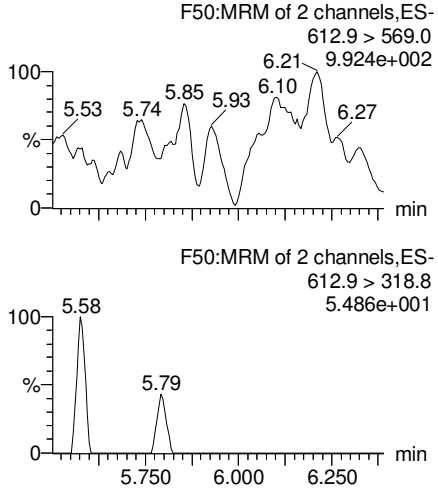

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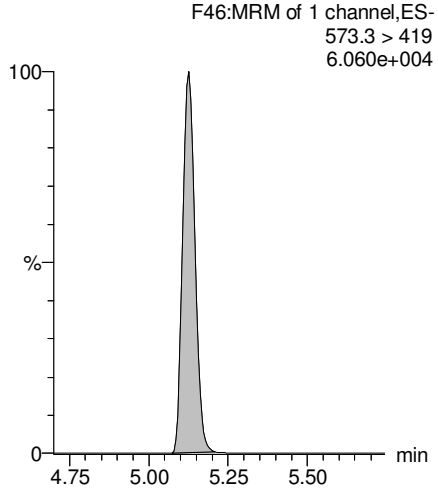

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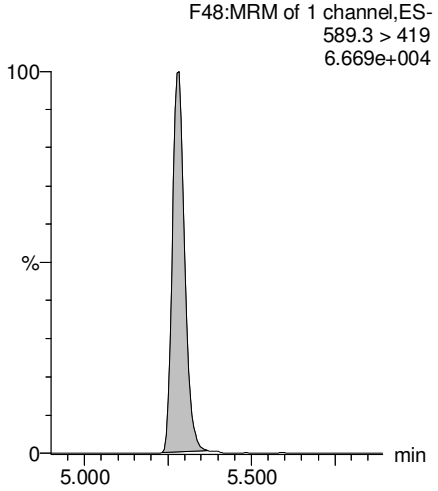

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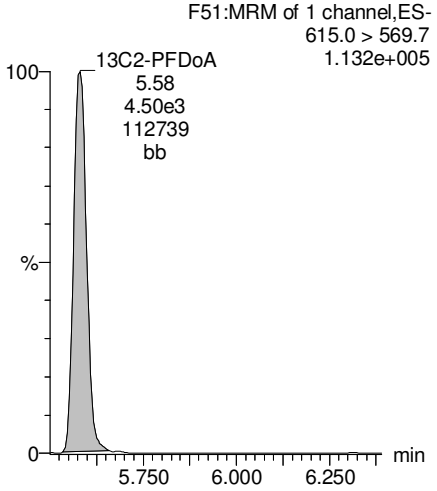

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
Printed: Monday, December 11, 2017 09:29:06 Pacific Standard Time

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

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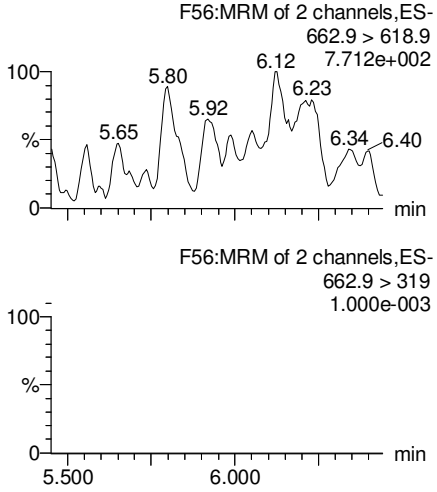

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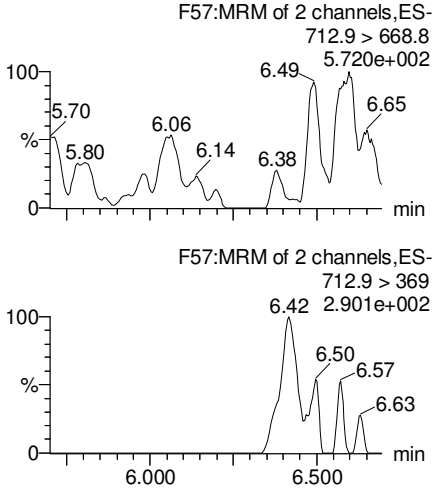

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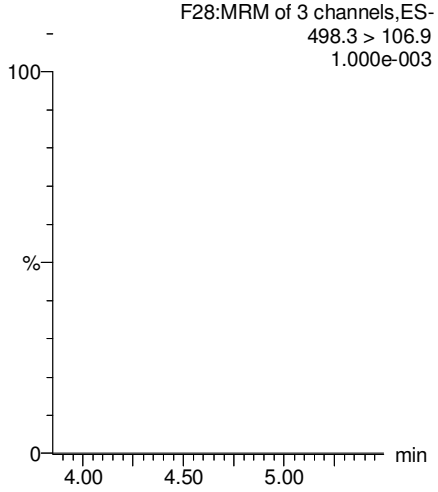

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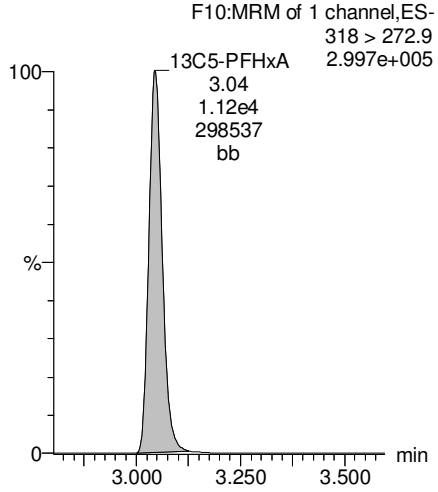

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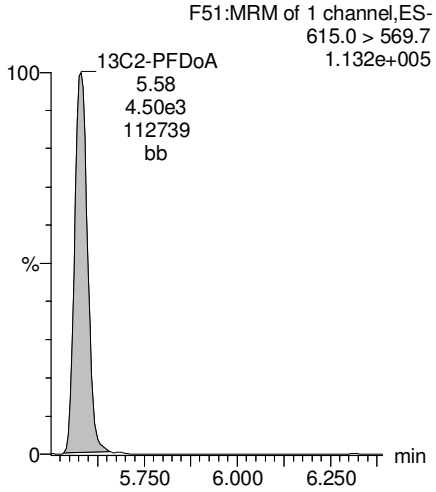

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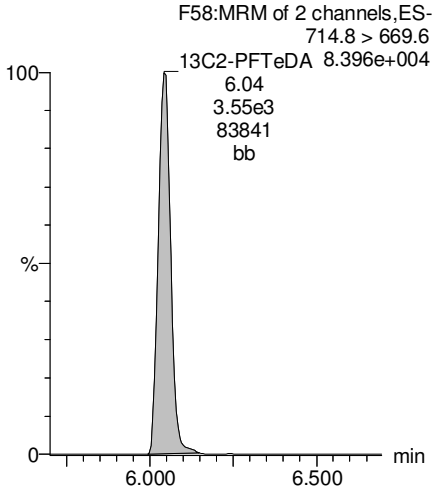

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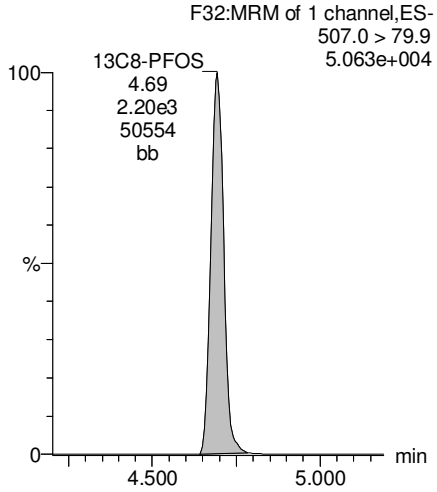

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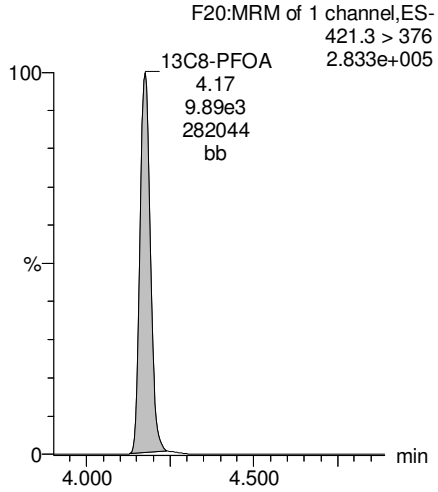

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
Printed: Monday, December 11, 2017 09:29:06 Pacific Standard Time

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

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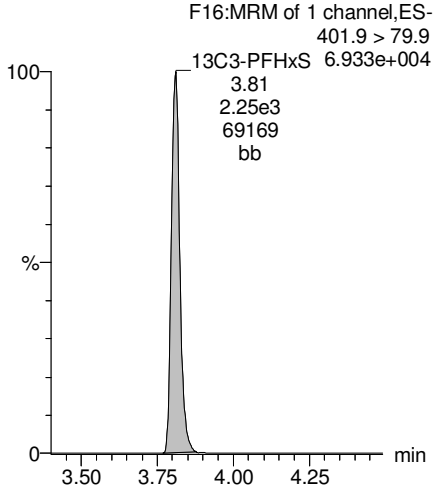

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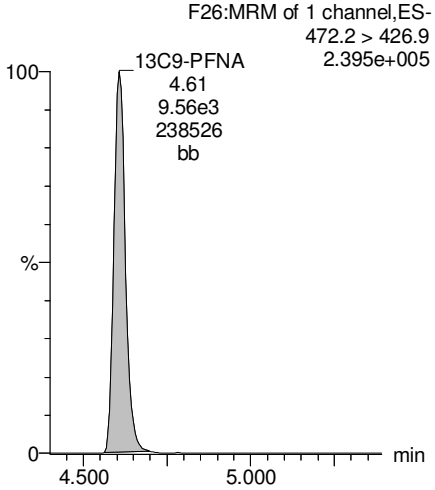

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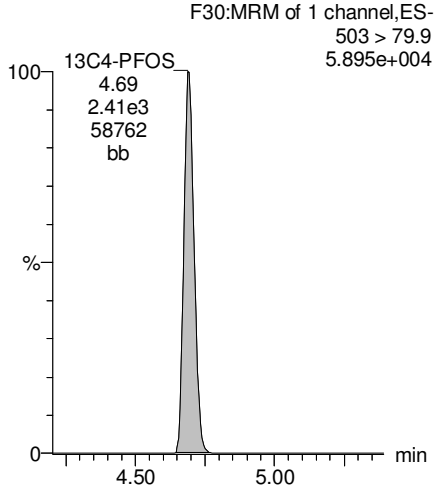

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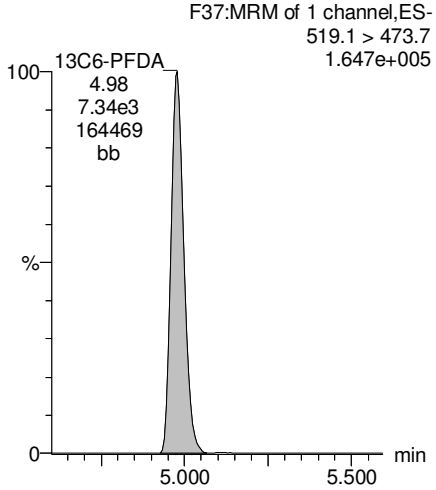

ANP 12/11/2017

Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-52.qld

Last Altered: Monday, December 11, 2017 09:27:31 Pacific Standard Time
Printed: Monday, December 11, 2017 12:50:29 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
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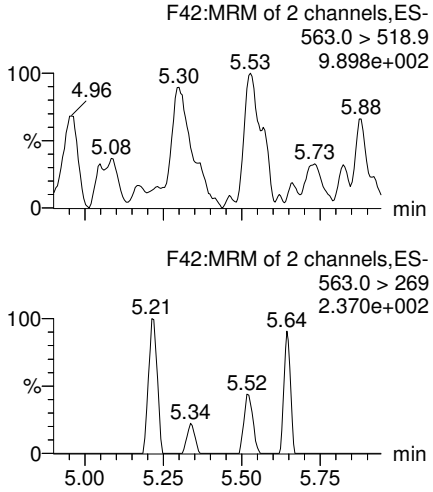
Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

PFUdA



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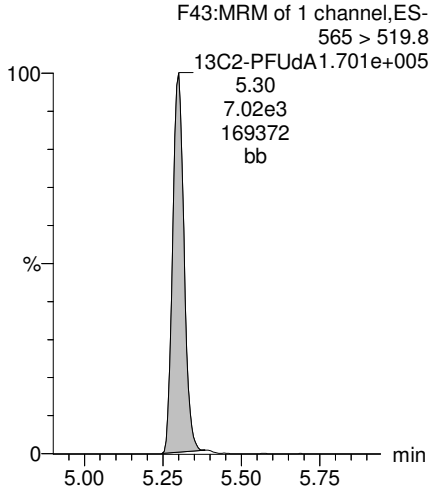

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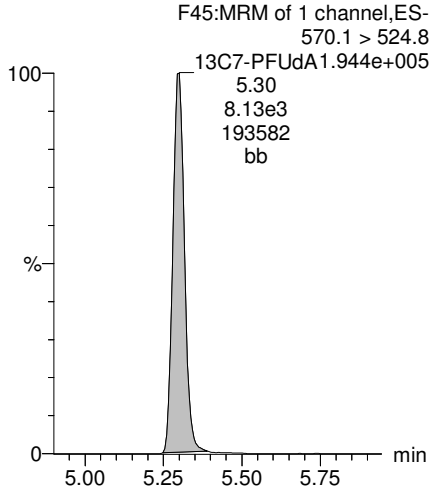

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 09:30:58 Pacific Standard Time
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

	#	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	0.2339		2.52				
2	4	PFHxA	313.2 > 268.9		3.04e3	0.2339		3.04				
3	5	PFHpA	363.0 > 318.9		6.37e3	0.2339		3.66				
4	6	L-PFHxS	398.9 > 79.6		8.54e2	0.2339		3.80				
5	9	L-PFOA	413 > 368.7	2.29e2	7.97e3	0.2339		4.20	4.17	0.360		
6	12	PFNA	463.0 > 418.8		7.11e3	0.2339		4.61				
7	14	L-PFOS	499 > 79.9		2.22e3	0.2339		4.69				
8	16	PFDA	513 > 468.8		6.08e3	0.2339		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.86e3	0.2339		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.74e3	0.2339		5.30				
11	20	PFUdA	563.0 > 518.9	3.92e1	7.37e3	0.2339		5.31	5.29	0.0665	0.552	
12	22	PFDoA	612.9 > 569.0		4.08e3	0.2339		5.58				

AC for ANP 12/11/17

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 09:30:58 Pacific Standard Time
Printed: Monday, December 11, 2017 09:33:15 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.08e3	0.2339		5.75				
2	25	PFTeDA	712.9 > 668.8		3.61e3	0.2339		6.10				
3	33	13C3-PFBS	302. > 98.8	1.10e3	1.12e4	0.2339	0.097	2.52	2.56	1.22	54.073	101.2
4	34	13C2-PFHxA	315 > 269.8	3.04e3	1.12e4	0.2339	0.767	3.04	3.04	3.40	18.947	88.6
5	35	13C4-PFHpA	367.2 > 321.8	6.37e3	1.12e4	0.2339	0.605	3.66	3.65	7.11	50.242	94.0
6	36	18O2-PFHxS	403.0 > 102.6	8.54e2	2.24e3	0.2339	0.427	3.80	3.81	4.76	47.679	89.2
7	37	13C2-6:2 FTS	429.1 > 408.9	2.10e3	8.18e3	0.2339	0.261	4.21	4.12	3.22	52.688	98.6
8	38	13C2-PFOA	414.9 > 369.7	7.97e3	8.18e3	0.2339	1.112	4.20	4.17	12.2	46.866	87.7
9	39	13C5-PFNA	468.2 > 422.9	7.11e3	8.42e3	0.2339	0.939	4.63	4.61	10.6	48.069	89.9
10	40	13C8-PFOSA	506.1 > 77.7	1.70e3	9.36e3	0.2339	0.349	4.67	4.67	2.28	27.909	52.2
11	41	13C8-PFOS	507.0 > 79.9	2.22e3	2.49e3	0.2339	0.991	4.69	4.69	11.1	47.984	89.8
12	42	13C2-PFDA	515.1 > 469.9	6.08e3	7.16e3	0.2339	1.309	5.00	4.98	10.6	34.717	64.9
13	43	13C2-8:2 FTS	529.1 > 508.7	1.06e3	1.12e4	0.2339	0.103	4.98	4.95	1.19	49.115	91.9
14	44	d3-N-MeFOSAA	573.3 > 419	2.86e3	9.36e3	0.2339	0.405	5.15	5.13	3.82	40.241	75.3
15	45	d5-N-EtFOSAA	589.3 > 419	2.74e3	9.36e3	0.2339	0.450	5.30	5.28	3.66	34.758	65.0
16	46	13C2-PFUdA	565 > 519.8	7.37e3	9.36e3	0.2339	1.082	5.31	5.30	9.83	38.874	72.7
17	47	13C2-PFDoA	615.0 > 569.7	4.08e3	9.36e3	0.2339	0.544	5.58	5.58	5.45	42.860	80.2
18	49	13C2-PFTeDA	714.8 > 669.6	3.61e3	9.36e3	0.2339	0.533	6.10	6.04	4.83	38.735	72.5
19	55	13C5-PFHxA	318 > 272.9	1.12e4	1.12e4	0.2339	1.000	3.04	3.04	12.5	53.453	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.24e3	2.24e3	0.2339	1.000	3.80	3.81	12.5	53.453	100.0
21	57	13C8-PFOA	421.3 > 376	8.18e3	8.18e3	0.2339	1.000	4.20	4.17	12.5	53.453	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.42e3	8.42e3	0.2339	1.000	4.63	4.61	12.5	53.453	100.0
23	59	13C4-PFOS	503 > 79.9	2.49e3	2.49e3	0.2339	1.000	4.69	4.69	12.5	53.453	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.16e3	7.16e3	0.2339	1.000	5.00	4.98	12.5	53.453	100.0
25	61	13C7-PFUdA	570.1 > 524.8	9.36e3	9.36e3	0.2339	1.000	5.31	5.30	12.5	53.453	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.54e2	0.2339		3.81		0.000		
27	63	Total PFOA	413 > 368.7	2.29e2	7.97e3	0.2339		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.22e3	0.2339		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.86e3	0.2339		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.74e3	0.2339		5.30		0.000		

AC for ANP 12/11/17

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 09:30:58 Pacific Standard Time
Printed: Monday, December 11, 2017 09:33:15 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	229.480	7969.125	0.360	bbl	

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	229.480	7969.125	0.360	bbl	

AC for ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 09:30:58 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

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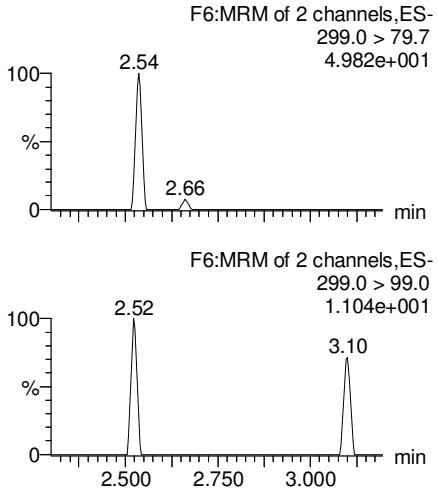

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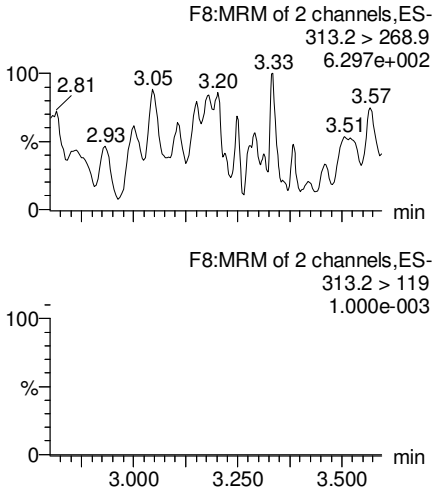

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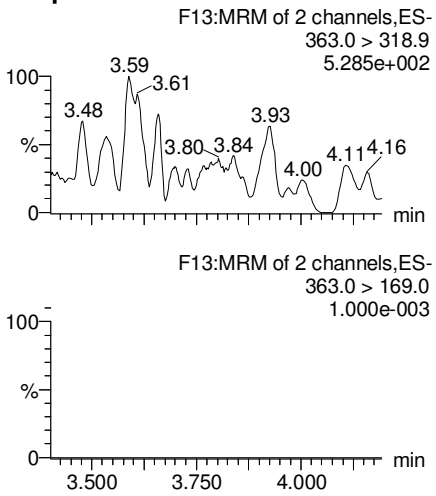

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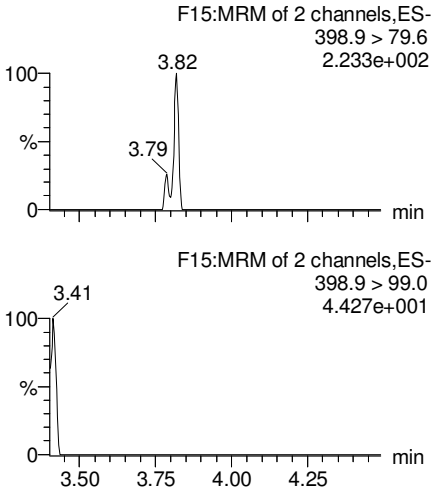

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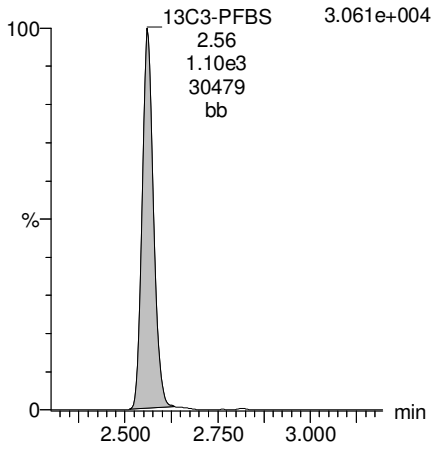

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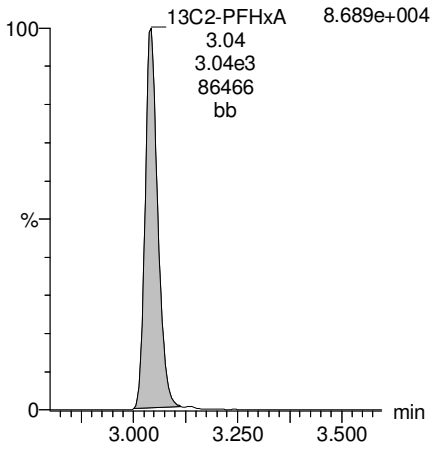

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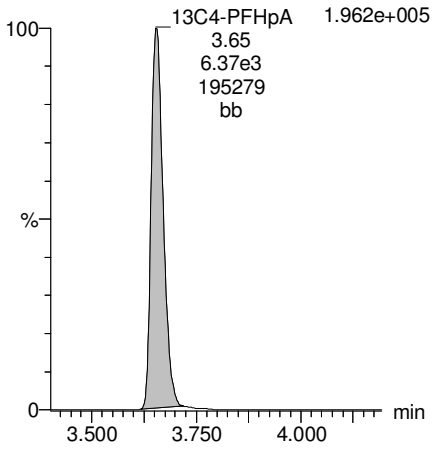

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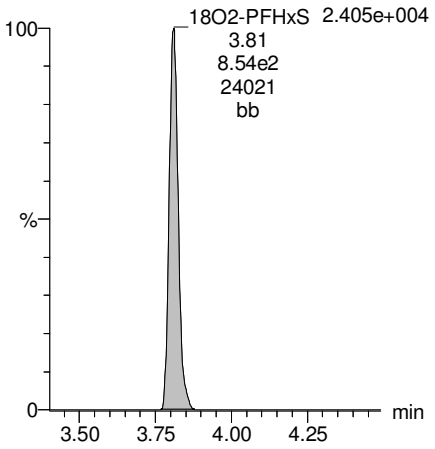


AC for ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

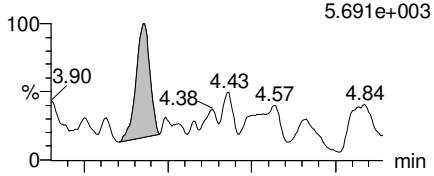
Rev'd: MM 12/11/17

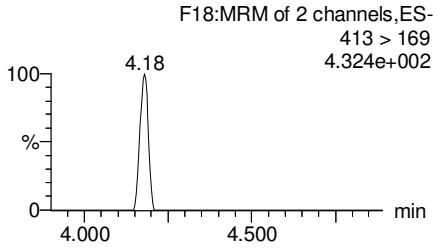
Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 09:30:58 Pacific Standard Time
Printed: Monday, December 11, 2017 09:33:15 Pacific Standard Time

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

Total PFOA





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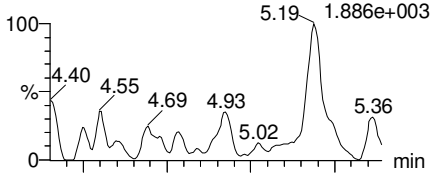
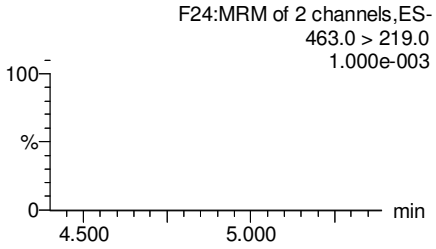
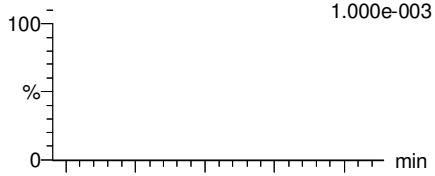
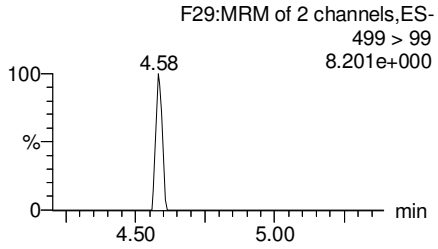




Total PFOS





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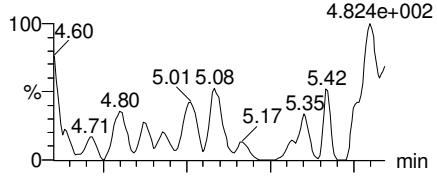

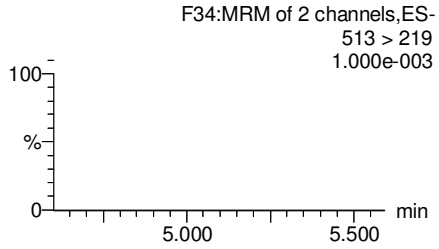

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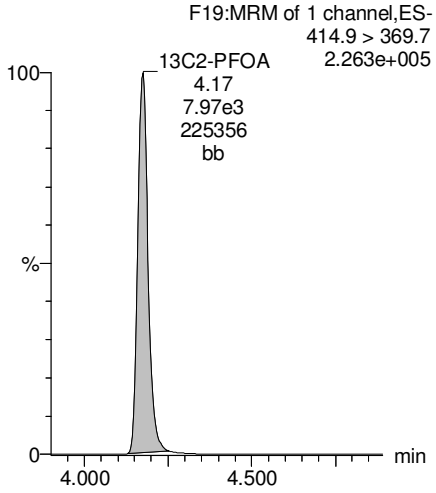

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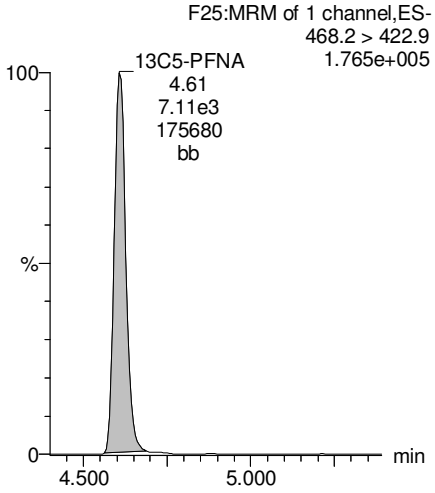

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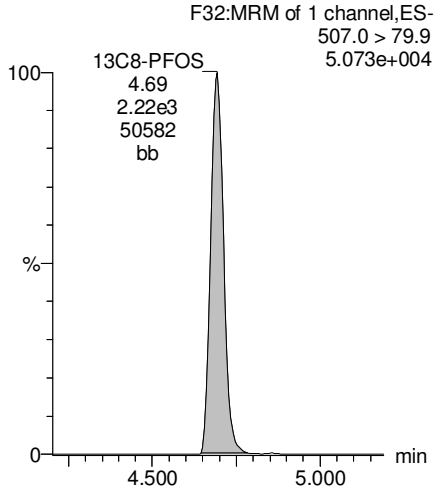

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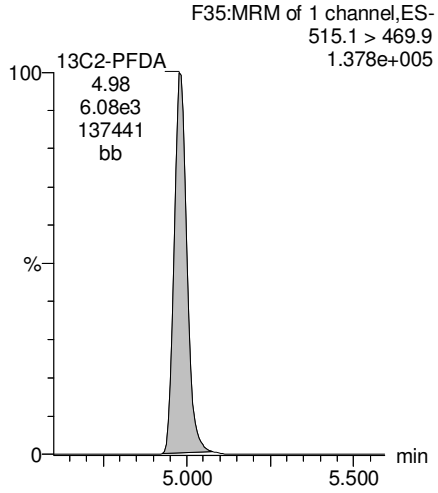

AC for ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 09:30:58 Pacific Standard Time
Printed: Monday, December 11, 2017 09:33:15 Pacific Standard Time

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

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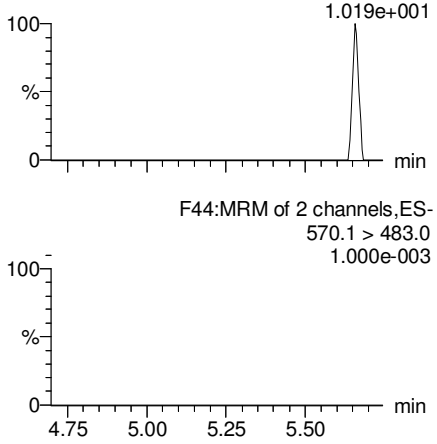

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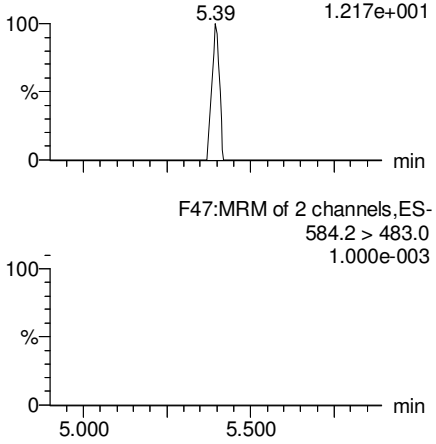

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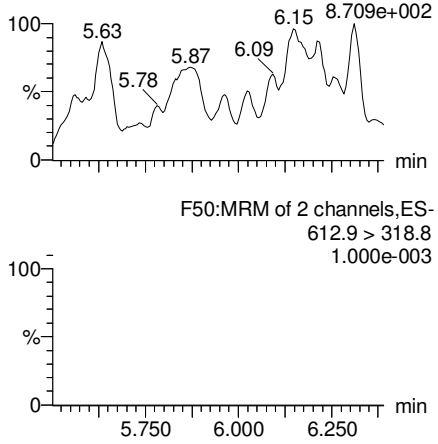

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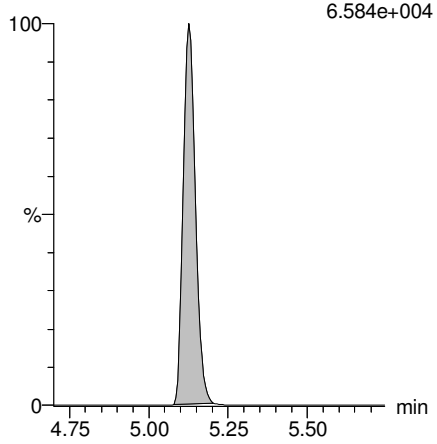

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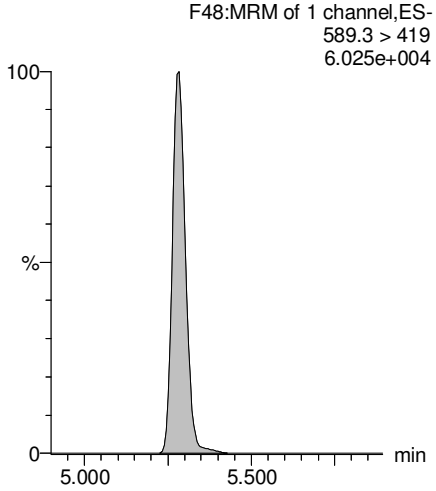

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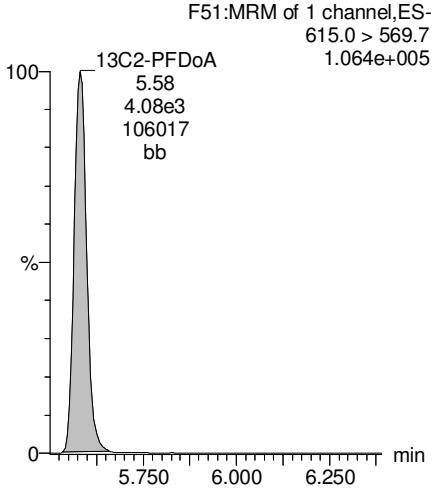


AC for ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

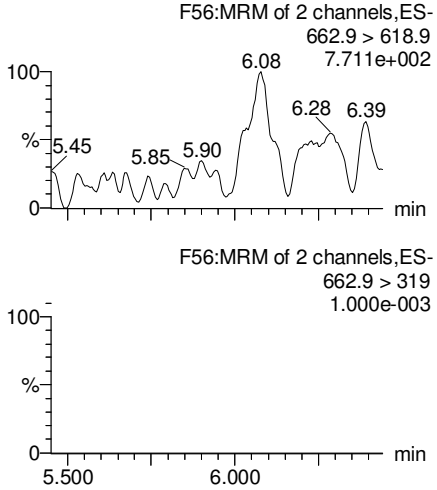
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 09:30:58 Pacific Standard Time
Printed: Monday, December 11, 2017 09:33:15 Pacific Standard Time

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

PFTrDA



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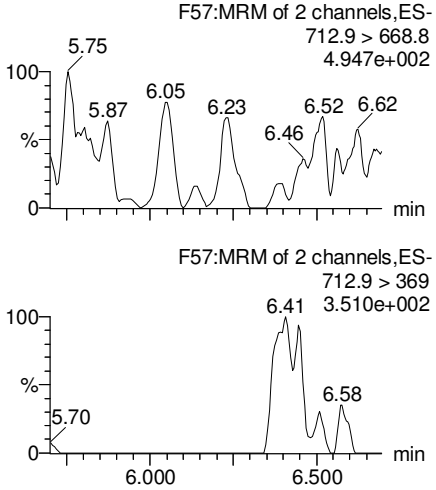

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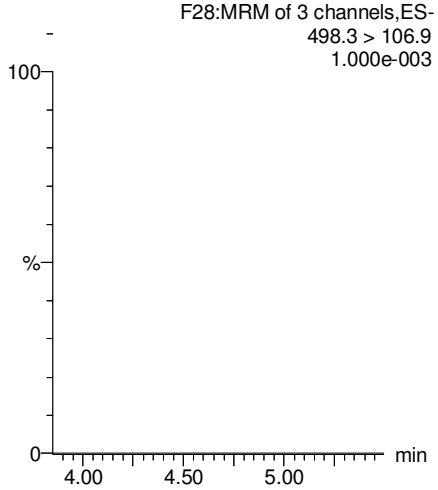
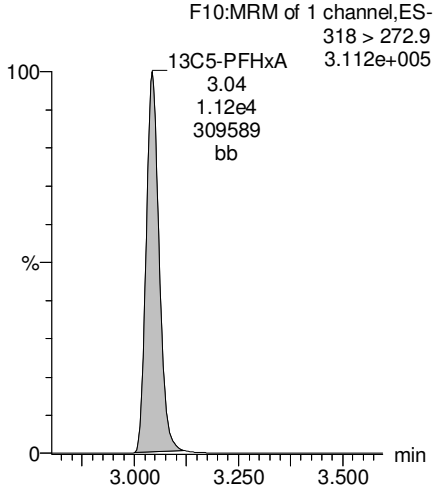
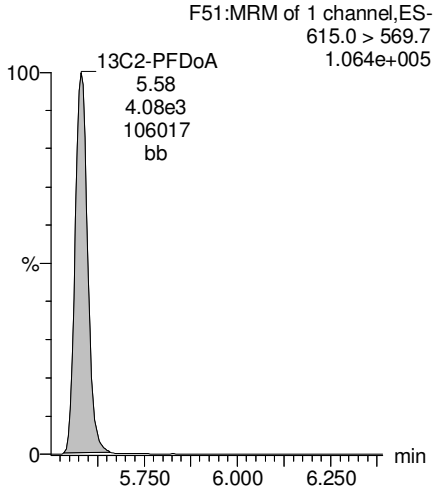


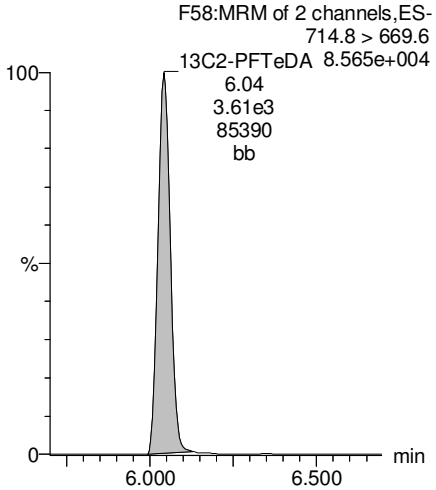
13C5-PFHxA



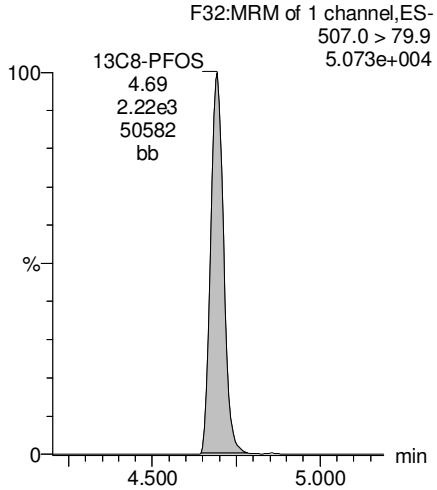
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS



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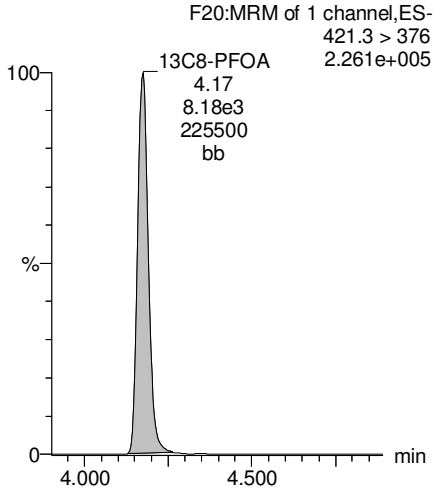


AC for ANP 12/11/17

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

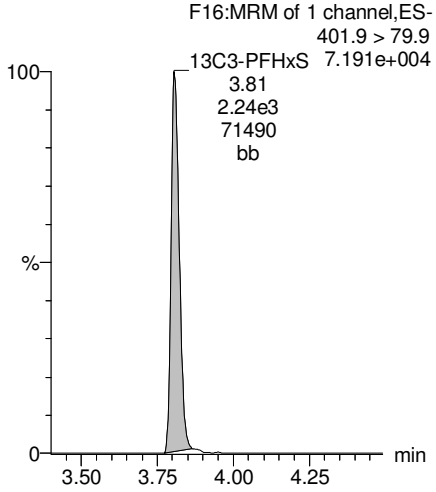
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 09:30:58 Pacific Standard Time
Printed: Monday, December 11, 2017 09:33:15 Pacific Standard Time

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

13C3-PFHxS



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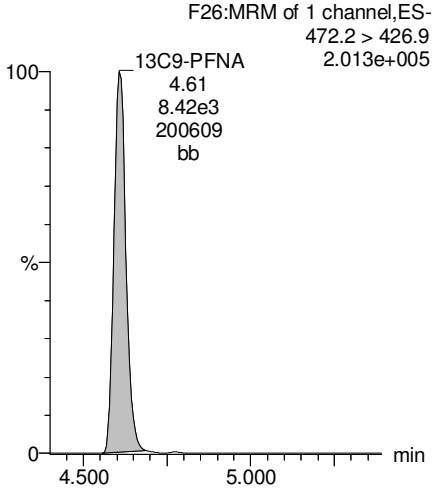
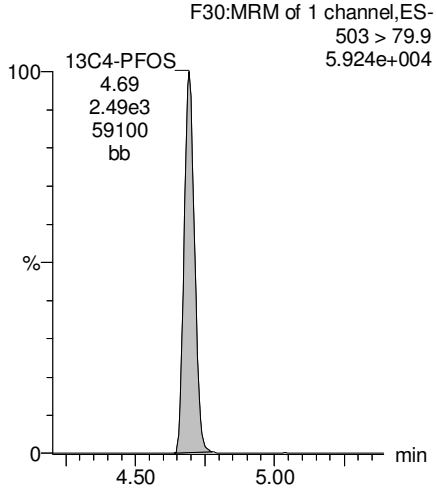
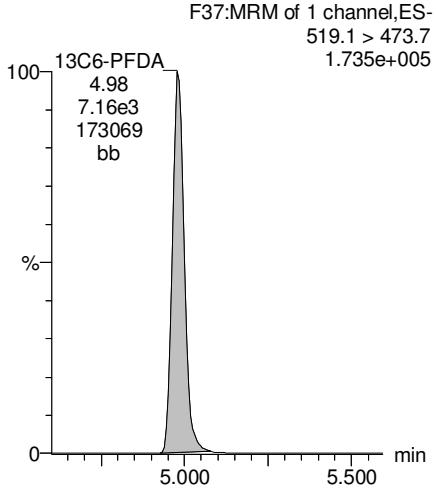


13C4-PFOS



13C6-PFDA



AC for ANP 12/11/17

Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-53.qld

Last Altered: Monday, December 11, 2017 13:31:50 Pacific Standard Time
Printed: Monday, December 11, 2017 16:53:05 Pacific Standard Time

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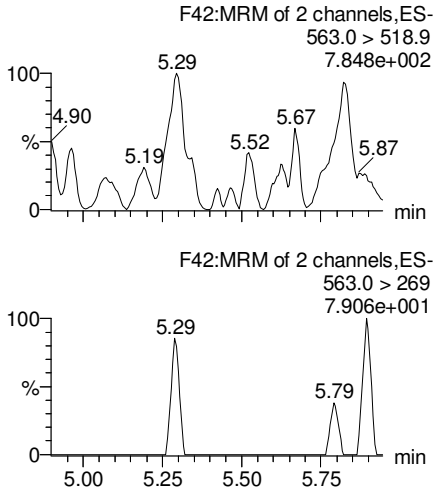
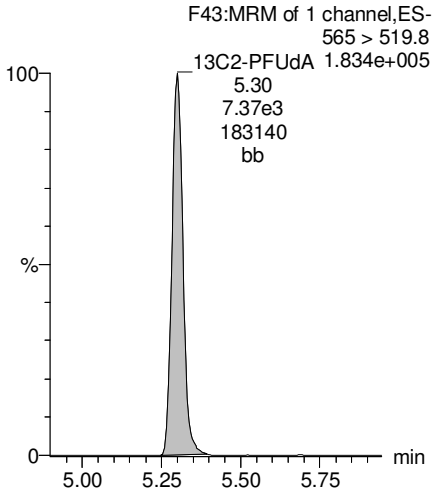
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

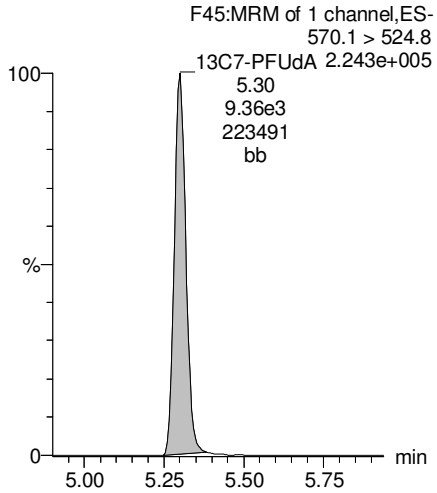
PFUdA



13C2-PFUdA



13C7-PFUdA



AC for ANP 12/11/17

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 09:51:53 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.15e3	0.2608		2.52				
2	4	PFHxA	313.2 > 268.9		3.34e3	0.2608		3.04				
3	5	PFHpA	363.0 > 318.9		6.33e3	0.2608		3.66				
4	6	L-PFHxS	398.9 > 79.6		1.01e3	0.2608		3.80				
5	9	L-PFOA	413 > 368.7	1.55e2	8.63e3	0.2608		4.20	4.17	0.225		
6	12	PFNA	463.0 > 418.8		6.94e3	0.2608		4.61				
7	14	L-PFOS	499 > 79.9		2.44e3	0.2608		4.69				
8	16	PFDA	513 > 468.8		8.26e3	0.2608		5.00				
9	18	N-MeFOSAA	570.1 > 419		3.05e3	0.2608		5.15				
10	19	N-EtFOSAA	584.2 > 419		3.21e3	0.2608		5.30				
11	20	PFUdA	563.0 > 518.9	7.17e1	7.20e3	0.2608		5.31	5.30	0.124	0.676	
12	22	PFDoA	612.9 > 569.0		4.21e3	0.2608		5.58				

ANP 12/11/2017

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 09:52:10 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.21e3	0.2608		5.75				
2	25	PFTeDA	712.9 > 668.8		4.54e3	0.2608		6.10				
3	33	13C3-PFBS	302. > 98.8	1.15e3	1.27e4	0.2608	0.097	2.52	2.56	1.13	44.925	93.7
4	34	13C2-PFHxA	315 > 269.8	3.34e3	1.27e4	0.2608	0.767	3.04	3.04	3.30	16.481	86.0
5	35	13C4-PFHpA	367.2 > 321.8	6.33e3	1.27e4	0.2608	0.605	3.66	3.66	6.25	39.633	82.7
6	36	18O2-PFHxS	403.0 > 102.6	1.01e3	2.61e3	0.2608	0.427	3.80	3.81	4.85	43.544	90.9
7	37	13C2-6:2 FTS	429.1 > 408.9	1.68e3	9.16e3	0.2608	0.261	4.21	4.12	2.30	33.729	70.4
8	38	13C2-PFOA	414.9 > 369.7	8.63e3	9.16e3	0.2608	1.112	4.20	4.17	11.8	40.629	84.8
9	39	13C5-PFNA	468.2 > 422.9	6.94e3	1.08e4	0.2608	0.939	4.63	4.61	8.00	32.661	68.1
10	40	13C8-PFOSA	506.1 > 77.7	1.75e3	9.32e3	0.2608	0.349	4.67	4.67	2.35	25.830	53.9
11	41	13C8-PFOS	507.0 > 79.9	2.44e3	2.60e3	0.2608	0.991	4.69	4.69	11.7	45.315	94.5
12	42	13C2-PFDA	515.1 > 469.9	8.26e3	7.22e3	0.2608	1.309	5.00	4.98	14.3	41.908	87.4
13	43	13C2-8:2 FTS	529.1 > 508.7	8.79e2	1.27e4	0.2608	0.103	4.98	4.95	0.868	32.176	67.1
14	44	d3-N-MeFOSAA	573.3 > 419	3.05e3	9.32e3	0.2608	0.405	5.15	5.13	4.10	38.727	80.8
15	45	d5-N-EtFOSAA	589.3 > 419	3.21e3	9.32e3	0.2608	0.450	5.30	5.28	4.31	36.723	76.6
16	46	13C2-PFUdA	565 > 519.8	7.20e3	9.32e3	0.2608	1.082	5.31	5.30	9.66	34.231	71.4
17	47	13C2-PFDoA	615.0 > 569.7	4.21e3	9.32e3	0.2608	0.544	5.58	5.58	5.65	39.822	83.1
18	49	13C2-PFTeDA	714.8 > 669.6	4.54e3	9.32e3	0.2608	0.533	6.10	6.04	6.10	43.882	91.6
19	55	13C5-PFHxA	318 > 272.9	1.27e4	1.27e4	0.2608	1.000	3.04	3.04	12.5	47.928	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.61e3	2.61e3	0.2608	1.000	3.80	3.81	12.5	47.928	100.0
21	57	13C8-PFOA	421.3 > 376	9.16e3	9.16e3	0.2608	1.000	4.20	4.17	12.5	47.928	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.08e4	1.08e4	0.2608	1.000	4.63	4.61	12.5	47.928	100.0
23	59	13C4-PFOS	503 > 79.9	2.60e3	2.60e3	0.2608	1.000	4.69	4.69	12.5	47.928	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.22e3	7.22e3	0.2608	1.000	5.00	4.98	12.5	47.928	100.0
25	61	13C7-PFUdA	570.1 > 524.8	9.32e3	9.32e3	0.2608	1.000	5.31	5.30	12.5	47.928	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	1.01e3	0.2608		3.81		0.000		
27	63	Total PFOA	413 > 368.7	1.55e2	8.63e3	0.2608		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.44e3	0.2608		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.05e3	0.2608		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.21e3	0.2608		5.30		0.000		

ANP 12/11/2017

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 09:52:10 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.17	155.159	8627.706	0.225	MMI	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-Me-FOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-EtFOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA+PFOS,Total PFOA,Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.17	155.159	8627.706	0.225	MMI	

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 09:52:10 Pacific Standard Time

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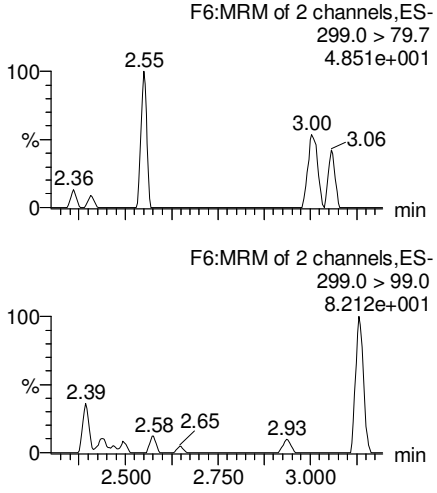
Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

PFBS



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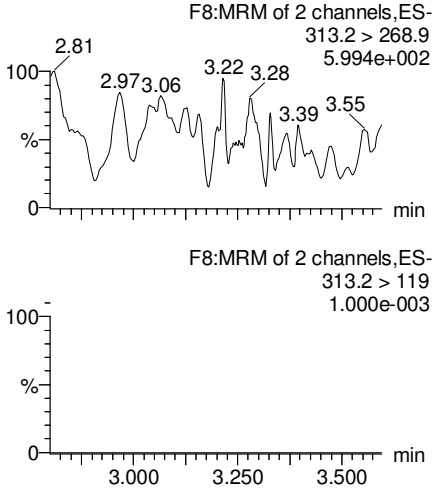

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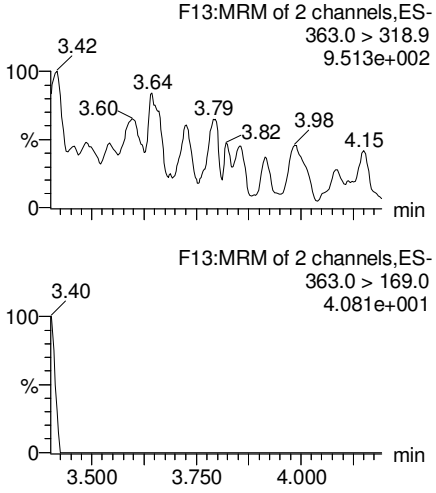
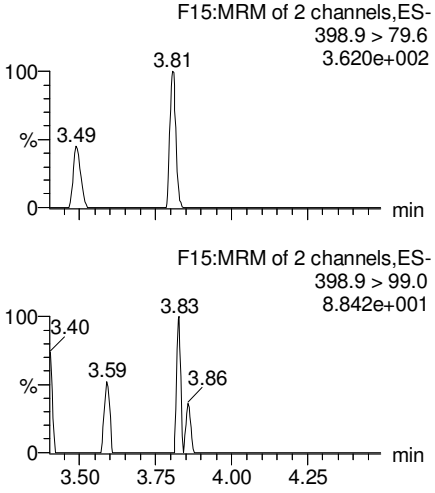


Total PFHxS



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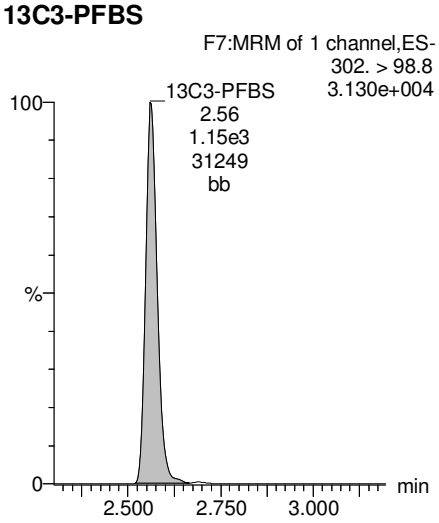

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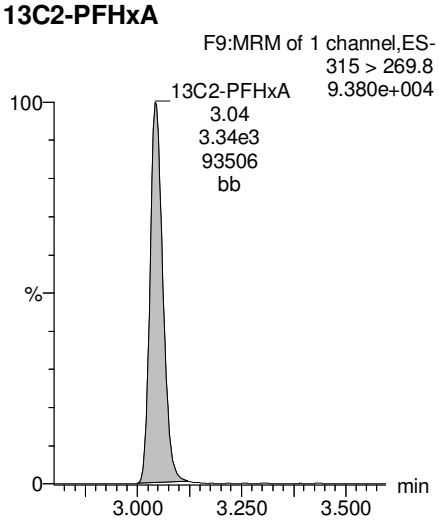

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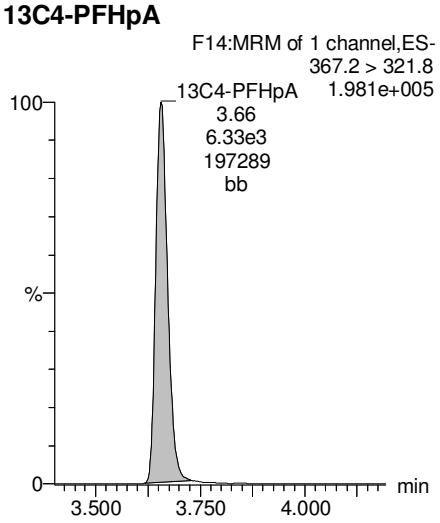
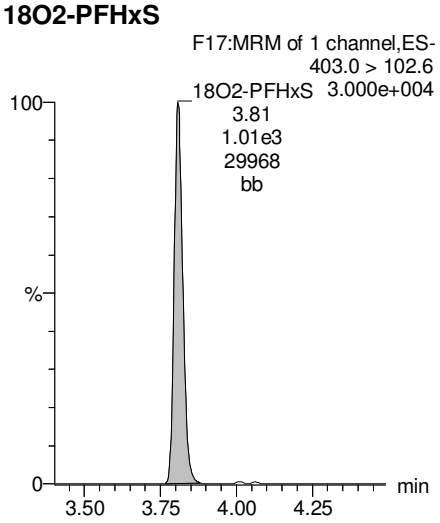


18O2-PFHxS



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

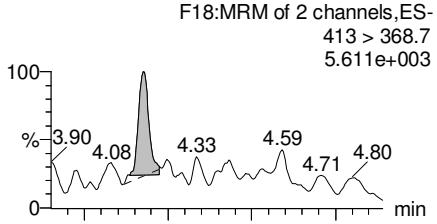
Rev'd: MM 12/11/17

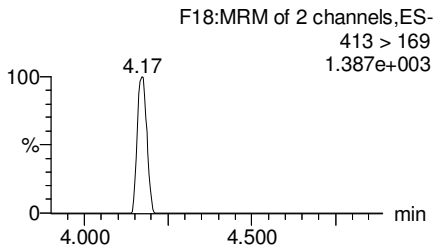
Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 09:52:10 Pacific Standard Time

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

Total PFOA





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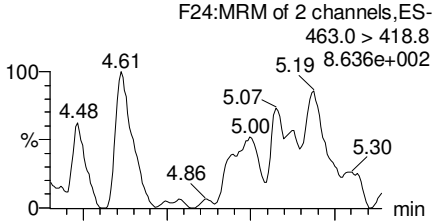
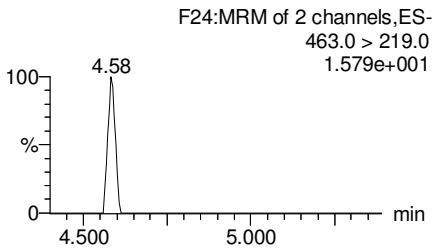
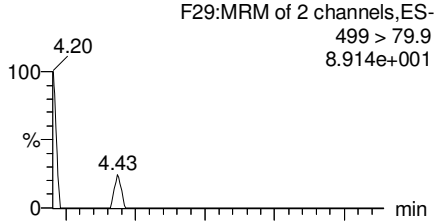
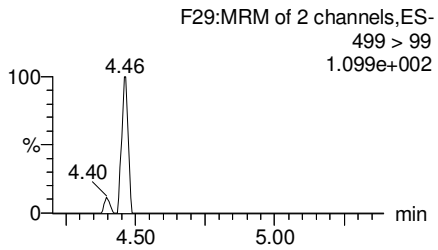


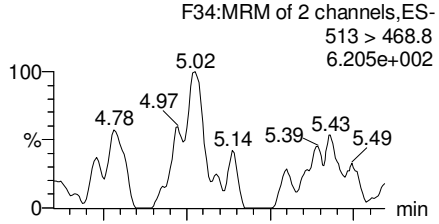


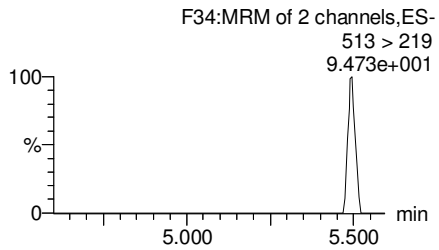
Total PFOS



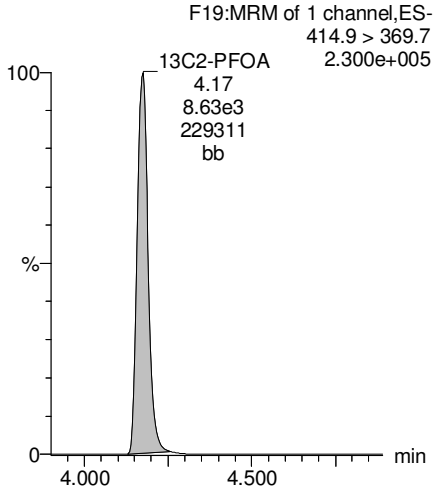


PFDA

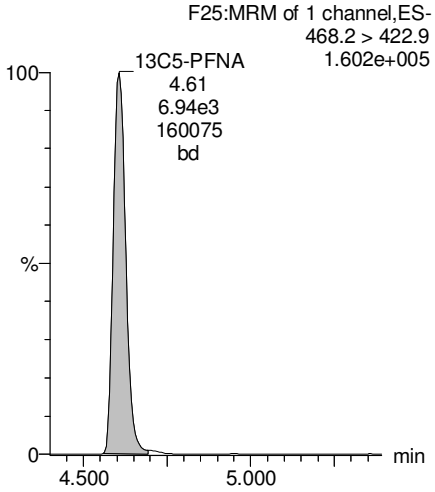




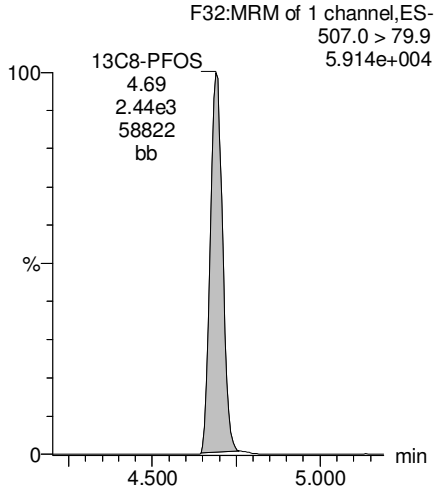
13C2-PFOA



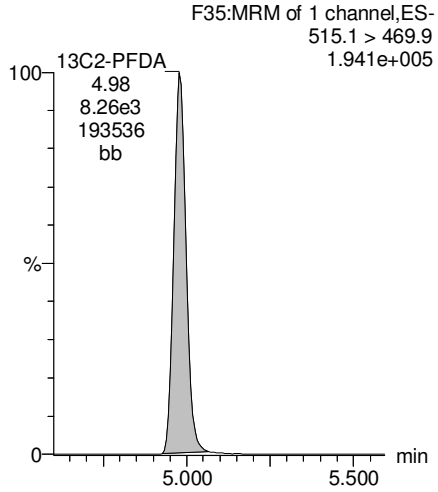
13C5-PFNA



13C8-PFOS



13C2-PFDA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

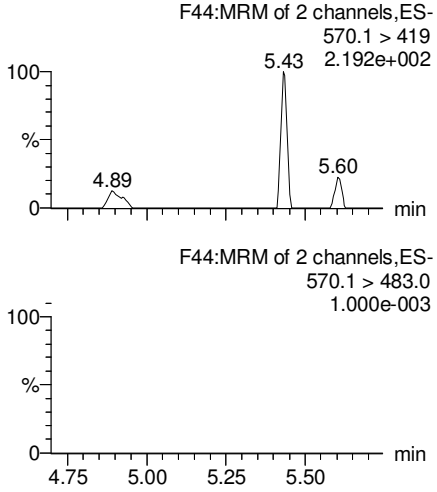
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 09:52:10 Pacific Standard Time

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

N-MeFOSAA



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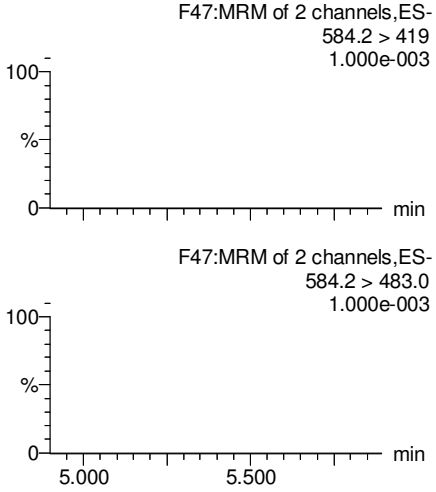
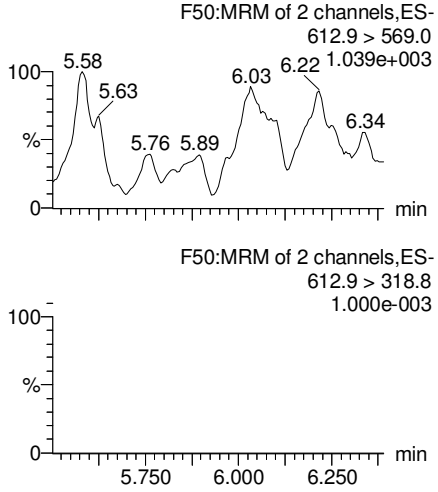
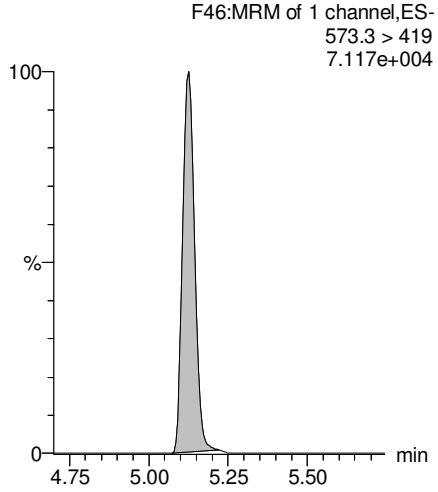


PFDoA



d3-N-MeFOSAA



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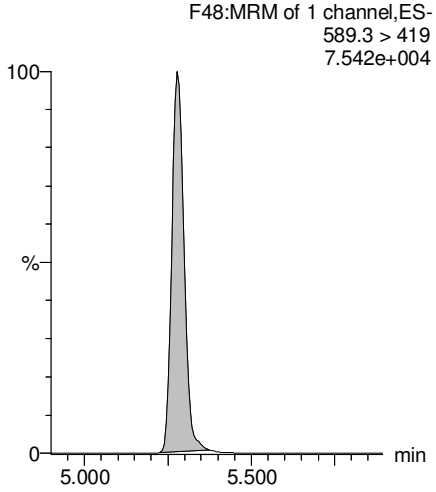
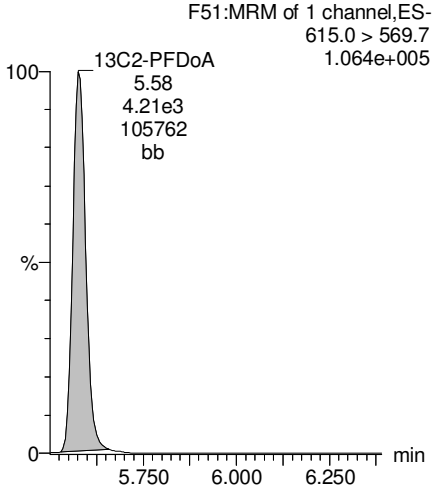


13C2-PFDoA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

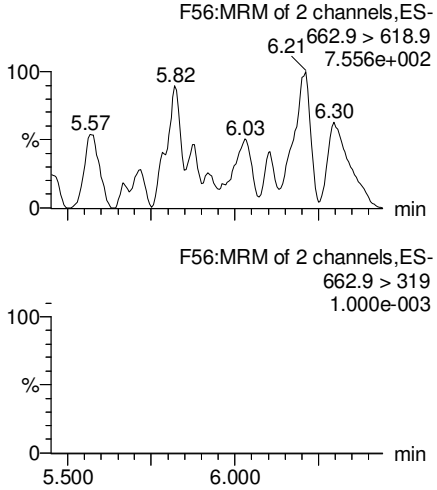
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

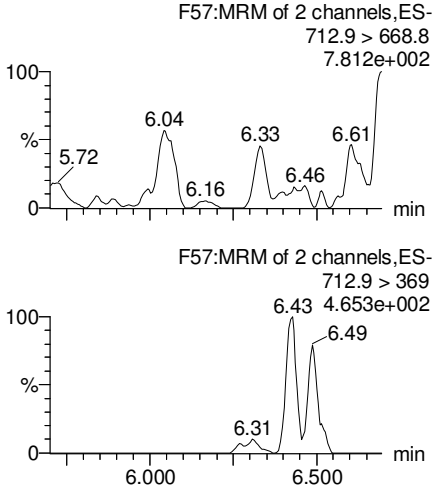
Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 09:52:10 Pacific Standard Time

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

PFTrDA



PFTeDA



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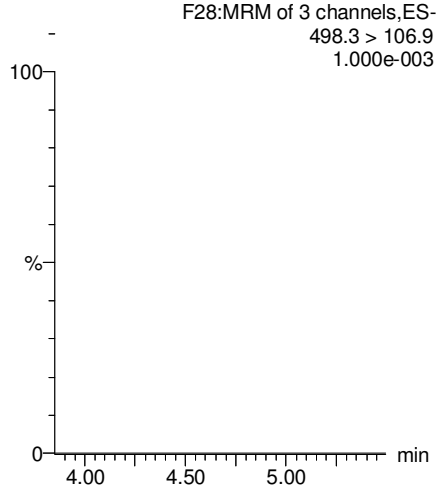
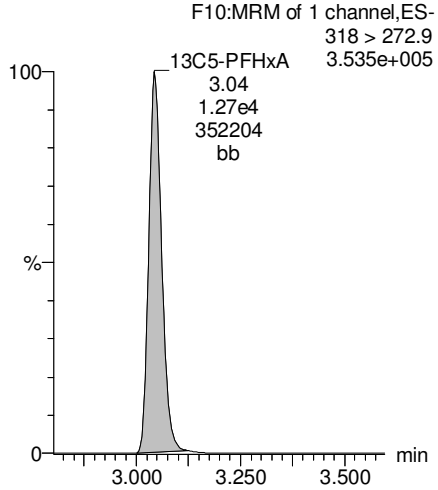
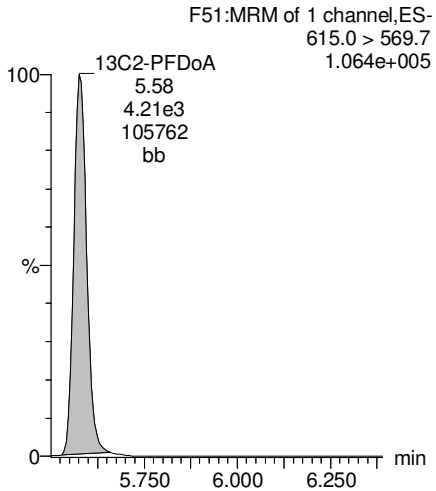


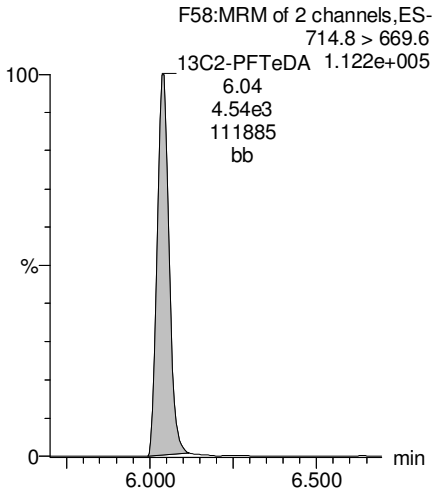
13C5-PFHxA



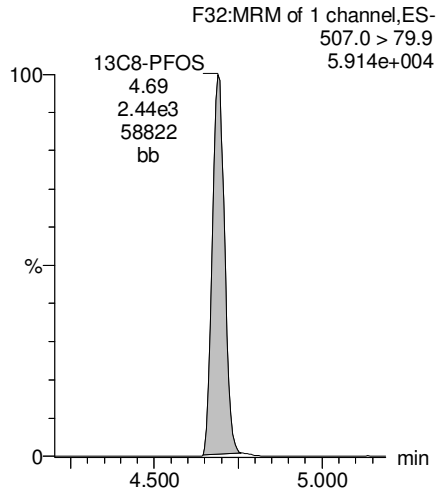
13C2-PFDoA



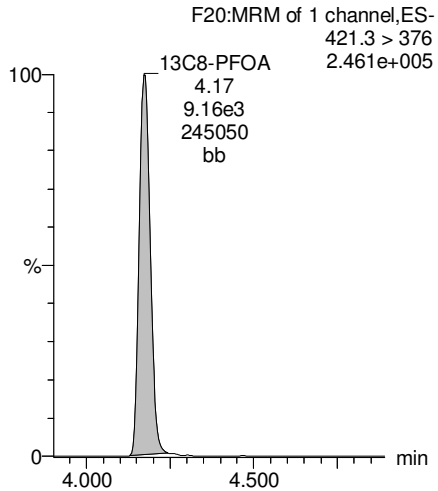
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

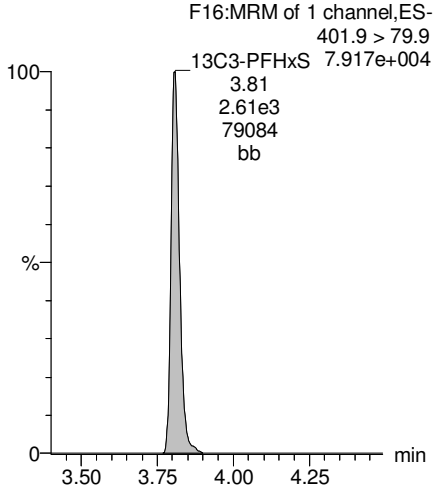
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

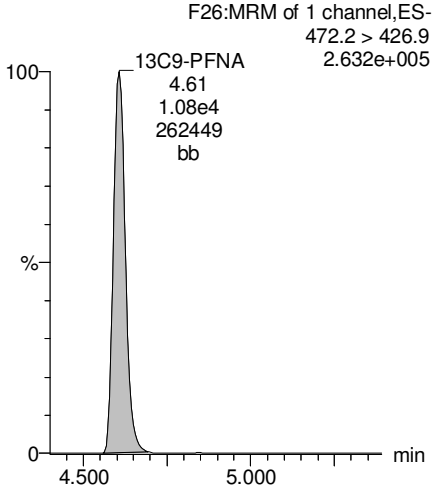
Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 09:52:10 Pacific Standard Time

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

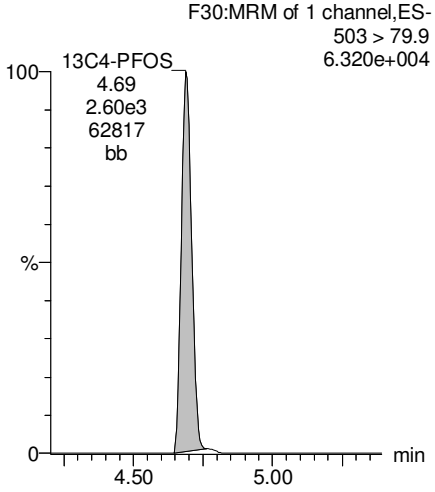
13C3-PFHxS



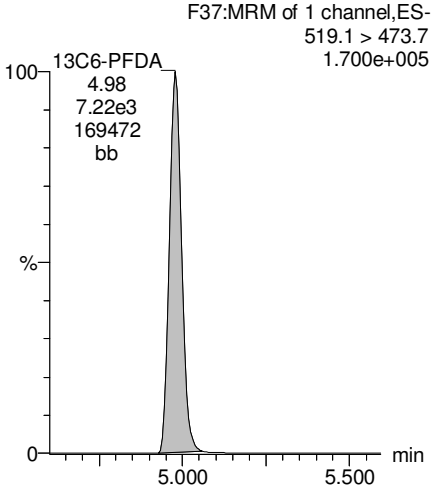
13C9-PFNA



13C4-PFOS



13C6-PFDA



ANP 12/11/2017

Vista Analytical Laboratory

Rev'd: MM 12/11/17

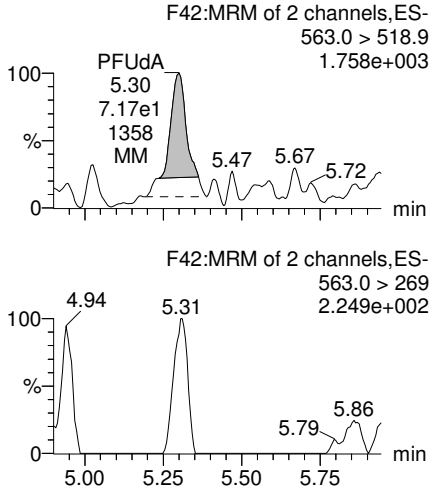
Dataset: U:\Q4.PRO\results\171207M2\171207M2-54.qld

Last Altered: Monday, December 11, 2017 09:51:22 Pacific Standard Time
Printed: Monday, December 11, 2017 12:52:03 Pacific Standard Time

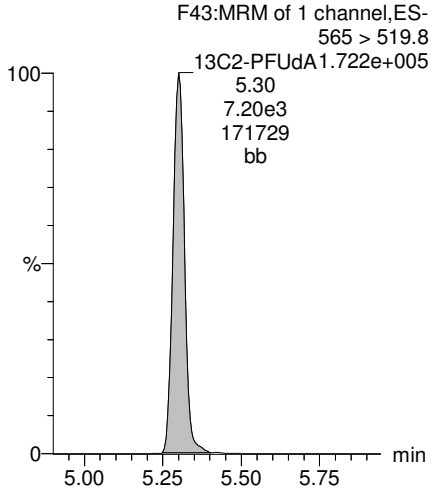
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

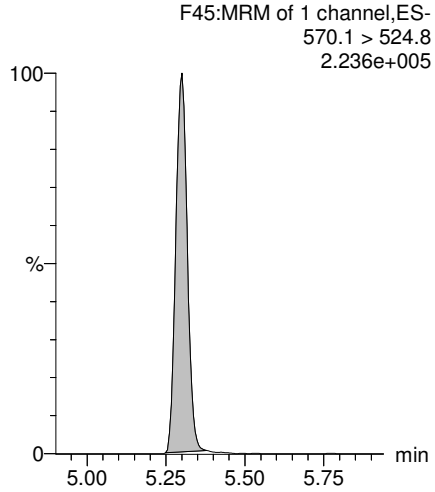
PFUdA



13C2-PFUdA



13C7-PFUdA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 09:55:33 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		9.59e2	0.2624		2.52				
2	4	PFHxA	313.2 > 268.9		2.72e3	0.2624		3.04				
3	5	PFHpA	363.0 > 318.9		5.86e3	0.2624		3.66				
4	6	L-PFHxS	398.9 > 79.6		6.54e2	0.2624		3.80				
5	9	L-PFOA	413 > 368.7	1.08e2	6.91e3	0.2624		4.20	4.17	0.195		
6	12	PFNA	463.0 > 418.8		6.70e3	0.2624		4.61				
7	14	L-PFOS	499 > 79.9		2.20e3	0.2624		4.69				
8	16	PFDA	513 > 468.8		5.41e3	0.2624		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.50e3	0.2624		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.49e3	0.2624		5.30				
11	20	PFUdA	563.0 > 518.9		6.46e3	0.2624		5.31				
12	22	PFDoA	612.9 > 569.0		3.23e3	0.2624		5.58				

ANP 12/11/2017

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 09:56:37 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.23e3	0.2624		5.75				
2	25	PFTeDA	712.9 > 668.8		3.13e3	0.2624		6.10				
3	33	13C3-PFBS	302. > 98.8	9.59e2	1.08e4	0.2624	0.097	2.52	2.56	1.11	43.850	92.0
4	34	13C2-PFHxA	315 > 269.8	2.72e3	1.08e4	0.2624	0.767	3.04	3.04	3.16	15.727	82.5
5	35	13C4-PFHpA	367.2 > 321.8	5.86e3	1.08e4	0.2624	0.605	3.66	3.66	6.81	42.915	90.1
6	36	18O2-PFHxS	403.0 > 102.6	6.54e2	2.10e3	0.2624	0.427	3.80	3.81	3.88	34.637	72.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.34e3	7.26e3	0.2624	0.261	4.21	4.12	2.30	33.610	70.5
8	38	13C2-PFOA	414.9 > 369.7	6.91e3	7.26e3	0.2624	1.112	4.20	4.17	11.9	40.832	85.7
9	39	13C5-PFNA	468.2 > 422.9	6.70e3	8.72e3	0.2624	0.939	4.63	4.61	9.60	38.968	81.8
10	40	13C8-PFOSA	506.1 > 77.7	1.78e3	8.60e3	0.2624	0.349	4.67	4.66	2.59	28.299	59.4
11	41	13C8-PFOS	507.0 > 79.9	2.20e3	2.28e3	0.2624	0.991	4.69	4.69	12.0	46.268	97.1
12	42	13C2-PFDA	515.1 > 469.9	5.41e3	6.31e3	0.2624	1.309	5.00	4.97	10.7	31.212	65.5
13	43	13C2-8:2 FTS	529.1 > 508.7	6.47e2	1.08e4	0.2624	0.103	4.98	4.95	0.752	27.682	58.1
14	44	d3-N-MeFOSAA	573.3 > 419	2.50e3	8.60e3	0.2624	0.405	5.15	5.13	3.63	34.142	71.7
15	45	d5-N-EtFOSAA	589.3 > 419	2.49e3	8.60e3	0.2624	0.450	5.30	5.28	3.62	30.636	64.3
16	46	13C2-PFUdA	565 > 519.8	6.46e3	8.60e3	0.2624	1.082	5.31	5.30	9.39	33.094	69.5
17	47	13C2-PFDoA	615.0 > 569.7	3.23e3	8.60e3	0.2624	0.544	5.58	5.58	4.69	32.865	69.0
18	49	13C2-PFTeDA	714.8 > 669.6	3.13e3	8.60e3	0.2624	0.533	6.10	6.04	4.56	32.607	68.4
19	55	13C5-PFHxA	318 > 272.9	1.08e4	1.08e4	0.2624	1.000	3.04	3.04	12.5	47.641	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.10e3	2.10e3	0.2624	1.000	3.80	3.81	12.5	47.641	100.0
21	57	13C8-PFOA	421.3 > 376	7.26e3	7.26e3	0.2624	1.000	4.20	4.17	12.5	47.641	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.72e3	8.72e3	0.2624	1.000	4.63	4.61	12.5	47.641	100.0
23	59	13C4-PFOS	503 > 79.9	2.28e3	2.28e3	0.2624	1.000	4.69	4.69	12.5	47.641	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.31e3	6.31e3	0.2624	1.000	5.00	4.98	12.5	47.641	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.60e3	8.60e3	0.2624	1.000	5.31	5.30	12.5	47.641	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	6.54e2	0.2624		3.81		0.000		
27	63	Total PFOA	413 > 368.7	1.08e2	6.91e3	0.2624		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.20e3	0.2624		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.50e3	0.2624		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.49e3	0.2624		5.30		0.000		

ANP 12/11/2017

Quantify Totals Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 09:56:37 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	107.890	6911.867	0.195	MMI	

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.17	107.890	6911.867	0.195	MMI	

ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

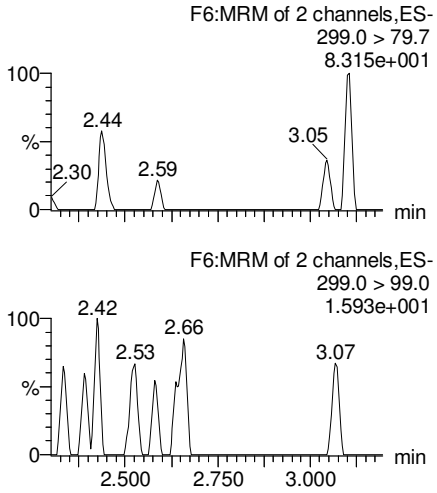
Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 09:56:37 Pacific Standard Time

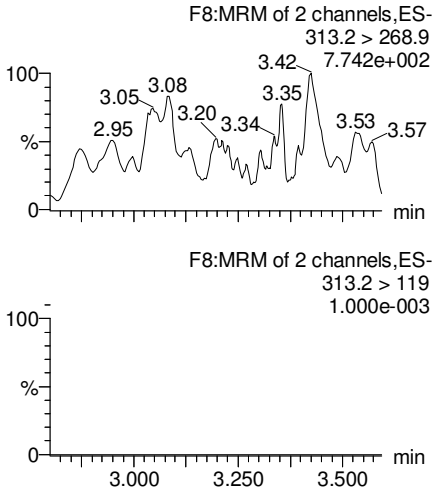
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

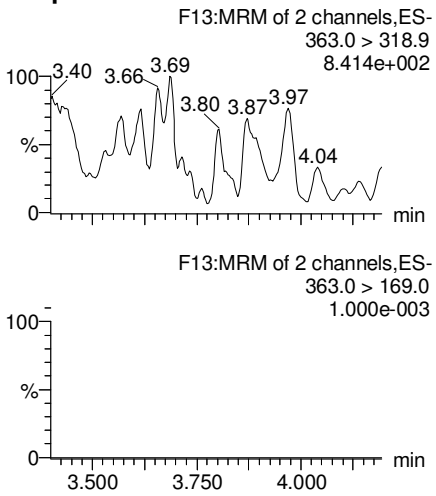
PFBS



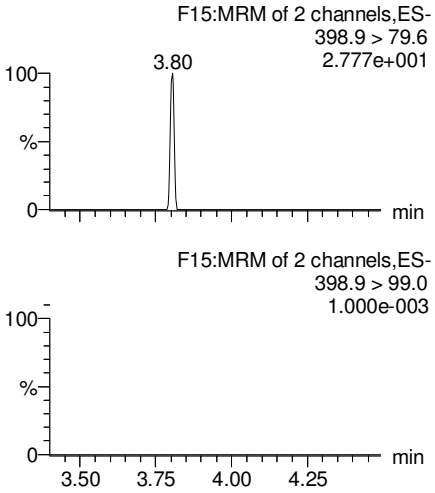
PFHxA



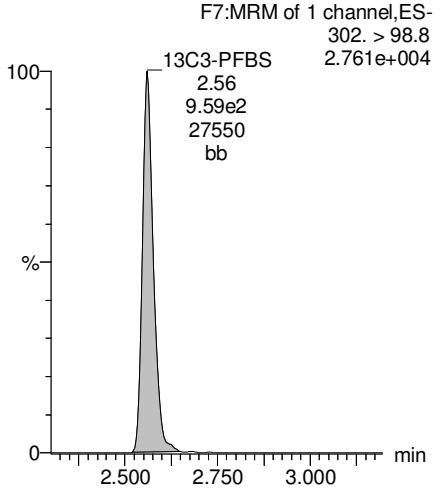
PFHpA



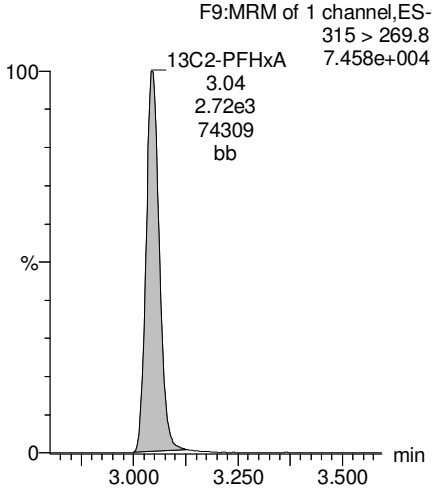
Total PFHxS



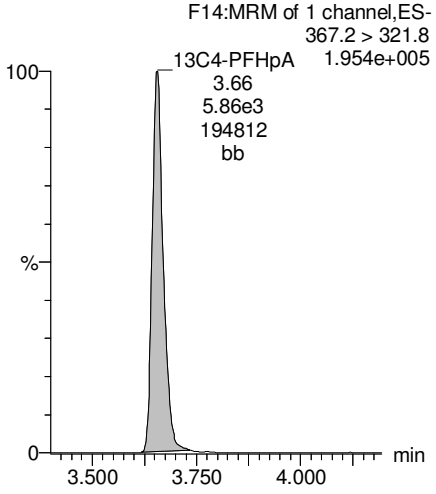
13C3-PFBS



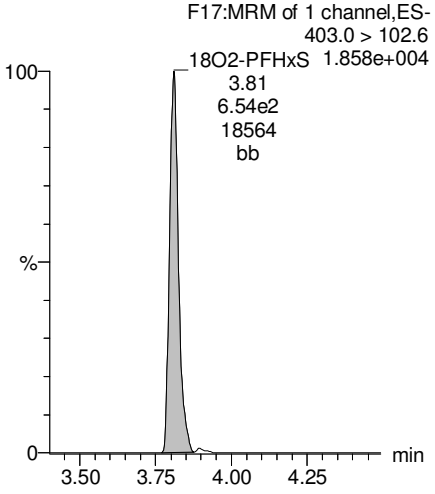
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

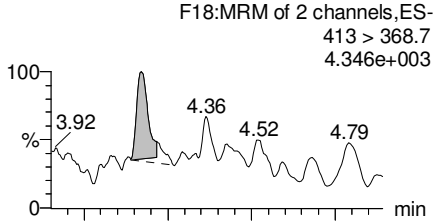
Rev'd: MM 12/11/17

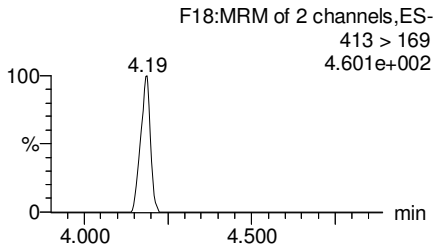
Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 09:56:37 Pacific Standard Time

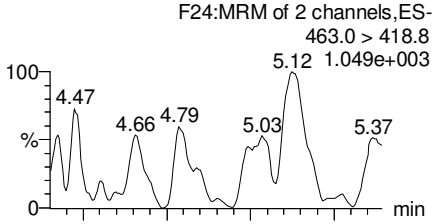
Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

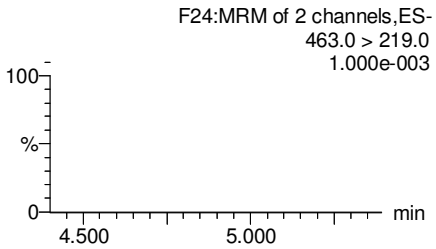
Total PFOA



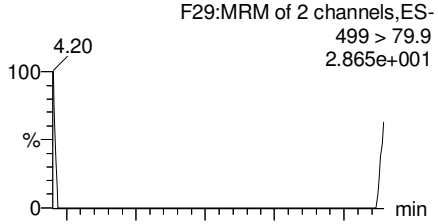


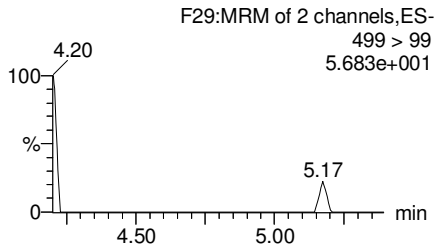
PFNA



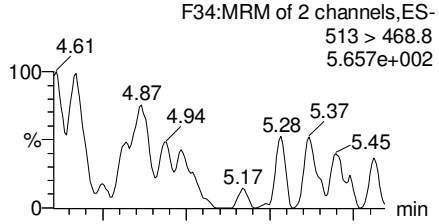


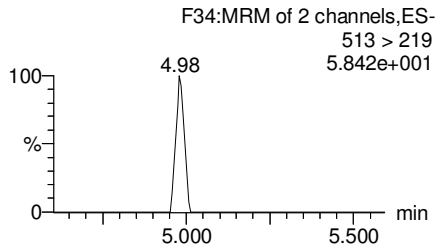
Total PFOS



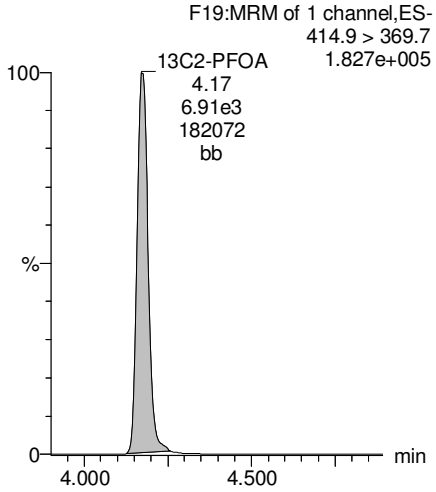


PFDA

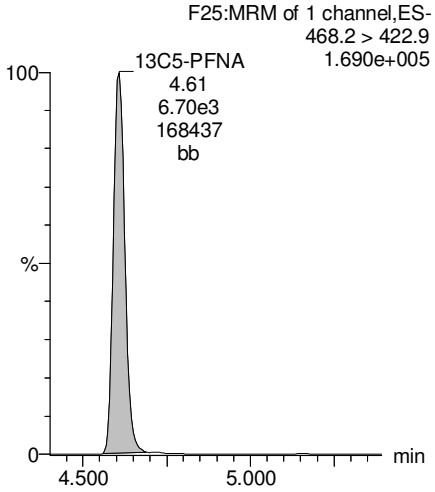




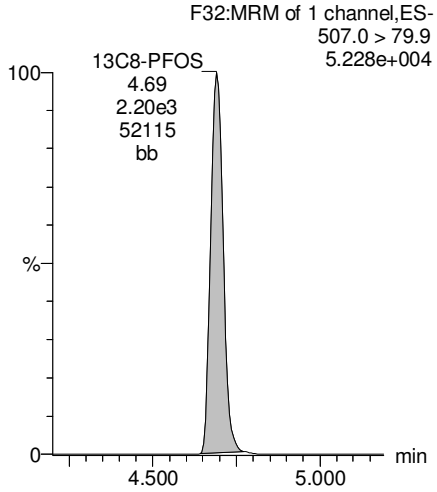
13C2-PFOA



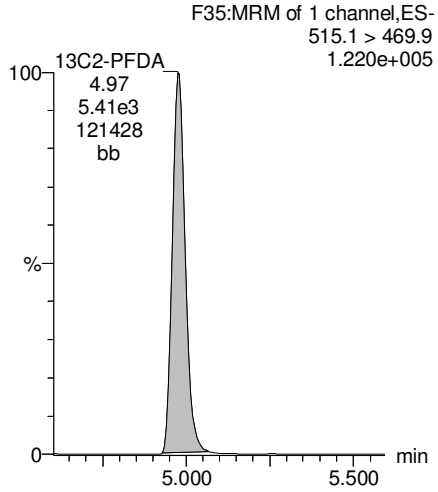
13C5-PFNA



13C8-PFOS



13C2-PFDA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

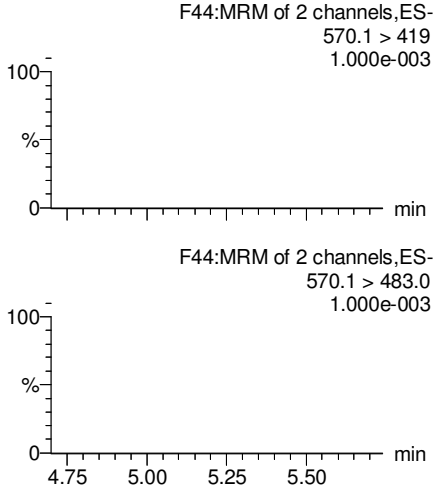
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 09:56:37 Pacific Standard Time

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

N-MeFOSAA



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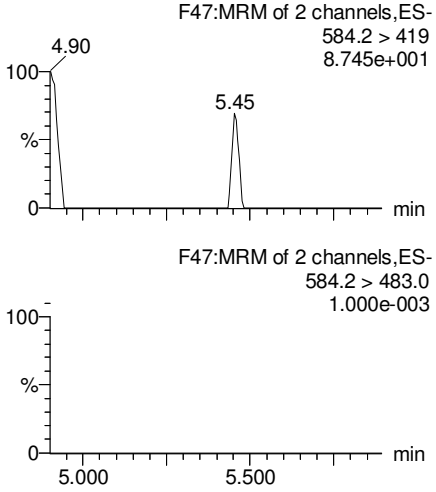
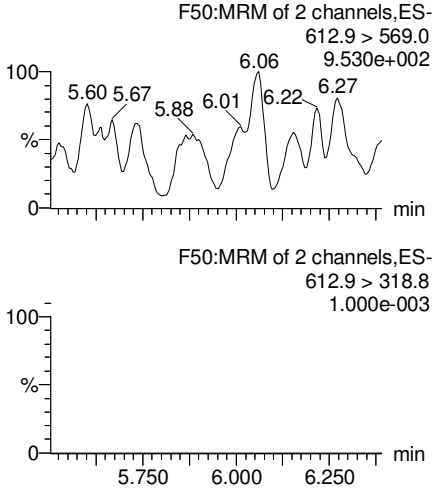
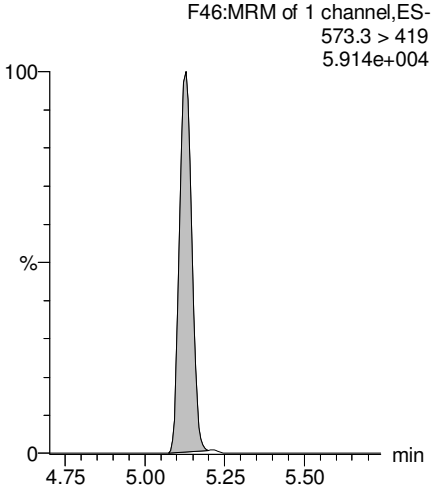


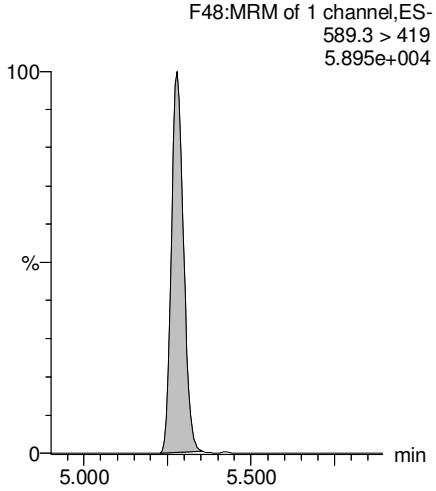
PFDoA



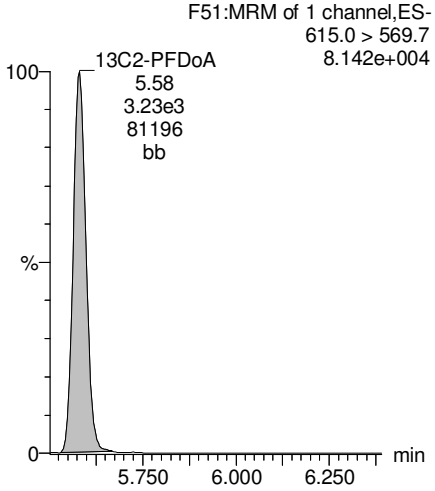
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

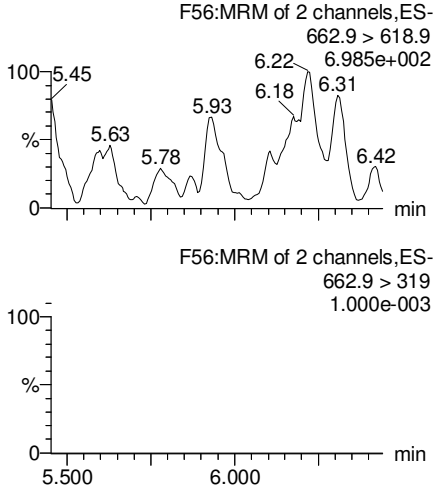
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

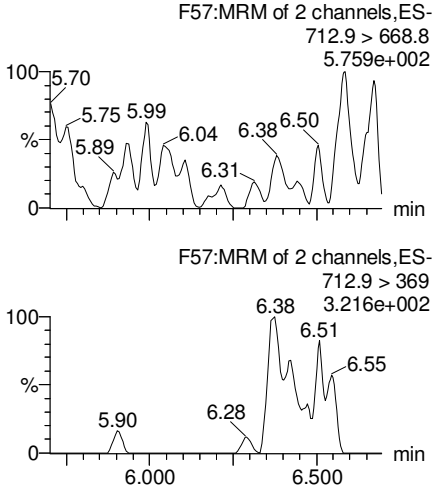
Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 09:56:37 Pacific Standard Time

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

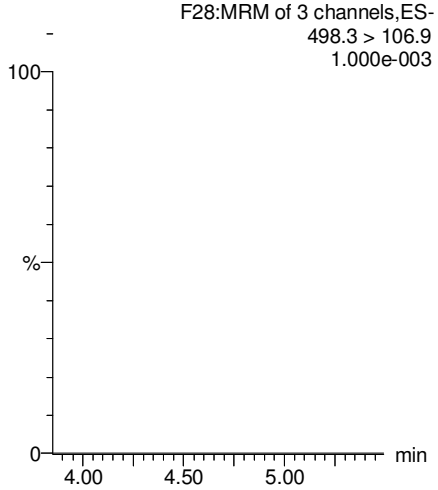
PFTrDA



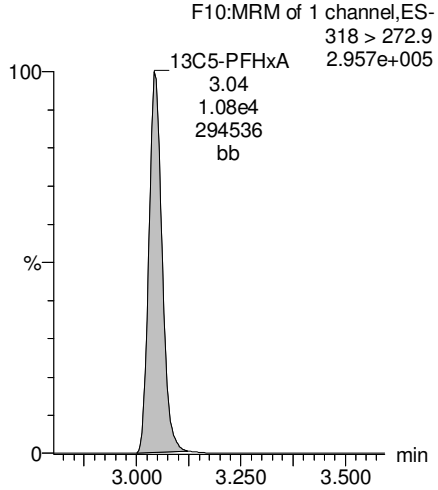
PFTeDA



TCDA



13C5-PFHxA



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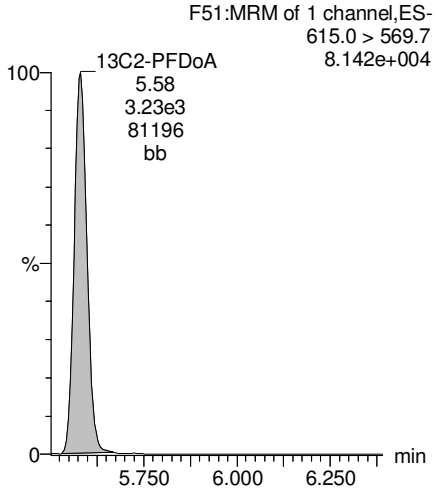
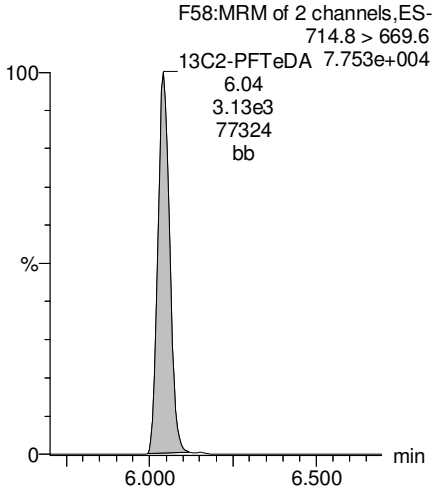
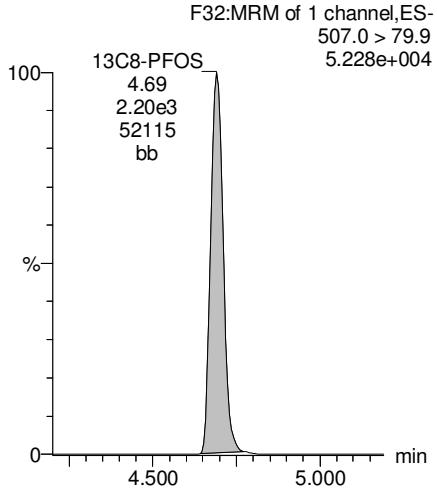


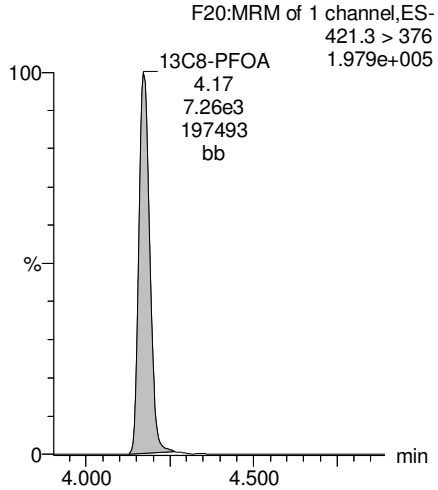
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



ANP 12/11/2017

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

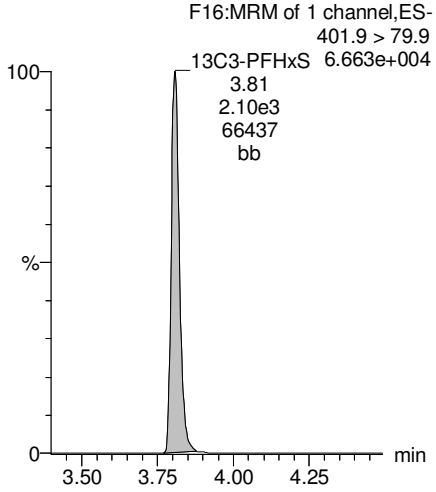
Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

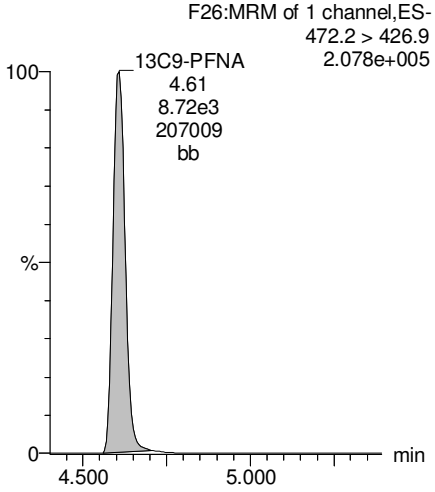
Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 09:56:37 Pacific Standard Time

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

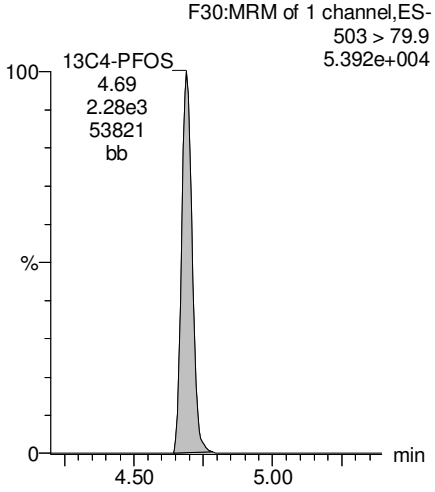
13C3-PFHxS



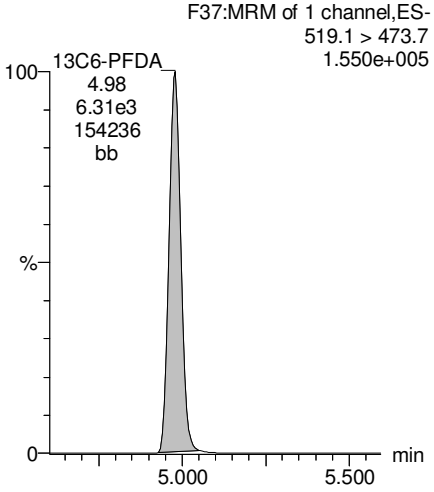
13C9-PFNA



13C4-PFOS



13C6-PFDA



ANP 12/11/2017

Vista Analytical Laboratory

Rev'd: MM 12/11/17

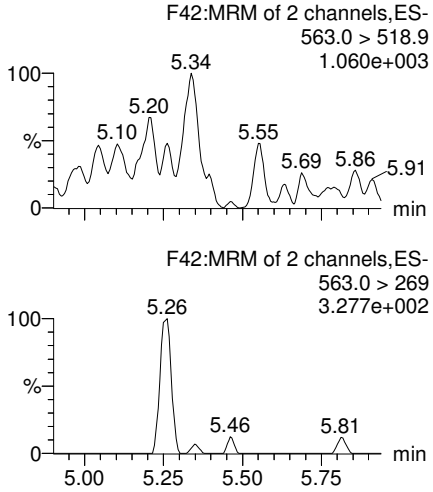
Dataset: U:\Q4.PRO\results\171207M2\171207M2-55.qld

Last Altered: Monday, December 11, 2017 09:54:24 Pacific Standard Time
Printed: Monday, December 11, 2017 12:52:27 Pacific Standard Time

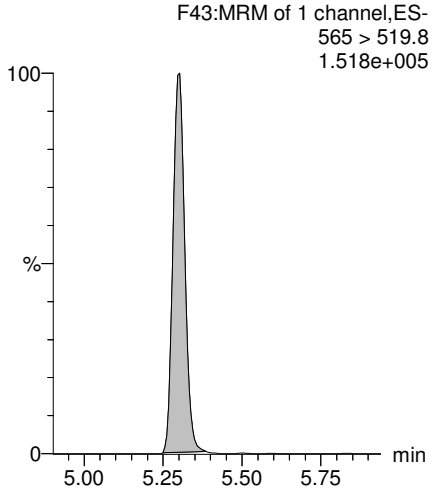
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

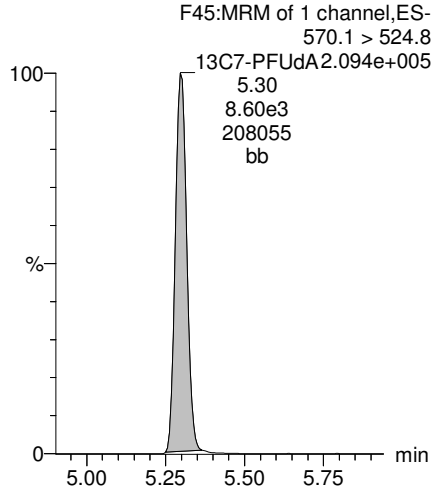
PFUdA



13C2-PFUdA



13C7-PFUdA



Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-56.qld

Last Altered: Monday, December 11, 2017 10:44:15 Pacific Standard Time
Printed: Monday, December 11, 2017 10:45:56 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.07e3	0.25828		2.52				
2	4	PFHxA	313.2 > 268.9		3.08e3	0.25828		3.04				
3	5	PFHpA	363.0 > 318.9		6.33e3	0.25828		3.66				
4	6	L-PFHxS	398.9 > 79.6	1.21e0	8.30e2	0.25828		3.80	3.79	0.0182	0.362	
5	9	L-PFOA	413 > 368.7	1.31e2	7.95e3	0.25828		4.20	4.17	0.206		
6	12	PFNA	463.0 > 418.8		7.70e3	0.25828		4.61				
7	14	L-PFOS	499 > 79.9		2.18e3	0.25828		4.69				
8	16	PFDA	513 > 468.8		6.76e3	0.25828		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.91e3	0.25828		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.87e3	0.25828		5.30				
11	20	PFUdA	563.0 > 518.9		6.69e3	0.25828		5.31				
12	22	PFDoA	612.9 > 569.0		3.79e3	0.25828		5.58				

ANP 12/11/2017

Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-56.qld

Last Altered: Monday, December 11, 2017 10:44:15 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:33 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.79e3	0.25828		5.75				
2	25	PFTeDA	712.9 > 668.8		3.56e3	0.25828		6.10				
3	33	13C3-PFBS	302. > 98.8	1.07e3	1.08e4	0.25828	0.097	2.52	2.56	1.23	49.243	101.7
4	34	13C2-PFHxA	315 > 269.8	3.08e3	1.08e4	0.25828	0.767	3.04	3.04	3.55	17.929	92.6
5	35	13C4-PFHpA	367.2 > 321.8	6.33e3	1.08e4	0.25828	0.605	3.66	3.66	7.30	46.691	96.5
6	36	18O2-PFHxS	403.0 > 102.6	8.30e2	2.22e3	0.25828	0.427	3.80	3.81	4.67	42.325	87.5
7	37	13C2-6:2 FTS	429.1 > 408.9	1.79e3	6.67e3	0.25828	0.261	4.21	4.12	3.35	49.709	102.7
8	38	13C2-PFOA	414.9 > 369.7	7.95e3	6.67e3	0.25828	1.112	4.20	4.17	14.9	51.941	107.3
9	39	13C5-PFNA	468.2 > 422.9	7.70e3	1.06e4	0.25828	0.939	4.63	4.61	9.05	37.286	77.0
10	40	13C8-PFOSA	506.1 > 77.7	2.17e3	7.39e3	0.25828	0.349	4.67	4.67	3.67	40.794	84.3
11	41	13C8-PFOS	507.0 > 79.9	2.18e3	2.40e3	0.25828	0.991	4.69	4.69	11.4	44.358	91.7
12	42	13C2-PFDA	515.1 > 469.9	6.76e3	5.89e3	0.25828	1.309	5.00	4.98	14.4	42.471	87.8
13	43	13C2-8:2 FTS	529.1 > 508.7	9.82e2	1.08e4	0.25828	0.103	4.98	4.95	1.13	42.378	87.6
14	44	d3-N-MeFOSAA	573.3 > 419	2.91e3	7.39e3	0.25828	0.405	5.15	5.13	4.93	47.063	97.2
15	45	d5-N-EtFOSAA	589.3 > 419	2.87e3	7.39e3	0.25828	0.450	5.30	5.28	4.85	41.755	86.3
16	46	13C2-PFUdA	565 > 519.8	6.69e3	7.39e3	0.25828	1.082	5.31	5.30	11.3	40.520	83.7
17	47	13C2-PFDoA	615.0 > 569.7	3.79e3	7.39e3	0.25828	0.544	5.58	5.58	6.41	45.646	94.3
18	49	13C2-PFTeDA	714.8 > 669.6	3.56e3	7.39e3	0.25828	0.533	6.10	6.04	6.02	43.765	90.4
19	55	13C5-PFHxA	318 > 272.9	1.08e4	1.08e4	0.25828	1.000	3.04	3.04	12.5	48.397	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.22e3	2.22e3	0.25828	1.000	3.80	3.81	12.5	48.397	100.0
21	57	13C8-PFOA	421.3 > 376	6.67e3	6.67e3	0.25828	1.000	4.20	4.17	12.5	48.397	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.06e4	1.06e4	0.25828	1.000	4.63	4.61	12.5	48.397	100.0
23	59	13C4-PFOS	503 > 79.9	2.40e3	2.40e3	0.25828	1.000	4.69	4.69	12.5	48.397	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.89e3	5.89e3	0.25828	1.000	5.00	4.98	12.5	48.397	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.39e3	7.39e3	0.25828	1.000	5.31	5.30	12.5	48.397	100.0
26	62	Total PFHxS	398.9 > 79.6	1.21e0	8.30e2	0.25828		3.81		0.0182	0.362	
27	63	Total PFOA	413 > 368.7	1.31e2	7.95e3	0.25828		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.18e3	0.25828		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.91e3	0.25828		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.87e3	0.25828		5.30		0.000		

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-56.qld

Last Altered: Monday, December 11, 2017 10:44:15 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:33 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	6 L-PFHxS	398.9 > 79.6	3.79	1.207	829.501	0.018	MM	0.4

Total PFOA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.17	131.264	7951.066	0.206	bbl	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-Me-FOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-EtFOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA+PFOS,Total PFOA,Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.17	131.264	7951.066	0.206	bbl	

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Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-56.qld

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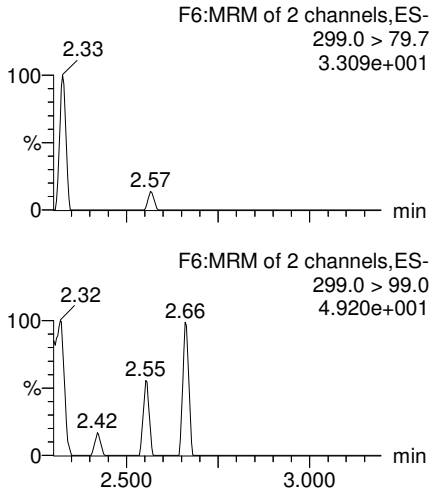
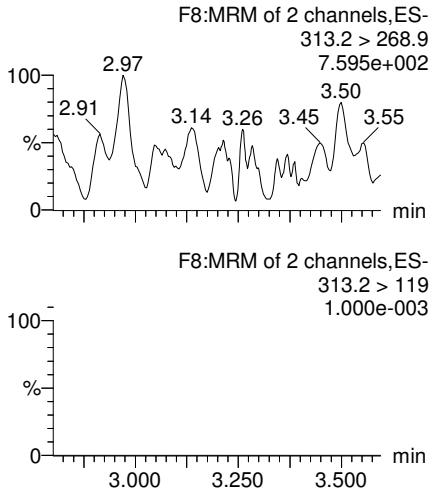
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

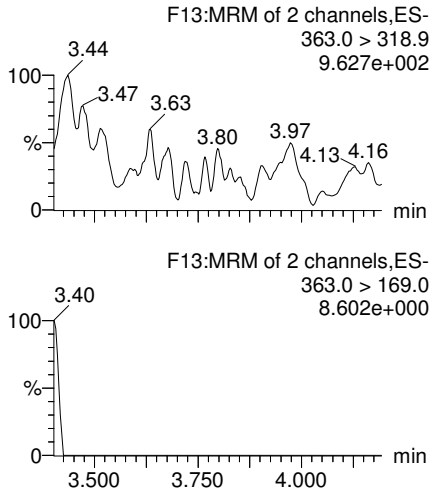
PFBS



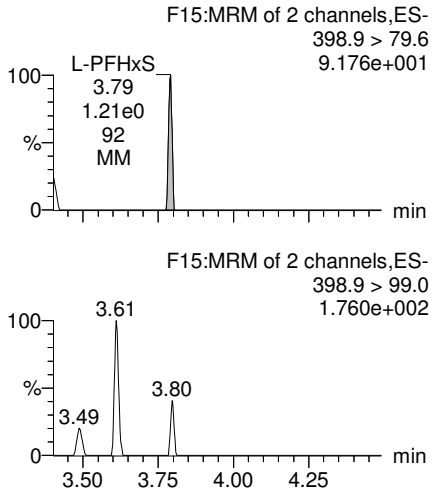
PFHxA



PFHpA



Total PFHxS



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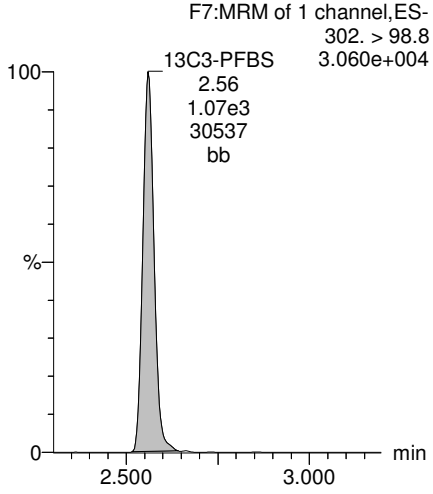

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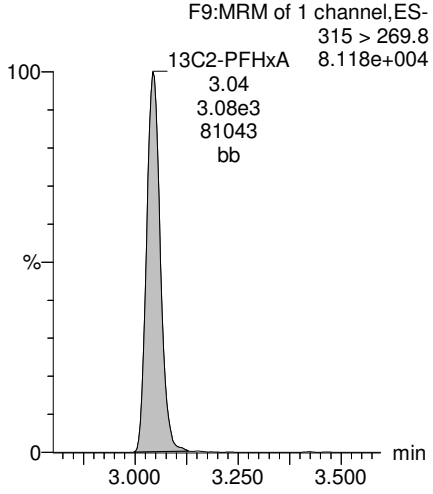

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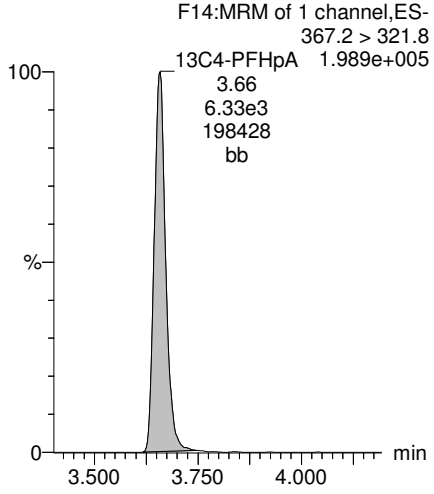

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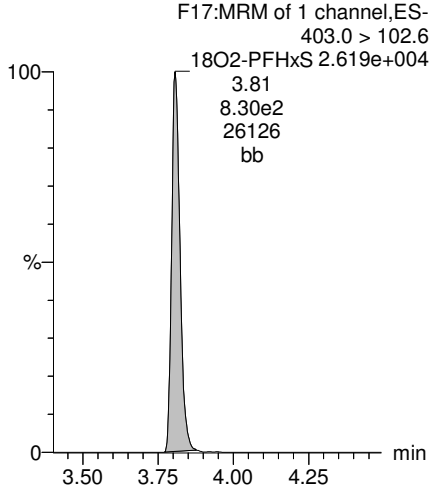

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Vista Analytical Laboratory

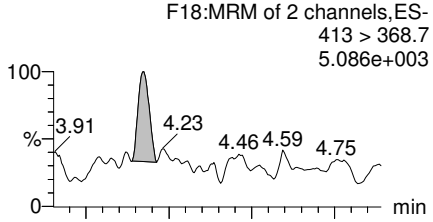
Rev'd: MM 12/11/17

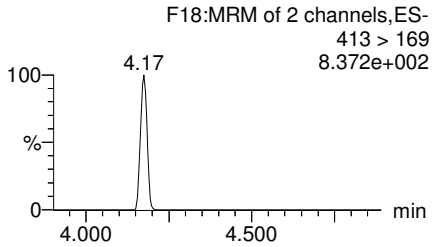
Dataset: U:\Q4.PRO\results\171207M2\171207M2-56.qld

Last Altered: Monday, December 11, 2017 10:44:15 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:33 Pacific Standard Time

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

Total PFOA





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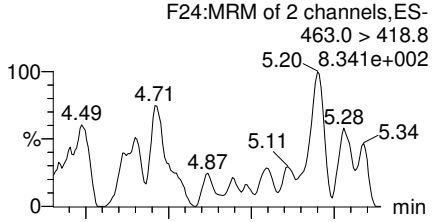
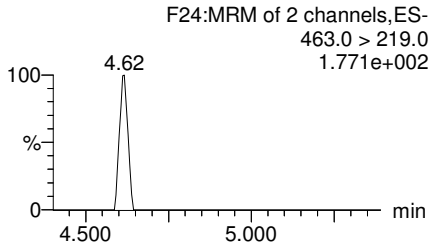
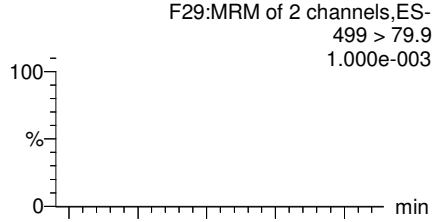
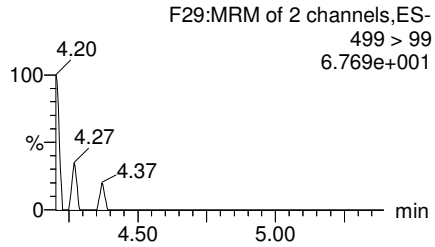




Total PFOS





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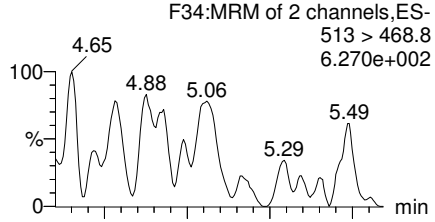
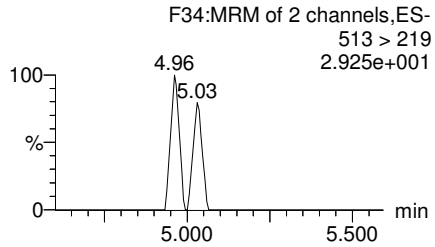
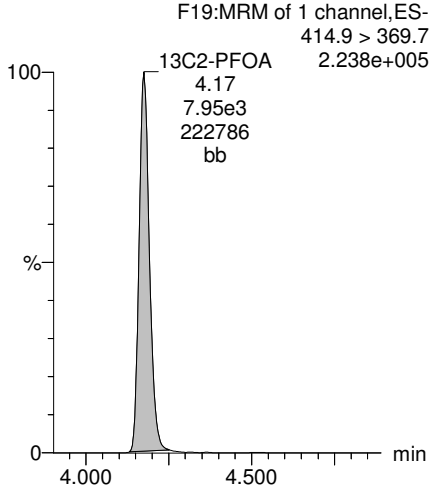




13C2-PFOA



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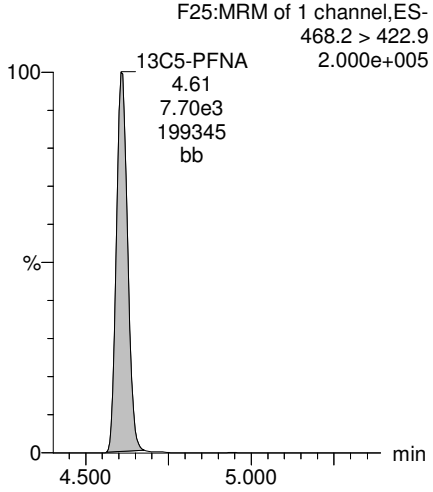

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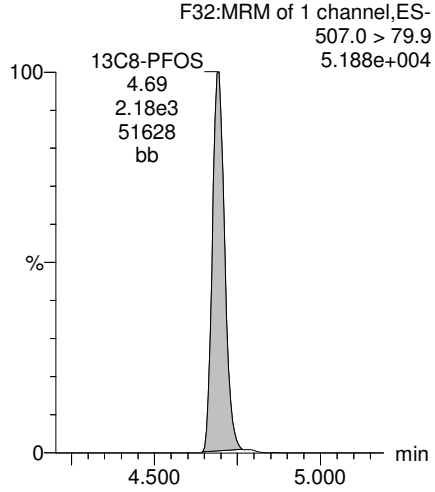

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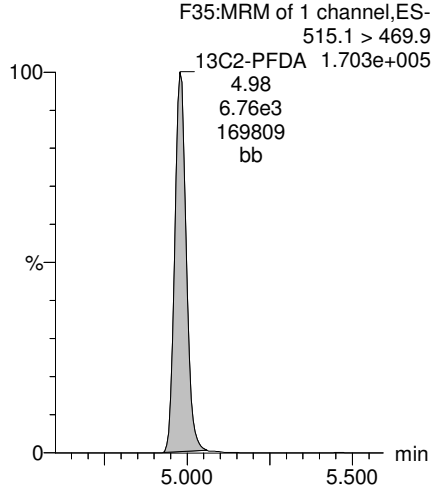

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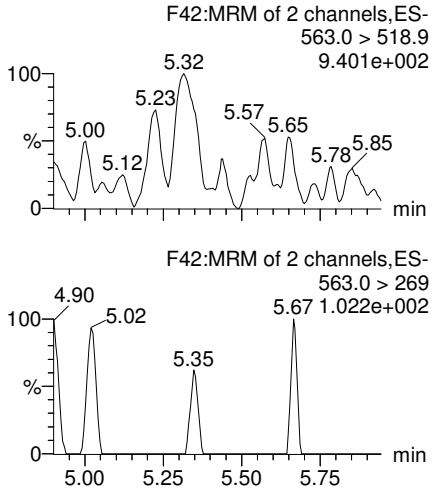
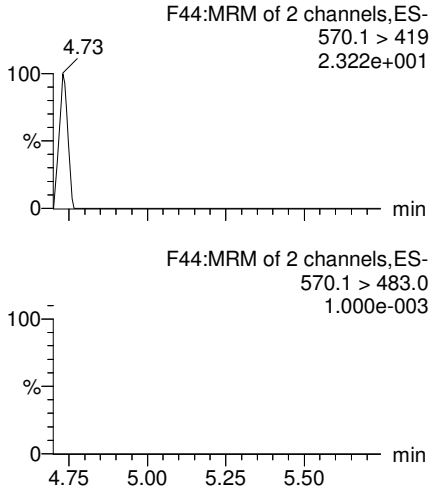
Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

PFUdA



N-MeFOSAA



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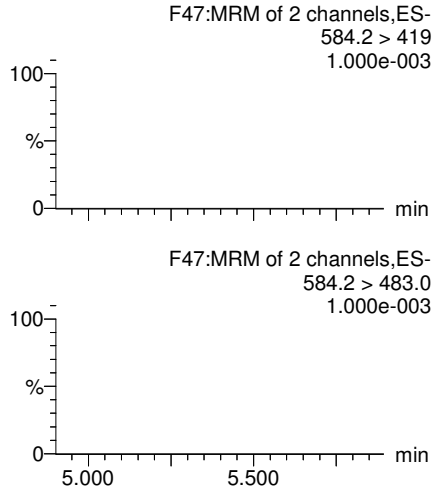

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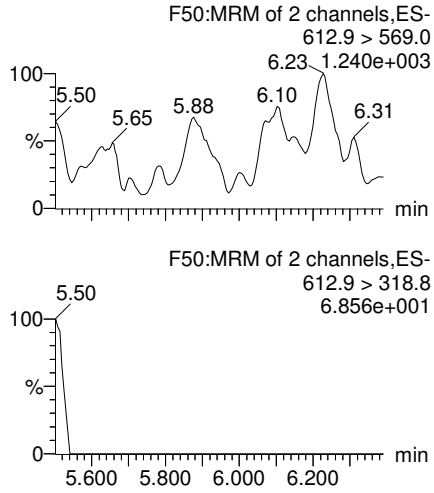

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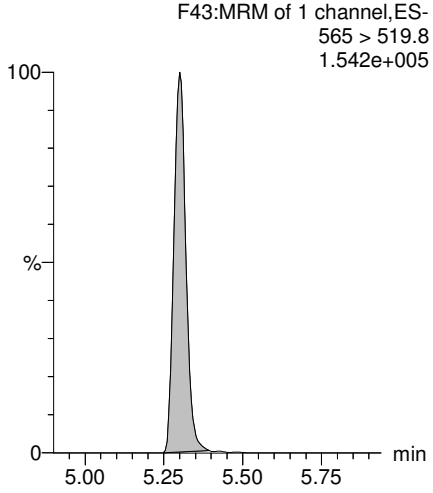

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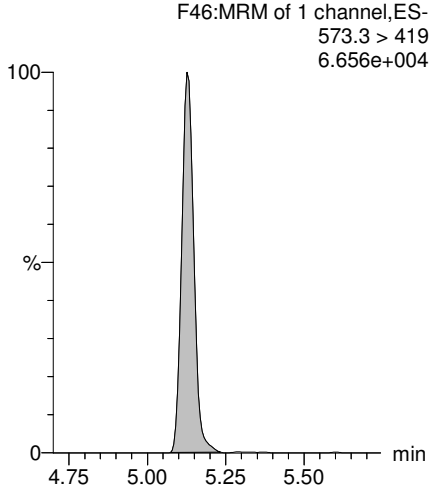

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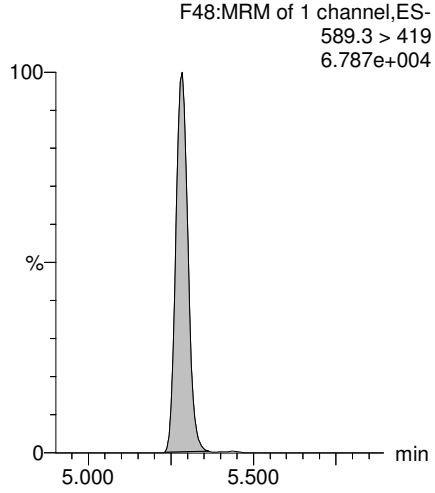

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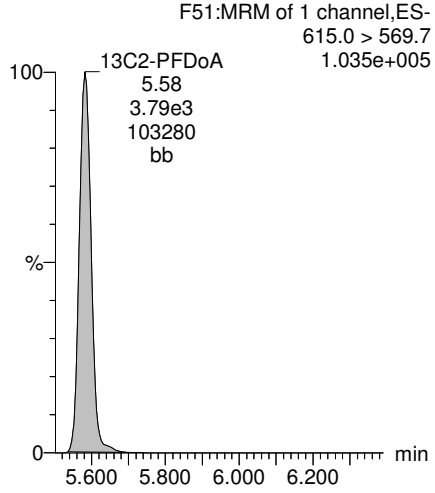

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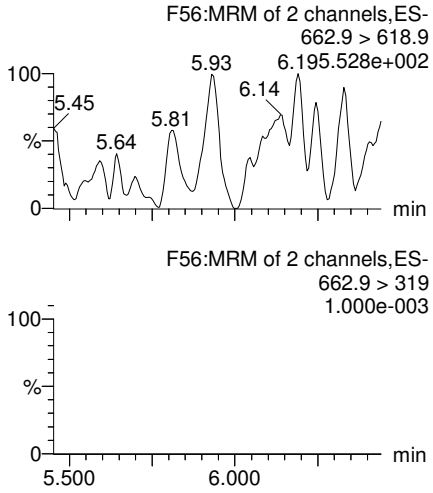
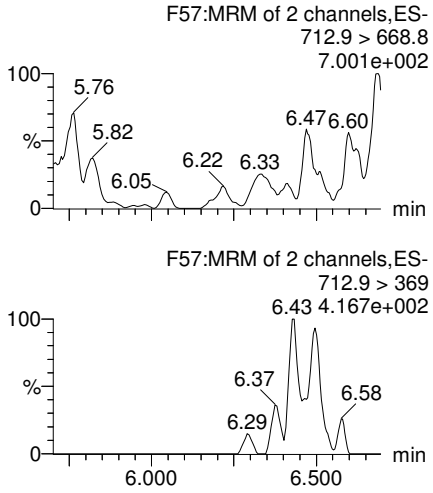
Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

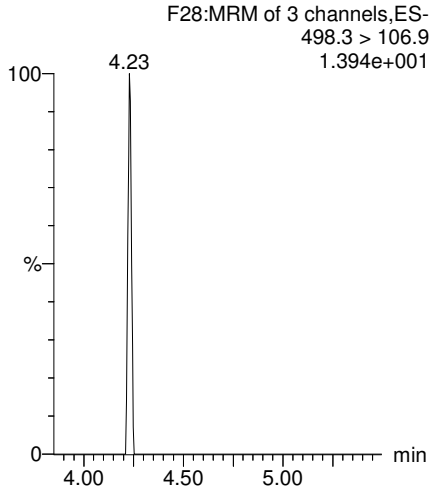
PFTrDA



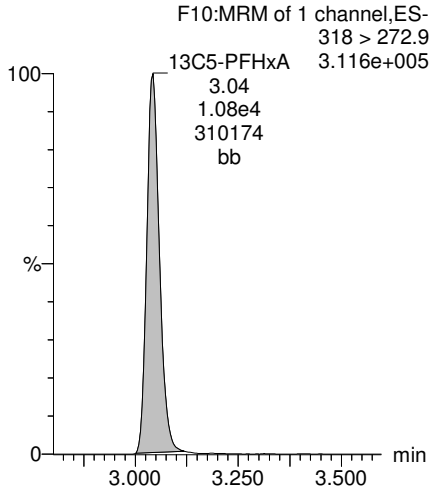
PFTeDA



TCDA



13C5-PFHxA



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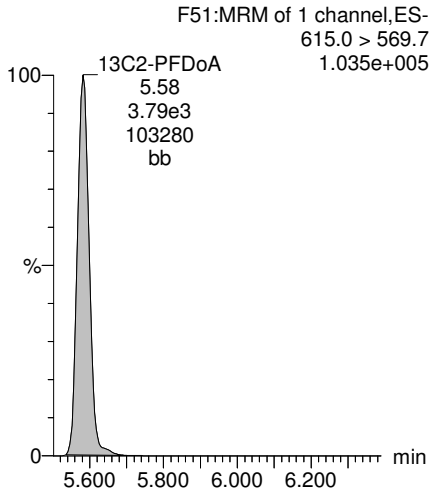

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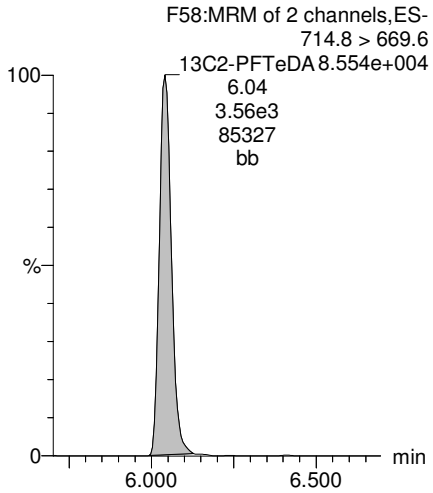
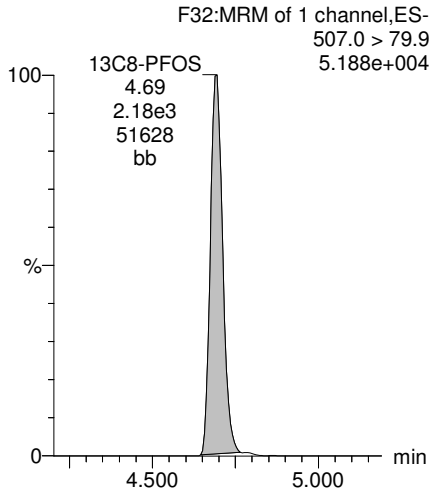
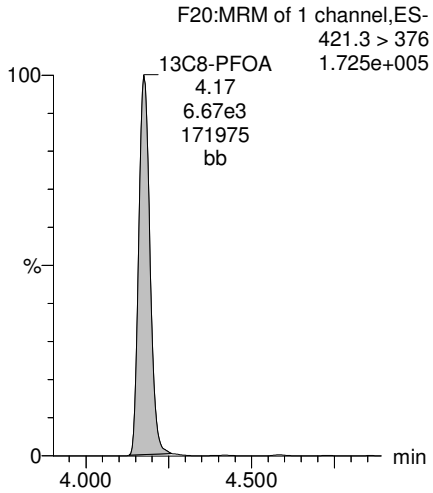


13C8-PFOS



13C8-PFOA



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Dataset: U:\Q4.PRO\results\171207M2\171207M2-56.qld

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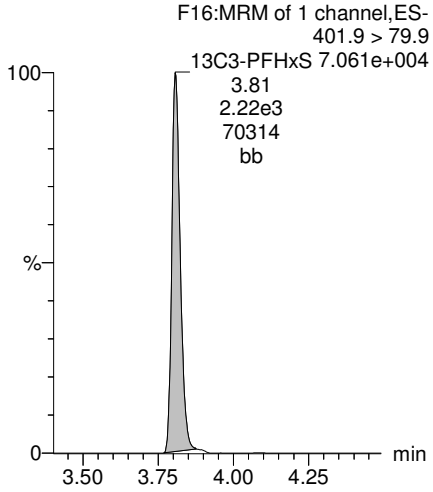
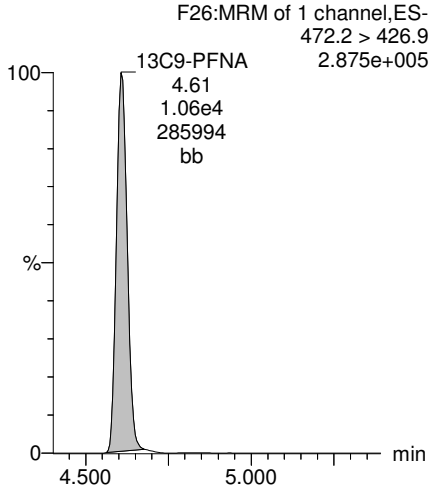
Printed: Monday, December 11, 2017 10:46:33 Pacific Standard Time

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

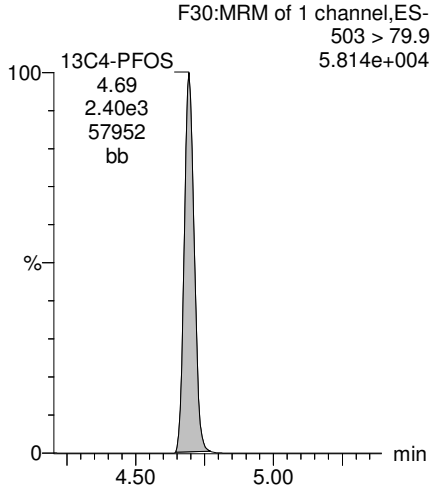
13C3-PFHxS



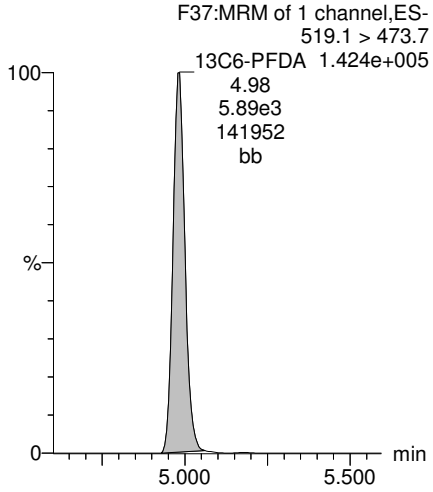
13C9-PFNA



13C4-PFOS



13C6-PFDA



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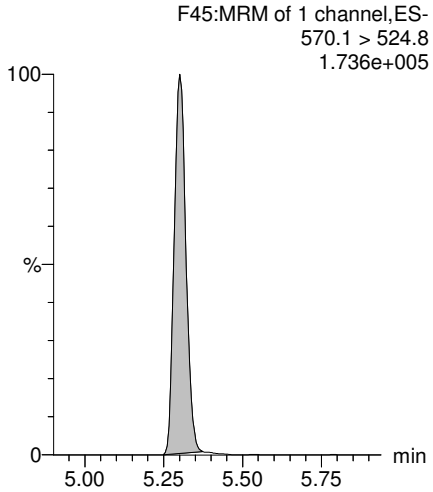

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-56.qld

Last Altered: Monday, December 11, 2017 10:44:15 Pacific Standard Time
Printed: Monday, December 11, 2017 12:52:56 Pacific Standard Time

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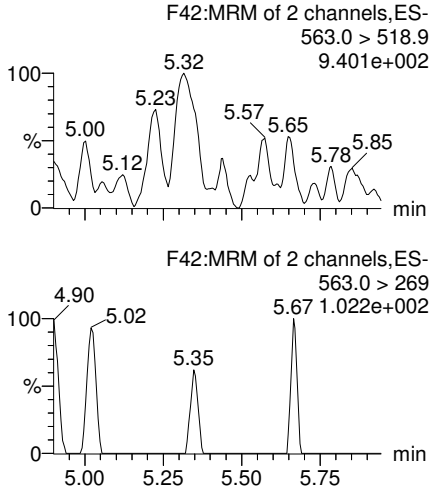
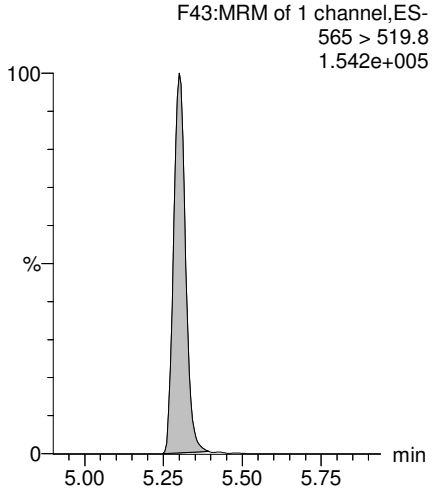
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

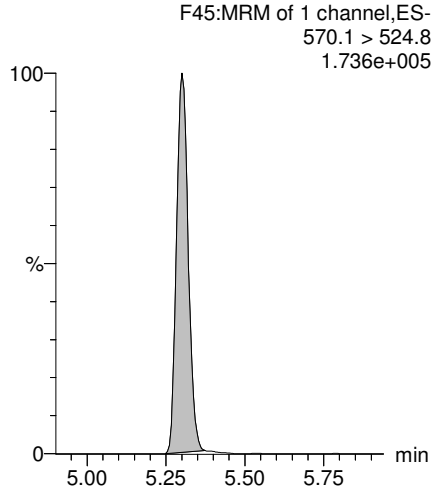
PFUdA



13C2-PFUdA



13C7-PFUdA



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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-57.qld

Last Altered: Monday, December 11, 2017 10:34:54 Pacific Standard Time
Printed: Monday, December 11, 2017 10:38:17 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.11e3	0.26661		2.52				
2	4	PFHxA	313.2 > 268.9		3.24e3	0.26661		3.04				
3	5	PFHpA	363.0 > 318.9		6.63e3	0.26661		3.66				
4	6	L-PFHxS	398.9 > 79.6	1.92e0	1.00e3	0.26661		3.80	3.82	0.0240	0.361	
5	9	L-PFOA	413 > 368.7	1.35e2	8.21e3	0.26661		4.20	4.18	0.206		
6	12	PFNA	463.0 > 418.8		7.27e3	0.26661		4.61				
7	14	L-PFOS	499 > 79.9		2.36e3	0.26661		4.69				
8	16	PFDA	513 > 468.8		7.26e3	0.26661		5.00				
9	18	N-MeFOSAA	570.1 > 419		3.04e3	0.26661		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.95e3	0.26661		5.30				
11	20	PFUdA	563.0 > 518.9		7.28e3	0.26661		5.31				
12	22	PFDoA	612.9 > 569.0		3.60e3	0.26661		5.58				

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-57.qld

Last Altered: Monday, December 11, 2017 10:34:54 Pacific Standard Time
Printed: Monday, December 11, 2017 10:39:09 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.60e3	0.26661		5.75				
2	25	PFTeDA	712.9 > 668.8		4.18e3	0.26661		6.10				
3	33	13C3-PFBS	302. > 98.8	1.11e3	1.14e4	0.26661	0.097	2.52	2.56	1.22	47.221	100.7
4	34	13C2-PFHxA	315 > 269.8	3.24e3	1.14e4	0.26661	0.767	3.04	3.05	3.57	17.482	93.2
5	35	13C4-PFHpA	367.2 > 321.8	6.63e3	1.14e4	0.26661	0.605	3.66	3.66	7.30	45.280	96.6
6	36	18O2-PFHxS	403.0 > 102.6	1.00e3	2.31e3	0.26661	0.427	3.80	3.81	5.41	47.474	101.3
7	37	13C2-6:2 FTS	429.1 > 408.9	2.14e3	8.30e3	0.26661	0.261	4.21	4.12	3.22	46.240	98.6
8	38	13C2-PFOA	414.9 > 369.7	8.21e3	8.30e3	0.26661	1.112	4.20	4.17	12.4	41.705	89.0
9	39	13C5-PFNA	468.2 > 422.9	7.27e3	8.92e3	0.26661	0.939	4.63	4.61	10.2	40.665	86.7
10	40	13C8-PFOSA	506.1 > 77.7	2.08e3	7.41e3	0.26661	0.349	4.67	4.67	3.52	37.831	80.7
11	41	13C8-PFOS	507.0 > 79.9	2.36e3	2.04e3	0.26661	0.991	4.69	4.69	14.4	54.611	116.5
12	42	13C2-PFDA	515.1 > 469.9	7.26e3	6.10e3	0.26661	1.309	5.00	4.98	14.9	42.673	91.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.00e3	1.14e4	0.26661	0.103	4.98	4.95	1.10	39.951	85.2
14	44	d3-N-MeFOSAA	573.3 > 419	3.04e3	7.41e3	0.26661	0.405	5.15	5.13	5.13	47.467	101.2
15	45	d5-N-EtFOSAA	589.3 > 419	2.95e3	7.41e3	0.26661	0.450	5.30	5.28	4.97	41.465	88.4
16	46	13C2-PFUdA	565 > 519.8	7.28e3	7.41e3	0.26661	1.082	5.31	5.30	12.3	42.633	90.9
17	47	13C2-PFDoA	615.0 > 569.7	3.60e3	7.41e3	0.26661	0.544	5.58	5.58	6.08	41.935	89.4
18	49	13C2-PFTeDA	714.8 > 669.6	4.18e3	7.41e3	0.26661	0.533	6.10	6.04	7.05	49.625	105.8
19	55	13C5-PFHxA	318 > 272.9	1.14e4	1.14e4	0.26661	1.000	3.04	3.05	12.5	46.885	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.31e3	2.31e3	0.26661	1.000	3.80	3.81	12.5	46.885	100.0
21	57	13C8-PFOA	421.3 > 376	8.30e3	8.30e3	0.26661	1.000	4.20	4.17	12.5	46.885	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.92e3	8.92e3	0.26661	1.000	4.63	4.61	12.5	46.885	100.0
23	59	13C4-PFOS	503 > 79.9	2.04e3	2.04e3	0.26661	1.000	4.69	4.69	12.5	46.885	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.10e3	6.10e3	0.26661	1.000	5.00	4.98	12.5	46.885	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.41e3	7.41e3	0.26661	1.000	5.31	5.30	12.5	46.885	100.0
26	62	Total PFHxS	398.9 > 79.6	1.92e0	1.00e3	0.26661		3.81		0.0240	0.361	
27	63	Total PFOA	413 > 368.7	1.35e2	8.21e3	0.26661		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.36e3	0.26661		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.04e3	0.26661		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.95e3	0.26661		5.30		0.000		

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-57.qld

Last Altered: Monday, December 11, 2017 10:34:54 Pacific Standard Time
Printed: Monday, December 11, 2017 10:39:09 Pacific Standard Time

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Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	6	L-PFHxS	398.9 > 79.6	3.82	1.921	1000.242	0.024	MM	0.4

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.18	135.494	8205.979	0.206	MMI	

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-Me-FOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total N-EtFOSAA

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1									

Total PFOA+PFOS,Total PFOA,Total PFOS

	#	Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9	L-PFOA	413 > 368.7	4.18	135.494	8205.979	0.206	MMI	

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Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-57.qld

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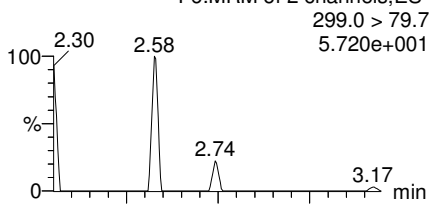
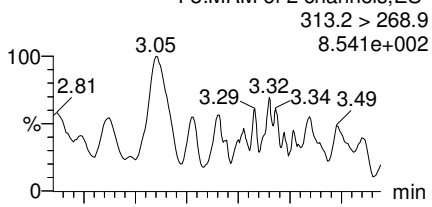
Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

PFBS



PFHxA



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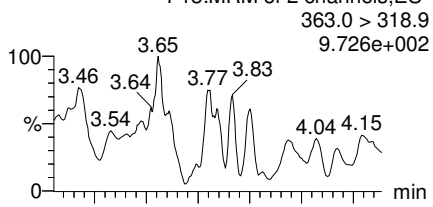
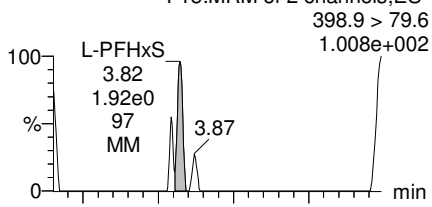


Total PFHxS



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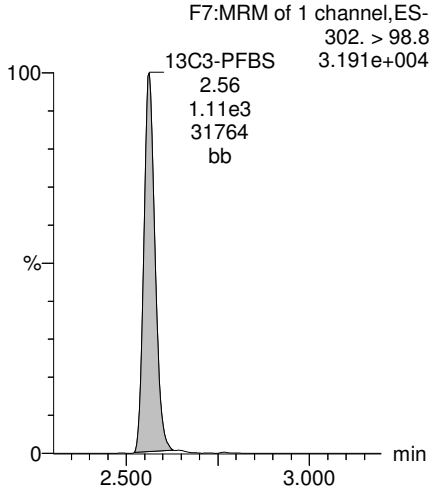

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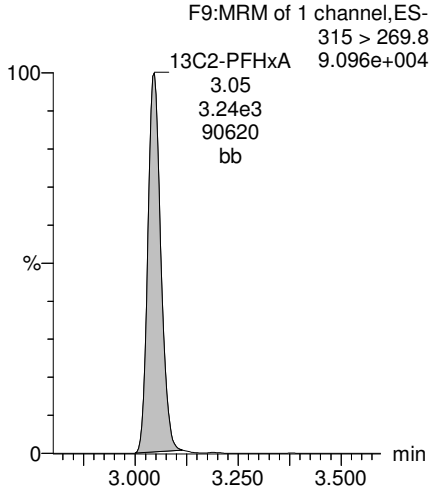

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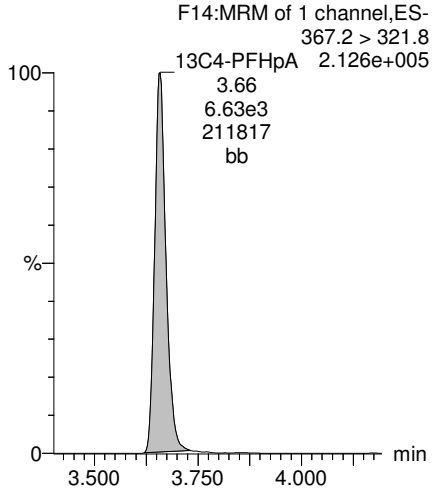

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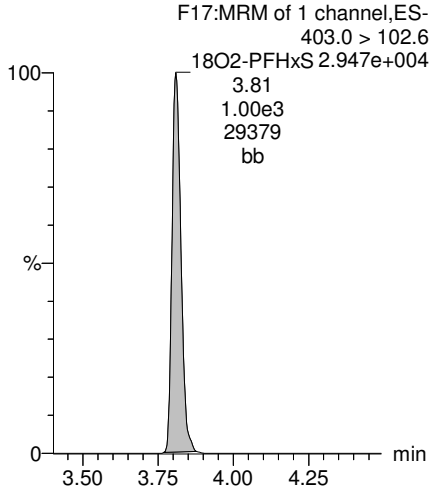

ANP 12/11/2017

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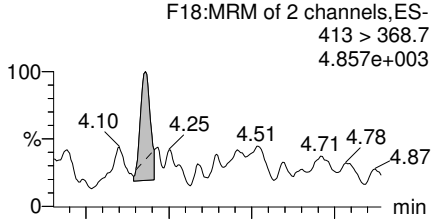
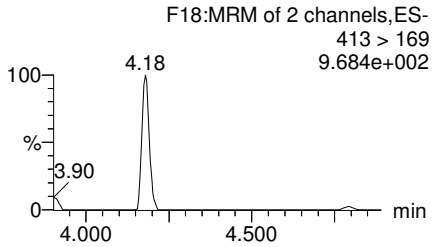
Printed: Monday, December 11, 2017 10:39:09 Pacific Standard Time

Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

Total PFOA





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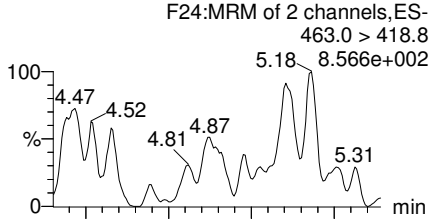
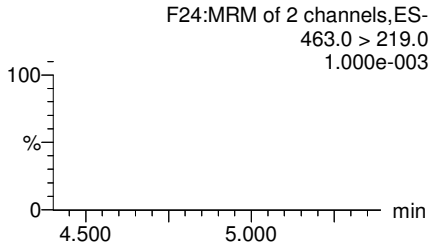
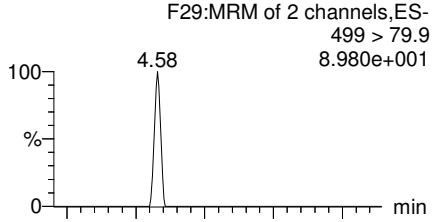
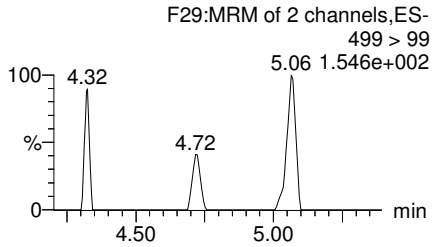


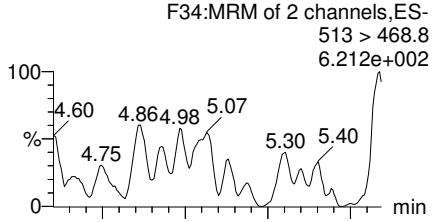


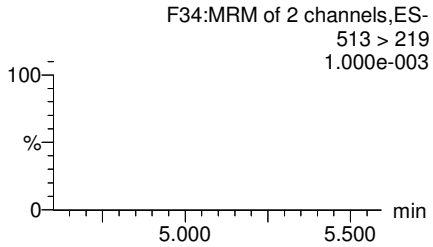
Total PFOS



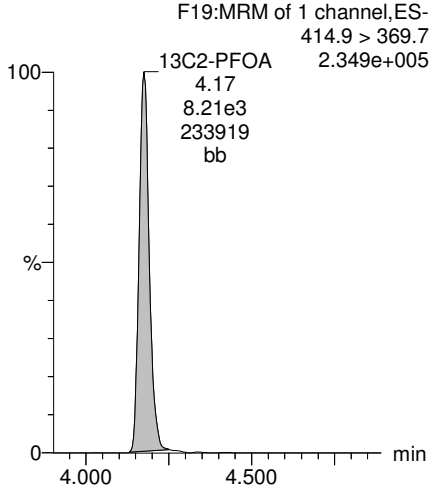


PFDA

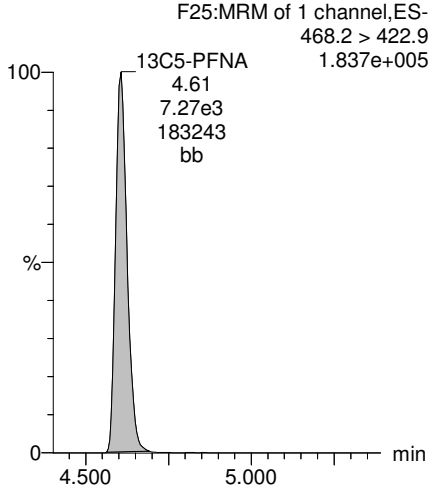




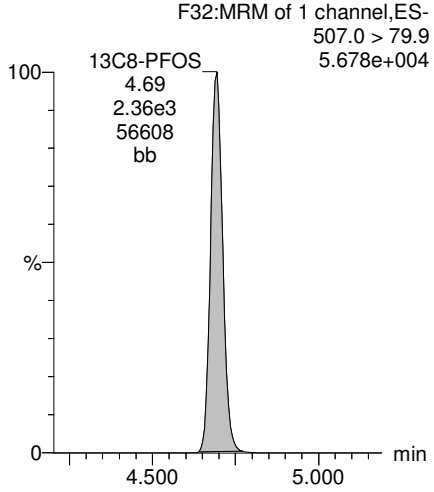
13C2-PFOA



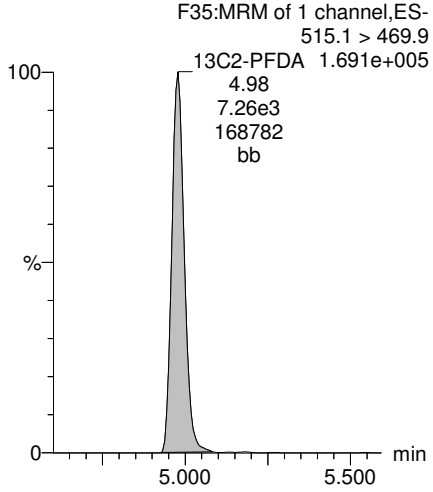
13C5-PFNA



13C8-PFOS



13C2-PFDA



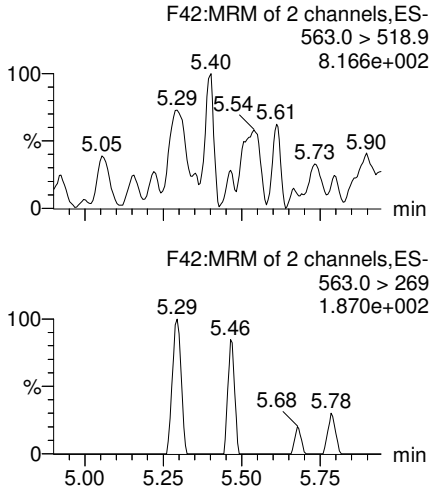
ANP 12/11/2017

Dataset: U:\Q4.PRO\results\171207M2\171207M2-57.qld

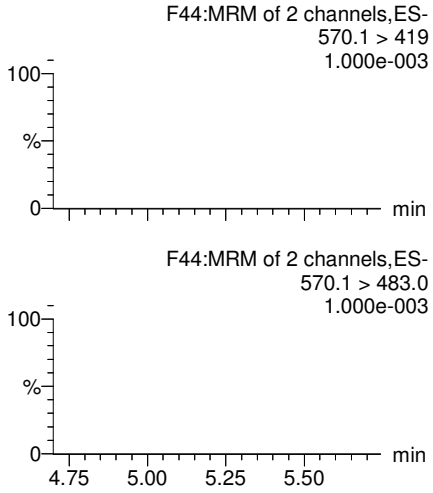
Last Altered: Monday, December 11, 2017 10:34:54 Pacific Standard Time
Printed: Monday, December 11, 2017 10:39:09 Pacific Standard Time

Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

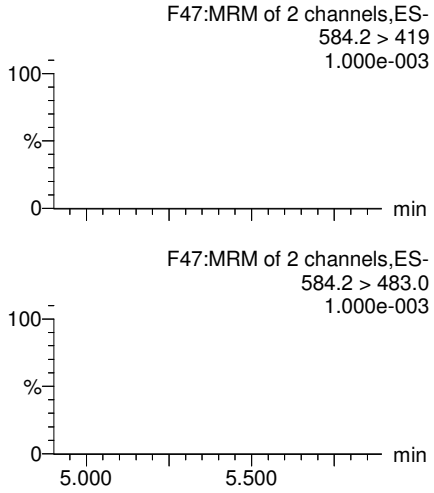
PFUdA



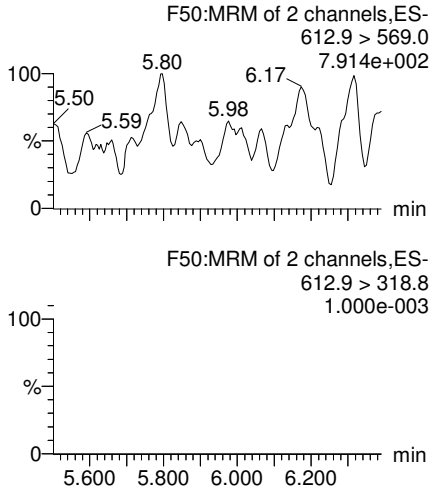
N-MeFOSAA



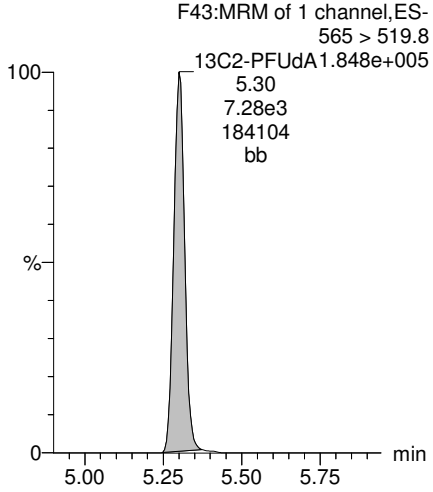
N-EtFOSAA



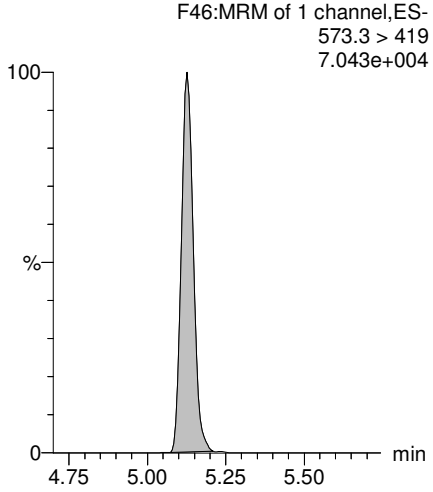
PFDoA



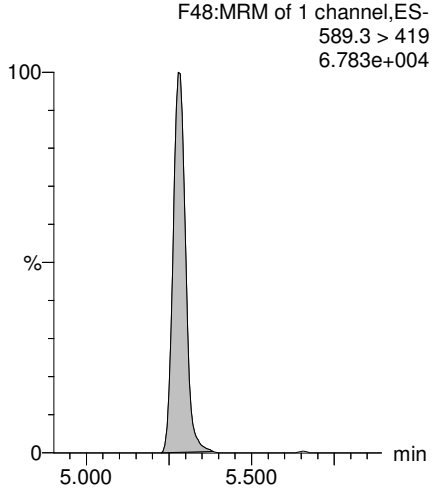
13C2-PFUdA



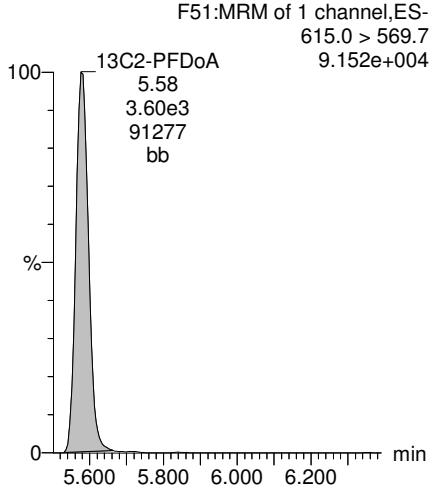
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



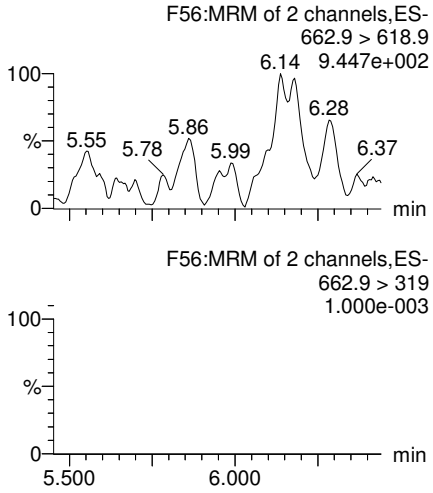
ANP 12/11/2017

Dataset: U:\Q4.PRO\results\171207M2\171207M2-57.qld

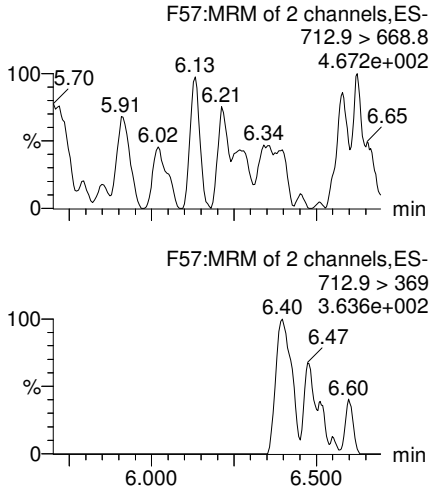
Last Altered: Monday, December 11, 2017 10:34:54 Pacific Standard Time
Printed: Monday, December 11, 2017 10:39:09 Pacific Standard Time

Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

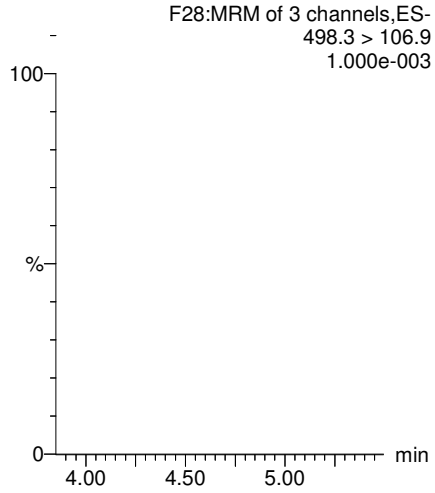
PFTrDA



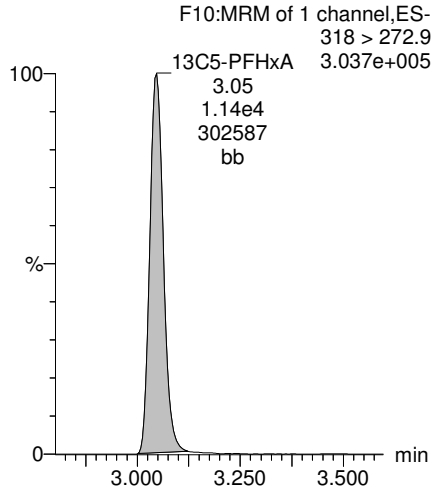
PFTeDA



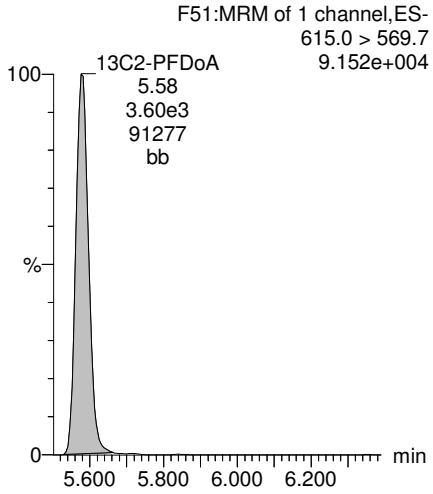
TCDA



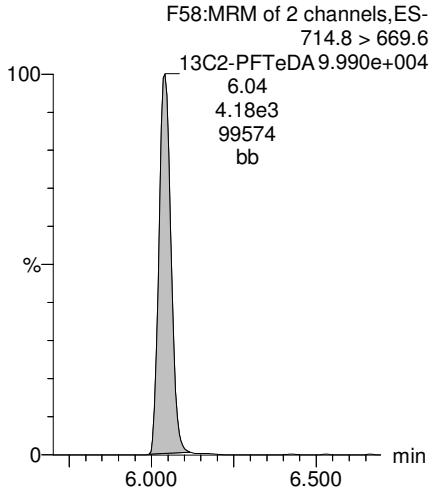
13C5-PFHxA



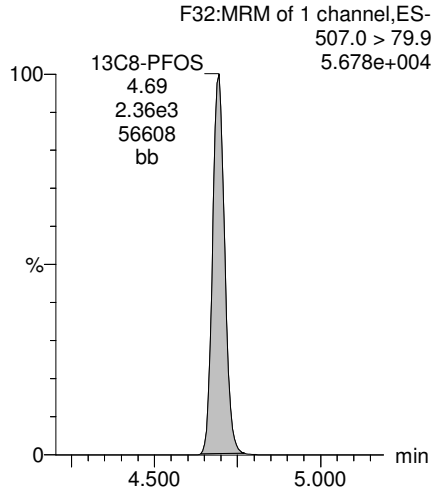
13C2-PFDoA



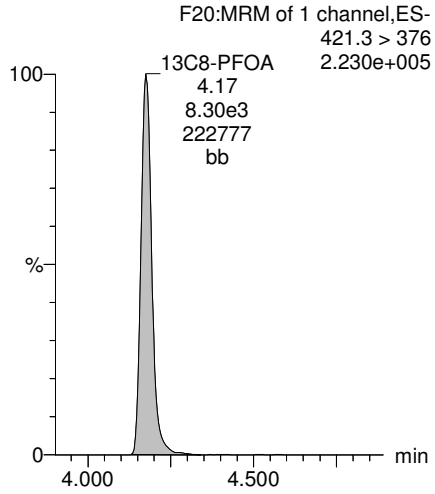
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



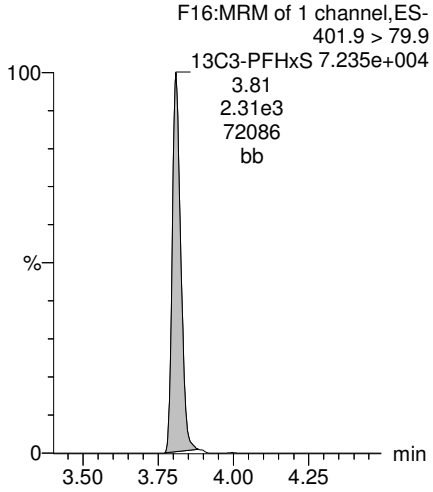
ANP 12/11/2017

Dataset: U:\Q4.PRO\results\171207M2\171207M2-57.qld

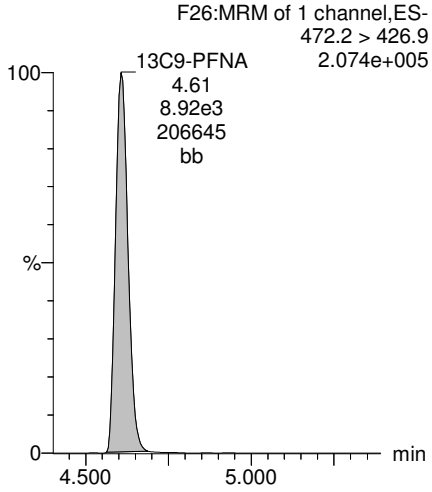
Last Altered: Monday, December 11, 2017 10:34:54 Pacific Standard Time
Printed: Monday, December 11, 2017 10:39:09 Pacific Standard Time

Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

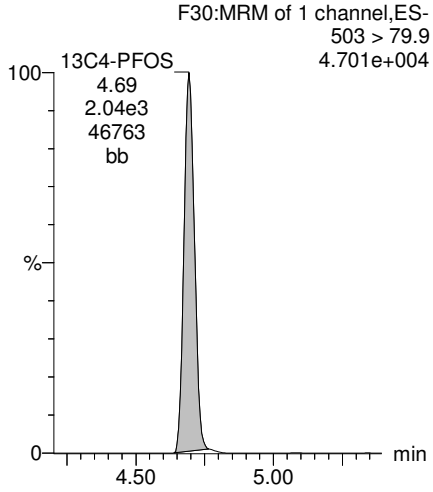
13C3-PFHxS



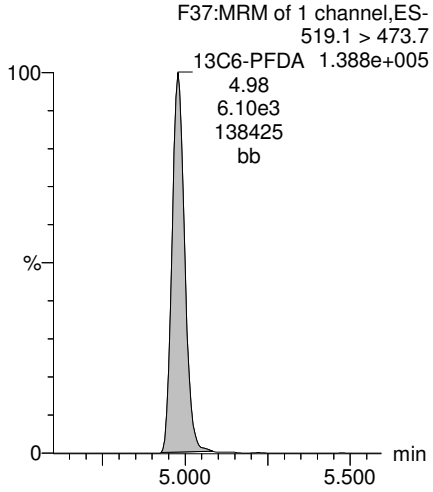
13C9-PFNA



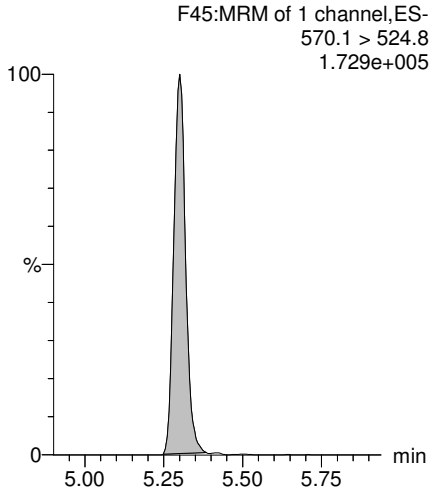
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/11/17

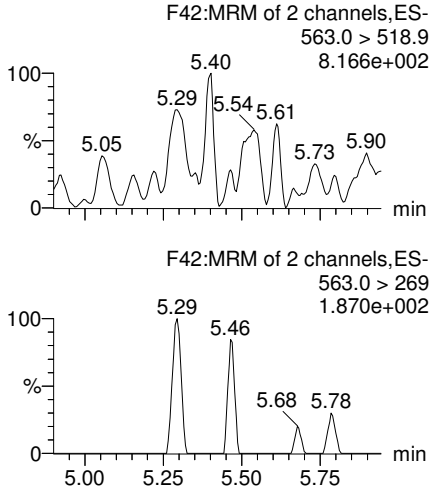
Dataset: U:\Q4.PRO\results\171207M2\171207M2-57.qld

Last Altered: Monday, December 11, 2017 10:34:54 Pacific Standard Time
Printed: Monday, December 11, 2017 12:53:20 Pacific Standard Time

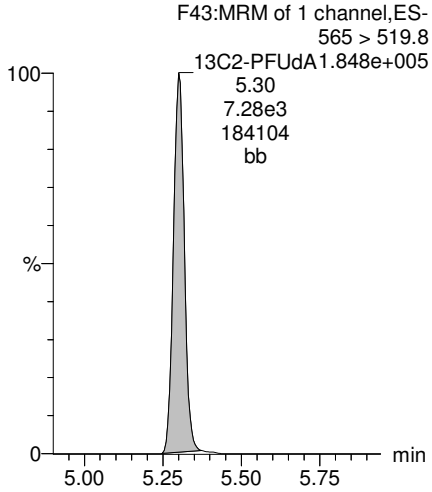
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

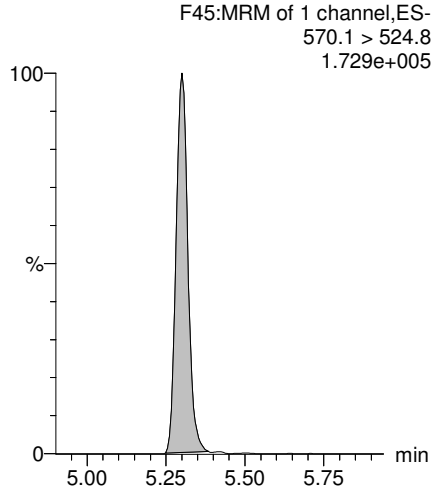
PFUdA



13C2-PFUdA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171209M2\171209M2-15.qld

Last Altered: Monday, December 11, 2017 11:36:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:39:17 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		9.72e2	0.26552		2.52				
2	4	PFHxA	313.2 > 268.9		2.97e3	0.26552		3.04				
3	5	PFHpA	363.0 > 318.9		5.81e3	0.26552		3.66				
4	6	L-PFHxS	398.9 > 79.6		9.16e2	0.26552		3.80				
5	9	L-PFOA	413 > 368.7	1.88e2	8.00e3	0.26552		4.20	4.19	0.293		
6	12	PFNA	463.0 > 418.8		7.21e3	0.26552		4.61				
7	14	L-PFOS	499 > 79.9		2.28e3	0.26552		4.69				
8	16	PFDA	513 > 468.8		8.39e3	0.26552		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.86e3	0.26552		5.15				
10	19	N-EtFOSAA	584.2 > 419		3.00e3	0.26552		5.30				
11	20	PFUdA	563.0 > 518.9		6.08e3	0.26552		5.31				
12	22	PFDoA	612.9 > 569.0		3.26e3	0.26552		5.58				

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-15.qld

Last Altered: Monday, December 11, 2017 11:36:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:39:30 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.26e3	0.26552		5.75				
2	25	PFTeDA	712.9 > 668.8		3.27e3	0.26552		6.10				
3	33	13C3-PFBS	302. > 98.8	9.72e2	1.03e4	0.26552	0.094	2.52	2.57	1.18	47.405	100.7
4	34	13C2-PFHxA	315 > 269.8	2.97e3	1.03e4	0.26552	0.735	3.04	3.05	3.61	18.485	98.2
5	35	13C4-PFHpA	367.2 > 321.8	5.81e3	1.03e4	0.26552	0.583	3.66	3.67	7.07	45.640	96.9
6	36	18O2-PFHxS	403.0 > 102.6	9.16e2	2.04e3	0.26552	0.406	3.80	3.83	5.61	52.013	110.5
7	37	13C2-6:2 FTS	429.1 > 408.9	2.22e3	8.66e3	0.26552	0.283	4.21	4.14	3.21	42.734	90.8
8	38	13C2-PFOA	414.9 > 369.7	8.00e3	8.66e3	0.26552	1.049	4.20	4.20	11.5	41.469	88.1
9	39	13C5-PFNA	468.2 > 422.9	7.21e3	8.66e3	0.26552	0.913	4.63	4.63	10.4	42.912	91.2
10	40	13C8-PFOSA	506.1 > 77.7	1.74e3	7.83e3	0.26552	0.357	4.67	4.69	2.78	29.247	62.1
11	41	13C8-PFOS	507.0 > 79.9	2.28e3	2.30e3	0.26552	1.006	4.69	4.71	12.4	46.358	98.5
12	42	13C2-PFDA	515.1 > 469.9	8.39e3	7.04e3	0.26552	1.452	5.00	5.00	14.9	38.616	82.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.07e3	1.03e4	0.26552	0.119	4.98	4.97	1.30	41.186	87.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.86e3	7.83e3	0.26552	0.391	5.15	5.15	4.56	43.976	93.4
15	45	d5-N-EtFOSAA	589.3 > 419	3.00e3	7.83e3	0.26552	0.412	5.30	5.31	4.79	43.793	93.0
16	46	13C2-PFUdA	565 > 519.8	6.08e3	7.83e3	0.26552	0.956	5.31	5.32	9.71	38.250	81.3
17	47	13C2-PFDoA	615.0 > 569.7	3.26e3	7.83e3	0.26552	0.544	5.58	5.61	5.20	35.992	76.5
18	49	13C2-PFTeDA	714.8 > 669.6	3.27e3	7.83e3	0.26552	0.522	6.10	6.07	5.21	37.595	79.9
19	55	13C5-PFHxA	318 > 272.9	1.03e4	1.03e4	0.26552	1.000	3.04	3.05	12.5	47.077	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.04e3	2.04e3	0.26552	1.000	3.80	3.83	12.5	47.077	100.0
21	57	13C8-PFOA	421.3 > 376	8.66e3	8.66e3	0.26552	1.000	4.20	4.20	12.5	47.077	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.66e3	8.66e3	0.26552	1.000	4.63	4.63	12.5	47.077	100.0
23	59	13C4-PFOS	503 > 79.9	2.30e3	2.30e3	0.26552	1.000	4.69	4.71	12.5	47.077	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.04e3	7.04e3	0.26552	1.000	5.00	5.00	12.5	47.077	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.83e3	7.83e3	0.26552	1.000	5.31	5.33	12.5	47.077	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.16e2	0.26552		3.81		0.000		
27	63	Total PFOA	413 > 368.7	1.88e2	8.00e3	0.26552		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.28e3	0.26552		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.86e3	0.26552		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.00e3	0.26552		5.30		0.000		

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-15.qld

Last Altered: Monday, December 11, 2017 11:36:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:39:30 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.19	187.531	7999.238	0.293	bbl	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-Me-FOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-EtFOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA+PFOS,Total PFOA,Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.19	187.531	7999.238	0.293	bbl	

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Vista Analytical Laboratory

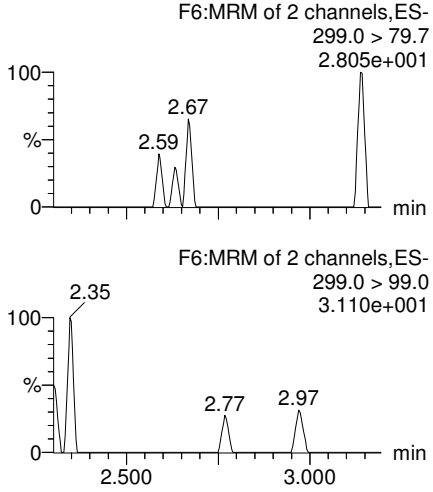
Dataset: U:\Q4.PRO\results\171209M2\171209M2-15.qld

Last Altered: Monday, December 11, 2017 11:36:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:39:30 Pacific Standard Time

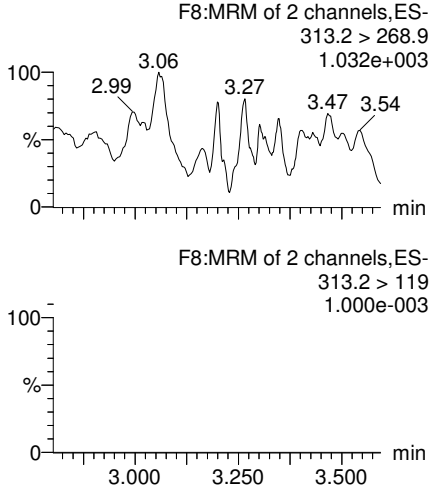
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

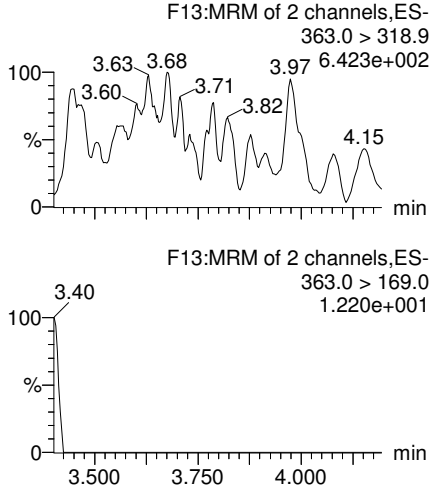
PFBS



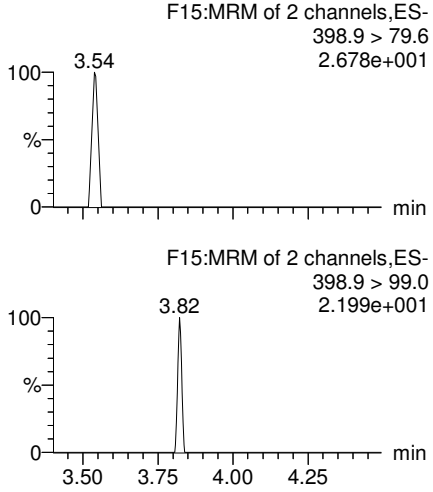
PFHxA



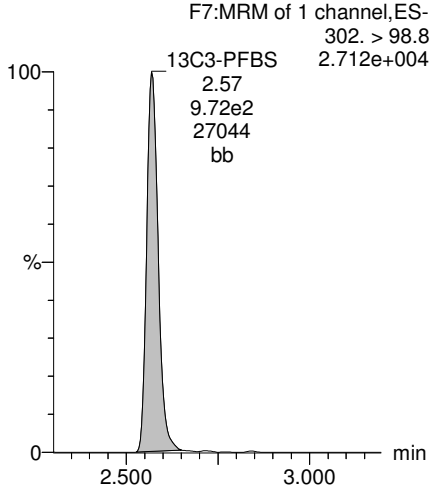
PFHpA



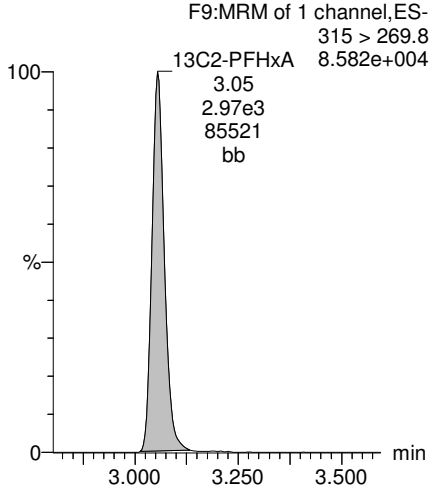
Total PFHxS



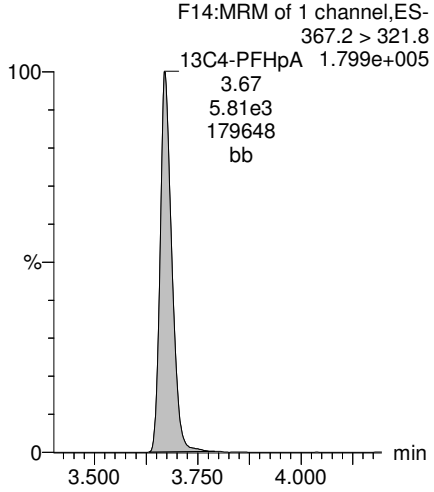
13C3-PFBS



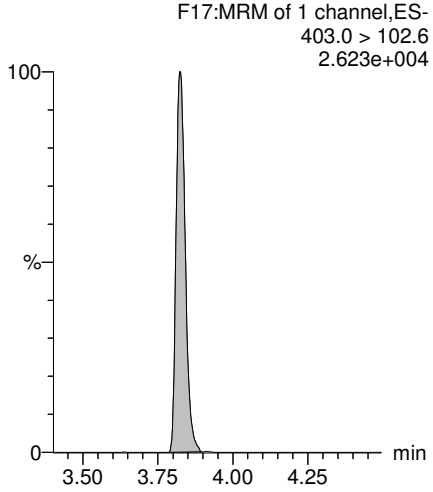
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



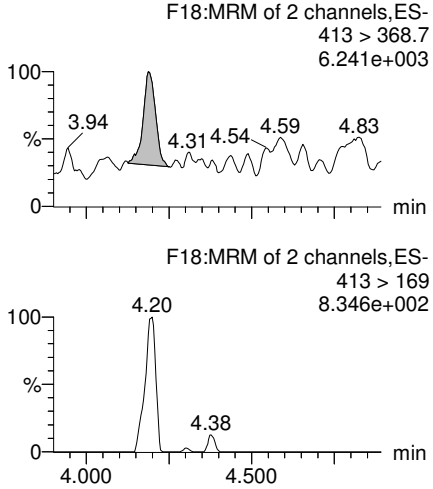
ANP 12/11/2017

Dataset: U:\Q4.PRO\results\171209M2\171209M2-15.qld

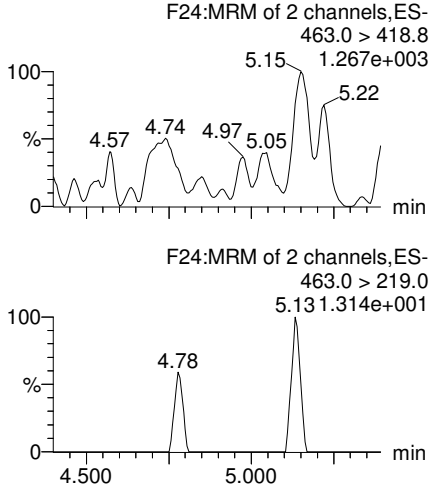
Last Altered: Monday, December 11, 2017 11:36:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:39:30 Pacific Standard Time

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

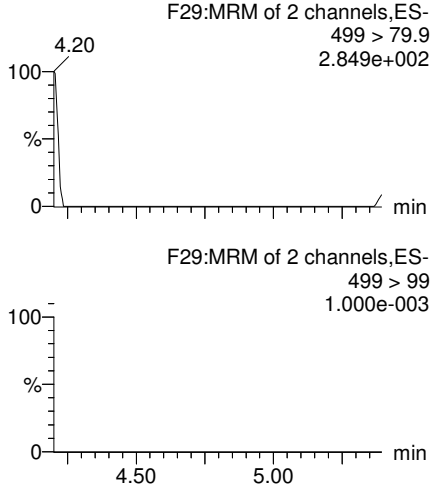
Total PFOA



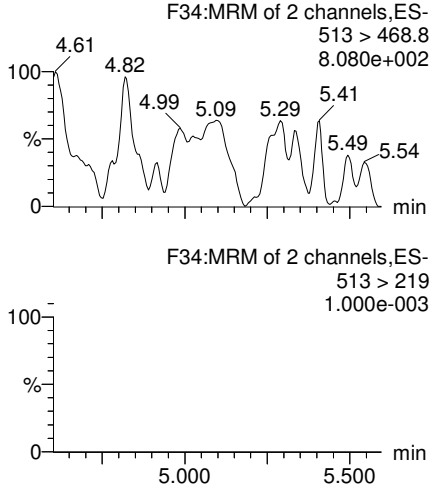
PFNA



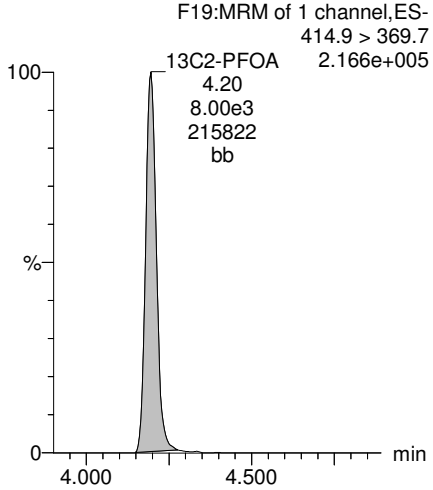
Total PFOS



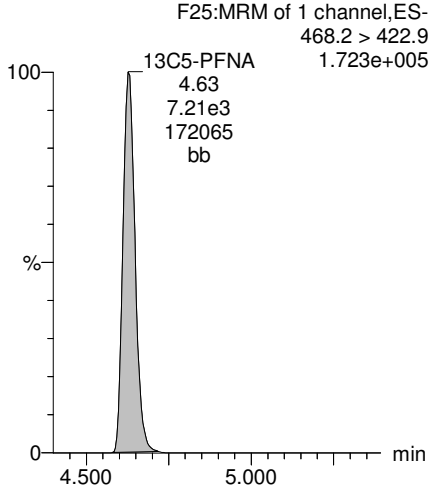
PFDA



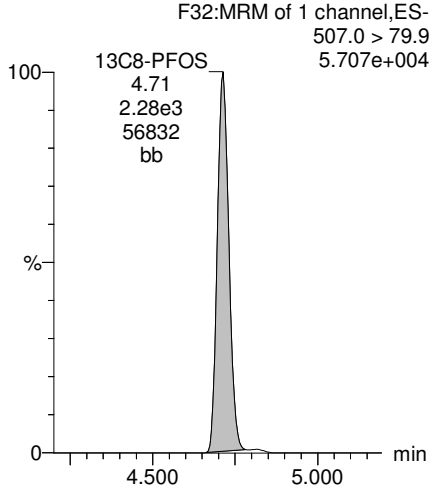
13C2-PFOA



13C5-PFNA



13C8-PFOS



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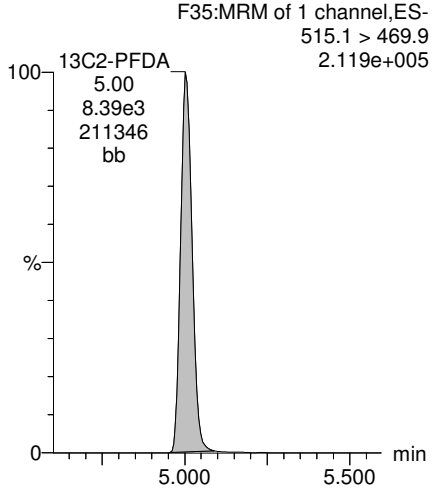


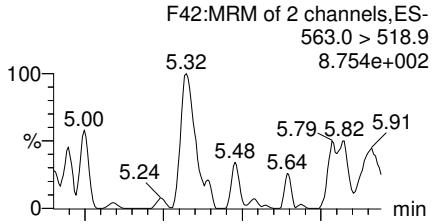
ANP 12/11/2017

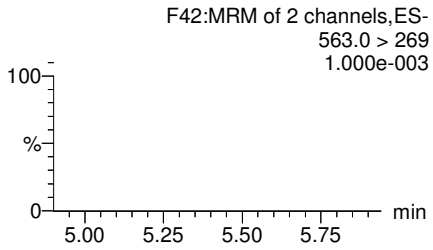
Dataset: U:\Q4.PRO\results\171209M2\171209M2-15.qld

Last Altered: Monday, December 11, 2017 11:36:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:39:30 Pacific Standard Time

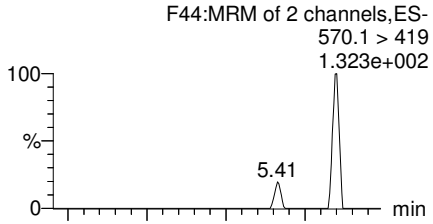
Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

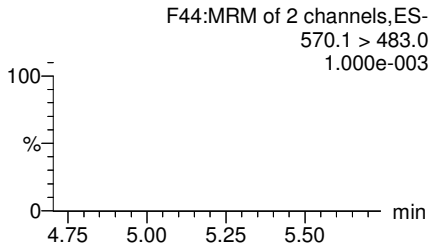
PFUdA



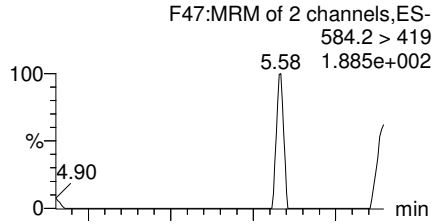


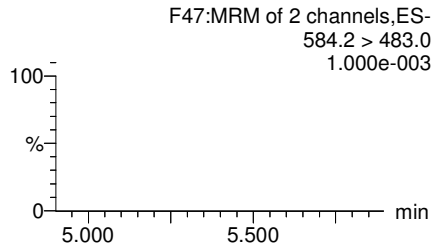
N-MeFOSAA



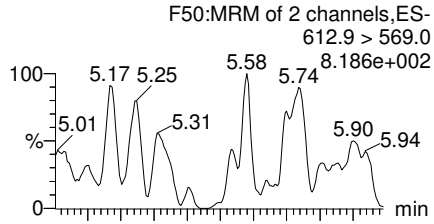


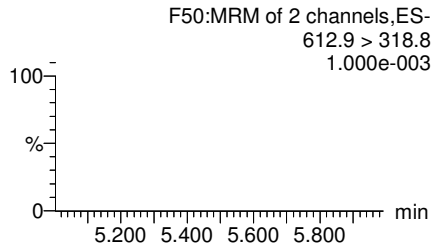
N-EtFOSAA



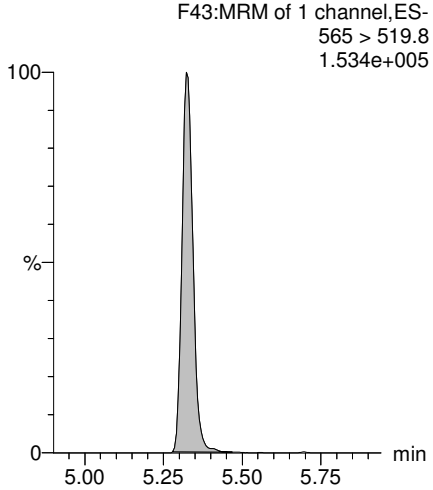


PFDoA

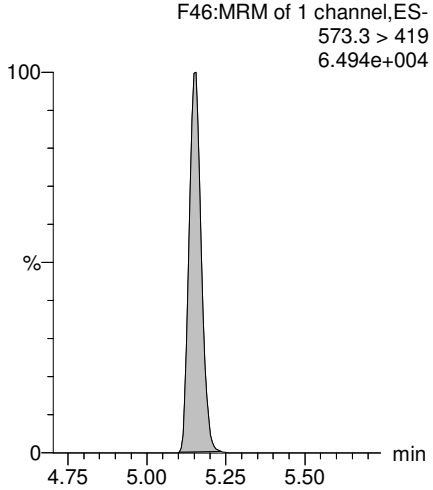




13C2-PFUdA



d3-N-MeFOSAA



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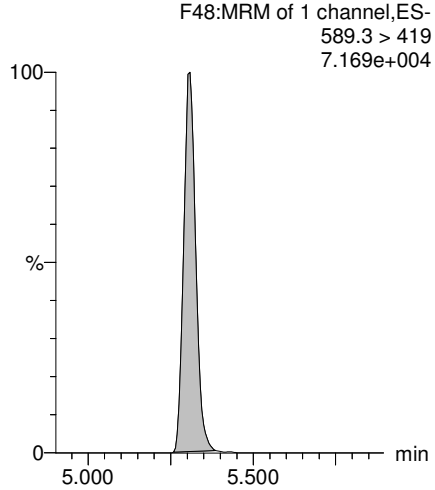
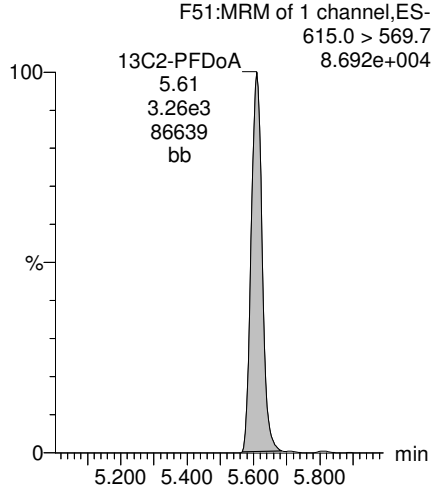


13C2-PFDoA



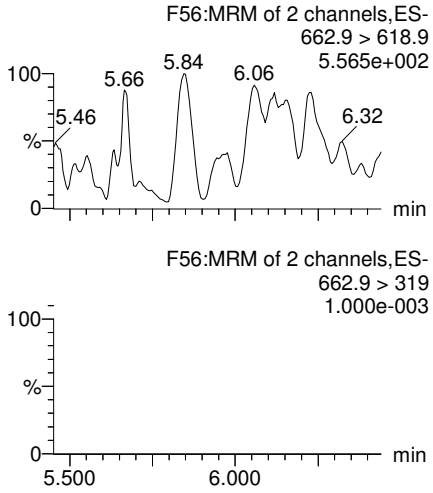
ANP 12/11/2017

Dataset: U:\Q4.PRO\results\171209M2\171209M2-15.qld

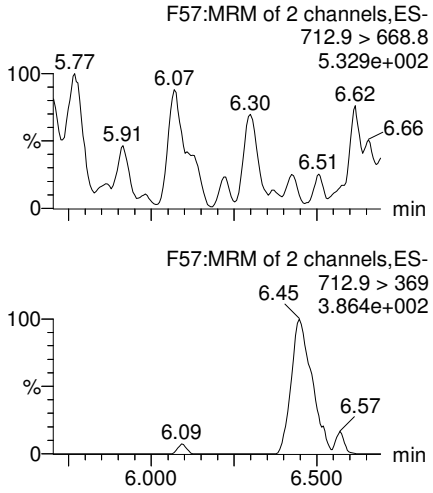
Last Altered: Monday, December 11, 2017 11:36:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:39:30 Pacific Standard Time

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

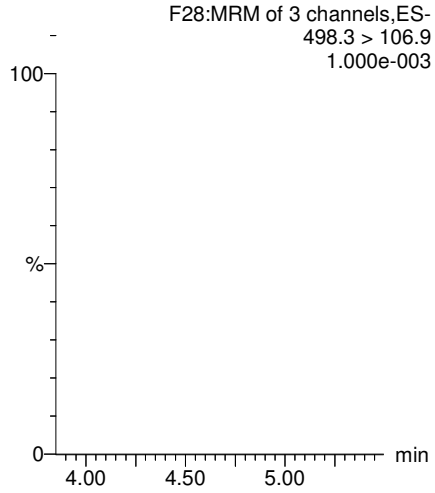
PFTrDA



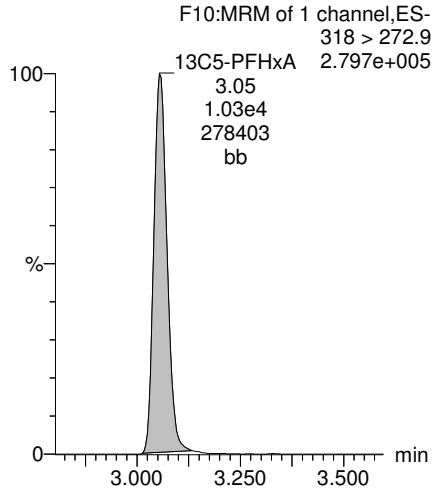
PFTeDA



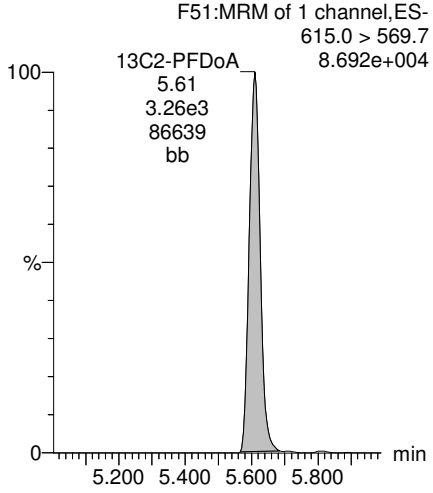
TCDA



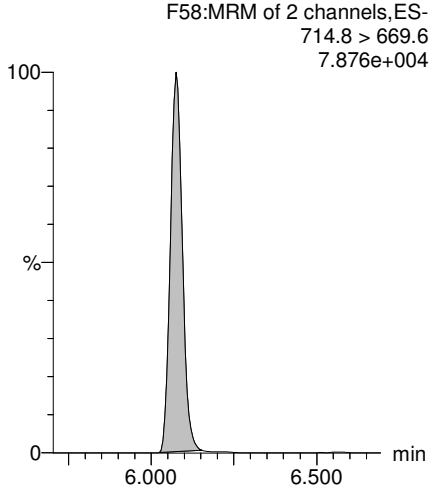
13C5-PFHxA



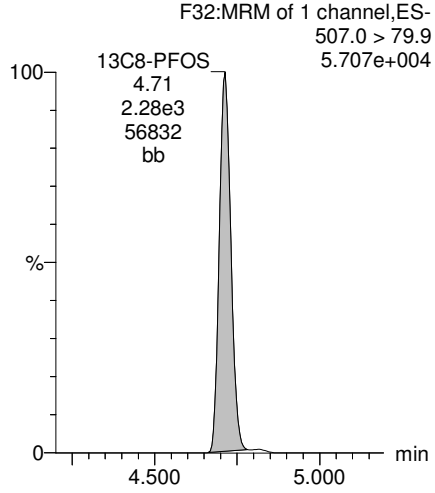
13C2-PFDoA



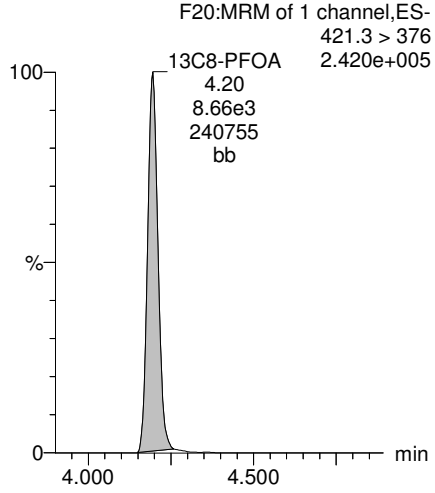
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



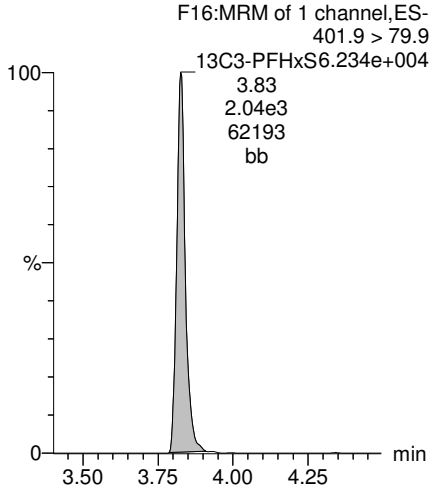
ANP 12/11/2017

Dataset: U:\Q4.PRO\results\171209M2\171209M2-15.qld

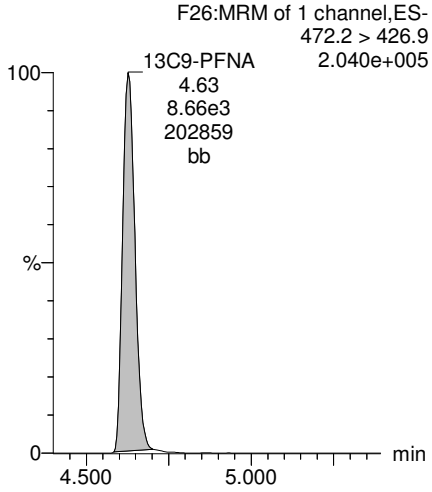
Last Altered: Monday, December 11, 2017 11:36:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:39:30 Pacific Standard Time

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

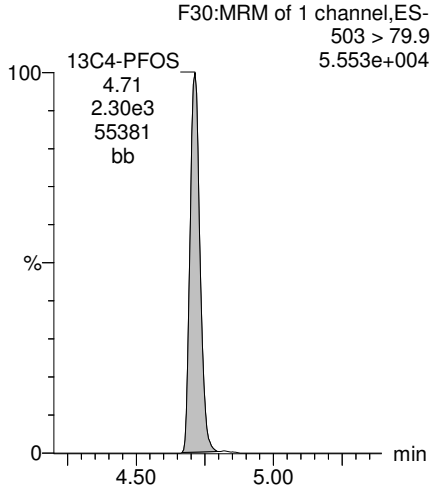
13C3-PFHxS



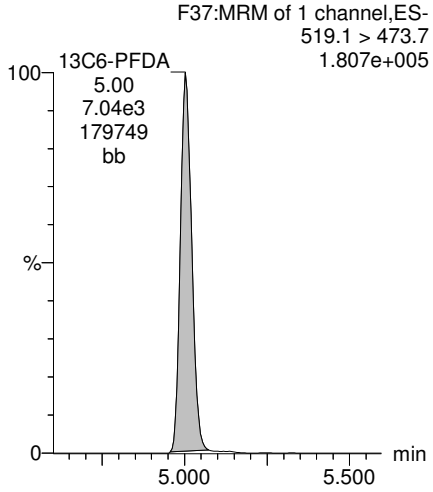
13C9-PFNA



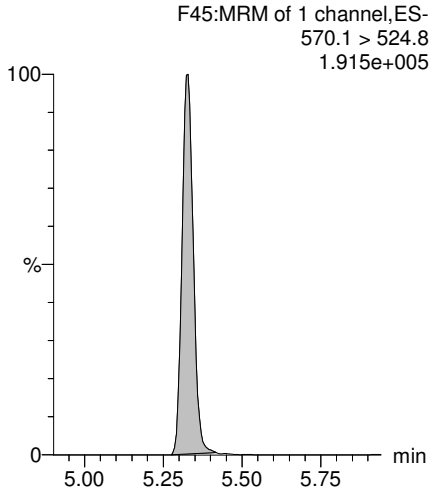
13C4-PFOS



13C6-PFDA



13C7-PFUdA



ANP 12/11/2017

Vista Analytical Laboratory

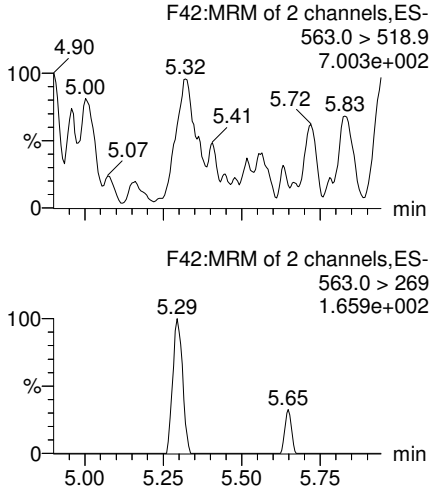
Dataset: U:\Q4.PRO\results\171207M2\171207M2-61.qld

Last Altered: Monday, December 11, 2017 10:48:28 Pacific Standard Time
Printed: Monday, December 11, 2017 12:54:10 Pacific Standard Time

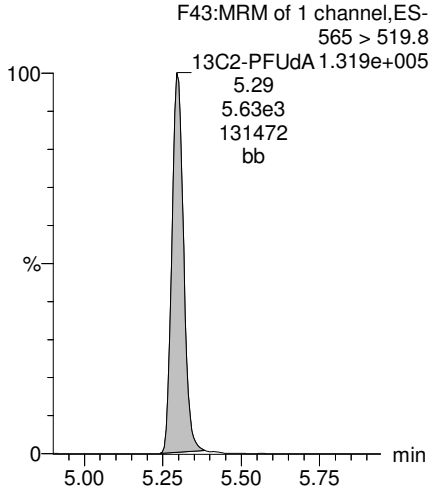
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

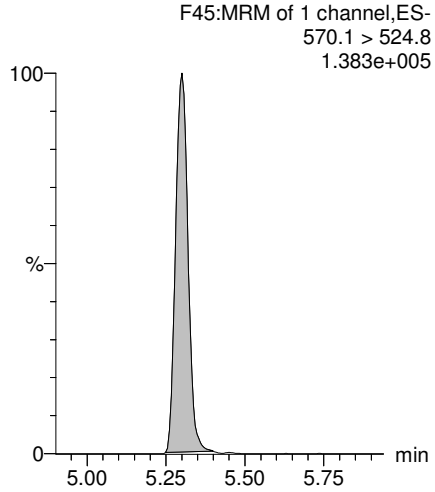
PFUdA



13C2-PFUdA



13C7-PFUdA



UNREPORTED RUNS

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-61.qld

Last Altered: Tuesday, December 12, 2017 07:34:49 Pacific Standard Time
Printed: Tuesday, December 12, 2017 07:36:31 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		9.83e2	0.26552		2.52				
2	4	PFHxA	313.2 > 268.9		3.07e3	0.26552		3.04				
3	5	PFHpA	363.0 > 318.9		6.38e3	0.26552		3.66				
4	6	L-PFHxS	398.9 > 79.6		8.32e2	0.26552		3.80				
5	9	L-PFOA	413 > 368.7	1.99e2	8.12e3	0.26552		4.20	4.17	0.306		
6	12	PFNA	463.0 > 418.8		5.56e3	0.26552		4.61				
7	14	L-PFOS	499 > 79.9		2.29e3	0.26552		4.69				
8	16	PFDA	513 > 468.8		5.45e3	0.26552		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.55e3	0.26552		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.68e3	0.26552		5.30				
11	20	PFUdA	563.0 > 518.9		5.63e3	0.26552		5.31				
12	22	PFDoA	612.9 > 569.0		3.31e3	0.26552		5.58				

AC 12/12/17

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-61.qld

Last Altered: Tuesday, December 12, 2017 07:34:49 Pacific Standard Time
Printed: Tuesday, December 12, 2017 07:36:50 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.31e3	0.26552		5.75				
2	25	PFTeDA	712.9 > 668.8		3.89e3	0.26552		6.10				
3	33	13C3-PFBS	302. > 98.8	9.83e2	1.04e4	0.26552	0.097	2.52	2.56	1.18	45.871	97.4
4	34	13C2-PFHxA	315 > 269.8	3.07e3	1.04e4	0.26552	0.767	3.04	3.04	3.68	18.074	96.0
5	35	13C4-PFHpA	367.2 > 321.8	6.38e3	1.04e4	0.26552	0.605	3.66	3.66	7.65	47.623	101.2
6	36	18O2-PFHxS	403.0 > 102.6	8.32e2	2.10e3	0.26552	0.427	3.80	3.81	4.95	43.641	92.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.84e3	8.76e3	0.26552	0.261	4.21	4.12	2.62	37.784	80.3
8	38	13C2-PFOA	414.9 > 369.7	8.12e3	8.76e3	0.26552	1.112	4.20	4.17	11.6	39.251	83.4
9	39	13C5-PFNA	468.2 > 422.9	5.56e3	8.41e3	0.26552	0.939	4.63	4.61	8.26	33.103	70.3
10	40	13C8-PFOSA	506.1 > 77.7	1.64e3	6.24e3	0.26552	0.349	4.67	4.67	3.29	35.573	75.6
11	41	13C8-PFOS	507.0 > 79.9	2.29e3	2.57e3	0.26552	0.991	4.69	4.69	11.1	42.358	90.0
12	42	13C2-PFDA	515.1 > 469.9	5.45e3	5.75e3	0.26552	1.309	5.00	4.98	11.8	34.075	72.4
13	43	13C2-8:2 FTS	529.1 > 508.7	1.05e3	1.04e4	0.26552	0.103	4.98	4.95	1.26	45.780	97.2
14	44	d3-N-MeFOSAA	573.3 > 419	2.55e3	6.24e3	0.26552	0.405	5.15	5.13	5.10	47.412	100.7
15	45	d5-N-EtFOSAA	589.3 > 419	2.68e3	6.24e3	0.26552	0.450	5.30	5.28	5.38	45.013	95.6
16	46	13C2-PFUdA	565 > 519.8	5.63e3	6.24e3	0.26552	1.082	5.31	5.29	11.3	39.305	83.5
17	47	13C2-PFDoA	615.0 > 569.7	3.31e3	6.24e3	0.26552	0.544	5.58	5.58	6.64	45.949	97.6
18	49	13C2-PFTeDA	714.8 > 669.6	3.89e3	6.24e3	0.26552	0.533	6.10	6.04	7.79	55.090	117.0
19	55	13C5-PFHxA	318 > 272.9	1.04e4	1.04e4	0.26552	1.000	3.04	3.05	12.5	47.077	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.10e3	2.10e3	0.26552	1.000	3.80	3.81	12.5	47.077	100.0
21	57	13C8-PFOA	421.3 > 376	8.76e3	8.76e3	0.26552	1.000	4.20	4.17	12.5	47.077	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.41e3	8.41e3	0.26552	1.000	4.63	4.61	12.5	47.077	100.0
23	59	13C4-PFOS	503 > 79.9	2.57e3	2.57e3	0.26552	1.000	4.69	4.69	12.5	47.077	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.75e3	5.75e3	0.26552	1.000	5.00	4.98	12.5	47.077	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.24e3	6.24e3	0.26552	1.000	5.31	5.30	12.5	47.077	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.32e2	0.26552		3.81		0.000		
27	63	Total PFOA	413 > 368.7	1.99e2	8.12e3	0.26552		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.29e3	0.26552		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.55e3	0.26552		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.68e3	0.26552		5.30		0.000		

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-61.qld

Last Altered: Tuesday, December 12, 2017 07:34:49 Pacific Standard Time
Printed: Tuesday, December 12, 2017 07:36:50 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

Total PFHxS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.17	198.933	8116.150	0.306	bbl	

Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-Me-FOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total N-EtFOSAA

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1								

Total PFOA+PFOS,Total PFOA,Total PFOS

	# Name	Trace	RT	Area	IS Area	Response	Primary Flags	Conc.
1	9 L-PFOA	413 > 368.7	4.17	198.933	8116.150	0.306	bbl	

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-61.qld

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
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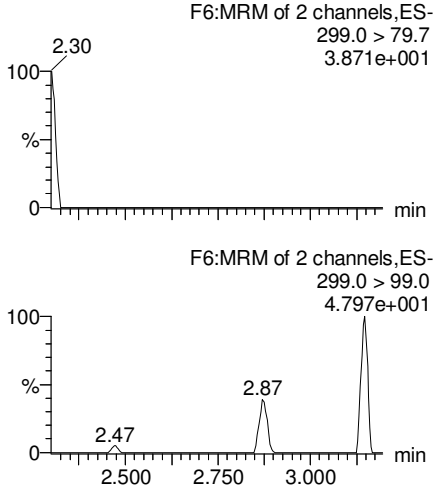
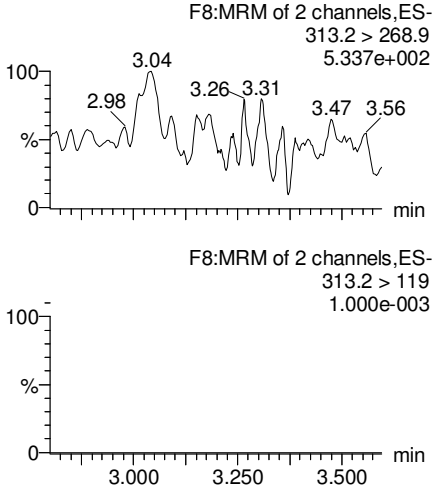
Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

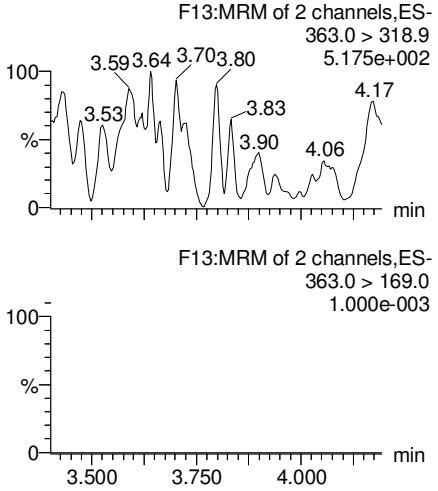
PFBS



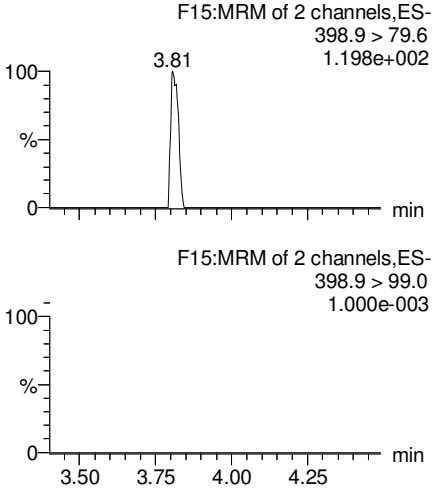
PFHxA



PFHpA



Total PFHxS



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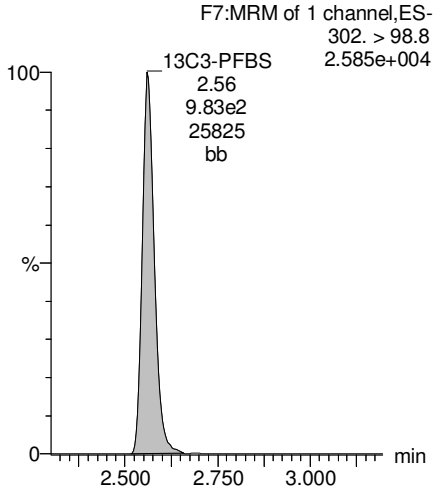

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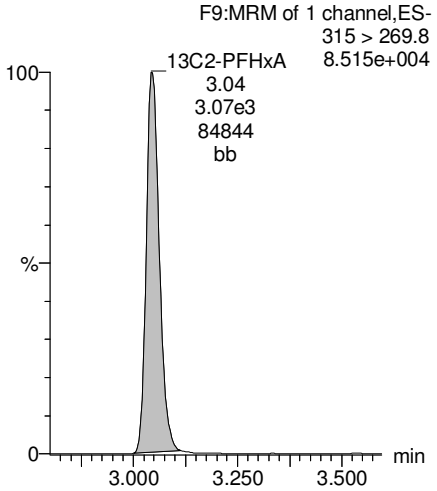

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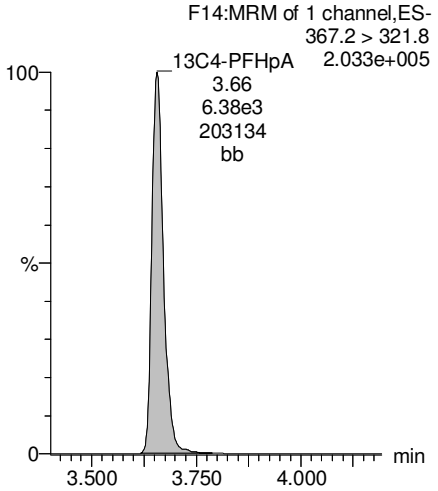

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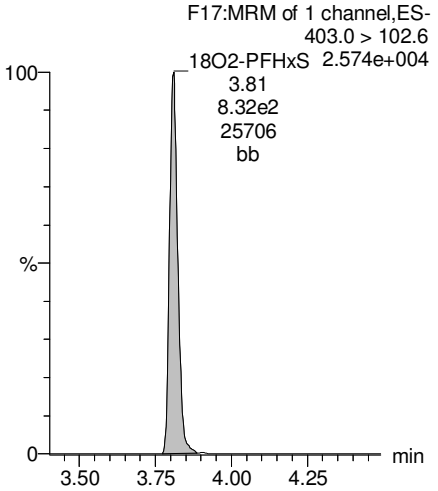

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Vista Analytical Laboratory

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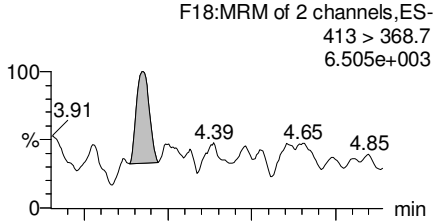
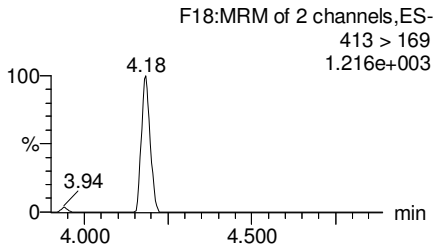
Last Altered: Tuesday, December 12, 2017 07:34:49 Pacific Standard Time
Printed: Tuesday, December 12, 2017 07:36:50 Pacific Standard Time

Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

Total PFOA





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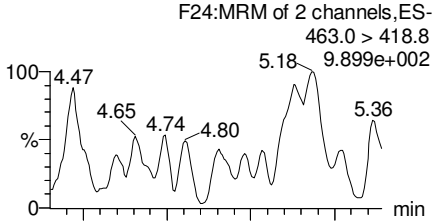
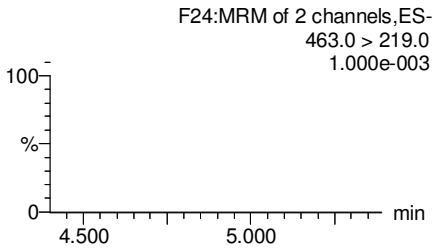
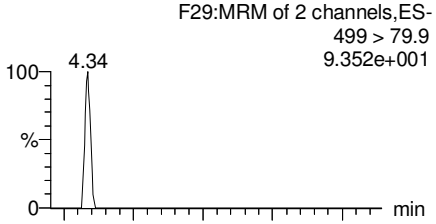
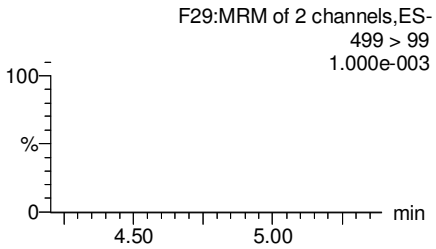




Total PFOS





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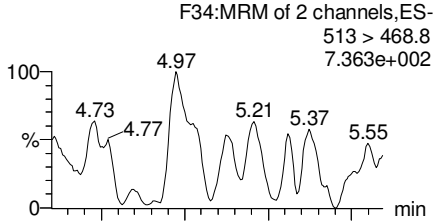
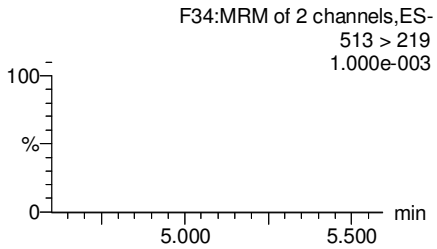
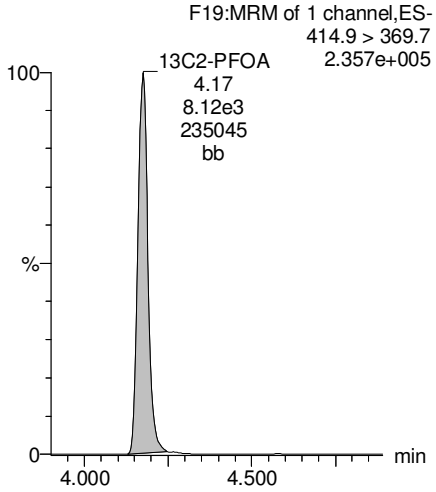




13C2-PFOA



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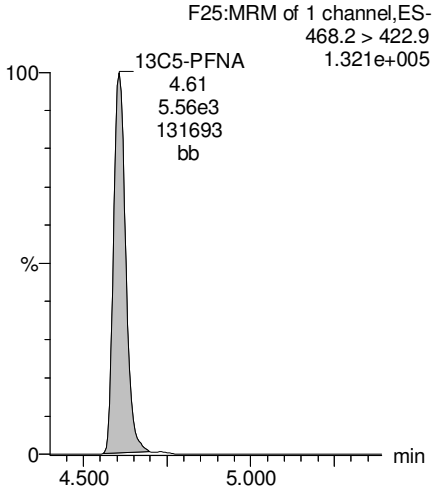

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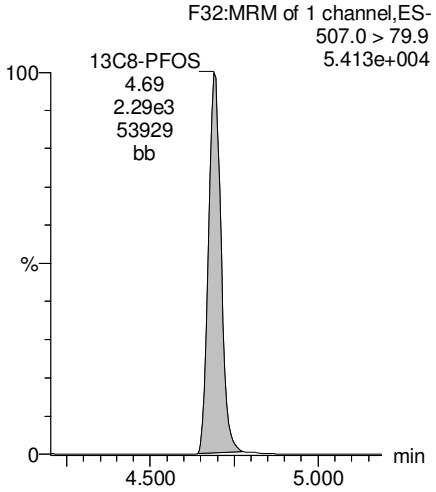

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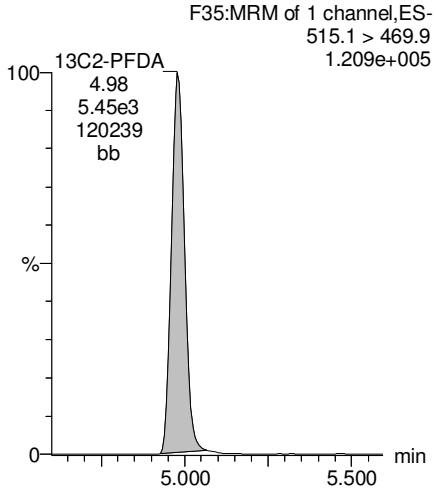

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Dataset: U:\Q4.PRO\results\171207M2\171207M2-61.qld

Last Altered: Tuesday, December 12, 2017 07:34:49 Pacific Standard Time
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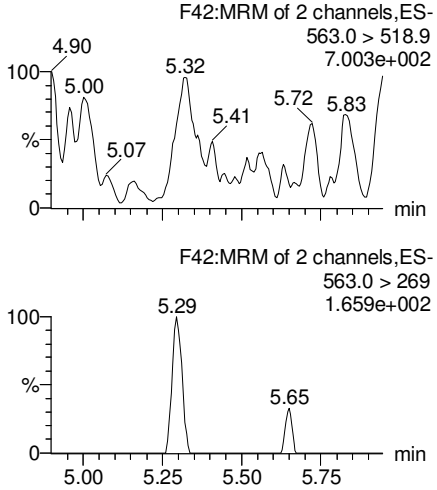
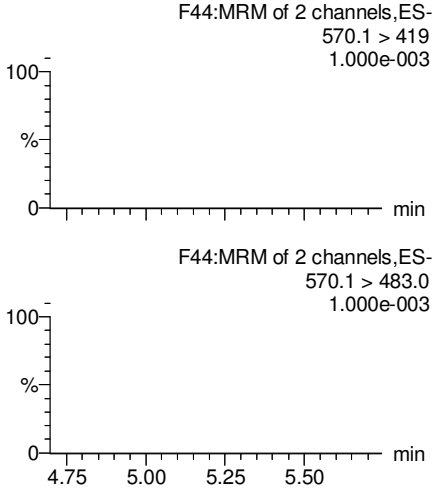
Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

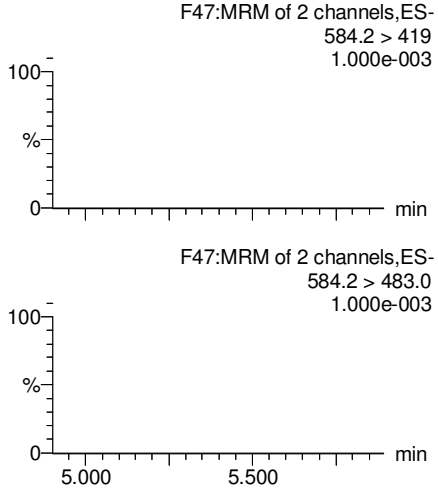
PFUdA



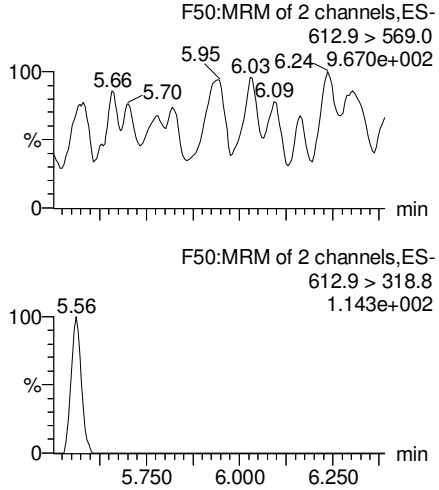
N-MeFOSAA



N-EtFOSAA



PFDoA



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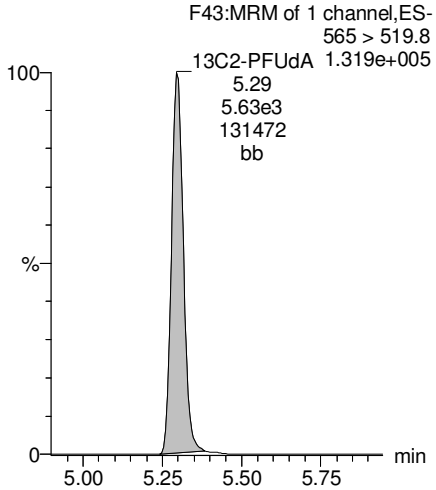

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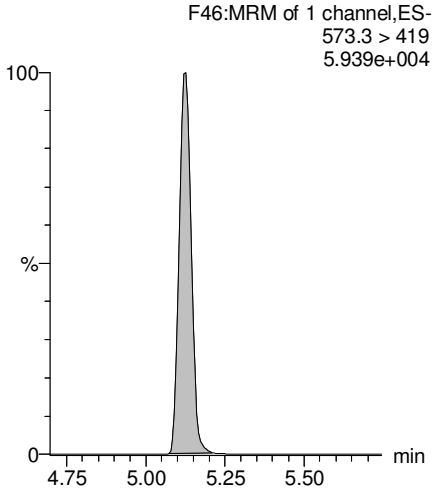

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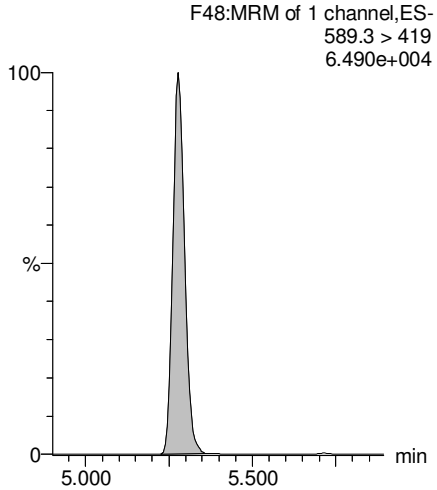

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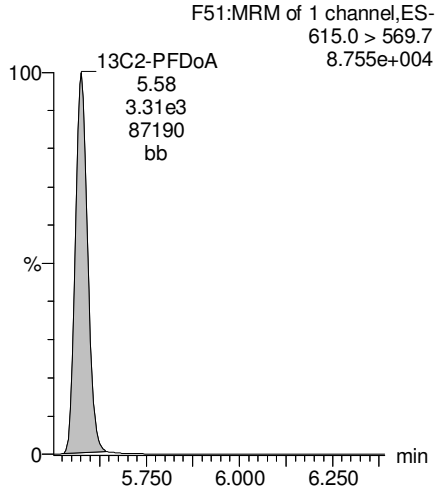

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-61.qld

Last Altered: Tuesday, December 12, 2017 07:34:49 Pacific Standard Time
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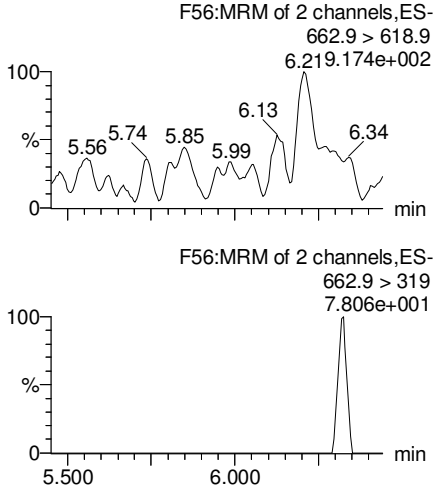
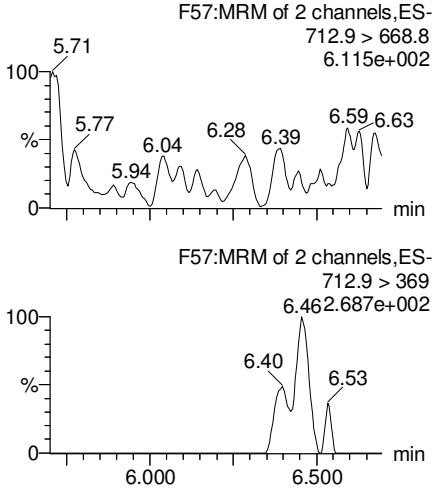
Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

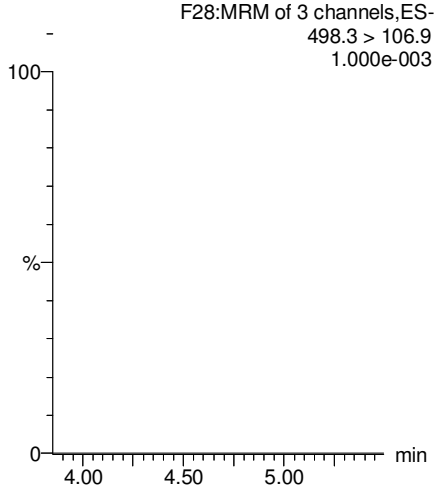
PFTrDA



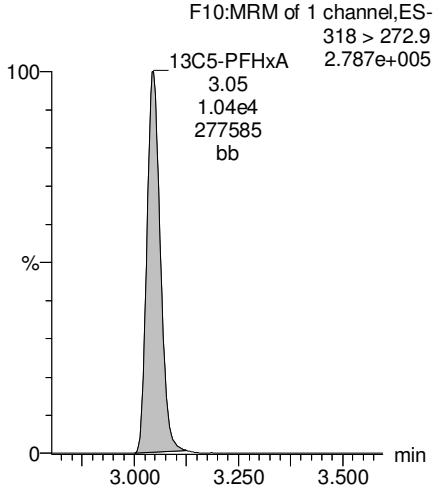
PFTeDA



TCDA



13C5-PFHxA



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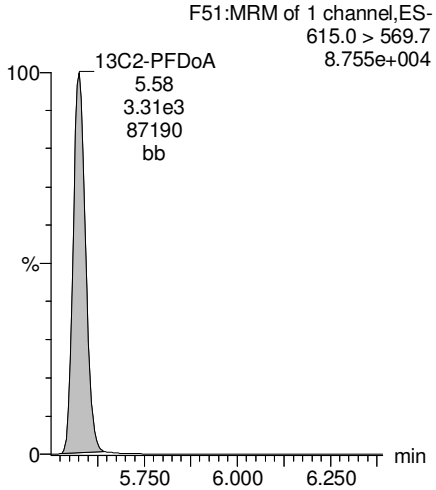

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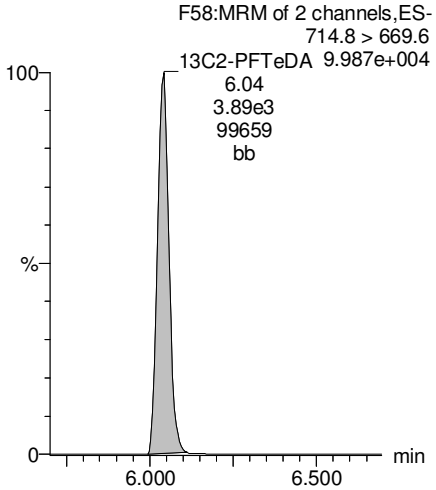
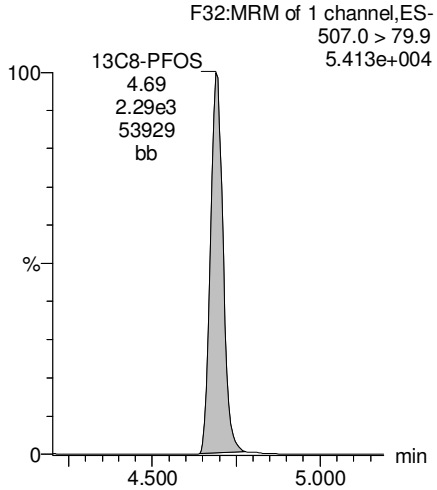
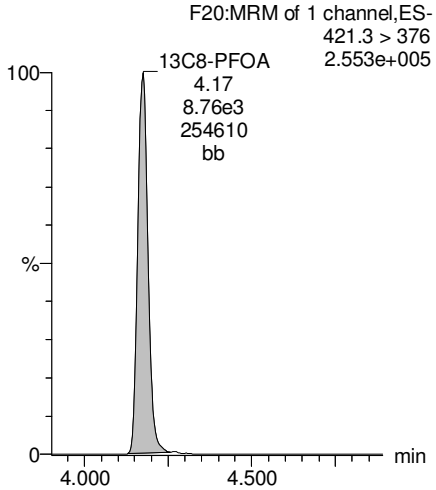


13C8-PFOS



13C8-PFOA



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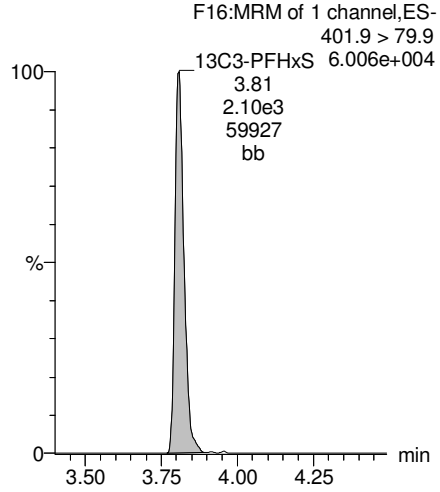
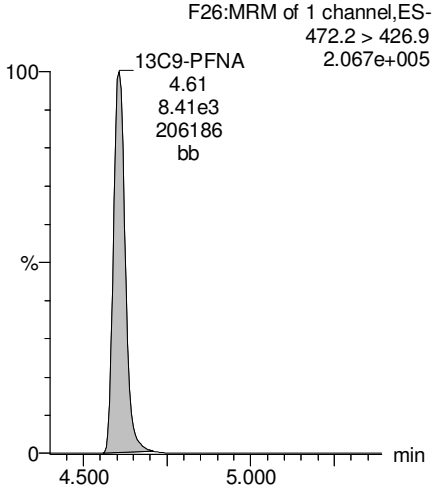
Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

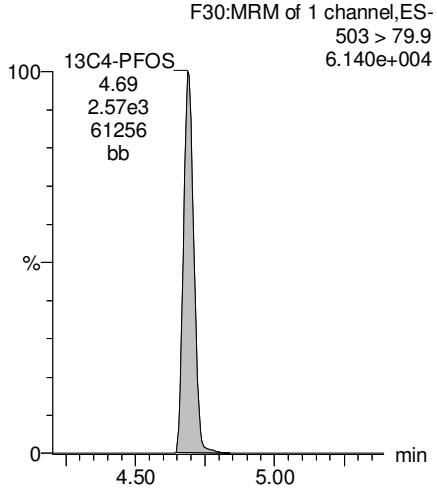
13C3-PFHxS



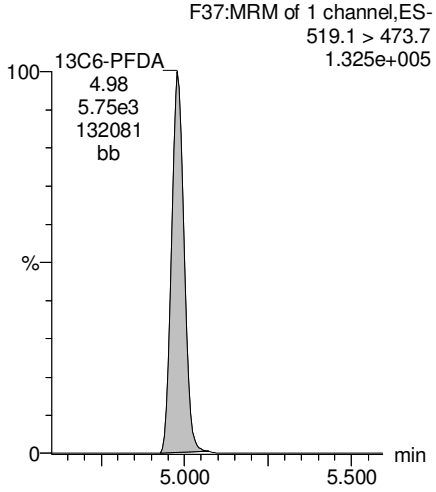
13C9-PFNA



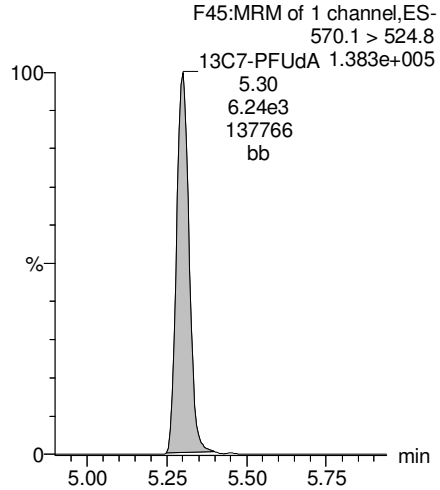
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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INJECTION INTERNAL STANDARD (IIS) AREAS,

INSTRUMENT BLANKS (IB)

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

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Last Altered: Friday, December 08, 2017 15:43:37 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_RS-12-4-17.mdb 05 Dec 2017 11:24:50
Calibration: 08 Dec 2017 15:38:54

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171207M2-1 PFC CS0 17K2808	9.49e3	100.0	NO
2	2	13C5-PFHxA	ST171207M2-1 PFC CS0 17K2808	1.96e4	100.0	NO
3	3	13C3-PFHxS	ST171207M2-1 PFC CS0 17K2808	3.55e3	100.0	NO
4	4	13C8-PFOA	ST171207M2-1 PFC CS0 17K2808	1.34e4	100.0	NO
5	5	13C9-PFNA	ST171207M2-1 PFC CS0 17K2808	1.41e4	100.0	NO
6	6	13C4-PFOS	ST171207M2-1 PFC CS0 17K2808	3.58e3	100.0	NO
7	7	13C6-PFDA	ST171207M2-1 PFC CS0 17K2808	9.27e3	100.0	NO
8	8	13C7-PFUdA	ST171207M2-1 PFC CS0 17K2808	1.35e4	100.0	NO

Name: 171207M2_2, Date: 07-Dec-2017, Time: 23:05:58, 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: 171207M2_3, Date: 07-Dec-2017, Time: 23:17:09, ID: 1701675-11@5X RICHM-GW-TW02-110717 0.11602, Description: RICHM-GW-TW02-110717

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701675-11@5X RICHM-GW-TW02-11...	2.07e3	21.8	YES
2	2	13C5-PFHxA	1701675-11@5X RICHM-GW-TW02-11...	2.84e3	14.5	YES
3	3	13C3-PFHxS	1701675-11@5X RICHM-GW-TW02-11...	4.19e2	11.8	YES
4	4	13C8-PFOA	1701675-11@5X RICHM-GW-TW02-11...	1.13e3	8.4	YES
5	5	13C9-PFNA	1701675-11@5X RICHM-GW-TW02-11...	1.24e3	8.8	YES
6	6	13C4-PFOS	1701675-11@5X RICHM-GW-TW02-11...	1.83e2	5.1	YES
7	7	13C6-PFDA	1701675-11@5X RICHM-GW-TW02-11...	3.18e2	3.4	YES
8	8	13C7-PFUdA	1701675-11@5X RICHM-GW-TW02-11...	1.16e2	0.9	YES

Name: 171207M2_4, Date: 07-Dec-2017, Time: 23:28:20, 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	7.95e0	0.1	YES
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171207M2_5, Date: 07-Dec-2017, Time: 23:39:31, ID: 1701725-12 GENBM-GW-DUP1-111517 0.12313, Description: GENBM-GW-DUP1-111517

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701725-12 GENBM-GW-DUP1-11151...	1.13e4	119.3	NO
2	2	13C5-PFHxA	1701725-12 GENBM-GW-DUP1-11151...	1.40e4	71.5	NO
3	3	13C3-PFHxS	1701725-12 GENBM-GW-DUP1-11151...	2.55e3	71.7	NO
4	4	13C8-PFOA	1701725-12 GENBM-GW-DUP1-11151...	1.19e4	88.6	NO
5	5	13C9-PFNA	1701725-12 GENBM-GW-DUP1-11151...	1.05e4	74.3	NO
6	6	13C4-PFOS	1701725-12 GENBM-GW-DUP1-11151...	1.88e3	52.6	NO
7	7	13C6-PFDA	1701725-12 GENBM-GW-DUP1-11151...	3.99e3	43.1	YES
8	8	13C7-PFUdA	1701725-12 GENBM-GW-DUP1-11151...	9.97e2	7.4	YES

Name: 171207M2_6, Date: 07-Dec-2017, Time: 23:50:41, ID: 1701725-13 GENBM-08-TW08-111617 0.11519, Description: GENBM-08-TW08-111617

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701725-13 GENBM-08-TW08-111617 ...	9.84e3	103.7	NO
2	2	13C5-PFHxA	1701725-13 GENBM-08-TW08-111617 ...	1.44e4	73.6	NO
3	3	13C3-PFHxS	1701725-13 GENBM-08-TW08-111617 ...	1.99e3	55.9	NO
4	4	13C8-PFOA	1701725-13 GENBM-08-TW08-111617 ...	1.09e4	80.8	NO
5	5	13C9-PFNA	1701725-13 GENBM-08-TW08-111617 ...	8.13e3	57.6	NO
6	6	13C4-PFOS	1701725-13 GENBM-08-TW08-111617 ...	1.62e3	45.1	YES
7	7	13C6-PFDA	1701725-13 GENBM-08-TW08-111617 ...	7.08e3	76.3	NO
8	8	13C7-PFUdA	1701725-13 GENBM-08-TW08-111617 ...	4.03e3	29.9	YES

Name: 171207M2_7, Date: 08-Dec-2017, Time: 00:01:52, ID: 1701725-14 GENBM-02-MW102-111517 0.11771, Description: GENBM-02-MW102-111517

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701725-14 GENBM-02-MW102-11151...	1.12e4	117.6	NO
2	2	13C5-PFHxA	1701725-14 GENBM-02-MW102-11151...	1.53e4	78.1	NO
3	3	13C3-PFHxS	1701725-14 GENBM-02-MW102-11151...	2.85e3	80.2	NO
4	4	13C8-PFOA	1701725-14 GENBM-02-MW102-11151...	1.11e4	82.9	NO
5	5	13C9-PFNA	1701725-14 GENBM-02-MW102-11151...	1.05e4	74.3	NO
6	6	13C4-PFOS	1701725-14 GENBM-02-MW102-11151...	1.61e3	44.9	YES
7	7	13C6-PFDA	1701725-14 GENBM-02-MW102-11151...	4.08e3	44.0	YES
8	8	13C7-PFUdA	1701725-14 GENBM-02-MW102-11151...	6.69e2	5.0	YES

Name: 171207M2_8, Date: 08-Dec-2017, Time: 00:13:04, ID: 1701725-15 GENBM-04-TW04-111517 0.1187, Description: GENBM-04-TW04-111517

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701725-15 GENBM-04-TW04-111517 ...	1.07e4	112.5	NO
2	2	13C5-PFHxA	1701725-15 GENBM-04-TW04-111517 ...	1.64e4	83.8	NO
3	3	13C3-PFHxS	1701725-15 GENBM-04-TW04-111517 ...	3.18e3	89.4	NO
4	4	13C8-PFOA	1701725-15 GENBM-04-TW04-111517 ...	1.09e4	81.3	NO
5	5	13C9-PFNA	1701725-15 GENBM-04-TW04-111517 ...	1.04e4	73.6	NO
6	6	13C4-PFOS	1701725-15 GENBM-04-TW04-111517 ...	2.36e3	65.8	NO
7	7	13C6-PFDA	1701725-15 GENBM-04-TW04-111517 ...	5.01e3	54.0	NO
8	8	13C7-PFUdA	1701725-15 GENBM-04-TW04-111517 ...	1.10e3	8.1	YES

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Name: 171207M2_9, Date: 08-Dec-2017, Time: 00:24:14, ID: B7K0167-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0167-BS1 OPR 1	8.30e3	87.5	NO
2	2	13C5-PFHxA	B7K0167-BS1 OPR 1	1.16e4	59.0	NO
3	3	13C3-PFHxS	B7K0167-BS1 OPR 1	2.28e3	64.0	NO
4	4	13C8-PFOA	B7K0167-BS1 OPR 1	7.82e3	58.3	NO
5	5	13C9-PFNA	B7K0167-BS1 OPR 1	8.79e3	62.2	NO
6	6	13C4-PFOS	B7K0167-BS1 OPR 1	2.54e3	70.8	NO
7	7	13C6-PFDA	B7K0167-BS1 OPR 1	8.23e3	88.7	NO
8	8	13C7-PFUdA	B7K0167-BS1 OPR 1	7.98e3	59.1	NO

Name: 171207M2_10, Date: 08-Dec-2017, Time: 00:35:25, 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	5.78e0	0.0	YES

Name: 171207M2_11, Date: 08-Dec-2017, Time: 00:46:36, ID: B7K0167-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0167-BLK1 Method Blank 1	8.52e3	89.8	NO
2	2	13C5-PFHxA	B7K0167-BLK1 Method Blank 1	1.13e4	57.5	NO
3	3	13C3-PFHxS	B7K0167-BLK1 Method Blank 1	2.02e3	56.8	NO
4	4	13C8-PFOA	B7K0167-BLK1 Method Blank 1	8.51e3	63.3	NO
5	5	13C9-PFNA	B7K0167-BLK1 Method Blank 1	1.07e4	75.8	NO
6	6	13C4-PFOS	B7K0167-BLK1 Method Blank 1	2.43e3	67.8	NO
7	7	13C6-PFDA	B7K0167-BLK1 Method Blank 1	6.38e3	68.9	NO
8	8	13C7-PFUdA	B7K0167-BLK1 Method Blank 1	8.76e3	64.9	NO

Name: 171207M2_12, Date: 08-Dec-2017, Time: 00:57:46, ID: 1701689-01 B1 2.13, Description: B1

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701689-01 B1 2.13	8.05e3	84.8	NO
2	2	13C5-PFHxA	1701689-01 B1 2.13	1.05e4	53.6	NO
3	3	13C3-PFHxS	1701689-01 B1 2.13	2.17e3	61.0	NO
4	4	13C8-PFOA	1701689-01 B1 2.13	8.85e3	65.9	NO
5	5	13C9-PFNA	1701689-01 B1 2.13	9.67e3	68.5	NO
6	6	13C4-PFOS	1701689-01 B1 2.13	2.64e3	73.5	NO
7	7	13C6-PFDA	1701689-01 B1 2.13	7.37e3	79.6	NO
8	8	13C7-PFUdA	1701689-01 B1 2.13	9.23e3	68.4	NO

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Name: 171207M2_13, Date: 08-Dec-2017, Time: 01:08:57, ID: 1701689-02 R1 6.51, Description: R1

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701689-02 R1 6.51	8.22e3	86.6	NO
2	2	13C5-PFHxA	1701689-02 R1 6.51	1.18e4	60.3	NO
3	3	13C3-PFHxS	1701689-02 R1 6.51	2.29e3	64.4	NO
4	4	13C8-PFOA	1701689-02 R1 6.51	8.87e3	66.1	NO
5	5	13C9-PFNA	1701689-02 R1 6.51	1.02e4	72.3	NO
6	6	13C4-PFOS	1701689-02 R1 6.51	2.41e3	67.3	NO
7	7	13C6-PFDA	1701689-02 R1 6.51	6.83e3	73.7	NO
8	8	13C7-PFUdA	1701689-02 R1 6.51	8.27e3	61.3	NO

Name: 171207M2_14, Date: 08-Dec-2017, Time: 01:20:08, ID: 1701689-03 R2 7.01, Description: R2

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701689-03 R2 7.01	8.29e3	87.4	NO
2	2	13C5-PFHxA	1701689-03 R2 7.01	1.16e4	59.0	NO
3	3	13C3-PFHxS	1701689-03 R2 7.01	2.31e3	65.0	NO
4	4	13C8-PFOA	1701689-03 R2 7.01	8.02e3	59.7	NO
5	5	13C9-PFNA	1701689-03 R2 7.01	8.42e3	59.7	NO
6	6	13C4-PFOS	1701689-03 R2 7.01	2.34e3	65.2	NO
7	7	13C6-PFDA	1701689-03 R2 7.01	6.56e3	70.7	NO
8	8	13C7-PFUdA	1701689-03 R2 7.01	1.01e4	74.7	NO

Name: 171207M2_15, Date: 08-Dec-2017, Time: 01:31:19, ID: 1701689-04 R3 4.39, Description: R3

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701689-04 R3 4.39	7.84e3	82.6	NO
2	2	13C5-PFHxA	1701689-04 R3 4.39	1.04e4	53.2	NO
3	3	13C3-PFHxS	1701689-04 R3 4.39	2.12e3	59.7	NO
4	4	13C8-PFOA	1701689-04 R3 4.39	8.40e3	62.6	NO
5	5	13C9-PFNA	1701689-04 R3 4.39	8.83e3	62.6	NO
6	6	13C4-PFOS	1701689-04 R3 4.39	2.29e3	63.8	NO
7	7	13C6-PFDA	1701689-04 R3 4.39	7.49e3	80.8	NO
8	8	13C7-PFUdA	1701689-04 R3 4.39	9.15e3	67.8	NO

Name: 171207M2_16, Date: 08-Dec-2017, Time: 01:42:29, ID: 1701705-01 Soil-Treater 4/5 Stockpile #1 1.18, Description: Soil-Treater 4/5 Stockpile #1

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701705-01 Soil-Treater 4/5 Stockpile #...	8.08e3	85.1	NO
2	2	13C5-PFHxA	1701705-01 Soil-Treater 4/5 Stockpile #...	1.02e4	52.0	NO
3	3	13C3-PFHxS	1701705-01 Soil-Treater 4/5 Stockpile #...	2.12e3	59.7	NO
4	4	13C8-PFOA	1701705-01 Soil-Treater 4/5 Stockpile #...	8.68e3	64.6	NO
5	5	13C9-PFNA	1701705-01 Soil-Treater 4/5 Stockpile #...	1.00e4	71.2	NO
6	6	13C4-PFOS	1701705-01 Soil-Treater 4/5 Stockpile #...	2.74e3	76.5	NO
7	7	13C6-PFDA	1701705-01 Soil-Treater 4/5 Stockpile #...	7.15e3	77.1	NO
8	8	13C7-PFUdA	1701705-01 Soil-Treater 4/5 Stockpile #...	8.97e3	66.4	NO

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Name: 171207M2_17, Date: 08-Dec-2017, Time: 01:53:40, ID: 1701705-02 Soil-Treater 4/5 Stockpile #2 1.22, Description: Soil-Treater 4/5 Stockpile #2

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701705-02 Soil-Treater 4/5 Stockpile #...	8.63e3	90.9	NO
2	2	13C5-PFHxA	1701705-02 Soil-Treater 4/5 Stockpile #...	1.18e4	60.2	NO
3	3	13C3-PFHxS	1701705-02 Soil-Treater 4/5 Stockpile #...	2.35e3	66.0	NO
4	4	13C8-PFOA	1701705-02 Soil-Treater 4/5 Stockpile #...	7.80e3	58.1	NO
5	5	13C9-PFNA	1701705-02 Soil-Treater 4/5 Stockpile #...	9.90e3	70.1	NO
6	6	13C4-PFOS	1701705-02 Soil-Treater 4/5 Stockpile #...	2.49e3	69.5	NO
7	7	13C6-PFDA	1701705-02 Soil-Treater 4/5 Stockpile #...	7.36e3	79.4	NO
8	8	13C7-PFUdA	1701705-02 Soil-Treater 4/5 Stockpile #...	8.43e3	62.4	NO

Name: 171207M2_18, Date: 08-Dec-2017, Time: 02:04:51, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA	7.83e0	0.0	YES
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: 171207M2_19, Date: 08-Dec-2017, Time: 02:16:02, ID: ST171207M2-2 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171207M2-2 PFC CS3 17K2810	8.63e3	91.0	NO
2	2	13C5-PFHxA	ST171207M2-2 PFC CS3 17K2810	1.36e4	69.6	NO
3	3	13C3-PFHxS	ST171207M2-2 PFC CS3 17K2810	3.10e3	87.2	NO
4	4	13C8-PFOA	ST171207M2-2 PFC CS3 17K2810	1.18e4	88.0	NO
5	5	13C9-PFNA	ST171207M2-2 PFC CS3 17K2810	1.33e4	94.5	NO
6	6	13C4-PFOS	ST171207M2-2 PFC CS3 17K2810	3.44e3	96.1	NO
7	7	13C6-PFDA	ST171207M2-2 PFC CS3 17K2810	9.21e3	99.3	NO
8	8	13C7-PFUdA	ST171207M2-2 PFC CS3 17K2810	1.30e4	96.6	NO

Name: 171207M2_20, Date: 08-Dec-2017, Time: 02:27:14, ID: B7K0135-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0135-BS1 OPR 0.25	9.05e3	95.3	NO
2	2	13C5-PFHxA	B7K0135-BS1 OPR 0.25	1.40e4	71.4	NO
3	3	13C3-PFHxS	B7K0135-BS1 OPR 0.25	2.54e3	71.5	NO
4	4	13C8-PFOA	B7K0135-BS1 OPR 0.25	9.21e3	68.6	NO
5	5	13C9-PFNA	B7K0135-BS1 OPR 0.25	1.09e4	77.5	NO
6	6	13C4-PFOS	B7K0135-BS1 OPR 0.25	3.05e3	85.0	NO
7	7	13C6-PFDA	B7K0135-BS1 OPR 0.25	8.85e3	95.5	NO
8	8	13C7-PFUdA	B7K0135-BS1 OPR 0.25	9.69e3	71.8	NO

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Name: 171207M2_21, Date: 08-Dec-2017, Time: 02:38:26, 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	9.70e0	0.1	NO
6	6 13C4-PFOS	IPA			NO
7	7 13C6-PFDA	IPA			NO
8	8 13C7-PFUdA	IPA			NO

Name: 171207M2_22, Date: 08-Dec-2017, Time: 02:49:36, ID: B7K0135-BLK1 Method Blank 0.25, Description: Method Blank

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B7K0135-BLK1 Method Blank 0.25	9.25e3	97.4	NO
2	2 13C5-PFHxA	B7K0135-BLK1 Method Blank 0.25	1.49e4	76.0	NO
3	3 13C3-PFHxS	B7K0135-BLK1 Method Blank 0.25	2.68e3	75.5	NO
4	4 13C8-PFOA	B7K0135-BLK1 Method Blank 0.25	9.27e3	69.0	NO
5	5 13C9-PFNA	B7K0135-BLK1 Method Blank 0.25	1.17e4	82.5	NO
6	6 13C4-PFOS	B7K0135-BLK1 Method Blank 0.25	3.10e3	86.6	NO
7	7 13C6-PFDA	B7K0135-BLK1 Method Blank 0.25	9.18e3	99.1	NO
8	8 13C7-PFUdA	B7K0135-BLK1 Method Blank 0.25	1.01e4	75.0	NO

Name: 171207M2_23, Date: 08-Dec-2017, Time: 03:00:47, ID: 1701702-01 WWP-TAP 0.21648, Description: WWP-TAP

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701702-01 WWP-TAP 0.21648	9.30e3	98.0	NO
2	2 13C5-PFHxA	1701702-01 WWP-TAP 0.21648	1.41e4	71.9	NO
3	3 13C3-PFHxS	1701702-01 WWP-TAP 0.21648	2.93e3	82.4	NO
4	4 13C8-PFOA	1701702-01 WWP-TAP 0.21648	1.02e4	76.3	NO
5	5 13C9-PFNA	1701702-01 WWP-TAP 0.21648	1.09e4	77.2	NO
6	6 13C4-PFOS	1701702-01 WWP-TAP 0.21648	2.20e3	61.3	NO
7	7 13C6-PFDA	1701702-01 WWP-TAP 0.21648	6.85e3	73.9	NO
8	8 13C7-PFUdA	1701702-01 WWP-TAP 0.21648	1.17e4	86.3	NO

Name: 171207M2_24, Date: 08-Dec-2017, Time: 03:11:58, ID: 1701702-02 BI-RAW 0.23454, Description: BI-RAW

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701702-02 BI-RAW 0.23454	8.64e3	91.1	NO
2	2 13C5-PFHxA	1701702-02 BI-RAW 0.23454	1.09e4	55.8	NO
3	3 13C3-PFHxS	1701702-02 BI-RAW 0.23454	2.51e3	70.7	NO
4	4 13C8-PFOA	1701702-02 BI-RAW 0.23454	8.50e3	63.3	NO
5	5 13C9-PFNA	1701702-02 BI-RAW 0.23454	1.17e4	82.7	NO
6	6 13C4-PFOS	1701702-02 BI-RAW 0.23454	2.30e3	64.1	NO
7	7 13C6-PFDA	1701702-02 BI-RAW 0.23454	5.71e3	61.6	NO
8	8 13C7-PFUdA	1701702-02 BI-RAW 0.23454	1.02e4	75.6	NO

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Name: 171207M2_25, Date: 08-Dec-2017, Time: 03:23:09, ID: 1701702-03 SPW-TAP 0.2459, Description: SPW-TAP

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701702-03 SPW-TAP 0.2459	9.16e3	96.6	NO
2	2	13C5-PFHxA	1701702-03 SPW-TAP 0.2459	1.30e4	66.3	NO
3	3	13C3-PFHxS	1701702-03 SPW-TAP 0.2459	2.53e3	71.3	NO
4	4	13C8-PFOA	1701702-03 SPW-TAP 0.2459	1.05e4	78.2	NO
5	5	13C9-PFNA	1701702-03 SPW-TAP 0.2459	1.24e4	88.1	NO
6	6	13C4-PFOS	1701702-03 SPW-TAP 0.2459	2.94e3	82.1	NO
7	7	13C6-PFDA	1701702-03 SPW-TAP 0.2459	8.40e3	90.6	NO
8	8	13C7-PFUdA	1701702-03 SPW-TAP 0.2459	1.04e4	76.7	NO

Name: 171207M2_26, Date: 08-Dec-2017, Time: 03:34:19, ID: 1701702-04 SW-TAP 0.22821, Description: SW-TAP

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701702-04 SW-TAP 0.22821	9.67e3	101.9	NO
2	2	13C5-PFHxA	1701702-04 SW-TAP 0.22821	1.35e4	69.1	NO
3	3	13C3-PFHxS	1701702-04 SW-TAP 0.22821	2.60e3	73.1	NO
4	4	13C8-PFOA	1701702-04 SW-TAP 0.22821	8.99e3	66.9	NO
5	5	13C9-PFNA	1701702-04 SW-TAP 0.22821	1.01e4	71.2	NO
6	6	13C4-PFOS	1701702-04 SW-TAP 0.22821	2.59e3	72.2	NO
7	7	13C6-PFDA	1701702-04 SW-TAP 0.22821	8.36e3	90.2	NO
8	8	13C7-PFUdA	1701702-04 SW-TAP 0.22821	1.21e4	89.3	NO

Name: 171207M2_27, Date: 08-Dec-2017, Time: 03:45:30, ID: 1701702-05 SW-RAW 0.22154, Description: SW-RAW

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701702-05 SW-RAW 0.22154	8.93e3	94.1	NO
2	2	13C5-PFHxA	1701702-05 SW-RAW 0.22154	1.38e4	70.6	NO
3	3	13C3-PFHxS	1701702-05 SW-RAW 0.22154	2.27e3	63.9	NO
4	4	13C8-PFOA	1701702-05 SW-RAW 0.22154	8.44e3	62.8	NO
5	5	13C9-PFNA	1701702-05 SW-RAW 0.22154	1.18e4	83.3	NO
6	6	13C4-PFOS	1701702-05 SW-RAW 0.22154	2.75e3	76.8	NO
7	7	13C6-PFDA	1701702-05 SW-RAW 0.22154	7.12e3	76.8	NO
8	8	13C7-PFUdA	1701702-05 SW-RAW 0.22154	9.35e3	69.3	NO

Name: 171207M2_28, Date: 08-Dec-2017, Time: 03:56:40, ID: 1701702-06 NE-TAP 0.20544, Description: NE-TAP

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701702-06 NE-TAP 0.20544	9.00e3	94.9	NO
2	2	13C5-PFHxA	1701702-06 NE-TAP 0.20544	1.20e4	61.1	NO
3	3	13C3-PFHxS	1701702-06 NE-TAP 0.20544	2.29e3	64.3	NO
4	4	13C8-PFOA	1701702-06 NE-TAP 0.20544	8.56e3	63.8	NO
5	5	13C9-PFNA	1701702-06 NE-TAP 0.20544	9.61e3	68.1	NO
6	6	13C4-PFOS	1701702-06 NE-TAP 0.20544	2.90e3	80.8	NO
7	7	13C6-PFDA	1701702-06 NE-TAP 0.20544	7.38e3	79.6	NO
8	8	13C7-PFUdA	1701702-06 NE-TAP 0.20544	1.07e4	79.6	NO

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Name: 171207M2_29, Date: 08-Dec-2017, Time: 04:07:51, ID: 1701720-01 WR1711161015JLB 0.2219, Description: WR1711161015JLB

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701720-01 WR1711161015JLB 0.2219	8.51e3	89.7	NO
2	2 13C5-PFHxA	1701720-01 WR1711161015JLB 0.2219	1.19e4	60.5	NO
3	3 13C3-PFHxS	1701720-01 WR1711161015JLB 0.2219	2.41e3	67.8	NO
4	4 13C8-PFOA	1701720-01 WR1711161015JLB 0.2219	8.60e3	64.0	NO
5	5 13C9-PFNA	1701720-01 WR1711161015JLB 0.2219	9.81e3	69.5	NO
6	6 13C4-PFOS	1701720-01 WR1711161015JLB 0.2219	2.75e3	76.8	NO
7	7 13C6-PFDA	1701720-01 WR1711161015JLB 0.2219	8.53e3	92.0	NO
8	8 13C7-PFUdA	1701720-01 WR1711161015JLB 0.2219	9.65e3	71.5	NO

Name: 171207M2_30, Date: 08-Dec-2017, Time: 04:19:02, 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

Name: 171207M2_31, Date: 08-Dec-2017, Time: 04:30:13, ID: ST171207M2-3 PFC CS3 17K2810, Description: PFC CS3 17K2810

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	ST171207M2-3 PFC CS3 17K2810	8.39e3	88.4	NO
2	2 13C5-PFHxA	ST171207M2-3 PFC CS3 17K2810	1.63e4	83.0	NO
3	3 13C3-PFHxS	ST171207M2-3 PFC CS3 17K2810	3.05e3	86.0	NO
4	4 13C8-PFOA	ST171207M2-3 PFC CS3 17K2810	1.18e4	87.6	NO
5	5 13C9-PFNA	ST171207M2-3 PFC CS3 17K2810	1.43e4	101.3	NO
6	6 13C4-PFOS	ST171207M2-3 PFC CS3 17K2810	3.87e3	108.1	NO
7	7 13C6-PFDA	ST171207M2-3 PFC CS3 17K2810	8.62e3	92.9	NO
8	8 13C7-PFUdA	ST171207M2-3 PFC CS3 17K2810	1.30e4	96.5	NO

Name: 171207M2_32, Date: 08-Dec-2017, Time: 04:41:24, 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: 171207M2_33, Date: 08-Dec-2017, Time: 04:52:34, ID: 1701720-02 WR1711161030JLB 0.22026, Description: WR1711161030JLB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701720-02 WR1711161030JLB 0.22026	9.09e3	95.8	NO
2	2	13C5-PFHxA	1701720-02 WR1711161030JLB 0.22026	1.32e4	67.2	NO
3	3	13C3-PFHxS	1701720-02 WR1711161030JLB 0.22026	2.62e3	73.7	NO
4	4	13C8-PFOA	1701720-02 WR1711161030JLB 0.22026	9.69e3	72.2	NO
5	5	13C9-PFNA	1701720-02 WR1711161030JLB 0.22026	1.23e4	87.3	NO
6	6	13C4-PFOS	1701720-02 WR1711161030JLB 0.22026	2.48e3	69.3	NO
7	7	13C6-PFDA	1701720-02 WR1711161030JLB 0.22026	7.28e3	78.5	NO
8	8	13C7-PFUdA	1701720-02 WR1711161030JLB 0.22026	9.69e3	71.7	NO

Name: 171207M2_34, Date: 08-Dec-2017, Time: 05:03:45, ID: 1701720-03 WR1711161055JLB 0.23524, Description: WR1711161055JLB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701720-03 WR1711161055JLB 0.23524	8.59e3	90.5	NO
2	2	13C5-PFHxA	1701720-03 WR1711161055JLB 0.23524	1.33e4	68.1	NO
3	3	13C3-PFHxS	1701720-03 WR1711161055JLB 0.23524	2.55e3	71.9	NO
4	4	13C8-PFOA	1701720-03 WR1711161055JLB 0.23524	9.50e3	70.7	NO
5	5	13C9-PFNA	1701720-03 WR1711161055JLB 0.23524	9.77e3	69.2	NO
6	6	13C4-PFOS	1701720-03 WR1711161055JLB 0.23524	2.58e3	72.1	NO
7	7	13C6-PFDA	1701720-03 WR1711161055JLB 0.23524	7.63e3	82.3	NO
8	8	13C7-PFUdA	1701720-03 WR1711161055JLB 0.23524	1.16e4	86.2	NO

Name: 171207M2_35, Date: 08-Dec-2017, Time: 05:14:56, ID: 1701720-04 FB1711161100JLB 0.22785, Description: FB1711161100JLB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701720-04 FB1711161100JLB 0.22785	7.92e3	83.4	NO
2	2	13C5-PFHxA	1701720-04 FB1711161100JLB 0.22785	1.14e4	58.0	NO
3	3	13C3-PFHxS	1701720-04 FB1711161100JLB 0.22785	2.36e3	66.3	NO
4	4	13C8-PFOA	1701720-04 FB1711161100JLB 0.22785	8.38e3	62.4	NO
5	5	13C9-PFNA	1701720-04 FB1711161100JLB 0.22785	9.28e3	65.8	NO
6	6	13C4-PFOS	1701720-04 FB1711161100JLB 0.22785	2.86e3	79.9	NO
7	7	13C6-PFDA	1701720-04 FB1711161100JLB 0.22785	8.59e3	92.7	NO
8	8	13C7-PFUdA	1701720-04 FB1711161100JLB 0.22785	9.21e3	68.2	NO

Name: 171207M2_36, Date: 08-Dec-2017, Time: 05:26:06, ID: 1701720-05 WR1711161115JLB 0.21921, Description: WR1711161115JLB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701720-05 WR1711161115JLB 0.21921	8.46e3	89.2	NO
2	2	13C5-PFHxA	1701720-05 WR1711161115JLB 0.21921	1.24e4	63.1	NO
3	3	13C3-PFHxS	1701720-05 WR1711161115JLB 0.21921	2.99e3	84.1	NO
4	4	13C8-PFOA	1701720-05 WR1711161115JLB 0.21921	9.25e3	68.9	NO
5	5	13C9-PFNA	1701720-05 WR1711161115JLB 0.21921	1.06e4	75.2	NO
6	6	13C4-PFOS	1701720-05 WR1711161115JLB 0.21921	2.80e3	78.2	NO
7	7	13C6-PFDA	1701720-05 WR1711161115JLB 0.21921	9.11e3	98.2	NO
8	8	13C7-PFUdA	1701720-05 WR1711161115JLB 0.21921	9.22e3	68.3	NO

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Name: 171207M2_37, Date: 08-Dec-2017, Time: 05:37:17, ID: 1701720-06 WR1711161520MK 0.22651, Description: WR1711161520MK

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701720-06 WR1711161520MK 0.22651	7.97e3	84.0	NO
2	2	13C5-PFHxA	1701720-06 WR1711161520MK 0.22651	1.15e4	58.6	NO
3	3	13C3-PFHxS	1701720-06 WR1711161520MK 0.22651	2.39e3	67.3	NO
4	4	13C8-PFOA	1701720-06 WR1711161520MK 0.22651	8.36e3	62.3	NO
5	5	13C9-PFNA	1701720-06 WR1711161520MK 0.22651	9.94e3	70.4	NO
6	6	13C4-PFOS	1701720-06 WR1711161520MK 0.22651	2.95e3	82.3	NO
7	7	13C6-PFDA	1701720-06 WR1711161520MK 0.22651	5.83e3	62.9	NO
8	8	13C7-PFUdA	1701720-06 WR1711161520MK 0.22651	9.60e3	71.1	NO

Name: 171207M2_38, Date: 08-Dec-2017, Time: 05:48:28, ID: 1701720-07 WR1711161605MK 0.21306, Description: WR1711161605MK

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701720-07 WR1711161605MK 0.21306	5.85e3	61.6	NO
2	2	13C5-PFHxA	1701720-07 WR1711161605MK 0.21306	7.71e3	39.3	YES
3	3	13C3-PFHxS	1701720-07 WR1711161605MK 0.21306	1.83e3	51.4	NO
4	4	13C8-PFOA	1701720-07 WR1711161605MK 0.21306	6.22e3	46.3	YES
5	5	13C9-PFNA	1701720-07 WR1711161605MK 0.21306	7.84e3	55.5	NO
6	6	13C4-PFOS	1701720-07 WR1711161605MK 0.21306	1.85e3	51.7	NO
7	7	13C6-PFDA	1701720-07 WR1711161605MK 0.21306	5.40e3	58.2	NO
8	8	13C7-PFUdA	1701720-07 WR1711161605MK 0.21306	6.24e3	46.2	YES

Name: 171207M2_39, Date: 08-Dec-2017, Time: 05:59:38, ID: 1701744-01 MTBE_7234 0.17908, Description: MTBE_7234

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701744-01 MTBE_7234 0.17908	8.63e3	90.9	NO
2	2	13C5-PFHxA	1701744-01 MTBE_7234 0.17908	1.22e4	62.4	NO
3	3	13C3-PFHxS	1701744-01 MTBE_7234 0.17908	2.54e3	71.4	NO
4	4	13C8-PFOA	1701744-01 MTBE_7234 0.17908	8.96e3	66.7	NO
5	5	13C9-PFNA	1701744-01 MTBE_7234 0.17908	1.02e4	71.9	NO
6	6	13C4-PFOS	1701744-01 MTBE_7234 0.17908	2.48e3	69.1	NO
7	7	13C6-PFDA	1701744-01 MTBE_7234 0.17908	6.87e3	74.1	NO
8	8	13C7-PFUdA	1701744-01 MTBE_7234 0.17908	7.77e3	57.5	NO

Name: 171207M2_40, Date: 08-Dec-2017, Time: 06:10:49, ID: 1701745-01 MTBE_8293 0.23182, Description: MTBE_8293

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701745-01 MTBE_8293 0.23182	8.91e3	93.9	NO
2	2	13C5-PFHxA	1701745-01 MTBE_8293 0.23182	1.38e4	70.4	NO
3	3	13C3-PFHxS	1701745-01 MTBE_8293 0.23182	2.53e3	71.2	NO
4	4	13C8-PFOA	1701745-01 MTBE_8293 0.23182	1.08e4	80.7	NO
5	5	13C9-PFNA	1701745-01 MTBE_8293 0.23182	1.39e4	98.3	NO
6	6	13C4-PFOS	1701745-01 MTBE_8293 0.23182	3.33e3	93.0	NO
7	7	13C6-PFDA	1701745-01 MTBE_8293 0.23182	8.94e3	96.4	NO
8	8	13C7-PFUdA	1701745-01 MTBE_8293 0.23182	1.08e4	79.9	NO

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Name: 171207M2_41, Date: 08-Dec-2017, Time: 06:22:00, ID: 1701746-01 MTBE_14101 0.18953, Description: MTBE_14101

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701746-01 MTBE_14101 0.18953	9.00e3	94.9	NO
2	2	13C5-PFHxA	1701746-01 MTBE_14101 0.18953	1.23e4	63.0	NO
3	3	13C3-PFHxS	1701746-01 MTBE_14101 0.18953	2.79e3	78.5	NO
4	4	13C8-PFOA	1701746-01 MTBE_14101 0.18953	9.23e3	68.8	NO
5	5	13C9-PFNA	1701746-01 MTBE_14101 0.18953	1.07e4	75.5	NO
6	6	13C4-PFOS	1701746-01 MTBE_14101 0.18953	2.69e3	75.2	NO
7	7	13C6-PFDA	1701746-01 MTBE_14101 0.18953	6.93e3	74.7	NO
8	8	13C7-PFUdA	1701746-01 MTBE_14101 0.18953	6.92e3	51.2	NO

Name: 171207M2_42, Date: 08-Dec-2017, Time: 06:33:11, 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: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171207M2-4 PFC CS3 17K2810	8.17e3	86.1	NO
2	2	13C5-PFHxA	ST171207M2-4 PFC CS3 17K2810	1.61e4	82.0	NO
3	3	13C3-PFHxS	ST171207M2-4 PFC CS3 17K2810	3.23e3	90.8	NO
4	4	13C8-PFOA	ST171207M2-4 PFC CS3 17K2810	1.23e4	91.8	NO
5	5	13C9-PFNA	ST171207M2-4 PFC CS3 17K2810	1.30e4	92.0	NO
6	6	13C4-PFOS	ST171207M2-4 PFC CS3 17K2810	3.39e3	94.5	NO
7	7	13C6-PFDA	ST171207M2-4 PFC CS3 17K2810	1.04e4	112.4	NO
8	8	13C7-PFUdA	ST171207M2-4 PFC CS3 17K2810	1.02e4	75.5	NO

Name: 171207M2_44, Date: 08-Dec-2017, Time: 06:55:32, 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

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Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B7K0176-BS1 OPR 0.25	7.60e3	80.1	NO
2	2 13C5-PFHxA	B7K0176-BS1 OPR 0.25	1.15e4	58.8	NO
3	3 13C3-PFHxS	B7K0176-BS1 OPR 0.25	2.31e3	65.0	NO
4	4 13C8-PFOA	B7K0176-BS1 OPR 0.25	7.82e3	58.2	NO
5	5 13C9-PFNA	B7K0176-BS1 OPR 0.25	9.71e3	68.7	NO
6	6 13C4-PFOS	B7K0176-BS1 OPR 0.25	2.46e3	68.6	NO
7	7 13C6-PFDA	B7K0176-BS1 OPR 0.25	7.19e3	77.6	NO
8	8 13C7-PFUdA	B7K0176-BS1 OPR 0.25	8.89e3	65.8	NO

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B7K0176-BSD1 LCS Dup 0.25	7.84e3	82.6	NO
2	2 13C5-PFHxA	B7K0176-BSD1 LCS Dup 0.25	1.11e4	56.5	NO
3	3 13C3-PFHxS	B7K0176-BSD1 LCS Dup 0.25	2.27e3	63.9	NO
4	4 13C8-PFOA	B7K0176-BSD1 LCS Dup 0.25	8.88e3	66.1	NO
5	5 13C9-PFNA	B7K0176-BSD1 LCS Dup 0.25	8.51e3	60.2	NO
6	6 13C4-PFOS	B7K0176-BSD1 LCS Dup 0.25	2.89e3	80.8	NO
7	7 13C6-PFDA	B7K0176-BSD1 LCS Dup 0.25	6.09e3	65.7	NO
8	8 13C7-PFUdA	B7K0176-BSD1 LCS Dup 0.25	1.04e4	76.9	NO

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B7K0176-BLK1 Method Blank 0.25	7.21e3	76.0	NO
2	2 13C5-PFHxA	B7K0176-BLK1 Method Blank 0.25	1.07e4	54.9	NO
3	3 13C3-PFHxS	B7K0176-BLK1 Method Blank 0.25	2.29e3	64.4	NO
4	4 13C8-PFOA	B7K0176-BLK1 Method Blank 0.25	7.64e3	56.9	NO
5	5 13C9-PFNA	B7K0176-BLK1 Method Blank 0.25	1.03e4	72.7	NO
6	6 13C4-PFOS	B7K0176-BLK1 Method Blank 0.25	2.54e3	70.8	NO
7	7 13C6-PFDA	B7K0176-BLK1 Method Blank 0.25	7.01e3	75.6	NO
8	8 13C7-PFUdA	B7K0176-BLK1 Method Blank 0.25	8.00e3	59.2	NO

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701710-01 FT-MW02I-NP-20171115 0...	6.70e3	70.6	NO
2	2 13C5-PFHxA	1701710-01 FT-MW02I-NP-20171115 0...	1.06e4	54.1	NO
3	3 13C3-PFHxS	1701710-01 FT-MW02I-NP-20171115 0...	2.35e3	66.2	NO
4	4 13C8-PFOA	1701710-01 FT-MW02I-NP-20171115 0...	8.12e3	60.4	NO
5	5 13C9-PFNA	1701710-01 FT-MW02I-NP-20171115 0...	7.64e3	54.1	NO
6	6 13C4-PFOS	1701710-01 FT-MW02I-NP-20171115 0...	2.77e3	77.2	NO
7	7 13C6-PFDA	1701710-01 FT-MW02I-NP-20171115 0...	6.06e3	65.4	NO
8	8 13C7-PFUdA	1701710-01 FT-MW02I-NP-20171115 0...	8.79e3	65.1	NO

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Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-02 FT-MW02I-P1-20171115 0....	7.33e3	77.3	NO
2	2	13C5-PFHxA	1701710-02 FT-MW02I-P1-20171115 0....	1.11e4	56.5	NO
3	3	13C3-PFHxS	1701710-02 FT-MW02I-P1-20171115 0....	2.47e3	69.4	NO
4	4	13C8-PFOA	1701710-02 FT-MW02I-P1-20171115 0....	7.69e3	57.3	NO
5	5	13C9-PFNA	1701710-02 FT-MW02I-P1-20171115 0....	8.55e3	60.6	NO
6	6	13C4-PFOS	1701710-02 FT-MW02I-P1-20171115 0....	2.59e3	72.2	NO
7	7	13C6-PFDA	1701710-02 FT-MW02I-P1-20171115 0....	7.88e3	85.0	NO
8	8	13C7-PFUdA	1701710-02 FT-MW02I-P1-20171115 0....	7.66e3	56.7	NO

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-03 FT-MW02I-P2-20171115 0....	6.44e3	67.8	NO
2	2	13C5-PFHxA	1701710-03 FT-MW02I-P2-20171115 0....	9.68e3	49.4	YES
3	3	13C3-PFHxS	1701710-03 FT-MW02I-P2-20171115 0....	2.07e3	58.3	NO
4	4	13C8-PFOA	1701710-03 FT-MW02I-P2-20171115 0....	6.99e3	52.1	NO
5	5	13C9-PFNA	1701710-03 FT-MW02I-P2-20171115 0....	7.59e3	53.8	NO
6	6	13C4-PFOS	1701710-03 FT-MW02I-P2-20171115 0....	2.33e3	64.9	NO
7	7	13C6-PFDA	1701710-03 FT-MW02I-P2-20171115 0....	7.68e3	82.9	NO
8	8	13C7-PFUdA	1701710-03 FT-MW02I-P2-20171115 0....	8.66e3	64.2	NO

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-04 FT-MW02I-P3-20171115 0....	7.31e3	77.1	NO
2	2	13C5-PFHxA	1701710-04 FT-MW02I-P3-20171115 0....	1.02e4	52.1	NO
3	3	13C3-PFHxS	1701710-04 FT-MW02I-P3-20171115 0....	2.15e3	60.6	NO
4	4	13C8-PFOA	1701710-04 FT-MW02I-P3-20171115 0....	7.87e3	58.6	NO
5	5	13C9-PFNA	1701710-04 FT-MW02I-P3-20171115 0....	9.02e3	63.9	NO
6	6	13C4-PFOS	1701710-04 FT-MW02I-P3-20171115 0....	2.75e3	76.8	NO
7	7	13C6-PFDA	1701710-04 FT-MW02I-P3-20171115 0....	7.21e3	77.7	NO
8	8	13C7-PFUdA	1701710-04 FT-MW02I-P3-20171115 0....	7.56e3	56.0	NO

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-05 DEET-20171115 0.24575	7.74e3	81.6	NO
2	2	13C5-PFHxA	1701710-05 DEET-20171115 0.24575	1.12e4	57.1	NO
3	3	13C3-PFHxS	1701710-05 DEET-20171115 0.24575	2.25e3	63.3	NO
4	4	13C8-PFOA	1701710-05 DEET-20171115 0.24575	9.89e3	73.6	NO
5	5	13C9-PFNA	1701710-05 DEET-20171115 0.24575	9.56e3	67.7	NO
6	6	13C4-PFOS	1701710-05 DEET-20171115 0.24575	2.41e3	67.3	NO
7	7	13C6-PFDA	1701710-05 DEET-20171115 0.24575	7.34e3	79.2	NO
8	8	13C7-PFUdA	1701710-05 DEET-20171115 0.24575	8.13e3	60.2	NO

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Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-06 PERMETHRIN-20171115 0...	7.49e3	79.0	NO
2	2	13C5-PFHxA	1701710-06 PERMETHRIN-20171115 0...	1.12e4	57.4	NO
3	3	13C3-PFHxS	1701710-06 PERMETHRIN-20171115 0...	2.24e3	63.1	NO
4	4	13C8-PFOA	1701710-06 PERMETHRIN-20171115 0...	8.18e3	60.9	NO
5	5	13C9-PFNA	1701710-06 PERMETHRIN-20171115 0...	8.42e3	59.6	NO
6	6	13C4-PFOS	1701710-06 PERMETHRIN-20171115 0...	2.49e3	69.5	NO
7	7	13C6-PFDA	1701710-06 PERMETHRIN-20171115 0...	7.16e3	77.2	NO
8	8	13C7-PFUdA	1701710-06 PERMETHRIN-20171115 0...	9.36e3	69.3	NO

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-07 FT-PZ-456S-NP-20171115 ...	8.47e3	89.3	NO
2	2	13C5-PFHxA	1701710-07 FT-PZ-456S-NP-20171115 ...	1.27e4	64.6	NO
3	3	13C3-PFHxS	1701710-07 FT-PZ-456S-NP-20171115 ...	2.61e3	73.4	NO
4	4	13C8-PFOA	1701710-07 FT-PZ-456S-NP-20171115 ...	9.16e3	68.2	NO
5	5	13C9-PFNA	1701710-07 FT-PZ-456S-NP-20171115 ...	1.08e4	76.8	NO
6	6	13C4-PFOS	1701710-07 FT-PZ-456S-NP-20171115 ...	2.64e3	73.8	NO
7	7	13C6-PFDA	1701710-07 FT-PZ-456S-NP-20171115 ...	7.22e3	77.9	NO
8	8	13C7-PFUdA	1701710-07 FT-PZ-456S-NP-20171115 ...	9.32e3	69.0	NO

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-08 FT-PZ-456S-P1-20171115 ...	7.43e3	78.3	NO
2	2	13C5-PFHxA	1701710-08 FT-PZ-456S-P1-20171115 ...	1.08e4	54.9	NO
3	3	13C3-PFHxS	1701710-08 FT-PZ-456S-P1-20171115 ...	2.10e3	59.2	NO
4	4	13C8-PFOA	1701710-08 FT-PZ-456S-P1-20171115 ...	7.09e3	52.8	NO
5	5	13C9-PFNA	1701710-08 FT-PZ-456S-P1-20171115 ...	8.72e3	61.8	NO
6	6	13C4-PFOS	1701710-08 FT-PZ-456S-P1-20171115 ...	2.28e3	63.7	NO
7	7	13C6-PFDA	1701710-08 FT-PZ-456S-P1-20171115 ...	6.31e3	68.1	NO
8	8	13C7-PFUdA	1701710-08 FT-PZ-456S-P1-20171115 ...	8.60e3	63.7	NO

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-09 FT-PZ-456S-P2-20171115 ...	7.68e3	80.9	NO
2	2	13C5-PFHxA	1701710-09 FT-PZ-456S-P2-20171115 ...	1.08e4	55.3	NO
3	3	13C3-PFHxS	1701710-09 FT-PZ-456S-P2-20171115 ...	2.22e3	62.5	NO
4	4	13C8-PFOA	1701710-09 FT-PZ-456S-P2-20171115 ...	6.77e3	50.4	NO
5	5	13C9-PFNA	1701710-09 FT-PZ-456S-P2-20171115 ...	1.06e4	75.4	NO
6	6	13C4-PFOS	1701710-09 FT-PZ-456S-P2-20171115 ...	2.40e3	67.1	NO
7	7	13C6-PFDA	1701710-09 FT-PZ-456S-P2-20171115 ...	5.89e3	63.5	NO
8	8	13C7-PFUdA	1701710-09 FT-PZ-456S-P2-20171115 ...	7.39e3	54.7	NO

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Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-10 FT-PZ-456S-P3-20171115 ...	7.90e3	83.2	NO
2	2	13C5-PFHxA	1701710-10 FT-PZ-456S-P3-20171115 ...	1.14e4	58.0	NO
3	3	13C3-PFHxS	1701710-10 FT-PZ-456S-P3-20171115 ...	2.31e3	65.1	NO
4	4	13C8-PFOA	1701710-10 FT-PZ-456S-P3-20171115 ...	8.15e3	60.7	NO
5	5	13C9-PFNA	1701710-10 FT-PZ-456S-P3-20171115 ...	8.92e3	63.2	NO
6	6	13C4-PFOS	1701710-10 FT-PZ-456S-P3-20171115 ...	2.04e3	57.0	NO
7	7	13C6-PFDA	1701710-10 FT-PZ-456S-P3-20171115 ...	6.10e3	65.8	NO
8	8	13C7-PFUdA	1701710-10 FT-PZ-456S-P3-20171115 ...	7.41e3	54.8	NO

Name: 171207M2_58, Date: 08-Dec-2017, Time: 09:32:02, 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	5.62e0	0.0	YES
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171207M2-5 PFC CS0 17K2808	1.05e4	111.2	NO
2	2	13C5-PFHxA	ST171207M2-5 PFC CS0 17K2808	2.00e4	102.1	NO
3	3	13C3-PFHxS	ST171207M2-5 PFC CS0 17K2808	4.06e3	114.2	NO
4	4	13C8-PFOA	ST171207M2-5 PFC CS0 17K2808	1.49e4	110.8	NO
5	5	13C9-PFNA	ST171207M2-5 PFC CS0 17K2808	1.62e4	114.8	NO
6	6	13C4-PFOS	ST171207M2-5 PFC CS0 17K2808	4.17e3	116.3	NO
7	7	13C6-PFDA	ST171207M2-5 PFC CS0 17K2808	9.80e3	105.7	NO
8	8	13C7-PFUdA	ST171207M2-5 PFC CS0 17K2808	1.46e4	107.8	NO

Name: 171207M2_60, Date: 08-Dec-2017, Time: 09:54:23, 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

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Dataset: U:\Q4.PRO\results\171207M2\171207M2-IIS AREAS.qld

Last Altered: Friday, December 08, 2017 15:43:37 Pacific Standard Time
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Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-11 FT-PZ-456-FRB-20171115 ...	7.23e3	76.2	NO
2	2	13C5-PFHxA	1701710-11 FT-PZ-456-FRB-20171115 ...	1.04e4	53.2	NO
3	3	13C3-PFHxS	1701710-11 FT-PZ-456-FRB-20171115 ...	2.10e3	59.1	NO
4	4	13C8-PFOA	1701710-11 FT-PZ-456-FRB-20171115 ...	8.82e3	65.7	NO
5	5	13C9-PFNA	1701710-11 FT-PZ-456-FRB-20171115 ...	8.34e3	59.1	NO
6	6	13C4-PFOS	1701710-11 FT-PZ-456-FRB-20171115 ...	2.57e3	71.6	NO
7	7	13C6-PFDA	1701710-11 FT-PZ-456-FRB-20171115 ...	5.75e3	62.1	NO
8	8	13C7-PFUdA	1701710-11 FT-PZ-456-FRB-20171115 ...	6.35e3	47.0	YES

Name: 171207M2_62, Date: 08-Dec-2017, Time: 10:16:45, ID: 1701781-01 MW-6 0.11677, Description: MW-6

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701781-01 MW-6 0.11677	7.39e3	77.9	NO
2	2	13C5-PFHxA	1701781-01 MW-6 0.11677	1.06e4	53.9	NO
3	3	13C3-PFHxS	1701781-01 MW-6 0.11677	2.09e3	58.9	NO
4	4	13C8-PFOA	1701781-01 MW-6 0.11677	7.71e3	57.4	NO
5	5	13C9-PFNA	1701781-01 MW-6 0.11677	9.81e3	69.5	NO
6	6	13C4-PFOS	1701781-01 MW-6 0.11677	2.54e3	70.8	NO
7	7	13C6-PFDA	1701781-01 MW-6 0.11677	6.76e3	72.9	NO
8	8	13C7-PFUdA	1701781-01 MW-6 0.11677	8.44e3	62.5	NO

Name: 171207M2_63, Date: 08-Dec-2017, Time: 10:27:55, ID: 1701781-02 MW-5 0.11465, Description: MW-5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701781-02 MW-5 0.11465	8.62e3	90.8	NO
2	2	13C5-PFHxA	1701781-02 MW-5 0.11465	1.18e4	60.4	NO
3	3	13C3-PFHxS	1701781-02 MW-5 0.11465	2.48e3	69.7	NO
4	4	13C8-PFOA	1701781-02 MW-5 0.11465	9.19e3	68.5	NO
5	5	13C9-PFNA	1701781-02 MW-5 0.11465	9.75e3	69.1	NO
6	6	13C4-PFOS	1701781-02 MW-5 0.11465	2.44e3	68.2	NO
7	7	13C6-PFDA	1701781-02 MW-5 0.11465	7.69e3	83.0	NO
8	8	13C7-PFUdA	1701781-02 MW-5 0.11465	9.50e3	70.3	NO

Name: 171207M2_64, Date: 08-Dec-2017, Time: 10:39:06, ID: 1701782-01 DPH-MW8-17 0.11397, Description: DPH-MW8-17

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701782-01 DPH-MW8-17 0.11397	8.32e3	87.7	NO
2	2	13C5-PFHxA	1701782-01 DPH-MW8-17 0.11397	1.21e4	61.7	NO
3	3	13C3-PFHxS	1701782-01 DPH-MW8-17 0.11397	2.46e3	69.1	NO
4	4	13C8-PFOA	1701782-01 DPH-MW8-17 0.11397	9.12e3	67.9	NO
5	5	13C9-PFNA	1701782-01 DPH-MW8-17 0.11397	1.04e4	73.8	NO
6	6	13C4-PFOS	1701782-01 DPH-MW8-17 0.11397	2.49e3	69.6	NO
7	7	13C6-PFDA	1701782-01 DPH-MW8-17 0.11397	6.88e3	74.2	NO
8	8	13C7-PFUdA	1701782-01 DPH-MW8-17 0.11397	8.70e3	64.5	NO

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Name: 171207M2_65, Date: 08-Dec-2017, Time: 10:50:17, ID: 1701782-02 DPH-MW5-17 0.11948, Description: DPH-MW5-17

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701782-02 DPH-MW5-17 0.11948	7.60e3	80.1	NO
2	2	13C5-PFHxA	1701782-02 DPH-MW5-17 0.11948	1.01e4	51.4	NO
3	3	13C3-PFHxS	1701782-02 DPH-MW5-17 0.11948	2.26e3	63.5	NO
4	4	13C8-PFOA	1701782-02 DPH-MW5-17 0.11948	9.06e3	67.5	NO
5	5	13C9-PFNA	1701782-02 DPH-MW5-17 0.11948	9.01e3	63.8	NO
6	6	13C4-PFOS	1701782-02 DPH-MW5-17 0.11948	2.42e3	67.5	NO
7	7	13C6-PFDA	1701782-02 DPH-MW5-17 0.11948	5.12e3	55.2	NO
8	8	13C7-PFUdA	1701782-02 DPH-MW5-17 0.11948	9.40e3	69.6	NO

Name: 171207M2_66, Date: 08-Dec-2017, Time: 11:01:27, ID: 1701782-03 DPH-MW4-17 0.11498, Description: DPH-MW4-17

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701782-03 DPH-MW4-17 0.11498	7.15e3	75.4	NO
2	2	13C5-PFHxA	1701782-03 DPH-MW4-17 0.11498	1.02e4	52.2	NO
3	3	13C3-PFHxS	1701782-03 DPH-MW4-17 0.11498	2.14e3	60.1	NO
4	4	13C8-PFOA	1701782-03 DPH-MW4-17 0.11498	6.42e3	47.8	YES
5	5	13C9-PFNA	1701782-03 DPH-MW4-17 0.11498	9.92e3	70.2	NO
6	6	13C4-PFOS	1701782-03 DPH-MW4-17 0.11498	2.30e3	64.3	NO
7	7	13C6-PFDA	1701782-03 DPH-MW4-17 0.11498	5.43e3	58.6	NO
8	8	13C7-PFUdA	1701782-03 DPH-MW4-17 0.11498	7.05e3	52.2	NO

Name: 171207M2_67, Date: 08-Dec-2017, Time: 11:12:39, 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	7.06e0	0.1	NO

Name: 171207M2_68, Date: 08-Dec-2017, Time: 11:23:49, ID: ST171207M2-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171207M2-6 PFC CS3 17K2810	8.32e3	87.7	NO
2	2	13C5-PFHxA	ST171207M2-6 PFC CS3 17K2810	1.58e4	80.5	NO
3	3	13C3-PFHxS	ST171207M2-6 PFC CS3 17K2810	3.13e3	88.1	NO
4	4	13C8-PFOA	ST171207M2-6 PFC CS3 17K2810	1.13e4	84.4	NO
5	5	13C9-PFNA	ST171207M2-6 PFC CS3 17K2810	1.14e4	80.5	NO
6	6	13C4-PFOS	ST171207M2-6 PFC CS3 17K2810	3.20e3	89.4	NO
7	7	13C6-PFDA	ST171207M2-6 PFC CS3 17K2810	8.02e3	86.5	NO
8	8	13C7-PFUdA	ST171207M2-6 PFC CS3 17K2810	1.28e4	94.8	NO

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Name: 171207M1_2, Date: 07-Dec-2017, Time: 12:33:27, ID: IPA, Description: IPA

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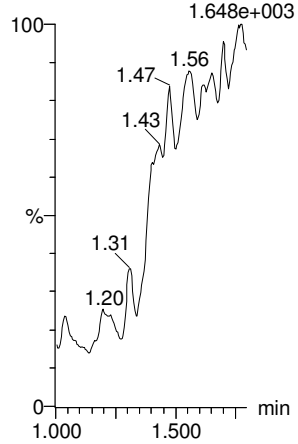

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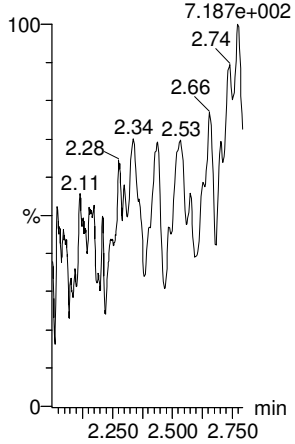

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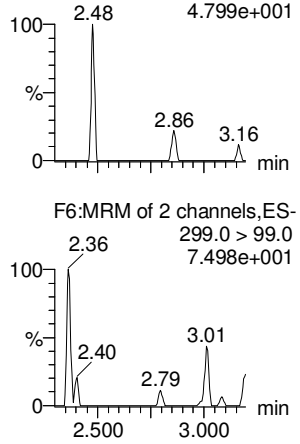

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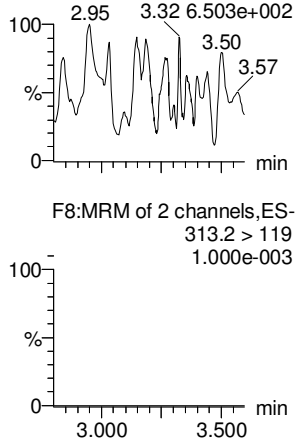

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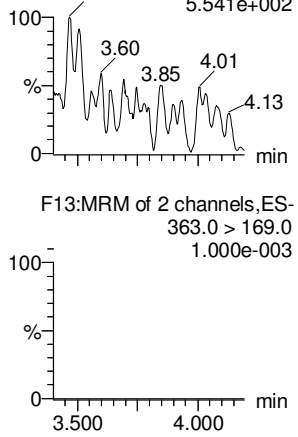

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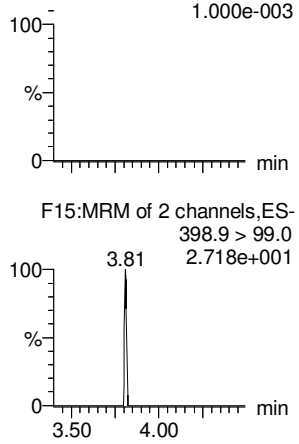

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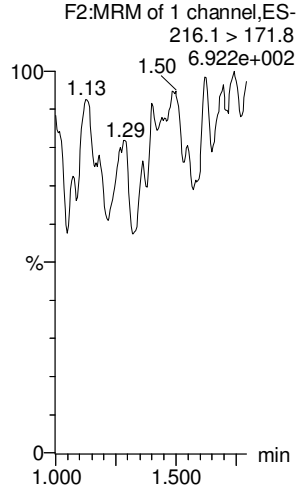

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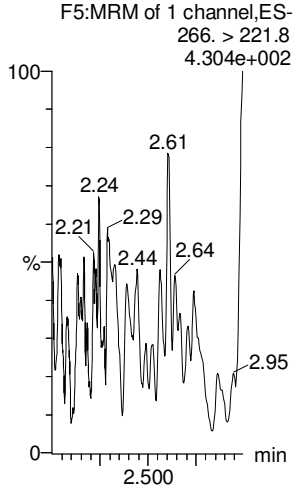

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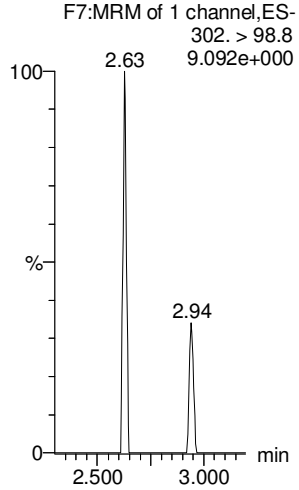

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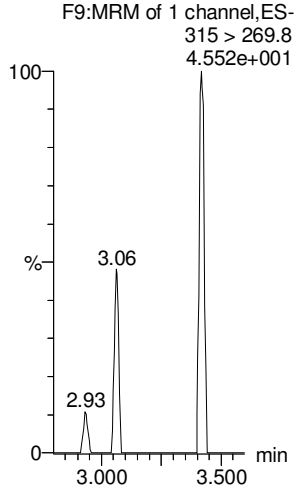

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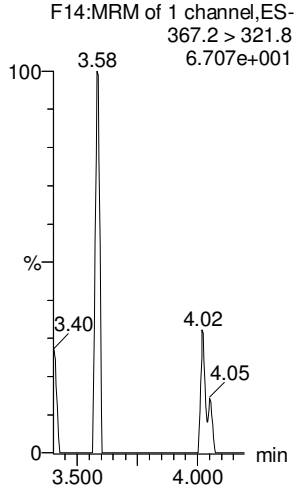
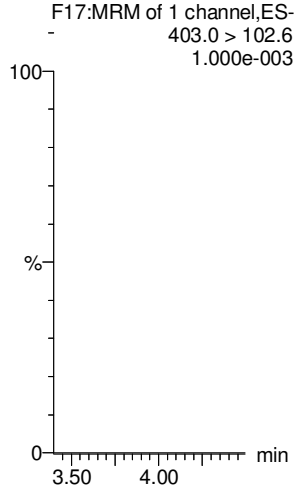


18O2-PFHxS



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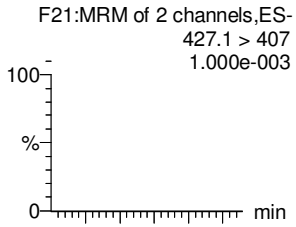
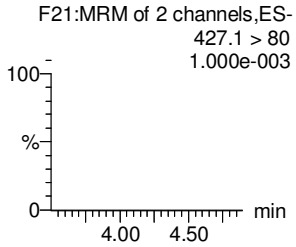
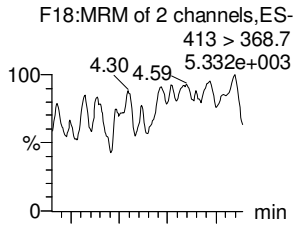
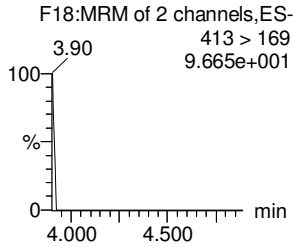
6:2 FTS



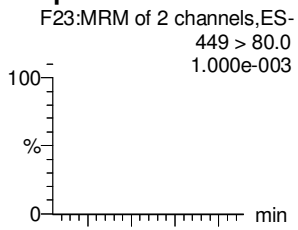


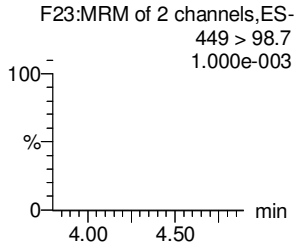
L-PFOA





PFHpS





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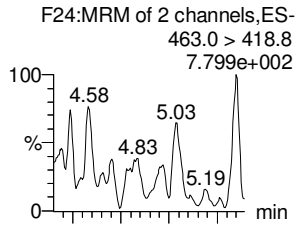

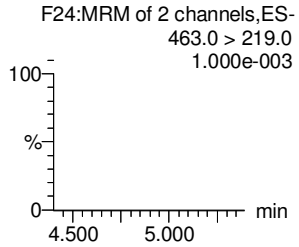

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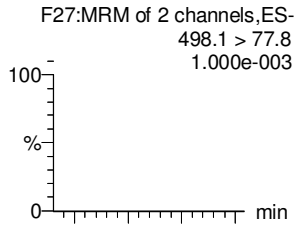
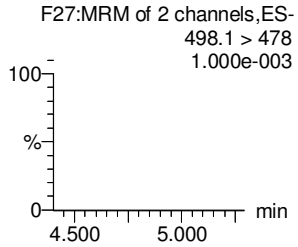
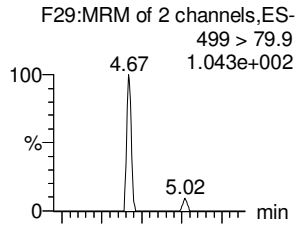
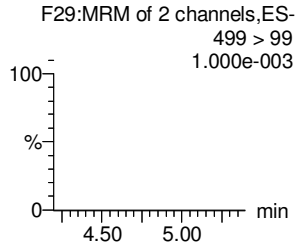




L-PFOS





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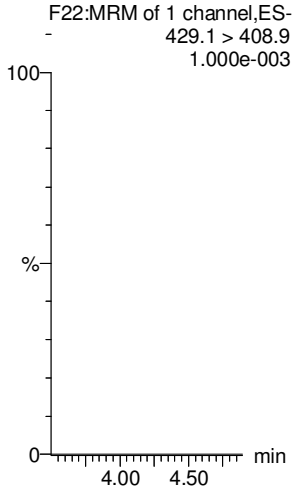

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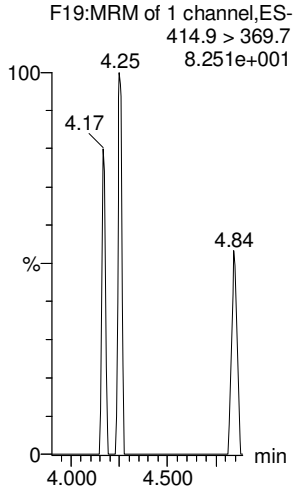
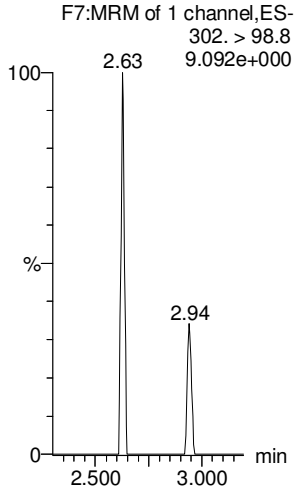


13C3-PFBS



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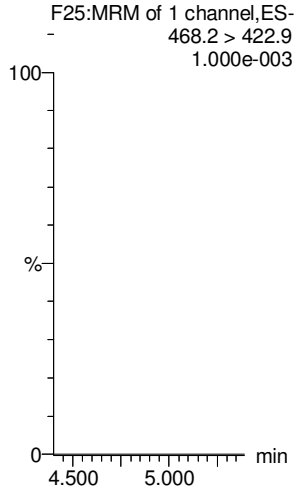

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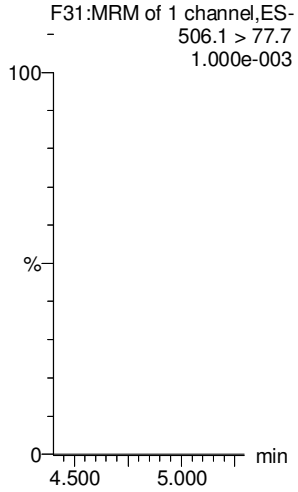

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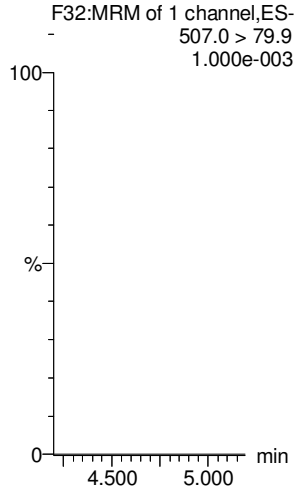

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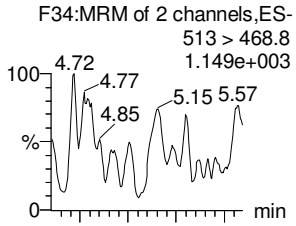
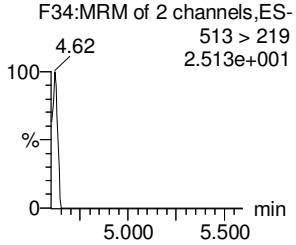
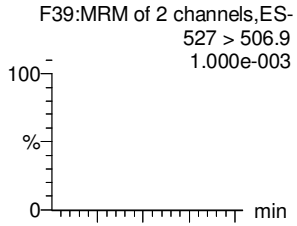
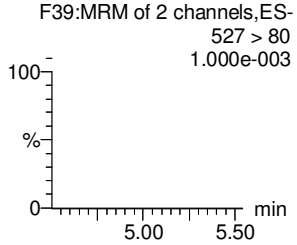


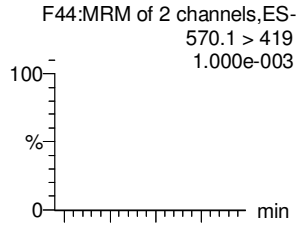


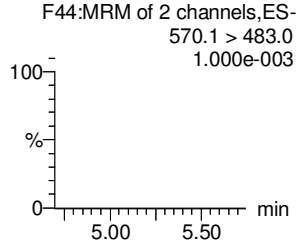
8:2 FTS





N-MeFOSAA





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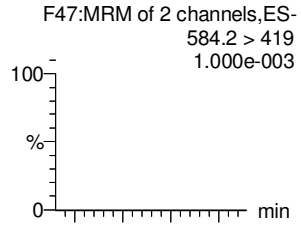

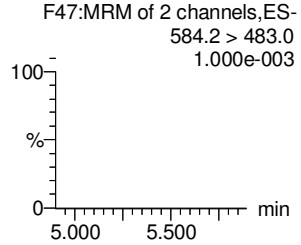

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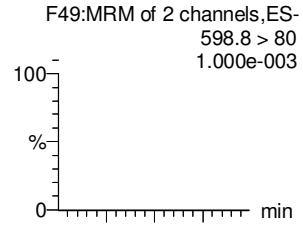
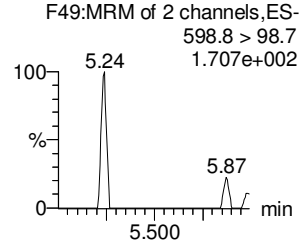
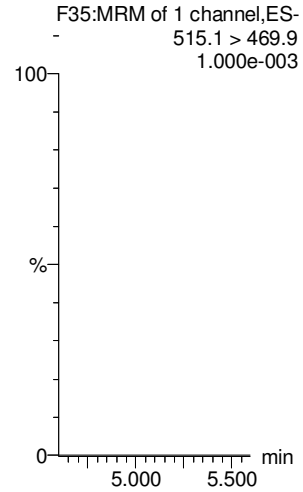
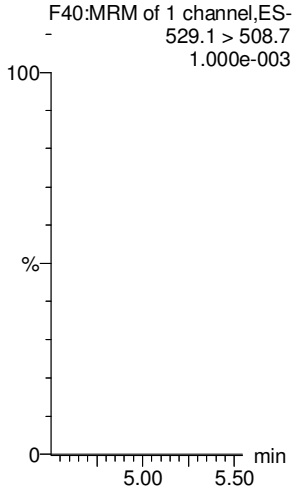




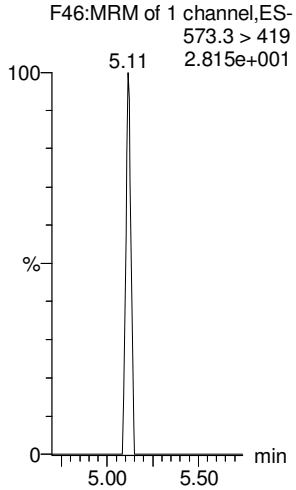
13C2-PFDA



13C2-8:2 FTS



d3-N-MeFOSAA



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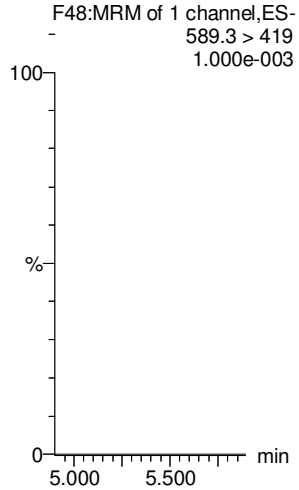

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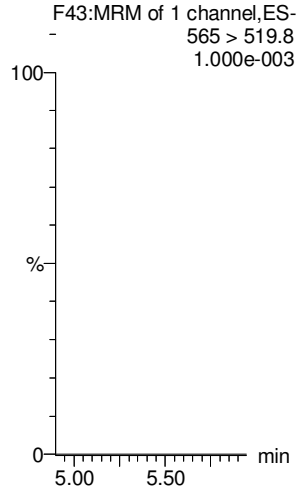

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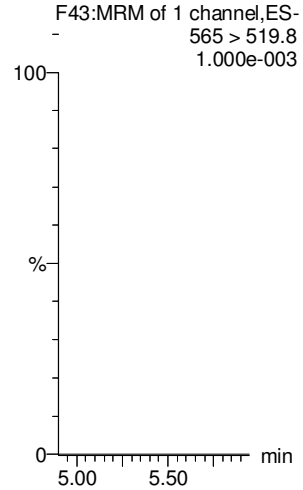

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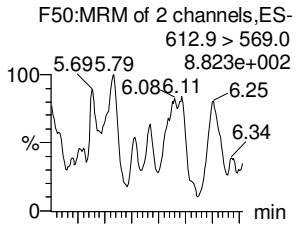
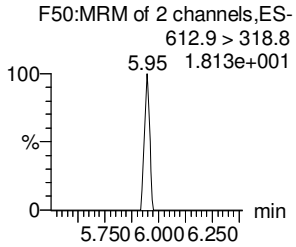
Last Altered: Friday, December 08, 2017 11:13:41 Pacific Standard Time
Printed: Friday, December 08, 2017 11:14:09 Pacific Standard Time

Name: 171207M1_2, Date: 07-Dec-2017, Time: 12:33:27, ID: IPA, Description: IPA

PFDoA





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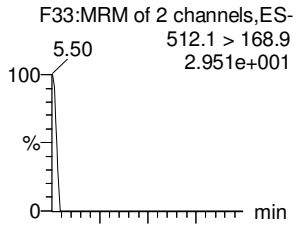

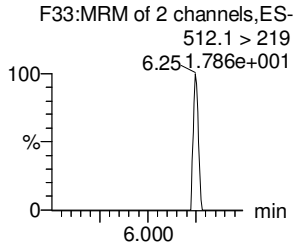

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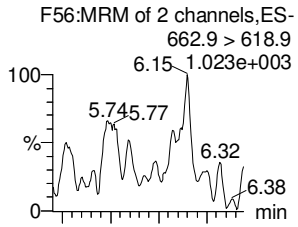

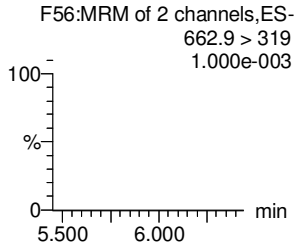

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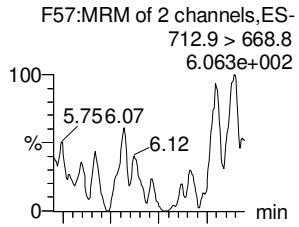

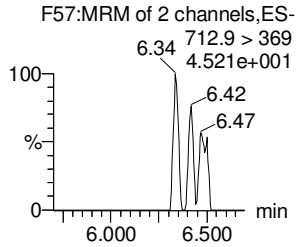

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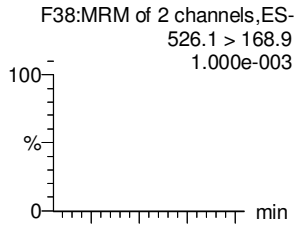
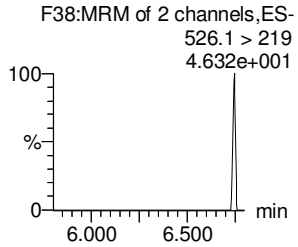
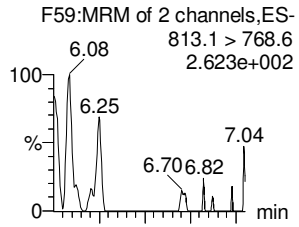
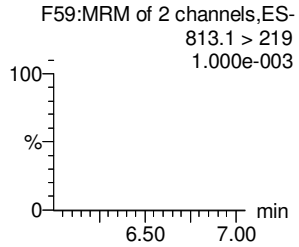


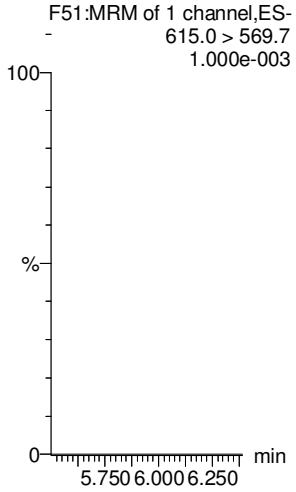


PFHxDA

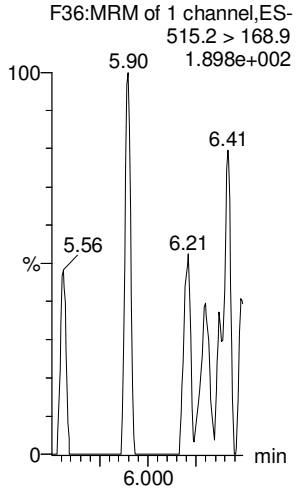




13C2-PFDoA



d3-N-MeFOSA



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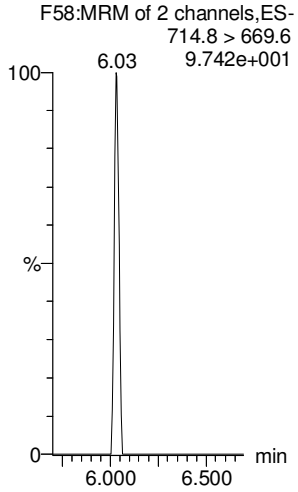

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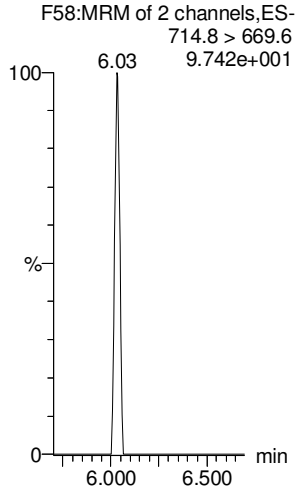

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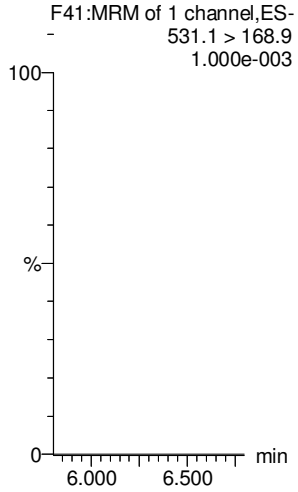

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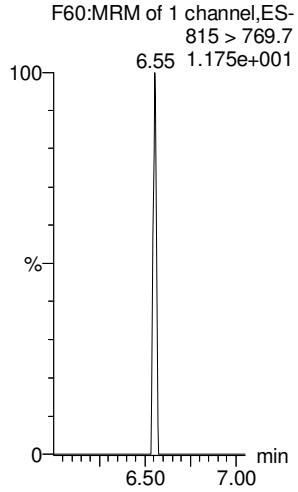

Vista Analytical Laboratory

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Last Altered: Friday, December 08, 2017 11:13:41 Pacific Standard Time
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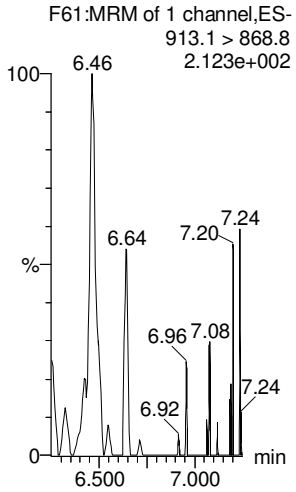
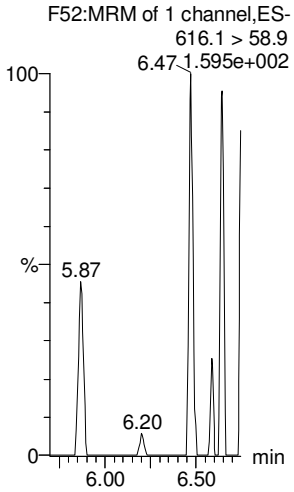
Name: 171207M1_2, Date: 07-Dec-2017, Time: 12:33:27, ID: IPA, Description: IPA

PFODA



N-MeFOSE



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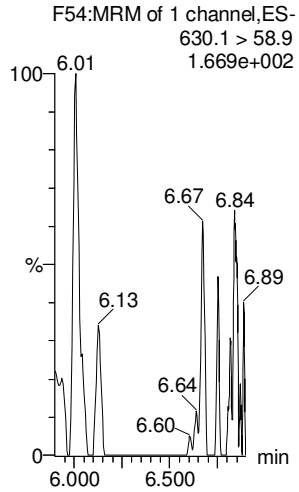

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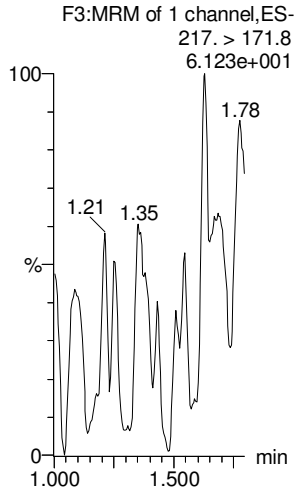

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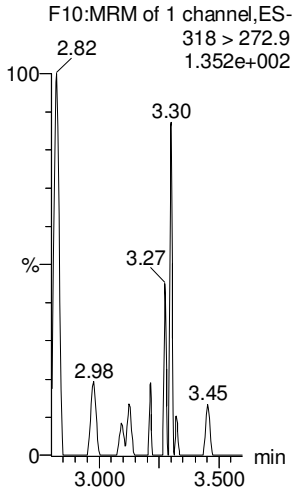

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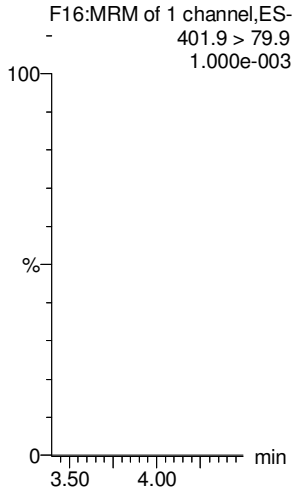

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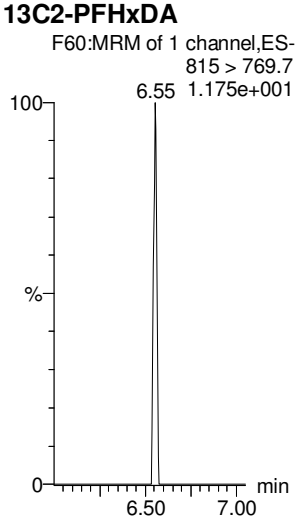
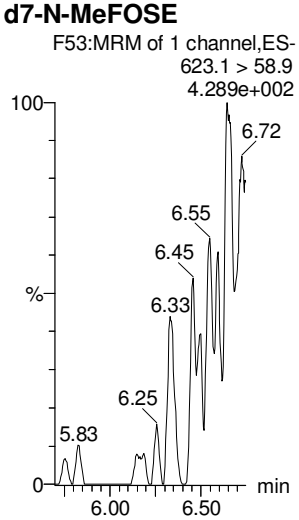
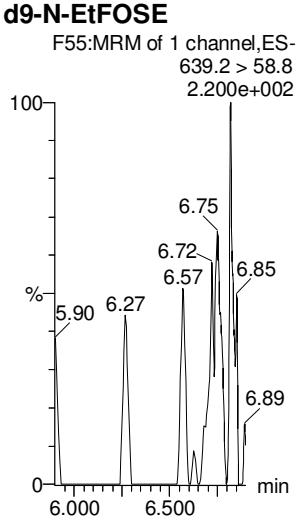


d7-N-MeFOSE



d9-N-EtFOSE



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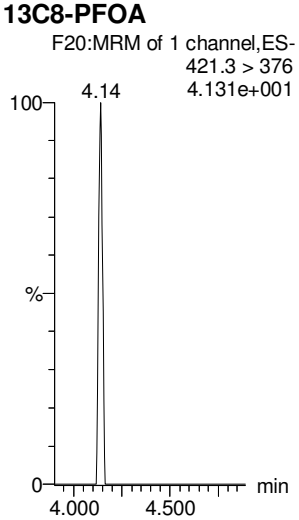

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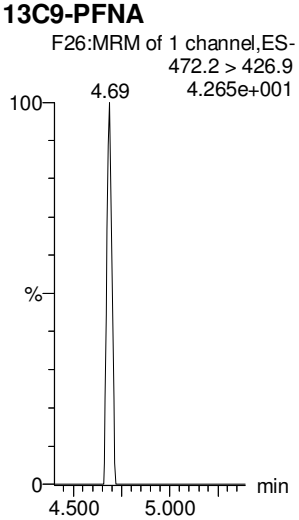

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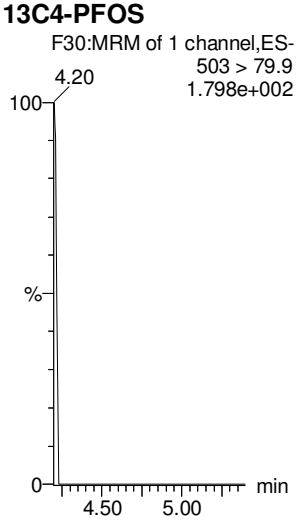

Vista Analytical Laboratory

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Last Altered: Friday, December 08, 2017 11:13:41 Pacific Standard Time
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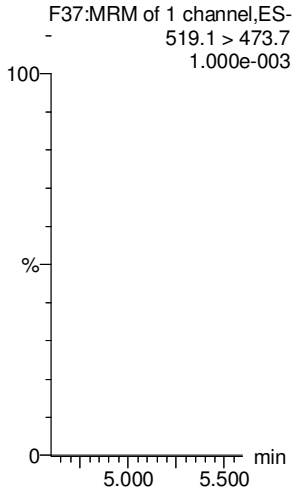
Name: 171207M1_2, Date: 07-Dec-2017, Time: 12:33:27, ID: IPA, Description: IPA

13C6-PFDA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-1.qld

Last Altered: Friday, December 08, 2017 11:49:58 Pacific Standard Time
Printed: Friday, December 08, 2017 11:51:26 Pacific Standard Time

(A) Below limit criterion.

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	8.72e2	9.36e3		1.41	1.34	1.17	1.04	103.8
2	2	PFPeA	263.1 > 218.9	9.62e2	1.41e4		2.63	2.27	0.854	0.799	79.9
3	3	PFBS	299.0 > 79.7	3.16e2	1.85e3		2.90	2.55	2.13	0.950	95.0
4	4	PFHxA	313.2 > 268.9	1.60e3	6.24e3		3.40	3.04	1.28	0.778	77.8
5	5	PFHpA	363.0 > 318.9	1.15e3	1.15e4		4.03	3.66	1.25	0.845	84.5
6	6	L-PFHxS	398.9 > 79.6	2.59e2	1.47e3		3.90	3.81	2.20	1.04	104.3
7	8	6:2 FTS	427.1 > 407	3.16e2	3.87e3		4.21	4.12	1.02	0.859	85.9
8	9	L-PFOA	413 > 368.7	1.50e3	1.44e4		4.26	4.17	1.31	0.897	89.7
9	11	PFHpS	449 > 80.0	2.82e2	1.44e4		4.38	4.29	0.245	0.946	94.6
10	12	PFNA	463.0 > 418.8	1.35e3	1.59e4		4.63	4.61	1.06	0.776	77.6
11	13	PFOSA	498.1 > 77.8	4.58e2	5.90e3		5.02	4.67	0.971	1.03	103.4
12	14	L-PFOS	499 > 79.9	3.42e2	4.00e3		4.69	4.69	1.07	1.01	101.4
13	16	PFDA	513 > 468.8	1.54e3	1.29e4		5.34	4.98	1.49	1.20	120.1
14	17	8:2 FTS	527 > 506.9	2.82e2	1.64e3		4.98	4.95	2.15	1.11	111.2
15	18	N-MeFOSAA	570.1 > 419	6.93e2	6.28e3		5.49	5.13	1.38	0.946	94.6
16	19	N-EtFOSAA	584.2 > 419	5.66e2	6.23e3		5.64	5.29	1.14	1.09	109.3
17	20	PFUdA	563.0 > 518.9	1.42e3	1.82e4		5.66	5.30	0.974	0.870	87.0
18	21	PFDS	598.8 > 80	3.08e2	1.82e4		5.73	5.35	0.211	0.591	(A) 59.1
19	22	PFDoA	612.9 > 569.0	1.72e3	1.03e4		5.94	5.58	2.08	0.765	76.5
20	23	N-MeFOSA	512.1 > 168.9	7.24e2	1.83e4		5.85	5.66	5.95	4.97	99.4
21	24	PFTrDA	662.9 > 618.9	1.69e3	1.03e4		6.18	5.83	2.05	0.848	84.8
22	25	PFTeDA	712.9 > 668.8	1.10e3	7.13e3		6.37	6.04	1.92	1.14	113.7
23	26	N-EtFOSA	526.1 > 168.9	9.49e2	2.79e4		6.21	6.07	5.10	5.22	104.4
24	27	PFHxDA	813.1 > 768.6	5.19e2	3.69e3		6.66	6.38	0.702	1.04	103.9
25	28	PFODA	913.1 > 868.8	6.86e2	3.69e3		6.87	6.61	0.928	1.14	113.7
26	29	N-MeFOSE	616.1 > 58.9	8.75e2	2.62e4		6.30	6.25	5.01	5.04	100.7
27	30	N-EtFOSE	630.1 > 58.9	9.86e2	2.42e4		6.42	6.40	6.12	5.33	106.5
28	31	13C3-PFBA	216.1 > 171.8	9.36e3	1.01e4	0.873	1.41	1.34	11.6	13.3	106.3
29	32	13C3-PFPeA	266. > 221.8	1.41e4	1.95e4	0.789	2.63	2.27	9.02	11.4	91.5
30	33	13C3-PFBS	302. > 98.8	1.85e3	1.95e4	0.097	2.90	2.55	1.19	12.2	98.0
31	34	13C2-PFHxA	315 > 269.8	6.24e3	1.95e4	0.767	3.40	3.04	4.00	5.21	104.3

70-130

50-150

dm 12/9/17

vjh. 12/08/2017

Dataset: U:\Q4.PRO\results\171207M2\171207M2-1.qld

Last Altered: Friday, December 08, 2017 11:49:58 Pacific Standard Time
Printed: Friday, December 08, 2017 11:51:26 Pacific Standard Time

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.15e4	1.95e4	0.605	4.03	3.66	7.36	12.2	97.3
33	36	18O2-PFHxS	403.0 > 102.6	1.47e3	3.54e3	0.427	4.17	3.80	5.20	12.2	97.4
34	37	13C2-6:2 FTS	429.1 > 408.9	3.87e3	1.34e4	0.261	4.21	4.12	3.61	13.8	110.6
35	38	13C2-PFOA	414.9 > 369.7	1.44e4	1.34e4	1.112	4.54	4.17	13.4	12.1	96.6
36	39	13C5-PFNA	468.2 > 422.9	1.59e4	1.41e4	0.939	4.63	4.61	14.0	14.9	119.6
37	40	13C8-PFOSA	506.1 > 77.7	5.90e3	1.37e4	0.349	5.02	4.66	5.40	15.5	123.8
38	41	13C8-PFOS	507.0 > 79.9	4.00e3	3.61e3	0.991	5.05	4.69	13.9	14.0	111.9
39	42	13C2-PFDA	515.1 > 469.9	1.29e4	9.18e3	1.309	5.34	4.98	17.6	13.4	107.4
40	43	13C2-8:2 FTS	529.1 > 508.7	1.64e3	1.95e4	0.103	4.98	4.95	1.05	10.2	81.3
41	44	d3-N-MeFOSAA	573.3 > 419	6.28e3	1.37e4	0.405	5.49	5.13	5.75	14.2	113.4
42	45	d5-N-EtFOSAA	589.3 > 419	6.23e3	1.37e4	0.450	5.64	5.28	5.70	12.7	101.3
43	46	13C2-PFUdA	565 > 519.8	1.82e4	1.37e4	1.082	5.66	5.30	16.7	15.4	123.4
44	47	13C2-PFDoA	615.0 > 569.7	1.03e4	1.37e4	0.544	5.94	5.58	9.46	17.4	139.1
45	48	d3-N-MeFOSA	515.2 > 168.9	1.83e4	1.37e4	0.112	5.85	5.68	16.7	150	99.7
46	49	13C2-PFTeDA	714.8 > 669.6	7.13e3	1.37e4	0.533	6.37	6.04	6.53	12.3	98.0
47	50	d5-N-ETFOSA	531.1 > 168.9	2.79e4	1.37e4	0.176	6.21	6.08	25.5	145	96.6
48	51	13C2-PFHxDA	815 > 769.7	3.69e3	1.37e4	0.752	6.66	6.38	3.38	4.50	89.9
49	52	d7-N-MeFOSE	623.1 > 58.9	2.62e4	1.37e4	0.150	6.30	6.24	24.0	160	106.8
50	53	d9-N-EtFOSE	639.2 > 58.8	2.42e4	1.37e4	0.152	6.42	6.39	22.1	145	97.0
51	54	13C4-PFBA	217. > 171.8	1.01e4	1.01e4	1.000	1.41	1.33	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	1.95e4	1.95e4	1.000	3.40	3.04	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.54e3	3.54e3	1.000	4.17	3.80	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.34e4	1.34e4	1.000	4.54	4.17	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.41e4	1.41e4	1.000	4.63	4.61	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	3.61e3	3.61e3	1.000	5.05	4.69	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	9.18e3	9.18e3	1.000	5.34	4.98	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.37e4	1.37e4	1.000	5.66	5.30	12.5	12.5	100.0

50-150

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171207M2_1	ST171207M2-1 PFC CS0 17K2808	07-Dec-17	22:54:49
2	171207M2_2	IPA	07-Dec-17	23:05:58
3	171207M2_3	1701675-11@5X RICHM-GW-TW02-110717 0...	07-Dec-17	23:17:09
4	171207M2_4	IPA	07-Dec-17	23:28:20
5	171207M2_5	1701725-12 GENBM-GW-DUP1-111517 0.123..	07-Dec-17	23:39:31
6	171207M2_6	1701725-13 GENBM-08-TW08-111617 0.11519	07-Dec-17	23:50:41
7	171207M2_7	1701725-14 GENBM-02-MW102-111517 0.11...	08-Dec-17	00:01:52
8	171207M2_8	1701725-15 GENBM-04-TW04-111517 0.1187	08-Dec-17	00:13:04
9	171207M2_9	B7K0167-BS1 OPR 1	08-Dec-17	00:24:14
10	171207M2_10	IPA	08-Dec-17	00:35:25
11	171207M2_11	B7K0167-BLK1 Method Blank 1	08-Dec-17	00:46:36
12	171207M2_12	1701689-01 B1 2.13	08-Dec-17	00:57:46
13	171207M2_13	1701689-02 R1 6.51	08-Dec-17	01:08:57
14	171207M2_14	1701689-03 R2 7.01	08-Dec-17	01:20:08
15	171207M2_15	1701689-04 R3 4.39	08-Dec-17	01:31:19
16	171207M2_16	1701705-01 Soil-Treater 4/5 Stockpile #1 1.18	08-Dec-17	01:42:29
17	171207M2_17	1701705-02 Soil-Treater 4/5 Stockpile #2 1.22	08-Dec-17	01:53:40
18	171207M2_18	IPA	08-Dec-17	02:04:51
19	171207M2_19	ST171207M2-2 PFC CS3 17K2810	08-Dec-17	02:16:02
20	171207M2_20	B7K0135-BS1 OPR 0.25	08-Dec-17	02:27:14
21	171207M2_21	IPA	08-Dec-17	02:38:26
22	171207M2_22	B7K0135-BLK1 Method Blank 0.25	08-Dec-17	02:49:36
23	171207M2_23	1701702-01 WWP-TAP 0.21648	08-Dec-17	03:00:47
24	171207M2_24	1701702-02 BI-RAW 0.23454	08-Dec-17	03:11:58
25	171207M2_25	1701702-03 SPW-TAP 0.2459	08-Dec-17	03:23:09
26	171207M2_26	1701702-04 SW-TAP 0.22821	08-Dec-17	03:34:19
27	171207M2_27	1701702-05 SW-RAW 0.22154	08-Dec-17	03:45:30
28	171207M2_28	1701702-06 NE-TAP 0.20544	08-Dec-17	03:56:40
29	171207M2_29	1701720-01 WR1711161015JLB 0.2219	08-Dec-17	04:07:51
30	171207M2_30	IPA	08-Dec-17	04:19:02
31	171207M2_31	ST171207M2-3 PFC CS3 17K2810	08-Dec-17	04:30:13

Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171207M2_32	IPA	08-Dec-17	04:41:24
33	171207M2_33	1701720-02 WR1711161030JLB 0.22026	08-Dec-17	04:52:34
34	171207M2_34	1701720-03 WR1711161055JLB 0.23524	08-Dec-17	05:03:45
35	171207M2_35	1701720-04 FB1711161100JLB 0.22785	08-Dec-17	05:14:56
36	171207M2_36	1701720-05 WR1711161115JLB 0.21921	08-Dec-17	05:26:06
37	171207M2_37	1701720-06 WR1711161520MK 0.22651	08-Dec-17	05:37:17
38	171207M2_38	1701720-07 WR1711161605MK 0.21306	08-Dec-17	05:48:28
39	171207M2_39	1701744-01 MTBE_7234 0.17908	08-Dec-17	05:59:38
40	171207M2_40	1701745-01 MTBE_8293 0.23182	08-Dec-17	06:10:49
41	171207M2_41	1701746-01 MTBE_14101 0.18953	08-Dec-17	06:22:00
42	171207M2_42	IPA	08-Dec-17	06:33:11
43	171207M2_43	ST171207M2-4 PFC CS3 17K2810	08-Dec-17	06:44:21
44	171207M2_44	IPA	08-Dec-17	06:55:32
45	171207M2_45	B7K0176-BS1 OPR 0.25	08-Dec-17	07:06:43
46	171207M2_46	B7K0176-BSD1 LCS Dup 0.25	08-Dec-17	07:17:53
47	171207M2_47	B7K0176-BLK1 Method Blank 0.25	08-Dec-17	07:29:04
48	171207M2_48	1701710-01 FT-MW02I-NP-20171115 0.26115	08-Dec-17	07:40:15
49	171207M2_49	1701710-02 FT-MW02I-P1-20171115 0.264	08-Dec-17	07:51:25
50	171207M2_50	1701710-03 FT-MW02I-P2-20171115 0.26349	08-Dec-17	08:02:36
51	171207M2_51	1701710-04 FT-MW02I-P3-20171115 0.26766	08-Dec-17	08:13:47
52	171207M2_52	1701710-05 DEET-20171115 0.24575	08-Dec-17	08:24:58
53	171207M2_53	1701710-06 PERMETHRIN-20171115 0.23385	08-Dec-17	08:36:08
54	171207M2_54	1701710-07 FT-PZ-456S-NP-20171115 0.26081	08-Dec-17	08:47:19
55	171207M2_55	1701710-08 FT-PZ-456S-P1-20171115 0.26238	08-Dec-17	08:58:30
56	171207M2_56	1701710-09 FT-PZ-456S-P2-20171115 0.25828	08-Dec-17	09:09:40
57	171207M2_57	1701710-10 FT-PZ-456S-P3-20171115 0.26661	08-Dec-17	09:20:51
58	171207M2_58	IPA	08-Dec-17	09:32:02
59	171207M2_59	ST171207M2-5 PFC CS0 17K2808	08-Dec-17	09:43:13
60	171207M2_60	IPA	08-Dec-17	09:54:23
61	171207M2_61	1701710-11 FT-PZ-456-FRB-20171115 0.26552	08-Dec-17	10:05:34
62	171207M2_62	1701781-01 MW-6 0.11677	08-Dec-17	10:16:45
63	171207M2_63	1701781-02 MW-5 0.11465	08-Dec-17	10:27:55
64	171207M2_64	1701782-01 DPH-MW8-17 0.11397	08-Dec-17	10:39:06
65	171207M2_65	1701782-02 DPH-MW5-17 0.11948	08-Dec-17	10:50:17

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	171207M2_66	1701782-03 DPH-MW4-17 0.11498	08-Dec-17	11:01:27
67	171207M2_67	IPA	08-Dec-17	11:12:39
68	171207M2_68	ST171207M2-6 PFC CS3 17K2810	08-Dec-17	11:23:49
69	171207M2_69	IPA	08-Dec-17	11:34:59

LC Calibration Standards Review Checklist Q4

		ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	????? NA
Calibration ID: ST171207M2-1	(L) M H	☒	☑ (A)	☑	☑	☑	☑	☐
Calibration ID: -2	(L) M H	☐	☑ (B)	☑	☑	☑	☑	☐
Calibration ID: -3	(L) M H	☐	☑	☑	☑	☑	☑	☐
Calibration ID: -4	L (M) H	☐	☑ (C)	☑	☑	☑	☑	☐
Calibration ID: -5	(L) M H	☐	☑ (D)	☑	☑	☑	☑	☐
Calibration ID: -6	L (M) H	☑	☑ (E)	☑	☑	☑	☑	☑
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 11/14/17

Run Log Present: ☑

# of Samples per Sequence Checked: ☑

Reviewed By: JA. 12/08/2017
Initials/Date

Comments: FULL
(A) PFDS <70%.
(B) PFNA >130%.
(C) 13C2 PFDoA >150%.
(D) 8:2FTS >130%.
(E) PFDA >130%.

Vista Analytical Laboratory

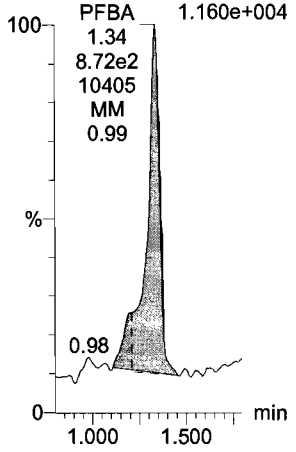
Dataset: U:\Q4.PRO\results\171207M2\171207M2-1.qld

Last Altered: Friday, December 08, 2017 11:49:58 Pacific Standard Time
Printed: Friday, December 08, 2017 11:51:26 Pacific Standard Time

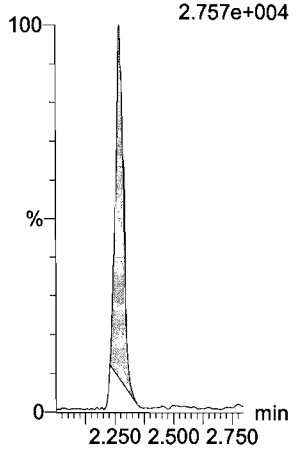
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

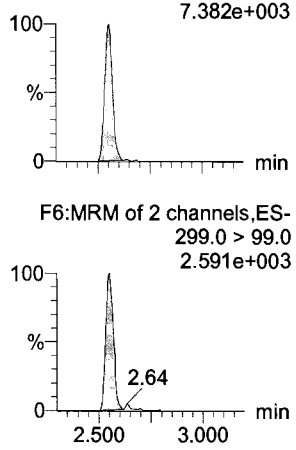
PFBA



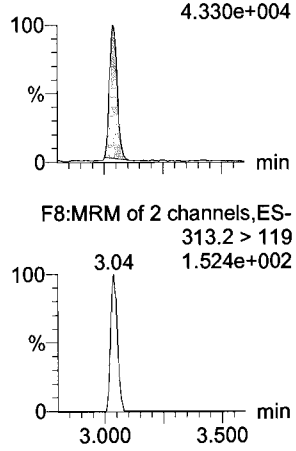
PFPeA



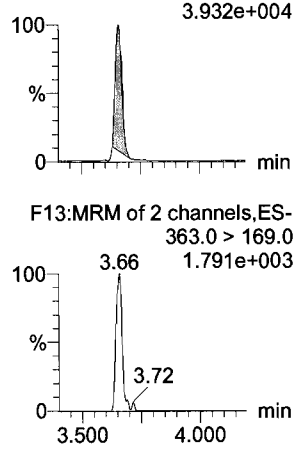
PFBS



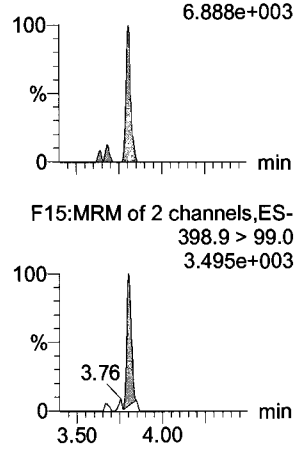
PFHxA



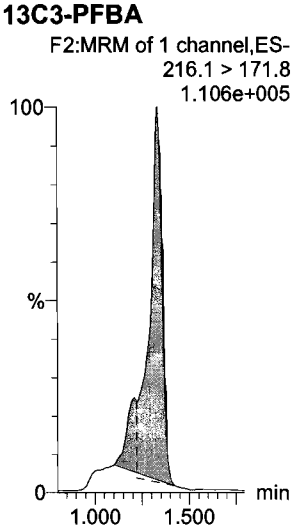
PFHpA



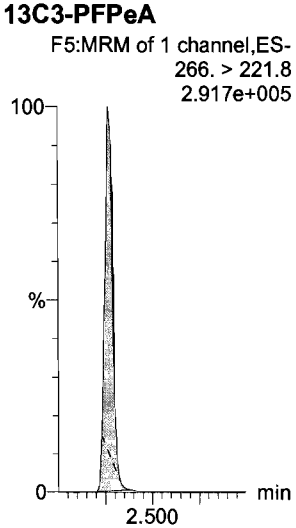
L-PFHxS



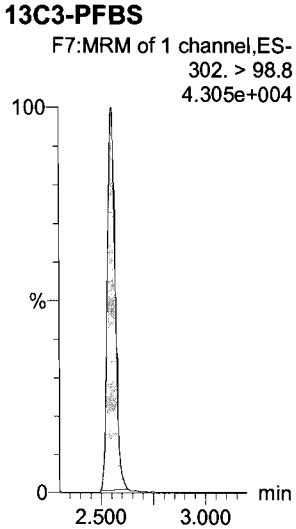
13C3-PFBA



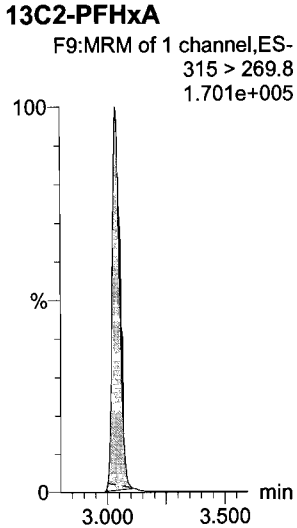
13C3-PFPeA



13C3-PFBS



13C2-PFHxA



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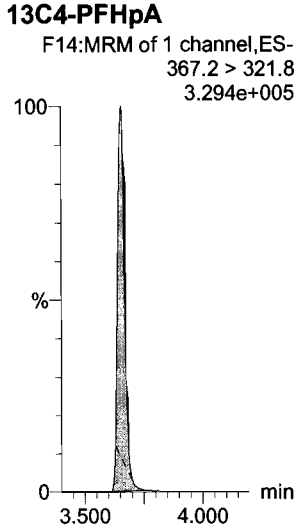
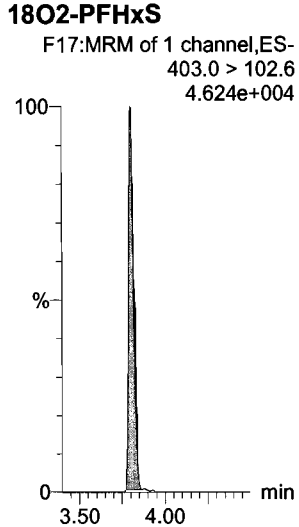


18O2-PFHxS

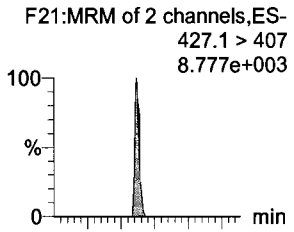


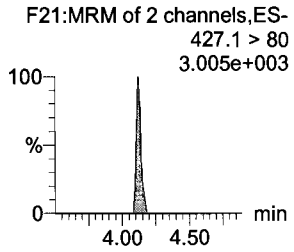
Dataset: U:\Q4.PRO\results\171207M2\171207M2-1.qld

Last Altered: Friday, December 08, 2017 11:49:58 Pacific Standard Time
Printed: Friday, December 08, 2017 11:51:26 Pacific Standard Time

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

6:2 FTS





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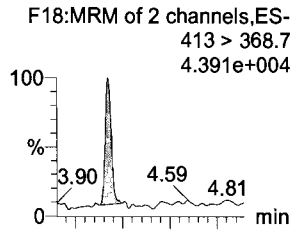
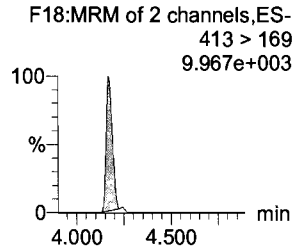
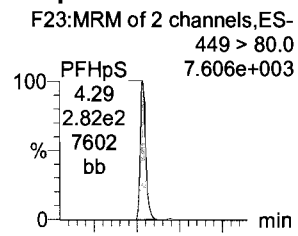
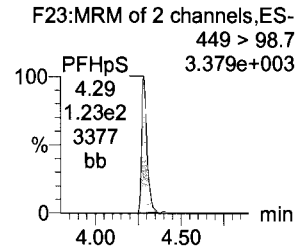




PFHpS





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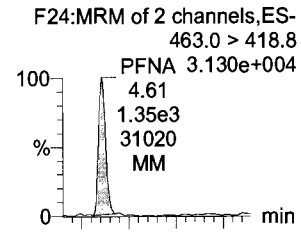

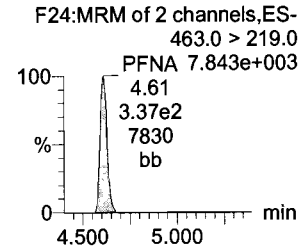

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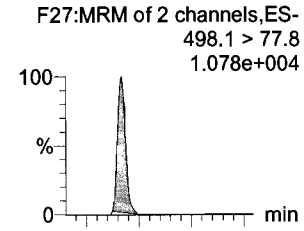

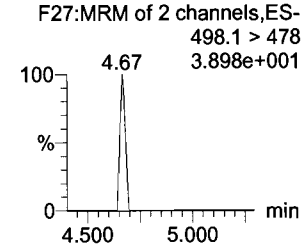

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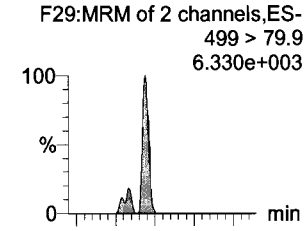

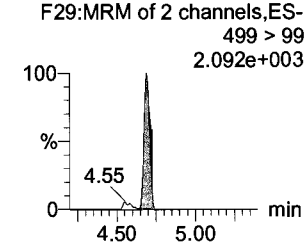

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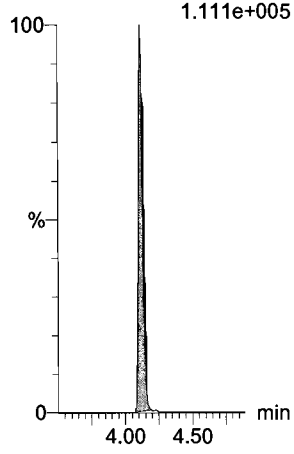

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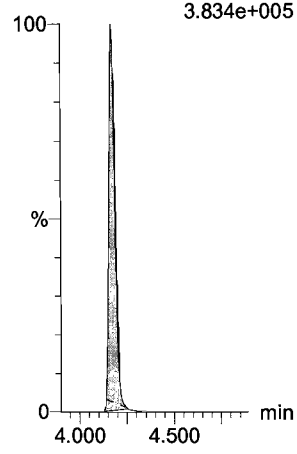

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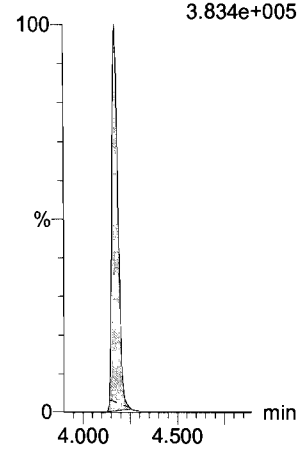

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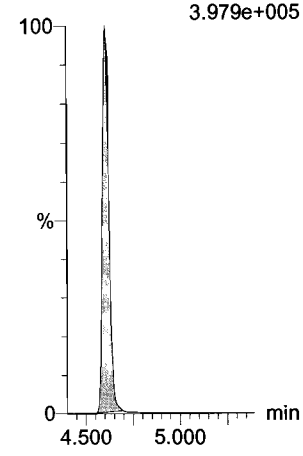

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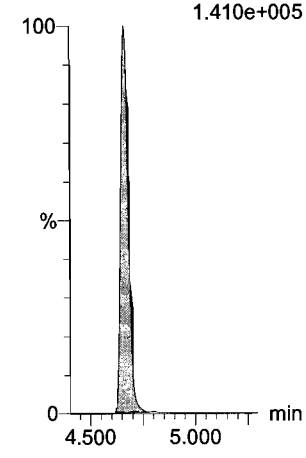

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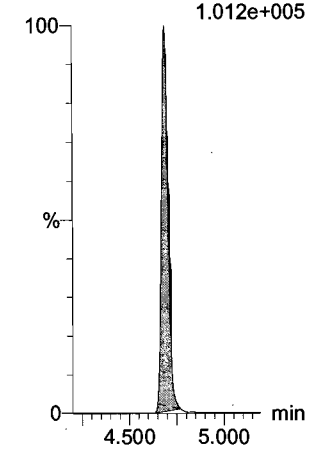

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Last Altered: Friday, December 08, 2017 11:49:58 Pacific Standard Time
Printed: Friday, December 08, 2017 11:51:26 Pacific Standard Time

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

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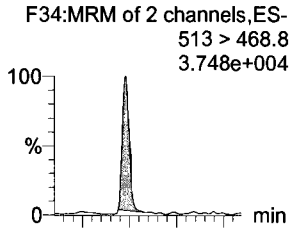
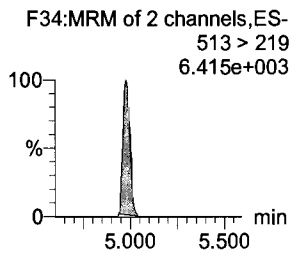
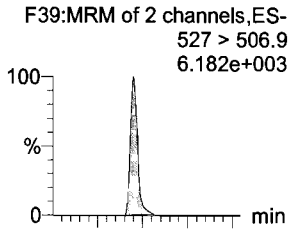
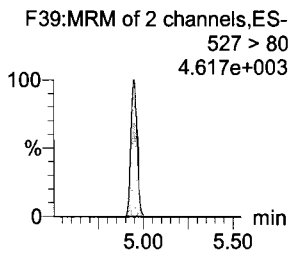




8:2 FTS





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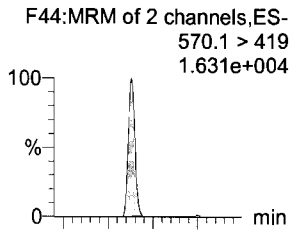

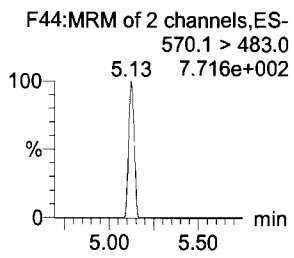

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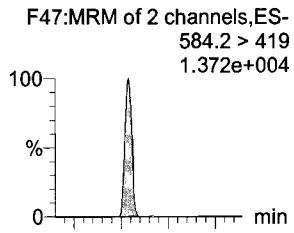

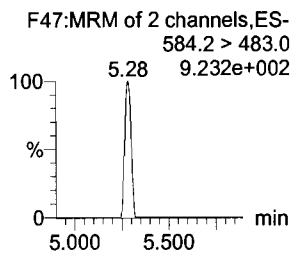

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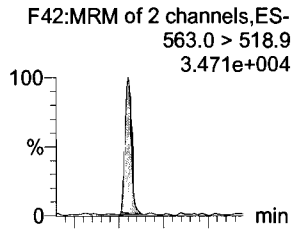

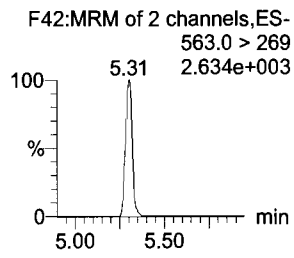

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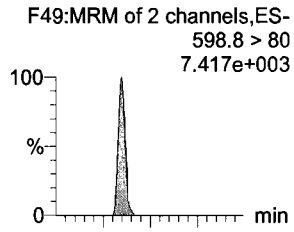

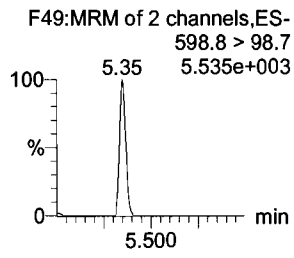

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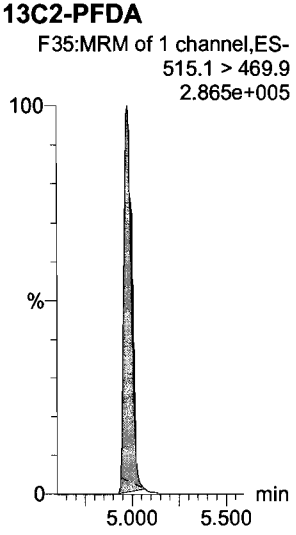

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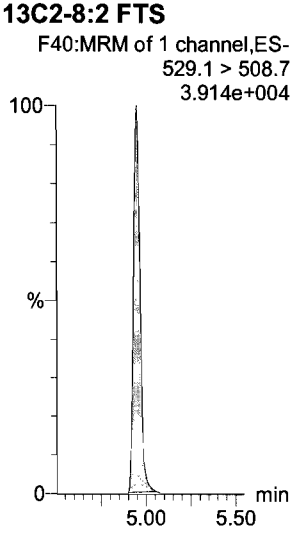

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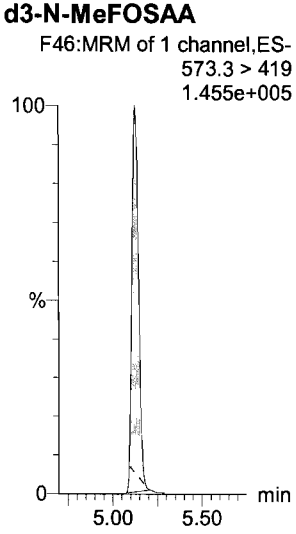

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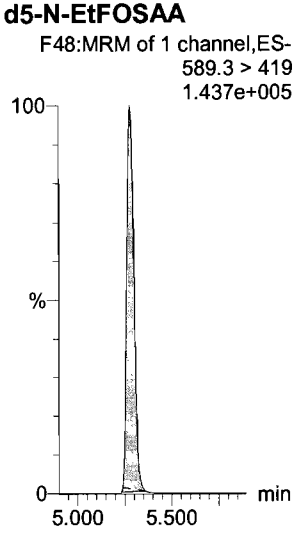

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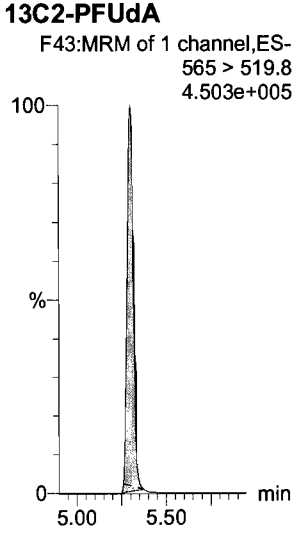

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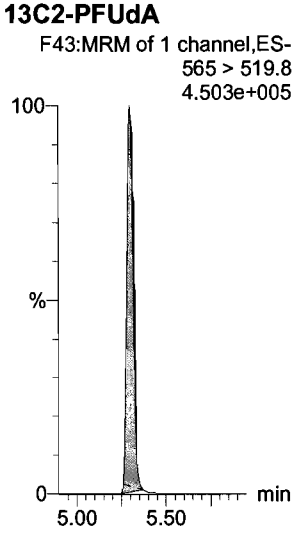

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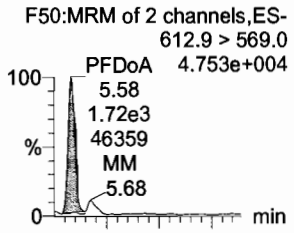

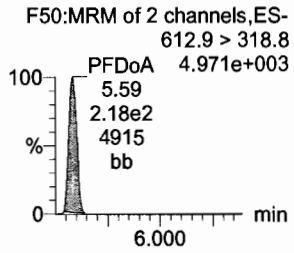

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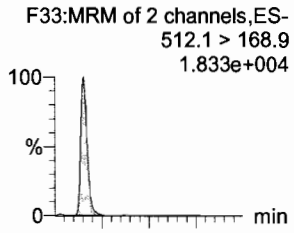

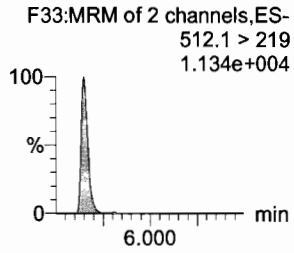

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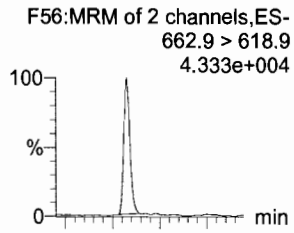

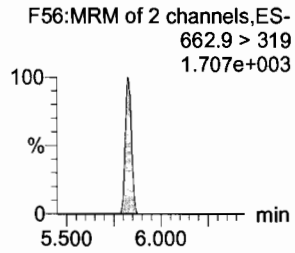

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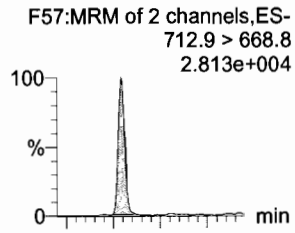

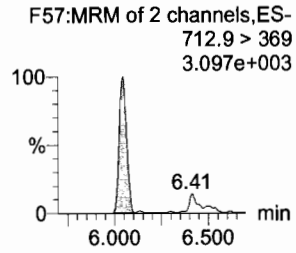

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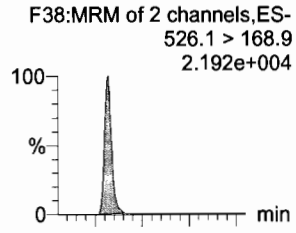

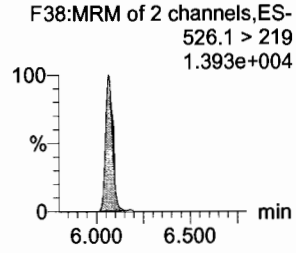

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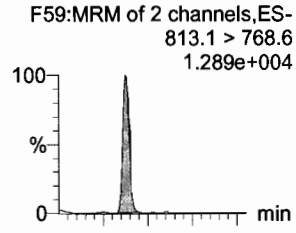

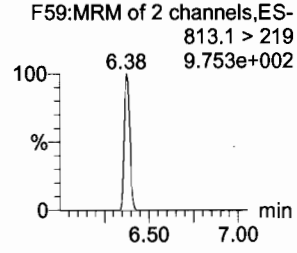

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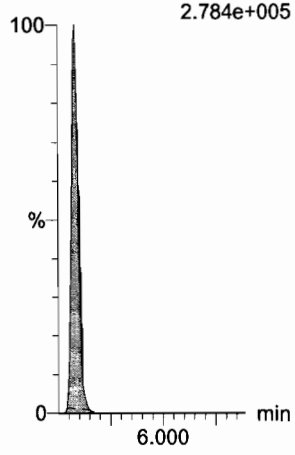

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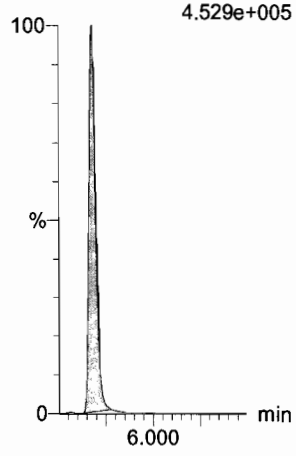

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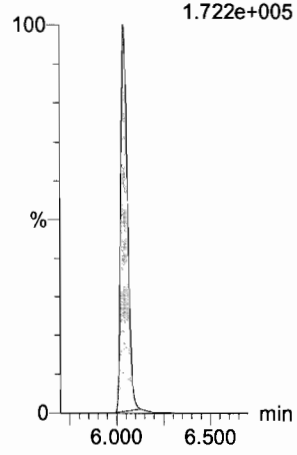

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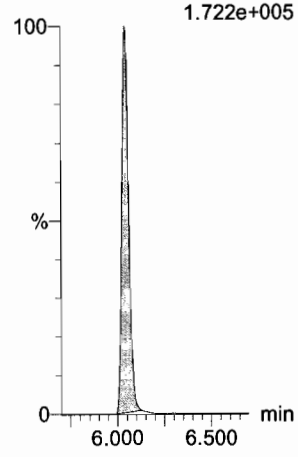

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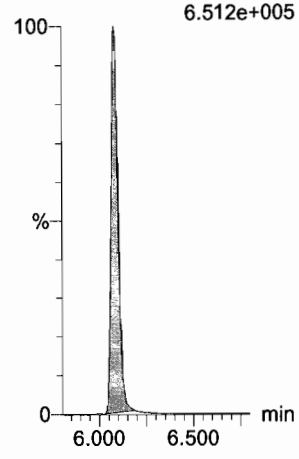

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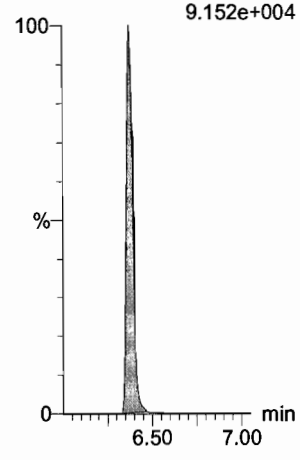

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Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

PFODA
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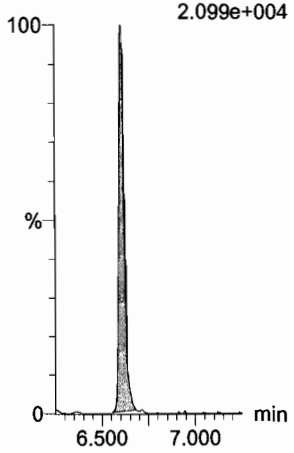
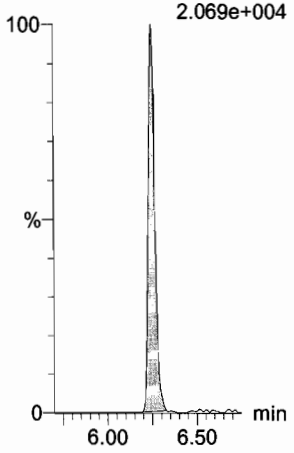
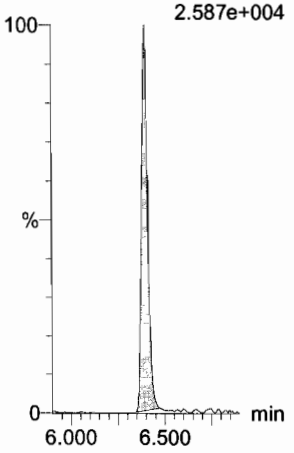
913.1 > 868.8
2.099e+004



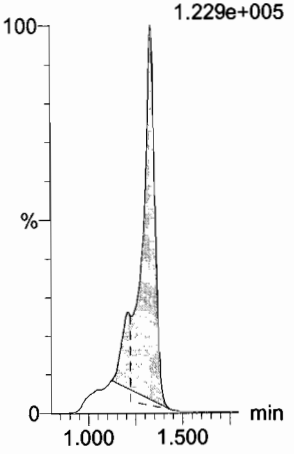
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.069e+004



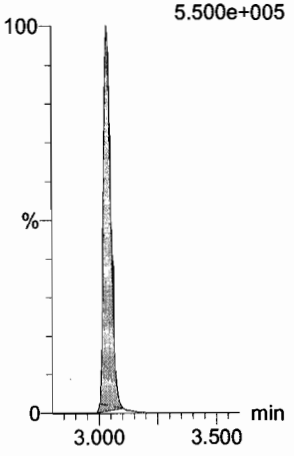
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.587e+004



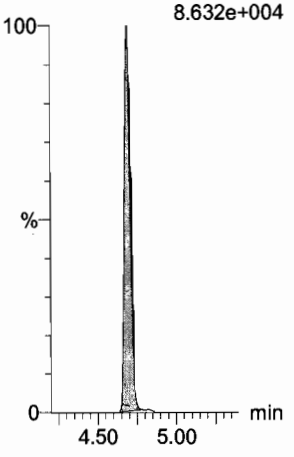
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.229e+005



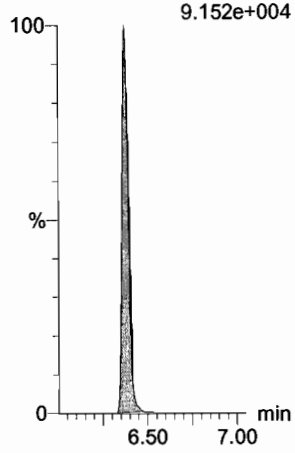
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.500e+005



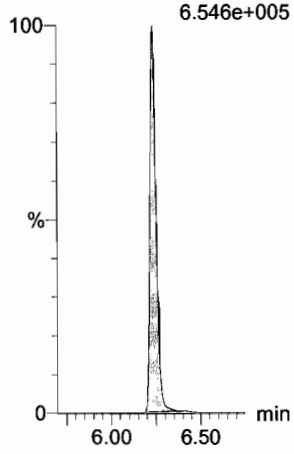
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.632e+004



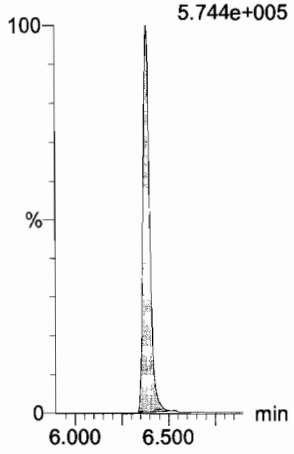
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.152e+004



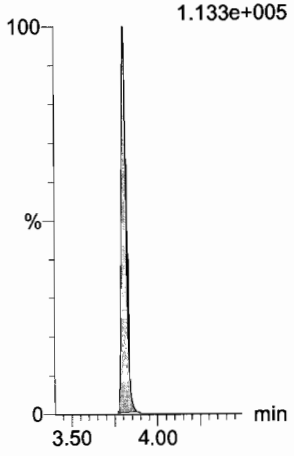
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.546e+005



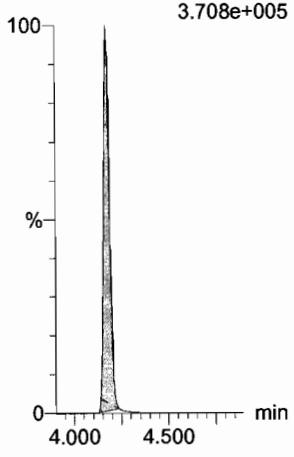
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.744e+005



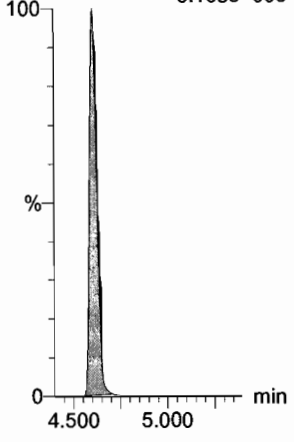
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.133e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.708e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.168e+005

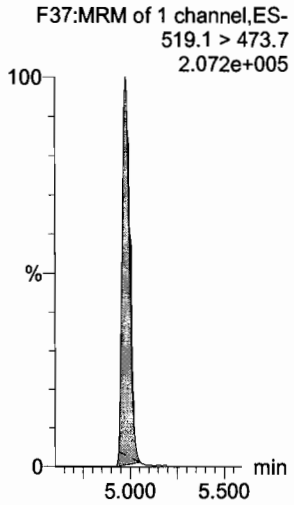


Dataset: U:\Q4.PRO\results\171207M2\171207M2-1.qld

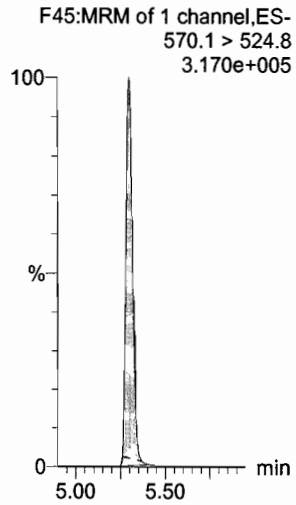
Last Altered: Friday, December 08, 2017 11:49:58 Pacific Standard Time
Printed: Friday, December 08, 2017 11:51:26 Pacific Standard Time

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171207M2\171207M2-43.qld

Last Altered: Friday, December 08, 2017 11:59:15 Pacific Standard Time
Printed: Friday, December 08, 2017 11:59:27 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.89e3	1.04e4		1.34	1.34	11.9	10.7	107.5
2	2	PFPeA	263.1 > 218.9	1.10e4	1.30e4		2.25	2.28	10.6	10.8	107.9
3	3	PFBS	299.0 > 79.7	3.03e3	1.55e3		2.52	2.56	24.5	11.3	113.3
4	4	PFHxA	313.2 > 268.9	1.57e4	5.19e3		3.04	3.04	15.1	10.8	108.3
5	5	PFHpA	363.0 > 318.9	1.16e4	1.04e4		3.66	3.66	13.9	10.2	101.7
6	6	L-PFHxS	398.9 > 79.6	2.34e3	1.29e3		3.80	3.81	22.7	10.0	100.5
7	8	6:2 FTS	427.1 > 407	2.74e3	3.38e3		4.20	4.12	10.1	8.74	87.4
8	9	L-PFOA	413 > 368.7	1.06e4	1.47e4		4.20	4.18	8.98	8.51	85.1
9	11	PFHpS	449 > 80.0	2.68e3	1.47e4		4.29	4.29	2.28	8.77	87.7
10	12	PFNA	463.0 > 418.8	1.51e4	1.38e4		4.61	4.61	13.7	10.3	103.3
11	13	PFOSA	498.1 > 77.8	3.30e3	4.55e3		4.67	4.67	9.07	7.72	77.2
12	14	L-PFOS	499 > 79.9	3.04e3	3.71e3		4.69	4.69	10.2	10.2	101.7
13	16	PFDA	513 > 468.8	1.52e4	1.32e4		5.00	4.98	14.4	12.5	124.8
14	17	8:2 FTS	527 > 506.9	2.71e3	1.74e3		4.98	4.95	19.5	10.3	102.5
15	18	N-MeFOSAA	570.1 > 419	7.11e3	4.83e3		5.15	5.13	18.4	10.6	105.8
16	19	N-EtFOSAA	584.2 > 419	4.47e3	5.92e3		5.30	5.29	9.45	8.99	89.9
17	20	PFUdA	563.0 > 518.9	1.07e4	1.30e4		5.31	5.30	10.3	8.52	85.2
18	21	PFDS	598.8 > 80	3.20e3	1.30e4		5.35	5.34	3.08	10.4	103.6
19	22	PFDoA	612.9 > 569.0	1.53e4	8.63e3		5.58	5.58	22.1	8.16	81.6
20	23	N-MeFOSA	512.1 > 168.9	6.62e3	1.71e4		5.60	5.66	58.0	48.7	97.3
21	24	PFTrDA	662.9 > 618.9	1.32e4	8.63e3		5.75	5.83	19.1	7.61	76.1
22	25	PFTeDA	712.9 > 668.8	9.25e3	6.46e3		6.10	6.04	17.9	10.0	100.5
23	26	N-EtFOSA	526.1 > 168.9	8.96e3	2.59e4		6.21	6.06	52.0	54.7	109.3
24	27	PFHxDA	813.1 > 768.6	5.19e3	3.74e3		6.35	6.38	6.95	11.1	111.5
25	28	PFODA	913.1 > 868.8	5.40e3	3.74e3		6.65	6.61	7.23	8.72	87.2
26	29	N-MeFOSE	616.1 > 58.9	8.00e3	2.25e4		6.30	6.24	53.3	54.4	108.8
27	30	N-EtFOSE	630.1 > 58.9	9.44e3	2.27e4		6.42	6.40	62.5	56.9	113.9
28	31	13C3-PFBA	216.1 > 171.8	1.04e4	1.19e4	0.873	1.34	1.34	10.9	12.5	99.9
29	32	13C3-PFPeA	266. > 221.8	1.30e4	1.61e4	0.789	2.25	2.28	10.2	12.9	102.9
30	33	13C3-PFBS	302. > 98.8	1.55e3	1.61e4	0.097	2.52	2.56	1.20	12.4	99.6
31	34	13C2-PFHxA	315 > 269.8	5.19e3	1.61e4	0.767	3.04	3.04	4.04	5.27	105.4

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dm 12/9/17

rjh. 12/08/2017

Dataset: U:\Q4.PRO\results\171207M2\171207M2-43.qld

Last Altered: Friday, December 08, 2017 11:59:15 Pacific Standard Time
Printed: Friday, December 08, 2017 11:59:27 Pacific Standard Time

Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

(A) Acceptance criteria

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.04e4	1.61e4	0.605	3.66	3.66	8.10	13.4	107.1
33	36	18O2-PFHxS	403.0 > 102.6	1.29e3	3.23e3	0.427	3.80	3.81	4.99	11.7	93.5
34	37	13C2-6:2 FTS	429.1 > 408.9	3.38e3	1.23e4	0.261	4.21	4.12	3.42	13.1	104.9
35	38	13C2-PFOA	414.9 > 369.7	1.47e4	1.23e4	1.112	4.20	4.17	14.9	13.4	107.2
36	39	13C5-PFNA	468.2 > 422.9	1.38e4	1.30e4	0.939	4.63	4.61	13.3	14.1	113.0
37	40	13C8-PFOSA	506.1 > 77.7	4.55e3	1.02e4	0.349	4.67	4.66	5.58	16.0	127.9
38	41	13C8-PFOS	507.0 > 79.9	3.71e3	3.39e3	0.991	4.69	4.69	13.7	13.8	110.5
39	42	13C2-PFDA	515.1 > 469.9	1.32e4	1.04e4	1.309	5.00	4.98	15.8	12.1	96.7
40	43	13C2-8:2 FTS	529.1 > 508.7	1.74e3	1.61e4	0.103	4.98	4.95	1.35	13.1	104.7
41	44	d3-N-MeFOSAA	573.3 > 419	4.83e3	1.02e4	0.405	5.15	5.13	5.92	14.6	116.8
42	45	d5-N-EtFOSAA	589.3 > 419	5.92e3	1.02e4	0.450	5.30	5.28	7.25	16.1	129.0
43	46	13C2-PFUdA	565 > 519.8	1.30e4	1.02e4	1.082	5.31	5.30	15.9	14.7	117.7
44	47	13C2-PFDoA	615.0 > 569.7	8.63e3	1.02e4	0.544	5.58	5.58	10.6	19.4	155.5
45	48	d3-N-MeFOSA	515.2 > 168.9	1.71e4	1.02e4	0.112	5.60	5.68	21.0	188	125.3
46	49	13C2-PFTeDA	714.8 > 669.6	6.46e3	1.02e4	0.533	6.10	6.04	7.92	14.9	119.0
47	50	d5-N-ETFOSA	531.1 > 168.9	2.59e4	1.02e4	0.176	6.21	6.08	31.7	180	120.1
48	51	13C2-PFHxDA	815 > 769.7	3.74e3	1.02e4	0.752	6.35	6.38	4.58	6.09	121.9
49	52	d7-N-MeFOSE	623.1 > 58.9	2.25e4	1.02e4	0.150	6.30	6.24	27.6	184	123.0
50	53	d9-N-EtFOSE	639.2 > 58.8	2.27e4	1.02e4	0.152	6.42	6.39	27.8	182	121.6
51	54	13C4-PFBA	217. > 171.8	1.19e4	1.19e4	1.000	1.34	1.34	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	1.61e4	1.61e4	1.000	3.04	3.04	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.23e3	3.23e3	1.000	3.80	3.81	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.23e4	1.23e4	1.000	4.20	4.17	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.30e4	1.30e4	1.000	4.63	4.61	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	3.39e3	3.39e3	1.000	4.69	4.69	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.04e4	1.04e4	1.000	5.00	4.98	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.02e4	1.02e4	1.000	5.31	5.30	12.5	12.5	100.0

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(1)

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Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171207M2_1	ST171207M2-1 PFC CS0 17K2808	07-Dec-17	22:54:49
2	171207M2_2	IPA	07-Dec-17	23:05:58
3	171207M2_3	1701675-11@5X RICHM-GW-TW02-110717 0...	07-Dec-17	23:17:09
4	171207M2_4	IPA	07-Dec-17	23:28:20
5	171207M2_5	1701725-12 GENBM-GW-DUP1-111517 0.123...	07-Dec-17	23:39:31
6	171207M2_6	1701725-13 GENBM-08-TW08-111617 0.11519	07-Dec-17	23:50:41
7	171207M2_7	1701725-14 GENBM-02-MW102-111517 0.11...	08-Dec-17	00:01:52
8	171207M2_8	1701725-15 GENBM-04-TW04-111517 0.1187	08-Dec-17	00:13:04
9	171207M2_9	B7K0167-BS1 OPR 1	08-Dec-17	00:24:14
10	171207M2_10	IPA	08-Dec-17	00:35:25
11	171207M2_11	B7K0167-BLK1 Method Blank 1	08-Dec-17	00:46:36
12	171207M2_12	1701689-01 B1 2.13	08-Dec-17	00:57:46
13	171207M2_13	1701689-02 R1 6.51	08-Dec-17	01:08:57
14	171207M2_14	1701689-03 R2 7.01	08-Dec-17	01:20:08
15	171207M2_15	1701689-04 R3 4.39	08-Dec-17	01:31:19
16	171207M2_16	1701705-01 Soil-Treater 4/5 Stockpile #1 1.18	08-Dec-17	01:42:29
17	171207M2_17	1701705-02 Soil-Treater 4/5 Stockpile #2 1.22	08-Dec-17	01:53:40
18	171207M2_18	IPA	08-Dec-17	02:04:51
19	171207M2_19	ST171207M2-2 PFC CS3 17K2810	08-Dec-17	02:16:02
20	171207M2_20	B7K0135-BS1 OPR 0.25	08-Dec-17	02:27:14
21	171207M2_21	IPA	08-Dec-17	02:38:26
22	171207M2_22	B7K0135-BLK1 Method Blank 0.25	08-Dec-17	02:49:36
23	171207M2_23	1701702-01 WWP-TAP 0.21648	08-Dec-17	03:00:47
24	171207M2_24	1701702-02 BI-RAW 0.23454	08-Dec-17	03:11:58
25	171207M2_25	1701702-03 SPW-TAP 0.2459	08-Dec-17	03:23:09
26	171207M2_26	1701702-04 SW-TAP 0.22821	08-Dec-17	03:34:19
27	171207M2_27	1701702-05 SW-RAW 0.22154	08-Dec-17	03:45:30
28	171207M2_28	1701702-06 NE-TAP 0.20544	08-Dec-17	03:56:40
29	171207M2_29	1701720-01 WR1711161015JLB 0.2219	08-Dec-17	04:07:51
30	171207M2_30	IPA	08-Dec-17	04:19:02
31	171207M2_31	ST171207M2-3 PFC CS3 17K2810	08-Dec-17	04:30:13

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Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171207M2_32	IPA	08-Dec-17	04:41:24
33	171207M2_33	1701720-02 WR1711161030JLB 0.22026	08-Dec-17	04:52:34
34	171207M2_34	1701720-03 WR1711161055JLB 0.23524	08-Dec-17	05:03:45
35	171207M2_35	1701720-04 FB1711161100JLB 0.22785	08-Dec-17	05:14:56
36	171207M2_36	1701720-05 WR1711161115JLB 0.21921	08-Dec-17	05:26:06
37	171207M2_37	1701720-06 WR1711161520MK 0.22651	08-Dec-17	05:37:17
38	171207M2_38	1701720-07 WR1711161605MK 0.21306	08-Dec-17	05:48:28
39	171207M2_39	1701744-01 MTBE_7234 0.17908	08-Dec-17	05:59:38
40	171207M2_40	1701745-01 MTBE_8293 0.23182	08-Dec-17	06:10:49
41	171207M2_41	1701746-01 MTBE_14101 0.18953	08-Dec-17	06:22:00
42	171207M2_42	IPA	08-Dec-17	06:33:11
43	171207M2_43	ST171207M2-4 PFC CS3 17K2810	08-Dec-17	06:44:21
44	171207M2_44	IPA	08-Dec-17	06:55:32
45	171207M2_45	B7K0176-BS1 OPR 0.25	08-Dec-17	07:06:43
46	171207M2_46	B7K0176-BSD1 LCS Dup 0.25	08-Dec-17	07:17:53
47	171207M2_47	B7K0176-BLK1 Method Blank 0.25	08-Dec-17	07:29:04
48	171207M2_48	1701710-01 FT-MW02I-NP-20171115 0.26115	08-Dec-17	07:40:15
49	171207M2_49	1701710-02 FT-MW02I-P1-20171115 0.264	08-Dec-17	07:51:25
50	171207M2_50	1701710-03 FT-MW02I-P2-20171115 0.26349	08-Dec-17	08:02:36
51	171207M2_51	1701710-04 FT-MW02I-P3-20171115 0.26766	08-Dec-17	08:13:47
52	171207M2_52	1701710-05 DEET-20171115 0.24575	08-Dec-17	08:24:58
53	171207M2_53	1701710-06 PERMETHRIN-20171115 0.23385	08-Dec-17	08:36:08
54	171207M2_54	1701710-07 FT-PZ-456S-NP-20171115 0.26081	08-Dec-17	08:47:19
55	171207M2_55	1701710-08 FT-PZ-456S-P1-20171115 0.26238	08-Dec-17	08:58:30
56	171207M2_56	1701710-09 FT-PZ-456S-P2-20171115 0.25828	08-Dec-17	09:09:40
57	171207M2_57	1701710-10 FT-PZ-456S-P3-20171115 0.26661	08-Dec-17	09:20:51
58	171207M2_58	IPA	08-Dec-17	09:32:02
59	171207M2_59	ST171207M2-5 PFC CS0 17K2808	08-Dec-17	09:43:13
60	171207M2_60	IPA	08-Dec-17	09:54:23
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63	171207M2_63	1701781-02 MW-5 0.11465	08-Dec-17	10:27:55
64	171207M2_64	1701782-01 DPH-MW8-17 0.11397	08-Dec-17	10:39:06
65	171207M2_65	1701782-02 DPH-MW5-17 0.11948	08-Dec-17	10:50:17

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Compound name: PFBA

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67	171207M2_67	IPA	08-Dec-17	11:12:39
68	171207M2_68	ST171207M2-6 PFC CS3 17K2810	08-Dec-17	11:23:49
69	171207M2_69	IPA	08-Dec-17	11:34:59

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-43.qld

Last Altered: Friday, December 08, 2017 11:59:15 Pacific Standard Time
Printed: Friday, December 08, 2017 11:59:27 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

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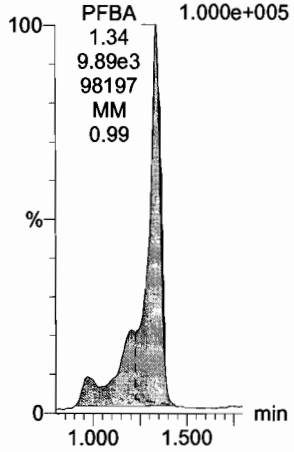

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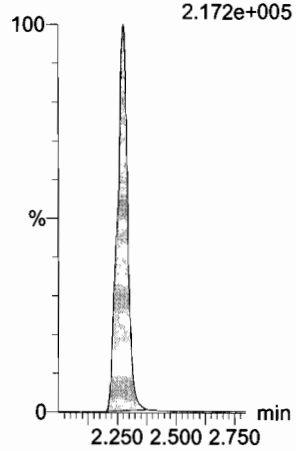

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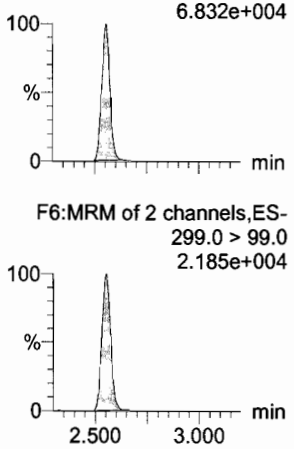

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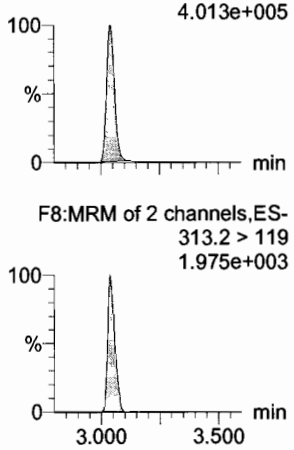

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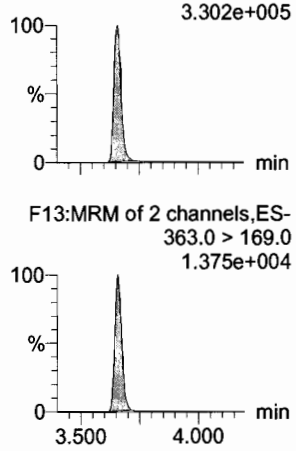

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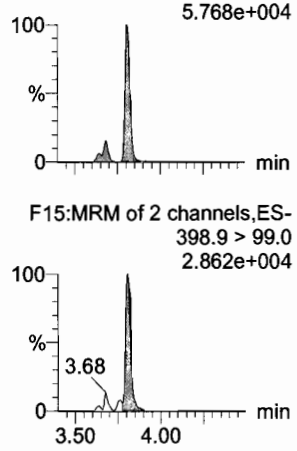

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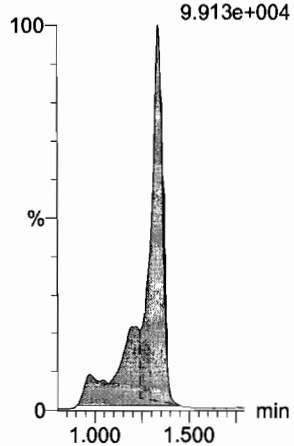

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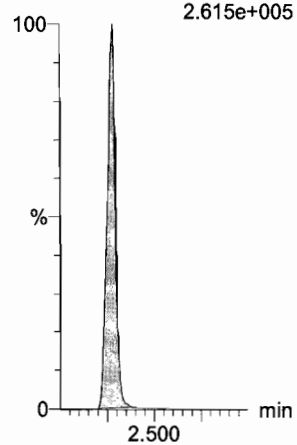

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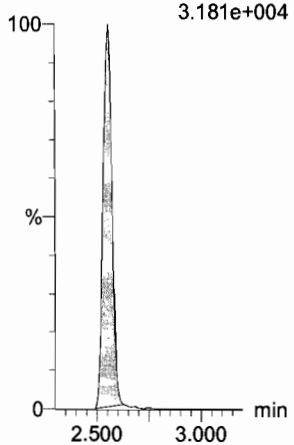

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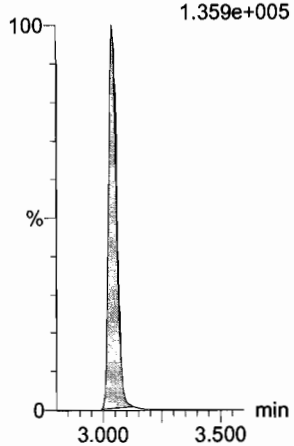

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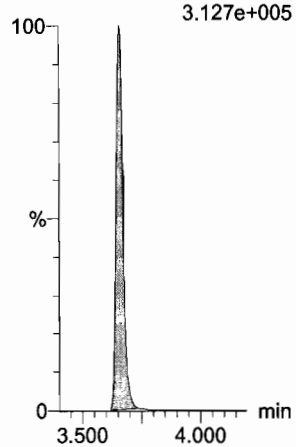

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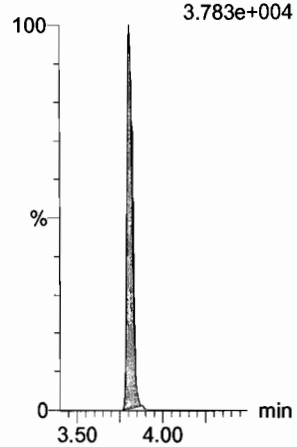

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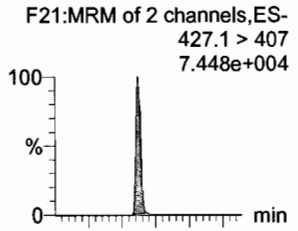
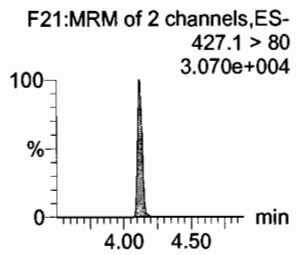
Printed: Friday, December 08, 2017 11:59:27 Pacific Standard Time

Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

6:2 FTS





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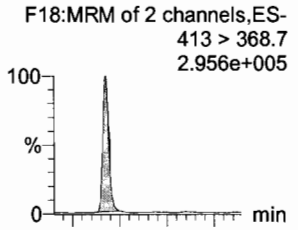

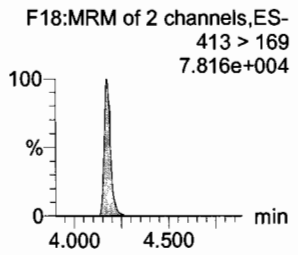

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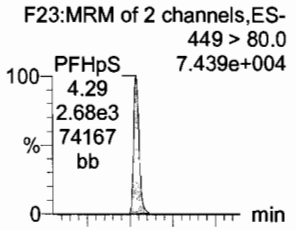

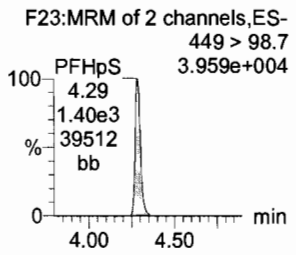

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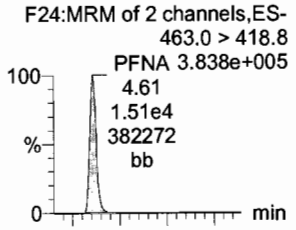

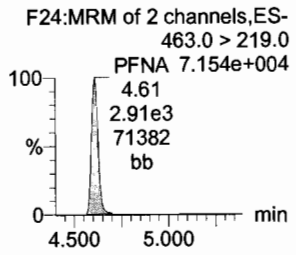

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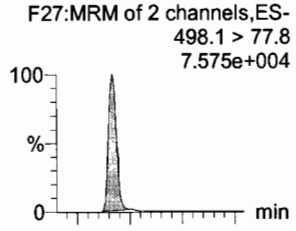

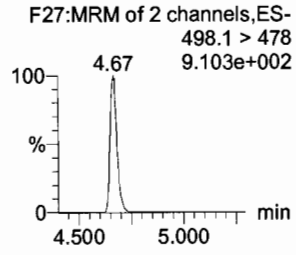

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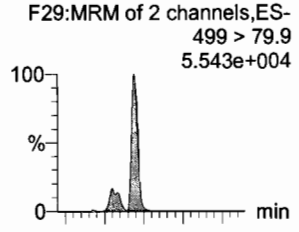

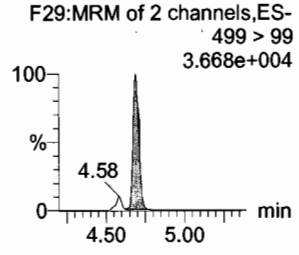

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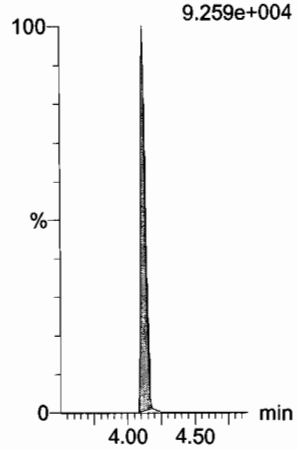

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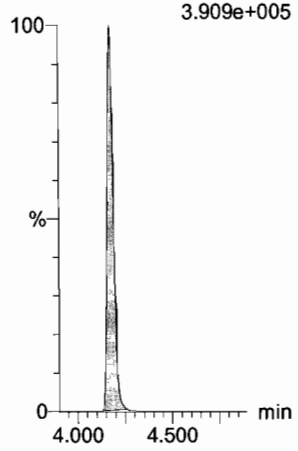

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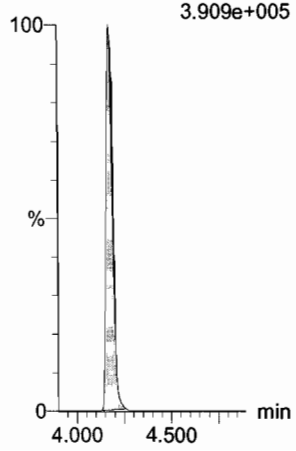

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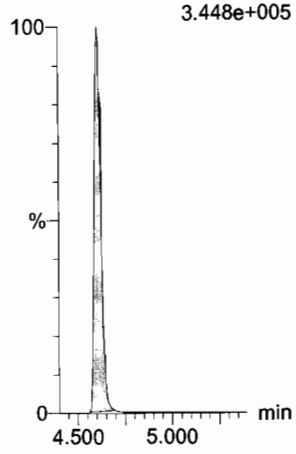

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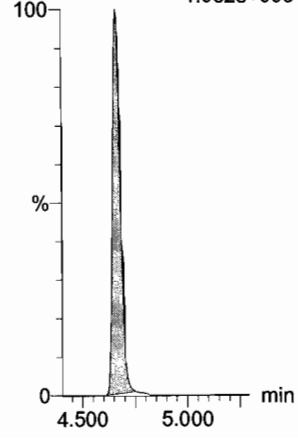

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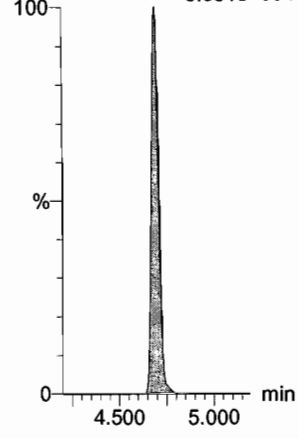

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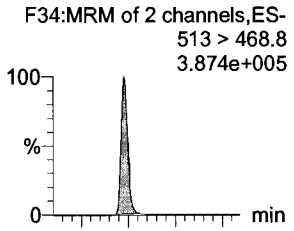
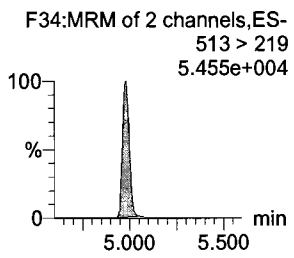
Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

PFDA





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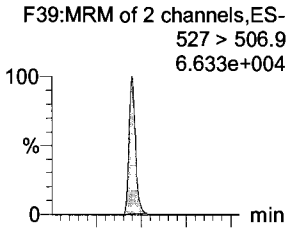

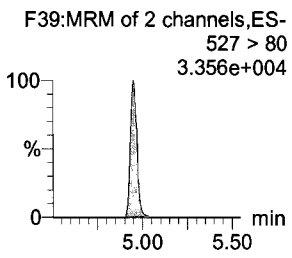

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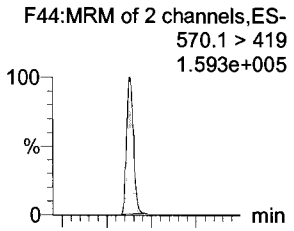

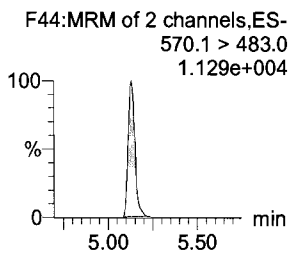

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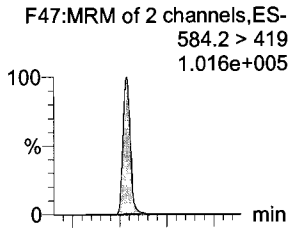

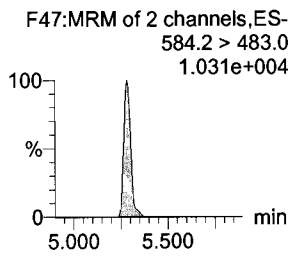

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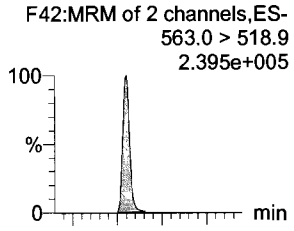

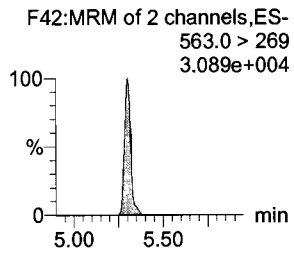

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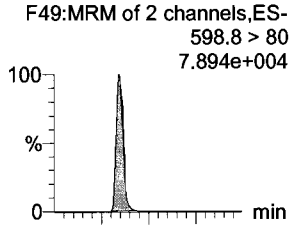

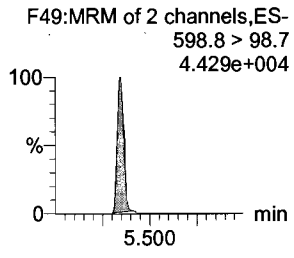

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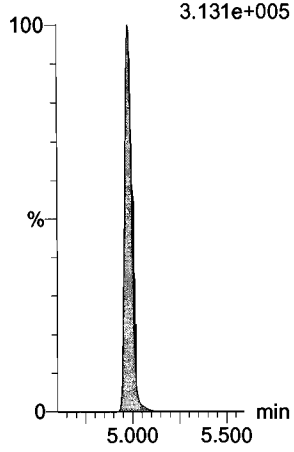

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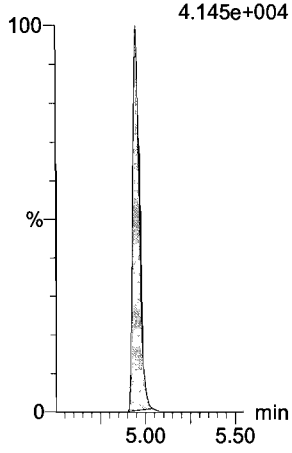

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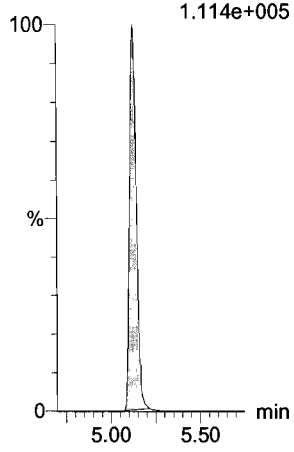

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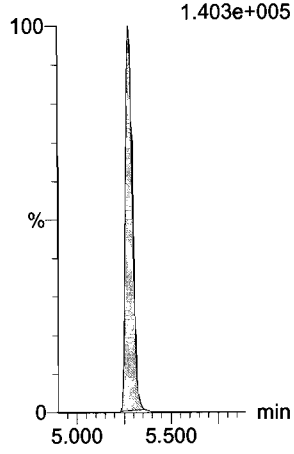

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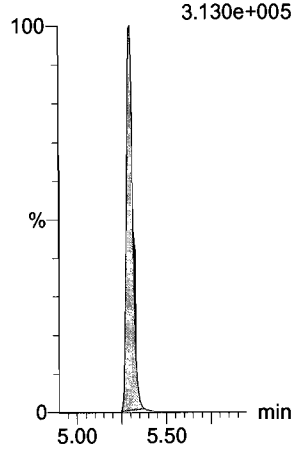
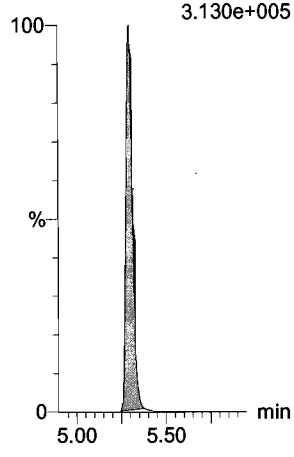


13C2-PFUdA



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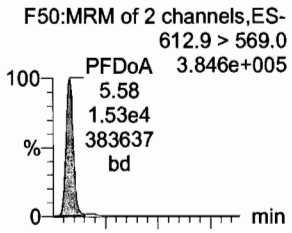
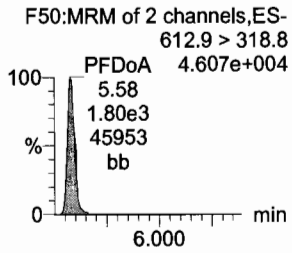
Last Altered: Friday, December 08, 2017 11:59:15 Pacific Standard Time
Printed: Friday, December 08, 2017 11:59:27 Pacific Standard Time

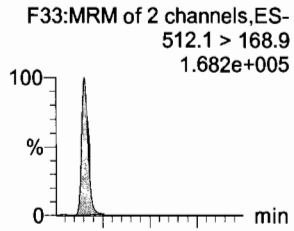
Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

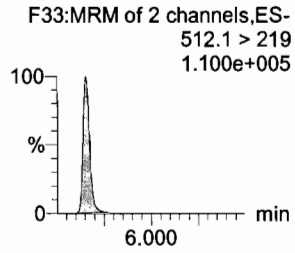
PFDoA



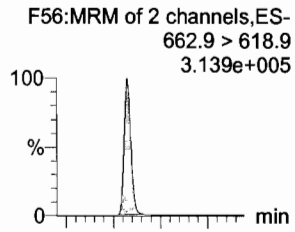


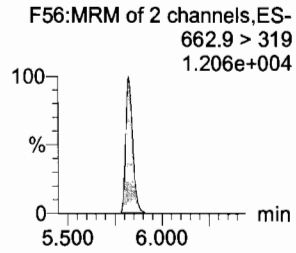
N-MeFOSA



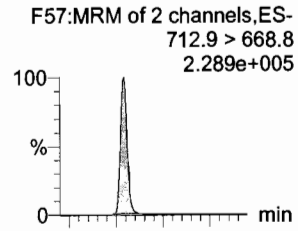


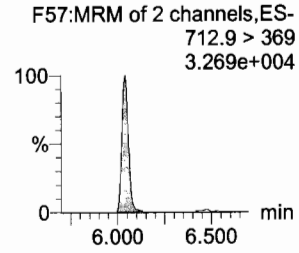
PFTrDA



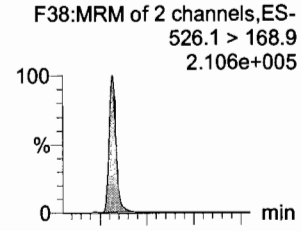


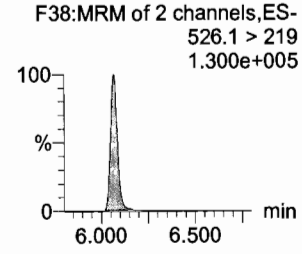
PFTeDA



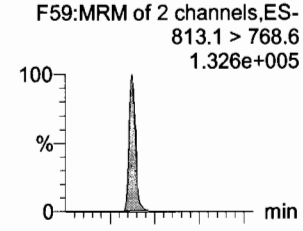


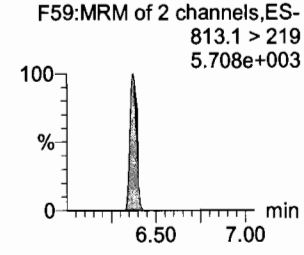
N-EtFOSA



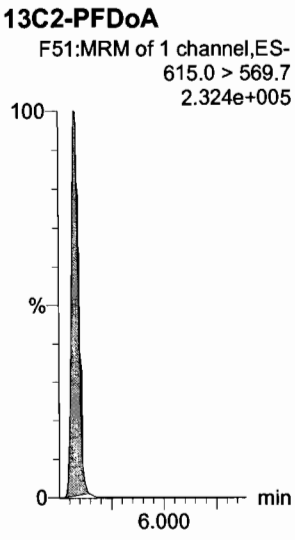


PFHxDA

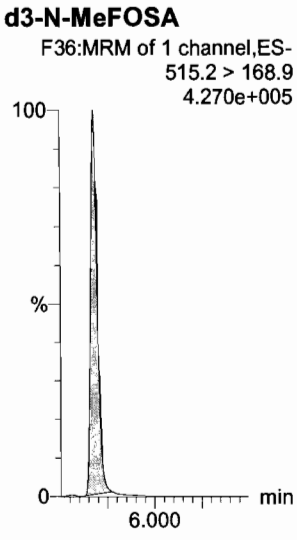




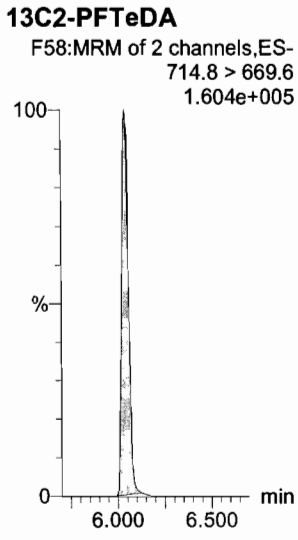
13C2-PFDoA



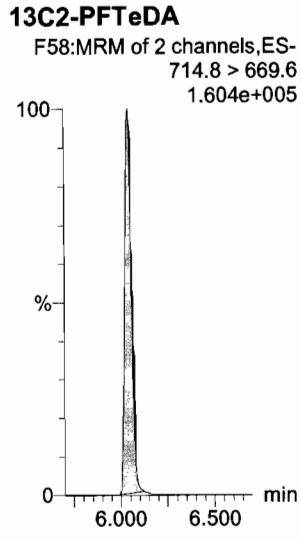
d3-N-MeFOSA



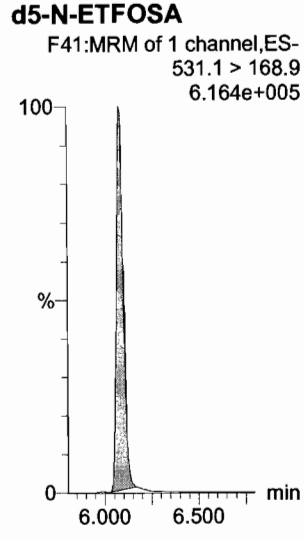
13C2-PFTeDA



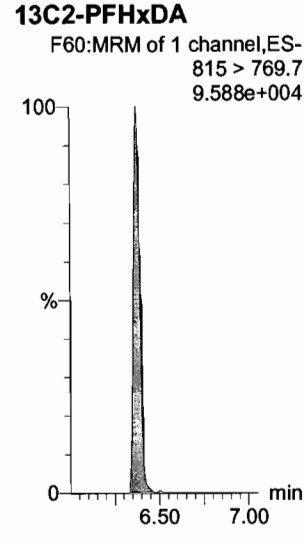
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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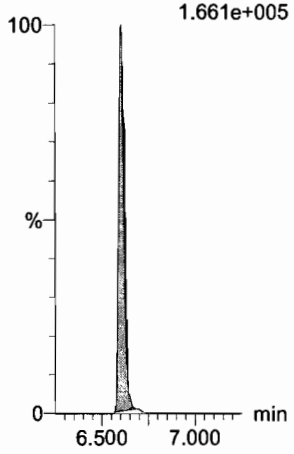
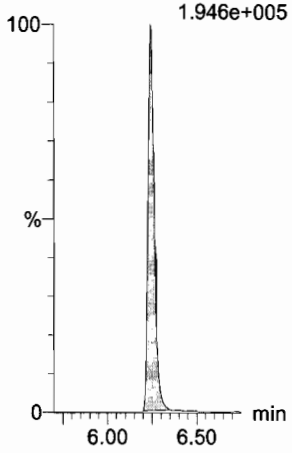
Last Altered: Friday, December 08, 2017 11:59:15 Pacific Standard Time
Printed: Friday, December 08, 2017 11:59:27 Pacific Standard Time

Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

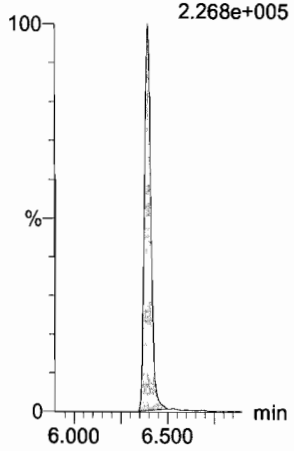
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.661e+005



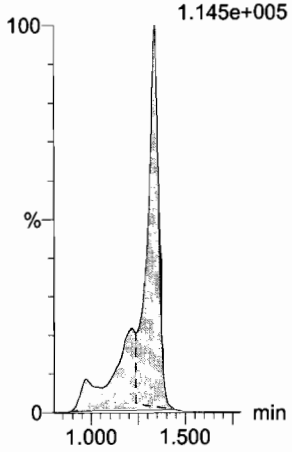
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.946e+005



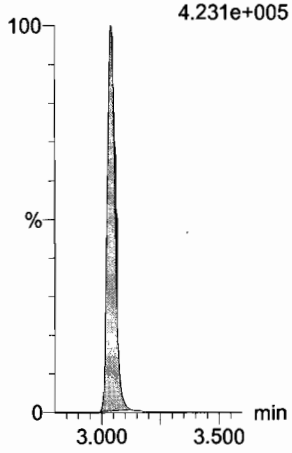
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.268e+005



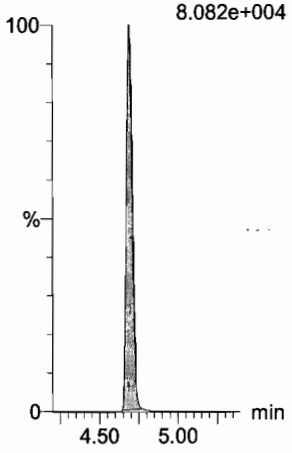
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.145e+005



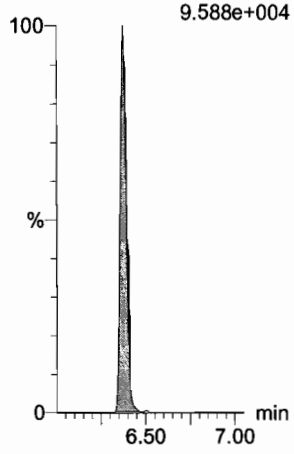
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.231e+005



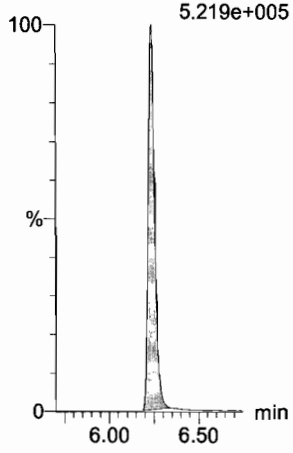
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.082e+004



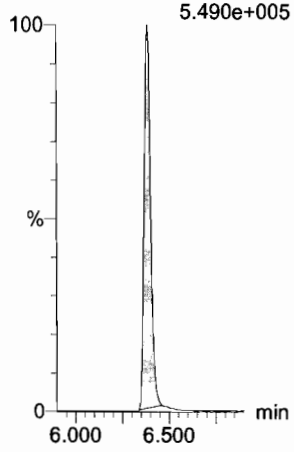
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.588e+004



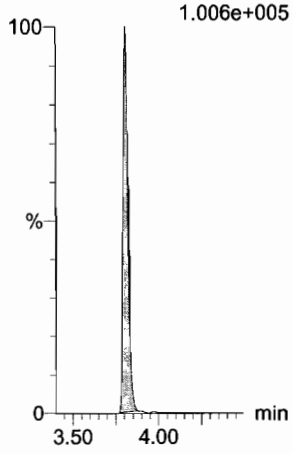
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.219e+005



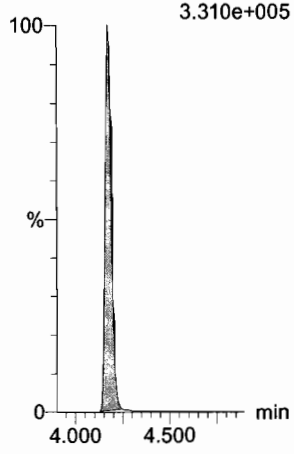
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.490e+005



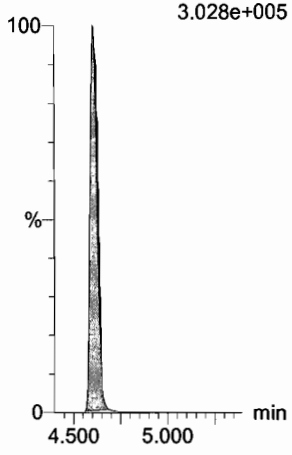
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.006e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.310e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.028e+005

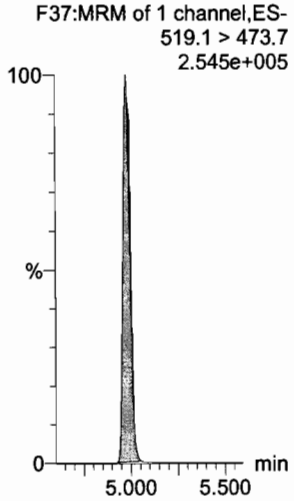


Dataset: U:\Q4.PRO\results\171207M2\171207M2-43.qld

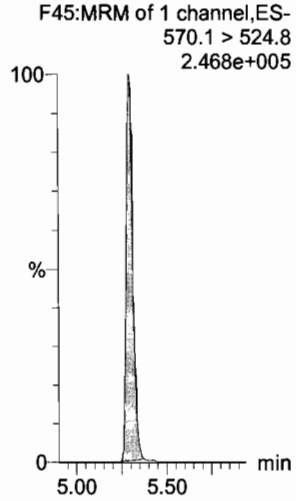
Last Altered: Friday, December 08, 2017 11:59:15 Pacific Standard Time
Printed: Friday, December 08, 2017 11:59:27 Pacific Standard Time

Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-59.qld

Last Altered: Friday, December 08, 2017 12:11:50 Pacific Standard Time
Printed: Friday, December 08, 2017 12:13:36 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

(A) Above limit criteria

Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	Trace	Area	IS Area	RRF	Pred:RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.10e2	1.23e4		1.34	1.34	0.927	0.823	82.3
2	2	PFPeA	263.1 > 218.9	1.37e3	1.59e4		2.25	2.28	1.08	1.03	103.0
3	3	PFBS	299.0 > 79.7	3.44e2	1.94e3		2.52	2.56	2.22	0.992	99.2
4	4	PFHxA	313.2 > 268.9	1.83e3	6.35e3		3.04	3.04	1.44	0.895	89.5
5	5	PFHpA	363.0 > 318.9	1.43e3	1.24e4		3.66	3.66	1.45	0.989	98.9
6	6	L-PFHxS	398.9 > 79.6	3.22e2	1.66e3		3.80	3.81	2.43	1.15	114.5
7	8	6:2 FTS	427.1 > 407	3.72e2	3.62e3		4.20	4.12	1.28	1.08	108.0
8	9	L-PFOA	413 > 368.7	1.58e3	1.76e4		4.20	4.17	1.12	0.708	70.8
9	11	PFHpS	449 > 80.0	3.25e2	1.76e4		4.29	4.29	0.230	0.888	88.8
10	12	PFNA	463.0 > 418.8	1.78e3	1.53e4		4.61	4.61	1.46	1.07	107.2
11	13	PFOSA	498.1 > 77.8	4.48e2	5.04e3		4.67	4.67	1.11	1.15	114.8
12	14	L-PFOS	499 > 79.9	3.52e2	4.36e3		4.69	4.69	1.01	0.952	95.2
13	16	PFDA	513 > 468.8	1.86e3	1.69e4		5.00	4.98	1.38	1.10	110.2
14	17	8:2 FTS	527 > 506.9	2.94e2	1.42e3		4.98	4.95	2.58	1.33	133.2 (A)
15	18	N-MeFOSAA	570.1 > 419	6.18e2	6.08e3		5.15	5.13	1.27	0.886	88.6
16	19	N-EtFOSAA	584.2 > 419	4.02e2	6.88e3		5.30	5.28	0.731	0.708	70.8
17	20	PFUdA	563.0 > 518.9	1.77e3	1.65e4		5.31	5.30	1.34	1.17	117.2
18	21	PFDS	598.8 > 80	3.77e2	1.65e4		5.35	5.35	0.286	0.846	84.6
19	22	PFDoA	612.9 > 569.0	1.63e3	8.79e3		5.58	5.58	2.32	0.854	85.4
20	23	N-MeFOSA	512.1 > 168.9	8.43e2	1.94e4		5.60	5.66	6.53	5.46	109.1
21	24	PFTrDA	662.9 > 618.9	1.77e3	8.79e3		5.75	5.83	2.52	1.03	103.2
22	25	PFTeDA	712.9 > 668.8	1.23e3	8.83e3		6.10	6.04	1.74	1.04	103.8
23	26	N-EtFOSA	526.1 > 168.9	1.00e3	3.08e4		6.21	6.07	4.88	4.98	99.6
24	27	PFHxDA	813.1 > 768.6	5.36e2	4.64e3		6.35	6.38	0.577	0.838	83.8
25	28	PFODA	913.1 > 868.8	6.68e2	4.64e3		6.65	6.61	0.719	0.888	88.8
26	29	N-MeFOSE	616.1 > 58.9	8.69e2	2.81e4		6.30	6.24	4.64	4.66	93.2
27	30	N-EtFOSE	630.1 > 58.9	9.66e2	2.34e4		6.42	6.40	6.18	5.39	107.7
28	31	13C3-PFBA	216.1 > 171.8	1.23e4	1.40e4	0.873	1.34	1.34	10.9	12.5	100.3
29	32	13C3-PFPeA	266. > 221.8	1.59e4	2.00e4	0.789	2.25	2.28	9.92	12.6	100.5
30	33	13C3-PFBS	302. > 98.8	1.94e3	2.00e4	0.097	2.52	2.56	1.21	12.5	100.0
31	34	13C2-PFHxA	315 > 269.8	6.35e3	2.00e4	0.767	3.04	3.04	3.97	5.18	103.6

70-130

50-150

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JHA 12/08/2017

Dataset: U:\Q4.PRO\results\171207M2\171207M2-59.qld

Last Altered: Friday, December 08, 2017 12:11:50 Pacific Standard Time
Printed: Friday, December 08, 2017 12:13:36 Pacific Standard Time

Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.24e4	2.00e4	0.605	3.66	3.66	7.73	12.8	102.2
33	36	18O2-PFHxS	403.0 > 102.6	1.66e3	4.06e3	0.427	3.80	3.81	5.10	11.9	95.6
34	37	13C2-6:2 FTS	429.1 > 408.9	3.62e3	1.49e4	0.261	4.21	4.12	3.05	11.7	93.3
35	38	13C2-PFOA	414.9 > 369.7	1.76e4	1.49e4	1.112	4.20	4.17	14.8	13.3	106.8
36	39	13C5-PFNA	468.2 > 422.9	1.53e4	1.62e4	0.939	4.63	4.61	11.8	12.5	100.3
37	40	13C8-PFOSA	506.1 > 77.7	5.04e3	1.46e4	0.349	4.67	4.67	4.32	12.4	99.2
38	41	13C8-PFOS	507.0 > 79.9	4.36e3	4.17e3	0.991	4.69	4.69	13.1	13.2	105.6
39	42	13C2-PFDA	515.1 > 469.9	1.69e4	9.80e3	1.309	5.00	4.98	21.5	16.4	131.5
40	43	13C2-8:2 FTS	529.1 > 508.7	1.42e3	2.00e4	0.103	4.98	4.95	0.889	8.59	68.7
41	44	d3-N-MeFOSAA	573.3 > 419	6.08e3	1.46e4	0.405	5.15	5.13	5.21	12.9	102.9
42	45	d5-N-EtFOSAA	589.3 > 419	6.88e3	1.46e4	0.450	5.30	5.28	5.91	13.1	105.0
43	46	13C2-PFUdA	565 > 519.8	1.65e4	1.46e4	1.082	5.31	5.30	14.1	13.1	104.4
44	47	13C2-PFDoA	615.0 > 569.7	8.79e3	1.46e4	0.544	5.58	5.58	7.54	13.9	110.9
45	48	d3-N-MeFOSA	515.2 > 168.9	1.94e4	1.46e4	0.112	5.60	5.69	16.6	149	99.2
46	49	13C2-PFTeDA	714.8 > 669.6	8.83e3	1.46e4	0.533	6.10	6.04	7.58	14.2	113.8
47	50	d5-N-ETFOSA	531.1 > 168.9	3.08e4	1.46e4	0.176	6.21	6.09	26.4	150	100.1
48	51	13C2-PFHxDA	815 > 769.7	4.64e3	1.46e4	0.752	6.35	6.38	3.99	5.30	106.1
49	52	d7-N-MeFOSE	623.1 > 58.9	2.81e4	1.46e4	0.150	6.30	6.24	24.1	161	107.5
50	53	d9-N-EtFOSE	639.2 > 58.8	2.34e4	1.46e4	0.152	6.42	6.39	20.1	132	88.1
51	54	13C4-PFBA	217. > 171.8	1.40e4	1.40e4	1.000	1.34	1.34	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	2.00e4	2.00e4	1.000	3.04	3.04	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.06e3	4.06e3	1.000	3.80	3.81	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.49e4	1.49e4	1.000	4.20	4.17	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.62e4	1.62e4	1.000	4.63	4.61	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	4.17e3	4.17e3	1.000	4.69	4.69	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	9.80e3	9.80e3	1.000	5.00	4.98	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.46e4	1.46e4	1.000	5.31	5.30	12.5	12.5	100.0

50-150
~~70-130~~ am 12/8/17

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Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Compound name: PFBA

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1	171207M2_1	ST171207M2-1 PFC CS0 17K2808	07-Dec-17	22:54:49
2	171207M2_2	IPA	07-Dec-17	23:05:58
3	171207M2_3	1701675-11@5X RICHM-GW-TW02-110717 0...	07-Dec-17	23:17:09
4	171207M2_4	IPA	07-Dec-17	23:28:20
5	171207M2_5	1701725-12 GENBM-GW-DUP1-111517 0.123..	07-Dec-17	23:39:31
6	171207M2_6	1701725-13 GENBM-08-TW08-111617 0.11519	07-Dec-17	23:50:41
7	171207M2_7	1701725-14 GENBM-02-MW102-111517 0.11...	08-Dec-17	00:01:52
8	171207M2_8	1701725-15 GENBM-04-TW04-111517 0.1187	08-Dec-17	00:13:04
9	171207M2_9	B7K0167-BS1 OPR 1	08-Dec-17	00:24:14
10	171207M2_10	IPA	08-Dec-17	00:35:25
11	171207M2_11	B7K0167-BLK1 Method Blank 1	08-Dec-17	00:46:36
12	171207M2_12	1701689-01 B1 2.13	08-Dec-17	00:57:46
13	171207M2_13	1701689-02 R1 6.51	08-Dec-17	01:08:57
14	171207M2_14	1701689-03 R2 7.01	08-Dec-17	01:20:08
15	171207M2_15	1701689-04 R3 4.39	08-Dec-17	01:31:19
16	171207M2_16	1701705-01 Soil-Treater 4/5 Stockpile #1 1.18	08-Dec-17	01:42:29
17	171207M2_17	1701705-02 Soil-Treater 4/5 Stockpile #2 1.22	08-Dec-17	01:53:40
18	171207M2_18	IPA	08-Dec-17	02:04:51
19	171207M2_19	ST171207M2-2 PFC CS3 17K2810	08-Dec-17	02:16:02
20	171207M2_20	B7K0135-BS1 OPR 0.25	08-Dec-17	02:27:14
21	171207M2_21	IPA	08-Dec-17	02:38:26
22	171207M2_22	B7K0135-BLK1 Method Blank 0.25	08-Dec-17	02:49:36
23	171207M2_23	1701702-01 WWP-TAP 0.21648	08-Dec-17	03:00:47
24	171207M2_24	1701702-02 BI-RAW 0.23454	08-Dec-17	03:11:58
25	171207M2_25	1701702-03 SPW-TAP 0.2459	08-Dec-17	03:23:09
26	171207M2_26	1701702-04 SW-TAP 0.22821	08-Dec-17	03:34:19
27	171207M2_27	1701702-05 SW-RAW 0.22154	08-Dec-17	03:45:30
28	171207M2_28	1701702-06 NE-TAP 0.20544	08-Dec-17	03:56:40
29	171207M2_29	1701720-01 WR1711161015JLB 0.2219	08-Dec-17	04:07:51
30	171207M2_30	IPA	08-Dec-17	04:19:02
31	171207M2_31	ST171207M2-3 PFC CS3 17K2810	08-Dec-17	04:30:13

Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Compound name: PFBA

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32	171207M2_32	IPA	08-Dec-17	04:41:24
33	171207M2_33	1701720-02 WR1711161030JLB 0.22026	08-Dec-17	04:52:34
34	171207M2_34	1701720-03 WR1711161055JLB 0.23524	08-Dec-17	05:03:45
35	171207M2_35	1701720-04 FB1711161100JLB 0.22785	08-Dec-17	05:14:56
36	171207M2_36	1701720-05 WR1711161115JLB 0.21921	08-Dec-17	05:26:06
37	171207M2_37	1701720-06 WR1711161520MK 0.22651	08-Dec-17	05:37:17
38	171207M2_38	1701720-07 WR1711161605MK 0.21306	08-Dec-17	05:48:28
39	171207M2_39	1701744-01 MTBE_7234 0.17908	08-Dec-17	05:59:38
40	171207M2_40	1701745-01 MTBE_8293 0.23182	08-Dec-17	06:10:49
41	171207M2_41	1701746-01 MTBE_14101 0.18953	08-Dec-17	06:22:00
42	171207M2_42	IPA	08-Dec-17	06:33:11
43	171207M2_43	ST171207M2-4 PFC CS3 17K2810	08-Dec-17	06:44:21
44	171207M2_44	IPA	08-Dec-17	06:55:32
45	171207M2_45	B7K0176-BS1 OPR 0.25	08-Dec-17	07:06:43
46	171207M2_46	B7K0176-BSD1 LCS Dup 0.25	08-Dec-17	07:17:53
47	171207M2_47	B7K0176-BLK1 Method Blank 0.25	08-Dec-17	07:29:04
48	171207M2_48	1701710-01 FT-MW02I-NP-20171115 0.26115	08-Dec-17	07:40:15
49	171207M2_49	1701710-02 FT-MW02I-P1-20171115 0.264	08-Dec-17	07:51:25
50	171207M2_50	1701710-03 FT-MW02I-P2-20171115 0.26349	08-Dec-17	08:02:36
51	171207M2_51	1701710-04 FT-MW02I-P3-20171115 0.26766	08-Dec-17	08:13:47
52	171207M2_52	1701710-05 DEET-20171115 0.24575	08-Dec-17	08:24:58
53	171207M2_53	1701710-06 PERMETHRIN-20171115 0.23385	08-Dec-17	08:36:08
54	171207M2_54	1701710-07 FT-PZ-456S-NP-20171115 0.26081	08-Dec-17	08:47:19
55	171207M2_55	1701710-08 FT-PZ-456S-P1-20171115 0.26238	08-Dec-17	08:58:30
56	171207M2_56	1701710-09 FT-PZ-456S-P2-20171115 0.25828	08-Dec-17	09:09:40
57	171207M2_57	1701710-10 FT-PZ-456S-P3-20171115 0.26661	08-Dec-17	09:20:51
58	171207M2_58	IPA	08-Dec-17	09:32:02
59	171207M2_59	ST171207M2-5 PFC CS0 17K2808	08-Dec-17	09:43:13
60	171207M2_60	IPA	08-Dec-17	09:54:23
61	171207M2_61	1701710-11 FT-PZ-456-FRB-20171115 0.26552	08-Dec-17	10:05:34
62	171207M2_62	1701781-01 MW-6 0.11677	08-Dec-17	10:16:45
63	171207M2_63	1701781-02 MW-5 0.11465	08-Dec-17	10:27:55
64	171207M2_64	1701782-01 DPH-MW8-17 0.11397	08-Dec-17	10:39:06
65	171207M2_65	1701782-02 DPH-MW5-17 0.11948	08-Dec-17	10:50:17

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Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	171207M2_66	1701782-03 DPH-MW4-17 0.11498	08-Dec-17	11:01:27
67	171207M2_67	IPA	08-Dec-17	11:12:39
68	171207M2_68	ST171207M2-6 PFC CS3 17K2810	08-Dec-17	11:23:49
69	171207M2_69	IPA	08-Dec-17	11:34:59

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-59.qld

Last Altered: Friday, December 08, 2017 12:11:50 Pacific Standard Time
Printed: Friday, December 08, 2017 12:13:36 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

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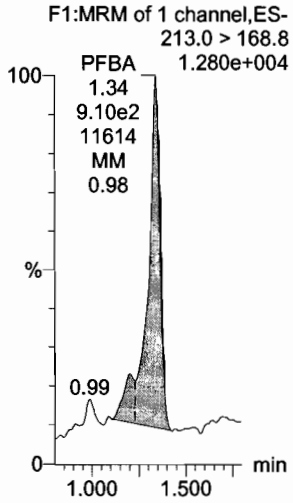
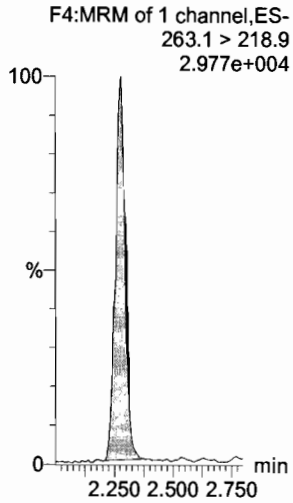


PFPeA



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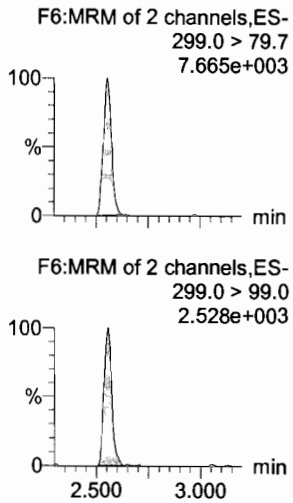

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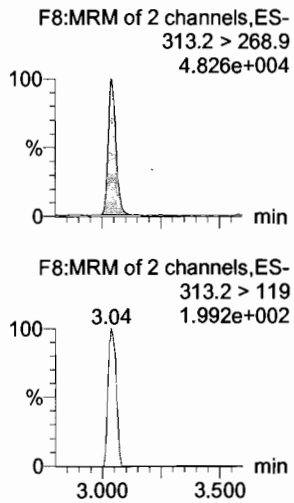

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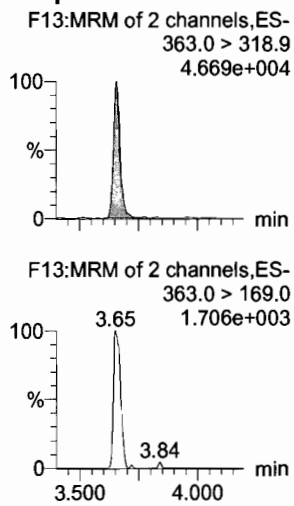

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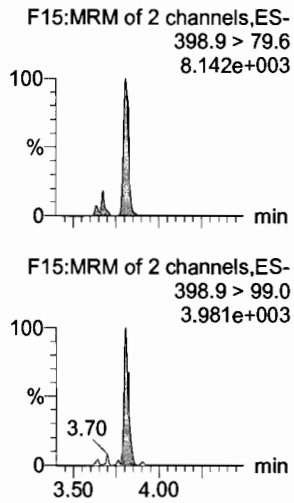

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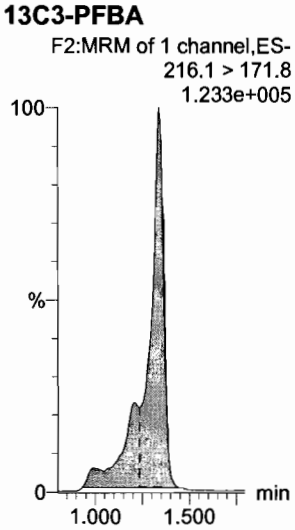

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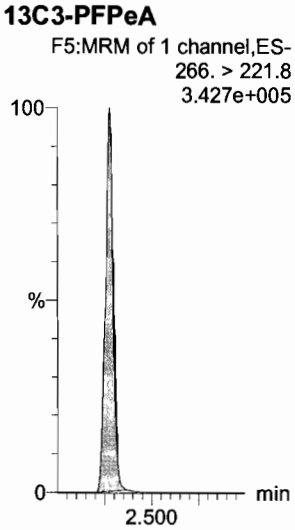

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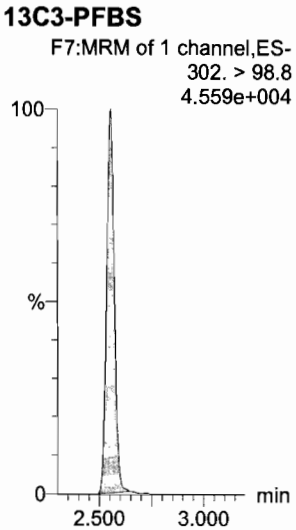

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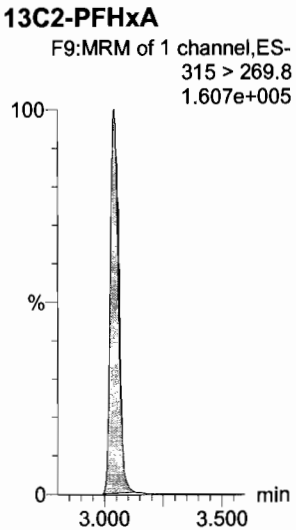

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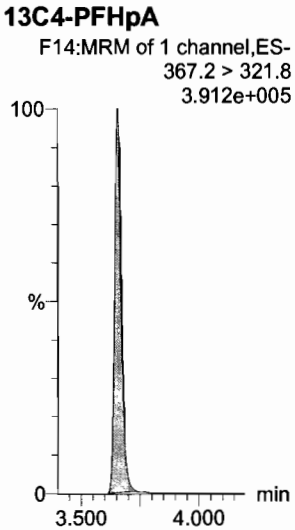
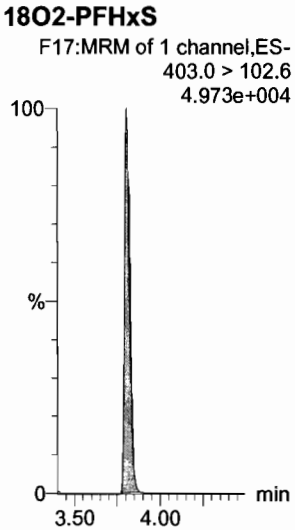


18O2-PFHxS



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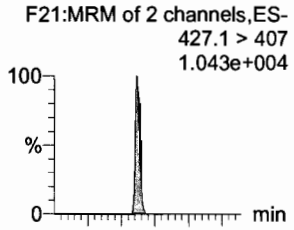
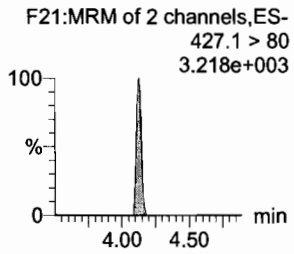
Last Altered: Friday, December 08, 2017 12:11:50 Pacific Standard Time
Printed: Friday, December 08, 2017 12:13:36 Pacific Standard Time

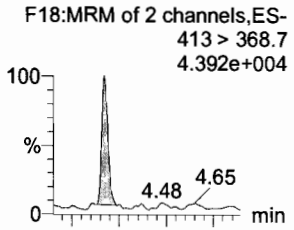
Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

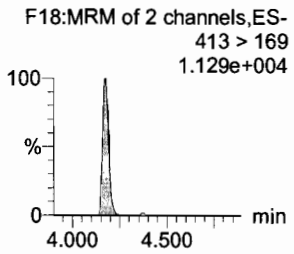
6:2 FTS





L-PFOA





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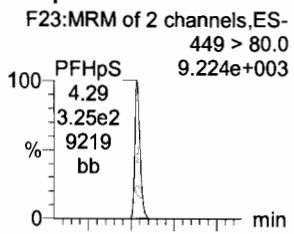

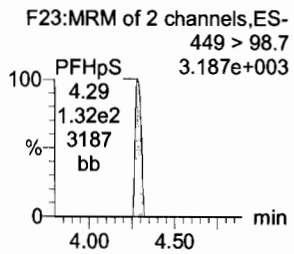

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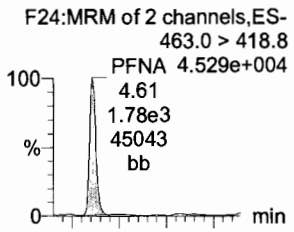

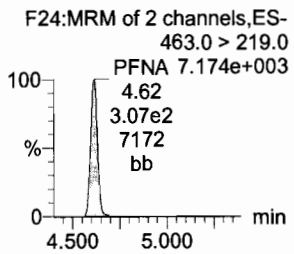

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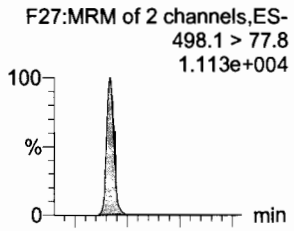
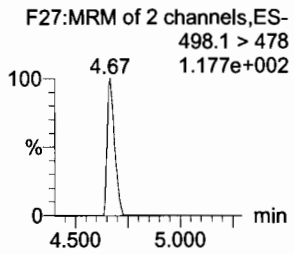
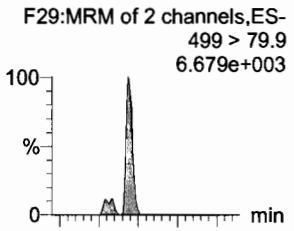
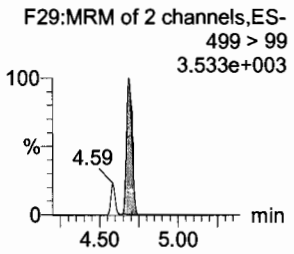




L-PFOS





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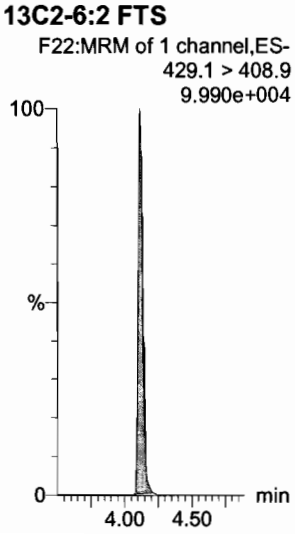

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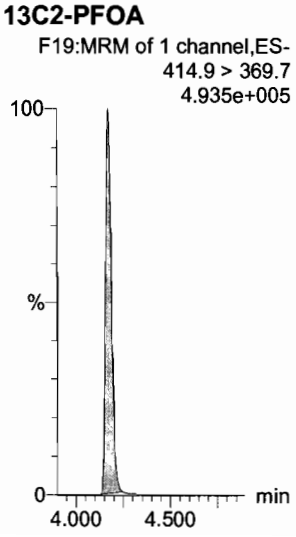
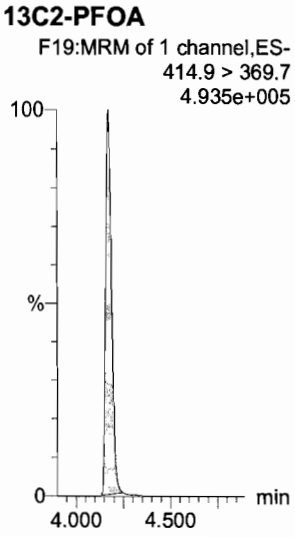
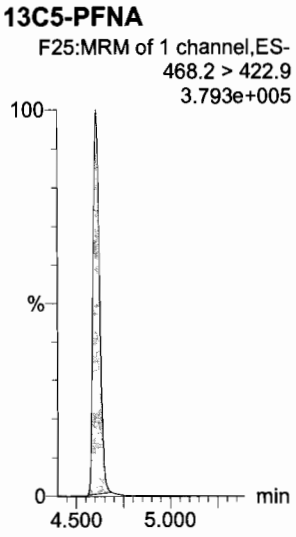


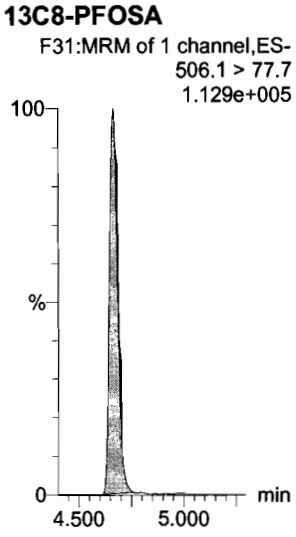
13C2-PFOA



13C5-PFNA



13C8-PFOSA



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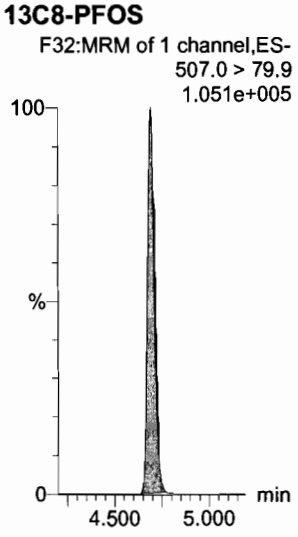

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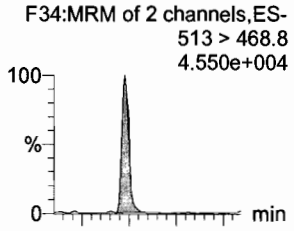
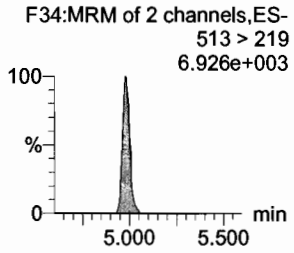
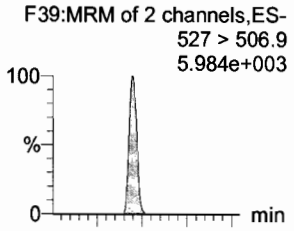
Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

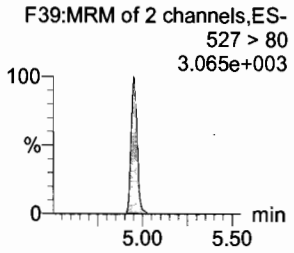
PFDA



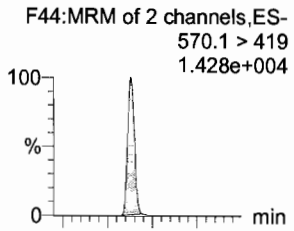


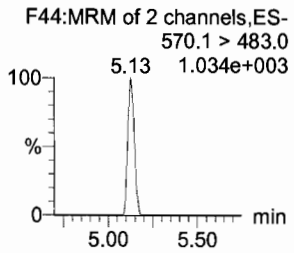
8:2 FTS



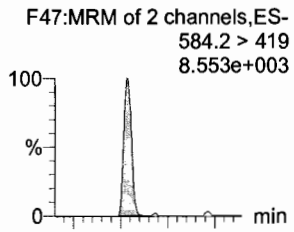


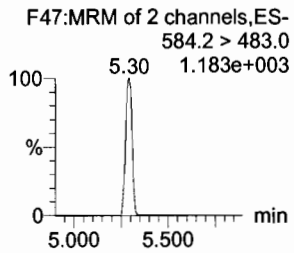
N-MeFOSAA



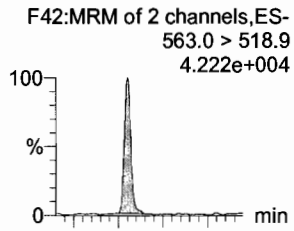


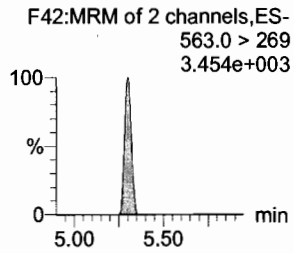
N-EtFOSAA



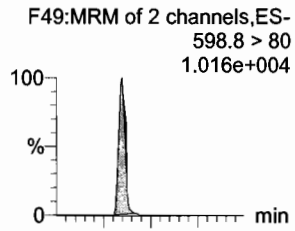


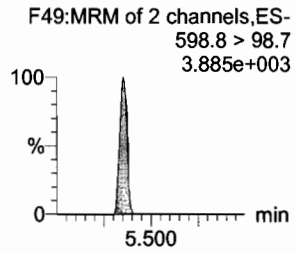
PFUdA



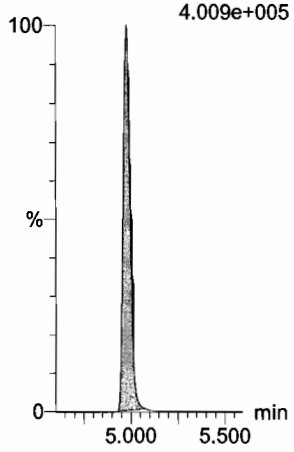


PFDS

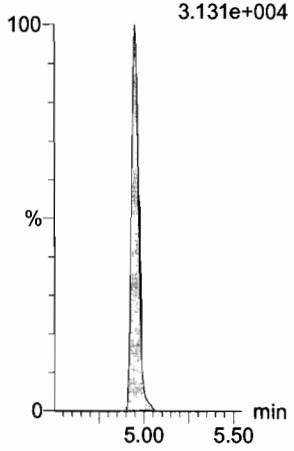




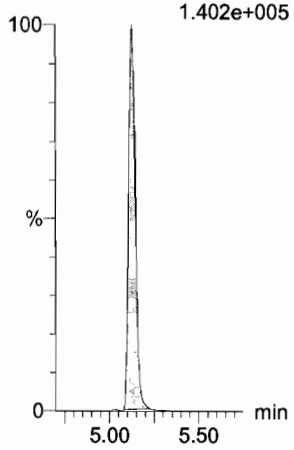
13C2-PFDA



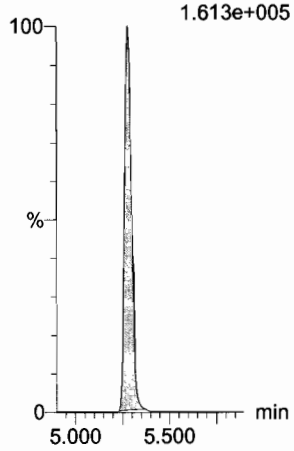
13C2-8:2 FTS



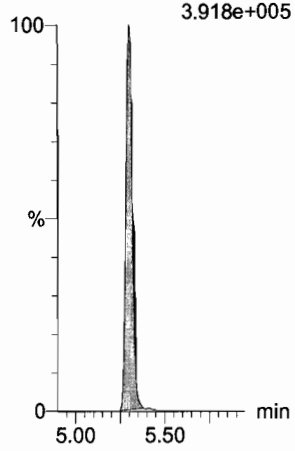
d3-N-MeFOSAA



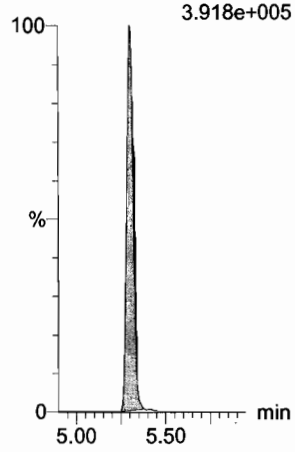
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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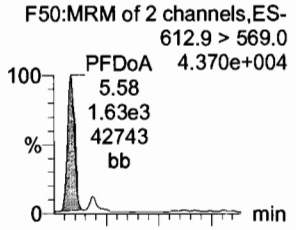
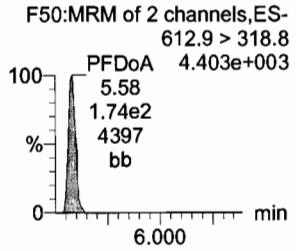
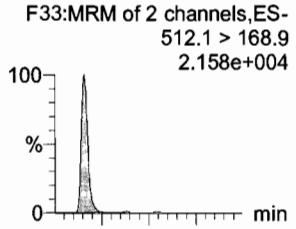
Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

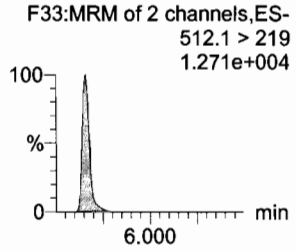
PFDoA





N-MeFOSA





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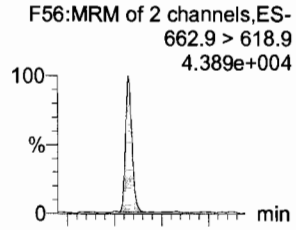
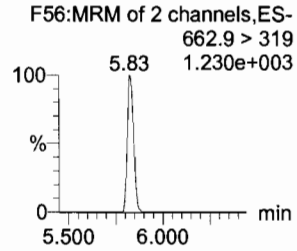
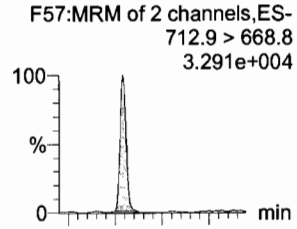
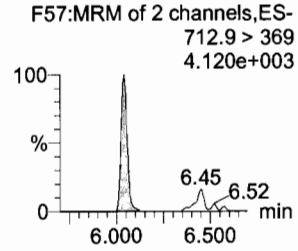


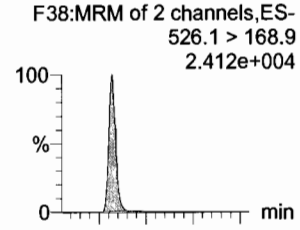


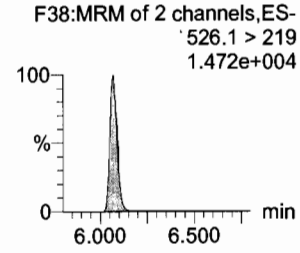
PFTeDA



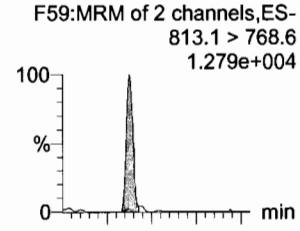


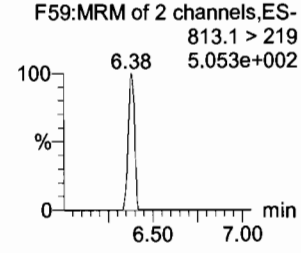
N-EtFOSA



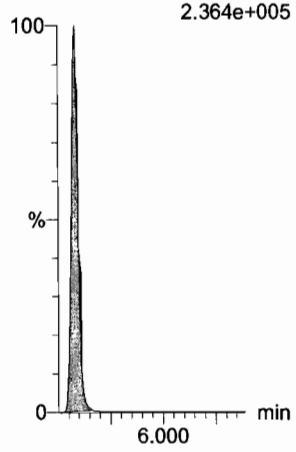


PFHxDA

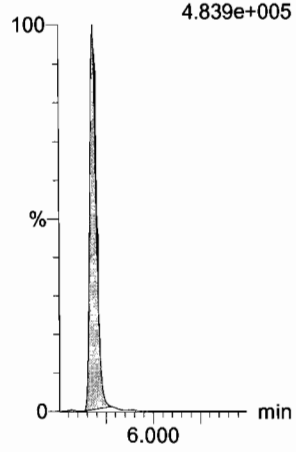




13C2-PFDoA



d3-N-MeFOSA



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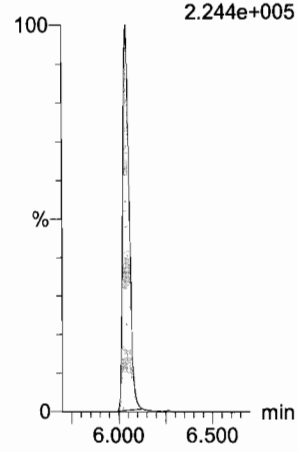

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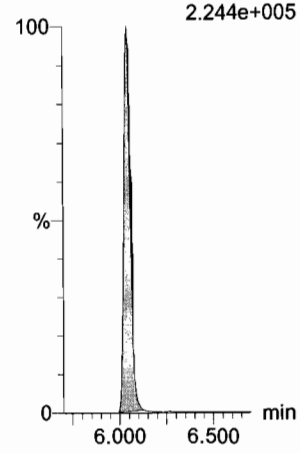
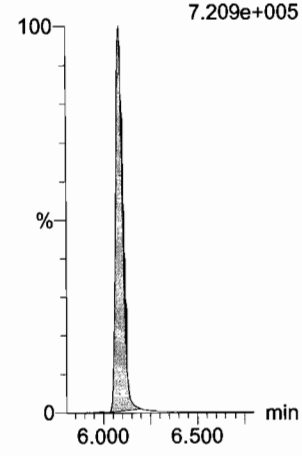


d5-N-ETFOSA



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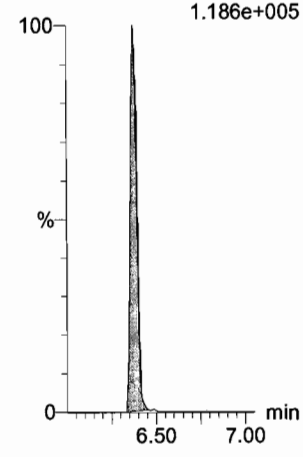

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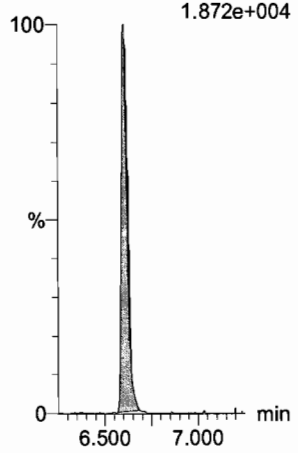
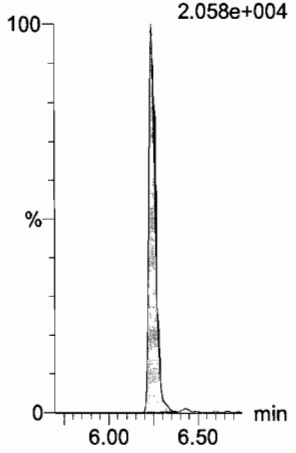
Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

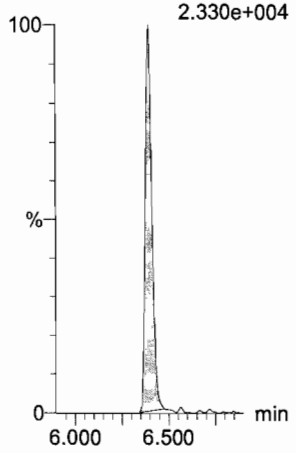
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.872e+004



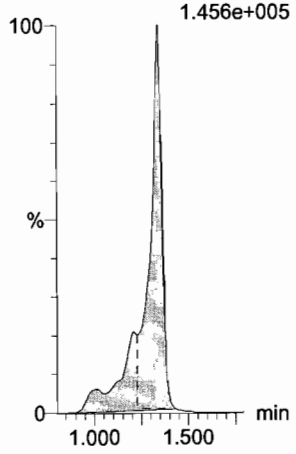
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.058e+004



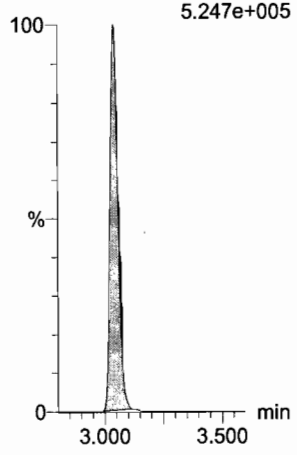
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.330e+004



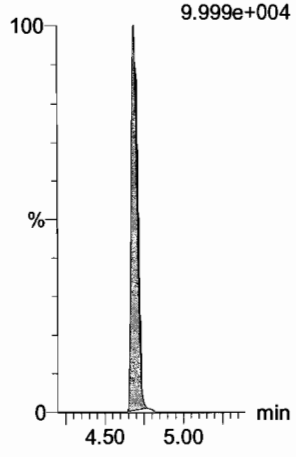
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.456e+005



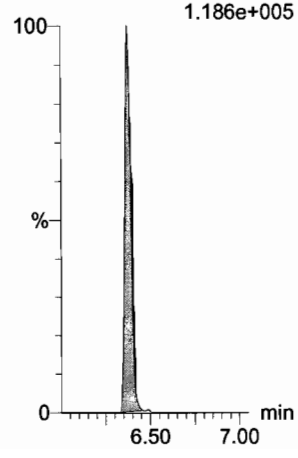
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.247e+005



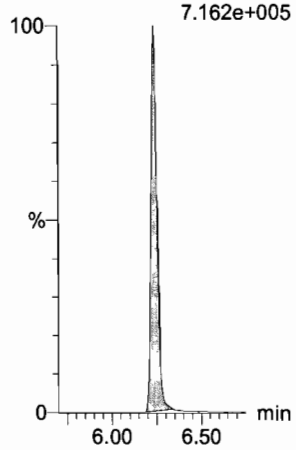
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.999e+004



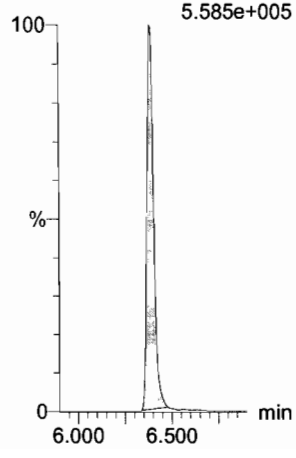
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.186e+005



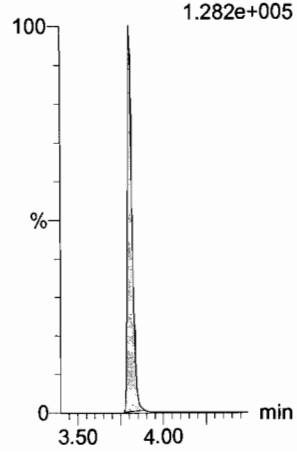
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
7.162e+005



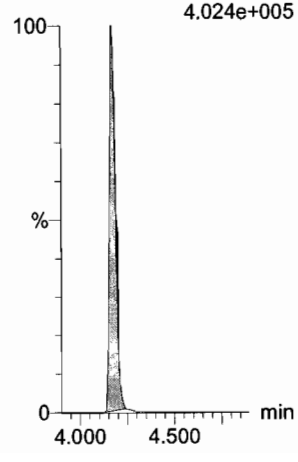
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.585e+005



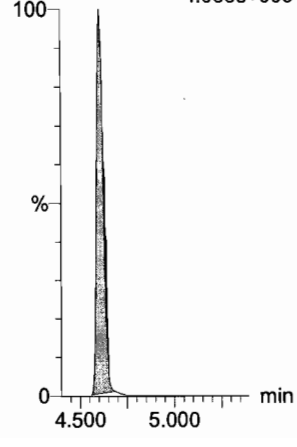
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.282e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.024e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.033e+005



Dataset: U:\Q4.PRO\results\171207M2\171207M2-59.qld

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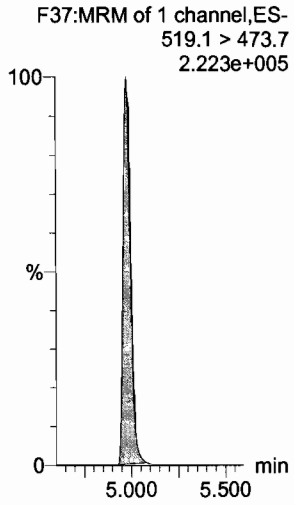
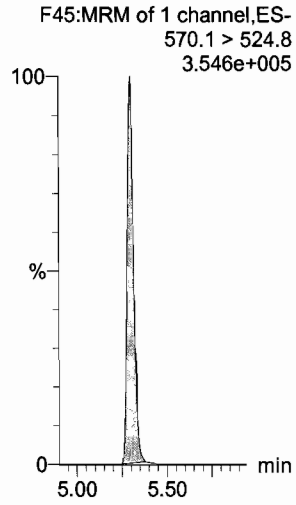
Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171209M2\171209M2-IIS AREAS.qld

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Method: U:\Q4.PRO\MethDB\PFAS_RS-12-4-17.mdb 05 Dec 2017 11:24:50
Calibration: 11 Dec 2017 11:10:38

Name: 171209M2_7, Date: 09-Dec-2017, Time: 13:50:56, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	ST171209M1-6 PFC CS3 17K2810	7.89e3	100.0	NO
2	2 13C5-PFHxA	ST171209M1-6 PFC CS3 17K2810	1.51e4	100.0	NO
3	3 13C3-PFHxS	ST171209M1-6 PFC CS3 17K2810	3.31e3	100.0	NO
4	4 13C8-PFOA	ST171209M1-6 PFC CS3 17K2810	1.25e4	100.0	NO
5	5 13C9-PFNA	ST171209M1-6 PFC CS3 17K2810	1.22e4	100.0	NO
6	6 13C4-PFOS	ST171209M1-6 PFC CS3 17K2810	3.53e3	100.0	NO
7	7 13C6-PFDA	ST171209M1-6 PFC CS3 17K2810	8.18e3	100.0	NO
8	8 13C7-PFUdA	ST171209M1-6 PFC CS3 17K2810	1.12e4	100.0	NO

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701710-11 FT-PZ-456-FRB-20171115 ...	7.11e3	90.1	NO
2	2 13C5-PFHxA	1701710-11 FT-PZ-456-FRB-20171115 ...	1.03e4	68.0	NO
3	3 13C3-PFHxS	1701710-11 FT-PZ-456-FRB-20171115 ...	2.04e3	61.7	NO
4	4 13C8-PFOA	1701710-11 FT-PZ-456-FRB-20171115 ...	8.66e3	69.2	NO
5	5 13C9-PFNA	1701710-11 FT-PZ-456-FRB-20171115 ...	8.66e3	71.1	NO
6	6 13C4-PFOS	1701710-11 FT-PZ-456-FRB-20171115 ...	2.30e3	65.0	NO
7	7 13C6-PFDA	1701710-11 FT-PZ-456-FRB-20171115 ...	7.04e3	86.0	NO
8	8 13C7-PFUdA	1701710-11 FT-PZ-456-FRB-20171115 ...	7.83e3	69.7	NO

Name: 171209M2_16, Date: 09-Dec-2017, Time: 15:31:32, ID: 1701725-12 GENBM-GW-DUP1-111517 0.12313, Description: GENBM-GW-DUP1-111517

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701725-12 GENBM-GW-DUP1-11151...	1.00e4	127.1	NO
2	2 13C5-PFHxA	1701725-12 GENBM-GW-DUP1-11151...	1.33e4	87.9	NO
3	3 13C3-PFHxS	1701725-12 GENBM-GW-DUP1-11151...	2.63e3	79.5	NO
4	4 13C8-PFOA	1701725-12 GENBM-GW-DUP1-11151...	1.07e4	85.5	NO
5	5 13C9-PFNA	1701725-12 GENBM-GW-DUP1-11151...	1.07e4	87.6	NO
6	6 13C4-PFOS	1701725-12 GENBM-GW-DUP1-11151...	2.06e3	58.3	NO
7	7 13C6-PFDA	1701725-12 GENBM-GW-DUP1-11151...	4.80e3	58.6	NO
8	8 13C7-PFUdA	1701725-12 GENBM-GW-DUP1-11151...	2.29e3	20.4	YES

Name: 171209M2_17, Date: 09-Dec-2017, Time: 15:42:43, ID: 1701725-13 GENBM-08-TW08-111617 0.11519, Description: GENBM-08-TW08-111617

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701725-13 GENBM-08-TW08-111617 ...	9.74e3	123.5	NO
2	2 13C5-PFHxA	1701725-13 GENBM-08-TW08-111617 ...	1.36e4	89.8	NO
3	3 13C3-PFHxS	1701725-13 GENBM-08-TW08-111617 ...	1.94e3	58.5	NO
4	4 13C8-PFOA	1701725-13 GENBM-08-TW08-111617 ...	1.14e4	90.8	NO
5	5 13C9-PFNA	1701725-13 GENBM-08-TW08-111617 ...	1.10e4	90.3	NO
6	6 13C4-PFOS	1701725-13 GENBM-08-TW08-111617 ...	1.68e3	47.6	YES

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Name: 171209M2_17, Date: 09-Dec-2017, Time: 15:42:43, ID: 1701725-13 GENBM-08-TW08-111617 0.11519, Description: GENBM-08-TW08-111617

	#	Name	ID	Area	%Rec	Area Out
7	7	13C6-PFDA	1701725-13 GENBM-08-TW08-111617 ...	6.80e3	83.1	NO
8	8	13C7-PFUdA	1701725-13 GENBM-08-TW08-111617 ...	3.93e3	35.0	YES

Name: 171209M2_18, Date: 09-Dec-2017, Time: 15:53:54, ID: 1701725-14 GENBM-02-MW102-111517 0.11771, Description: GENBM-02-MW102-111517

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701725-14 GENBM-02-MW102-11151...	1.08e4	136.6	NO
2	2	13C5-PFHxA	1701725-14 GENBM-02-MW102-11151...	1.46e4	96.3	NO
3	3	13C3-PFHxS	1701725-14 GENBM-02-MW102-11151...	2.66e3	80.3	NO
4	4	13C8-PFOA	1701725-14 GENBM-02-MW102-11151...	1.11e4	88.4	NO
5	5	13C9-PFNA	1701725-14 GENBM-02-MW102-11151...	1.01e4	82.8	NO
6	6	13C4-PFOS	1701725-14 GENBM-02-MW102-11151...	1.82e3	51.5	NO
7	7	13C6-PFDA	1701725-14 GENBM-02-MW102-11151...	4.12e3	50.4	NO
8	8	13C7-PFUdA	1701725-14 GENBM-02-MW102-11151...	1.30e3	11.6	YES

Name: 171209M2_19, Date: 09-Dec-2017, Time: 16:05:04, ID: 1701725-15 GENBM-04-TW04-111517 0.1187, Description: GENBM-04-TW04-111517

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701725-15 GENBM-04-TW04-111517 ...	1.06e4	134.3	NO
2	2	13C5-PFHxA	1701725-15 GENBM-04-TW04-111517 ...	1.57e4	103.5	NO
3	3	13C3-PFHxS	1701725-15 GENBM-04-TW04-111517 ...	3.13e3	94.6	NO
4	4	13C8-PFOA	1701725-15 GENBM-04-TW04-111517 ...	1.20e4	96.0	NO
5	5	13C9-PFNA	1701725-15 GENBM-04-TW04-111517 ...	1.12e4	92.4	NO
6	6	13C4-PFOS	1701725-15 GENBM-04-TW04-111517 ...	2.64e3	74.7	NO
7	7	13C6-PFDA	1701725-15 GENBM-04-TW04-111517 ...	5.26e3	64.2	NO
8	8	13C7-PFUdA	1701725-15 GENBM-04-TW04-111517 ...	1.58e3	14.1	YES

Name: 171209M2_20, Date: 09-Dec-2017, Time: 16:16:15, 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: 171209M2_21, Date: 09-Dec-2017, Time: 16:27:26, ID: B7K0141-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0141-BS1 OPR 0.125	1.47e4	186.5	YES
2	2	13C5-PFHxA	B7K0141-BS1 OPR 0.125	2.06e4	136.2	NO
3	3	13C3-PFHxS	B7K0141-BS1 OPR 0.125	3.98e3	120.1	NO
4	4	13C8-PFOA	B7K0141-BS1 OPR 0.125	1.34e4	106.8	NO
5	5	13C9-PFNA	B7K0141-BS1 OPR 0.125	2.03e4	166.5	YES
6	6	13C4-PFOS	B7K0141-BS1 OPR 0.125	4.45e3	125.8	NO
7	7	13C6-PFDA	B7K0141-BS1 OPR 0.125	1.33e4	161.9	YES
8	8	13C7-PFUdA	B7K0141-BS1 OPR 0.125	1.59e4	141.6	NO

Name: 171209M2_22, Date: 09-Dec-2017, Time: 16:38:36, ID: B7K0141-BSD1 LCS Dup 0.125, Description: LCS Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0141-BSD1 LCS Dup 0.125	1.44e4	182.1	YES
2	2	13C5-PFHxA	B7K0141-BSD1 LCS Dup 0.125	2.26e4	149.5	NO
3	3	13C3-PFHxS	B7K0141-BSD1 LCS Dup 0.125	4.15e3	125.3	NO
4	4	13C8-PFOA	B7K0141-BSD1 LCS Dup 0.125	1.55e4	123.7	NO
5	5	13C9-PFNA	B7K0141-BSD1 LCS Dup 0.125	1.77e4	145.4	NO
6	6	13C4-PFOS	B7K0141-BSD1 LCS Dup 0.125	4.46e3	126.2	NO
7	7	13C6-PFDA	B7K0141-BSD1 LCS Dup 0.125	1.28e4	156.1	YES
8	8	13C7-PFUdA	B7K0141-BSD1 LCS Dup 0.125	1.53e4	136.5	NO

Name: 171209M2_23, Date: 09-Dec-2017, Time: 16:49:47, ID: B7K0142-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0142-BS1 OPR 0.125	7.05e3	89.3	NO
2	2	13C5-PFHxA	B7K0142-BS1 OPR 0.125	1.00e4	66.1	NO
3	3	13C3-PFHxS	B7K0142-BS1 OPR 0.125	2.30e3	69.4	NO
4	4	13C8-PFOA	B7K0142-BS1 OPR 0.125	7.32e3	58.5	NO
5	5	13C9-PFNA	B7K0142-BS1 OPR 0.125	8.39e3	68.9	NO
6	6	13C4-PFOS	B7K0142-BS1 OPR 0.125	2.25e3	63.6	NO
7	7	13C6-PFDA	B7K0142-BS1 OPR 0.125	5.86e3	71.7	NO
8	8	13C7-PFUdA	B7K0142-BS1 OPR 0.125	8.66e3	77.1	NO

Name: 171209M2_24, Date: 09-Dec-2017, Time: 17:00:58, 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: 171209M2_25, Date: 09-Dec-2017, Time: 17:12:08, ID: B7K0141-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0141-BLK1 Method Blank 0.125	1.39e4	175.8	YES
2	2	13C5-PFHxA	B7K0141-BLK1 Method Blank 0.125	1.89e4	125.3	NO
3	3	13C3-PFHxS	B7K0141-BLK1 Method Blank 0.125	4.27e3	128.9	NO
4	4	13C8-PFOA	B7K0141-BLK1 Method Blank 0.125	1.35e4	107.7	NO
5	5	13C9-PFNA	B7K0141-BLK1 Method Blank 0.125	1.62e4	132.6	NO
6	6	13C4-PFOS	B7K0141-BLK1 Method Blank 0.125	4.04e3	114.3	NO
7	7	13C6-PFDA	B7K0141-BLK1 Method Blank 0.125	1.20e4	146.9	NO
8	8	13C7-PFUdA	B7K0141-BLK1 Method Blank 0.125	1.22e4	108.6	NO

Name: 171209M2_26, Date: 09-Dec-2017, Time: 17:23:20, ID: B7K0142-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0142-BLK1 Method Blank 0.125	7.11e3	90.1	NO
2	2	13C5-PFHxA	B7K0142-BLK1 Method Blank 0.125	1.08e4	71.2	NO
3	3	13C3-PFHxS	B7K0142-BLK1 Method Blank 0.125	2.36e3	71.3	NO
4	4	13C8-PFOA	B7K0142-BLK1 Method Blank 0.125	7.77e3	62.2	NO
5	5	13C9-PFNA	B7K0142-BLK1 Method Blank 0.125	9.01e3	74.0	NO
6	6	13C4-PFOS	B7K0142-BLK1 Method Blank 0.125	2.14e3	60.6	NO
7	7	13C6-PFDA	B7K0142-BLK1 Method Blank 0.125	6.04e3	73.8	NO
8	8	13C7-PFUdA	B7K0142-BLK1 Method Blank 0.125	7.54e3	67.1	NO

Name: 171209M2_27, Date: 09-Dec-2017, Time: 17:34:30, ID: 1701732-01 918 0.11878, Description: 918

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701732-01 918 0.11878	6.41e3	81.2	NO
2	2	13C5-PFHxA	1701732-01 918 0.11878	9.59e3	63.4	NO
3	3	13C3-PFHxS	1701732-01 918 0.11878	2.00e3	60.5	NO
4	4	13C8-PFOA	1701732-01 918 0.11878	7.00e3	55.9	NO
5	5	13C9-PFNA	1701732-01 918 0.11878	8.57e3	70.4	NO
6	6	13C4-PFOS	1701732-01 918 0.11878	2.33e3	66.0	NO
7	7	13C6-PFDA	1701732-01 918 0.11878	5.53e3	67.6	NO
8	8	13C7-PFUdA	1701732-01 918 0.11878	7.47e3	66.5	NO

Name: 171209M2_28, Date: 09-Dec-2017, Time: 17:45:41, ID: 1701732-02 914 0.11332, Description: 914

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701732-02 914 0.11332	5.68e3	72.0	NO
2	2	13C5-PFHxA	1701732-02 914 0.11332	8.60e3	56.9	NO
3	3	13C3-PFHxS	1701732-02 914 0.11332	1.89e3	57.1	NO
4	4	13C8-PFOA	1701732-02 914 0.11332	7.22e3	57.7	NO
5	5	13C9-PFNA	1701732-02 914 0.11332	6.58e3	54.0	NO
6	6	13C4-PFOS	1701732-02 914 0.11332	1.84e3	52.2	NO
7	7	13C6-PFDA	1701732-02 914 0.11332	4.28e3	52.3	NO
8	8	13C7-PFUdA	1701732-02 914 0.11332	6.19e3	55.1	NO

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Name: 171209M2_29, Date: 09-Dec-2017, Time: 17:56:52, ID: 1701732-03 912 0.11498, Description: 912

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701732-03 912 0.11498	6.31e3	80.0	NO
2	2 13C5-PFHxA	1701732-03 912 0.11498	9.35e3	61.8	NO
3	3 13C3-PFHxS	1701732-03 912 0.11498	2.06e3	62.1	NO
4	4 13C8-PFOA	1701732-03 912 0.11498	6.81e3	54.4	NO
5	5 13C9-PFNA	1701732-03 912 0.11498	8.49e3	69.7	NO
6	6 13C4-PFOS	1701732-03 912 0.11498	1.98e3	55.9	NO
7	7 13C6-PFDA	1701732-03 912 0.11498	5.23e3	63.9	NO
8	8 13C7-PFUdA	1701732-03 912 0.11498	8.76e3	77.9	NO

Name: 171209M2_30, Date: 09-Dec-2017, Time: 18:08:02, ID: 1701732-04 913 0.11277, Description: 913

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701732-04 913 0.11277	6.30e3	79.8	NO
2	2 13C5-PFHxA	1701732-04 913 0.11277	9.40e3	62.1	NO
3	3 13C3-PFHxS	1701732-04 913 0.11277	2.07e3	62.4	NO
4	4 13C8-PFOA	1701732-04 913 0.11277	6.17e3	49.3	YES
5	5 13C9-PFNA	1701732-04 913 0.11277	6.81e3	56.0	NO
6	6 13C4-PFOS	1701732-04 913 0.11277	2.17e3	61.4	NO
7	7 13C6-PFDA	1701732-04 913 0.11277	5.46e3	66.7	NO
8	8 13C7-PFUdA	1701732-04 913 0.11277	6.95e3	61.9	NO

Name: 171209M2_31, Date: 09-Dec-2017, Time: 18:19:13, ID: 1701732-05 731 0.11572, Description: 731

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701732-05 731 0.11572	7.14e3	90.5	NO
2	2 13C5-PFHxA	1701732-05 731 0.11572	1.03e4	68.0	NO
3	3 13C3-PFHxS	1701732-05 731 0.11572	2.06e3	62.1	NO
4	4 13C8-PFOA	1701732-05 731 0.11572	7.64e3	61.1	NO
5	5 13C9-PFNA	1701732-05 731 0.11572	8.44e3	69.3	NO
6	6 13C4-PFOS	1701732-05 731 0.11572	2.20e3	62.2	NO
7	7 13C6-PFDA	1701732-05 731 0.11572	7.16e3	87.5	NO
8	8 13C7-PFUdA	1701732-05 731 0.11572	7.81e3	69.5	NO

Name: 171209M2_32, Date: 09-Dec-2017, Time: 18:30:24, ID: IPA, Description: IPA

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	IPA			NO
2	2 13C5-PFHxA	IPA	5.85e0	0.0	YES
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: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171209M1-11 PFC CS3 17K2810	7.84e3	99.4	NO
2	2	13C5-PFHxA	ST171209M1-11 PFC CS3 17K2810	1.73e4	114.3	NO
3	3	13C3-PFHxS	ST171209M1-11 PFC CS3 17K2810	3.31e3	99.9	NO
4	4	13C8-PFOA	ST171209M1-11 PFC CS3 17K2810	1.30e4	104.0	NO
5	5	13C9-PFNA	ST171209M1-11 PFC CS3 17K2810	1.45e4	119.4	NO
6	6	13C4-PFOS	ST171209M1-11 PFC CS3 17K2810	3.86e3	109.3	NO
7	7	13C6-PFDA	ST171209M1-11 PFC CS3 17K2810	1.05e4	127.7	NO
8	8	13C7-PFUdA	ST171209M1-11 PFC CS3 17K2810	1.55e4	137.8	NO

Name: 171209M2_34, Date: 09-Dec-2017, Time: 18:52:45, 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: 171209M2_35, Date: 09-Dec-2017, Time: 19:03:56, ID: 1701732-06 910 0.11511, Description: 910

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701732-06 910 0.11511	6.71e3	85.0	NO
2	2	13C5-PFHxA	1701732-06 910 0.11511	9.46e3	62.5	NO
3	3	13C3-PFHxS	1701732-06 910 0.11511	2.50e3	75.5	NO
4	4	13C8-PFOA	1701732-06 910 0.11511	6.95e3	55.6	NO
5	5	13C9-PFNA	1701732-06 910 0.11511	9.19e3	75.4	NO
6	6	13C4-PFOS	1701732-06 910 0.11511	2.52e3	71.4	NO
7	7	13C6-PFDA	1701732-06 910 0.11511	6.84e3	83.6	NO
8	8	13C7-PFUdA	1701732-06 910 0.11511	7.77e3	69.2	NO

Name: 171209M2_36, Date: 09-Dec-2017, Time: 19:15:06, ID: 1701732-07 916 0.11333, Description: 916

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701732-07 916 0.11333	6.40e3	81.1	NO
2	2	13C5-PFHxA	1701732-07 916 0.11333	9.02e3	59.7	NO
3	3	13C3-PFHxS	1701732-07 916 0.11333	1.88e3	56.7	NO
4	4	13C8-PFOA	1701732-07 916 0.11333	5.95e3	47.6	YES
5	5	13C9-PFNA	1701732-07 916 0.11333	7.39e3	60.7	NO
6	6	13C4-PFOS	1701732-07 916 0.11333	2.34e3	66.3	NO
7	7	13C6-PFDA	1701732-07 916 0.11333	5.45e3	66.6	NO
8	8	13C7-PFUdA	1701732-07 916 0.11333	8.08e3	71.9	NO

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Name: 171209M2_37, Date: 09-Dec-2017, Time: 19:26:18, ID: 1701732-08 917 0.11599, Description: 917

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701732-08 917 0.11599	6.30e3	79.9	NO
2	2 13C5-PFHxA	1701732-08 917 0.11599	9.17e3	60.6	NO
3	3 13C3-PFHxS	1701732-08 917 0.11599	1.95e3	59.0	NO
4	4 13C8-PFOA	1701732-08 917 0.11599	7.07e3	56.6	NO
5	5 13C9-PFNA	1701732-08 917 0.11599	8.94e3	73.4	NO
6	6 13C4-PFOS	1701732-08 917 0.11599	2.17e3	61.4	NO
7	7 13C6-PFDA	1701732-08 917 0.11599	4.90e3	59.9	NO
8	8 13C7-PFUdA	1701732-08 917 0.11599	8.73e3	77.7	NO

Name: 171209M2_38, Date: 09-Dec-2017, Time: 19:37:28, ID: 1701732-09 905 0.1192, Description: 905

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701732-09 905 0.1192	6.22e3	78.8	NO
2	2 13C5-PFHxA	1701732-09 905 0.1192	9.78e3	64.7	NO
3	3 13C3-PFHxS	1701732-09 905 0.1192	1.90e3	57.5	NO
4	4 13C8-PFOA	1701732-09 905 0.1192	7.50e3	59.9	NO
5	5 13C9-PFNA	1701732-09 905 0.1192	9.12e3	74.9	NO
6	6 13C4-PFOS	1701732-09 905 0.1192	2.17e3	61.4	NO
7	7 13C6-PFDA	1701732-09 905 0.1192	5.66e3	69.1	NO
8	8 13C7-PFUdA	1701732-09 905 0.1192	7.36e3	65.5	NO

Name: 171209M2_39, Date: 09-Dec-2017, Time: 19:48:38, ID: 1701732-10 783 0.11632, Description: 783

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701732-10 783 0.11632	7.59e3	96.2	NO
2	2 13C5-PFHxA	1701732-10 783 0.11632	1.10e4	72.5	NO
3	3 13C3-PFHxS	1701732-10 783 0.11632	2.23e3	67.3	NO
4	4 13C8-PFOA	1701732-10 783 0.11632	8.31e3	66.5	NO
5	5 13C9-PFNA	1701732-10 783 0.11632	1.02e4	84.1	NO
6	6 13C4-PFOS	1701732-10 783 0.11632	2.27e3	64.1	NO
7	7 13C6-PFDA	1701732-10 783 0.11632	4.38e3	53.5	NO
8	8 13C7-PFUdA	1701732-10 783 0.11632	8.06e3	71.8	NO

Name: 171209M2_40, Date: 09-Dec-2017, Time: 19:59:49, ID: 1701732-11 Trip Blank 0.1126, Description: Trip Blank

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701732-11 Trip Blank 0.1126	7.79e3	98.7	NO
2	2 13C5-PFHxA	1701732-11 Trip Blank 0.1126	1.07e4	70.8	NO
3	3 13C3-PFHxS	1701732-11 Trip Blank 0.1126	2.50e3	75.5	NO
4	4 13C8-PFOA	1701732-11 Trip Blank 0.1126	6.75e3	54.0	NO
5	5 13C9-PFNA	1701732-11 Trip Blank 0.1126	1.11e4	91.3	NO
6	6 13C4-PFOS	1701732-11 Trip Blank 0.1126	2.38e3	67.3	NO
7	7 13C6-PFDA	1701732-11 Trip Blank 0.1126	6.38e3	77.9	NO
8	8 13C7-PFUdA	1701732-11 Trip Blank 0.1126	7.97e3	70.9	NO

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Name: 171209M2_41, Date: 09-Dec-2017, Time: 20:11:00, ID: 1701733-01 907 0.10604, Description: 907

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701733-01 907 0.10604	6.92e3	87.8	NO
2	2 13C5-PFHxA	1701733-01 907 0.10604	9.97e3	65.9	NO
3	3 13C3-PFHxS	1701733-01 907 0.10604	2.19e3	66.2	NO
4	4 13C8-PFOA	1701733-01 907 0.10604	7.64e3	61.1	NO
5	5 13C9-PFNA	1701733-01 907 0.10604	8.70e3	71.5	NO
6	6 13C4-PFOS	1701733-01 907 0.10604	1.95e3	55.2	NO
7	7 13C6-PFDA	1701733-01 907 0.10604	6.79e3	83.0	NO
8	8 13C7-PFUdA	1701733-01 907 0.10604	7.14e3	63.6	NO

Name: 171209M2_42, Date: 09-Dec-2017, Time: 20:22:10, ID: 1701733-02 911 0.11338, Description: 911

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701733-02 911 0.11338	6.79e3	86.1	NO
2	2 13C5-PFHxA	1701733-02 911 0.11338	9.59e3	63.4	NO
3	3 13C3-PFHxS	1701733-02 911 0.11338	2.32e3	70.1	NO
4	4 13C8-PFOA	1701733-02 911 0.11338	6.56e3	52.4	NO
5	5 13C9-PFNA	1701733-02 911 0.11338	7.63e3	62.7	NO
6	6 13C4-PFOS	1701733-02 911 0.11338	1.98e3	55.9	NO
7	7 13C6-PFDA	1701733-02 911 0.11338	5.47e3	66.9	NO
8	8 13C7-PFUdA	1701733-02 911 0.11338	7.25e3	64.5	NO

Name: 171209M2_43, Date: 09-Dec-2017, Time: 20:33:22, ID: 1701733-03 906 0.10513, Description: 906

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701733-03 906 0.10513	6.36e3	80.6	NO
2	2 13C5-PFHxA	1701733-03 906 0.10513	1.02e4	67.5	NO
3	3 13C3-PFHxS	1701733-03 906 0.10513	2.10e3	63.4	NO
4	4 13C8-PFOA	1701733-03 906 0.10513	6.80e3	54.4	NO
5	5 13C9-PFNA	1701733-03 906 0.10513	8.13e3	66.7	NO
6	6 13C4-PFOS	1701733-03 906 0.10513	1.50e3	42.5	YES
7	7 13C6-PFDA	1701733-03 906 0.10513	5.01e3	61.3	NO
8	8 13C7-PFUdA	1701733-03 906 0.10513	7.86e3	70.0	NO

Name: 171209M2_44, Date: 09-Dec-2017, Time: 20:44:32, ID: 1701733-04 920 0.11187, Description: 920

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701733-04 920 0.11187	6.49e3	82.3	NO
2	2 13C5-PFHxA	1701733-04 920 0.11187	9.45e3	62.5	NO
3	3 13C3-PFHxS	1701733-04 920 0.11187	2.09e3	63.2	NO
4	4 13C8-PFOA	1701733-04 920 0.11187	6.88e3	55.0	NO
5	5 13C9-PFNA	1701733-04 920 0.11187	7.78e3	63.9	NO
6	6 13C4-PFOS	1701733-04 920 0.11187	2.00e3	56.5	NO
7	7 13C6-PFDA	1701733-04 920 0.11187	6.41e3	78.4	NO
8	8 13C7-PFUdA	1701733-04 920 0.11187	7.14e3	63.6	NO

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Name: 171209M2_45, Date: 09-Dec-2017, Time: 20:55:43, ID: 1701733-05 908 0.10749, Description: 908

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701733-05 908 0.10749	7.07e3	89.6	NO
2	2	13C5-PFHxA	1701733-05 908 0.10749	1.01e4	66.5	NO
3	3	13C3-PFHxS	1701733-05 908 0.10749	2.19e3	66.0	NO
4	4	13C8-PFOA	1701733-05 908 0.10749	7.29e3	58.3	NO
5	5	13C9-PFNA	1701733-05 908 0.10749	8.94e3	73.4	NO
6	6	13C4-PFOS	1701733-05 908 0.10749	2.24e3	63.3	NO
7	7	13C6-PFDA	1701733-05 908 0.10749	6.22e3	76.1	NO
8	8	13C7-PFUdA	1701733-05 908 0.10749	7.52e3	66.9	NO

Name: 171209M2_46, Date: 09-Dec-2017, Time: 21:06:53, ID: 1701733-06 Field Blank Well 08 0.11249, Description: Field Blank Well 08

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701733-06 Field Blank Well 08 0.11249	8.12e3	103.0	NO
2	2	13C5-PFHxA	1701733-06 Field Blank Well 08 0.11249	1.04e4	68.6	NO
3	3	13C3-PFHxS	1701733-06 Field Blank Well 08 0.11249	2.40e3	72.6	NO
4	4	13C8-PFOA	1701733-06 Field Blank Well 08 0.11249	8.62e3	68.9	NO
5	5	13C9-PFNA	1701733-06 Field Blank Well 08 0.11249	8.70e3	71.5	NO
6	6	13C4-PFOS	1701733-06 Field Blank Well 08 0.11249	2.56e3	72.4	NO
7	7	13C6-PFDA	1701733-06 Field Blank Well 08 0.11249	5.82e3	71.1	NO
8	8	13C7-PFUdA	1701733-06 Field Blank Well 08 0.11249	7.93e3	70.6	NO

Name: 171209M2_47, Date: 09-Dec-2017, Time: 21:18:04, 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: 171209M2_48, Date: 09-Dec-2017, Time: 21:29:15, ID: ST171209M1-12 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171209M1-12 PFC CS3 17K2810	8.24e3	104.5	NO
2	2	13C5-PFHxA	ST171209M1-12 PFC CS3 17K2810	1.64e4	108.7	NO
3	3	13C3-PFHxS	ST171209M1-12 PFC CS3 17K2810	3.11e3	93.8	NO
4	4	13C8-PFOA	ST171209M1-12 PFC CS3 17K2810	1.34e4	106.8	NO
5	5	13C9-PFNA	ST171209M1-12 PFC CS3 17K2810	1.70e4	139.9	NO
6	6	13C4-PFOS	ST171209M1-12 PFC CS3 17K2810	2.69e3	76.1	NO
7	7	13C6-PFDA	ST171209M1-12 PFC CS3 17K2810	9.29e3	113.5	NO
8	8	13C7-PFUdA	ST171209M1-12 PFC CS3 17K2810	1.16e4	103.5	NO

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Name: 171209M2_49, Date: 09-Dec-2017, Time: 21:40:25, 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: 171209M2_50, Date: 09-Dec-2017, Time: 21:51:36, ID: 1701715-01 I001MW52S-171113 0.00111, Description: I001MW52S-171113

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701715-01 I001MW52S-171113 0.00111	1.60e4	202.8	YES
2	2	13C5-PFHxA	1701715-01 I001MW52S-171113 0.00111	2.08e4	137.4	NO
3	3	13C3-PFHxS	1701715-01 I001MW52S-171113 0.00111	4.07e3	123.0	NO
4	4	13C8-PFOA	1701715-01 I001MW52S-171113 0.00111	1.51e4	120.5	NO
5	5	13C9-PFNA	1701715-01 I001MW52S-171113 0.00111	1.89e4	155.3	YES
6	6	13C4-PFOS	1701715-01 I001MW52S-171113 0.00111	5.24e3	148.2	NO
7	7	13C6-PFDA	1701715-01 I001MW52S-171113 0.00111	1.20e4	147.1	NO
8	8	13C7-PFUdA	1701715-01 I001MW52S-171113 0.00111	1.72e4	153.0	YES

Name: 171209M2_51, Date: 09-Dec-2017, Time: 22:02:47, ID: B7K0167-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0167-BS1 OPR 1	7.77e3	98.5	NO
2	2	13C5-PFHxA	B7K0167-BS1 OPR 1	1.11e4	73.3	NO
3	3	13C3-PFHxS	B7K0167-BS1 OPR 1	2.18e3	65.9	NO
4	4	13C8-PFOA	B7K0167-BS1 OPR 1	9.14e3	73.1	NO
5	5	13C9-PFNA	B7K0167-BS1 OPR 1	8.64e3	70.9	NO
6	6	13C4-PFOS	B7K0167-BS1 OPR 1	2.49e3	70.4	NO
7	7	13C6-PFDA	B7K0167-BS1 OPR 1	6.81e3	83.2	NO
8	8	13C7-PFUdA	B7K0167-BS1 OPR 1	9.44e3	84.0	NO

Name: 171209M2_52, Date: 09-Dec-2017, Time: 22:13:58, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA	5.01e0	0.0	YES
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: 171209M2_53, Date: 09-Dec-2017, Time: 22:25:08, ID: B7K0167-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0167-BLK1 Method Blank 1	7.93e3	100.5	NO
2	2	13C5-PFHxA	B7K0167-BLK1 Method Blank 1	1.07e4	71.0	NO
3	3	13C3-PFHxS	B7K0167-BLK1 Method Blank 1	2.18e3	65.9	NO
4	4	13C8-PFOA	B7K0167-BLK1 Method Blank 1	8.01e3	64.0	NO
5	5	13C9-PFNA	B7K0167-BLK1 Method Blank 1	8.58e3	70.4	NO
6	6	13C4-PFOS	B7K0167-BLK1 Method Blank 1	2.22e3	62.8	NO
7	7	13C6-PFDA	B7K0167-BLK1 Method Blank 1	6.41e3	78.3	NO
8	8	13C7-PFUdA	B7K0167-BLK1 Method Blank 1	8.47e3	75.4	NO

Name: 171209M2_54, Date: 09-Dec-2017, Time: 22:36:19, ID: 1701689-01 B1 2.13, Description: B1

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701689-01 B1 2.13	8.13e3	103.0	NO
2	2	13C5-PFHxA	1701689-01 B1 2.13	1.17e4	77.1	NO
3	3	13C3-PFHxS	1701689-01 B1 2.13	2.40e3	72.5	NO
4	4	13C8-PFOA	1701689-01 B1 2.13	8.48e3	67.8	NO
5	5	13C9-PFNA	1701689-01 B1 2.13	1.04e4	85.2	NO
6	6	13C4-PFOS	1701689-01 B1 2.13	2.69e3	76.2	NO
7	7	13C6-PFDA	1701689-01 B1 2.13	6.89e3	84.2	NO
8	8	13C7-PFUdA	1701689-01 B1 2.13	8.80e3	78.4	NO

Name: 171209M2_55, Date: 09-Dec-2017, Time: 22:47:30, ID: 1701689-02 R1 6.51, Description: R1

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701689-02 R1 6.51	7.72e3	97.9	NO
2	2	13C5-PFHxA	1701689-02 R1 6.51	1.13e4	74.4	NO
3	3	13C3-PFHxS	1701689-02 R1 6.51	2.35e3	71.0	NO
4	4	13C8-PFOA	1701689-02 R1 6.51	8.63e3	69.0	NO
5	5	13C9-PFNA	1701689-02 R1 6.51	9.20e3	75.5	NO
6	6	13C4-PFOS	1701689-02 R1 6.51	2.67e3	75.6	NO
7	7	13C6-PFDA	1701689-02 R1 6.51	6.59e3	80.6	NO
8	8	13C7-PFUdA	1701689-02 R1 6.51	8.36e3	74.5	NO

Name: 171209M2_56, Date: 09-Dec-2017, Time: 22:58:40, ID: 1701689-03 R2 7.01, Description: R2

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701689-03 R2 7.01	7.30e3	92.6	NO
2	2	13C5-PFHxA	1701689-03 R2 7.01	1.13e4	74.5	NO
3	3	13C3-PFHxS	1701689-03 R2 7.01	2.30e3	69.5	NO
4	4	13C8-PFOA	1701689-03 R2 7.01	9.13e3	73.0	NO
5	5	13C9-PFNA	1701689-03 R2 7.01	8.92e3	73.3	NO
6	6	13C4-PFOS	1701689-03 R2 7.01	2.51e3	70.9	NO
7	7	13C6-PFDA	1701689-03 R2 7.01	6.64e3	81.1	NO
8	8	13C7-PFUdA	1701689-03 R2 7.01	7.87e3	70.0	NO

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Name: 171209M2_57, Date: 09-Dec-2017, Time: 23:09:51, ID: 1701689-04 R3 4.39, Description: R3

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701689-04 R3 4.39	7.92e3	100.3	NO
2	2	13C5-PFHxA	1701689-04 R3 4.39	1.04e4	68.6	NO
3	3	13C3-PFHxS	1701689-04 R3 4.39	2.38e3	71.9	NO
4	4	13C8-PFOA	1701689-04 R3 4.39	8.45e3	67.5	NO
5	5	13C9-PFNA	1701689-04 R3 4.39	8.76e3	71.9	NO
6	6	13C4-PFOS	1701689-04 R3 4.39	2.64e3	74.7	NO
7	7	13C6-PFDA	1701689-04 R3 4.39	5.52e3	67.4	NO
8	8	13C7-PFUdA	1701689-04 R3 4.39	8.28e3	73.7	NO

Name: 171209M2_58, Date: 09-Dec-2017, Time: 23:21:02, ID: 1701705-01 Soil-Treater 4/5 Stockpile #1 1.18, Description: Soil-Treater 4/5 Stockpile #1

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701705-01 Soil-Treater 4/5 Stockpile #...	8.05e3	102.0	NO
2	2	13C5-PFHxA	1701705-01 Soil-Treater 4/5 Stockpile #...	1.18e4	77.8	NO
3	3	13C3-PFHxS	1701705-01 Soil-Treater 4/5 Stockpile #...	2.18e3	65.9	NO
4	4	13C8-PFOA	1701705-01 Soil-Treater 4/5 Stockpile #...	7.94e3	63.5	NO
5	5	13C9-PFNA	1701705-01 Soil-Treater 4/5 Stockpile #...	1.05e4	86.2	NO
6	6	13C4-PFOS	1701705-01 Soil-Treater 4/5 Stockpile #...	2.39e3	67.6	NO
7	7	13C6-PFDA	1701705-01 Soil-Treater 4/5 Stockpile #...	6.73e3	82.3	NO
8	8	13C7-PFUdA	1701705-01 Soil-Treater 4/5 Stockpile #...	9.24e3	82.2	NO

Name: 171209M2_59, Date: 09-Dec-2017, Time: 23:32:13, ID: 1701705-02 Soil-Treater 4/5 Stockpile #2 1.22, Description: Soil-Treater 4/5 Stockpile #2

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701705-02 Soil-Treater 4/5 Stockpile #...	8.44e3	106.9	NO
2	2	13C5-PFHxA	1701705-02 Soil-Treater 4/5 Stockpile #...	1.19e4	78.7	NO
3	3	13C3-PFHxS	1701705-02 Soil-Treater 4/5 Stockpile #...	2.41e3	72.8	NO
4	4	13C8-PFOA	1701705-02 Soil-Treater 4/5 Stockpile #...	9.88e3	79.0	NO
5	5	13C9-PFNA	1701705-02 Soil-Treater 4/5 Stockpile #...	1.03e4	84.3	NO
6	6	13C4-PFOS	1701705-02 Soil-Treater 4/5 Stockpile #...	2.25e3	63.6	NO
7	7	13C6-PFDA	1701705-02 Soil-Treater 4/5 Stockpile #...	6.65e3	81.2	NO
8	8	13C7-PFUdA	1701705-02 Soil-Treater 4/5 Stockpile #...	8.94e3	79.6	NO

Name: 171209M2_60, Date: 09-Dec-2017, Time: 23:43:23, 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

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Name: 171209M2_61, Date: 09-Dec-2017, Time: 23:54:34, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171209M1-6 PFC CS3 17K2810	9.20e3	116.6	NO
2	2	13C5-PFHxA	ST171209M1-6 PFC CS3 17K2810	1.77e4	117.2	NO
3	3	13C3-PFHxS	ST171209M1-6 PFC CS3 17K2810	3.56e3	107.5	NO
4	4	13C8-PFOA	ST171209M1-6 PFC CS3 17K2810	1.23e4	98.4	NO
5	5	13C9-PFNA	ST171209M1-6 PFC CS3 17K2810	1.66e4	136.1	NO
6	6	13C4-PFOS	ST171209M1-6 PFC CS3 17K2810	3.21e3	90.9	NO
7	7	13C6-PFDA	ST171209M1-6 PFC CS3 17K2810	9.24e3	112.8	NO
8	8	13C7-PFUdA	ST171209M1-6 PFC CS3 17K2810	1.31e4	116.8	NO

Name: 171209M2_62, Date: 10-Dec-2017, Time: 00:05:45, 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	8.86e0	0.1	YES

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Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

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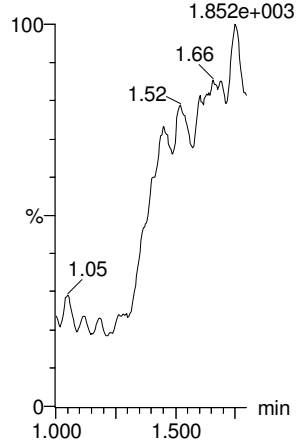
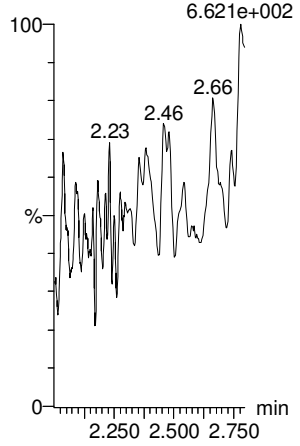


PFPeA



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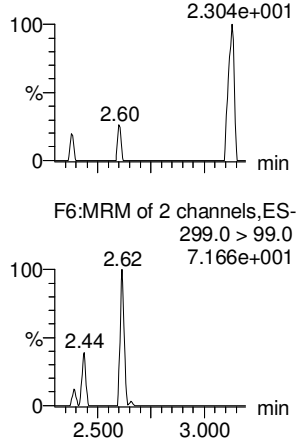
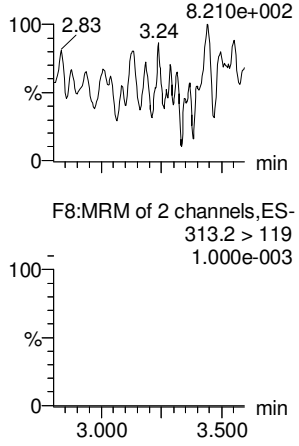
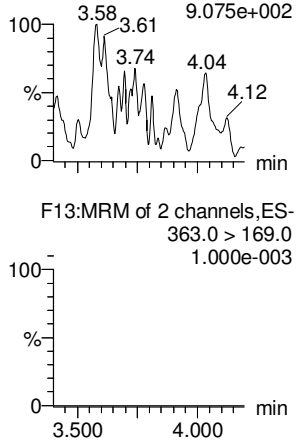


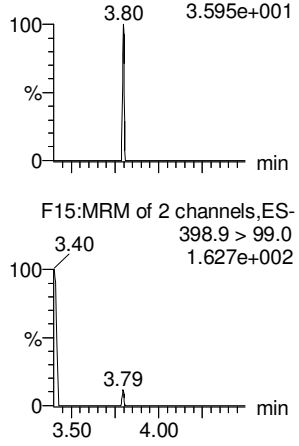
PFHxA



PFHpA



L-PFHxS



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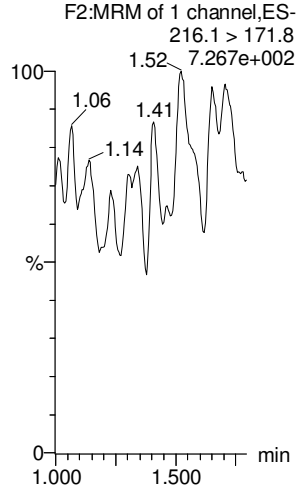

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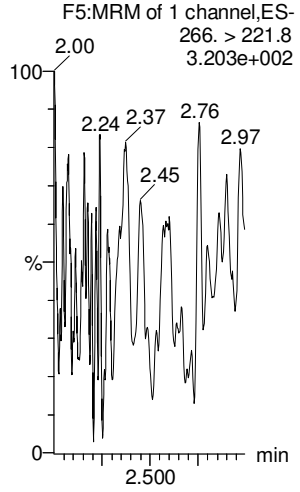

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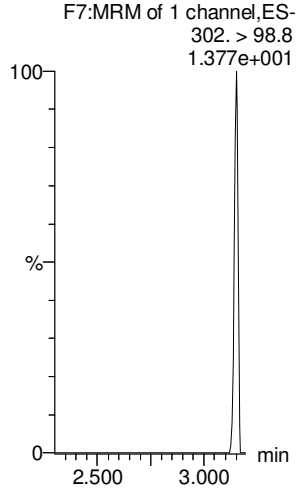

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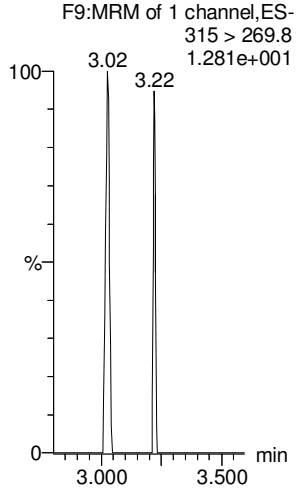

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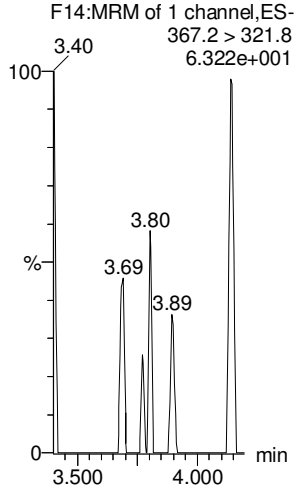

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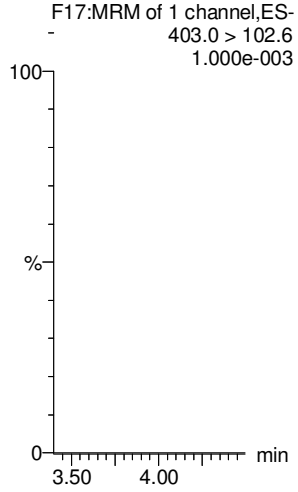

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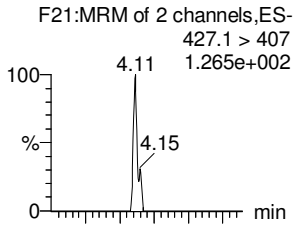
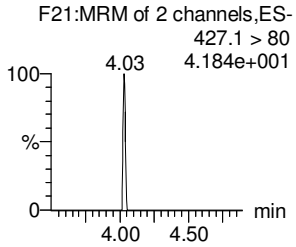
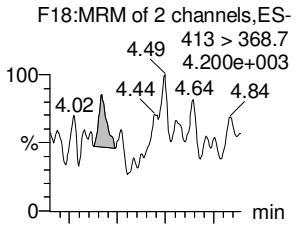
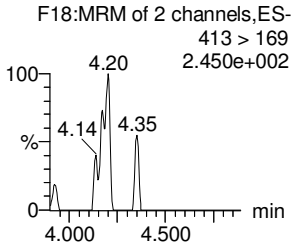
6:2 FTS



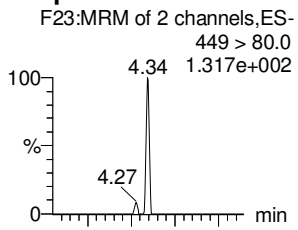


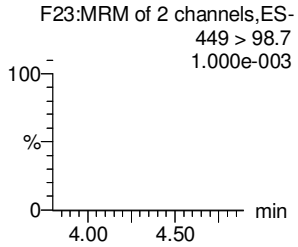
L-PFOA





PFHpS





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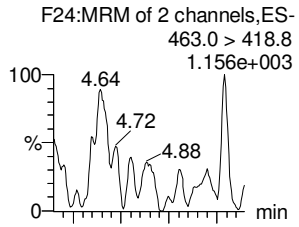

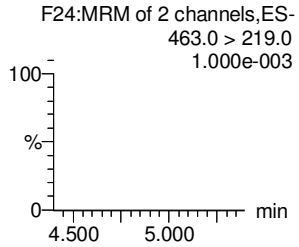

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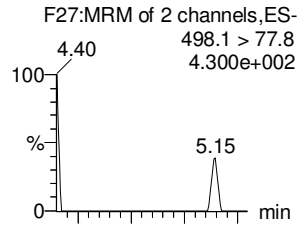
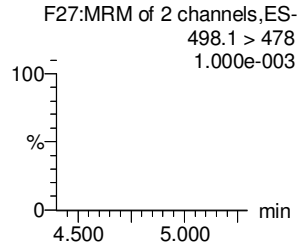
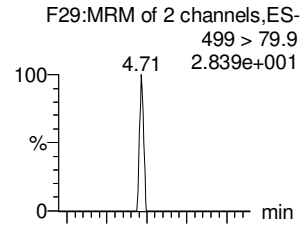
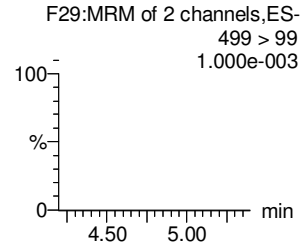


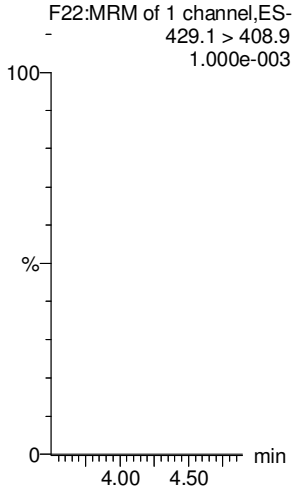


L-PFOS





13C2-6:2 FTS



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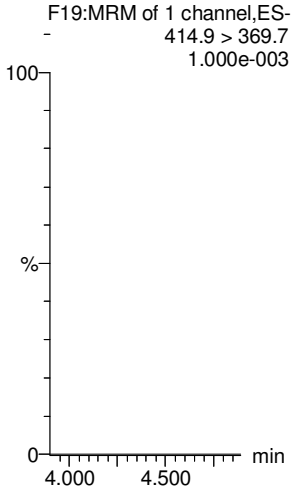

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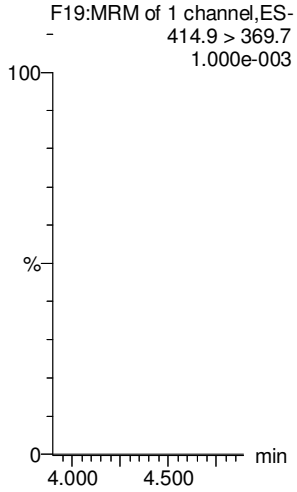

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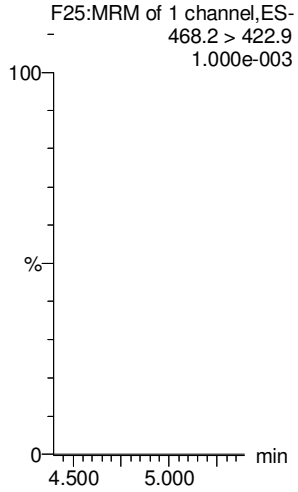
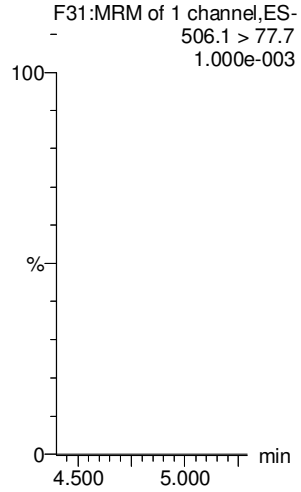


13C8-PFOSA



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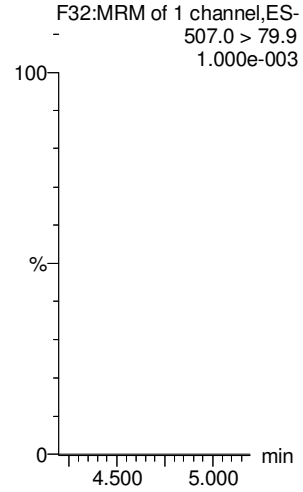

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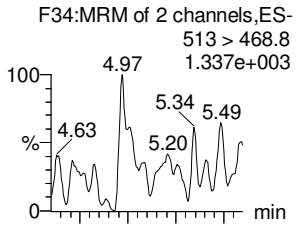
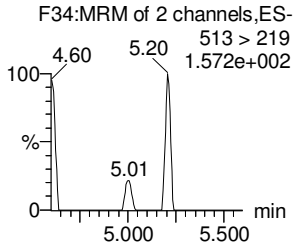
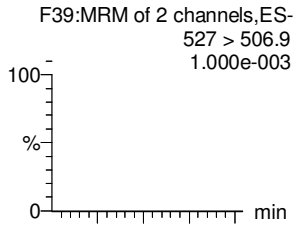
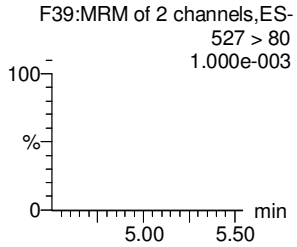




8:2 FTS





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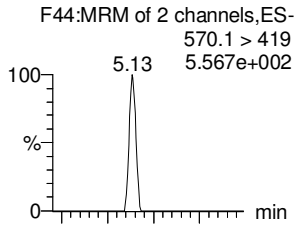
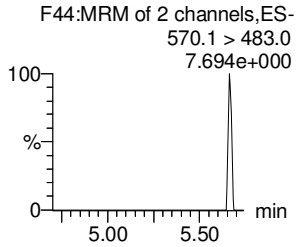
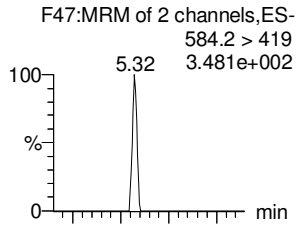
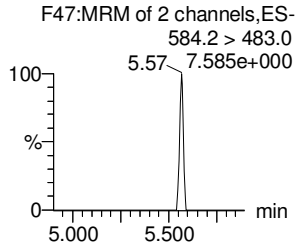


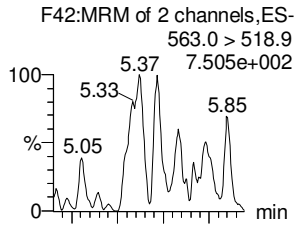


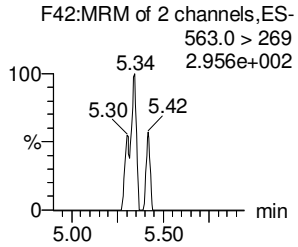
N-EtFOSAA





PFUdA





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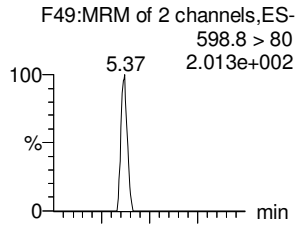
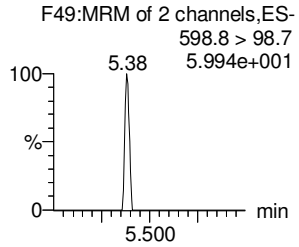
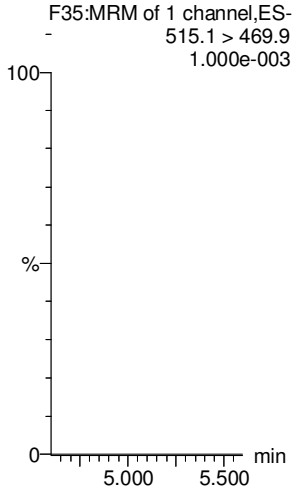
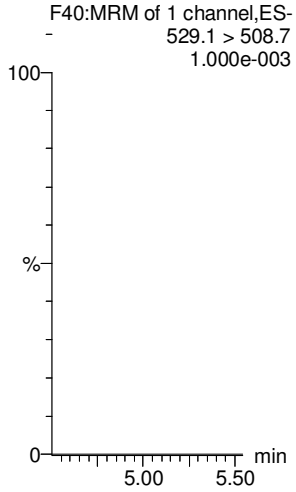




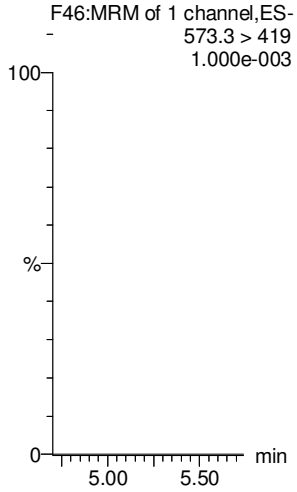
13C2-PFDA



13C2-8:2 FTS



d3-N-MeFOSAA



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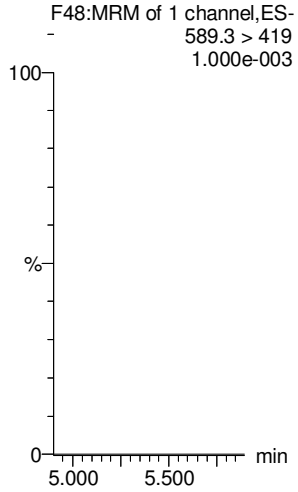

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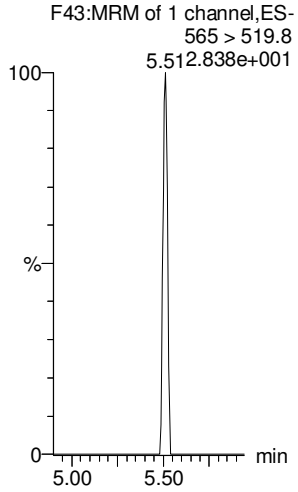

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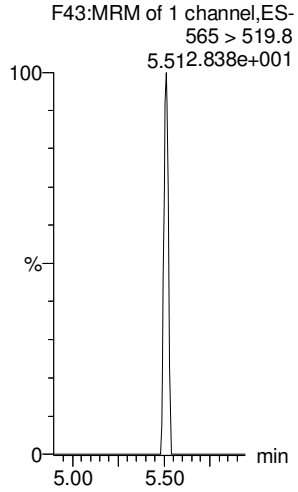


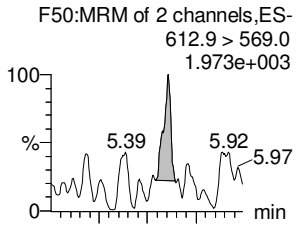
AC 12/11/17

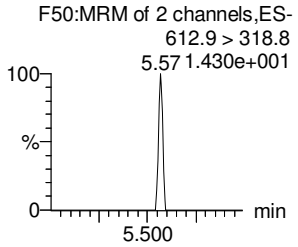
Dataset: U:\Q4.PRO\results\171209M2\171209M2-12.qld

Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
Printed: Monday, December 11, 2017 11:21:35 Pacific Standard Time

Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

PFDoA





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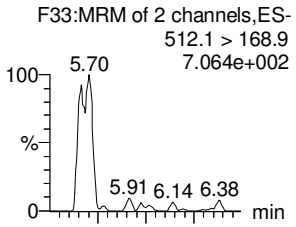

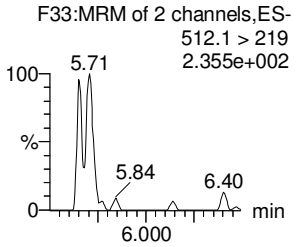

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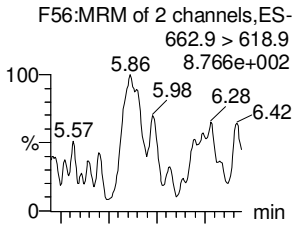

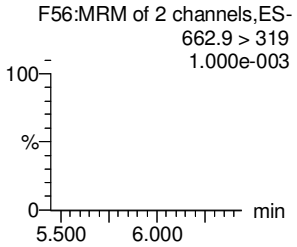

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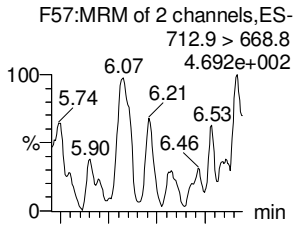

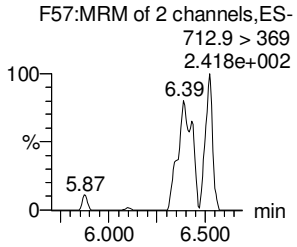

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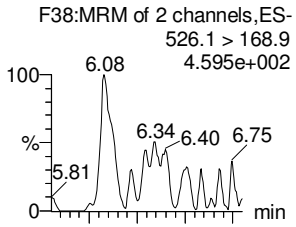

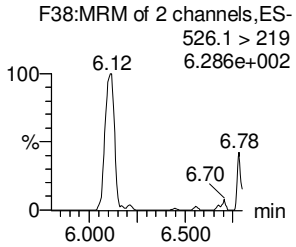

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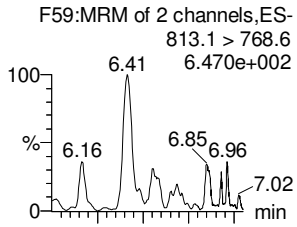
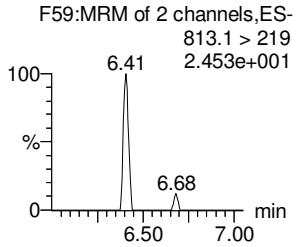
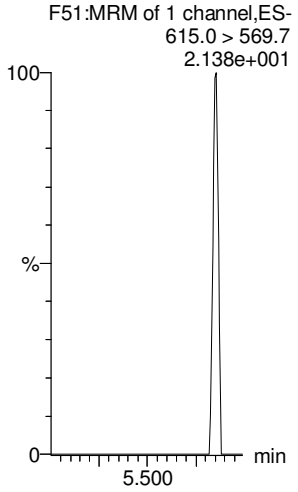
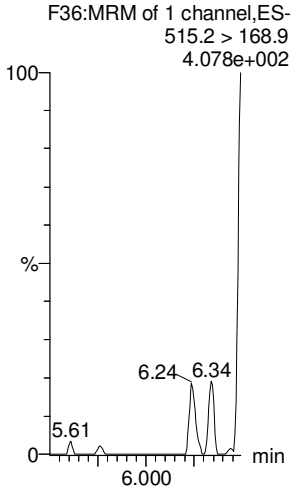




13C2-PFDoA



d3-N-MeFOSA



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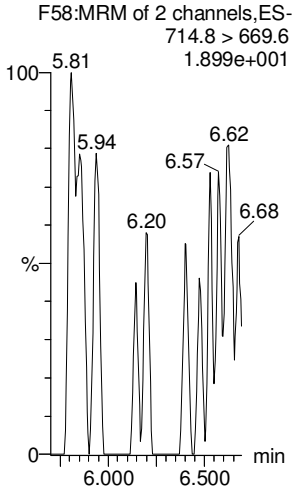

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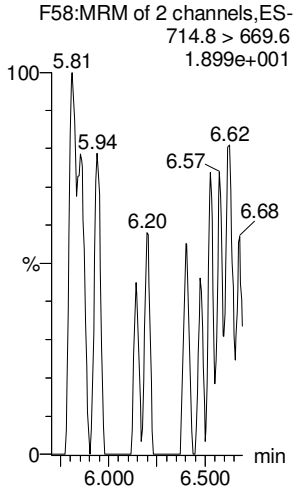

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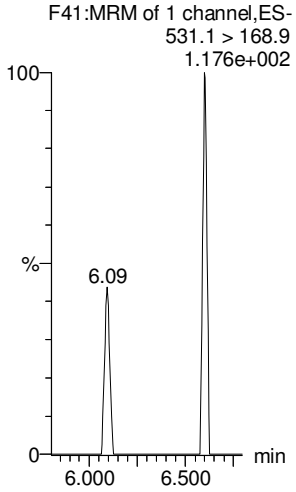
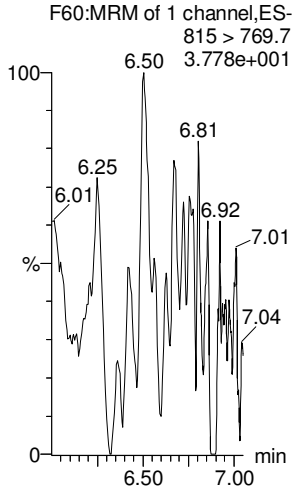


13C2-PFHxDA



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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171209M2\171209M2-12.qld

Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
Printed: Monday, December 11, 2017 11:21:35 Pacific Standard Time

Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

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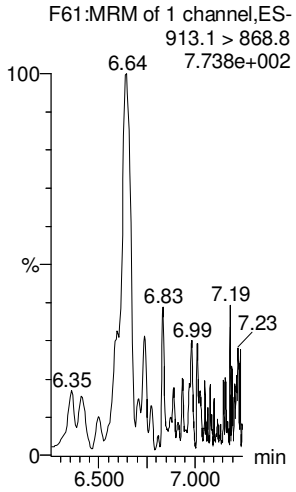

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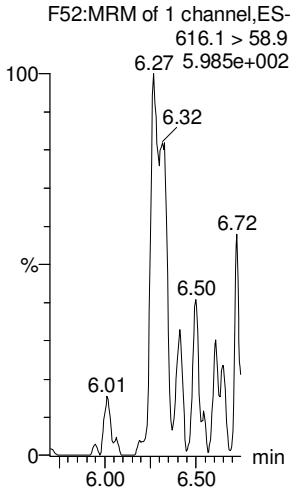

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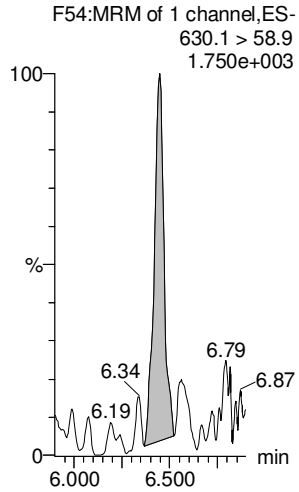
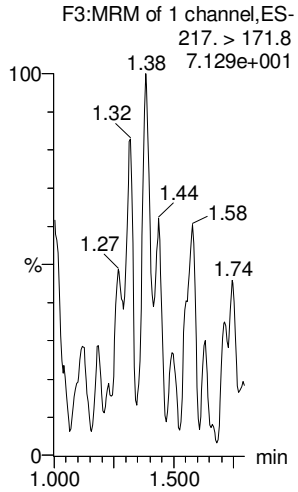


13C4-PFBA



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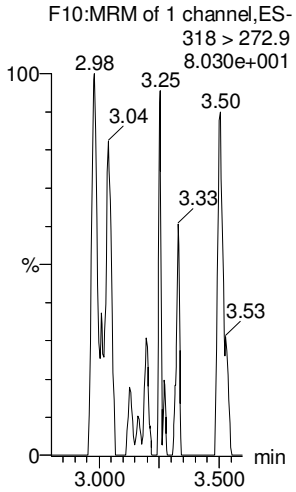
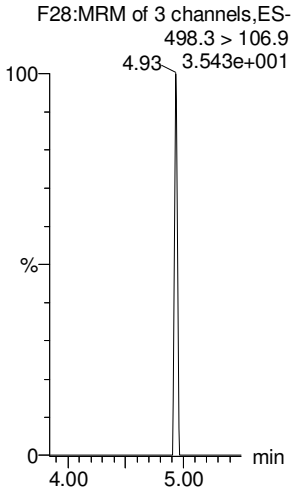


TCDA



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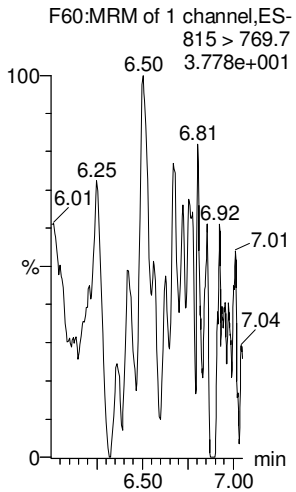
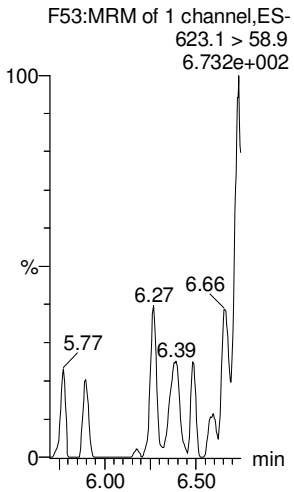
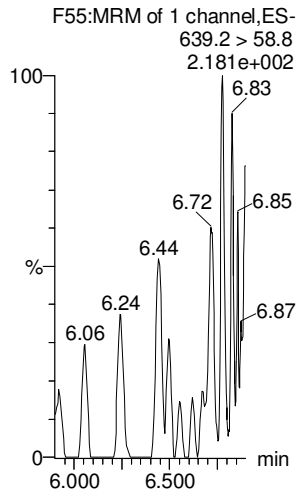


d7-N-MeFOSE



d9-N-EtFOSE



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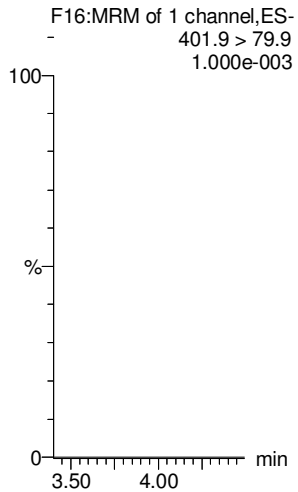

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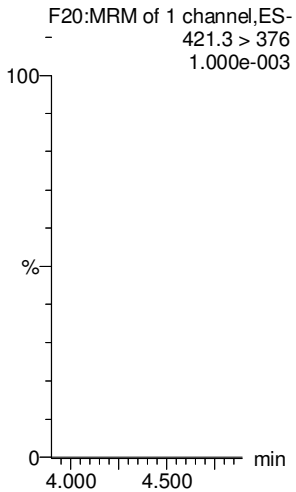
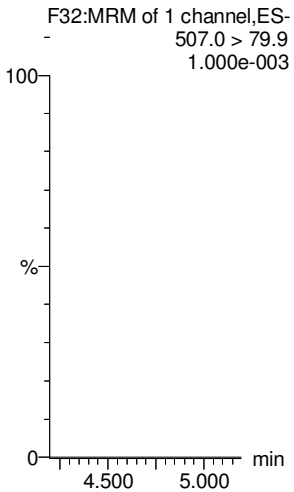


13C8-PFOS



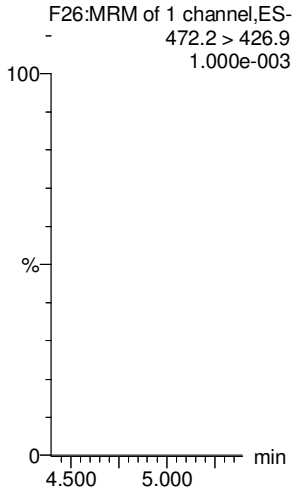
AC 12/11/17

Dataset: U:\Q4.PRO\results\171209M2\171209M2-12.qld

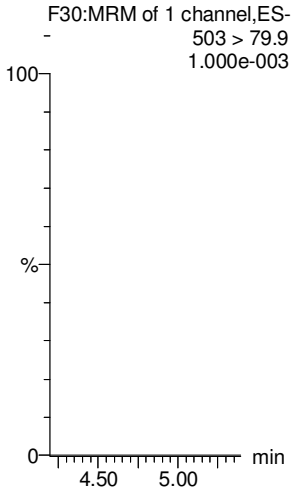
Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
Printed: Monday, December 11, 2017 11:21:35 Pacific Standard Time

Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

13C9-PFNA



13C4-PFOS



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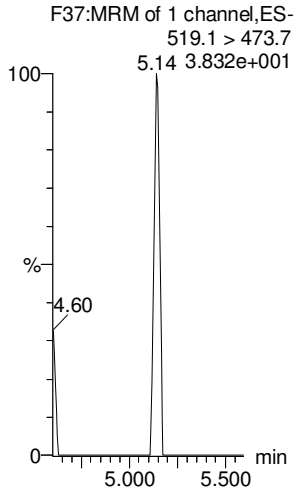

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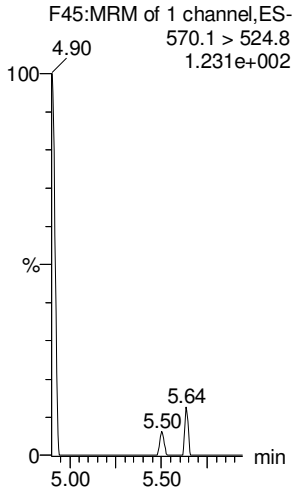


AC 12/11/17

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171209M2\171209M2-33.qld

Ⓐ 8:2 FTS > 130 %

Last Altered: Monday, December 11, 2017 14:05:01 Pacific Standard Time
Printed: Monday, December 11, 2017 14:05:13 Pacific Standard Time

AC 12/11/17

JA 12/11/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	6.97e3	7.04e3	1.0000		1.34	1.35	12.4	11.427	114.3
2	2	PFPeA	263.1 > 218.9	1.11e4	1.30e4	1.0000		2.25	2.29	10.7	10.915	109.2
3	3	PFBS	299.0 > 79.7	3.11e3	1.74e3	1.0000		2.52	2.57	22.4	10.480	104.8
4	4	PFHxA	313.2 > 268.9	1.50e4	5.28e3	1.0000		3.04	3.06	14.2	10.790	107.9
5	5	PFHpA	363.0 > 318.9	1.25e4	1.00e4	1.0000		3.66	3.67	15.6	11.691	116.9
6	6	L-PFHxS	398.9 > 79.6	2.62e3	1.56e3	1.0000		3.80	3.82	21.0	10.368	103.7
7	8	6:2 FTS	427.1 > 407	3.01e3	3.77e3	1.0000		4.20	4.14	9.97	7.475	74.7
8	9	L-PFOA	413 > 368.7	1.26e4	1.45e4	1.0000		4.20	4.20	10.9	11.588	115.9
9	11	PFHpS	449 > 80.0	2.58e3	1.45e4	1.0000		4.29	4.31	2.23	8.880	88.8
10	12	PFNA	463.0 > 418.8	1.48e4	1.29e4	1.0000		4.61	4.63	14.4	11.393	113.9
11	13	PFOSA	498.1 > 77.8	4.06e3	5.25e3	1.0000		4.67	4.69	9.67	10.007	100.1
12	14	L-PFOS	499 > 79.9	3.66e3	3.68e3	1.0000		4.69	4.71	12.4	11.596	116.0
13	16	PFDA	513 > 468.8	1.38e4	1.55e4	1.0000		5.00	5.00	11.1	9.414	94.1
14	17	8:2 FTS	527 > 506.9	3.28e3	1.56e3	1.0000		4.98	4.97	26.3	14.404	144.0 Ⓐ
15	18	N-MeFOSAA	570.1 > 419	7.33e3	5.21e3	1.0000		5.15	5.15	17.6	12.090	120.9
16	19	N-EtFOSAA	584.2 > 419	4.34e3	5.02e3	1.0000		5.30	5.31	10.8	9.866	98.7
17	20	PFUdA	563.0 > 518.9	1.33e4	1.44e4	1.0000		5.31	5.33	11.6	11.189	111.9
18	21	PFDS	598.8 > 80	3.66e3	1.44e4	1.0000		5.35	5.38	3.18	9.784	97.8
19	22	PFDoA	612.9 > 569.0	1.54e4	6.49e3	1.0000		5.58	5.61	29.7	12.938	129.4
20	23	N-MeFOSA	512.1 > 168.9	6.78e3	1.65e4	1.0000		5.60	5.70	61.4	56.530	113.1
21	24	PFTrDA	662.9 > 618.9	1.24e4	6.49e3	1.0000		5.75	5.86	23.9	11.499	115.0
22	25	PFTeDA	712.9 > 668.8	7.55e3	6.40e3	1.0000		6.10	6.07	14.7	8.315	83.1
23	26	N-EtFOSA	526.1 > 168.9	8.67e3	2.69e4	1.0000		6.21	6.12	48.3	50.806	101.6
24	27	PFHxDA	813.1 > 768.6	4.98e3	3.40e3	1.0000		6.35	6.41	7.31	12.703	127.0
25	28	PFODA	913.1 > 868.8	6.34e3	3.40e3	1.0000		6.65	6.64	9.31	12.876	128.8
26	29	N-MeFOSE	616.1 > 58.9	7.32e3	2.24e4	1.0000		6.30	6.30	49.0	43.402	86.8
27	30	N-EtFOSE	630.1 > 58.9	9.27e3	2.29e4	1.0000		6.42	6.45	60.8	55.399	110.8
28	31	13C3-PFBA	216.1 > 171.8	7.04e3	7.45e3	1.0000	0.829	1.34	1.34	11.8	14.255	114.0
29	32	13C3-PFPeA	266. > 221.8	1.30e4	1.73e4	1.0000	0.743	2.25	2.29	9.37	12.616	100.9
30	33	13C3-PFBS	302. > 98.8	1.74e3	1.73e4	1.0000	0.094	2.52	2.57	1.26	13.400	107.2
31	34	13C2-PFHxA	315 > 269.8	5.28e3	1.73e4	1.0000	0.735	3.04	3.05	3.82	5.195	103.9

70-130

50-150

Dataset: U:\Q4.PRO\results\171209M2\171209M2-33.qld

Last Altered: Monday, December 11, 2017 14:05:01 Pacific Standard Time
Printed: Monday, December 11, 2017 14:05:13 Pacific Standard Time

Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.00e4	1.73e4	1.0000	0.583	3.66	3.68	7.25	12.439	99.5
33	36	18O2-PFHxS	403.0 > 102.6	1.56e3	3.31e3	1.0000	0.406	3.80	3.83	5.89	14.518	116.1
34	37	13C2-6:2 FTS	429.1 > 408.9	3.77e3	1.30e4	1.0000	0.283	4.21	4.13	3.61	12.769	102.2
35	38	13C2-PFOA	414.9 > 369.7	1.45e4	1.30e4	1.0000	1.049	4.20	4.19	13.9	13.241	105.9
36	39	13C5-PFNA	468.2 > 422.9	1.29e4	1.45e4	1.0000	0.913	4.63	4.63	11.1	12.118	96.9
37	40	13C8-PFOSA	506.1 > 77.7	5.25e3	1.55e4	1.0000	0.357	4.67	4.69	4.24	11.852	94.8
38	41	13C8-PFOS	507.0 > 79.9	3.68e3	3.86e3	1.0000	1.006	4.69	4.71	11.9	11.826	94.6
39	42	13C2-PFDA	515.1 > 469.9	1.55e4	1.05e4	1.0000	1.452	5.00	5.00	18.6	12.775	102.2
40	43	13C2-8:2 FTS	529.1 > 508.7	1.56e3	1.73e4	1.0000	0.119	4.98	4.97	1.13	9.498	76.0
41	44	d3-N-MeFOSAA	573.3 > 419	5.21e3	1.55e4	1.0000	0.391	5.15	5.15	4.21	10.776	86.2
42	45	d5-N-EtFOSAA	589.3 > 419	5.02e3	1.55e4	1.0000	0.412	5.30	5.31	4.05	9.825	78.6
43	46	13C2-PFUdA	565 > 519.8	1.44e4	1.55e4	1.0000	0.956	5.31	5.33	11.6	12.170	97.4
44	47	13C2-PFDoA	615.0 > 569.7	6.49e3	1.55e4	1.0000	0.544	5.58	5.61	5.24	9.638	77.1
45	48	d3-N-MeFOSA	515.2 > 168.9	1.65e4	1.55e4	1.0000	0.100	5.60	5.73	13.4	133.811	89.2
46	49	13C2-PFTeDA	714.8 > 669.6	6.40e3	1.55e4	1.0000	0.522	6.10	6.07	5.17	9.900	79.2
47	50	d5-N-ETFOSA	531.1 > 168.9	2.69e4	1.55e4	1.0000	0.158	6.21	6.13	21.8	137.481	91.7
48	51	13C2-PFHxDA	815 > 769.7	3.40e3	1.55e4	1.0000	0.672	6.35	6.41	2.75	4.090	81.8
49	52	d7-N-MeFOSE	623.1 > 58.9	2.24e4	1.55e4	1.0000	0.142	6.30	6.29	18.1	127.228	84.8
50	53	d9-N-EtFOSE	639.2 > 58.8	2.29e4	1.55e4	1.0000	0.149	6.42	6.43	18.5	124.325	82.9
51	54	13C4-PFBA	217. > 171.8	7.45e3	7.45e3	1.0000	1.000	1.34	1.35	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.73e4	1.73e4	1.0000	1.000	3.04	3.05	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.31e3	3.31e3	1.0000	1.000	3.80	3.83	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.30e4	1.30e4	1.0000	1.000	4.20	4.19	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.45e4	1.45e4	1.0000	1.000	4.63	4.63	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.86e3	3.86e3	1.0000	1.000	4.69	4.71	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.05e4	1.05e4	1.0000	1.000	5.00	5.00	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.55e4	1.55e4	1.0000	1.000	5.31	5.33	12.5	12.500	100.0

50-150

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, December 11, 2017 12:21:26 Pacific Standard Time
Printed: Monday, December 11, 2017 12:24:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171209M2_1	IPA	09-Dec-17	12:43:52
2	171209M2_2	ST171209M1-1 PFC CS-2 17K2806	09-Dec-17	12:55:02
3	171209M2_3	ST171209M1-2 PFC CS-1 17K2807	09-Dec-17	13:06:13
4	171209M2_4	ST171209M1-3 PFC CS0 17K2808	09-Dec-17	13:17:24
5	171209M2_5	ST171209M1-4 PFC CS1 17K2814	09-Dec-17	13:28:34
6	171209M2_6	ST171209M1-5 PFC CS2 17K2809	09-Dec-17	13:39:45
7	171209M2_7	ST171209M1-6 PFC CS3 17K2810	09-Dec-17	13:50:56
8	171209M2_8	ST171209M1-7 PFC CS4 17K2811	09-Dec-17	14:02:06
9	171209M2_9	ST171209M1-8 PFC CS5 17K2812	09-Dec-17	14:13:17
10	171209M2_10	ST171209M1-9 PFC CS6 17K2817	09-Dec-17	14:24:28
11	171209M2_11	ST171209M1-10 PFC CS7 17K2818	09-Dec-17	14:35:39
12	171209M2_12	IPA	09-Dec-17	14:46:49
13	171209M2_13	ICV171209M1-1 PFC ICV 17K3001	09-Dec-17	14:58:00
14	171209M2_14	IPA	09-Dec-17	15:09:11
15	171209M2_15	1701710-11 FT-PZ-456-FRB-20171115 0.26552	09-Dec-17	15:20:21
16	171209M2_16	1701725-12 GENBM-GW-DUP1-111517 0.123...	09-Dec-17	15:31:32
17	171209M2_17	1701725-13 GENBM-08-TW08-111617 0.11519	09-Dec-17	15:42:43
18	171209M2_18	1701725-14 GENBM-02-MW102-111517 0.11...	09-Dec-17	15:53:54
19	171209M2_19	1701725-15 GENBM-04-TW04-111517 0.1187	09-Dec-17	16:05:04
20	171209M2_20	IPA	09-Dec-17	16:16:15
21	171209M2_21	B7K0141-BS1 OPR 0.125	09-Dec-17	16:27:26
22	171209M2_22	B7K0141-BSD1 LCS Dup 0.125	09-Dec-17	16:38:36
23	171209M2_23	B7K0142-BS1 OPR 0.125	09-Dec-17	16:49:47
24	171209M2_24	IPA	09-Dec-17	17:00:58
25	171209M2_25	B7K0141-BLK1 Method Blank 0.125	09-Dec-17	17:12:08
26	171209M2_26	B7K0142-BLK1 Method Blank 0.125	09-Dec-17	17:23:20
27	171209M2_27	1701732-01 918 0.11878	09-Dec-17	17:34:30
28	171209M2_28	1701732-02 914 0.11332	09-Dec-17	17:45:41
29	171209M2_29	1701732-03 912 0.11498	09-Dec-17	17:56:52
30	171209M2_30	1701732-04 913 0.11277	09-Dec-17	18:08:02
31	171209M2_31	1701732-05 731 0.11572	09-Dec-17	18:19:13

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, December 11, 2017 12:21:26 Pacific Standard Time
Printed: Monday, December 11, 2017 12:24:51 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171209M2_32	IPA	09-Dec-17	18:30:24
33	171209M2_33	ST171209M1-11 PFC CS3 17K2810	09-Dec-17	18:41:34
34	171209M2_34	IPA	09-Dec-17	18:52:45
35	171209M2_35	1701732-06 910 0.11511	09-Dec-17	19:03:56
36	171209M2_36	1701732-07 916 0.11333	09-Dec-17	19:15:06
37	171209M2_37	1701732-08 917 0.11599	09-Dec-17	19:26:18
38	171209M2_38	1701732-09 905 0.1192	09-Dec-17	19:37:28
39	171209M2_39	1701732-10 783 0.11632	09-Dec-17	19:48:38
40	171209M2_40	1701732-11 Trip Blank 0.1126	09-Dec-17	19:59:49
41	171209M2_41	1701733-01 907 0.10604	09-Dec-17	20:11:00
42	171209M2_42	1701733-02 911 0.11338	09-Dec-17	20:22:10
43	171209M2_43	1701733-03 906 0.10513	09-Dec-17	20:33:22
44	171209M2_44	1701733-04 920 0.11187	09-Dec-17	20:44:32
45	171209M2_45	1701733-05 908 0.10749	09-Dec-17	20:55:43
46	171209M2_46	1701733-06 Field Blank Well 08 0.11249	09-Dec-17	21:06:53
47	171209M2_47	IPA	09-Dec-17	21:18:04
48	171209M2_48	ST171209M1-12 PFC CS3 17K2810	09-Dec-17	21:29:15
49	171209M2_49	IPA	09-Dec-17	21:40:25
50	171209M2_50	1701715-01 I001MW52S-171113 0.00111	09-Dec-17	21:51:36
51	171209M2_51	B7K0167-BS1 OPR 1	09-Dec-17	22:02:47
52	171209M2_52	IPA	09-Dec-17	22:13:58
53	171209M2_53	B7K0167-BLK1 Method Blank 1	09-Dec-17	22:25:08
54	171209M2_54	1701689-01 B1 2.13	09-Dec-17	22:36:19
55	171209M2_55	1701689-02 R1 6.51	09-Dec-17	22:47:30
56	171209M2_56	1701689-03 R2 7.01	09-Dec-17	22:58:40
57	171209M2_57	1701689-04 R3 4.39	09-Dec-17	23:09:51
58	171209M2_58	1701705-01 Soil-Treater 4/5 Stockpile #1 1.18	09-Dec-17	23:21:02
59	171209M2_59	1701705-02 Soil-Treater 4/5 Stockpile #2 1.22	09-Dec-17	23:32:13
60	171209M2_60	IPA	09-Dec-17	23:43:23
61	171209M2_61	ST171209M1-13 PFC CS3 17K2810	09-Dec-17	23:54:34

LC Calibration Standards Review Checklist Q4

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	N/A
Calibration ID:	ST71209M1-11	L (M) H	N/A	☑ (A)	☑	☑	☑	☑	☐
Calibration ID:	-12	L (M) H	☐	☑	☑	☑	☑	☑	☐
Calibration ID:	-13	L (M) H	☑	☑ (B)	☑	☑	☑	☑	☑
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 11/14/17

6:2 FTS < 70% in ICV; not used.

Run Log Present: ☑

# of Samples per Sequence Checked: ☑

Reviewed By: JA 12/11/2017
Initials/Date

Comments:
(A) 8:2 FTS > 130%.
(B) PFODA > 130%
AC 12/11/17

Vista Analytical Laboratory

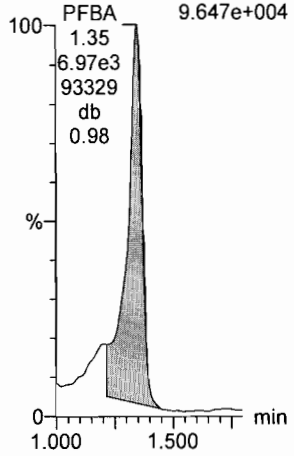
Dataset: U:\Q4.PRO\results\171209M2\171209M2-33.qld

Last Altered: Monday, December 11, 2017 14:05:01 Pacific Standard Time
Printed: Monday, December 11, 2017 14:05:13 Pacific Standard Time

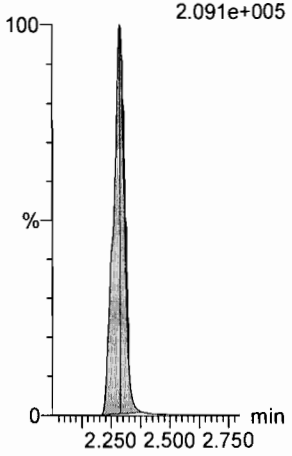
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

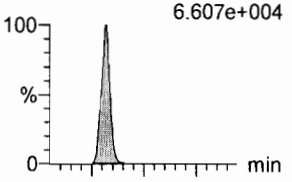
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
9.647e+004
PFBA
1.35
6.97e3
93329
db
0.98



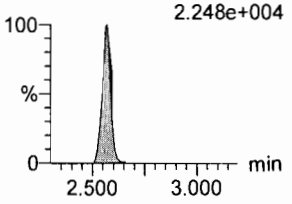
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
2.091e+005



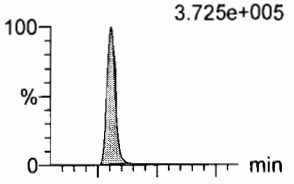
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
6.607e+004



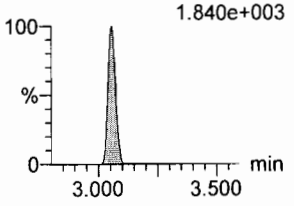
F6:MRM of 2 channels,ES-
299.0 > 99.0
2.248e+004



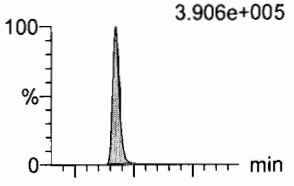
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.725e+005



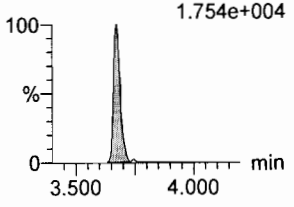
F8:MRM of 2 channels,ES-
313.2 > 119
1.840e+003



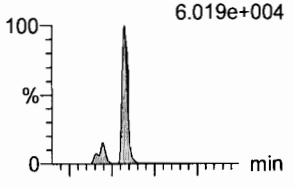
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.906e+005



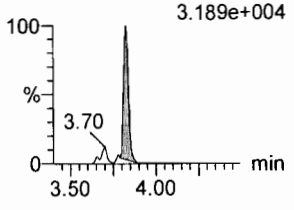
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.754e+004



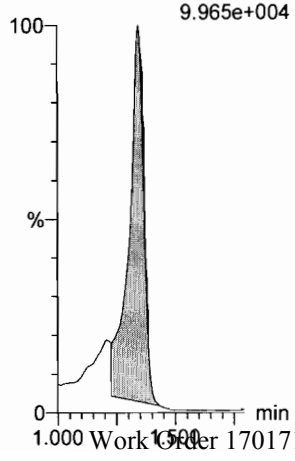
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
6.019e+004



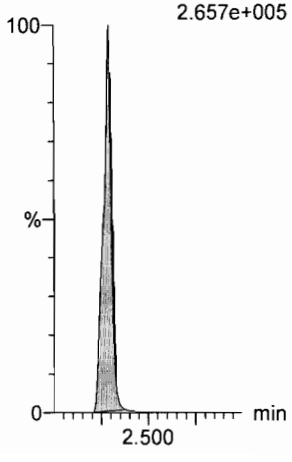
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.189e+004



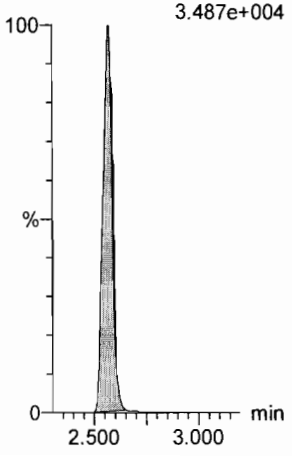
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
9.965e+004



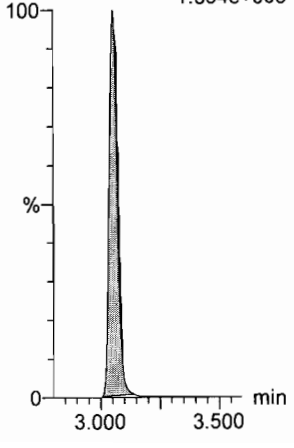
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
2.657e+005



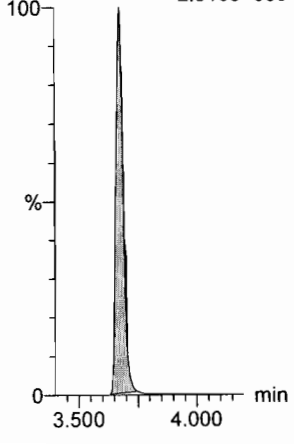
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
3.487e+004



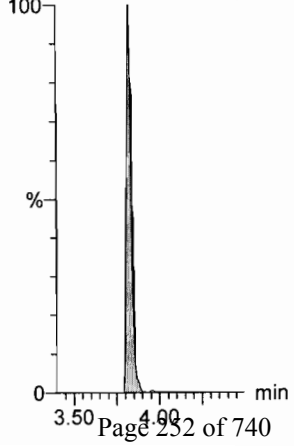
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.354e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.910e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.891e+004



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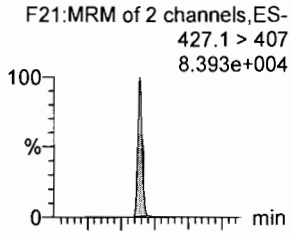
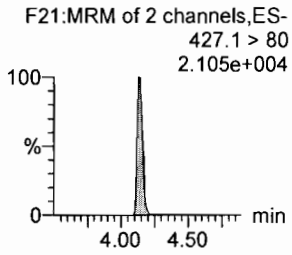
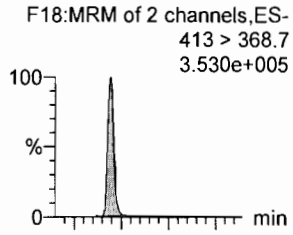
Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

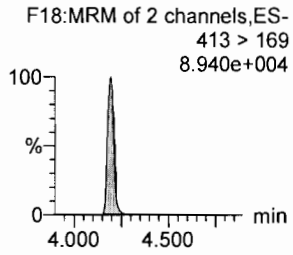
6:2 FTS



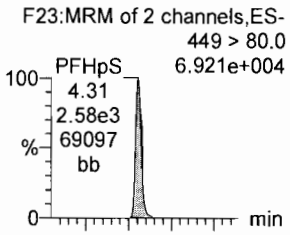


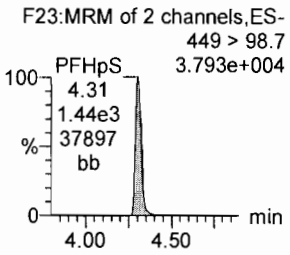
Total PFOA





PFHpS





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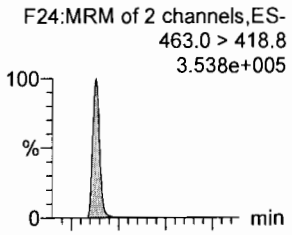

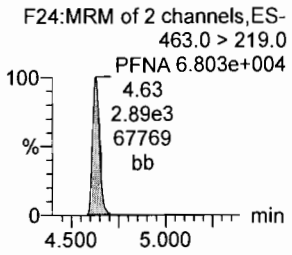

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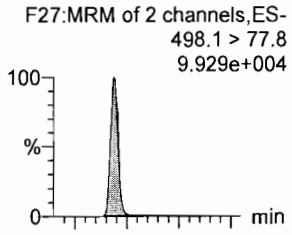
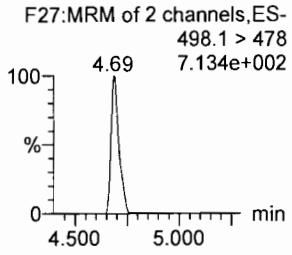
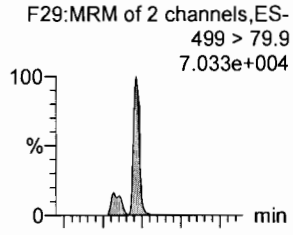
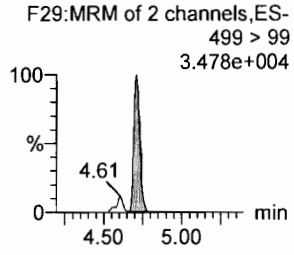


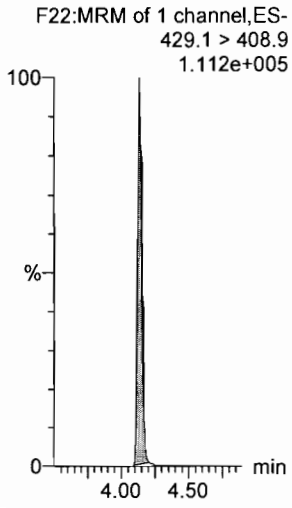


L-PFOS





13C2-6:2 FTS



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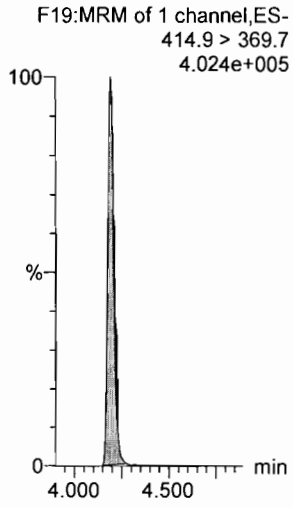

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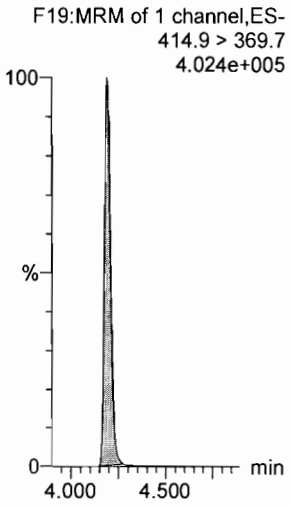
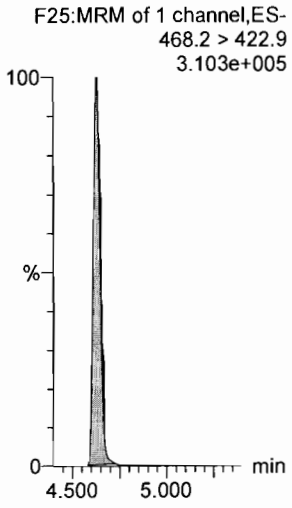


13C5-PFNA



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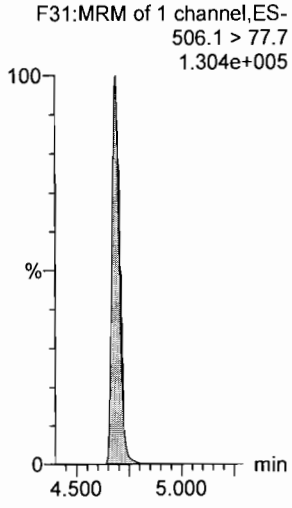

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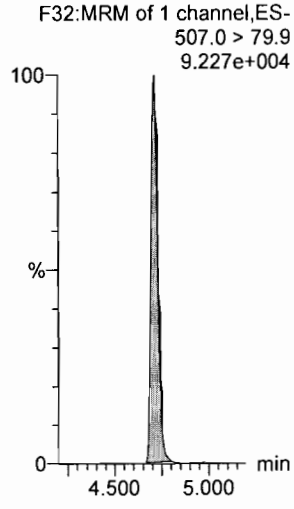

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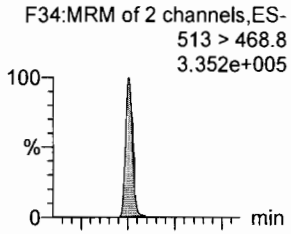
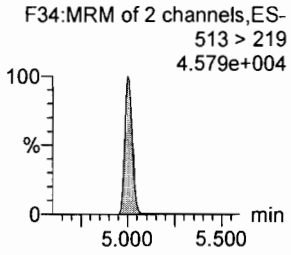
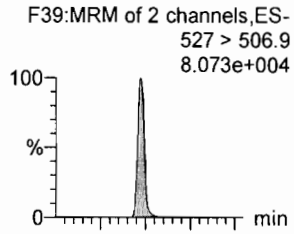
Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

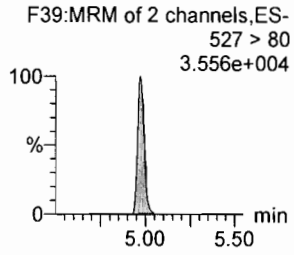
PFDA





8:2 FTS





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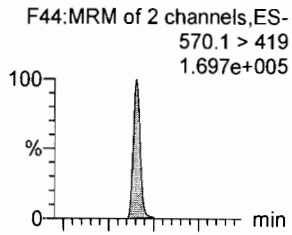

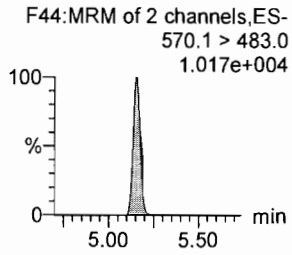

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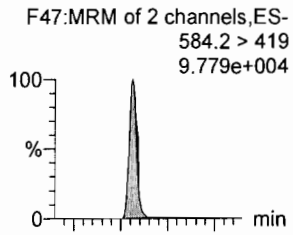

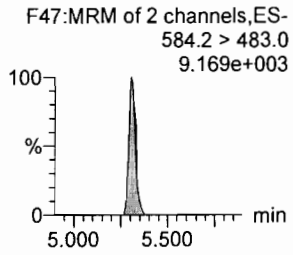

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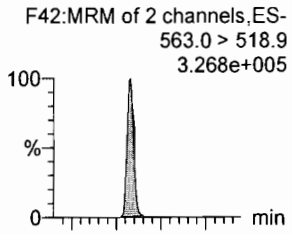

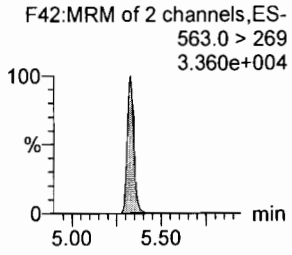

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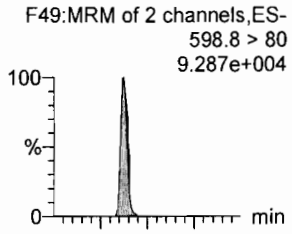

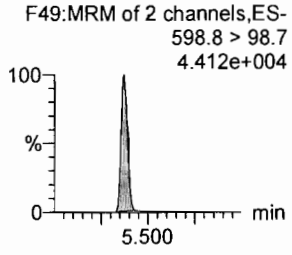

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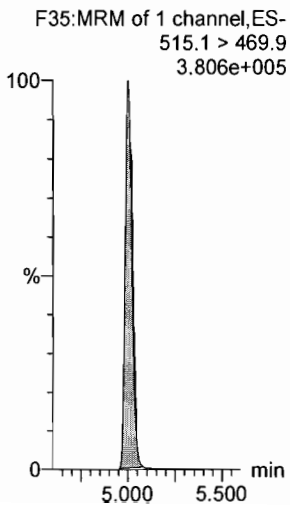
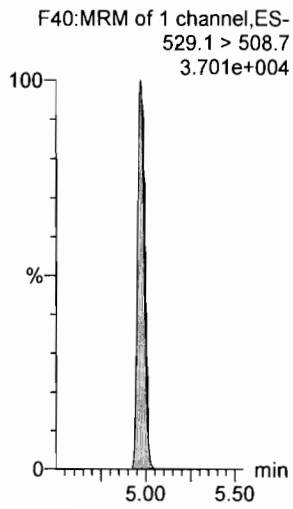


13C2-8:2 FTS



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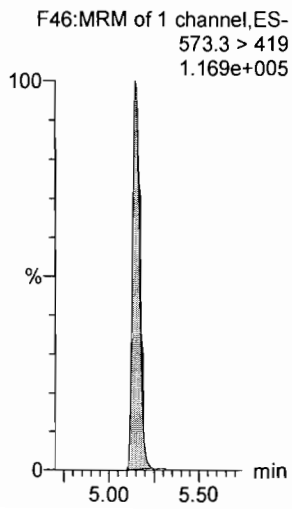

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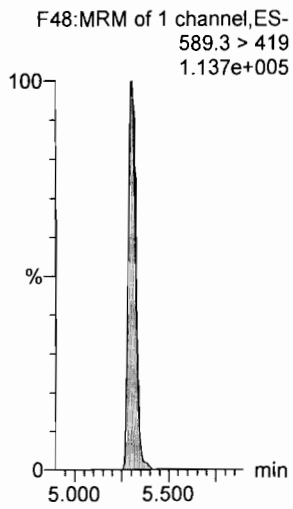

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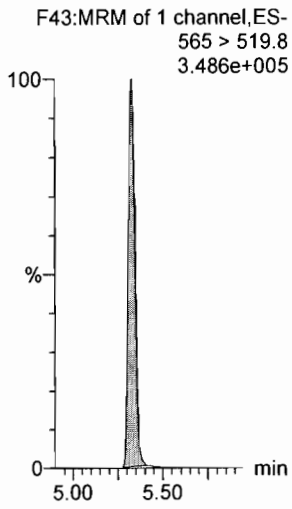

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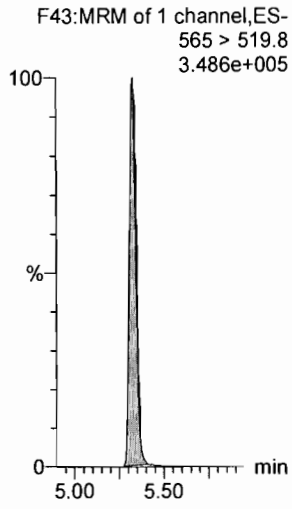

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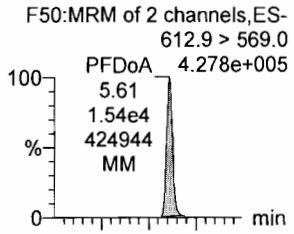
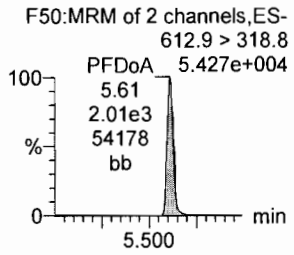
PFDoA





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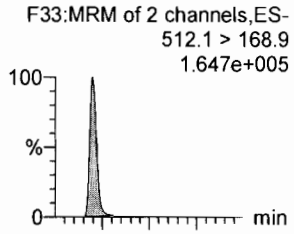

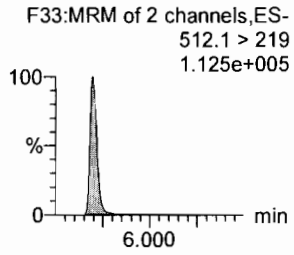

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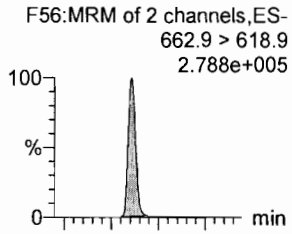

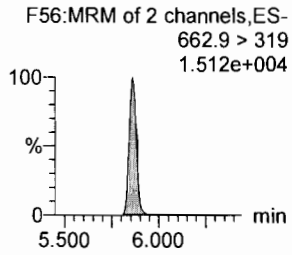

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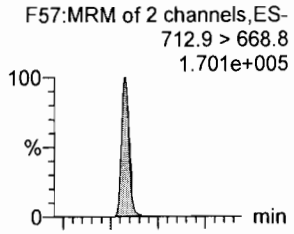

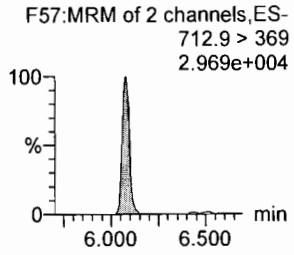

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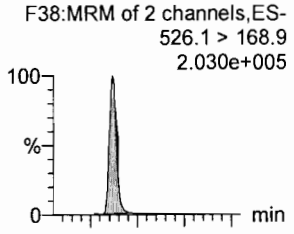

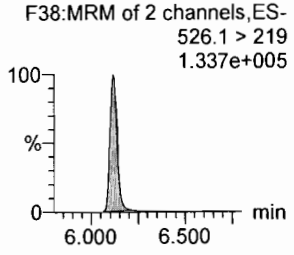

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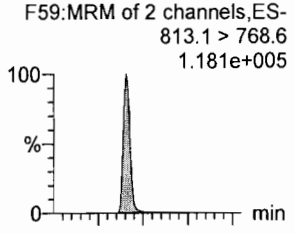

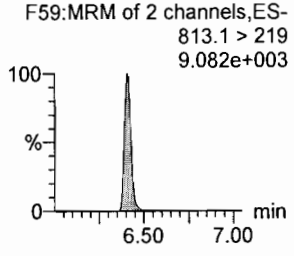

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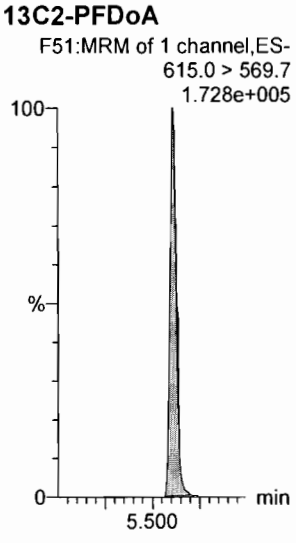
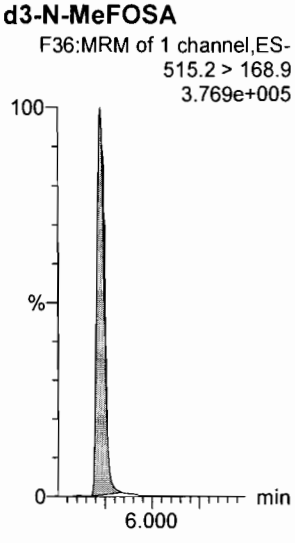
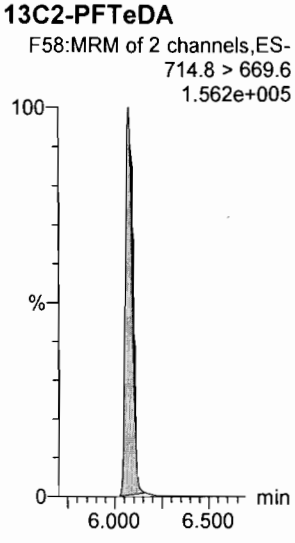


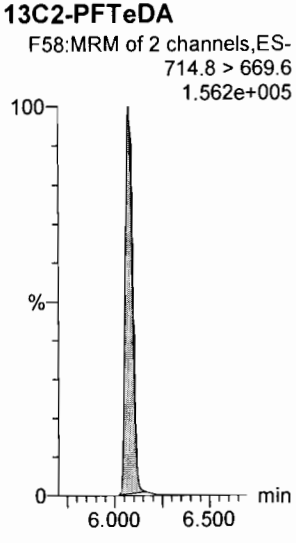
d3-N-MeFOSA



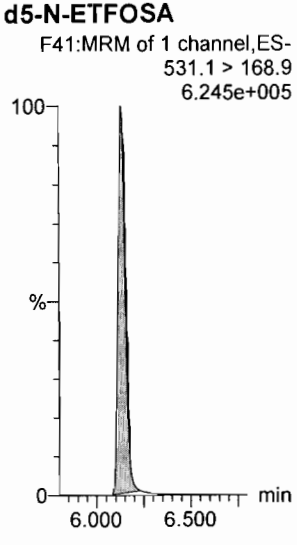
13C2-PFTeDA



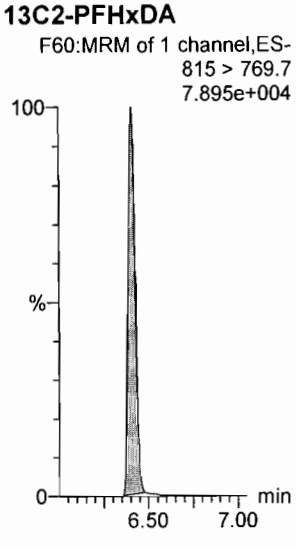
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



Dataset: U:\Q4.PRO\results\171209M2\171209M2-33.qld

Last Altered: Monday, December 11, 2017 14:05:01 Pacific Standard Time
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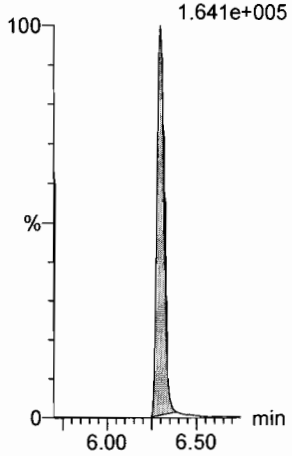
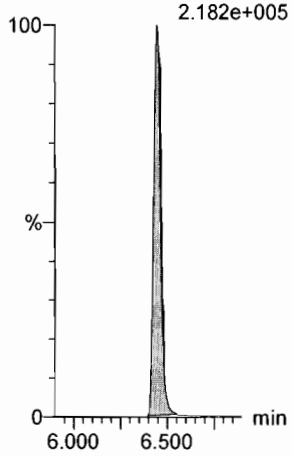
Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

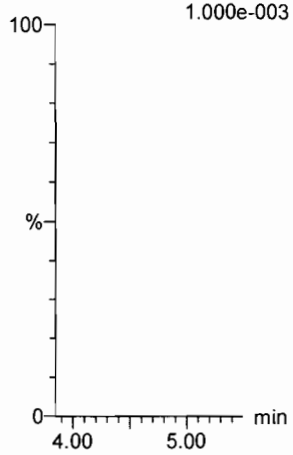
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.641e+005



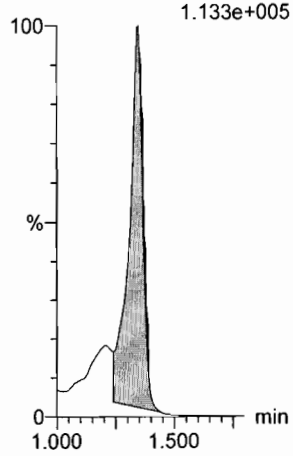
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.182e+005



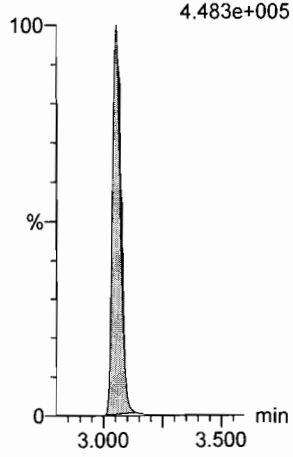
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



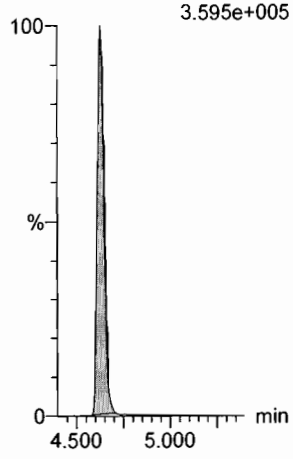
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.133e+005



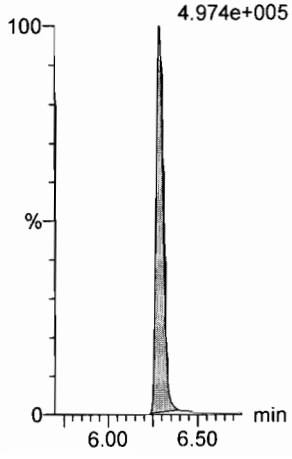
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.483e+005



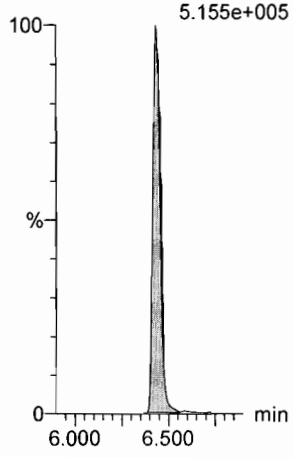
13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.595e+005



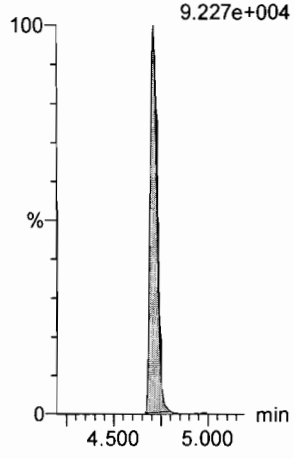
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.974e+005



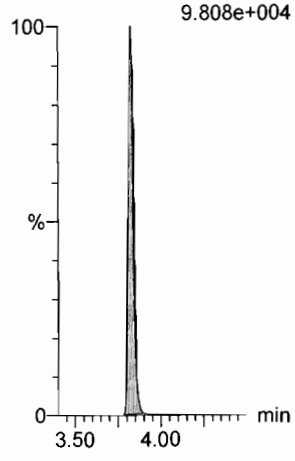
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.155e+005



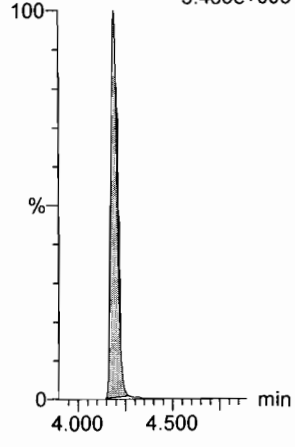
13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
9.227e+004



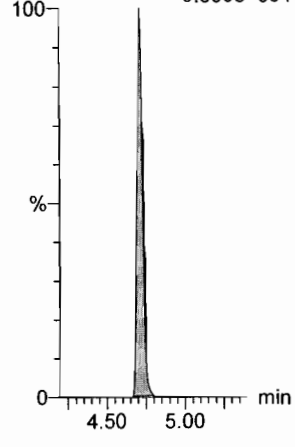
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.808e+004



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.465e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.600e+004

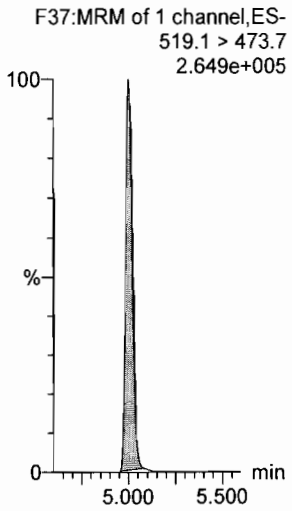


Dataset: U:\Q4.PRO\results\171209M2\171209M2-33.qld

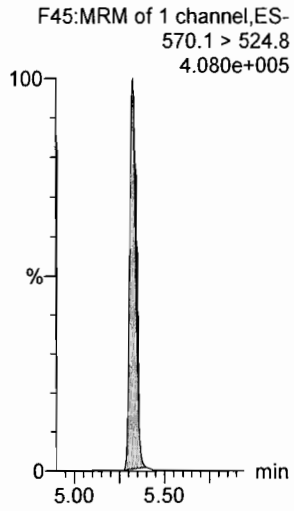
Last Altered: Monday, December 11, 2017 14:05:01 Pacific Standard Time
Printed: Monday, December 11, 2017 14:05:13 Pacific Standard Time

Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

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\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 14:15:50 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

AC 12/7/17
vJA 12/07/2017

Compound name: PFBA
Correlation coefficient: r = 0.998686, r^2 = 0.997373
Calibration curve: 1.10832 * x + 0.0143405
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	171206M2_2	Standard	0.250	1.36	278.069	13642.555	0.255	0.2	-13.2	NO	0.997	NO	MM
2	2	171206M2_3	Standard	0.500	1.36	590.474	14175.057	0.521	0.5	-8.6	NO	0.997	NO	MM
3	3	171206M2_4	Standard	1.000	1.36	1514.746	15030.140	1.260	1.1	12.4	NO	0.997	NO	MM
4	4	171206M2_5	Standard	2.000	1.36	2364.106	14054.637	2.103	1.9	-5.8	NO	0.997	NO	MM
5	5	171206M2_6	Standard	5.000	1.36	6895.399	14549.646	5.924	5.3	6.6	NO	0.997	NO	bb
6	6	171206M2_7	Standard	10.000	1.36	17401.836	18687.148	11.640	10.5	4.9	NO	0.997	NO	bb
7	7	171206M2_8	Standard	50.000	1.36	67509.086	14210.227	59.384	53.6	7.1	NO	0.997	NO	bb
8	8	171206M2_9	Standard	100.000	1.36	123111.867	13117.413	117.317	105.8	5.8	NO	0.997	NO	bb
9	9	171206M2_10	Standard	250.000	1.36	288008.031	13542.587	265.836	239.8	-4.1	NO	0.997	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.998614, r^2 = 0.997229
Calibration curve: 0.972109 * x + 0.0774544
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	171206M2_2	Standard	0.250	2.29	371.440	17502.943	0.265	0.2	-22.7	NO	0.997	NO	bb
2	2	171206M2_3	Standard	0.500	2.30	732.118	17995.742	0.509	0.4	-11.3	NO	0.997	NO	bb
3	3	171206M2_4	Standard	1.000	2.29	1808.976	18796.715	1.203	1.2	15.8	NO	0.997	NO	bb
4	4	171206M2_5	Standard	2.000	2.29	2897.999	17676.820	2.049	2.0	1.4	NO	0.997	NO	bb
5	5	171206M2_6	Standard	5.000	2.29	7511.828	17861.232	5.257	5.3	6.6	NO	0.997	NO	bb
6	6	171206M2_7	Standard	10.000	2.29	18602.855	23353.338	9.957	10.2	1.6	NO	0.997	NO	bb
7	7	171206M2_8	Standard	50.000	2.29	73752.766	17869.930	51.590	53.0	6.0	NO	0.997	NO	bb
8	8	171206M2_9	Standard	100.000	2.29	136016.703	16366.999	103.880	106.8	6.8	NO	0.997	NO	bb
9	9	171206M2_10	Standard	250.000	2.30	304516.406	16332.728	233.057	239.7	-4.1	NO	0.997	NO	bb

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

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Compound name: PFBS
Correlation coefficient: r = 0.999893, r^2 = 0.999786
Calibration curve: 2.15397 * x + 0.0874629
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	171206M2_2	Standard	0.250	2.57	94.923	2043.776	0.581	0.2	-8.4	NO	1.000	NO	bb
2	2	171206M2_3	Standard	0.500	2.57	180.751	2210.807	1.022	0.4	-13.2	NO	1.000	NO	bb
3	3	171206M2_4	Standard	1.000	2.57	449.186	2360.267	2.379	1.1	6.4	NO	1.000	NO	bb
4	4	171206M2_5	Standard	2.000	2.57	848.680	2235.553	4.745	2.2	8.1	NO	1.000	NO	bb
5	5	171206M2_6	Standard	5.000	2.57	2167.449	2403.644	11.272	5.2	3.8	NO	1.000	NO	bb
6	6	171206M2_7	Standard	10.000	2.57	4950.508	2762.616	22.400	10.4	3.6	NO	1.000	NO	bb
7	7	171206M2_8	Standard	50.000	2.57	19081.570	2238.062	106.574	49.4	-1.1	NO	1.000	NO	bb
8	8	171206M2_9	Standard	100.000	2.57	34286.617	1959.632	218.706	101.5	1.5	NO	1.000	NO	bb
9	9	171206M2_10	Standard	250.000	2.57	79906.148	1866.668	535.085	248.4	-0.6	NO	1.000	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.998723, r^2 = 0.997447
Calibration curve: 1.37447 * x + 0.214037
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	171206M2_2	Standard	0.250	3.06	606.931	6342.722	0.478	0.2	-23.1	NO	0.997	NO	bb
2	2	171206M2_3	Standard	0.500	3.06	1167.017	6802.323	0.858	0.5	-6.3	NO	0.997	NO	bb
3	3	171206M2_4	Standard	1.000	3.06	2402.817	7871.776	1.526	1.0	-4.5	NO	0.997	NO	bb
4	4	171206M2_5	Standard	2.000	3.06	4214.344	6758.872	3.118	2.1	5.6	NO	0.997	NO	bb
5	5	171206M2_6	Standard	5.000	3.06	11232.972	6987.527	8.038	5.7	13.8	NO	0.997	NO	bb
6	6	171206M2_7	Standard	10.000	3.06	28189.170	9283.116	15.183	10.9	8.9	NO	0.997	NO	bb
7	7	171206M2_8	Standard	50.000	3.06	101960.648	7201.673	70.790	51.3	2.7	NO	0.997	NO	bb
8	8	171206M2_9	Standard	100.000	3.06	186837.516	6362.954	146.817	106.7	6.7	NO	0.997	NO	bb
9	9	171206M2_10	Standard	250.000	3.06	405556.625	6132.189	330.679	240.4	-3.8	NO	0.997	NO	bb

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

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Compound name: PFHpA
Correlation coefficient: r = 0.999104, r^2 = 0.998209
Calibration curve: 1.35687 * x + 0.104387
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 171206M2_2	Standard	0.250	3.68	400.357	13149.318	0.381	0.2	-18.6	NO	0.998	NO	bb
2	2 171206M2_3	Standard	0.500	3.68	804.803	13628.666	0.738	0.5	-6.6	NO	0.998	NO	bb
3	3 171206M2_4	Standard	1.000	3.68	1783.151	14290.385	1.560	1.1	7.3	NO	0.998	NO	bb
4	4 171206M2_5	Standard	2.000	3.68	3174.270	13966.378	2.841	2.0	0.8	NO	0.998	NO	bb
5	5 171206M2_6	Standard	5.000	3.68	8120.016	13849.902	7.329	5.3	6.5	NO	0.998	NO	bb
6	6 171206M2_7	Standard	10.000	3.68	20318.814	18195.492	13.959	10.2	2.1	NO	0.998	NO	bb
7	7 171206M2_8	Standard	50.000	3.68	81408.898	13623.886	74.693	55.0	9.9	NO	0.998	NO	bb
8	8 171206M2_9	Standard	100.000	3.68	139703.688	12704.108	137.459	101.2	1.2	NO	0.998	NO	bb
9	9 171206M2_10	Standard	250.000	3.68	321451.875	12169.899	330.171	243.3	-2.7	NO	0.998	NO	bb

Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.998301
Calibration curve: -0.00174528 * x^2 + 2.29889 * x + -0.197003
Response type: Internal Std (Ref 36), 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 171206M2_2	Standard	0.250	3.83	47.791	1769.582	0.338	0.2	-7.0	NO	0.998	NO	MM
2	2 171206M2_3	Standard	0.500	3.83	151.227	1775.385	1.065	0.5	9.8	NO	0.998	NO	MM
3	3 171206M2_4	Standard	1.000	3.83	335.876	1943.010	2.161	1.0	2.6	NO	0.998	NO	MM
4	4 171206M2_5	Standard	2.000	3.83	676.466	1945.118	4.347	2.0	-1.0	NO	0.998	NO	MM
5	5 171206M2_6	Standard	5.000	3.83	1706.711	1838.649	11.603	5.2	3.1	NO	0.998	NO	MM
6	6 171206M2_7	Standard	10.000	3.83	4463.724	2607.239	21.401	9.5	-5.4	NO	0.998	NO	MM
7	7 171206M2_8	Standard	50.000	3.83	15857.422	1929.995	102.704	46.4	-7.2	NO	0.998	NO	MM
8	8 171206M2_9	Standard	100.000	3.83	30522.965	1705.488	223.711	105.9	5.9	NO	0.998	NO	MM
9	9 171206M2_10	Standard	250.000	3.83	65607.539	1773.431	462.434	247.9	-0.8	NO	0.998	NO	MM

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997347
Calibration curve: -0.00413586 * x^2 + 1.19768 * x + -0.00437074
Response type: Internal Std (Ref 37), 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	171206M2_2	Standard	0.250	4.14	93.126	3665.118	0.318	0.3	7.6	NO	0.997	NO	bb
2	2	171206M2_3	Standard	0.500	4.15	178.526	3501.219	0.637	0.5	7.4	NO	0.997	NO	bb
3	3	171206M2_4	Standard	1.000	4.14	396.325	4542.518	1.091	0.9	-8.3	NO	0.997	NO	bb
4	4	171206M2_5	Standard	2.000	4.15	703.674	4269.098	2.060	1.7	-13.3	NO	0.997	NO	bb
5	5	171206M2_6	Standard	5.000	4.14	2035.207	4497.431	5.657	4.8	-3.9	NO	0.997	NO	bb
6	6	171206M2_7	Standard	10.000	4.14	5554.770	5336.609	13.011	11.3	13.1	NO	0.997	NO	bb
7	7	171206M2_8	Standard	50.000	4.14	18625.594	4847.406	48.030	48.1	-3.8	NO	0.997	NO	bb
8	8	171206M2_9	Standard	100.000	4.15	29877.078	4725.387	79.033	101.7	1.7	NO	0.997	NO	bb
9	9	171206M2_10	Standard	250.000	4.14	71609.242	6193.788	144.518			NO	0.997	NO	bbXI

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998986
Calibration curve: -0.000747737 * x^2 + 1.01531 * x + 0.398815
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	171206M2_2	Standard	0.250	4.21	647.783	17122.166	0.473	0.1	-70.8	NO	0.999	NO	bbX
2	2	171206M2_3	Standard	0.500	4.20	1126.228	16414.160	0.858	0.5	-9.6	NO	0.999	NO	bb
3	3	171206M2_4	Standard	1.000	4.20	2103.637	21394.035	1.229	0.8	-18.2	NO	0.999	NO	bb
4	4	171206M2_5	Standard	2.000	4.20	3521.139	16178.457	2.721	2.3	14.5	NO	0.999	NO	bb
5	5	171206M2_6	Standard	5.000	4.20	8737.844	19425.684	5.623	5.2	3.3	NO	0.999	NO	bb
6	6	171206M2_7	Standard	10.000	4.20	21202.217	22418.568	11.822	11.3	13.5	NO	0.999	NO	bb
7	7	171206M2_8	Standard	50.000	4.20	75427.469	19713.932	47.826	48.4	-3.1	NO	0.999	NO	bb
8	8	171206M2_9	Standard	100.000	4.20	135476.563	18036.664	93.890	99.3	-0.7	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	4.21	273196.563	16421.664	207.954	250.7	0.3	NO	0.999	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999607
Calibration curve: -0.000220402 * x^2 + 0.262137 * x + -0.002666
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	171206M2_2	Standard	0.250	4.31	80.879	17122.166	0.059	0.2	-5.8	NO	1.000	NO	bb
2	2	171206M2_3	Standard	0.500	4.31	187.732	16414.160	0.143	0.6	11.2	NO	1.000	NO	bb
3	3	171206M2_4	Standard	1.000	4.31	405.139	21394.035	0.237	0.9	-8.6	NO	1.000	NO	bb
4	4	171206M2_5	Standard	2.000	4.31	748.713	16178.457	0.578	2.2	11.1	NO	1.000	NO	bb
5	5	171206M2_6	Standard	5.000	4.31	1926.657	19425.684	1.240	4.8	-4.8	NO	1.000	NO	bb
6	6	171206M2_7	Standard	10.000	4.31	4536.028	22418.568	2.529	9.7	-2.6	NO	1.000	NO	bb
7	7	171206M2_8	Standard	50.000	4.31	19367.303	19713.932	12.280	48.9	-2.3	NO	1.000	NO	bb
8	8	171206M2_9	Standard	100.000	4.31	35359.609	18036.664	24.505	102.3	2.3	NO	1.000	NO	bb
9	9	171206M2_10	Standard	250.000	4.31	67808.625	16421.664	51.615	249.1	-0.4	NO	1.000	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.995271
Calibration curve: -0.000705277 * x^2 + 1.32916 * x + 0.0337343
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	171206M2_2	Standard	0.250	4.63	498.592	17438.344	0.357	0.2	-2.6	NO	0.995	NO	bb
2	2	171206M2_3	Standard	0.500	4.63	1006.370	19717.799	0.638	0.5	-9.1	NO	0.995	NO	bb
3	3	171206M2_4	Standard	1.000	4.63	1805.408	19882.078	1.135	0.8	-17.1	NO	0.995	NO	bb
4	4	171206M2_5	Standard	2.000	4.63	3828.463	15728.210	3.043	2.3	13.3	NO	0.995	NO	bb
5	5	171206M2_6	Standard	5.000	4.64	10193.963	17987.682	7.084	5.3	6.4	NO	0.995	NO	bb
6	6	171206M2_7	Standard	10.000	4.63	25414.416	22630.730	14.038	10.6	6.0	NO	0.995	NO	bb
7	7	171206M2_8	Standard	50.000	4.63	89228.008	15452.905	72.177	55.9	11.9	NO	0.995	NO	bb
8	8	171206M2_9	Standard	100.000	4.64	144479.313	15851.788	113.930	90.0	-10.0	NO	0.995	NO	bb
9	9	171206M2_10	Standard	250.000	4.64	388637.531	16665.496	291.499	253.3	1.3	NO	0.995	NO	bb

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Compound name: PFOSA
Coefficient of Determination: R^2 = 0.997491
Calibration curve: -0.00130735 * x^2 + 1.22283 * x + -0.291621
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 171206M2_2	Standard	0.250	4.69	133.343	5725.768	0.291	0.5	90.7	NO	0.997	NO	bbX
2	2 171206M2_3	Standard	0.500	4.69	232.718	6034.938	0.482	0.6	26.6	NO	0.997	NO	bb
3	3 171206M2_4	Standard	1.000	4.69	585.061	6748.446	1.084	1.1	12.6	NO	0.997	NO	bb
4	4 171206M2_5	Standard	2.000	4.70	816.066	6082.819	1.677	1.6	-19.4	NO	0.997	NO	bb
5	5 171206M2_6	Standard	5.000	4.69	2590.106	5986.910	5.408	4.7	-6.3	NO	0.997	NO	bb
6	6 171206M2_7	Standard	10.000	4.69	6185.101	7780.234	9.937	8.4	-15.6	NO	0.997	NO	bb
7	7 171206M2_8	Standard	50.000	4.69	23165.102	5169.390	56.015	48.6	-2.9	NO	0.997	NO	bb
8	8 171206M2_9	Standard	100.000	4.70	45509.461	4952.032	114.876	106.2	6.2	NO	0.997	NO	bb
9	9 171206M2_10	Standard	250.000	4.69	86185.813	4858.857	221.723	246.5	-1.4	NO	0.997	NO	bb

Compound name: L-PFOS
Correlation coefficient: r = 0.999019, r^2 = 0.998039
Calibration curve: 1.00074 * x + 0.0551833
Response type: Internal Std (Ref 41), 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 171206M2_2	Standard	0.250	4.72	97.652	4537.465	0.269	0.2	-14.5	NO	0.998	NO	MM
2	2 171206M2_3	Standard	0.500	4.72	238.872	4274.405	0.699	0.6	28.6	NO	0.998	NO	MM
3	3 171206M2_4	Standard	1.000	4.72	504.057	5381.812	1.171	1.1	11.5	NO	0.998	NO	MM
4	4 171206M2_5	Standard	2.000	4.72	681.744	4283.492	1.989	1.9	-3.4	NO	0.998	NO	MM
5	5 171206M2_6	Standard	5.000	4.72	1938.161	5121.273	4.731	4.7	-6.6	NO	0.998	NO	MM
6	6 171206M2_7	Standard	10.000	4.72	5007.447	6178.778	10.130	10.1	0.7	NO	0.998	NO	MM
7	7 171206M2_8	Standard	50.000	4.72	18783.852	4590.528	51.148	51.1	2.1	NO	0.998	NO	MM
8	8 171206M2_9	Standard	100.000	4.72	36561.551	4276.068	106.878	106.7	6.7	NO	0.998	NO	MM
9	9 171206M2_10	Standard	250.000	4.72	75561.922	3894.268	242.542	242.3	-3.1	NO	0.998	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.997726
Calibration curve: 0.000199106 * x^2 + 1.14347 * x + 0.120063
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	171206M2_2	Standard	0.250	5.01	551.700	17170.455	0.402	0.2	-1.5	NO	0.998	NO	bb
2	2	171206M2_3	Standard	0.500	5.01	997.297	18189.254	0.685	0.5	-1.1	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	5.01	1662.349	17262.611	1.204	0.9	-5.2	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	5.01	3678.794	19594.611	2.347	1.9	-2.7	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	5.01	9410.146	21431.703	5.488	4.7	-6.2	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	5.01	22745.607	20064.494	14.170	12.3	22.6	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	5.01	79901.898	18895.734	52.857	45.8	-8.5	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	5.01	157450.750	16444.840	119.681	102.7	2.7	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	5.01	355725.250	14919.661	298.034	249.7	-0.1	NO	0.998	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997649
Calibration curve: -0.00720884 * x^2 + 1.97849 * x + -0.0393974
Response type: Internal Std (Ref 43), 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	171206M2_2	Standard	0.250	4.98	70.824	2154.095	0.411	0.2	-8.9	NO	0.998	NO	bb
2	2	171206M2_3	Standard	0.500	4.98	129.887	1949.660	0.833	0.4	-11.7	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	4.98	427.285	2535.809	2.106	1.1	8.9	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	4.98	704.999	1911.800	4.610	2.4	18.5	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	4.98	1627.256	2408.334	8.446	4.4	-12.8	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	4.98	4523.945	3096.835	18.260	9.6	-4.2	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	4.98	16453.121	2474.042	83.129	51.8	3.6	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	4.98	28282.805	2834.836	124.711	98.2	-1.8	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	4.98	66187.156	3701.011	223.544			NO	0.998	NO	bbXI

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999781
Calibration curve: -0.00160688 * x^2 + 1.78392 * x + -0.308334
Response type: Internal Std (Ref 44), 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	171206M2_2	Standard	0.250	5.16	235.733	6211.603	0.474	0.4	75.6	NO	1.000	NO	bbX
2	2	171206M2_3	Standard	0.500	5.16	313.628	7012.357	0.559	0.5	-2.7	NO	1.000	NO	bb
3	3	171206M2_4	Standard	1.000	5.16	837.980	7401.974	1.415	1.0	-3.3	NO	1.000	NO	bb
4	4	171206M2_5	Standard	2.000	5.16	1854.289	6449.995	3.594	2.2	9.6	NO	1.000	NO	bb
5	5	171206M2_6	Standard	5.000	5.16	5116.839	7307.971	8.752	5.1	2.0	NO	1.000	NO	bb
6	6	171206M2_7	Standard	10.000	5.16	10402.152	7984.079	16.286	9.4	-6.2	NO	1.000	NO	bb
7	7	171206M2_8	Standard	50.000	5.16	44679.746	6575.747	84.933	50.0	0.1	NO	1.000	NO	bb
8	8	171206M2_9	Standard	100.000	5.16	84239.992	6462.234	162.947	100.6	0.6	NO	1.000	NO	bb
9	9	171206M2_10	Standard	250.000	5.16	168550.344	6108.760	344.895	249.6	-0.1	NO	1.000	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999138
Calibration curve: -0.000300813 * x^2 + 1.05519 * x + -0.0165132
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	171206M2_2	Standard	0.250	5.32	157.980	7188.430	0.275	0.3	10.4	NO	0.999	NO	bb
2	2	171206M2_3	Standard	0.500	5.32	298.094	7063.249	0.528	0.5	3.1	NO	0.999	NO	bb
3	3	171206M2_4	Standard	1.000	5.32	601.245	7812.819	0.962	0.9	-7.2	NO	0.999	NO	bb
4	4	171206M2_5	Standard	2.000	5.32	1149.387	7973.424	1.802	1.7	-13.8	NO	0.999	NO	bb
5	5	171206M2_6	Standard	5.000	5.32	3648.373	8668.059	5.261	5.0	0.2	NO	0.999	NO	bb
6	6	171206M2_7	Standard	10.000	5.32	8571.696	9885.477	10.839	10.3	3.2	NO	0.999	NO	bb
7	7	171206M2_8	Standard	50.000	5.32	30438.664	7730.146	49.221	47.3	-5.4	NO	0.999	NO	bb
8	8	171206M2_9	Standard	100.000	5.32	54792.504	6450.826	106.173	103.7	3.7	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	5.32	118039.625	6045.842	244.051	249.0	-0.4	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.998629
Calibration curve: -0.00128299 * x^2 + 1.22518 * x + -0.0916436
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	171206M2_2	Standard	0.250	5.33	408.544	21064.824	0.242	0.3	9.1	NO	0.999	NO	bb
2	2	171206M2_3	Standard	0.500	5.33	621.318	18564.963	0.418	0.4	-16.7	NO	0.999	NO	bb
3	3	171206M2_4	Standard	1.000	5.33	1790.872	19031.639	1.176	1.0	3.6	NO	0.999	NO	bb
4	4	171206M2_5	Standard	2.000	5.33	3463.489	15749.710	2.749	2.3	16.2	NO	0.999	NO	bb
5	5	171206M2_6	Standard	5.000	5.33	7202.138	16523.117	5.449	4.5	-9.1	NO	0.999	NO	bb
6	6	171206M2_7	Standard	10.000	5.33	20056.920	21177.686	11.838	9.8	-1.6	NO	0.999	NO	bb
7	7	171206M2_8	Standard	50.000	5.33	88176.250	20038.816	55.003	47.3	-5.4	NO	0.999	NO	bb
8	8	171206M2_9	Standard	100.000	5.33	148348.719	16245.133	114.149	104.7	4.7	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	5.34	281626.063	15659.711	224.801	247.9	-0.8	NO	0.999	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.997842
Calibration curve: -7.41747e-005 * x^2 + 0.294349 * x + 0.0371918
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	171206M2_2	Standard	0.250	5.38	90.757	21064.824	0.054	0.1	-77.4	NO	0.998	NO	bbX
2	2	171206M2_3	Standard	0.500	5.38	224.869	18564.963	0.151	0.4	-22.4	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	5.38	479.375	19031.639	0.315	0.9	-5.6	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	5.37	882.441	15749.710	0.700	2.3	12.7	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	5.38	2235.298	16523.117	1.691	5.6	12.5	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	5.38	5473.275	21177.686	3.231	10.9	8.8	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	5.37	21146.756	20038.816	13.191	45.2	-9.6	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	5.37	38747.156	16245.133	29.814	103.9	3.9	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	5.38	86211.258	15659.711	68.816	249.3	-0.3	NO	0.998	NO	bb

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999373
Calibration curve: -0.0021955 * x^2 + 2.73148 * x + -0.0111516
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	171206M2_2	Standard	0.250	5.61	557.808	9197.374	0.758	0.3	12.7	NO	0.999	NO	bd
2	2	171206M2_3	Standard	0.500	5.61	1075.769	9515.929	1.413	0.5	4.3	NO	0.999	NO	bd
3	3	171206M2_4	Standard	1.000	5.61	1857.768	10283.695	2.258	0.8	-16.9	NO	0.999	NO	bd
4	4	171206M2_5	Standard	2.000	5.61	3639.711	7265.262	6.262	2.3	15.0	NO	0.999	NO	bd
5	5	171206M2_6	Standard	5.000	5.61	9798.510	10414.291	11.761	4.3	-13.5	NO	0.999	NO	bd
6	6	171206M2_7	Standard	10.000	5.61	23206.732	11056.056	26.238	9.7	-3.1	NO	0.999	NO	bd
7	7	171206M2_8	Standard	50.000	5.61	97257.531	9212.243	131.968	50.4	0.7	NO	0.999	NO	bd
8	8	171206M2_9	Standard	100.000	5.61	143257.563	7063.934	253.502	101.0	1.0	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	5.61	375772.625	8624.977	544.599	249.4	-0.3	NO	0.999	NO	bb

Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999757
Calibration curve: -0.000191452 * x^2 + 1.20181 * x + -0.0200371
Response type: Internal Std (Ref 48), 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	171206M2_2	Standard	1.250	5.69	173.572	22033.928	1.182	1.0	-20.0	NO	1.000	NO	bb
2	2	171206M2_3	Standard	2.500	5.69	465.425	21322.523	3.274	2.7	9.7	NO	1.000	NO	bb
3	3	171206M2_4	Standard	5.000	5.69	1052.844	23682.623	6.668	5.6	11.4	NO	1.000	NO	bb
4	4	171206M2_5	Standard	10.000	5.69	1574.165	21847.973	10.808	9.0	-9.8	NO	1.000	NO	bb
5	5	171206M2_6	Standard	25.000	5.69	4713.285	22101.295	31.989	26.7	7.0	NO	1.000	NO	bb
6	6	171206M2_7	Standard	50.000	5.69	11279.521	28095.451	60.221	50.5	1.1	NO	1.000	NO	bb
7	7	171206M2_8	Standard	250.000	5.69	42249.969	22049.119	287.426	249.1	-0.4	NO	1.000	NO	bb
8	8	171206M2_9	Standard	500.000	5.69	76737.609	20897.273	550.820	497.8	-0.4	NO	1.000	NO	bb
9	9	171206M2_10	Standard	1250.000	5.69	170723.359	21267.193	1204.132	1251.4	0.1	NO	1.000	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.997598
Calibration curve: -0.00259552 * x^2 + 2.54506 * x + -0.107534
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	171206M2_2	Standard	0.250	5.86	513.330	9197.374	0.698	0.3	26.6	NO	0.998	NO	bb
2	2	171206M2_3	Standard	0.500	5.86	781.086	9515.929	1.026	0.4	-10.9	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	5.86	1953.802	10283.695	2.375	1.0	-2.4	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	5.86	3344.990	7265.262	5.755	2.3	15.4	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	5.86	8490.749	10414.291	10.191	4.1	-18.7	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	5.86	19617.340	11056.056	22.179	8.8	-11.6	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	5.85	86163.336	9212.243	116.914	48.4	-3.3	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	5.86	136018.609	7063.934	240.692	106.1	6.1	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	5.86	324261.563	8624.977	469.946	246.8	-1.3	NO	0.998	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.992826
Calibration curve: -0.00193714 * x^2 + 1.81348 * x + -0.136996
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	171206M2_2	Standard	0.250	6.07	272.987	8593.454	0.397	0.3	17.8	NO	0.993	NO	MM
2	2	171206M2_3	Standard	0.500	6.08	610.004	9632.420	0.792	0.5	2.5	NO	0.993	NO	bb
3	3	171206M2_4	Standard	1.000	6.07	1389.429	8815.953	1.970	1.2	16.3	NO	0.993	NO	bb
4	4	171206M2_5	Standard	2.000	6.07	2249.206	9915.026	2.836	1.6	-17.9	NO	0.993	NO	bb
5	5	171206M2_6	Standard	5.000	6.08	6481.811	8723.810	9.288	5.2	4.5	NO	0.993	NO	bb
6	6	171206M2_7	Standard	10.000	6.07	11740.160	10710.985	13.701	7.7	-23.1	NO	0.993	NO	bb
7	7	171206M2_8	Standard	50.000	6.07	49227.453	7928.628	77.610	45.0	-9.9	NO	0.993	NO	bb
8	8	171206M2_9	Standard	100.000	6.07	111140.859	7764.407	178.927	112.2	12.2	NO	0.993	NO	bb
9	9	171206M2_10	Standard	250.000	6.08	229852.438	8783.651	327.103	244.1	-2.4	NO	0.993	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999893
Calibration curve: -0.000107824 * x^2 + 0.954175 * x + 0.127347
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	171206M2_2	Standard	1.250	6.09	279.861	34321.457	1.223	1.1	-8.1	NO	1.000	NO	bb
2	2	171206M2_3	Standard	2.500	6.09	562.938	35035.242	2.410	2.4	-4.3	NO	1.000	NO	bb
3	3	171206M2_4	Standard	5.000	6.09	1275.132	37623.980	5.084	5.2	3.9	NO	1.000	NO	bb
4	4	171206M2_5	Standard	10.000	6.09	2281.998	34991.770	9.782	10.1	1.3	NO	1.000	NO	bb
5	5	171206M2_6	Standard	25.000	6.09	5983.166	35960.977	24.957	26.1	4.4	NO	1.000	NO	bb
6	6	171206M2_7	Standard	50.000	6.09	14794.262	44977.496	49.339	51.9	3.8	NO	1.000	NO	bb
7	7	171206M2_8	Standard	250.000	6.09	55329.336	35877.816	231.324	249.3	-0.3	NO	1.000	NO	bb
8	8	171206M2_9	Standard	500.000	6.09	96229.555	32339.246	446.344	495.4	-0.9	NO	1.000	NO	bb
9	9	171206M2_10	Standard	1250.000	6.10	208857.703	30535.777	1025.966	1252.3	0.2	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998494
Calibration curve: -0.000368339 * x^2 + 0.622101 * x + 0.0560203
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	171206M2_2	Standard	0.250	6.40	171.186	4769.621	0.179	0.2	-20.6	NO	0.998	NO	MM
2	2	171206M2_3	Standard	0.500	6.40	390.231	5032.743	0.388	0.5	6.7	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	6.40	806.255	5443.975	0.741	1.1	10.1	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	6.41	1281.610	4700.701	1.363	2.1	5.2	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	6.40	3603.299	5447.780	3.307	5.2	4.8	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	6.41	7037.387	6229.217	5.649	9.0	-9.6	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	6.40	32207.855	4981.660	32.326	53.6	7.1	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	6.41	51045.684	4532.478	56.311	95.9	-4.1	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	6.41	121356.055	4559.811	133.071	251.2	0.5	NO	0.998	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.998652
Calibration curve: -0.00102948 * x^2 + 0.841165 * x + -0.0270457
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	171206M2_2	Standard	0.250	6.64	205.838	4769.621	0.216	0.3	15.5	NO	0.999	NO	bb
2	2	171206M2_3	Standard	0.500	6.64	360.521	5032.743	0.358	0.5	-8.4	NO	0.999	NO	bb
3	3	171206M2_4	Standard	1.000	6.64	932.583	5443.975	0.857	1.1	5.2	NO	0.999	NO	bb
4	4	171206M2_5	Standard	2.000	6.64	1459.047	4700.701	1.552	1.9	-5.9	NO	0.999	NO	bb
5	5	171206M2_6	Standard	5.000	6.64	3861.675	5447.780	3.544	4.3	-14.6	NO	0.999	NO	bb
6	6	171206M2_7	Standard	10.000	6.64	9719.288	6229.217	7.801	9.4	-5.8	NO	0.999	NO	bb
7	7	171206M2_8	Standard	50.000	6.63	38297.055	4981.660	38.438	48.6	-2.8	NO	0.999	NO	bb
8	8	171206M2_9	Standard	100.000	6.63	69811.828	4532.478	77.013	105.1	5.1	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	6.64	132116.578	4559.811	144.871	246.8	-1.3	NO	0.999	NO	bb

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997042
Calibration curve: -6.41595e-005 * x^2 + 0.981257 * x + 0.0648122
Response type: Internal Std (Ref 52), 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	171206M2_2	Standard	1.250	6.26	162.631	25807.748	0.945	0.9	-28.2	NO	0.997	NO	bb
2	2	171206M2_3	Standard	2.500	6.26	582.580	30817.412	2.836	2.8	13.0	NO	0.997	NO	bb
3	3	171206M2_4	Standard	5.000	6.27	1021.064	27464.326	5.577	5.6	12.4	NO	0.997	NO	bb
4	4	171206M2_5	Standard	10.000	6.26	1678.457	32317.695	7.790	7.9	-21.2	NO	0.997	NO	bb
5	5	171206M2_6	Standard	25.000	6.26	4981.546	29205.326	25.585	26.1	4.2	NO	0.997	NO	bb
6	6	171206M2_7	Standard	50.000	6.26	15531.390	37718.203	61.766	63.1	26.3	NO	0.997	NO	bb
7	7	171206M2_8	Standard	250.000	6.26	52713.656	35266.438	224.209	231.9	-7.2	NO	0.997	NO	bb
8	8	171206M2_9	Standard	500.000	6.26	85598.297	26869.625	477.854	503.5	0.7	NO	0.997	NO	bb
9	9	171206M2_10	Standard	1250.000	6.26	206989.688	27524.721	1128.021	1252.0	0.2	NO	0.997	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999598, r^2 = 0.999196
Calibration curve: 1.09203 * x + 0.298787
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	171206M2_2	Standard	1.250	6.41	289.969	27836.420	1.563	1.2	-7.4	NO	0.999	NO	bb
2	2	171206M2_3	Standard	2.500	6.41	540.351	31725.553	2.555	2.1	-17.4	NO	0.999	NO	bb
3	3	171206M2_4	Standard	5.000	6.42	1253.205	29700.195	6.329	5.5	10.4	NO	0.999	NO	bb
4	4	171206M2_5	Standard	10.000	6.41	2611.262	31791.846	12.320	11.0	10.1	NO	0.999	NO	bb
5	5	171206M2_6	Standard	25.000	6.41	6353.529	31203.311	30.543	27.7	10.8	NO	0.999	NO	bb
6	6	171206M2_7	Standard	50.000	6.41	14336.732	42279.156	50.865	46.3	-7.4	NO	0.999	NO	bb
7	7	171206M2_8	Standard	250.000	6.41	55759.457	31090.572	269.018	246.1	-1.6	NO	0.999	NO	bb
8	8	171206M2_9	Standard	500.000	6.41	106647.883	28281.070	565.650	517.7	3.5	NO	0.999	NO	bb
9	9	171206M2_10	Standard	1250.000	6.42	228727.328	25408.611	1350.294	1236.2	-1.1	NO	0.999	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.872841
RRF SD: 0.0160859, Relative SD: 1.84294
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	171206M2_2	Standard	12.500	1.36	13642.555	15438.185	11.046	12.7	1.2	NO		NO	bb
2	2	171206M2_3	Standard	12.500	1.36	14175.057	16299.472	10.871	12.5	-0.4	NO		NO	bb
3	3	171206M2_4	Standard	12.500	1.36	15030.140	17308.971	10.854	12.4	-0.5	NO		NO	bb
4	4	171206M2_5	Standard	12.500	1.36	14054.637	16109.149	10.906	12.5	-0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	1.36	14549.646	16614.520	10.946	12.5	0.3	NO		NO	MM
6	6	171206M2_7	Standard	12.500	1.36	18687.148	20956.395	11.146	12.8	2.2	NO		NO	bb
7	7	171206M2_8	Standard	12.500	1.36	14210.227	16443.830	10.802	12.4	-1.0	NO		NO	MM
8	8	171206M2_9	Standard	12.500	1.36	13117.413	15637.119	10.486	12.0	-3.9	NO		NO	MM
9	9	171206M2_10	Standard	12.500	1.36	13542.587	15200.275	11.137	12.8	2.1	NO		NO	MM

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Compound name: 13C3-PFPeA
Response Factor: 0.789339
RRF SD: 0.0400127, Relative SD: 5.06914
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	171206M2_2	Standard	12.500	2.29	17502.943	23033.324	9.499	12.0	-3.7	NO		NO	bb
2	2	171206M2_3	Standard	12.500	2.29	17995.742	24436.158	9.205	11.7	-6.7	NO		NO	bb
3	3	171206M2_4	Standard	12.500	2.29	18796.715	25681.328	9.149	11.6	-7.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	2.29	17676.820	21616.131	10.222	13.0	3.6	NO		NO	bb
5	5	171206M2_6	Standard	12.500	2.29	17861.232	21900.307	10.195	12.9	3.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	2.29	23353.338	30349.830	9.618	12.2	-2.5	NO		NO	bb
7	7	171206M2_8	Standard	12.500	2.29	17869.930	21999.684	10.154	12.9	2.9	NO		NO	bb
8	8	171206M2_9	Standard	12.500	2.29	16366.999	19846.414	10.309	13.1	4.5	NO		NO	bb
9	9	171206M2_10	Standard	12.500	2.29	16332.728	19536.061	10.450	13.2	5.9	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.0968146
RRF SD: 0.0071038, Relative SD: 7.33753
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	171206M2_2	Standard	12.500	2.57	2043.776	23033.324	1.109	11.5	-8.3	NO		NO	bb
2	2	171206M2_3	Standard	12.500	2.57	2210.807	24436.158	1.131	11.7	-6.6	NO		NO	bb
3	3	171206M2_4	Standard	12.500	2.57	2360.267	25681.328	1.149	11.9	-5.1	NO		NO	bb
4	4	171206M2_5	Standard	12.500	2.57	2235.553	21616.131	1.293	13.4	6.8	NO		NO	bb
5	5	171206M2_6	Standard	12.500	2.57	2403.644	21900.307	1.372	14.2	13.4	NO		NO	bb
6	6	171206M2_7	Standard	12.500	2.57	2762.616	30349.830	1.138	11.8	-6.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	2.57	2238.062	21999.684	1.272	13.1	5.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	2.57	1959.632	19846.414	1.234	12.7	2.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	2.57	1866.668	19536.061	1.194	12.3	-1.3	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.76659
RRF SD: 0.0454573, Relative SD: 5.9298
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	171206M2_2	Standard	5.000	3.06	6342.722	23033.324	3.442	4.5	-10.2	NO		NO	bb
2	2	171206M2_3	Standard	5.000	3.06	6802.323	24436.158	3.480	4.5	-9.2	NO		NO	bb
3	3	171206M2_4	Standard	5.000	3.06	7871.776	25681.328	3.831	5.0	-0.0	NO		NO	bb
4	4	171206M2_5	Standard	5.000	3.06	6758.872	21616.131	3.908	5.1	2.0	NO		NO	bb
5	5	171206M2_6	Standard	5.000	3.06	6987.527	21900.307	3.988	5.2	4.1	NO		NO	bb
6	6	171206M2_7	Standard	5.000	3.06	9283.116	30349.830	3.823	5.0	-0.2	NO		NO	bb
7	7	171206M2_8	Standard	5.000	3.06	7201.673	21999.684	4.092	5.3	6.8	NO		NO	bb
8	8	171206M2_9	Standard	5.000	3.06	6362.954	19846.414	4.008	5.2	4.6	NO		NO	bb
9	9	171206M2_10	Standard	5.000	3.06	6132.189	19536.061	3.924	5.1	2.4	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.605049
RRF SD: 0.0353312, Relative SD: 5.83939
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	171206M2_2	Standard	12.500	3.68	13149.318	23033.324	7.136	11.8	-5.6	NO		NO	bb
2	2	171206M2_3	Standard	12.500	3.68	13628.666	24436.158	6.972	11.5	-7.8	NO		NO	bb
3	3	171206M2_4	Standard	12.500	3.68	14290.385	25681.328	6.956	11.5	-8.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	3.68	13966.378	21616.131	8.076	13.3	6.8	NO		NO	bb
5	5	171206M2_6	Standard	12.500	3.68	13849.902	21900.307	7.905	13.1	4.5	NO		NO	bb
6	6	171206M2_7	Standard	12.500	3.68	18195.492	30349.830	7.494	12.4	-0.9	NO		NO	bb
7	7	171206M2_8	Standard	12.500	3.68	13623.886	21999.684	7.741	12.8	2.4	NO		NO	bb
8	8	171206M2_9	Standard	12.500	3.68	12704.108	19846.414	8.002	13.2	5.8	NO		NO	bb
9	9	171206M2_10	Standard	12.500	3.68	12169.899	19536.061	7.787	12.9	3.0	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.427135
RRF SD: 0.0240414, Relative SD: 5.62852
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	171206M2_2	Standard	12.500	3.83	1769.582	4232.144	5.227	12.2	-2.1	NO		NO	bb
2	2	171206M2_3	Standard	12.500	3.83	1775.385	4001.034	5.547	13.0	3.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	3.83	1943.010	4831.356	5.027	11.8	-5.8	NO		NO	bb
4	4	171206M2_5	Standard	12.500	3.83	1945.118	4435.184	5.482	12.8	2.7	NO		NO	bb
5	5	171206M2_6	Standard	12.500	3.83	1838.649	4796.819	4.791	11.2	-10.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	3.83	2607.239	6271.609	5.197	12.2	-2.7	NO		NO	bb
7	7	171206M2_8	Standard	12.500	3.83	1929.995	4324.366	5.579	13.1	4.5	NO		NO	bb
8	8	171206M2_9	Standard	12.500	3.83	1705.488	3895.123	5.473	12.8	2.5	NO		NO	bb
9	9	171206M2_10	Standard	12.500	3.83	1773.431	3868.461	5.730	13.4	7.3	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.261149
RRF SD: 0.0338392, Relative SD: 12.9578
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	171206M2_2	Standard	12.500	4.15	3665.118	15513.361	2.953	11.3	-9.5	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.14	3501.219	17503.723	2.500	9.6	-23.4	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.14	4542.518	18623.473	3.049	11.7	-6.6	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.14	4269.098	14470.287	3.688	14.1	13.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.14	4497.431	16835.771	3.339	12.8	2.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.14	5336.609	20627.631	3.234	12.4	-0.9	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.14	4847.406	16592.500	3.652	14.0	11.9	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.15	4725.387	15965.438	3.700	14.2	13.3	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.14	6193.788	14442.451	5.361	20.5	64.2	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 1.11154
RRF SD: 0.0715347, Relative SD: 6.43566
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	171206M2_2	Standard	12.500	4.20	17122.166	15513.361	13.796	12.4	-0.7	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.20	16414.160	17503.723	11.722	10.5	-15.6	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.20	21394.035	18623.473	14.360	12.9	3.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.20	16178.457	14470.287	13.976	12.6	0.6	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.20	19425.684	16835.771	14.423	13.0	3.8	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.20	22418.568	20627.631	13.585	12.2	-2.2	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.20	19713.932	16592.500	14.852	13.4	6.9	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.20	18036.664	15965.438	14.122	12.7	1.6	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.20	16421.664	14442.451	14.213	12.8	2.3	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.939284
RRF SD: 0.0754611, Relative SD: 8.03389
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	171206M2_2	Standard	12.500	4.63	17438.344	17869.152	12.199	13.0	3.9	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.63	19717.799	19030.527	12.951	13.8	10.3	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.63	19882.078	20333.480	12.223	13.0	4.1	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.63	15728.210	15284.488	12.863	13.7	9.6	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.63	17987.682	20583.793	10.923	11.6	-7.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.63	22630.730	26370.496	10.727	11.4	-8.6	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.63	15452.905	18845.158	10.250	10.9	-12.7	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.63	15851.788	17023.561	11.640	12.4	-0.9	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.64	16665.496	17514.926	11.894	12.7	1.3	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.348764
RRF SD: 0.0272251, Relative SD: 7.80617
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	171206M2_2	Standard	12.500	4.69	5725.768	16935.457	4.226	12.1	-3.1	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.69	6034.938	17625.223	4.280	12.3	-1.8	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.69	6748.446	16401.250	5.143	14.7	18.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.69	6082.819	17861.988	4.257	12.2	-2.4	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.69	5986.910	17862.496	4.190	12.0	-3.9	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.69	7780.234	22085.531	4.403	12.6	1.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.69	5169.390	16193.741	3.990	11.4	-8.5	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.69	4952.032	14957.051	4.139	11.9	-5.1	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.69	4858.857	13180.983	4.608	13.2	5.7	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.991168
RRF SD: 0.105131, Relative SD: 10.6068
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	171206M2_2	Standard	12.500	4.72	4537.465	4754.042	11.931	12.0	-3.7	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.72	4274.405	4806.436	11.116	11.2	-10.3	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.72	5381.812	4776.394	14.084	14.2	13.7	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.72	4283.492	4530.459	11.819	11.9	-4.6	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.72	5121.273	4366.089	14.662	14.8	18.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.72	6178.778	6519.866	11.846	12.0	-4.4	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.72	4590.528	5391.422	10.643	10.7	-14.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.72	4276.068	4275.093	12.503	12.6	0.9	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.72	3894.268	3772.829	12.902	13.0	4.1	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.30888
RRF SD: 0.133668, Relative SD: 10.2124
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	171206M2_2	Standard	12.500	5.01	17170.455	14050.067	15.276	11.7	-6.6	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.01	18189.254	12761.368	17.817	13.6	8.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.01	17262.611	14675.523	14.704	11.2	-10.1	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.01	19594.611	13390.154	18.292	14.0	11.8	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.01	21431.703	14659.663	18.274	14.0	11.7	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.01	20064.494	18725.191	13.394	10.2	-18.1	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.01	18895.734	14417.440	16.383	12.5	0.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.01	16444.840	12337.602	16.661	12.7	1.8	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.01	14919.661	11338.477	16.448	12.6	0.5	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.103474
RRF SD: 0.0192095, Relative SD: 18.5646
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	171206M2_2	Standard	12.500	4.98	2154.095	23033.324	1.169	11.3	-9.6	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.98	1949.660	24436.158	0.997	9.6	-22.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.98	2535.809	25681.328	1.234	11.9	-4.6	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.98	1911.800	21616.131	1.106	10.7	-14.5	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.98	2408.334	21900.307	1.375	13.3	6.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.98	3096.835	30349.830	1.275	12.3	-1.4	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.98	2474.042	21999.684	1.406	13.6	8.7	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.98	2834.836	19846.414	1.785	17.3	38.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.98	3701.011	19536.061	2.368	22.9	83.1	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.405472
RRF SD: 0.0381432, Relative SD: 9.40711
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	171206M2_2	Standard	12.500	5.16	6211.603	16935.457	4.585	11.3	-9.5	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.16	7012.357	17625.223	4.973	12.3	-1.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.16	7401.974	16401.250	5.641	13.9	11.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.16	6449.995	17861.988	4.514	11.1	-10.9	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.16	7307.971	17862.496	5.114	12.6	0.9	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.16	7984.079	22085.531	4.519	11.1	-10.8	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.16	6575.747	16193.741	5.076	12.5	0.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.16	6462.234	14957.051	5.401	13.3	6.6	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.16	6108.760	13180.983	5.793	14.3	14.3	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.449793
RRF SD: 0.0278578, Relative SD: 6.19347
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	171206M2_2	Standard	12.500	5.31	7188.430	16935.457	5.306	11.8	-5.6	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.31	7063.249	17625.223	5.009	11.1	-10.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.31	7812.819	16401.250	5.954	13.2	5.9	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.31	7973.424	17861.988	5.580	12.4	-0.8	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.31	8668.059	17862.496	6.066	13.5	7.9	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.31	9885.477	22085.531	5.595	12.4	-0.5	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.31	7730.146	16193.741	5.967	13.3	6.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.31	6450.826	14957.051	5.391	12.0	-4.1	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.31	6045.842	13180.983	5.733	12.7	2.0	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 1.08164
RRF SD: 0.136235, Relative SD: 12.5952
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	171206M2_2	Standard	12.500	5.33	21064.824	16935.457	15.548	14.4	15.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.33	18564.963	17625.223	13.166	12.2	-2.6	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.33	19031.639	16401.250	14.505	13.4	7.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.33	15749.710	17861.988	11.022	10.2	-18.5	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.33	16523.117	17862.496	11.563	10.7	-14.5	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.33	21177.686	22085.531	11.986	11.1	-11.3	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.33	20038.816	16193.741	15.468	14.3	14.4	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.33	16245.133	14957.051	13.576	12.6	0.4	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.33	15659.711	13180.983	14.851	13.7	9.8	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.543986
RRF SD: 0.0767242, Relative SD: 14.1041
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	171206M2_2	Standard	12.500	5.61	9197.374	16935.457	6.789	12.5	-0.2	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.62	9515.929	17625.223	6.749	12.4	-0.8	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.61	10283.695	16401.250	7.838	14.4	15.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.61	7265.262	17861.988	5.084	9.3	-25.2	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.61	10414.291	17862.496	7.288	13.4	7.2	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.62	11056.056	22085.531	6.258	11.5	-8.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.61	9212.243	16193.741	7.111	13.1	4.6	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.61	7063.934	14957.051	5.904	10.9	-13.2	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.61	8624.977	13180.983	8.179	15.0	20.3	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.111663
RRF SD: 0.0108897, Relative SD: 9.75232
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 171206M2_2	Standard	150.000	5.71	22033.928	16935.457	16.263	145.6	-2.9	NO		NO	bd
2	2 171206M2_3	Standard	150.000	5.72	21322.523	17625.223	15.122	135.4	-9.7	NO		NO	bb
3	3 171206M2_4	Standard	150.000	5.71	23682.623	16401.250	18.049	161.6	7.8	NO		NO	bb
4	4 171206M2_5	Standard	150.000	5.71	21847.973	17861.988	15.289	136.9	-8.7	NO		NO	bb
5	5 171206M2_6	Standard	150.000	5.71	22101.295	17862.496	15.466	138.5	-7.7	NO		NO	bb
6	6 171206M2_7	Standard	150.000	5.71	28095.451	22085.531	15.902	142.4	-5.1	NO		NO	bb
7	7 171206M2_8	Standard	150.000	5.71	22049.119	16193.741	17.020	152.4	1.6	NO		NO	bb
8	8 171206M2_9	Standard	150.000	5.72	20897.273	14957.051	17.464	156.4	4.3	NO		NO	bb
9	9 171206M2_10	Standard	150.000	5.71	21267.193	13180.983	20.168	180.6	20.4	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.53278
RRF SD: 0.056468, Relative SD: 10.5987
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 171206M2_2	Standard	12.500	6.07	8593.454	16935.457	6.343	11.9	-4.8	NO		NO	bb
2	2 171206M2_3	Standard	12.500	6.08	9632.420	17625.223	6.831	12.8	2.6	NO		NO	bb
3	3 171206M2_4	Standard	12.500	6.07	8815.953	16401.250	6.719	12.6	0.9	NO		NO	bb
4	4 171206M2_5	Standard	12.500	6.07	9915.026	17861.988	6.939	13.0	4.2	NO		NO	bb
5	5 171206M2_6	Standard	12.500	6.08	8723.810	17862.496	6.105	11.5	-8.3	NO		NO	bb
6	6 171206M2_7	Standard	12.500	6.07	10710.985	22085.531	6.062	11.4	-9.0	NO		NO	bb
7	7 171206M2_8	Standard	12.500	6.07	7928.628	16193.741	6.120	11.5	-8.1	NO		NO	bb
8	8 171206M2_9	Standard	12.500	6.07	7764.407	14957.051	6.489	12.2	-2.6	NO		NO	bb
9	9 171206M2_10	Standard	12.500	6.08	8783.651	13180.983	8.330	15.6	25.1	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.176032
RRF SD: 0.0114038, Relative SD: 6.47826
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	171206M2_2	Standard	150.000	6.11	34321.457	16935.457	25.333	143.9	-4.1	NO		NO	bb
2	2	171206M2_3	Standard	150.000	6.11	35035.242	17625.223	24.847	141.2	-5.9	NO		NO	bb
3	3	171206M2_4	Standard	150.000	6.11	37623.980	16401.250	28.675	162.9	8.6	NO		NO	bb
4	4	171206M2_5	Standard	150.000	6.11	34991.770	17861.988	24.488	139.1	-7.3	NO		NO	bb
5	5	171206M2_6	Standard	150.000	6.11	35960.977	17862.496	25.165	143.0	-4.7	NO		NO	bb
6	6	171206M2_7	Standard	150.000	6.11	44977.496	22085.531	25.456	144.6	-3.6	NO		NO	bb
7	7	171206M2_8	Standard	150.000	6.11	35877.816	16193.741	27.694	157.3	4.9	NO		NO	bb
8	8	171206M2_9	Standard	150.000	6.11	32339.246	14957.051	27.027	153.5	2.4	NO		NO	bb
9	9	171206M2_10	Standard	150.000	6.11	30535.777	13180.983	28.958	164.5	9.7	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.75164
RRF SD: 0.06521, Relative SD: 8.6757
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	171206M2_2	Standard	5.000	6.40	4769.621	16935.457	3.520	4.7	-6.3	NO		NO	bb
2	2	171206M2_3	Standard	5.000	6.40	5032.743	17625.223	3.569	4.7	-5.0	NO		NO	bb
3	3	171206M2_4	Standard	5.000	6.40	5443.975	16401.250	4.149	5.5	10.4	NO		NO	bb
4	4	171206M2_5	Standard	5.000	6.41	4700.701	17861.988	3.290	4.4	-12.5	NO		NO	bb
5	5	171206M2_6	Standard	5.000	6.40	5447.780	17862.496	3.812	5.1	1.4	NO		NO	bb
6	6	171206M2_7	Standard	5.000	6.41	6229.217	22085.531	3.526	4.7	-6.2	NO		NO	bb
7	7	171206M2_8	Standard	5.000	6.41	4981.660	16193.741	3.845	5.1	2.3	NO		NO	bb
8	8	171206M2_9	Standard	5.000	6.41	4532.478	14957.051	3.788	5.0	0.8	NO		NO	bb
9	9	171206M2_10	Standard	5.000	6.41	4559.811	13180.983	4.324	5.8	15.1	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.149643
RRF SD: 0.017581, Relative SD: 11.7486
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 171206M2_2	Standard	150.000	6.25	25807.748	16935.457	19.049	127.3	-15.1	NO		NO	bb
2	2 171206M2_3	Standard	150.000	6.25	30817.412	17625.223	21.856	146.1	-2.6	NO		NO	bb
3	3 171206M2_4	Standard	150.000	6.25	27464.326	16401.250	20.932	139.9	-6.7	NO		NO	bd
4	4 171206M2_5	Standard	150.000	6.25	32317.695	17861.988	22.616	151.1	0.8	NO		NO	bb
5	5 171206M2_6	Standard	150.000	6.26	29205.326	17862.496	20.438	136.6	-8.9	NO		NO	bb
6	6 171206M2_7	Standard	150.000	6.25	37718.203	22085.531	21.348	142.7	-4.9	NO		NO	bb
7	7 171206M2_8	Standard	150.000	6.25	35266.438	16193.741	27.222	181.9	21.3	NO		NO	bb
8	8 171206M2_9	Standard	150.000	6.25	26869.625	14957.051	22.456	150.1	0.0	NO		NO	bb
9	9 171206M2_10	Standard	150.000	6.26	27524.721	13180.983	26.103	174.4	16.3	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.152167
RRF SD: 0.00799849, Relative SD: 5.2564
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 171206M2_2	Standard	150.000	6.40	27836.420	16935.457	20.546	135.0	-10.0	NO		NO	bb
2	2 171206M2_3	Standard	150.000	6.40	31725.553	17625.223	22.500	147.9	-1.4	NO		NO	bd
3	3 171206M2_4	Standard	150.000	6.40	29700.195	16401.250	22.636	148.8	-0.8	NO		NO	bb
4	4 171206M2_5	Standard	150.000	6.40	31791.846	17861.988	22.248	146.2	-2.5	NO		NO	bb
5	5 171206M2_6	Standard	150.000	6.40	31203.311	17862.496	21.836	143.5	-4.3	NO		NO	bb
6	6 171206M2_7	Standard	150.000	6.40	42279.156	22085.531	23.929	157.3	4.8	NO		NO	bd
7	7 171206M2_8	Standard	150.000	6.40	31090.572	16193.741	23.999	157.7	5.1	NO		NO	bb
8	8 171206M2_9	Standard	150.000	6.40	28281.070	14957.051	23.635	155.3	3.5	NO		NO	bb
9	9 171206M2_10	Standard	150.000	6.41	25408.611	13180.983	24.096	158.4	5.6	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	171206M2_2	Standard	12.500	1.36	15438.185	15438.185	12.500	12.5	0.0	NO		NO	MM
2	2	171206M2_3	Standard	12.500	1.36	16299.472	16299.472	12.500	12.5	0.0	NO		NO	MM
3	3	171206M2_4	Standard	12.500	1.37	17308.971	17308.971	12.500	12.5	0.0	NO		NO	MM
4	4	171206M2_5	Standard	12.500	1.36	16109.149	16109.149	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	1.36	16614.520	16614.520	12.500	12.5	0.0	NO		NO	MM
6	6	171206M2_7	Standard	12.500	1.36	20956.395	20956.395	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	1.36	16443.830	16443.830	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	1.36	15637.119	15637.119	12.500	12.5	0.0	NO		NO	MM
9	9	171206M2_10	Standard	12.500	1.36	15200.275	15200.275	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	171206M2_2	Standard	12.500	3.06	23033.324	23033.324	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	3.06	24436.158	24436.158	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	3.06	25681.328	25681.328	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	3.06	21616.131	21616.131	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	3.06	21900.307	21900.307	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	3.06	30349.830	30349.830	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	3.06	21999.684	21999.684	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	3.06	19846.414	19846.414	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	3.06	19536.061	19536.061	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	171206M2_2	Standard	12.500	3.83	4232.144	4232.144	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	3.83	4001.034	4001.034	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	3.83	4831.356	4831.356	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	3.83	4435.184	4435.184	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	3.83	4796.819	4796.819	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	3.83	6271.609	6271.609	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	3.83	4324.366	4324.366	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	3.83	3895.123	3895.123	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	3.83	3868.461	3868.461	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
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	171206M2_2	Standard	12.500	4.20	15513.361	15513.361	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.20	17503.723	17503.723	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.20	18623.473	18623.473	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.20	14470.287	14470.287	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.20	16835.771	16835.771	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.20	20627.631	20627.631	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.20	16592.500	16592.500	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.20	15965.438	15965.438	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.20	14442.451	14442.451	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 1.11022e-016, Relative SD: 1.11022e-014
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	171206M2_2	Standard	12.500	4.63	17869.152	17869.152	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.63	19030.527	19030.527	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.63	20333.480	20333.480	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.64	15284.488	15284.488	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.63	20583.793	20583.793	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.63	26370.496	26370.496	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.63	18845.158	18845.158	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.64	17023.561	17023.561	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.64	17514.926	17514.926	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	171206M2_2	Standard	12.500	4.72	4754.042	4754.042	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.72	4806.436	4806.436	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.72	4776.394	4776.394	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.72	4530.459	4530.459	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.72	4366.089	4366.089	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.72	6519.866	6519.866	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.72	5391.422	5391.422	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.72	4275.093	4275.093	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.72	3772.829	3772.829	12.500	12.5	0.0	NO		NO	bb

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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	171206M2_2	Standard	12.500	5.01	14050.067	14050.067	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.01	12761.368	12761.368	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.01	14675.523	14675.523	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.01	13390.154	13390.154	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.01	14659.663	14659.663	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.01	18725.191	18725.191	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.01	14417.440	14417.440	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.01	12337.602	12337.602	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.01	11338.477	11338.477	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	171206M2_2	Standard	12.500	5.33	16935.457	16935.457	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.33	17625.223	17625.223	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.33	16401.250	16401.250	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.33	17861.988	17861.988	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.33	17862.496	17862.496	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.33	22085.531	22085.531	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.33	16193.741	16193.741	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.33	14957.051	14957.051	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.33	13180.983	13180.983	12.500	12.5	0.0	NO		NO	bb

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Thursday, December 07, 2017 14:27:41 Pacific Standard Time
Printed: Thursday, December 07, 2017 14:28:42 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171206M2_1	IPA	07-Dec-17	01:41:30
2	171206M2_2	ST171206M2-1 PFC CS-2 17K2806	07-Dec-17	01:52:38
3	171206M2_3	ST171206M2-2 PFC CS-1 17K2807	07-Dec-17	02:03:48
4	171206M2_4	ST171206M2-3 PFC CS0 17K2808	07-Dec-17	02:15:01
5	171206M2_5	ST171206M2-4 PFC CS1 17K2814	07-Dec-17	02:26:13
6	171206M2_6	ST171206M2-5 PFC CS2 17K2809	07-Dec-17	02:37:24
7	171206M2_7	ST171206M2-6 PFC CS3 17K2810	07-Dec-17	02:48:34
8	171206M2_8	ST171206M2-7 PFC CS4 17K2811	07-Dec-17	02:59:45
9	171206M2_9	ST171206M2-8 PFC CS5 17K2812	07-Dec-17	03:10:56
10	171206M2_10	ST171206M2-9 PFC CS6 17K2817	07-Dec-17	03:22:06
11	171206M2_11	ST171206M2-10 PFC CS7 17K2818	07-Dec-17	03:33:17
12	171206M2_12	IPA	07-Dec-17	03:44:28
13	171206M2_13	ICV171206M2-1 PFC ICV 17K3001	07-Dec-17	03:55:39
14	171206M2_14	IPA	07-Dec-17	04:06:49

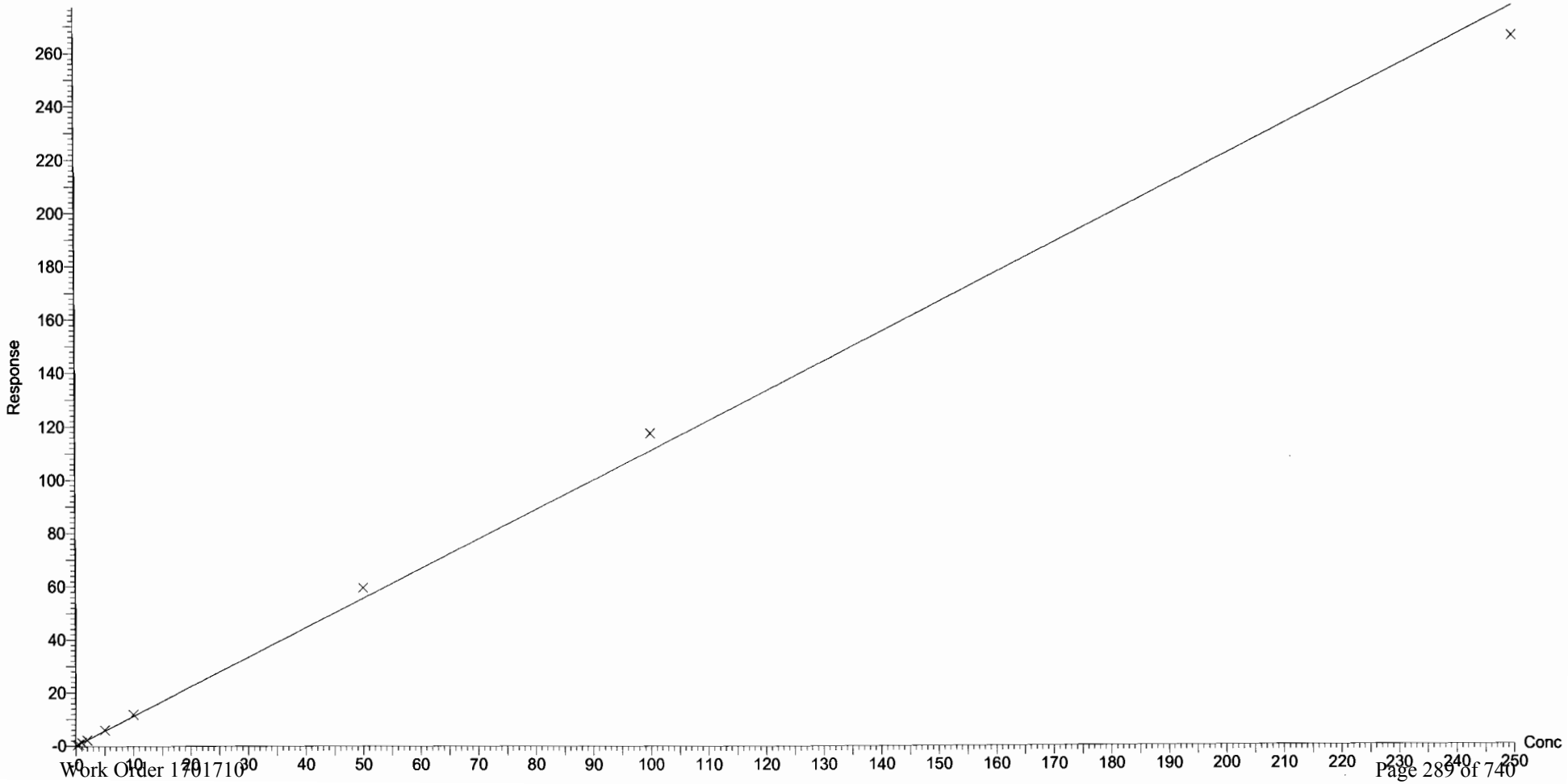
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 13:48:35

Compound name: PFBA
Correlation coefficient: r = 0.998686, r^2 = 0.997373
Calibration curve: 1.10832 * x + 0.0143405
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

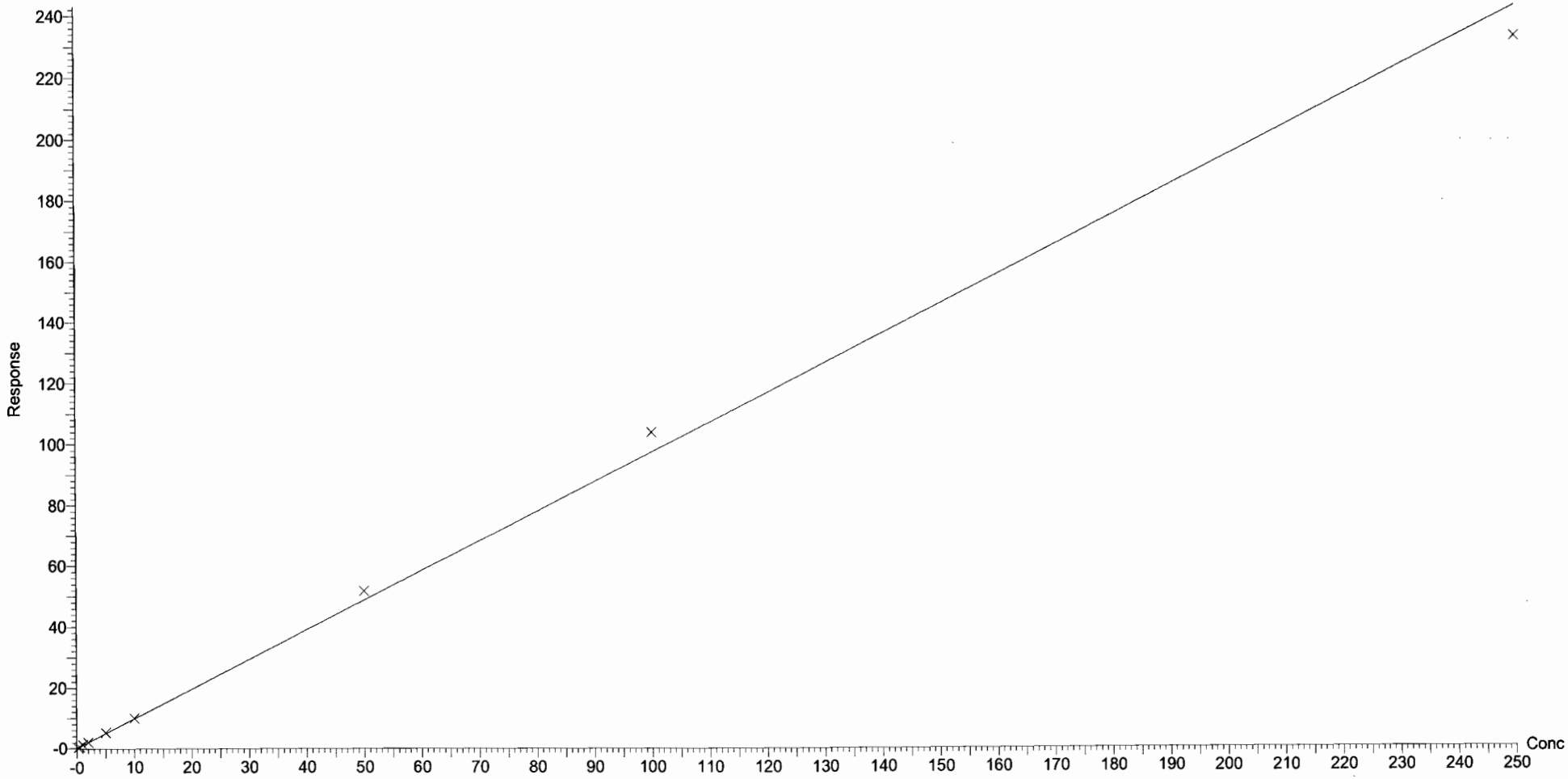


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

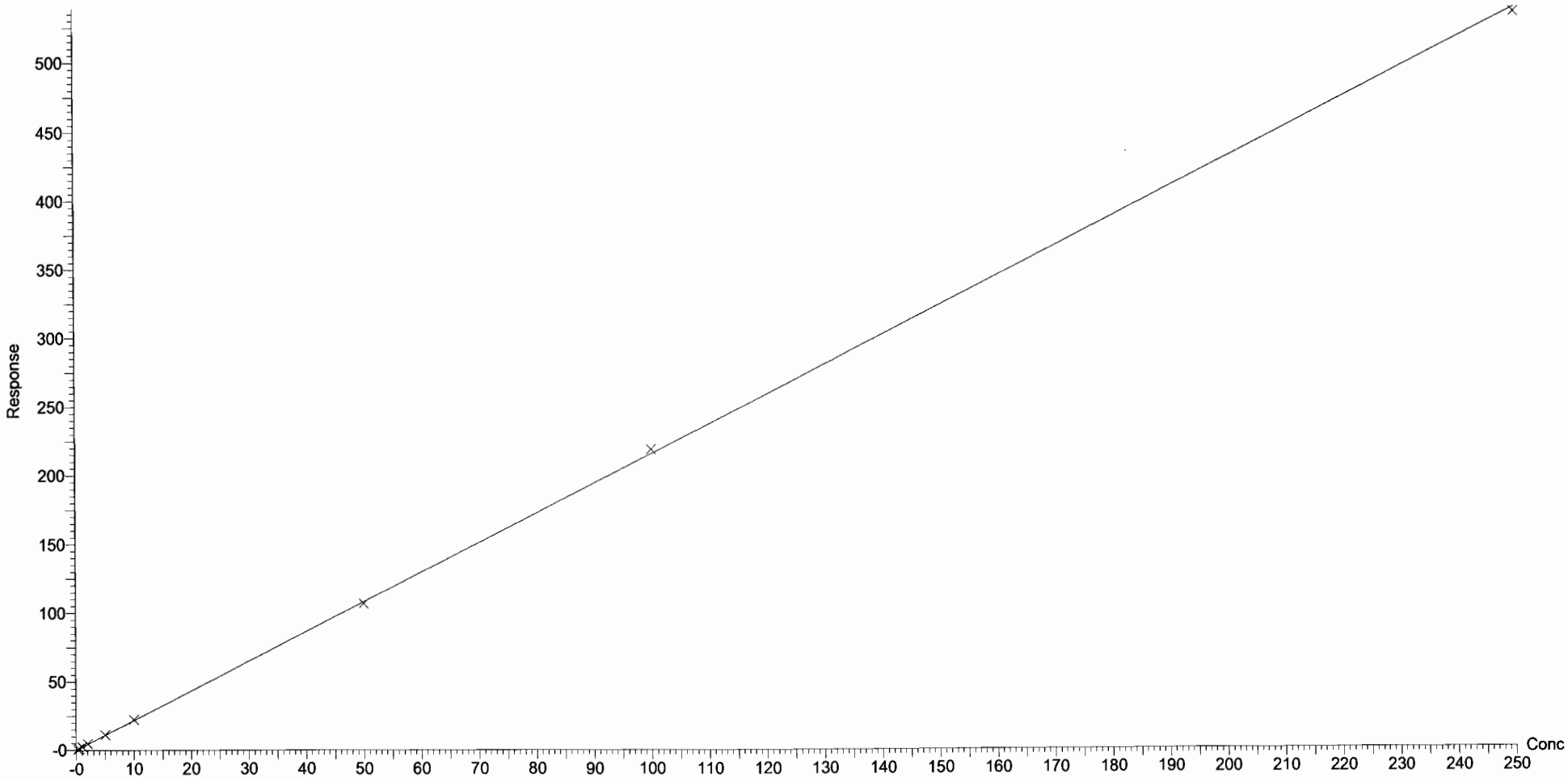
Compound name: PFPeA
Correlation coefficient: r = 0.998614, r^2 = 0.997229
Calibration curve: 0.972109 * x + 0.0774544
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

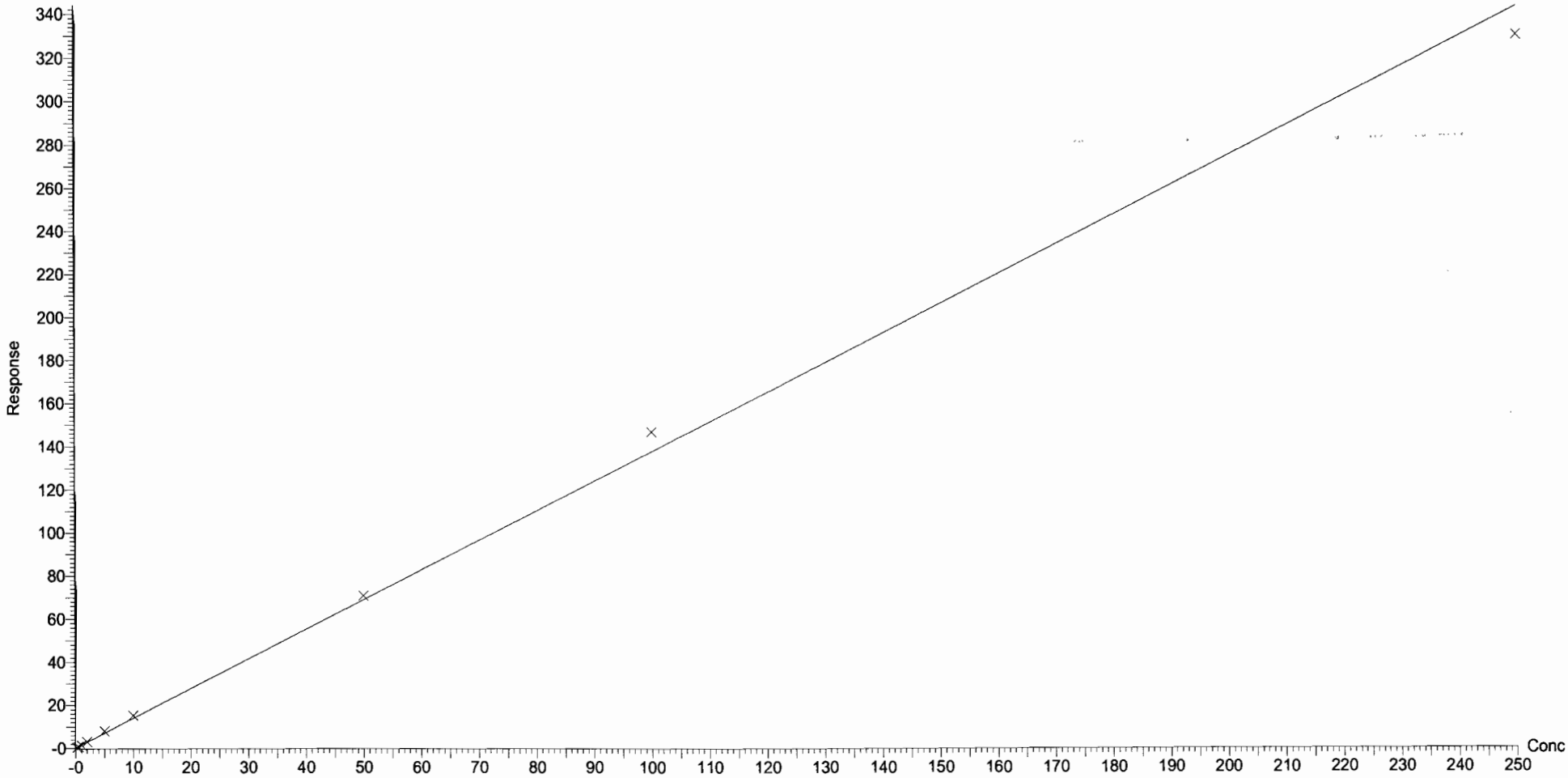
Compound name: PFBS
Correlation coefficient: r = 0.999893, r^2 = 0.999786
Calibration curve: 2.15397 * x + 0.0874629
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

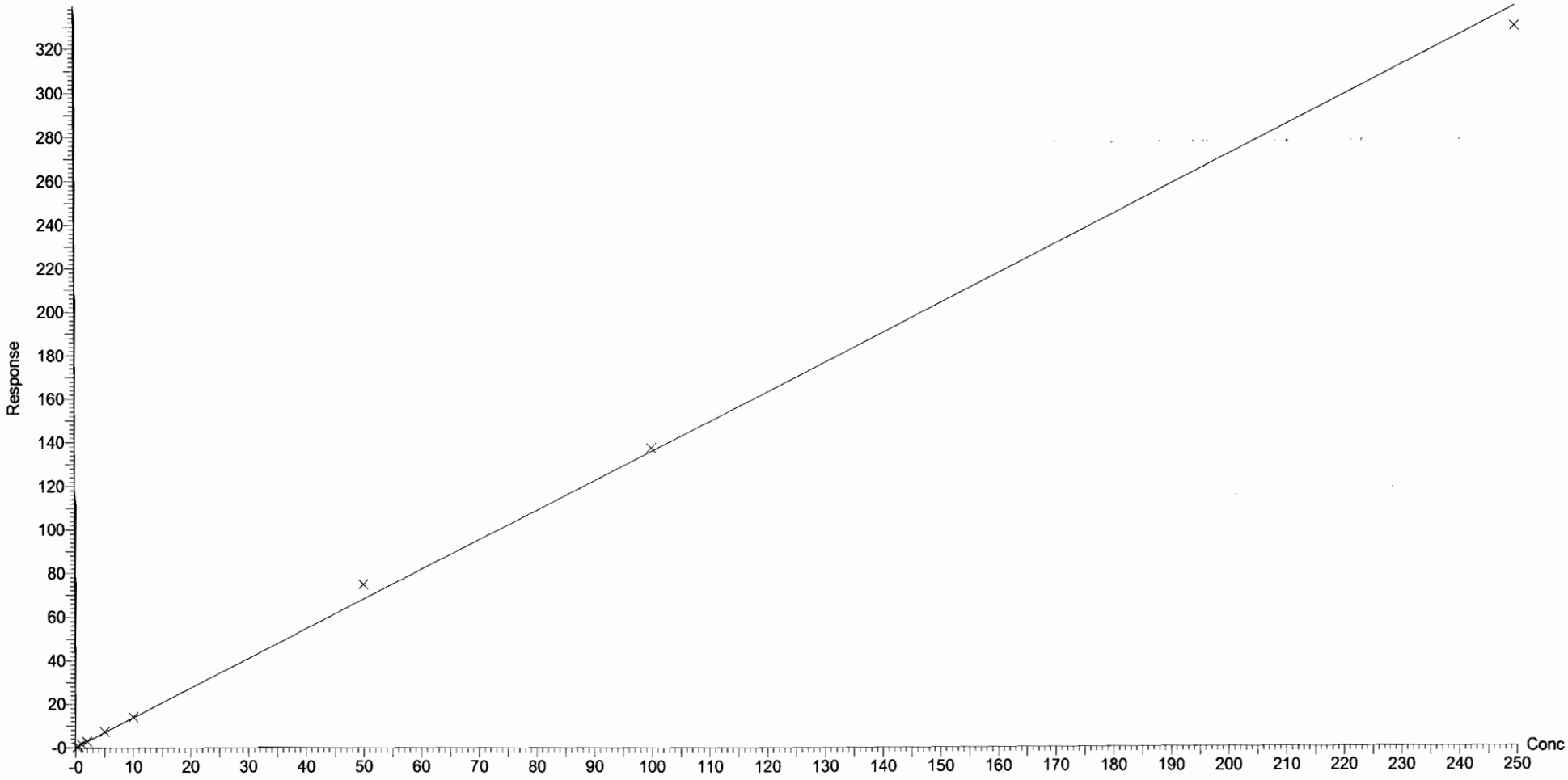
Compound name: PFHxA
Correlation coefficient: r = 0.998723, r^2 = 0.997447
Calibration curve: 1.37447 * x + 0.214037
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

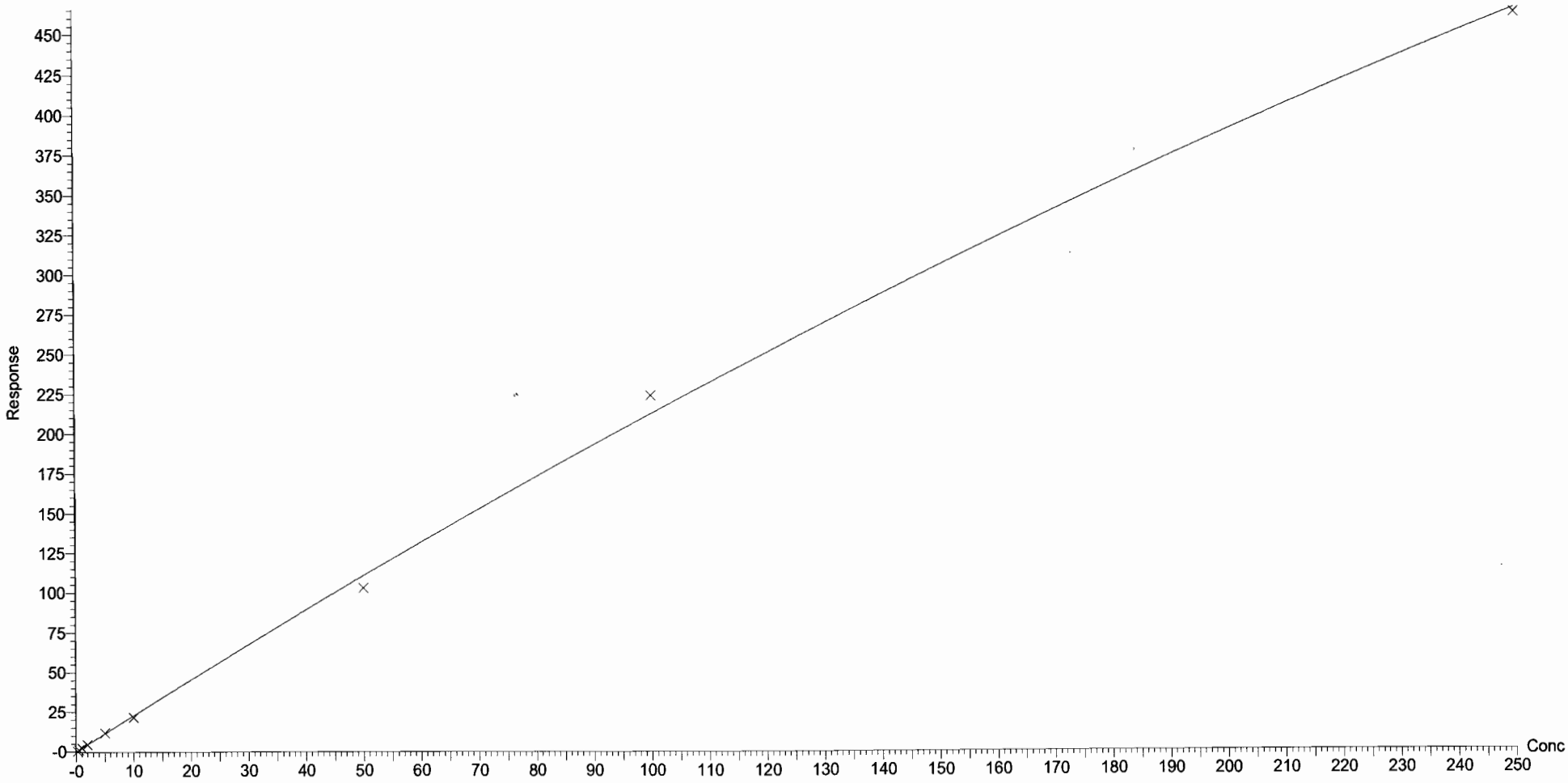
Compound name: PFHpA
Correlation coefficient: r = 0.999104, r^2 = 0.998209
Calibration curve: 1.35687 * x + 0.104387
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

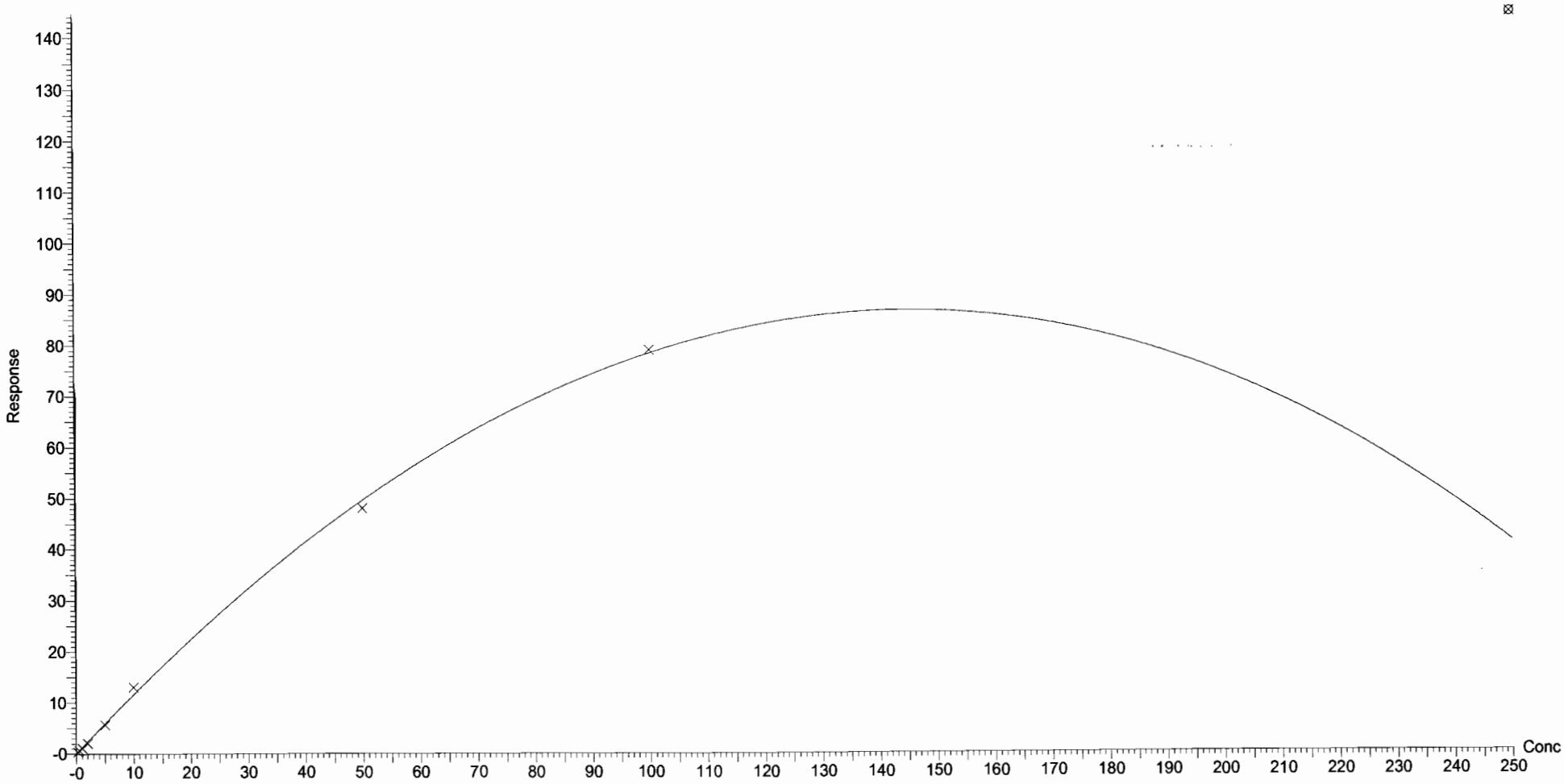
Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.998301
Calibration curve: -0.00174528 * x^2 + 2.29889 * x + -0.197003
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997347
Calibration curve: -0.00413586 * x^2 + 1.19768 * x + -0.00437074
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

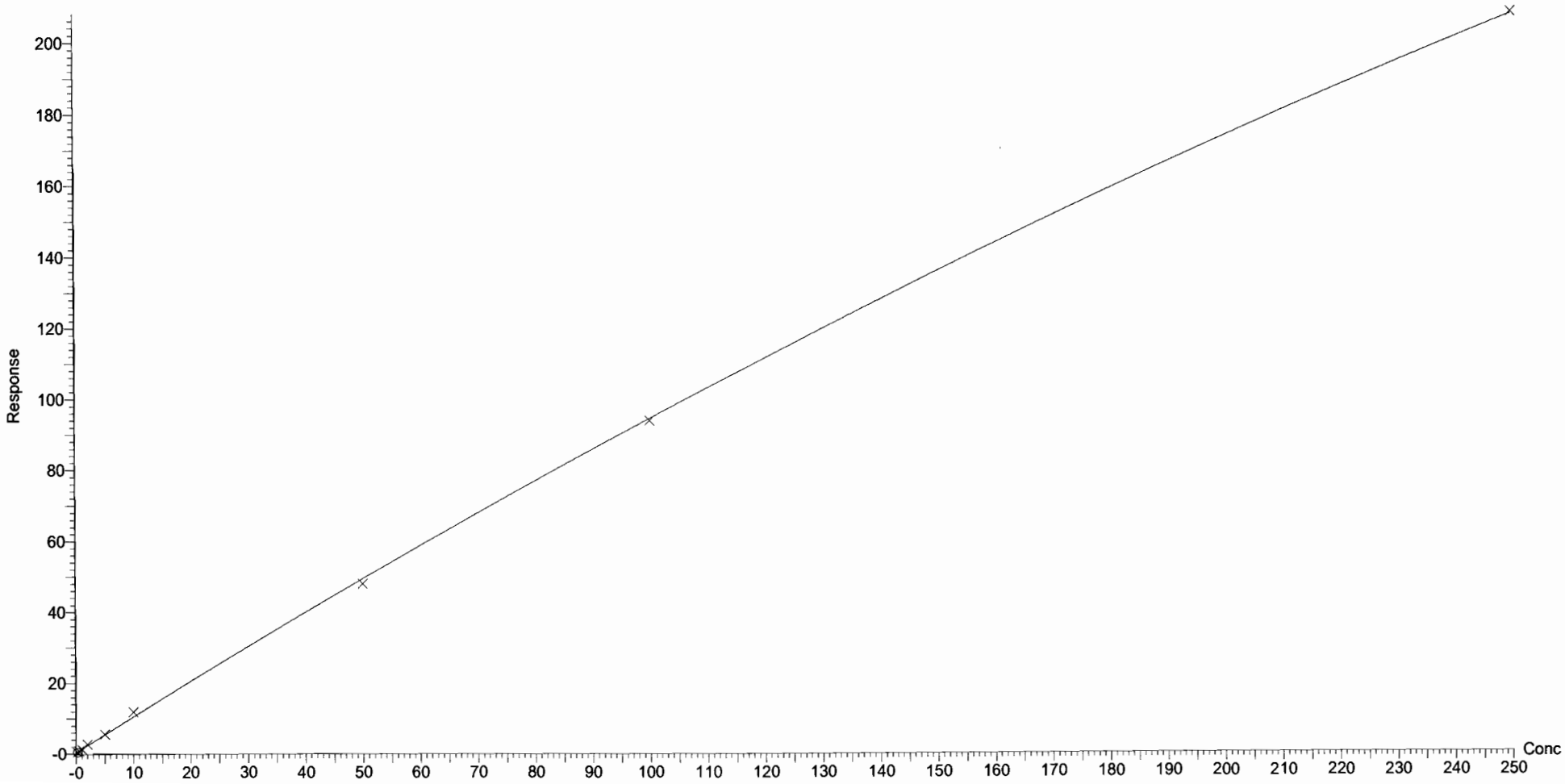


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

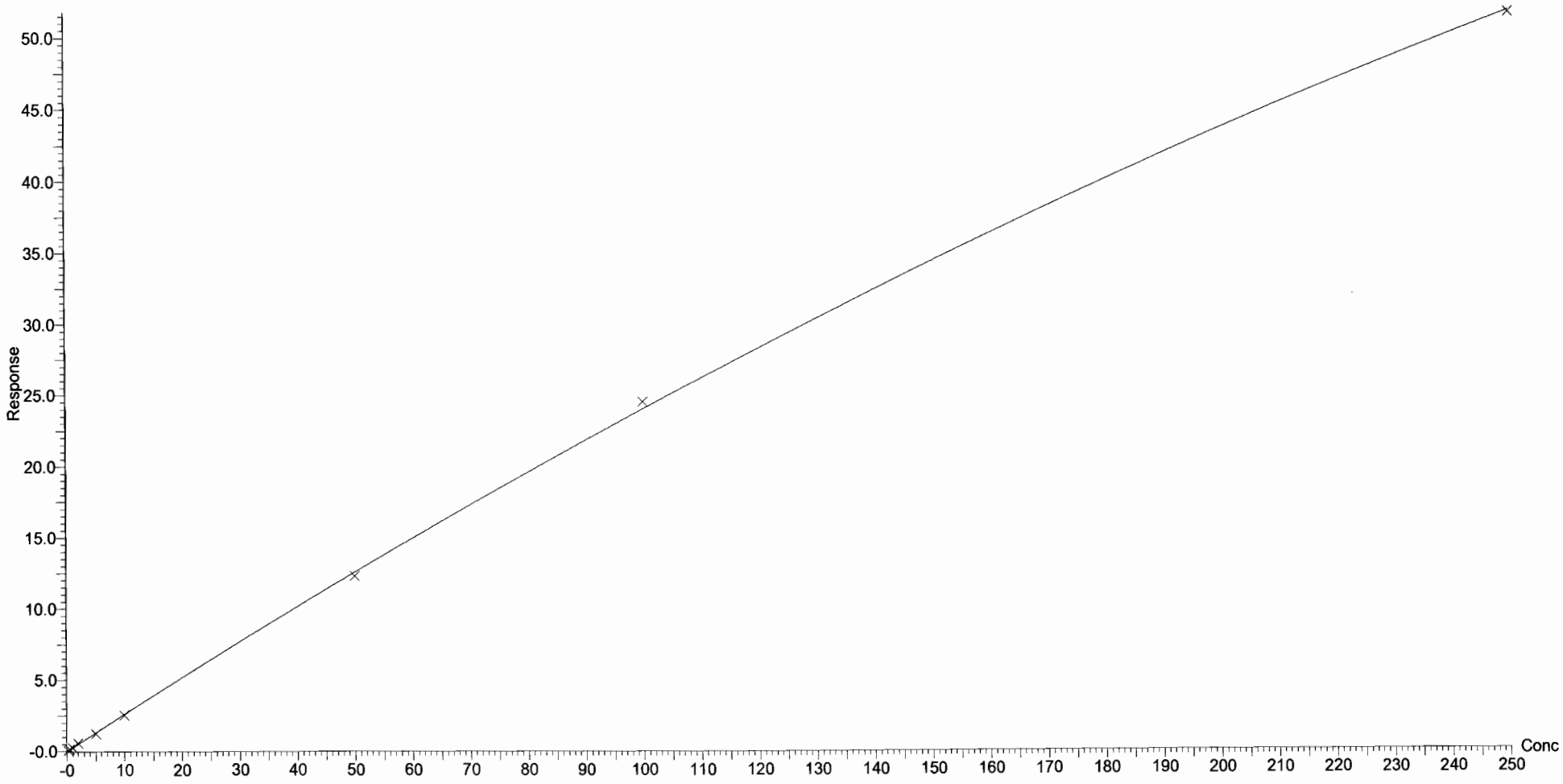
Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998986
Calibration curve: -0.000747737 * x^2 + 1.01531 * x + 0.398815
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

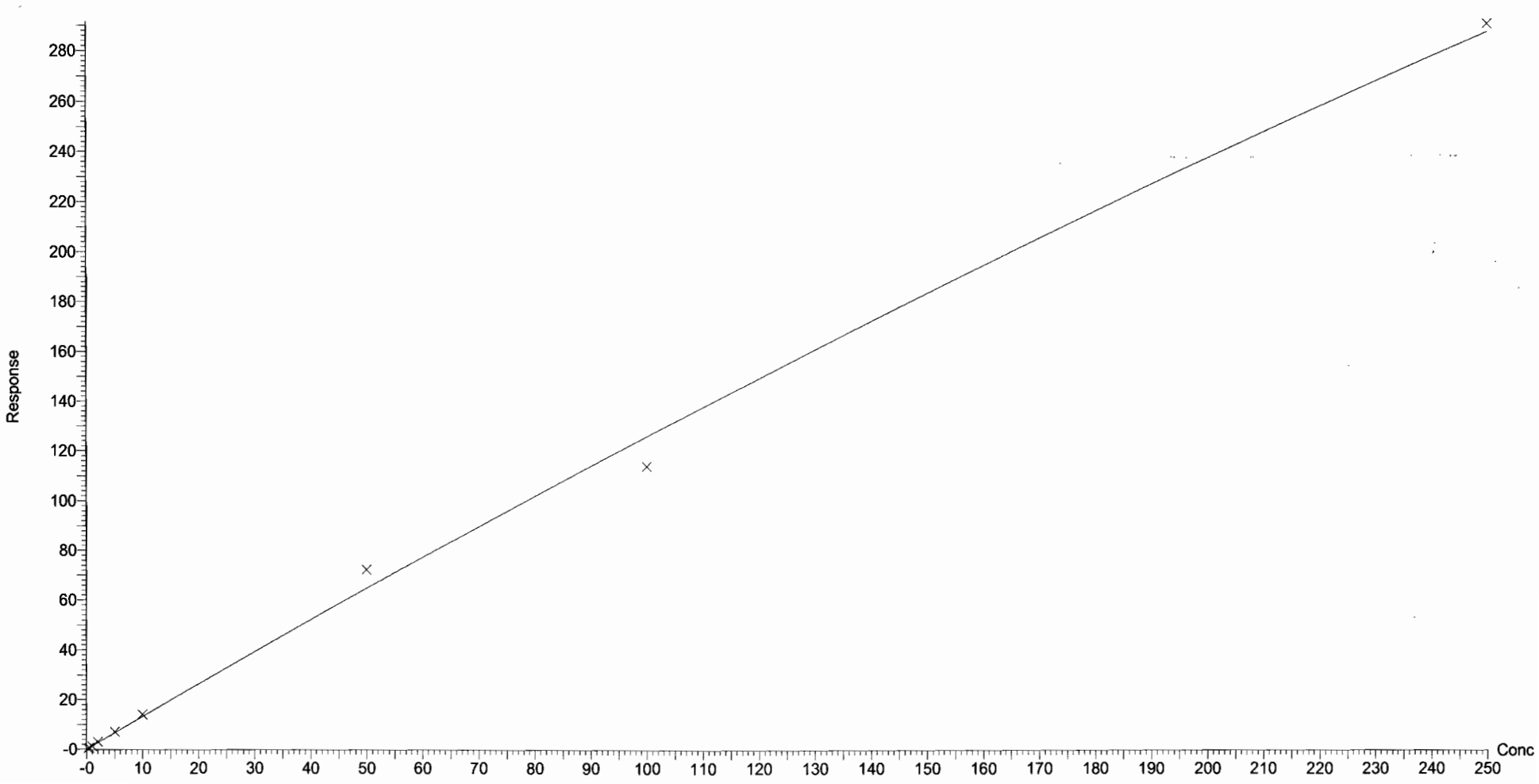
Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999607
Calibration curve: -0.000220402 * x^2 + 0.262137 * x + -0.002666
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

Compound name: PFNA
Coefficient of Determination: R^2 = 0.995271
Calibration curve: -0.000705277 * x^2 + 1.32916 * x + 0.0337343
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



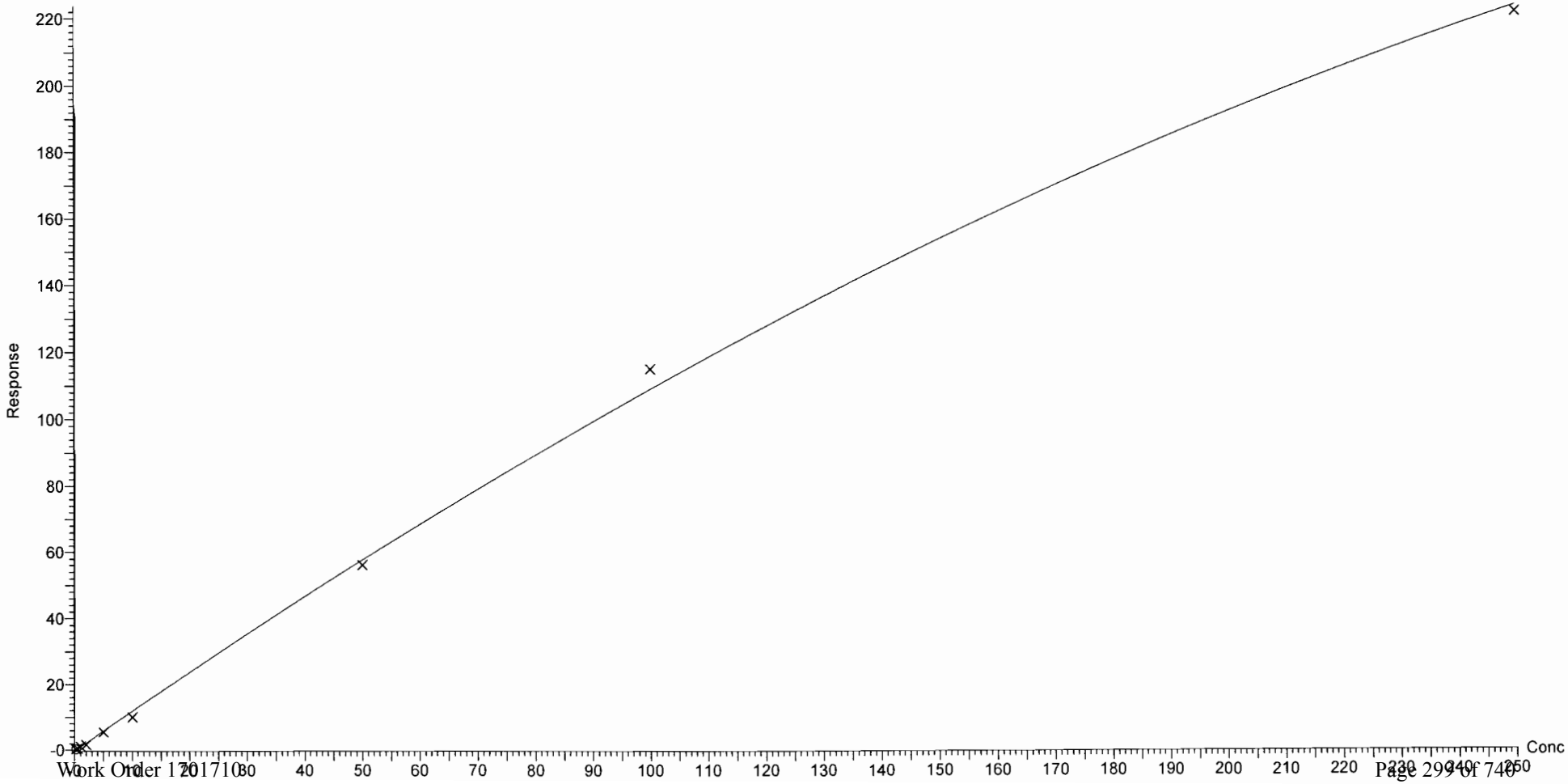
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 14:15:50 Pacific Standard Time
Printed: Thursday, December 07, 2017 14:19:30 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

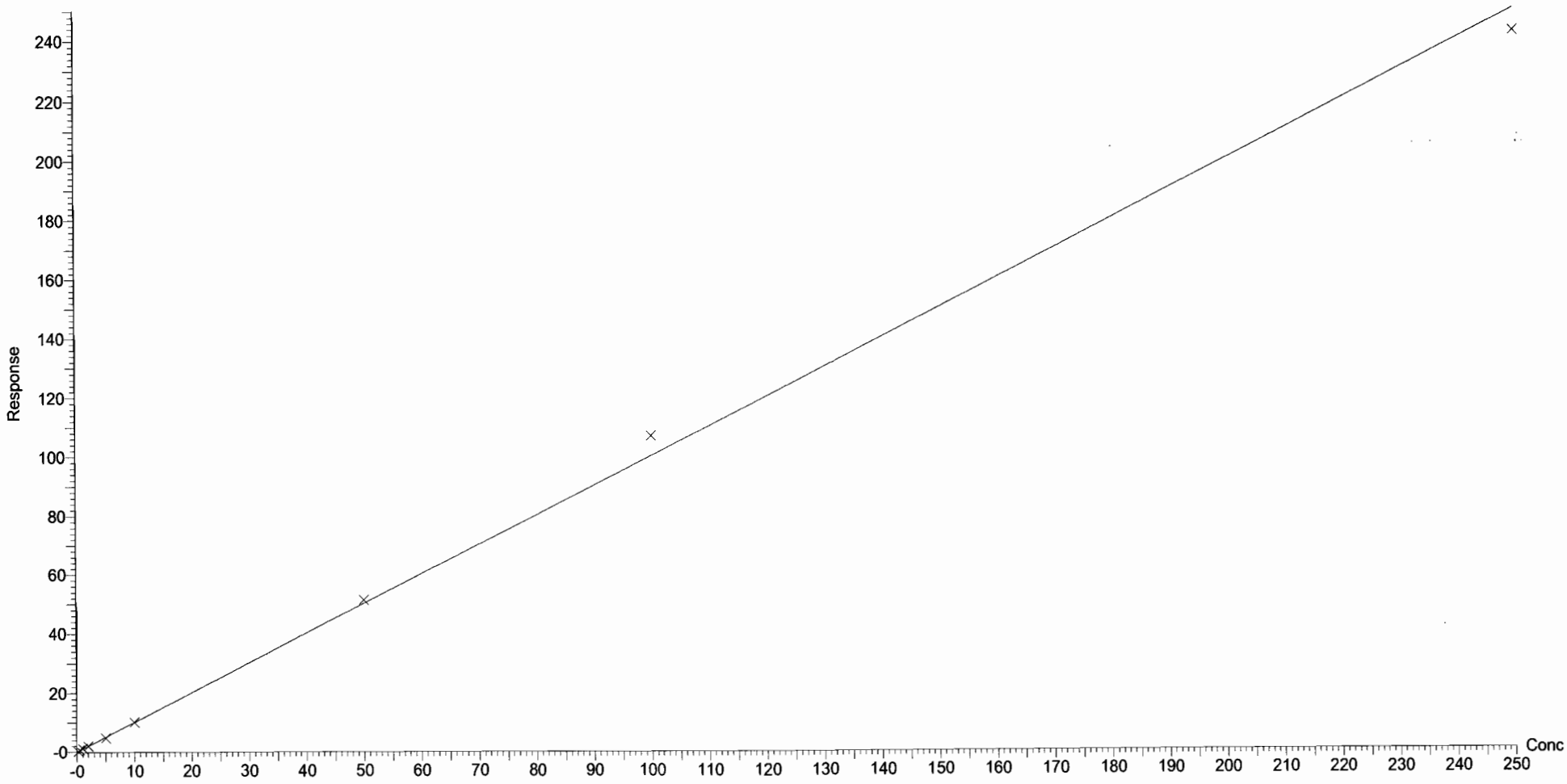
Compound name: PFOSA
Coefficient of Determination: R^2 = 0.997491
Calibration curve: -0.00130735 * x^2 + 1.22283 * x + -0.291621
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

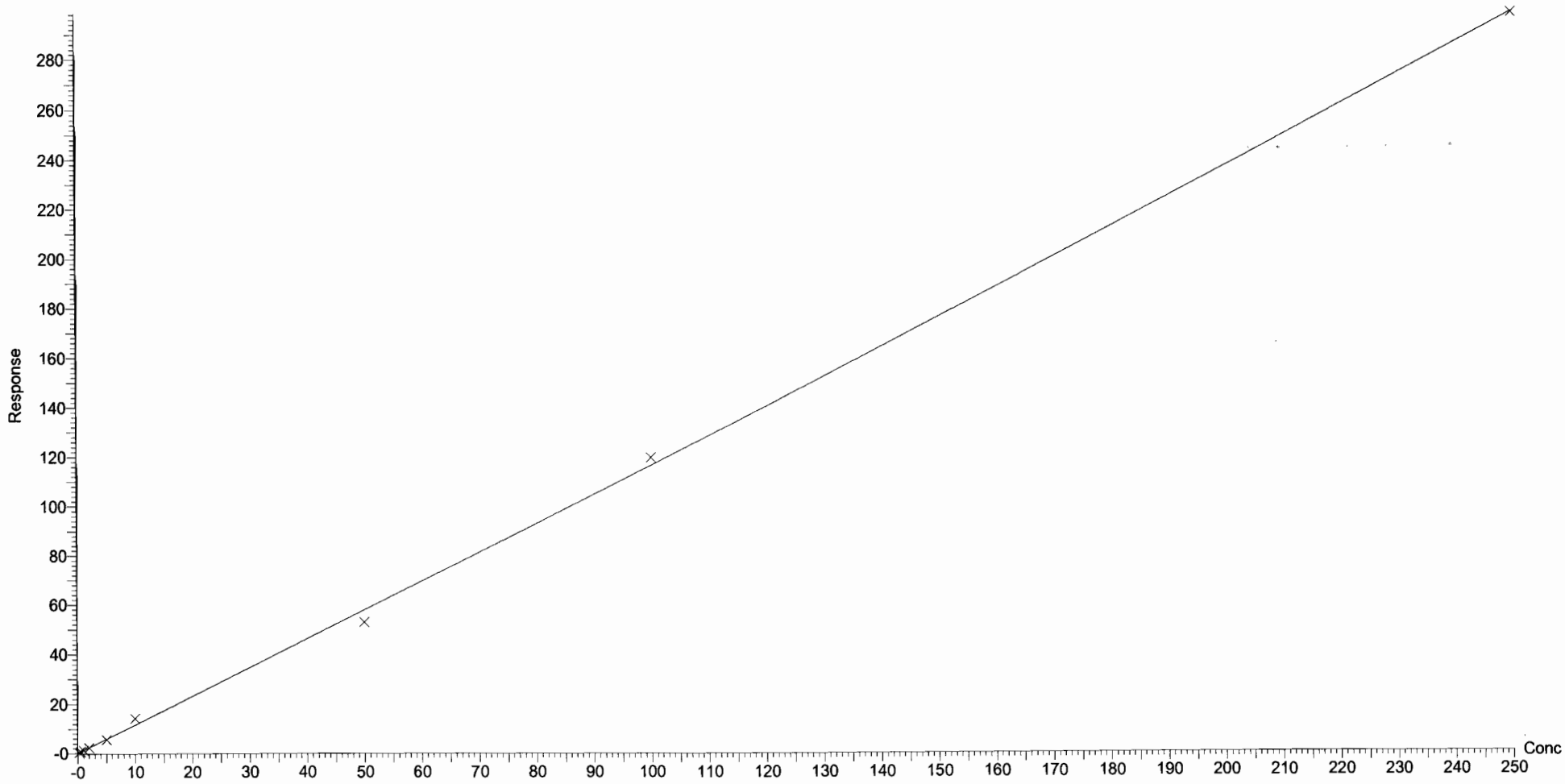
Compound name: L-PFOS
Correlation coefficient: r = 0.999019, r^2 = 0.998039
Calibration curve: 1.00074 * x + 0.0551833
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

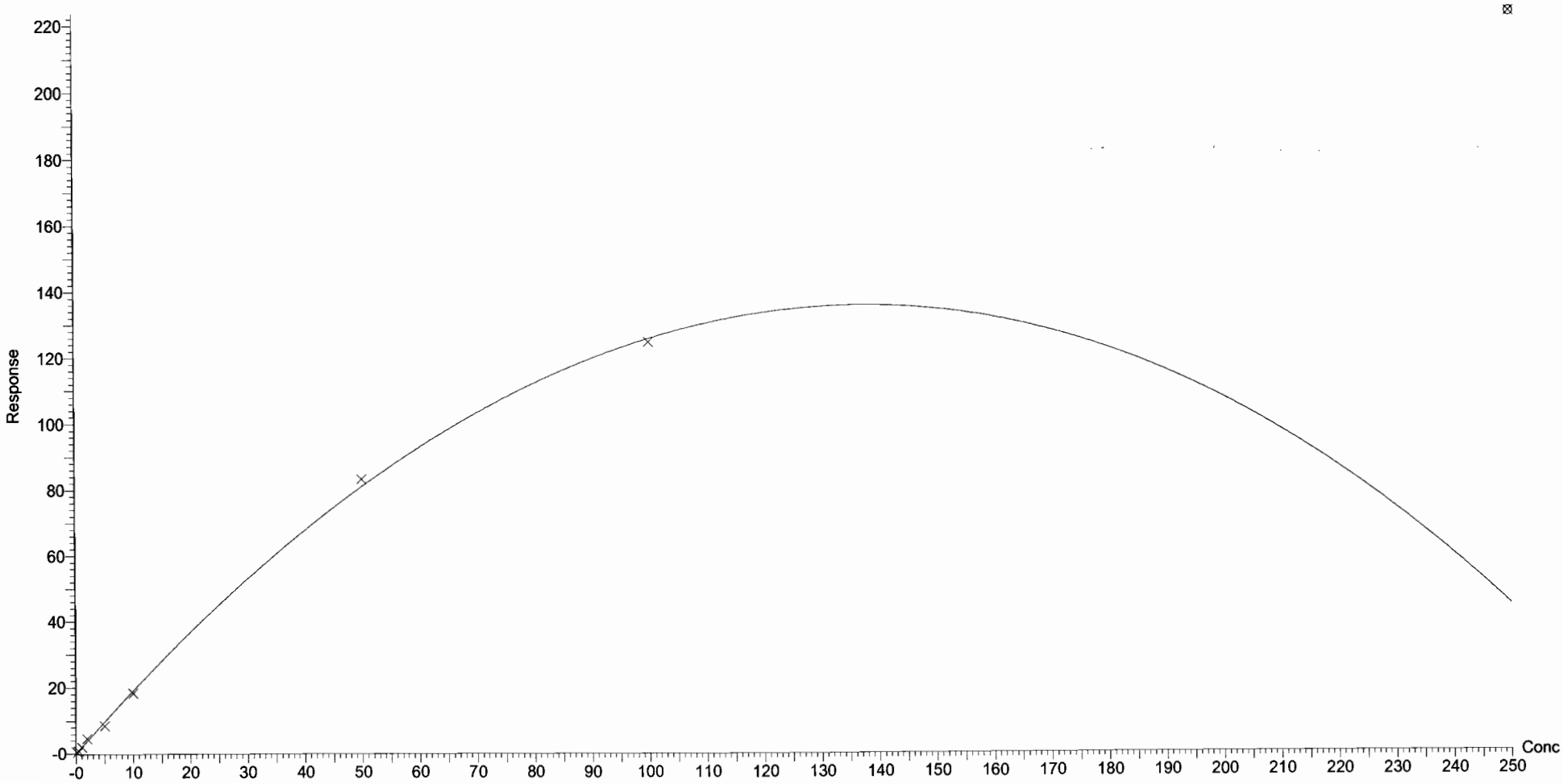
Compound name: PFDA
Coefficient of Determination: R^2 = 0.997726
Calibration curve: 0.000199106 * x^2 + 1.14347 * x + 0.120063
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

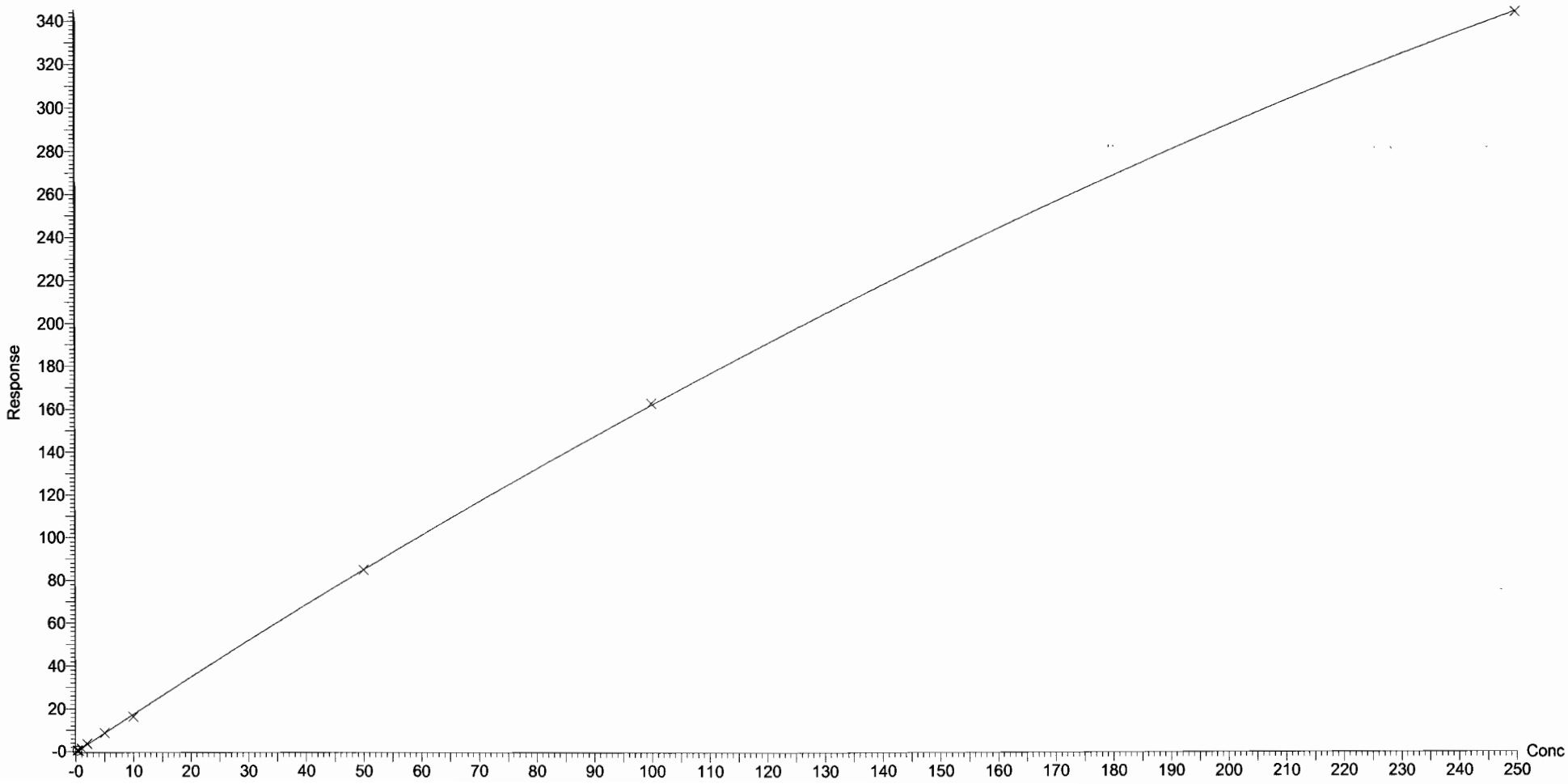
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997649
Calibration curve: -0.00720884 * x^2 + 1.97849 * x + -0.0393974
Response type: Internal Std (Ref 43), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

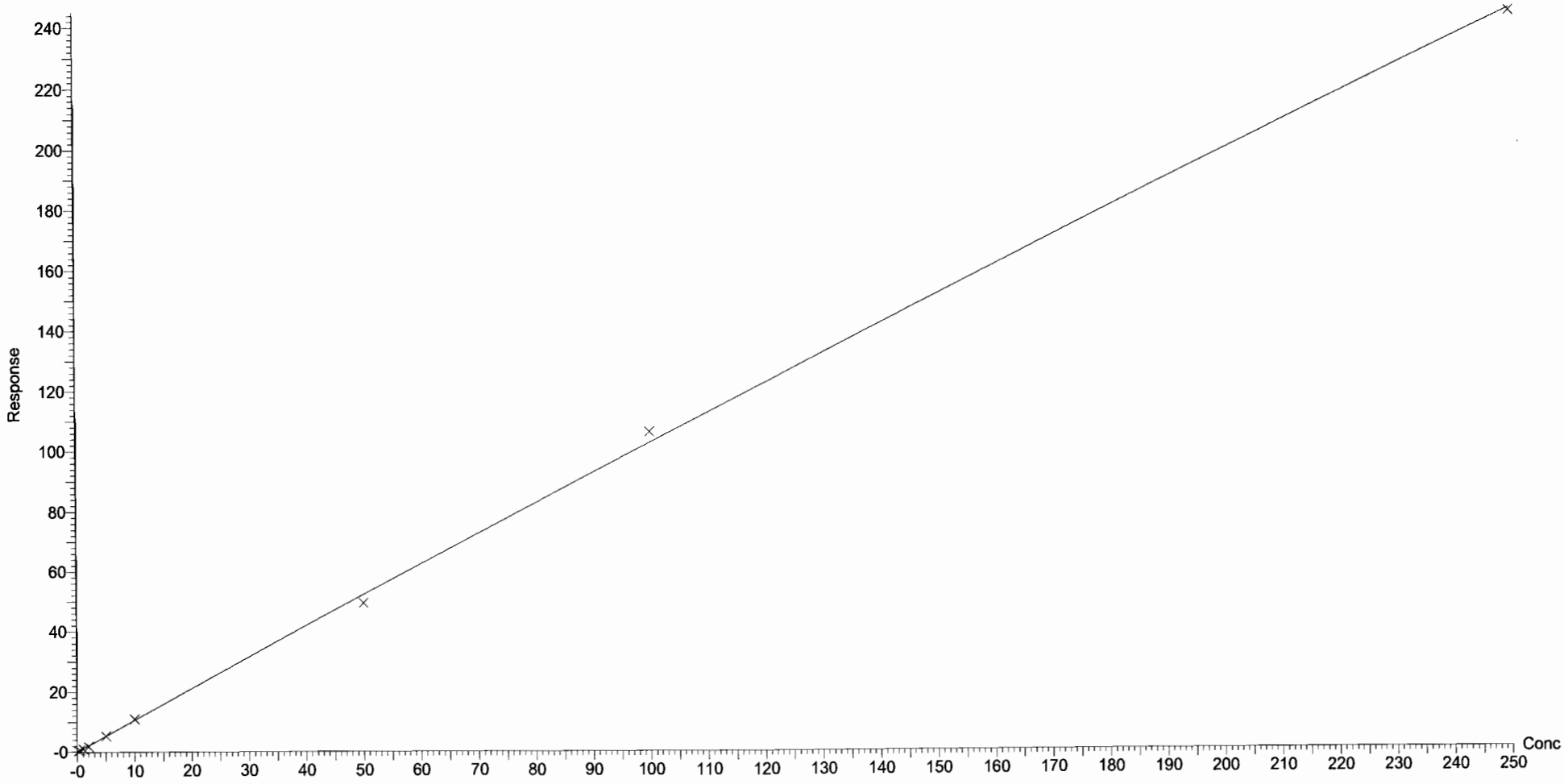
Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999781
Calibration curve: -0.00160688 * x^2 + 1.78392 * x + -0.308334
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

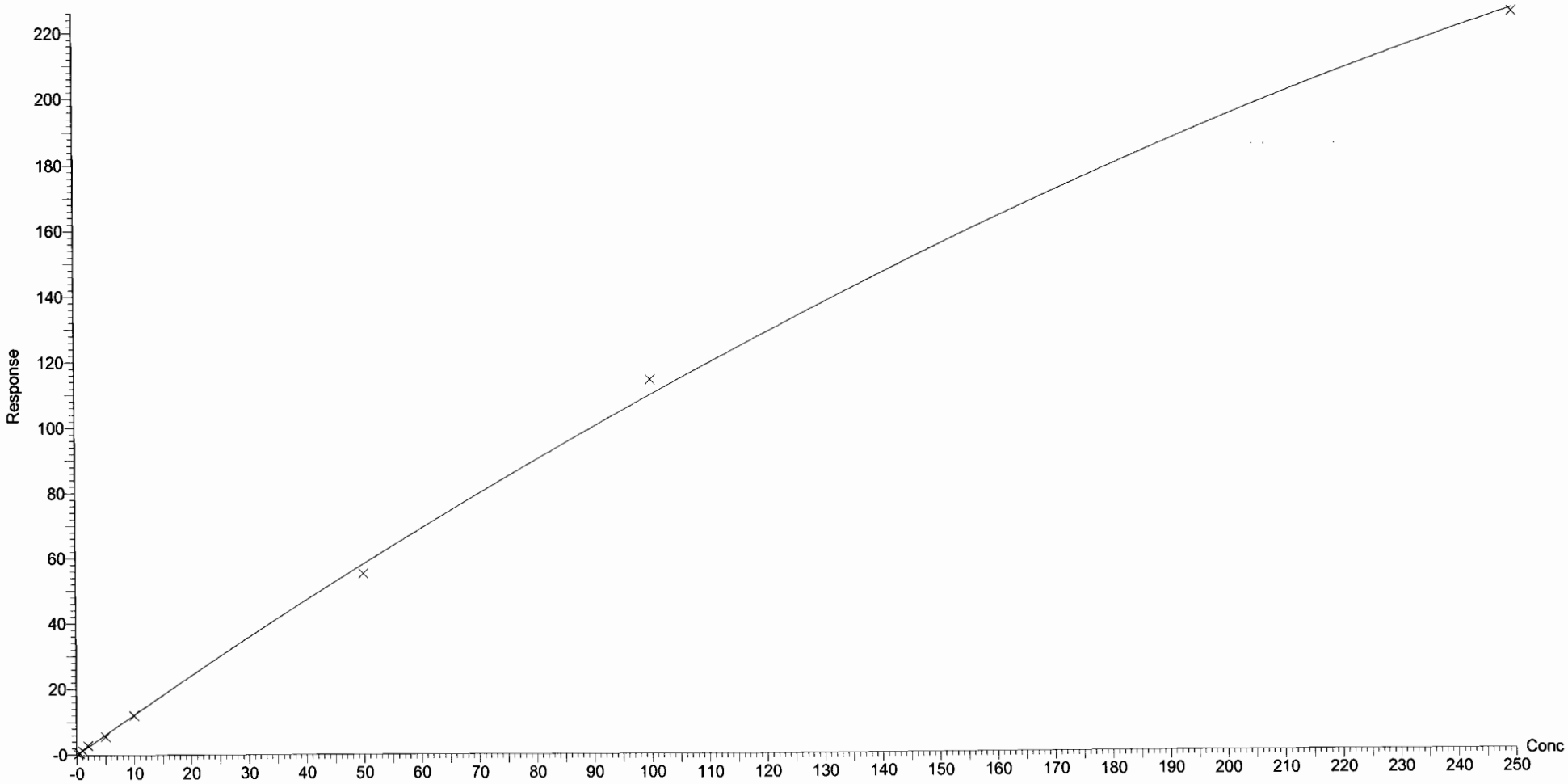
Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999138
Calibration curve: -0.000300813 * x^2 + 1.05519 * x + -0.0165132
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

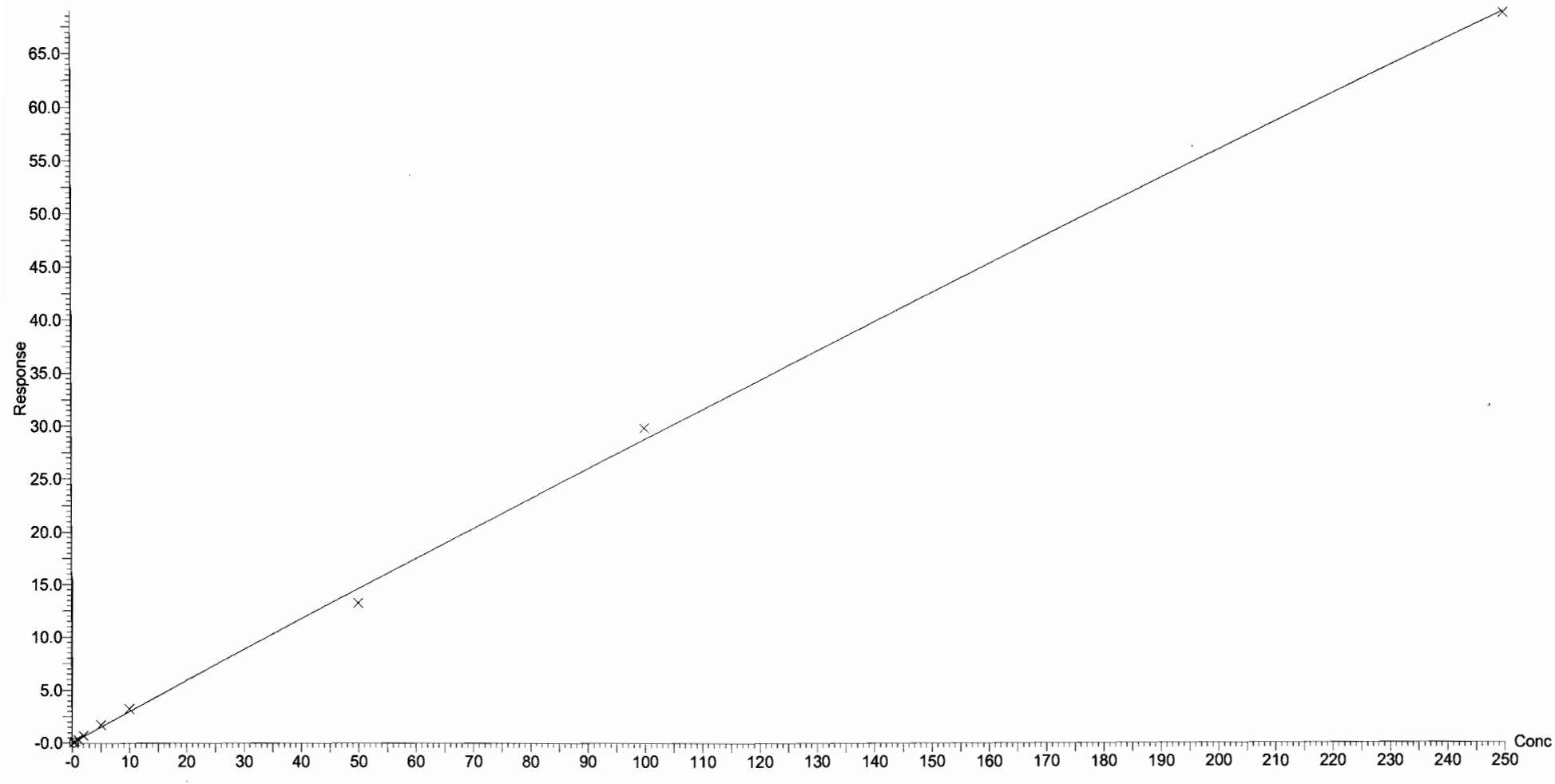
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.998629
Calibration curve: -0.00128299 * x^2 + 1.22518 * x + -0.0916436
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

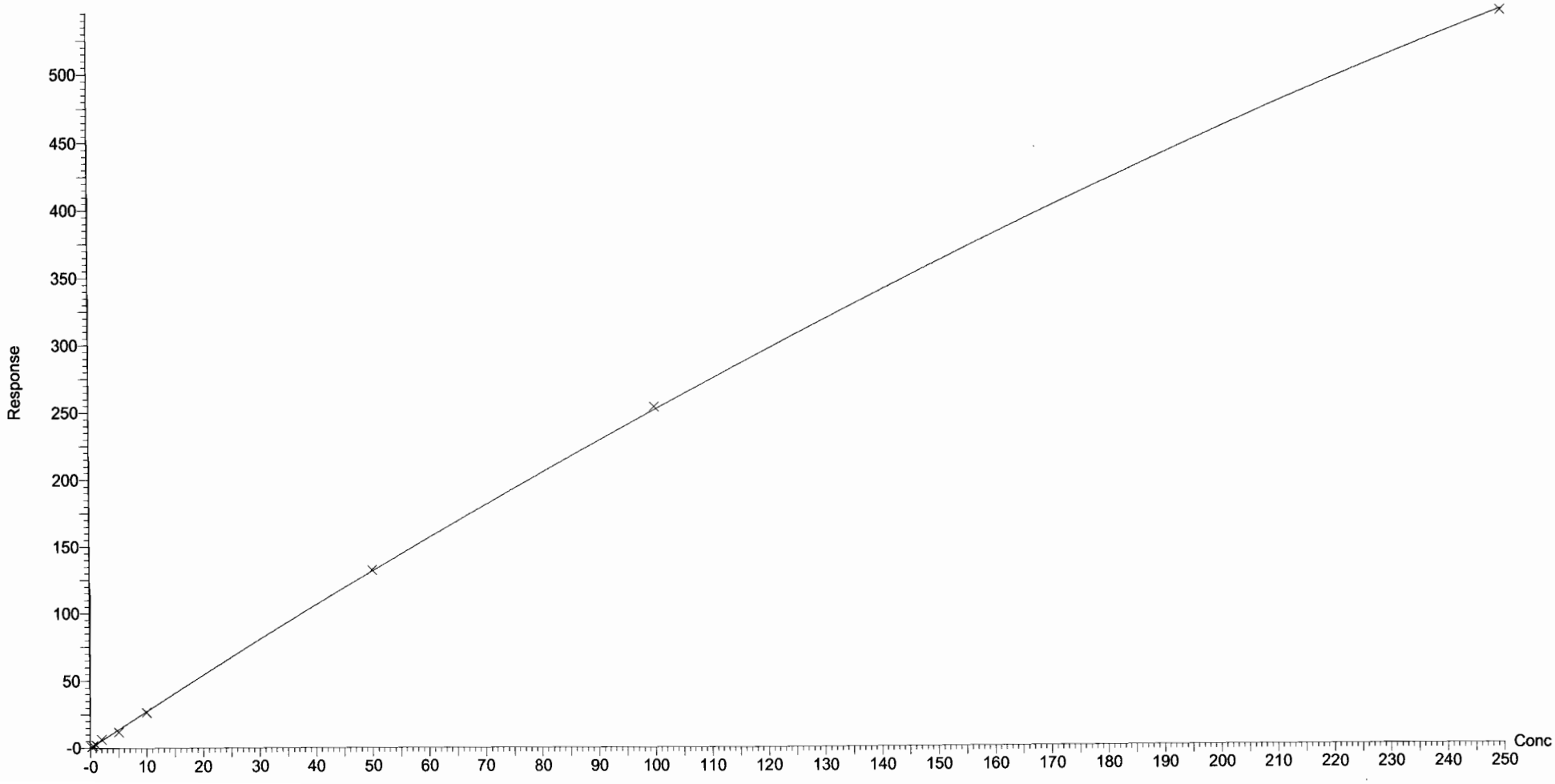
Compound name: PFDS
Coefficient of Determination: R^2 = 0.997842
Calibration curve: -7.41747e-005 * x^2 + 0.294349 * x + 0.0371918
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

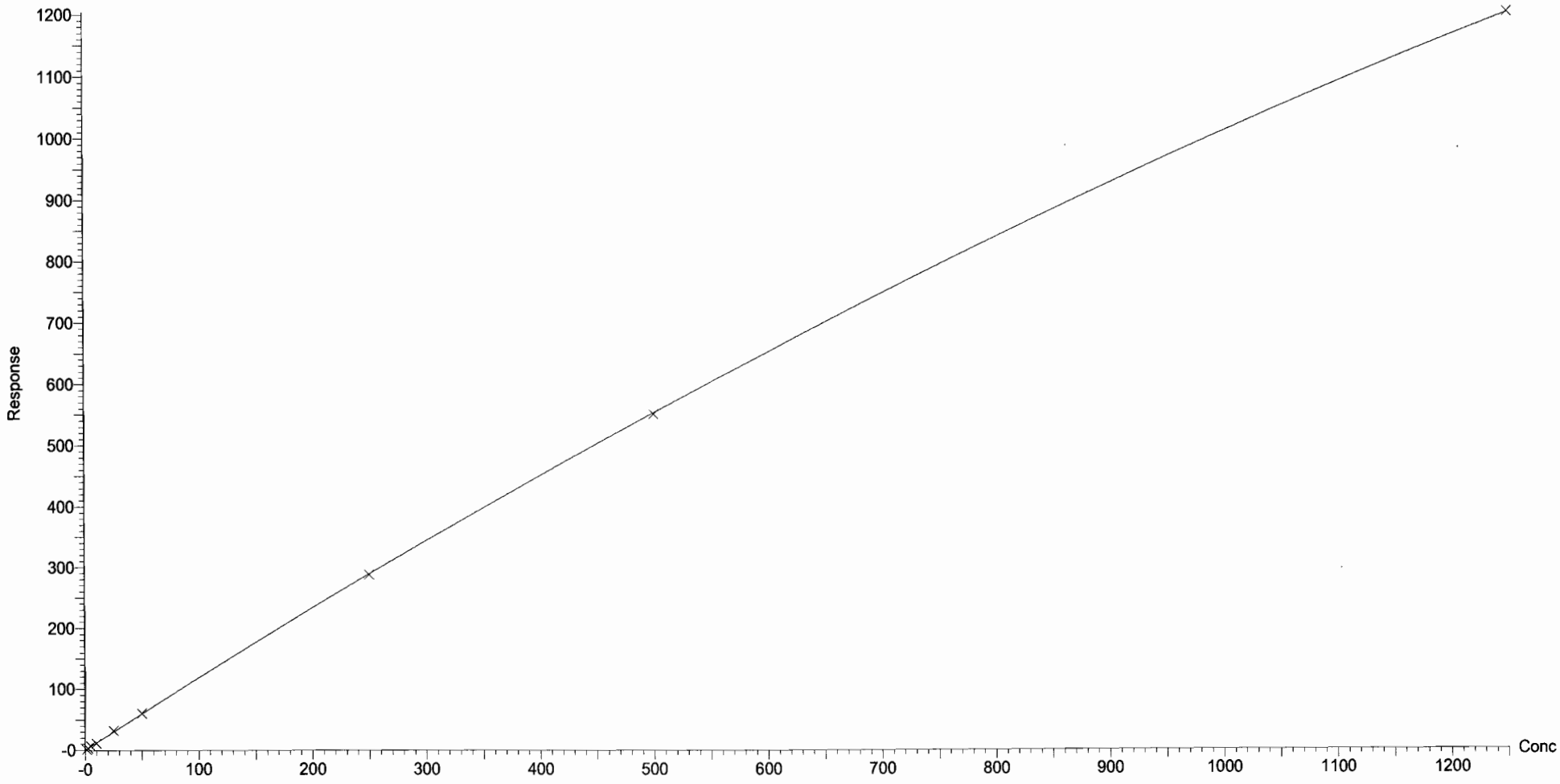
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999373
Calibration curve: -0.0021955 * x^2 + 2.73148 * x + -0.0111516
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999757
Calibration curve: -0.000191452 * x^2 + 1.20181 * x + -0.0200371
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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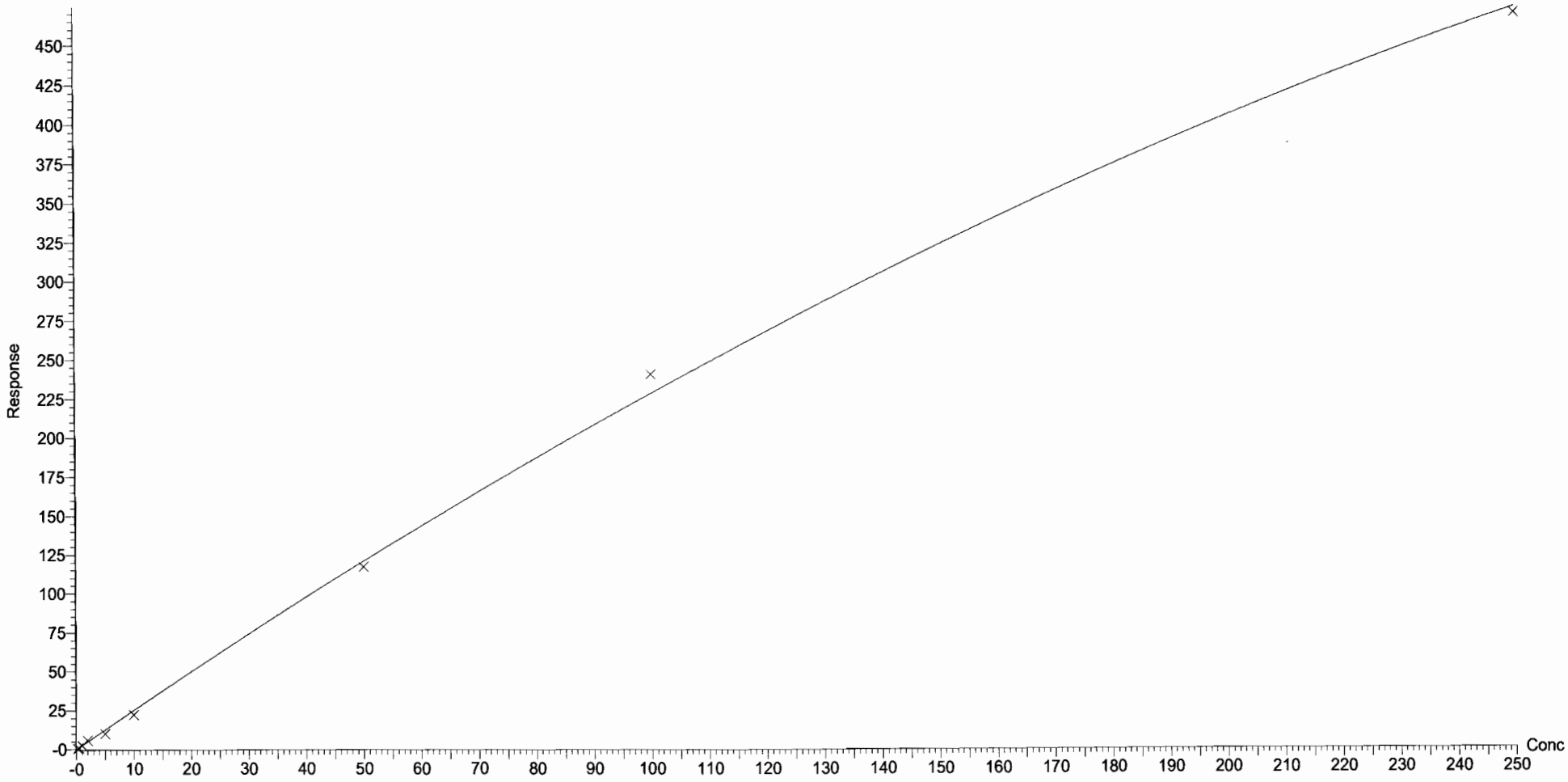
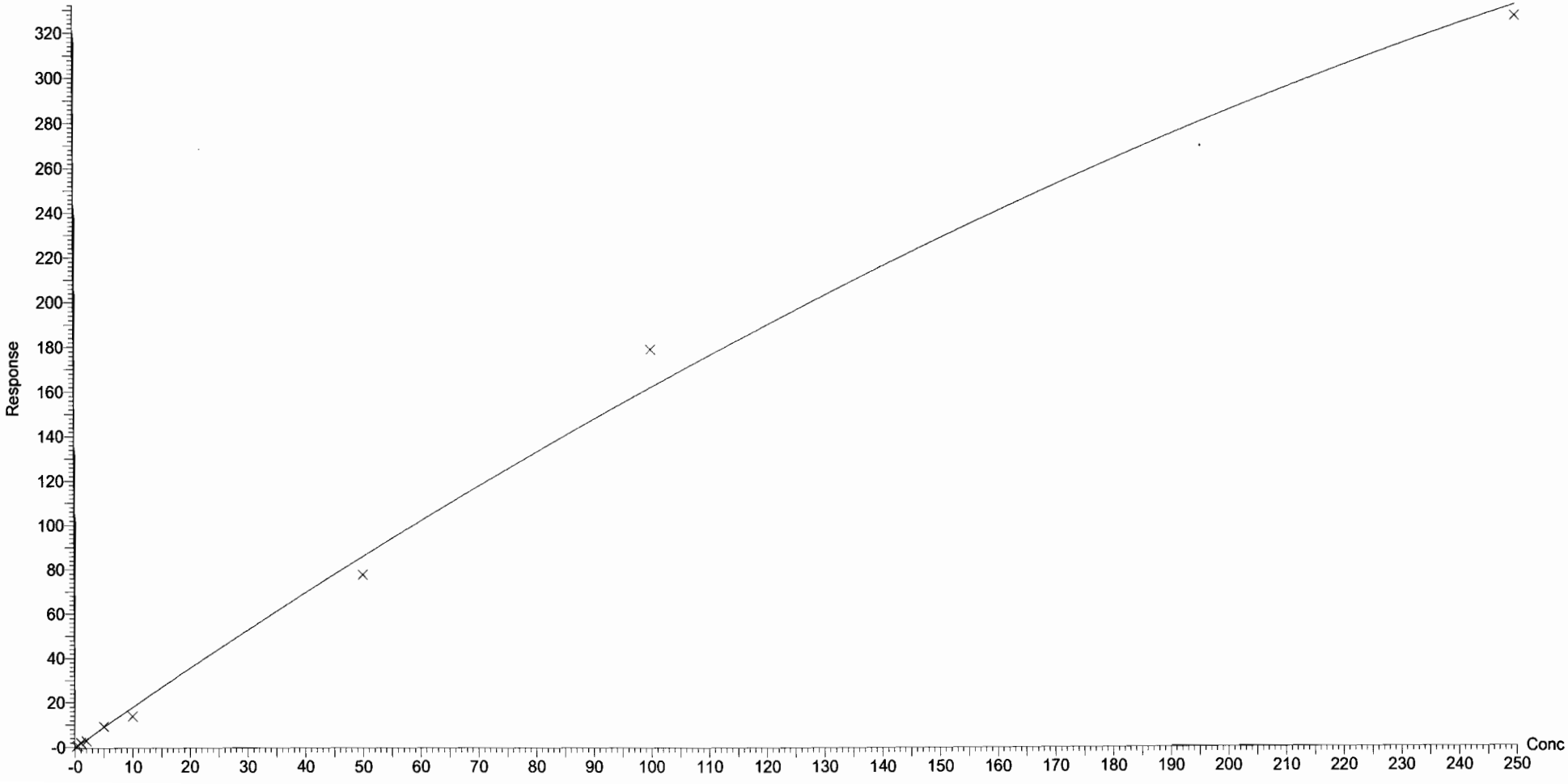
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.997598
Calibration curve: -0.00259552 * x^2 + 2.54506 * x + -0.107534
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.992826
Calibration curve: -0.00193714 * x^2 + 1.81348 * x + -0.136996
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

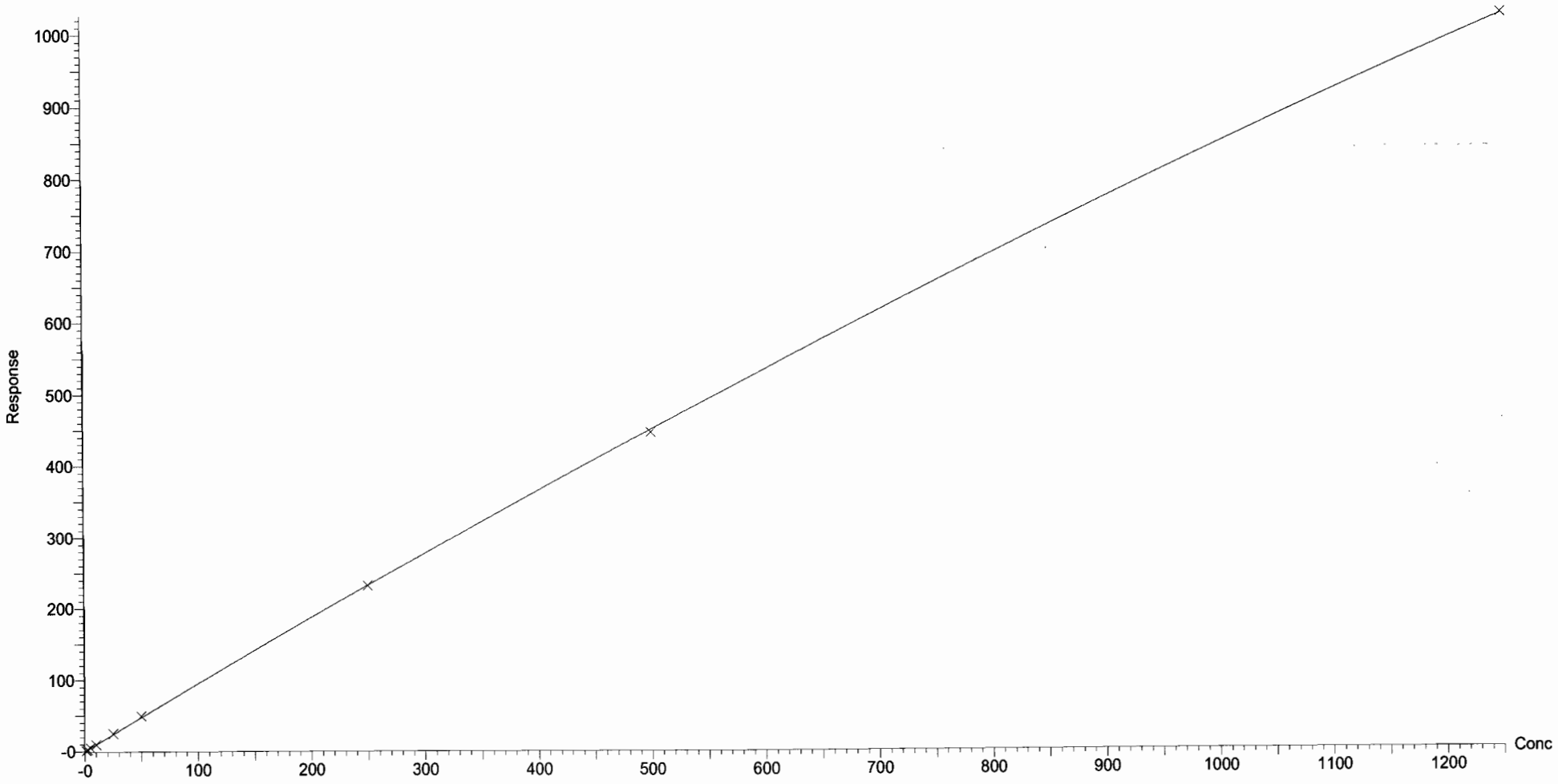


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

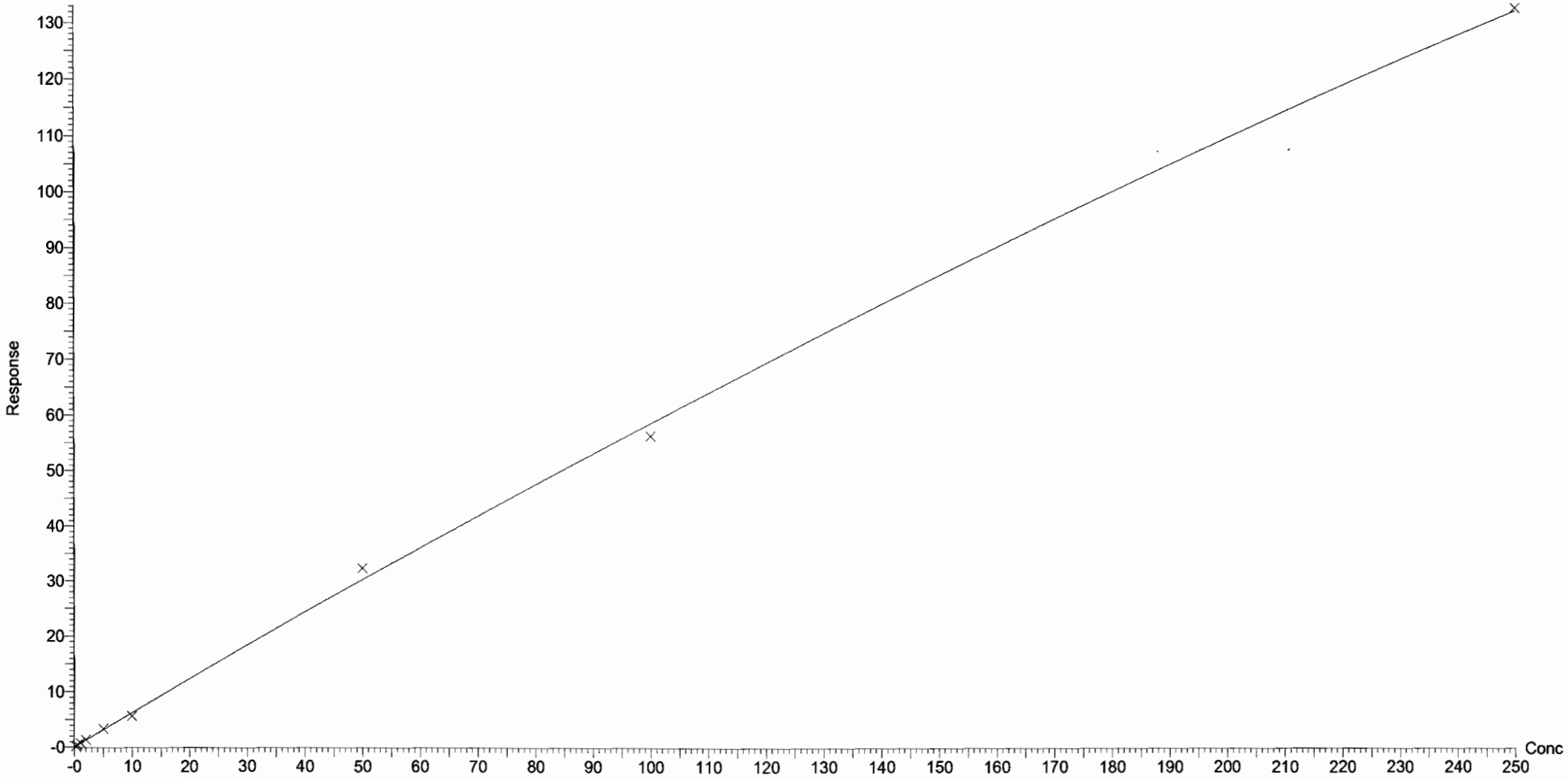
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999893
Calibration curve: -0.000107824 * x^2 + 0.954175 * x + 0.127347
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:55:04 Pacific Standard Time

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998494
Calibration curve: -0.000368339 * x^2 + 0.622101 * x + 0.0560203
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\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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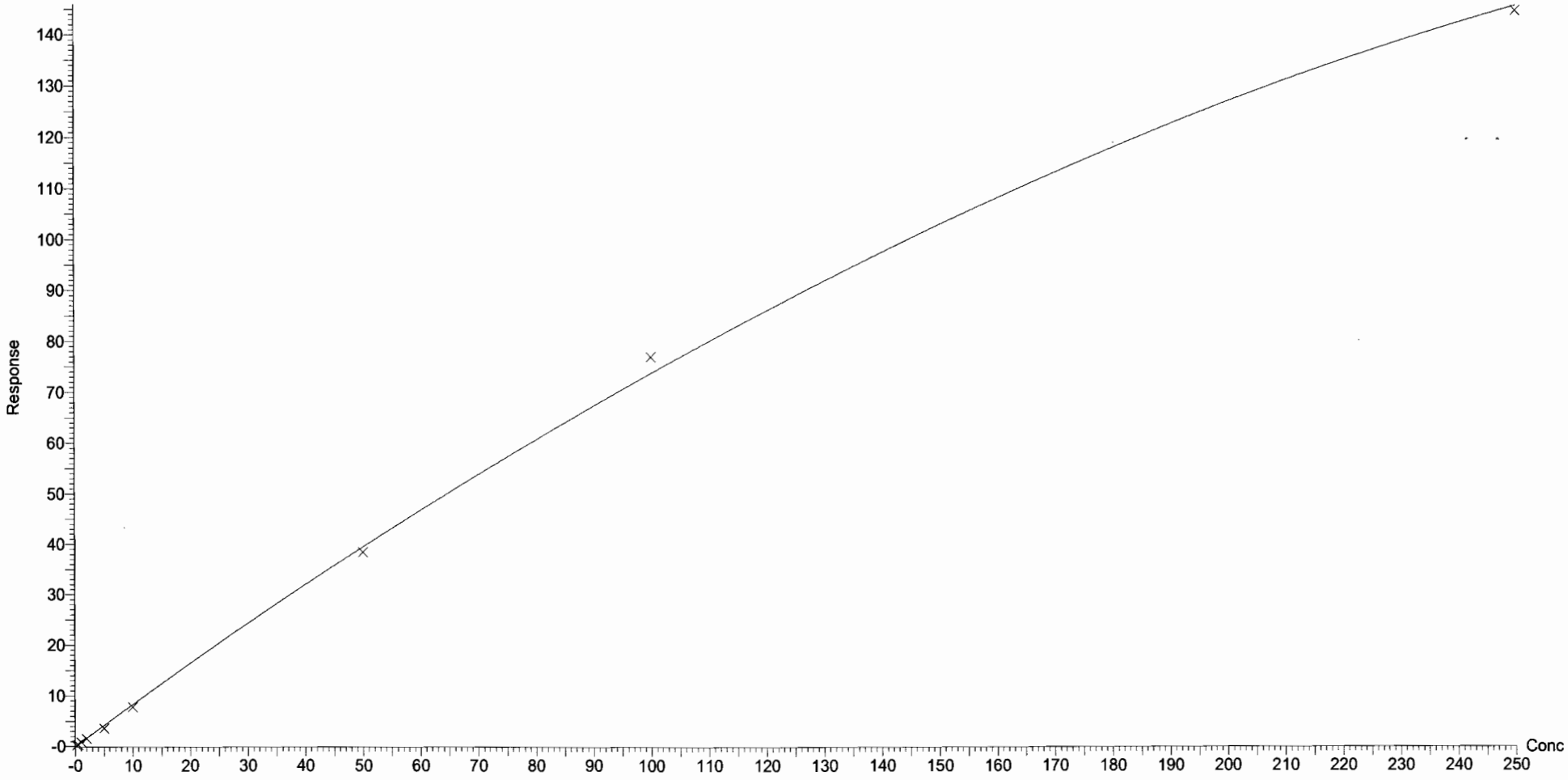
Compound name: PFODA
Coefficient of Determination: R^2 = 0.998652
Calibration curve: -0.00102948 * x^2 + 0.841165 * x + -0.0270457
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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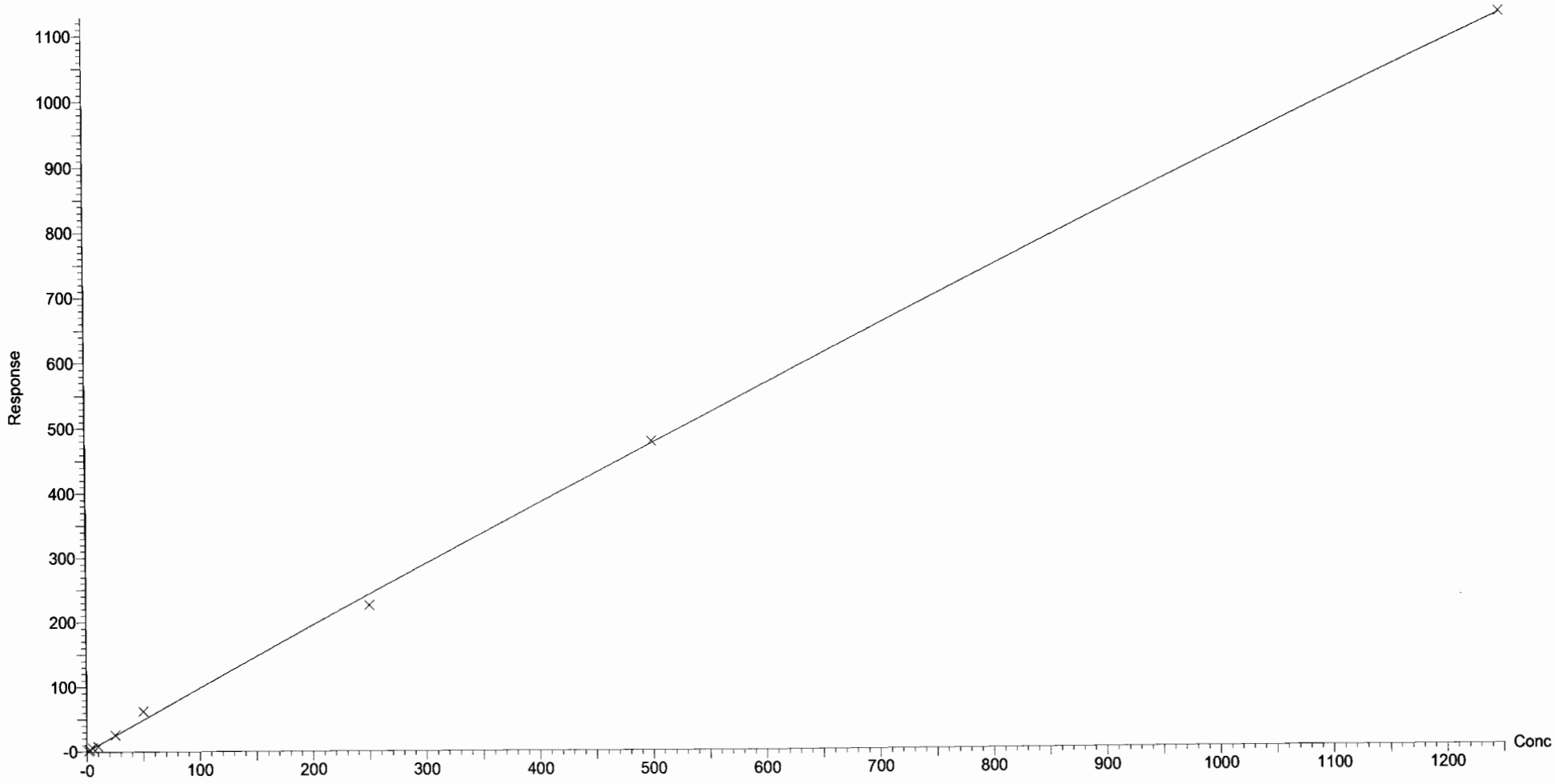
Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997042
Calibration curve: -6.41595e-005 * x^2 + 0.981257 * x + 0.0648122
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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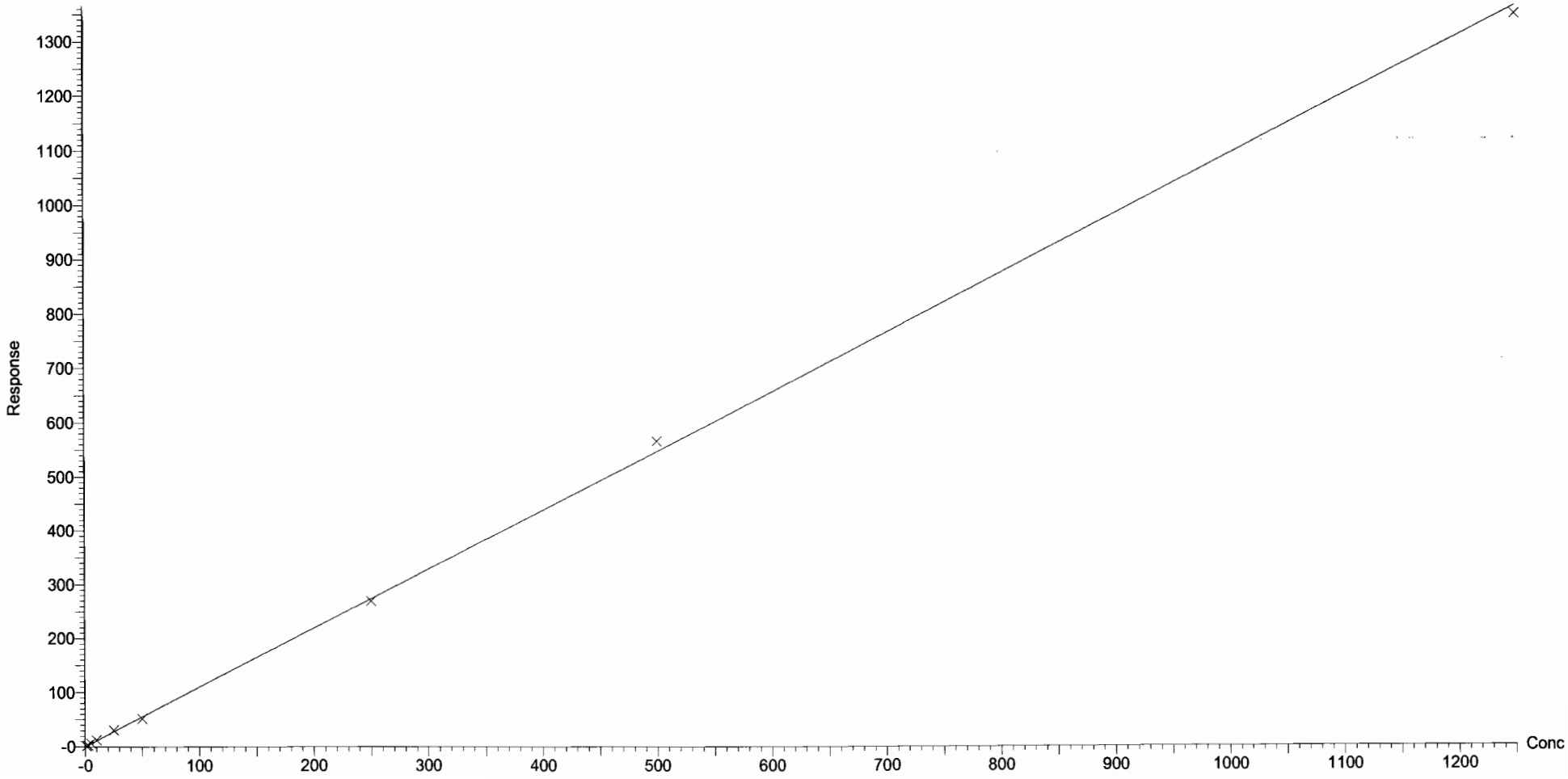
Compound name: N-EtFOSE
Correlation coefficient: r = 0.999598, r^2 = 0.999196
Calibration curve: 1.09203 * x + 0.298787
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



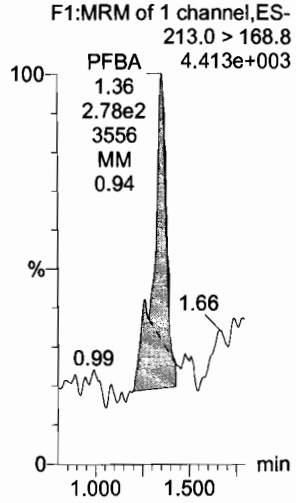
Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

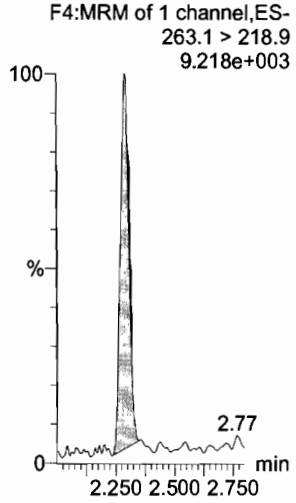
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 13:48:35

Name: 171206M2_2, Date: 07-Dec-2017, Time: 01:52:38, ID: ST171206M2-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

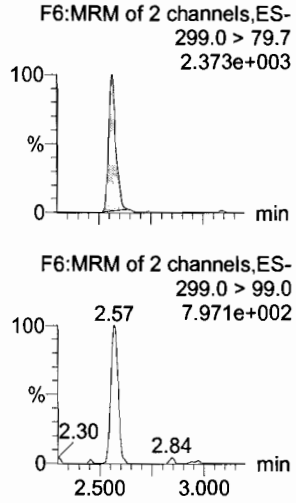
PFBA



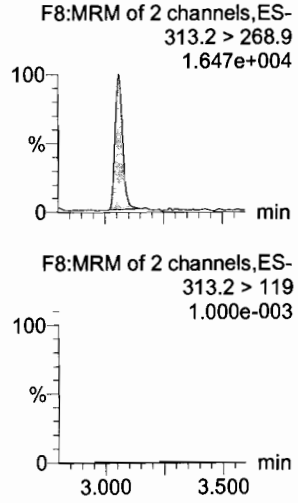
PFPeA



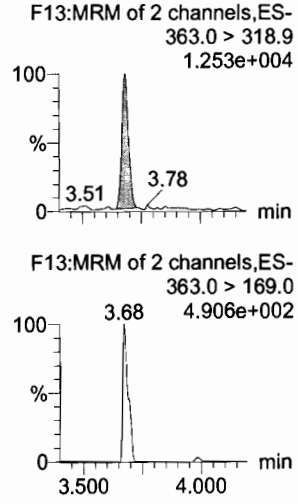
PFBS



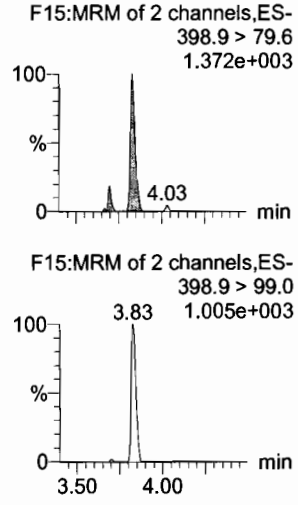
PFHxA



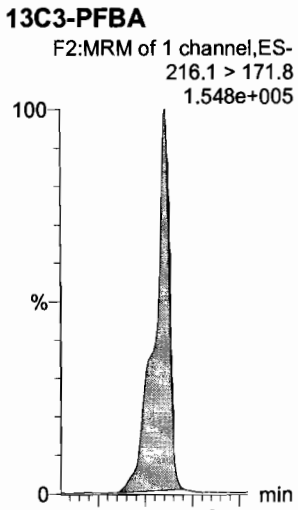
PFHpA



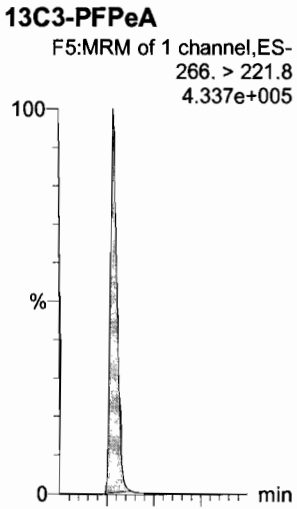
L-PFHxS



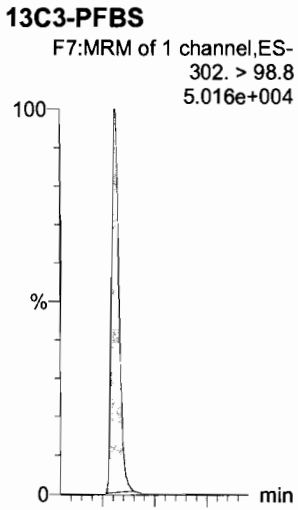
13C3-PFBA



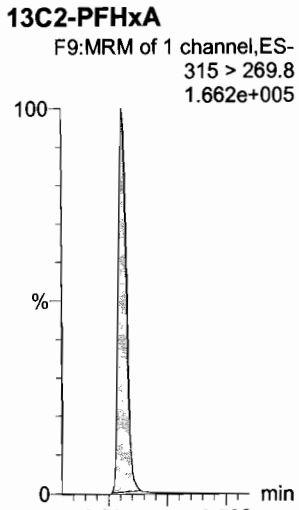
13C3-PFPeA



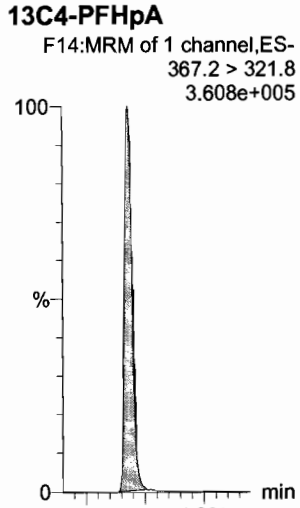
13C3-PFBS



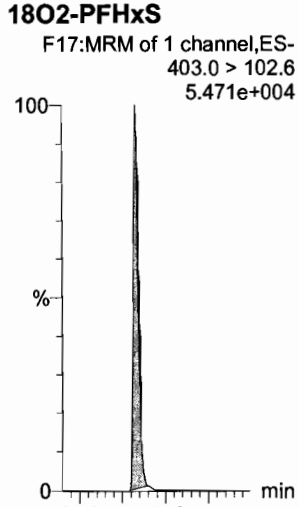
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

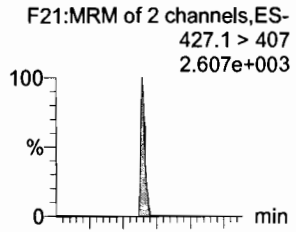


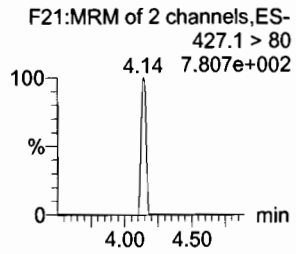
Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

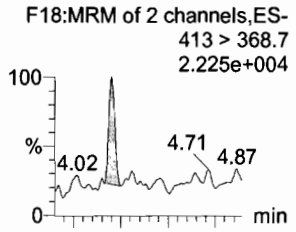
Name: 171206M2_2, Date: 07-Dec-2017, Time: 01:52:38, ID: ST171206M2-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

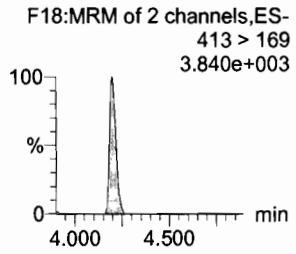
6:2 FTS



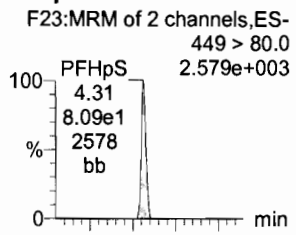


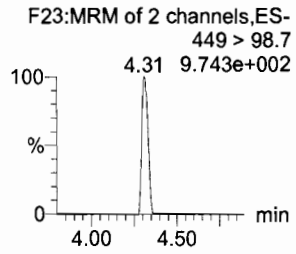
L-PFOA



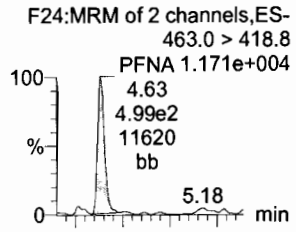


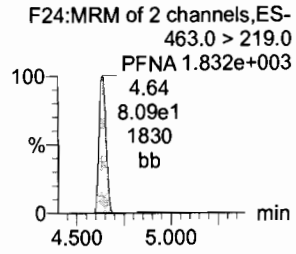
PFHpS



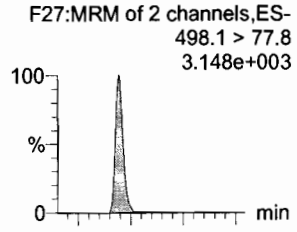


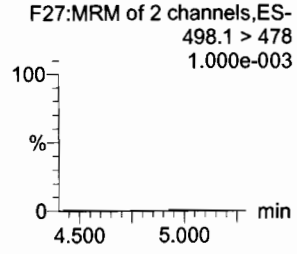
PFNA



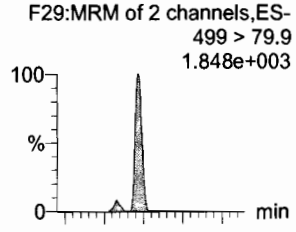


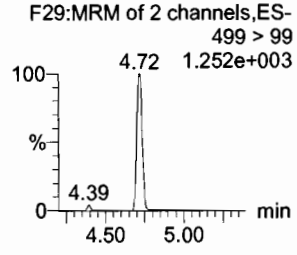
PFOSA



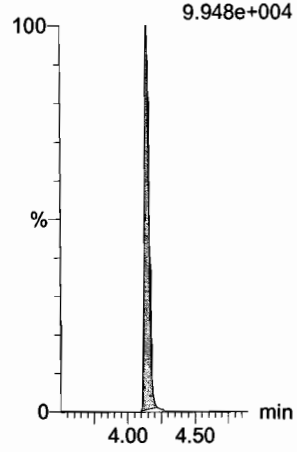


L-PFOS

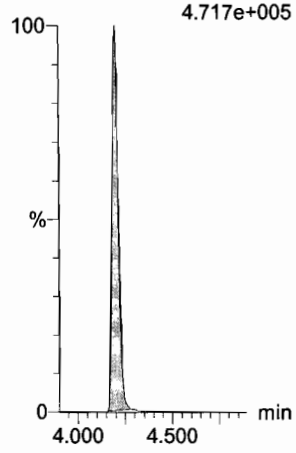




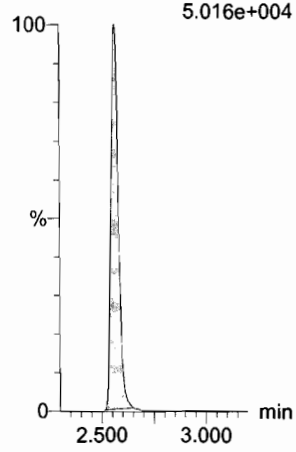
13C2-6:2 FTS



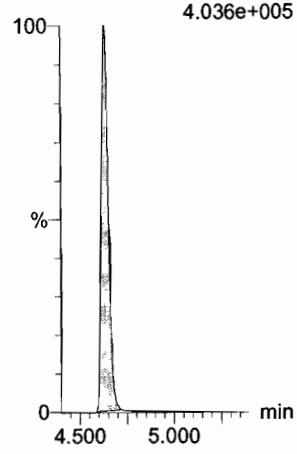
13C2-PFOA



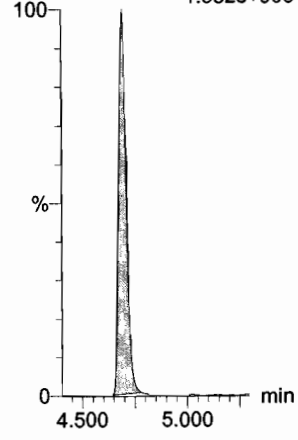
13C3-PFBS



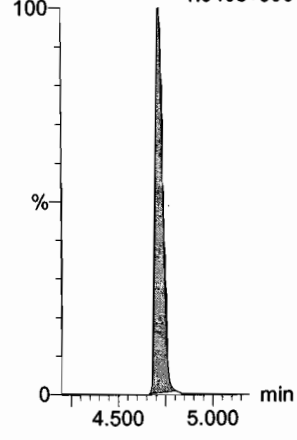
13C5-PFNA



13C8-PFOSA



13C8-PFOS

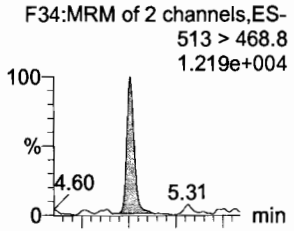


Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

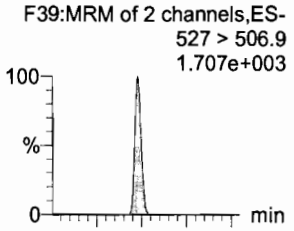
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_2, Date: 07-Dec-2017, Time: 01:52:38, ID: ST171206M2-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

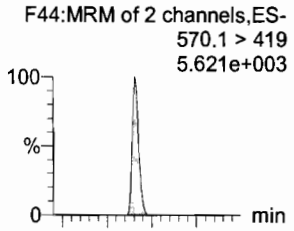
PFDA



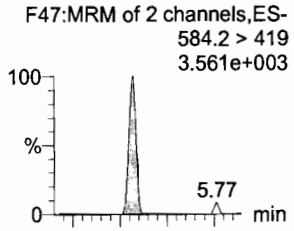
8:2 FTS



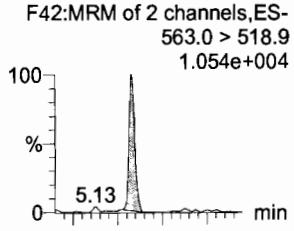
N-MeFOSAA



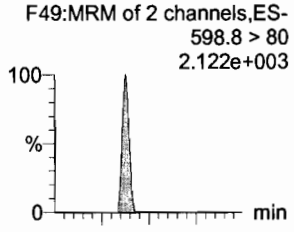
N-EtFOSAA



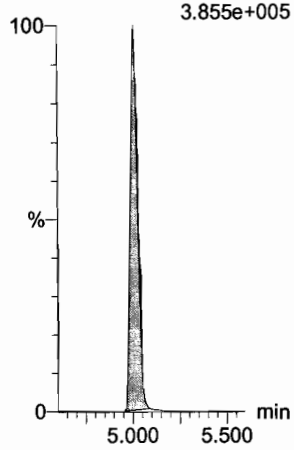
PFUdA



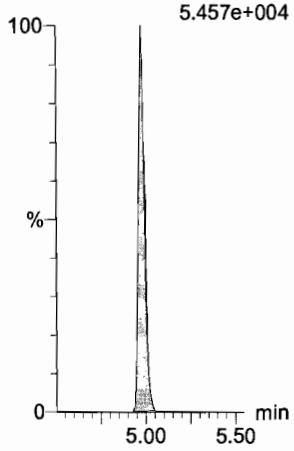
PFDS



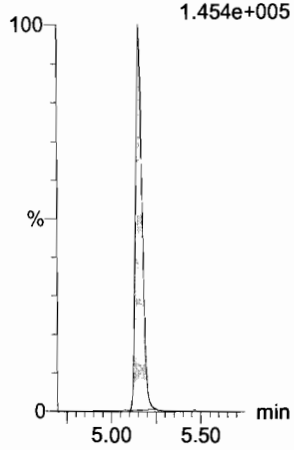
13C2-PFDA



13C2-8:2 FTS



d3-N-MeFOSAA



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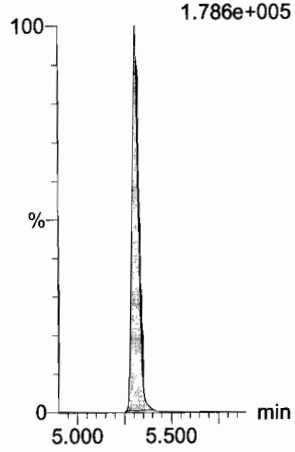
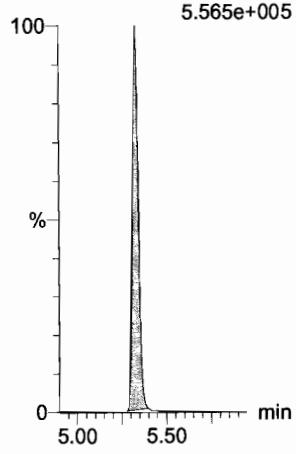


13C2-PFUdA



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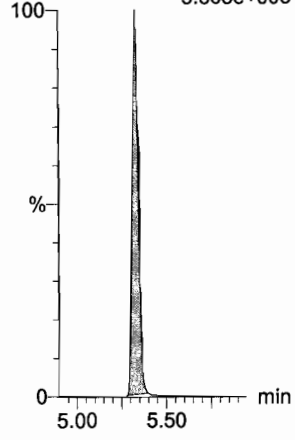

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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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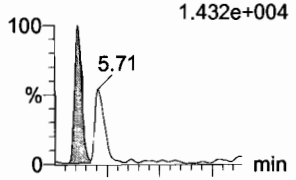
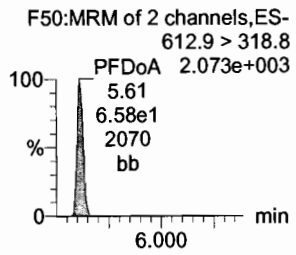
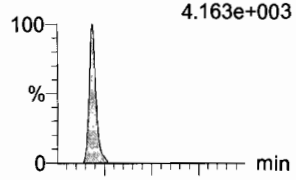
Name: 171206M2_2, Date: 07-Dec-2017, Time: 01:52:38, ID: ST171206M2-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

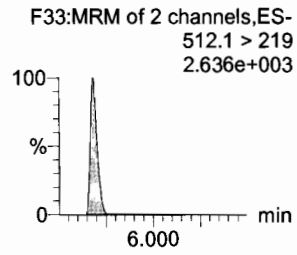
PFDoA



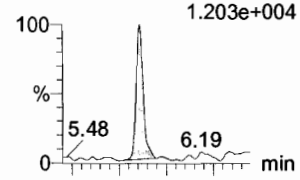


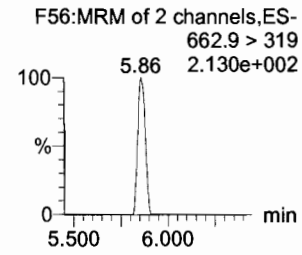
N-MeFOSA



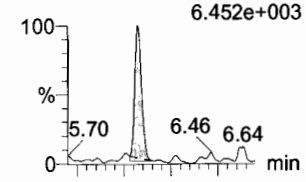


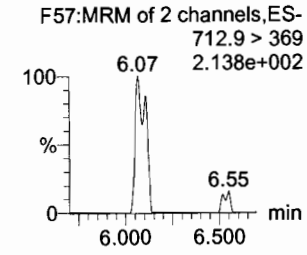
PFTrDA



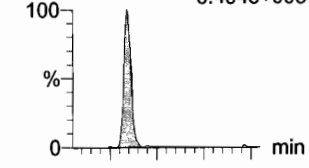


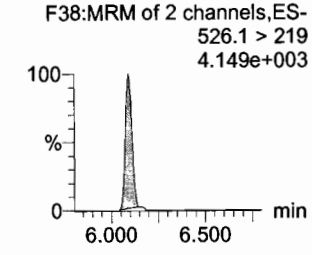
PFTeDA



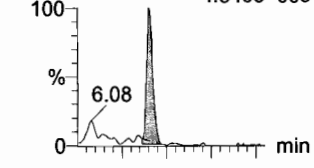


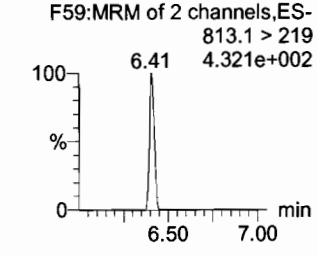
N-EtFOSA



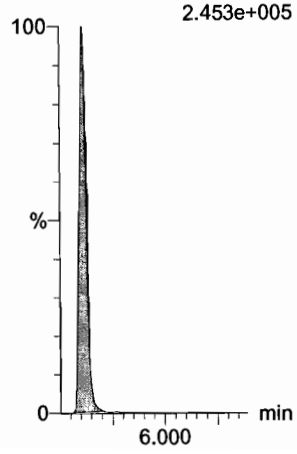


PFHxDA

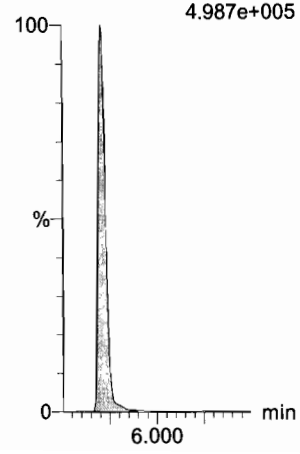




13C2-PFDoA



d3-N-MeFOSA



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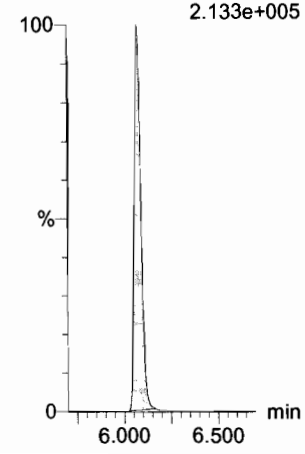

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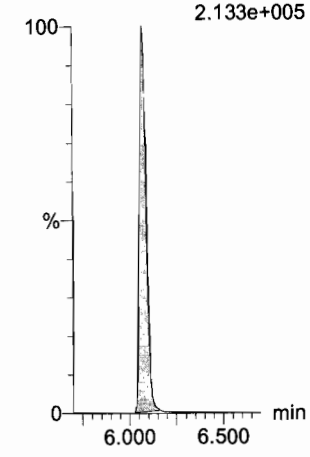
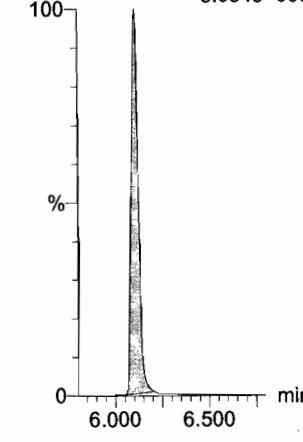
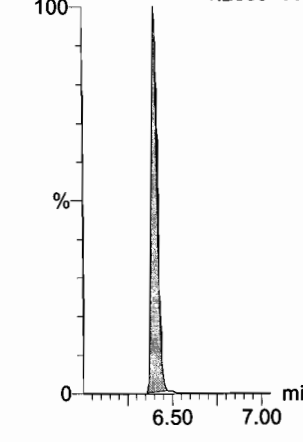


d5-N-ETFOSA



13C2-PFHxDA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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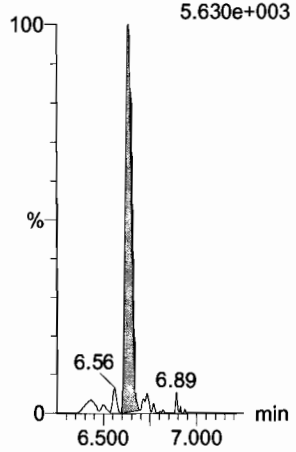
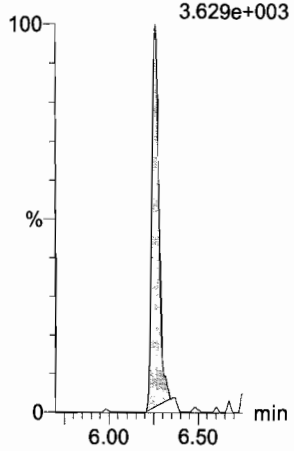
Name: 171206M2_2, Date: 07-Dec-2017, Time: 01:52:38, ID: ST171206M2-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

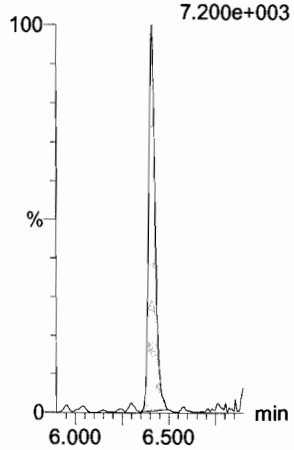
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
5.630e+003



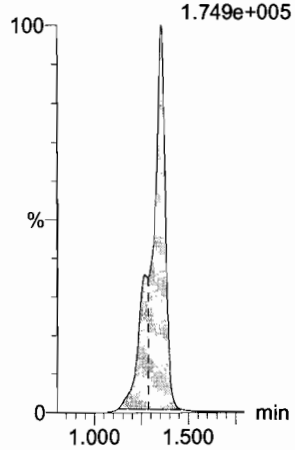
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.629e+003



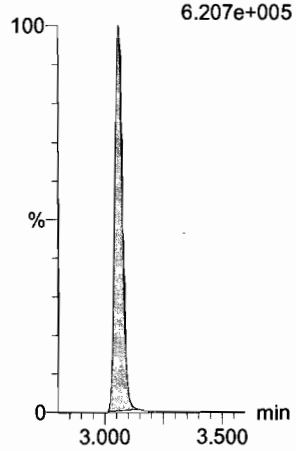
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
7.200e+003



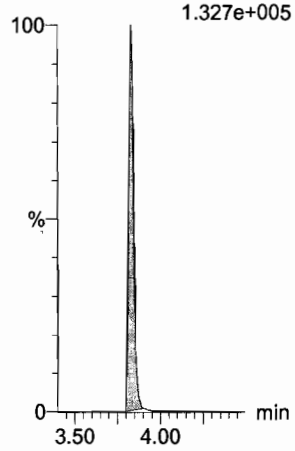
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.749e+005



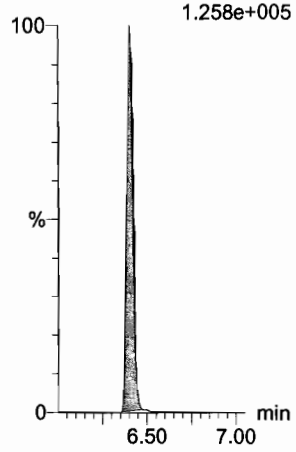
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
6.207e+005



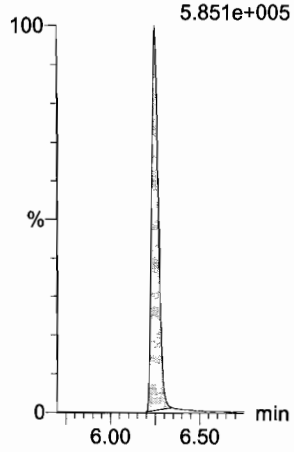
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.327e+005



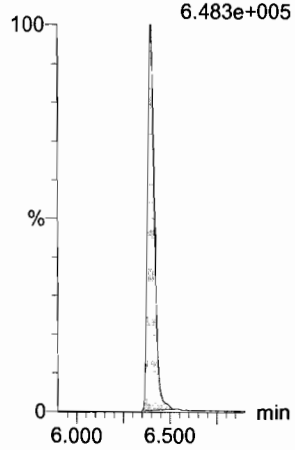
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.258e+005



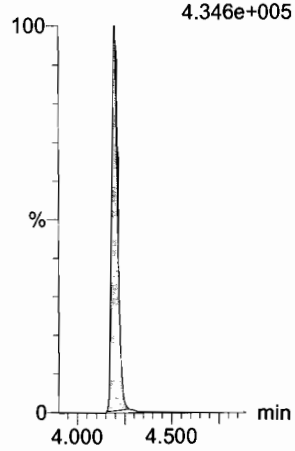
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.851e+005



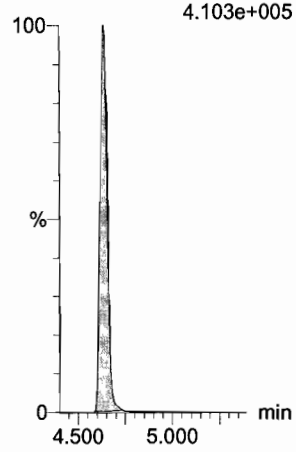
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.483e+005



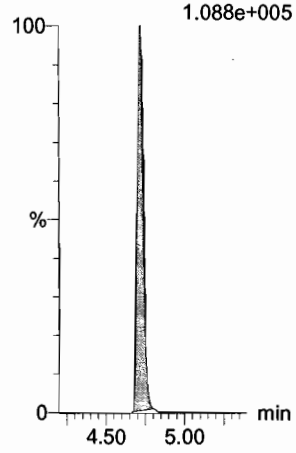
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.346e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.103e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.088e+005



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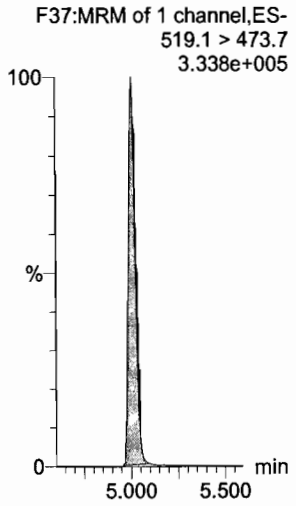
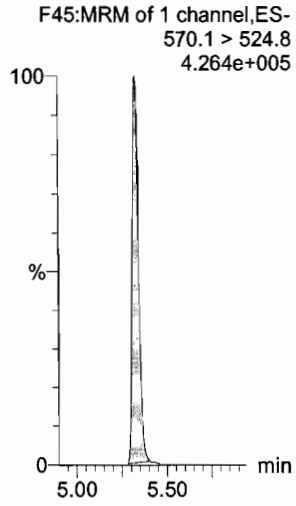
Name: 171206M2_2, Date: 07-Dec-2017, Time: 01:52:38, ID: ST171206M2-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

13C6-PFDA



13C7-PFUdA



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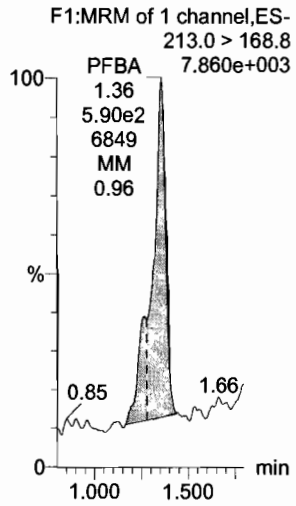
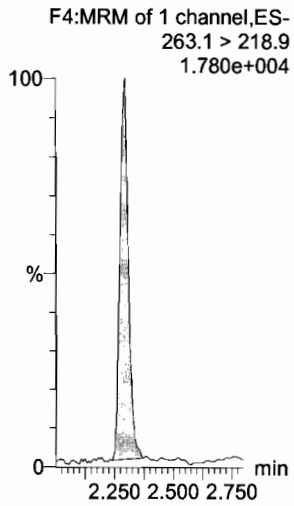
Name: 171206M2_3, Date: 07-Dec-2017, Time: 02:03:48, ID: ST171206M2-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

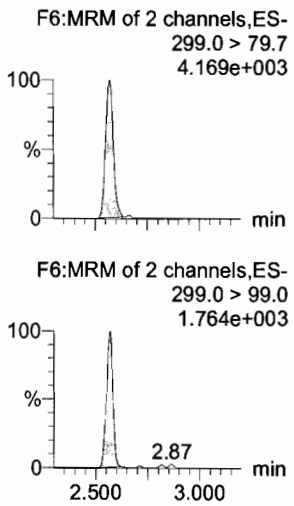
PFBA



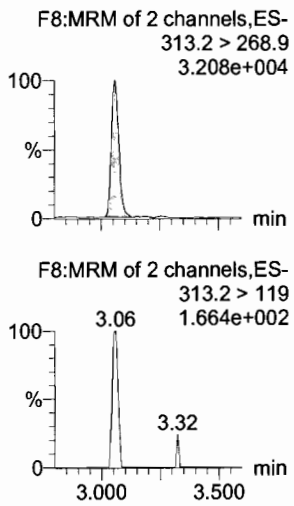
PFPeA



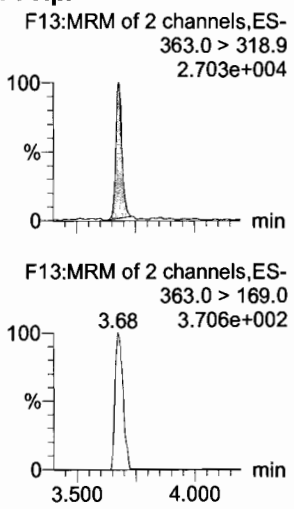
PFBS



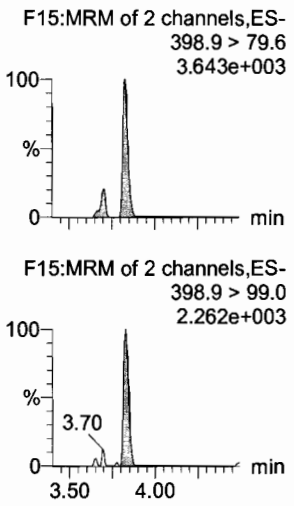
PFHxA



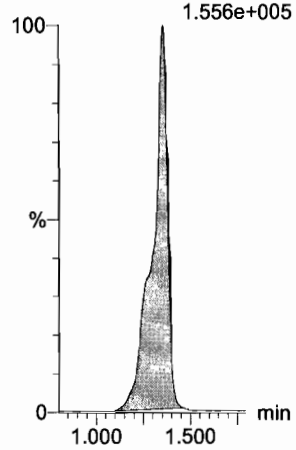
PFHpA



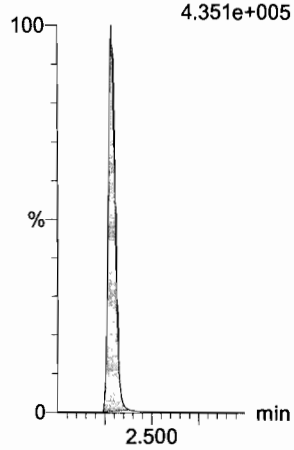
L-PFHxS



13C3-PFBA



13C3-PFPeA



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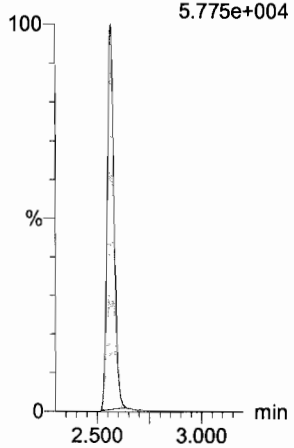
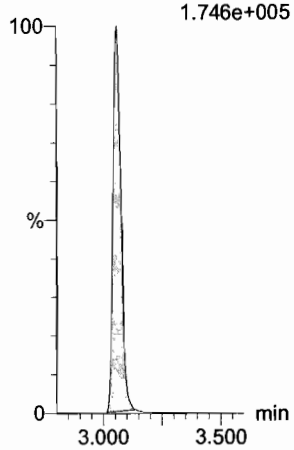
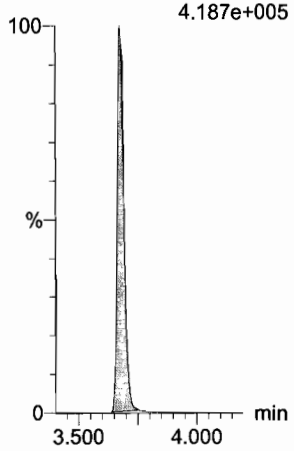


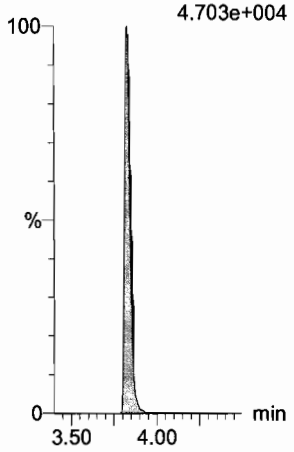
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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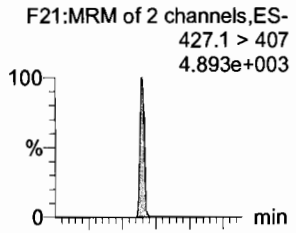
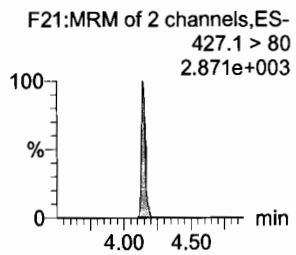
Name: 171206M2_3, Date: 07-Dec-2017, Time: 02:03:48, ID: ST171206M2-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

6:2 FTS





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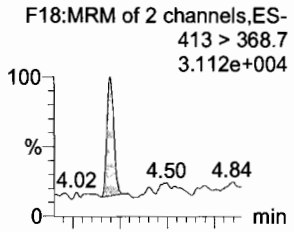

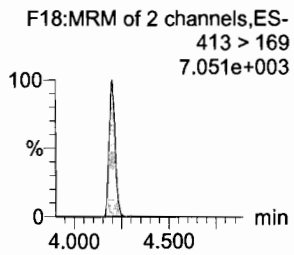

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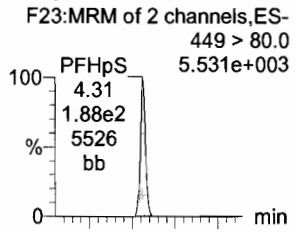

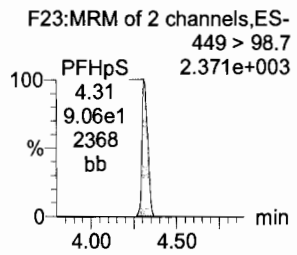

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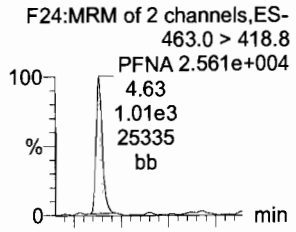

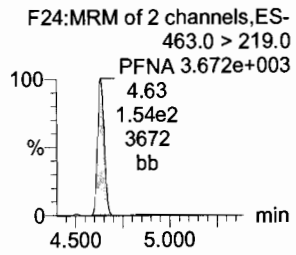

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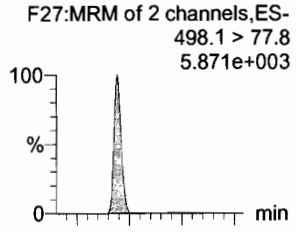

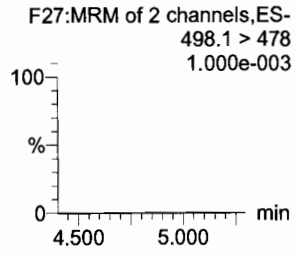

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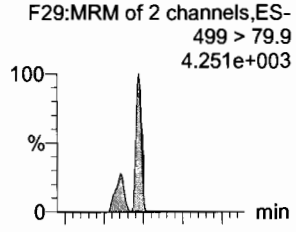

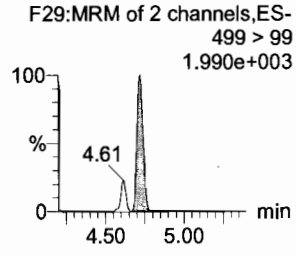

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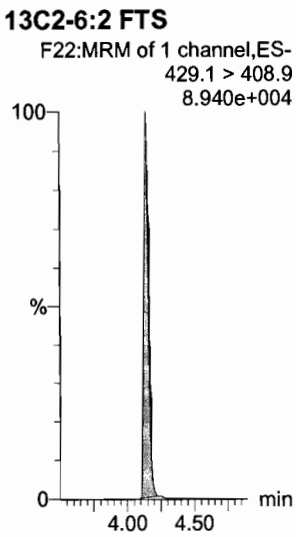

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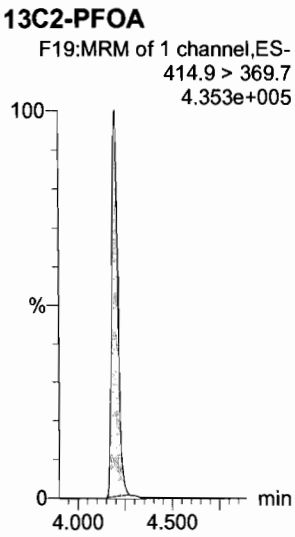

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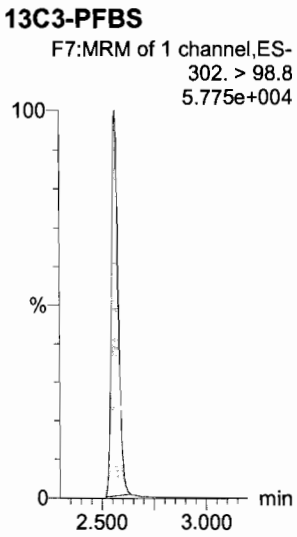

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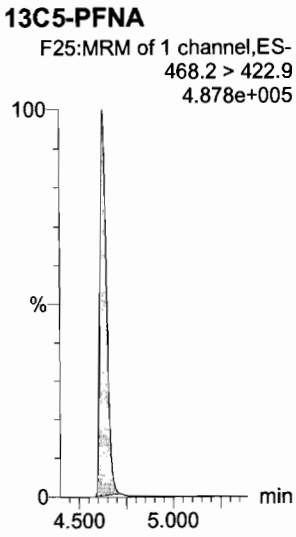

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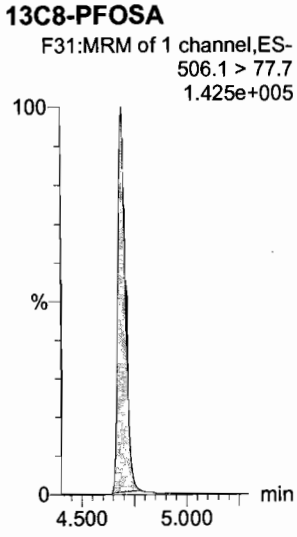

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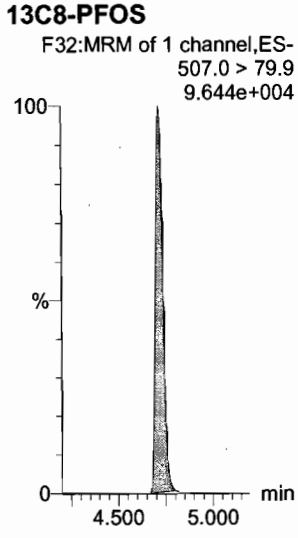

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Name: 171206M2_3, Date: 07-Dec-2017, Time: 02:03:48, ID: ST171206M2-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

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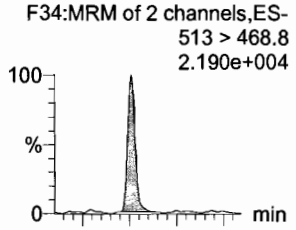
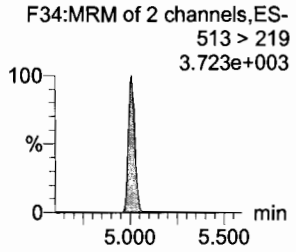
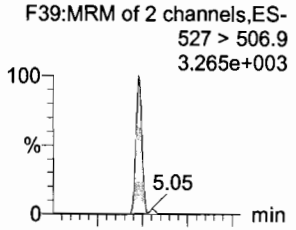
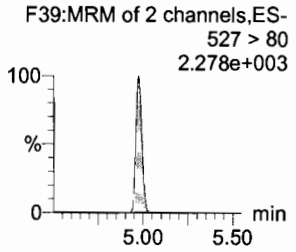




8:2 FTS





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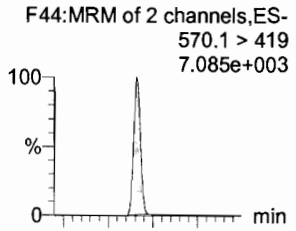

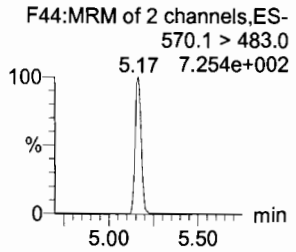

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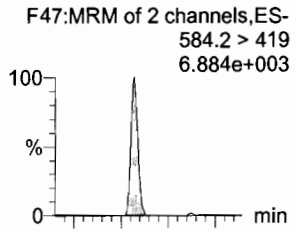

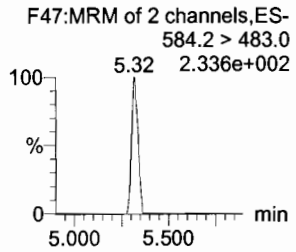

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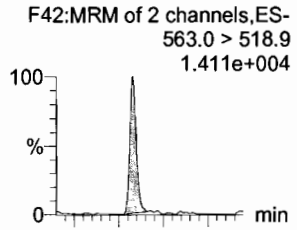

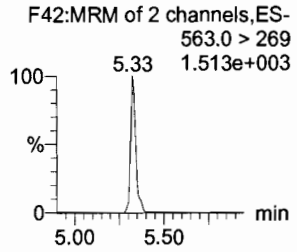

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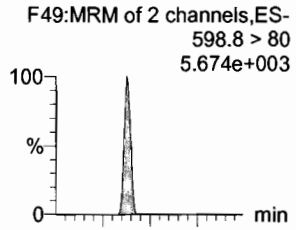

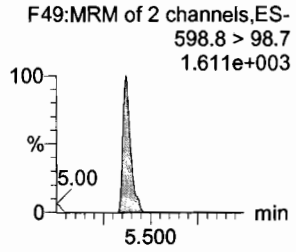

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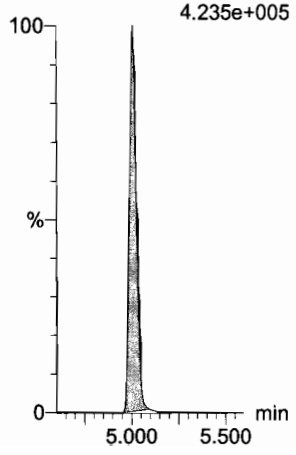

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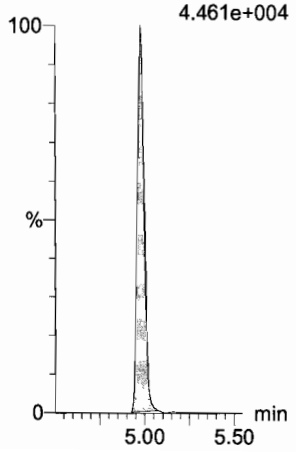

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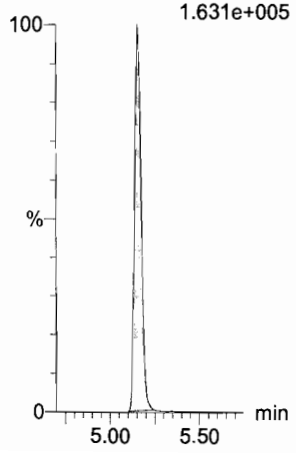

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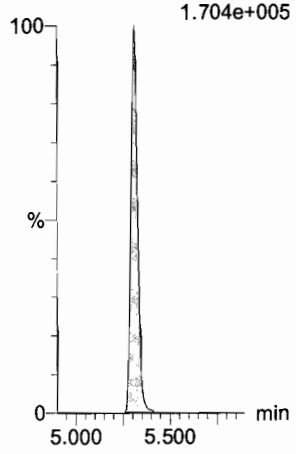

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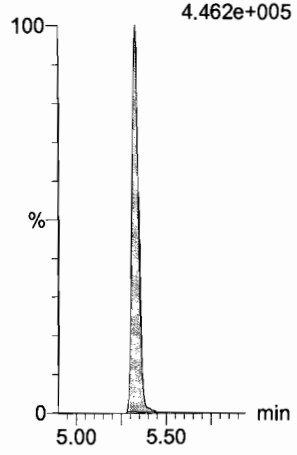

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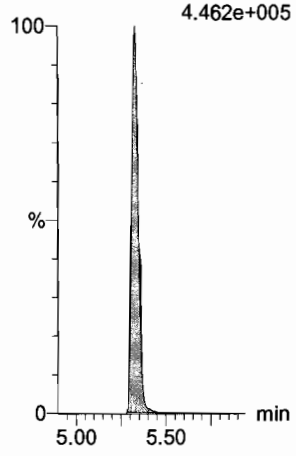

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Name: 171206M2_3, Date: 07-Dec-2017, Time: 02:03:48, ID: ST171206M2-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

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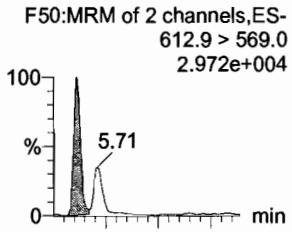

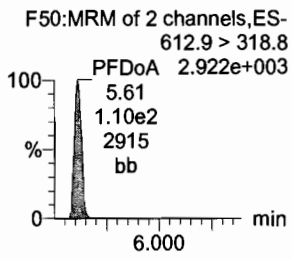

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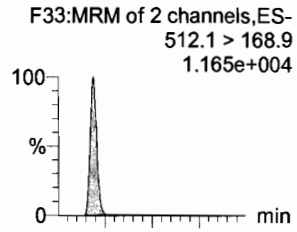

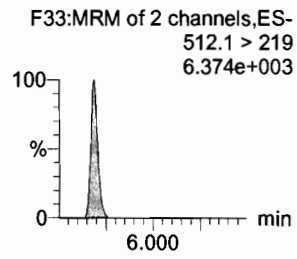

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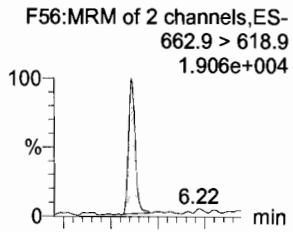

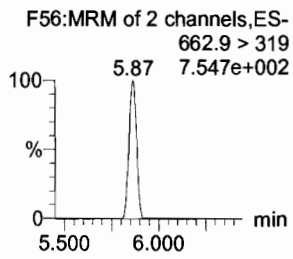

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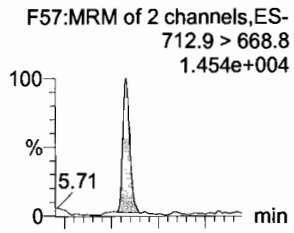

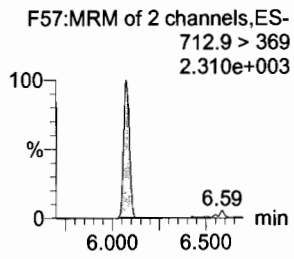

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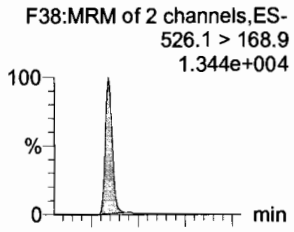

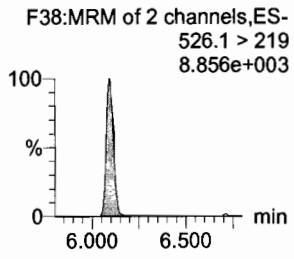

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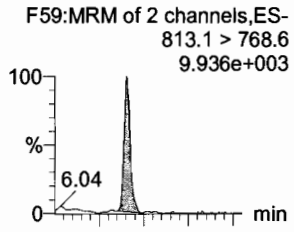

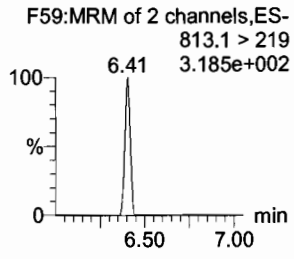

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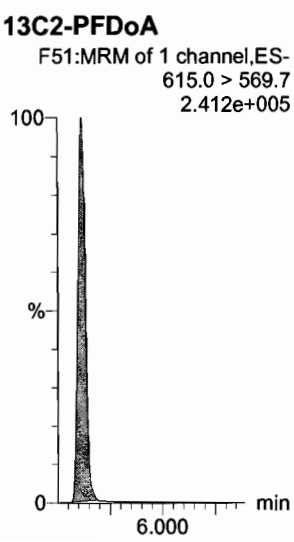

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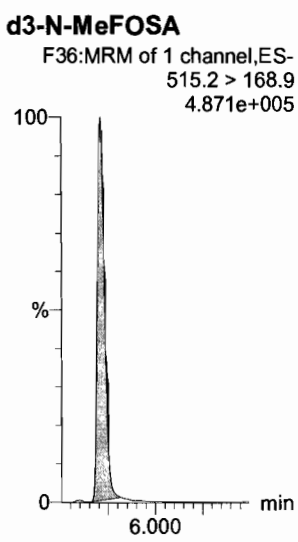

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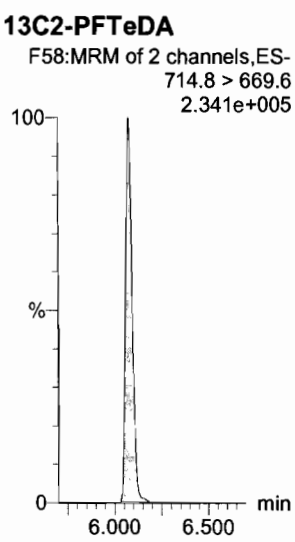

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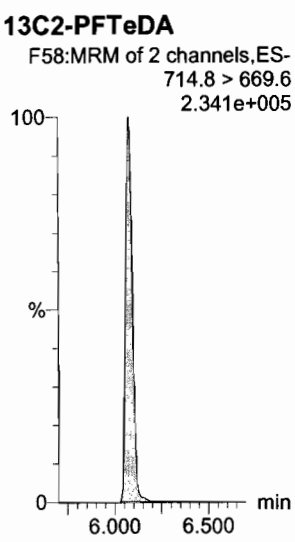

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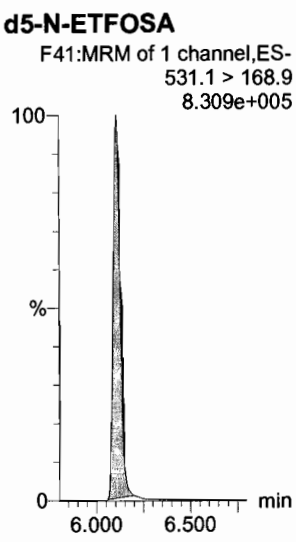

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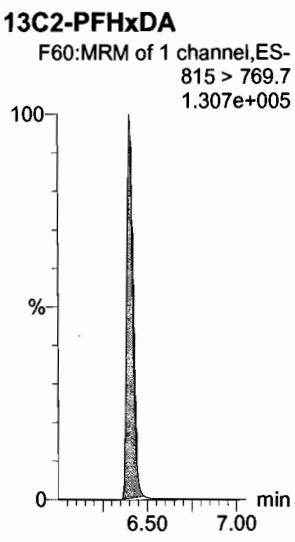

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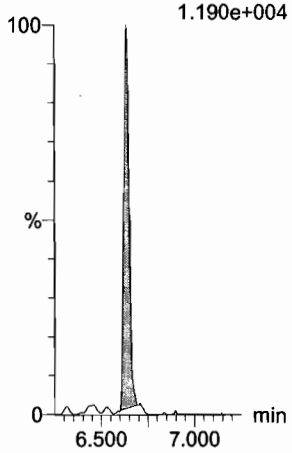
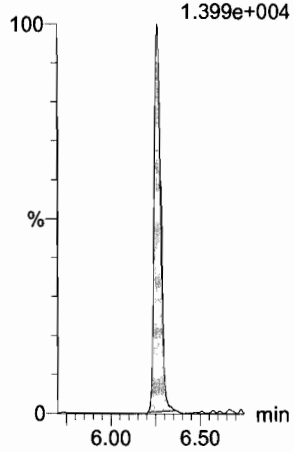
Name: 171206M2_3, Date: 07-Dec-2017, Time: 02:03:48, ID: ST171206M2-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

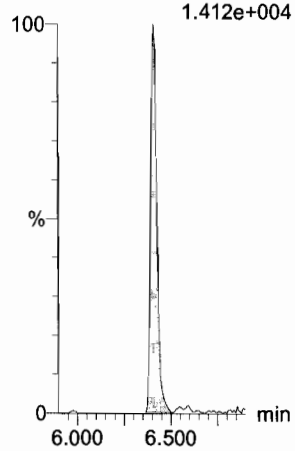
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.190e+004



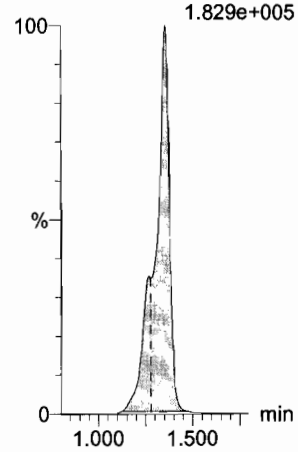
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.399e+004



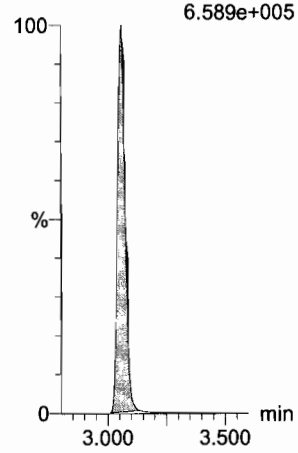
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.412e+004



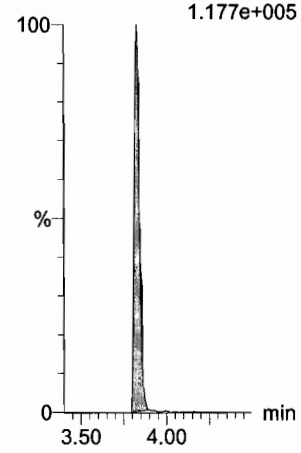
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.829e+005



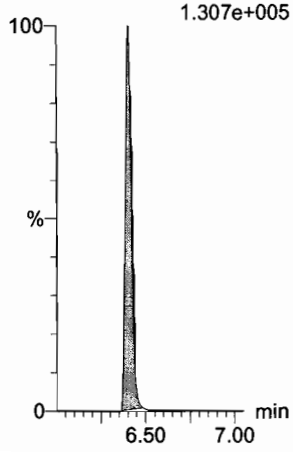
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
6.589e+005



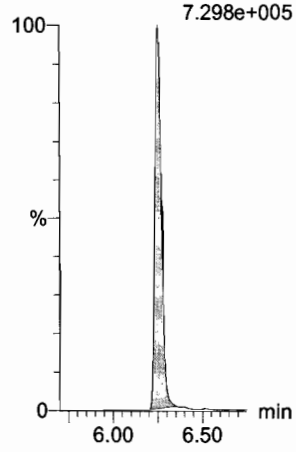
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.177e+005



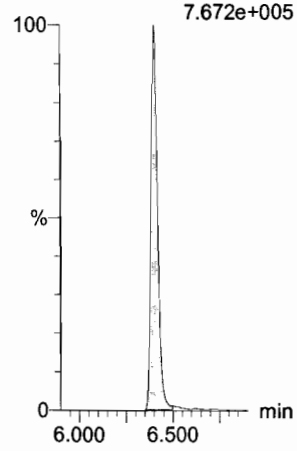
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.307e+005



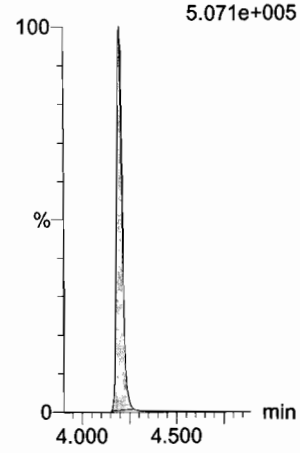
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
7.298e+005



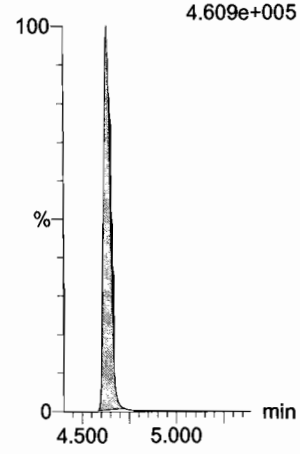
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.672e+005



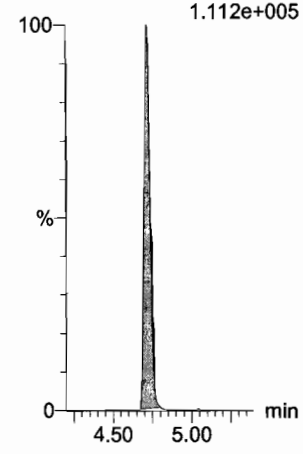
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.071e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.609e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.112e+005



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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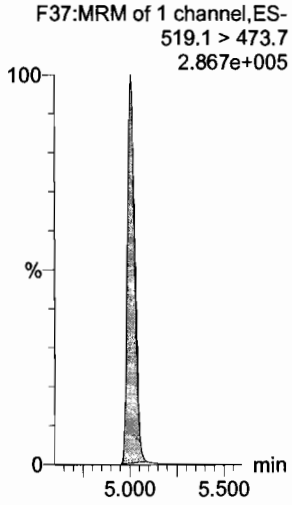
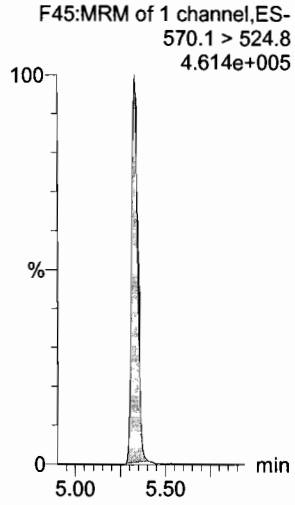
Name: 171206M2_3, Date: 07-Dec-2017, Time: 02:03:48, ID: ST171206M2-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

13C6-PFDA



13C7-PFUdA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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Name: 171206M2_4, Date: 07-Dec-2017, Time: 02:15:01, ID: ST171206M2-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

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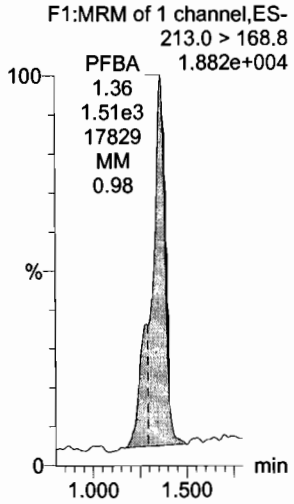
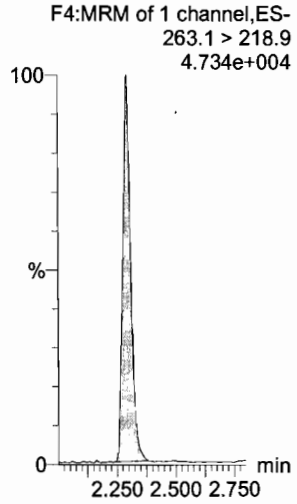
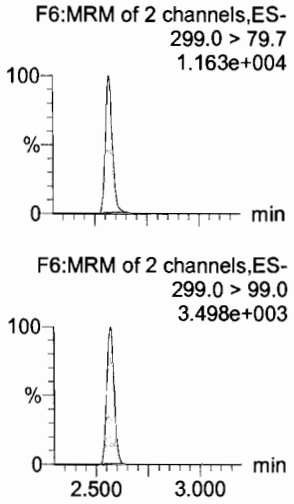


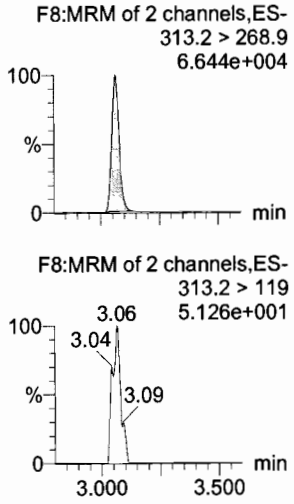
PFPeA



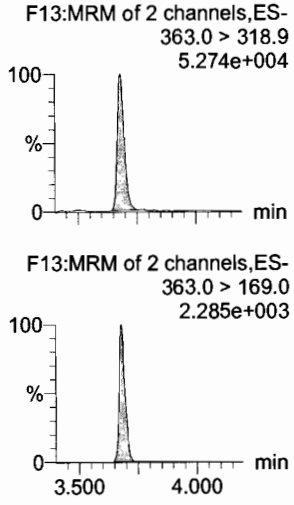
PFBS



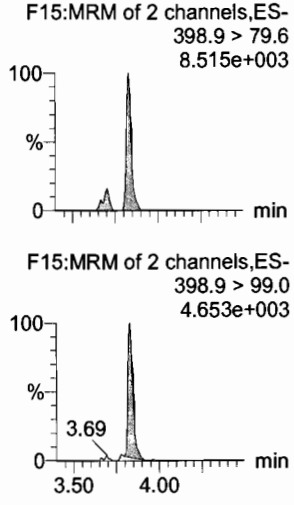
PFHxA



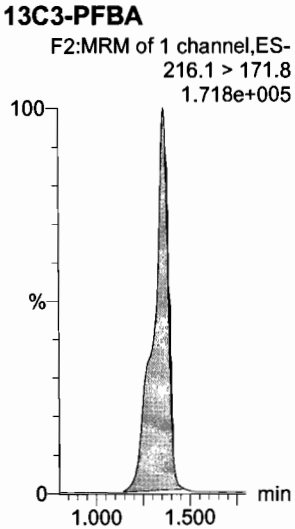
PFHpA



L-PFHxS



13C3-PFBA



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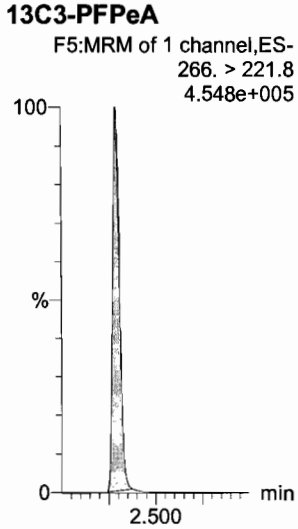
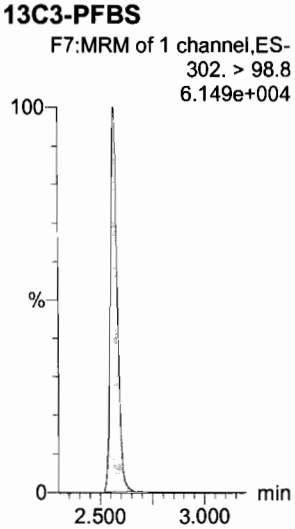
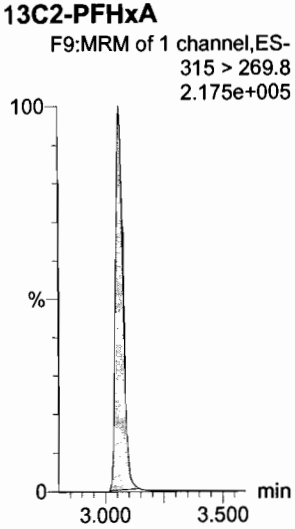


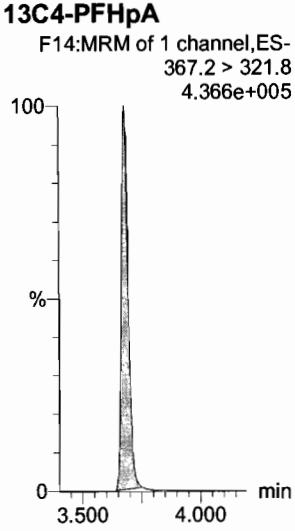
13C3-PFBS



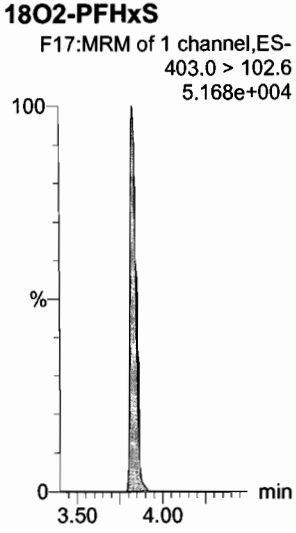
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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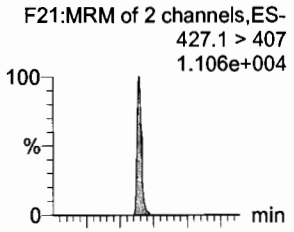
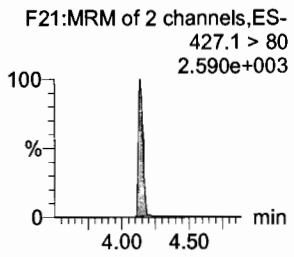
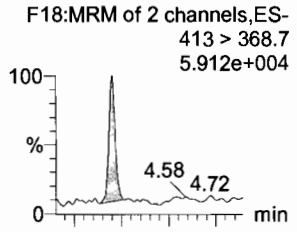
Name: 171206M2_4, Date: 07-Dec-2017, Time: 02:15:01, ID: ST171206M2-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

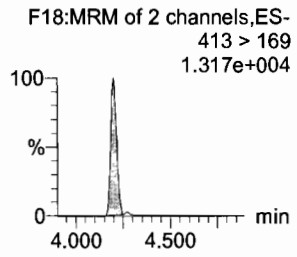
6:2 FTS



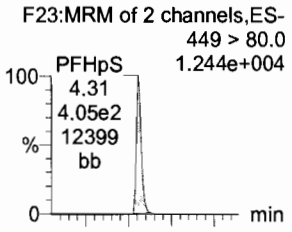


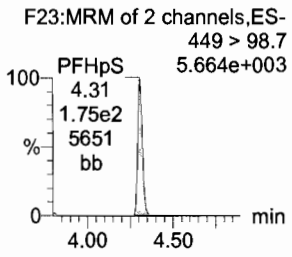
L-PFOA



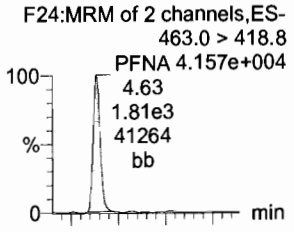


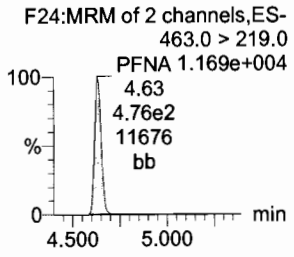
PFHpS



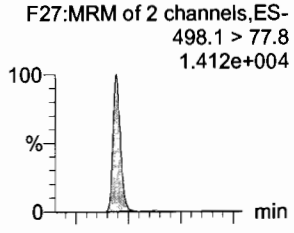


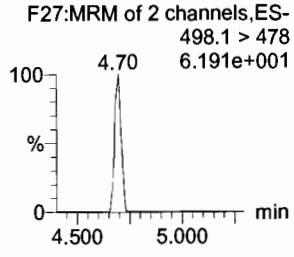
PFNA



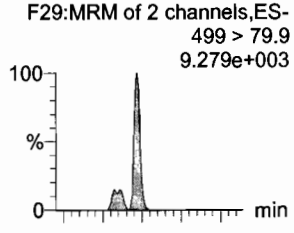


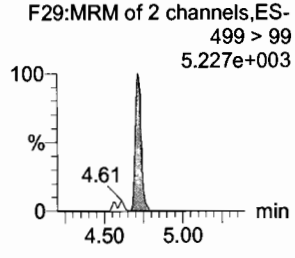
PFOSA



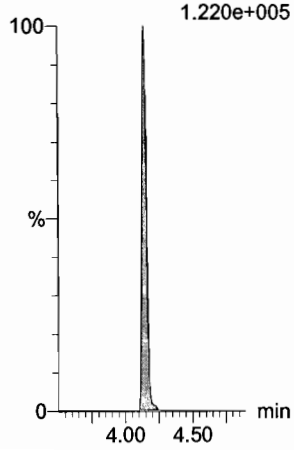


L-PFOS

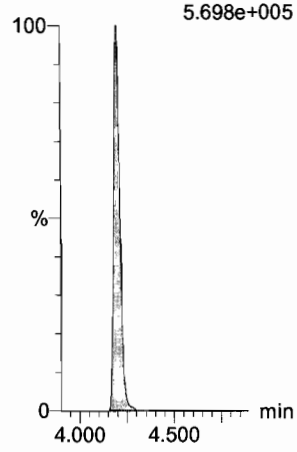




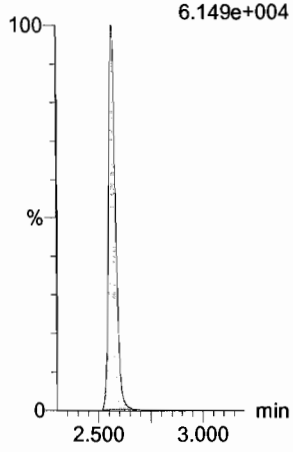
13C2-6:2 FTS



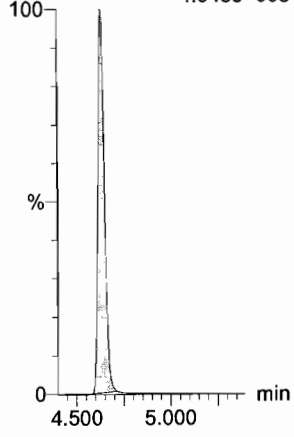
13C2-PFOA



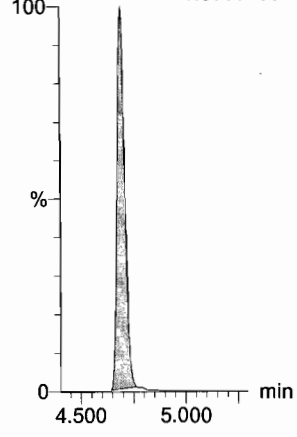
13C3-PFBS



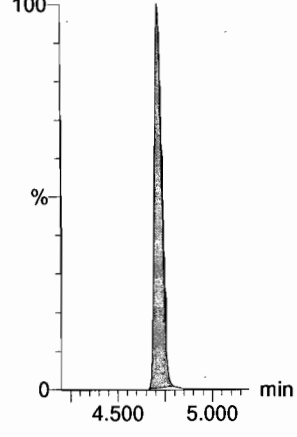
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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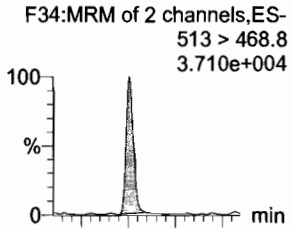
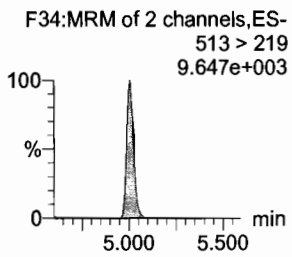
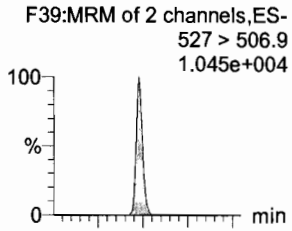
Name: 171206M2_4, Date: 07-Dec-2017, Time: 02:15:01, ID: ST171206M2-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

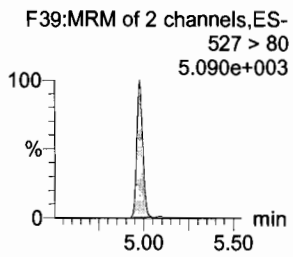
PFDA



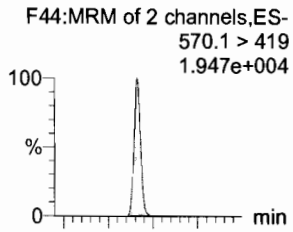


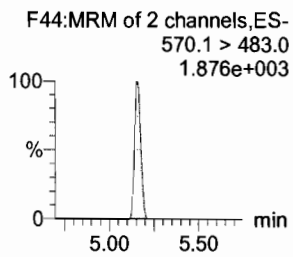
8:2 FTS



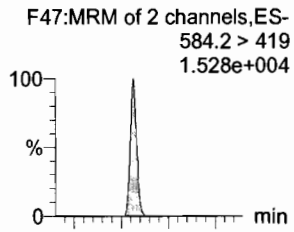


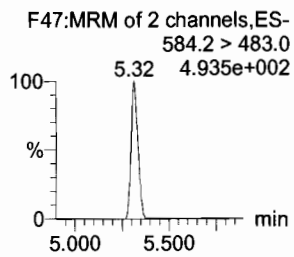
N-MeFOSAA





N-EtFOSAA





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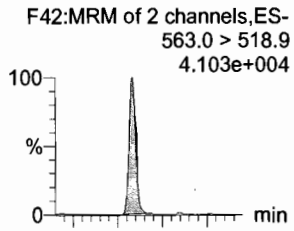
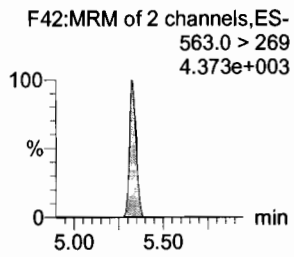
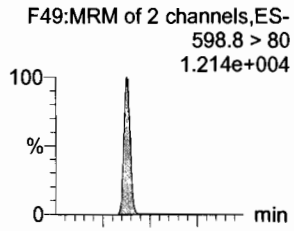
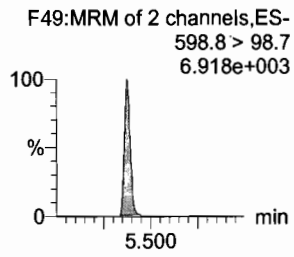


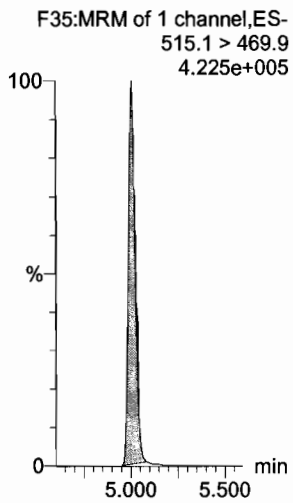


PFDS

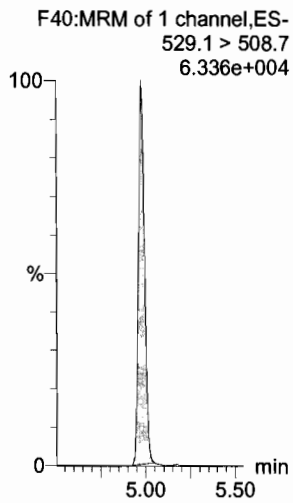




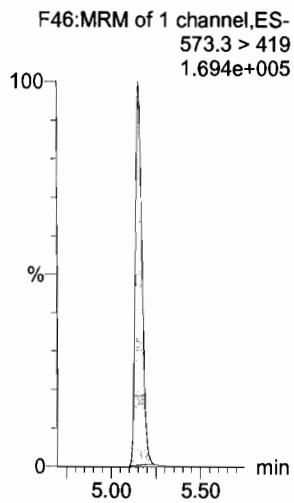
13C2-PFDA



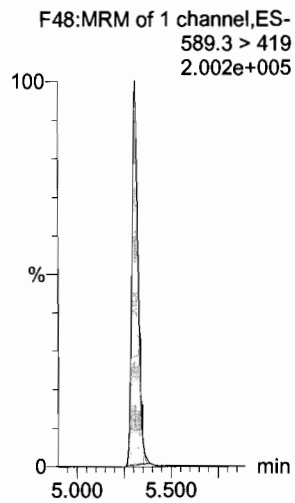
13C2-8:2 FTS



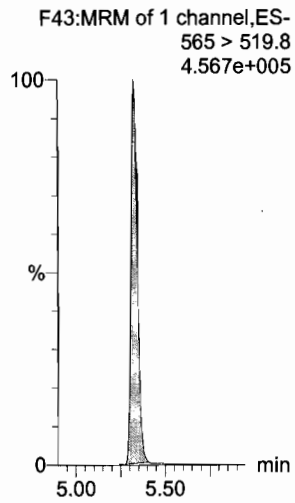
d3-N-MeFOSAA



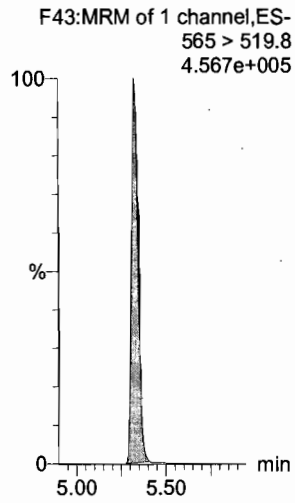
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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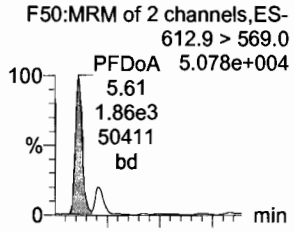
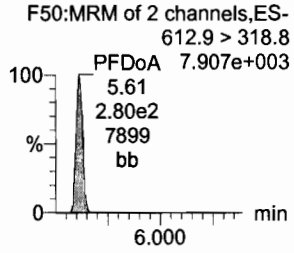
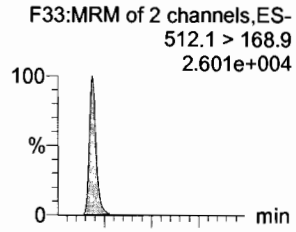
Name: 171206M2_4, Date: 07-Dec-2017, Time: 02:15:01, ID: ST171206M2-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

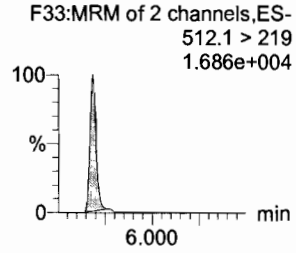
PFDoA





N-MeFOSA





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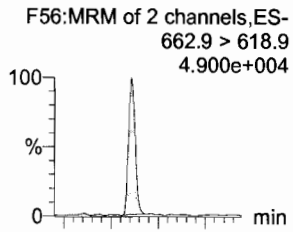
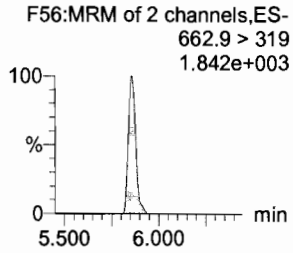
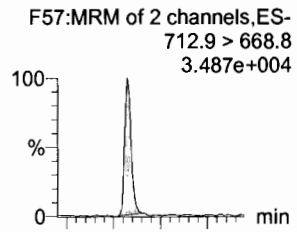
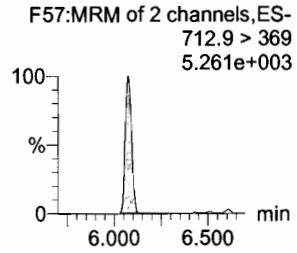


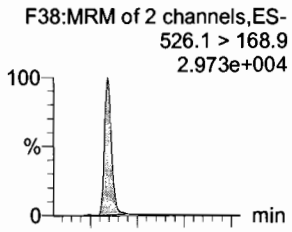


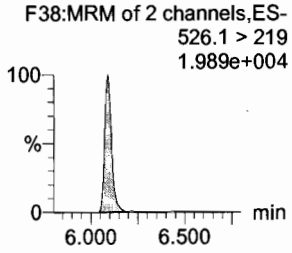
PFTeDA



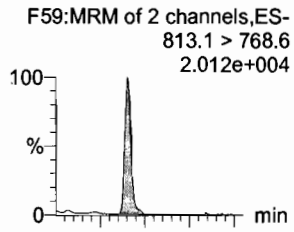


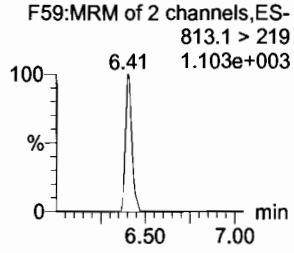
N-EtFOSA



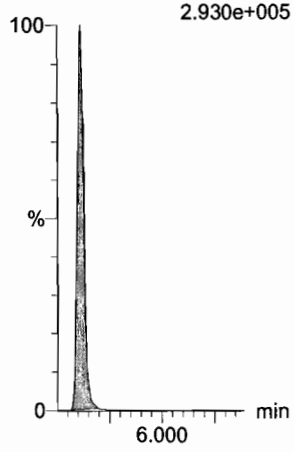


PFHxDA

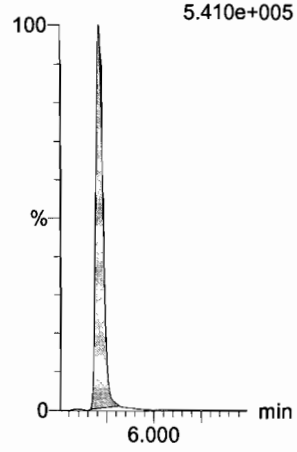




13C2-PFDoA



d3-N-MeFOSA



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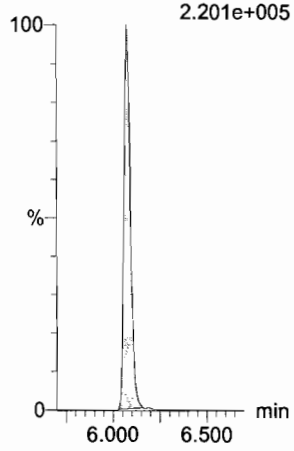

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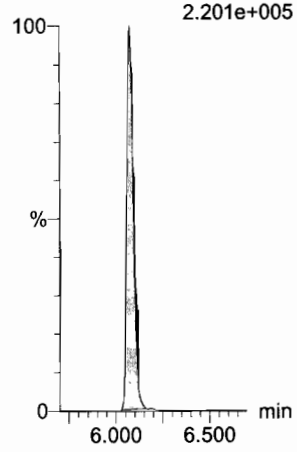

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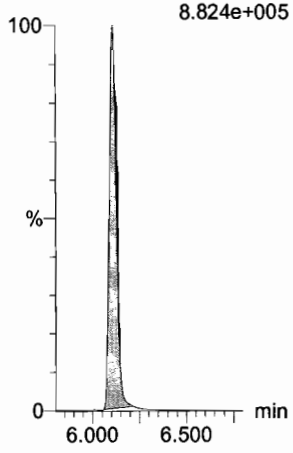
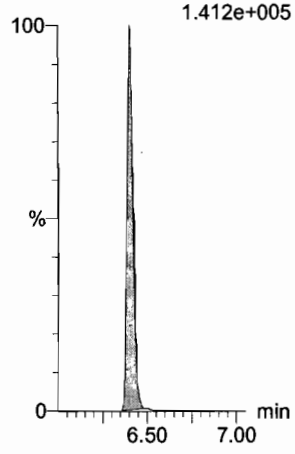


13C2-PFHxDA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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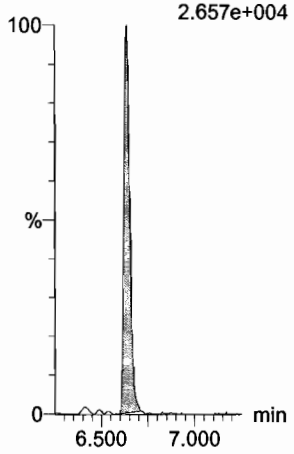
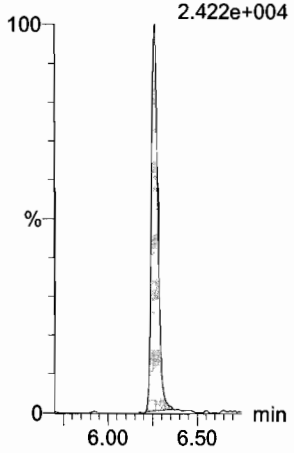
Name: 171206M2_4, Date: 07-Dec-2017, Time: 02:15:01, ID: ST171206M2-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

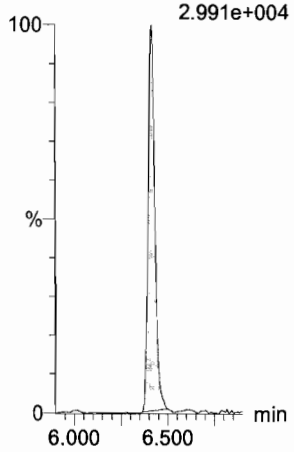
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.657e+004



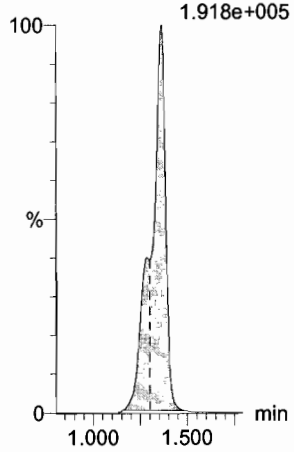
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.422e+004



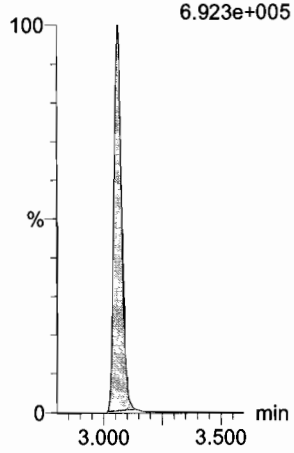
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.991e+004



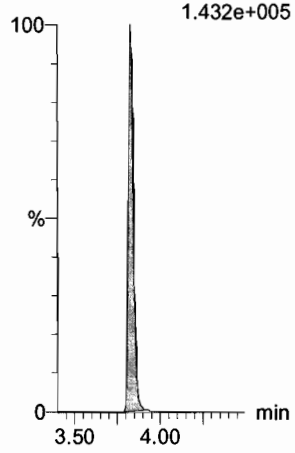
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.918e+005



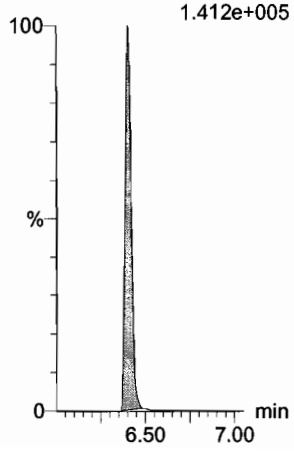
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
6.923e+005



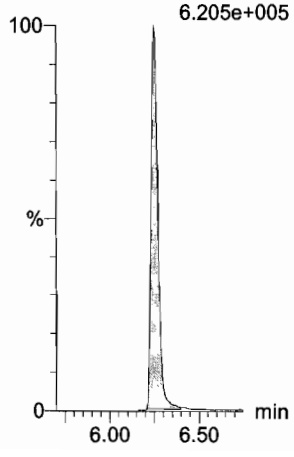
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.432e+005



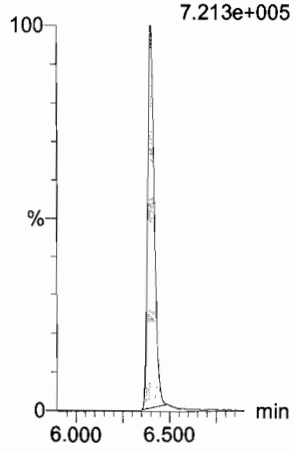
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.412e+005



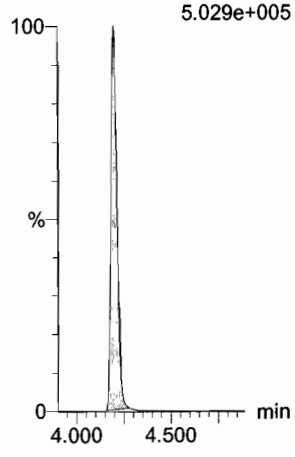
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.205e+005



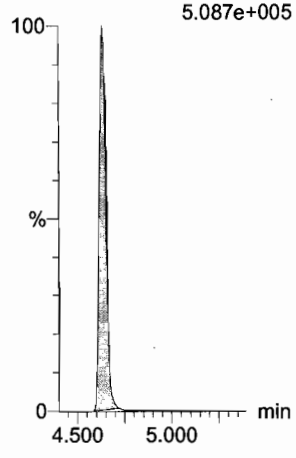
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.213e+005



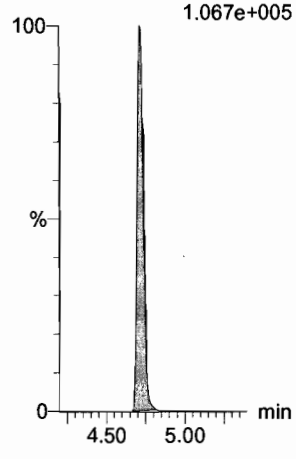
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.029e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
5.087e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.067e+005



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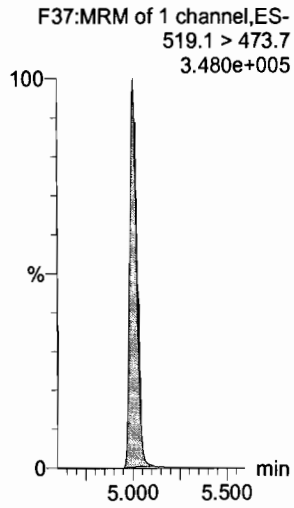
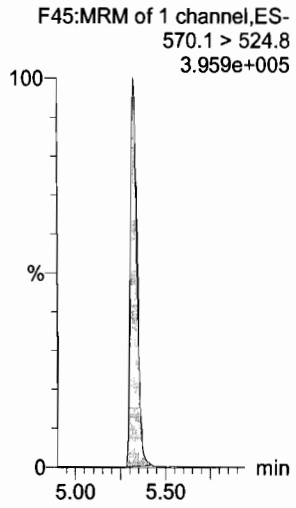
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_4, Date: 07-Dec-2017, Time: 02:15:01, ID: ST171206M2-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

13C6-PFDA



13C7-PFUdA



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Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

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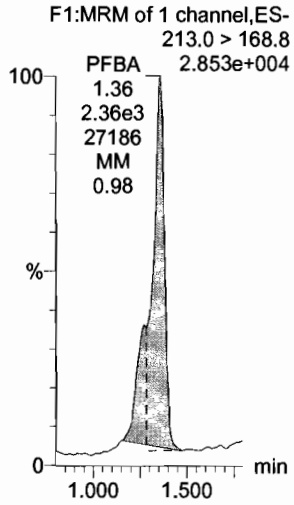
PFBA



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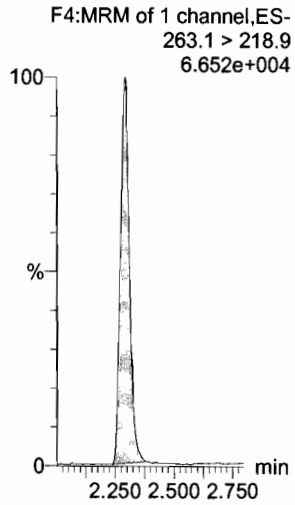
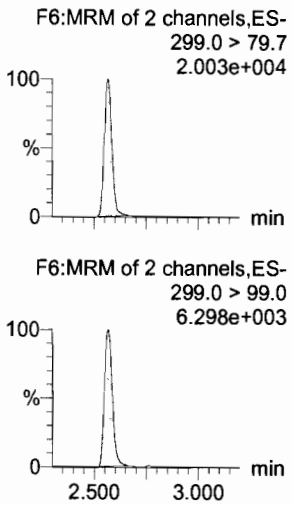
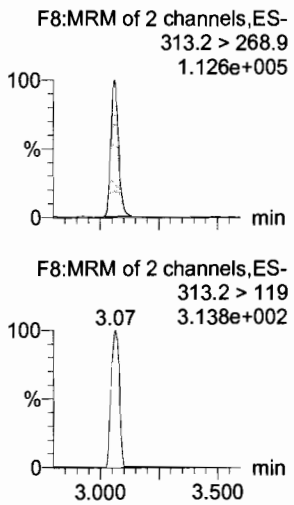


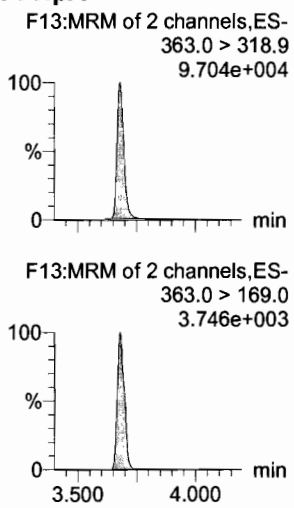
PFBS



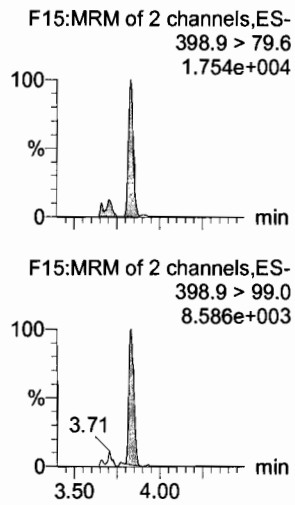
PFHxA



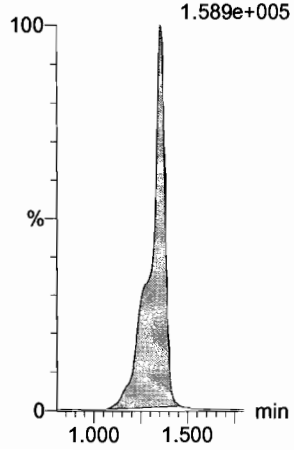
PFHpA



L-PFHxS



13C3-PFBA



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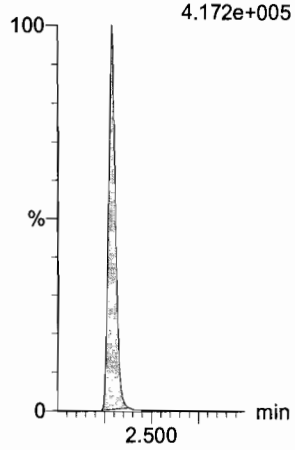

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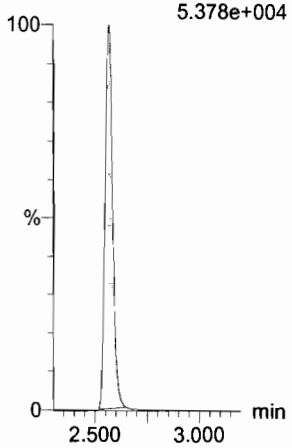

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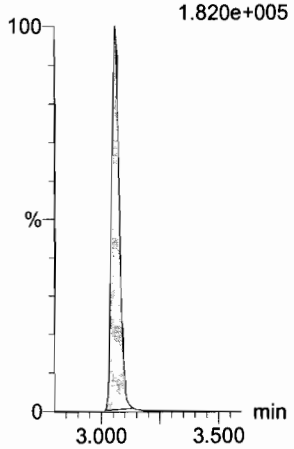

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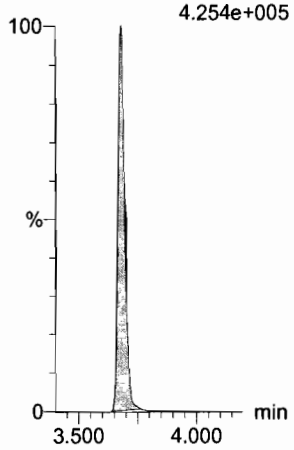

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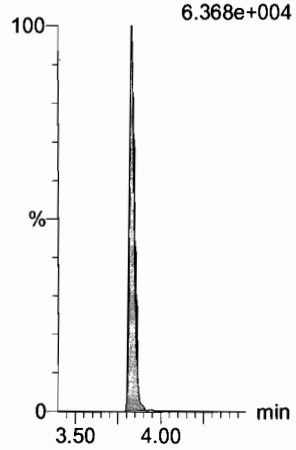

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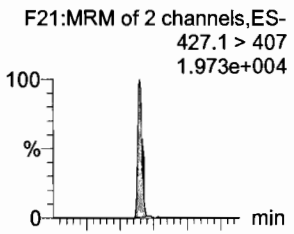
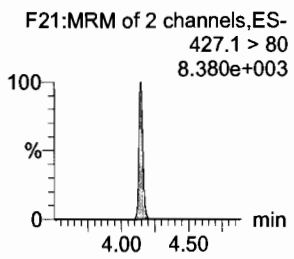
Name: 171206M2_5, Date: 07-Dec-2017, Time: 02:26:13, ID: ST171206M2-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

6:2 FTS





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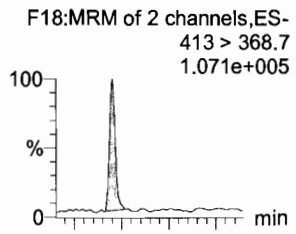

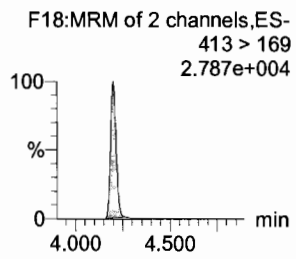

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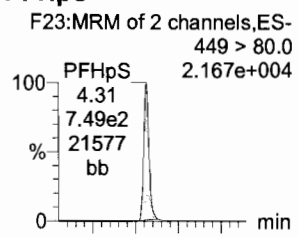

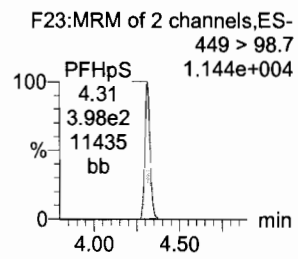

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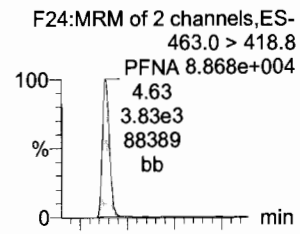

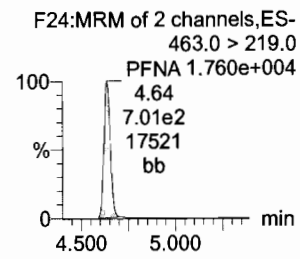

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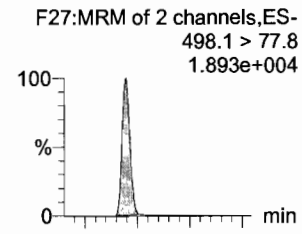

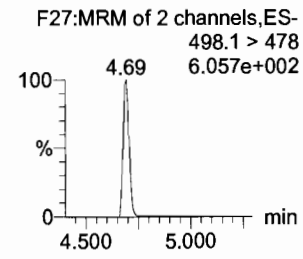

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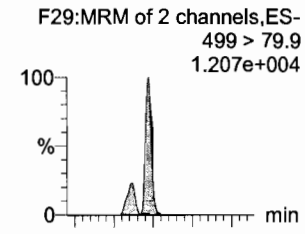
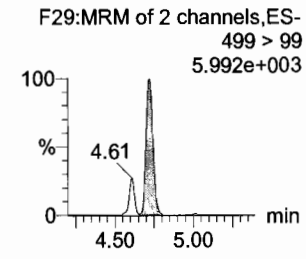
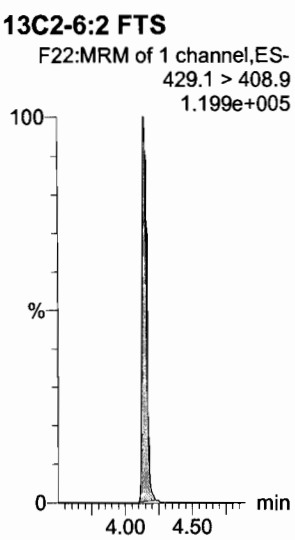
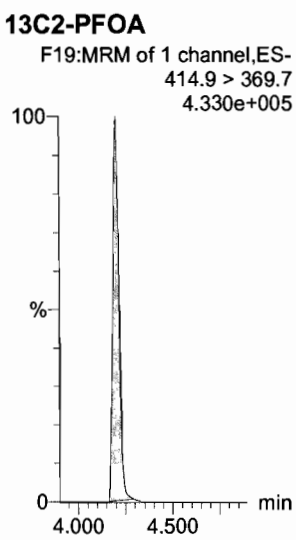




13C2-6:2 FTS



13C2-PFOA



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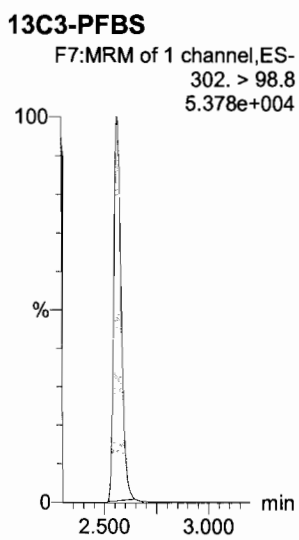

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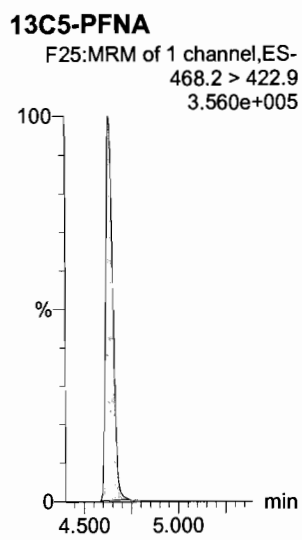

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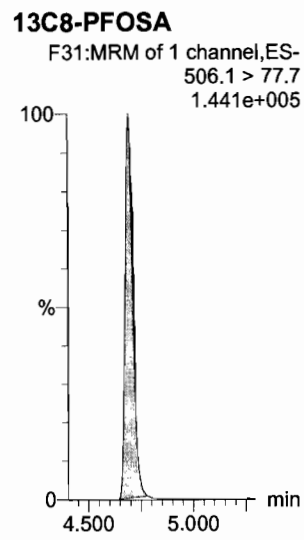

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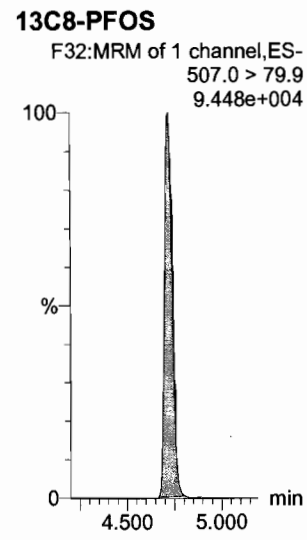

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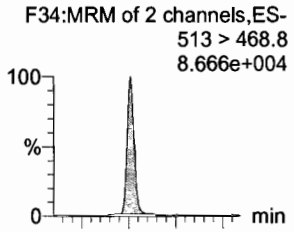
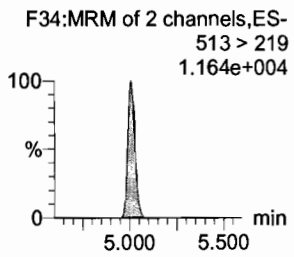
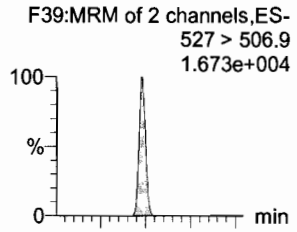
Name: 171206M2_5, Date: 07-Dec-2017, Time: 02:26:13, ID: ST171206M2-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

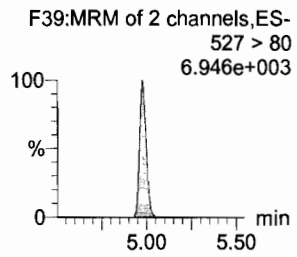
PFDA





8:2 FTS





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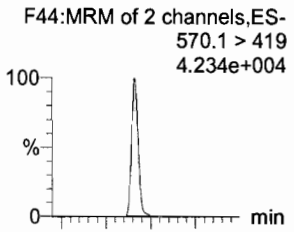

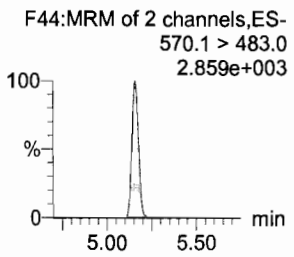

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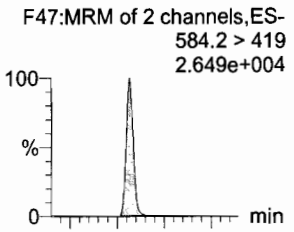

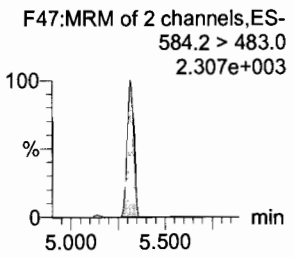

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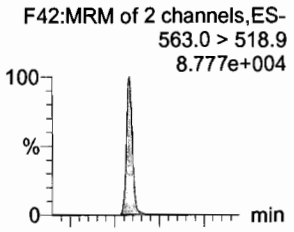

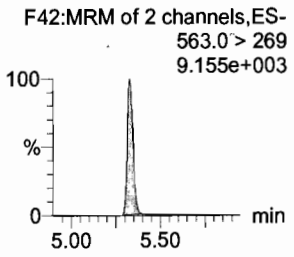

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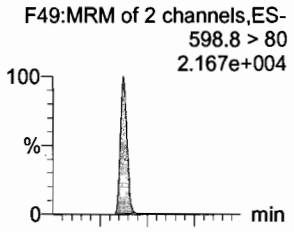

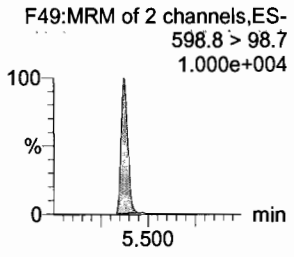

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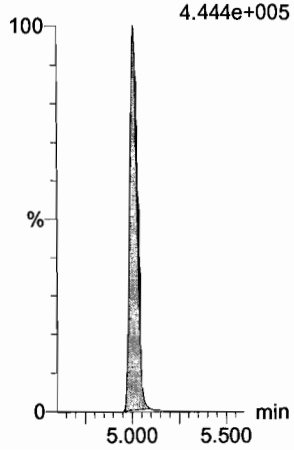

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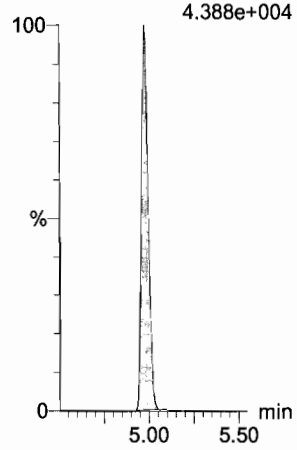

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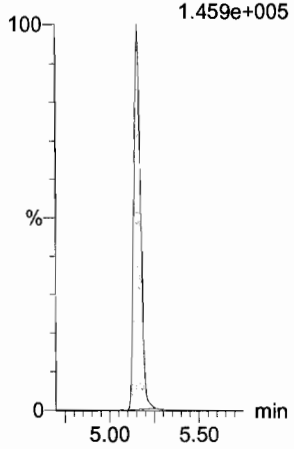

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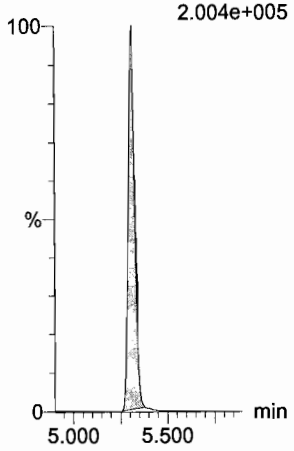

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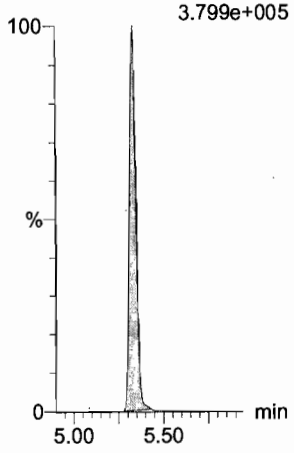

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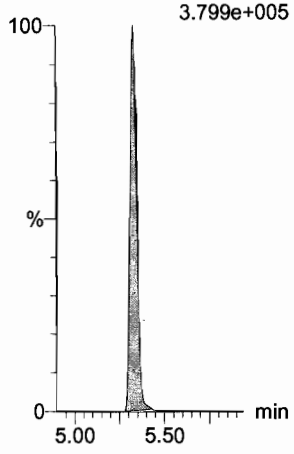

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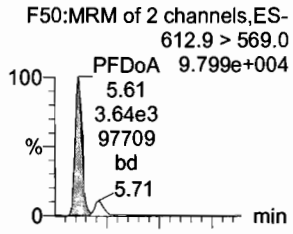

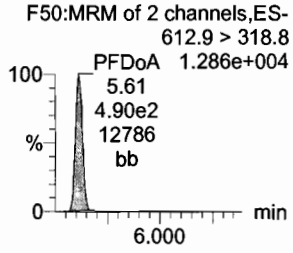

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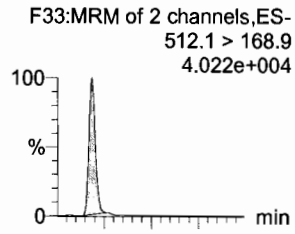

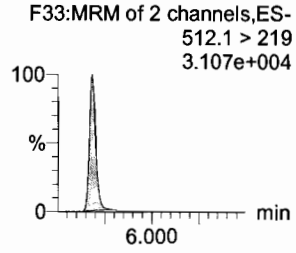

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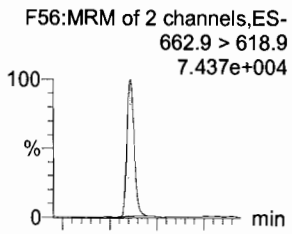

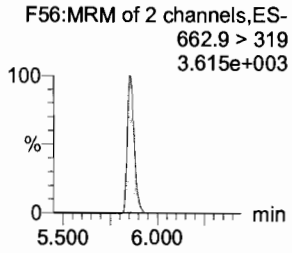

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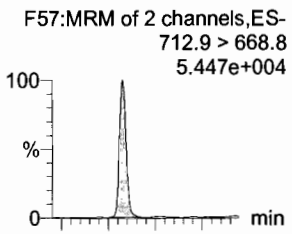

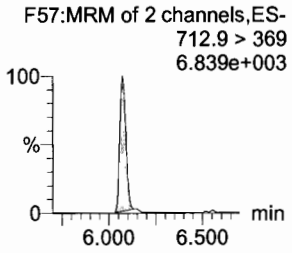

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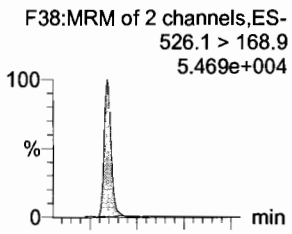
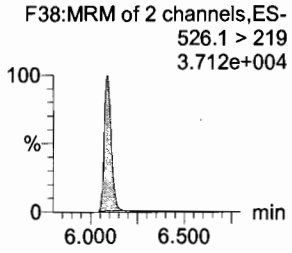
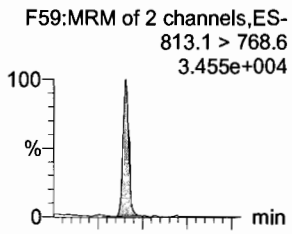
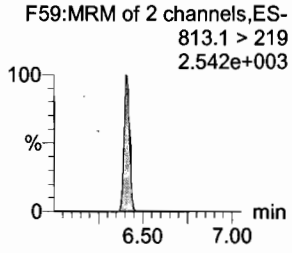


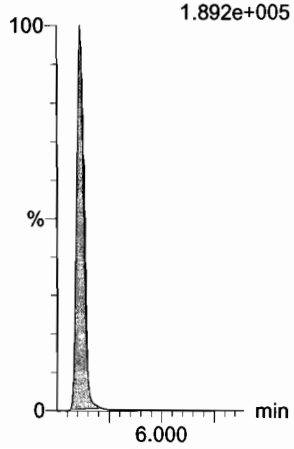


PFHxDA

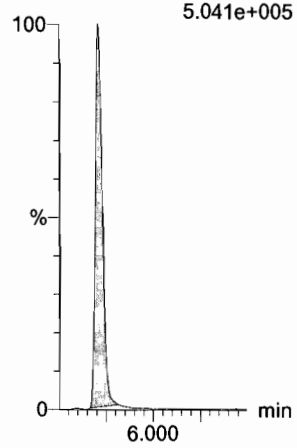




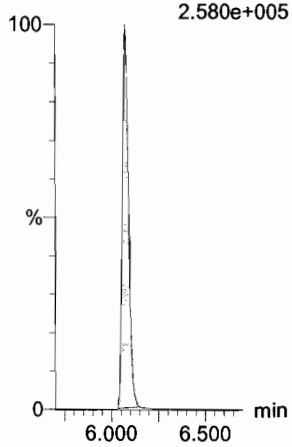
13C2-PFDoA



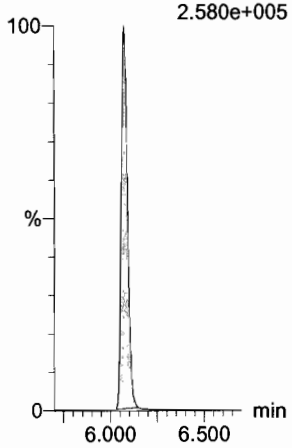
d3-N-MeFOSA



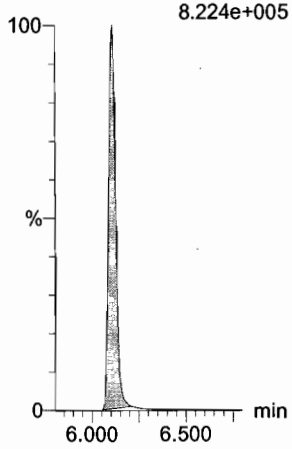
13C2-PFTeDA



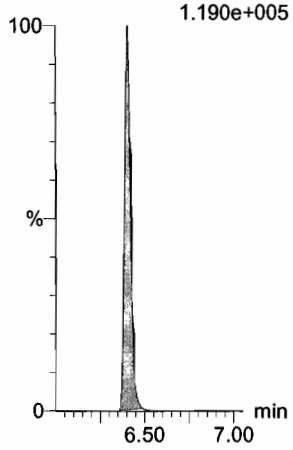
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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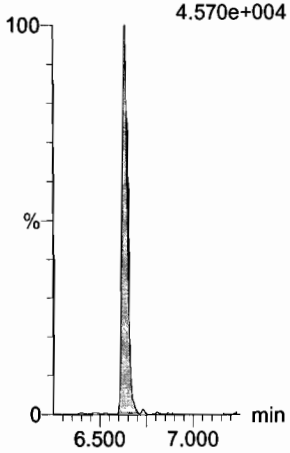
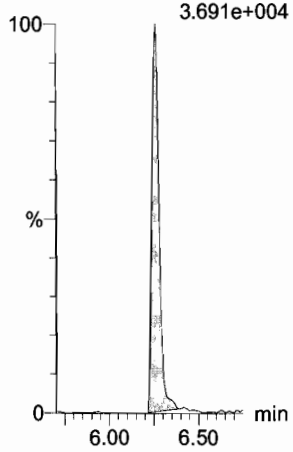
Name: 171206M2_5, Date: 07-Dec-2017, Time: 02:26:13, ID: ST171206M2-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

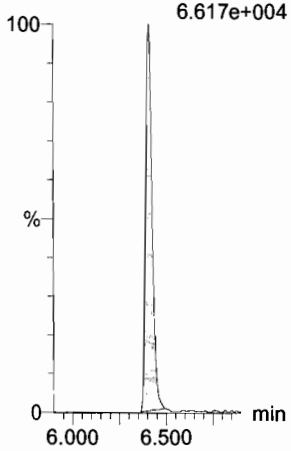
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
4.570e+004



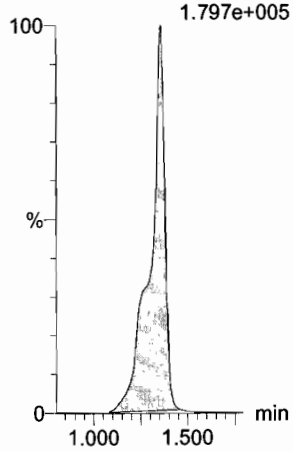
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.691e+004



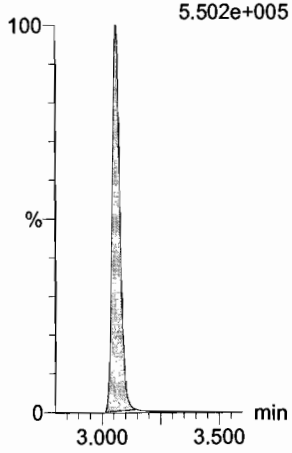
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
6.617e+004



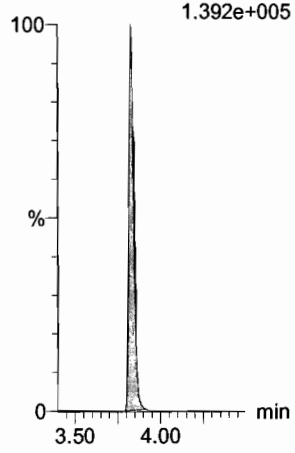
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.797e+005



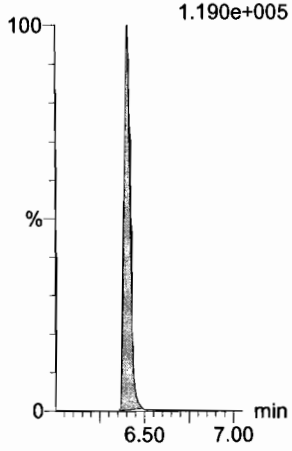
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.502e+005



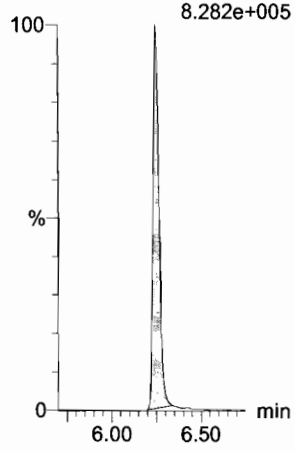
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.392e+005



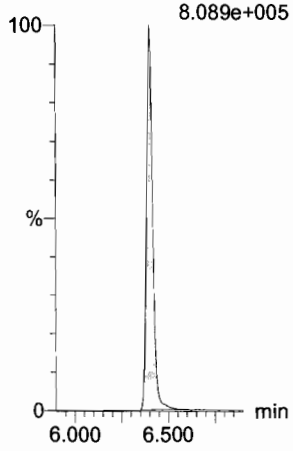
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.190e+005



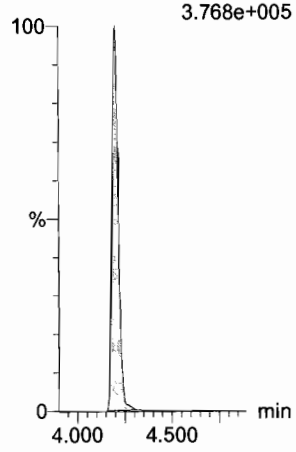
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
8.282e+005



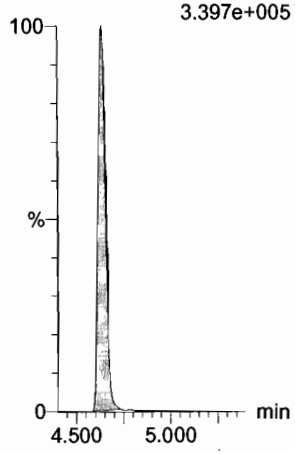
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
8.089e+005



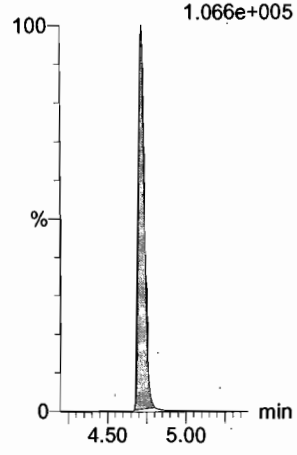
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.768e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.397e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.066e+005



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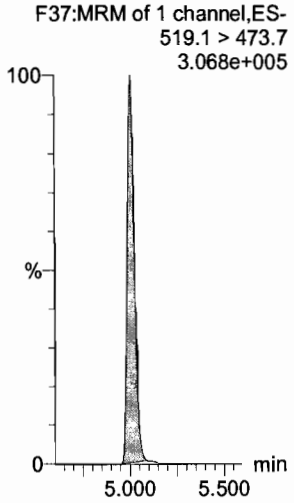
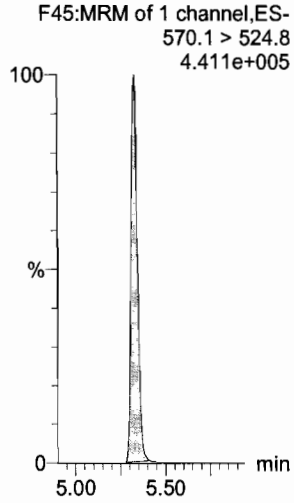
Name: 171206M2_5, Date: 07-Dec-2017, Time: 02:26:13, ID: ST171206M2-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

13C6-PFDA



13C7-PFUdA



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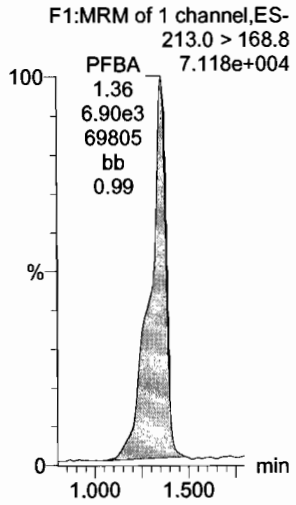
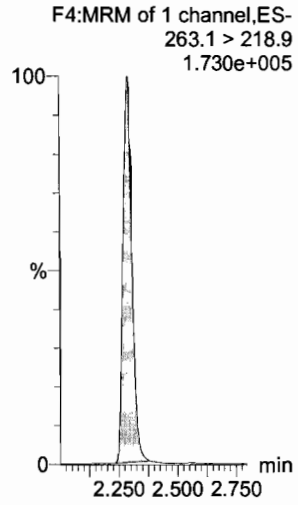
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_6, Date: 07-Dec-2017, Time: 02:37:24, ID: ST171206M2-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

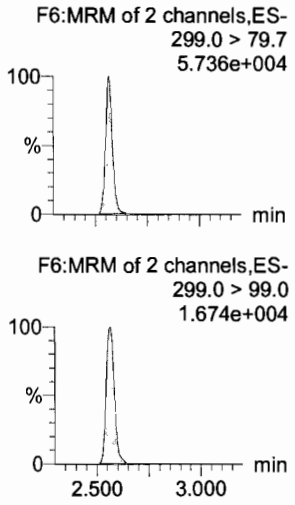
PFBA



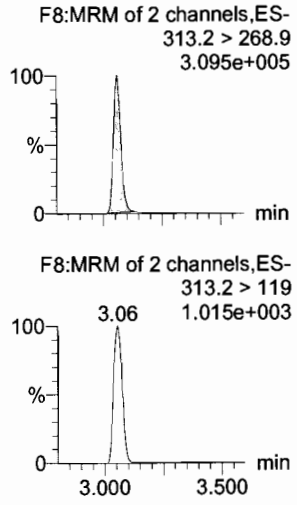
PFPeA



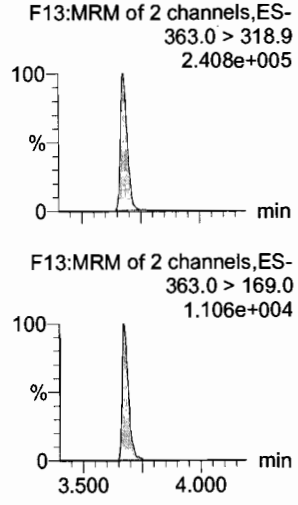
PFBS



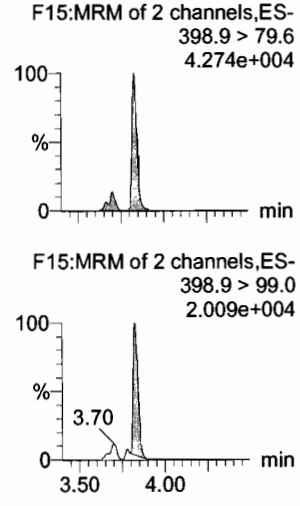
PFHxA



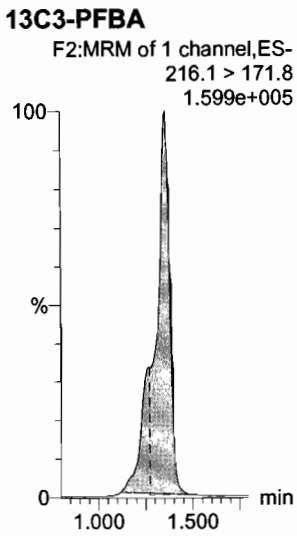
PFHpA



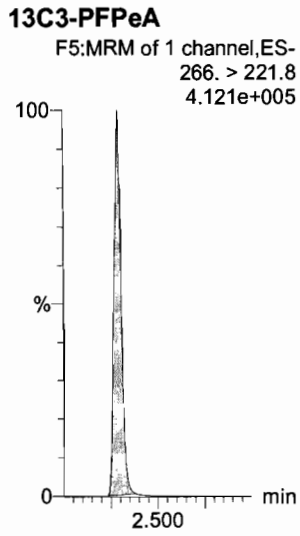
L-PFHxS



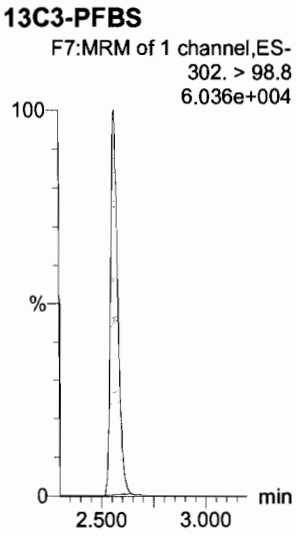
13C3-PFBA



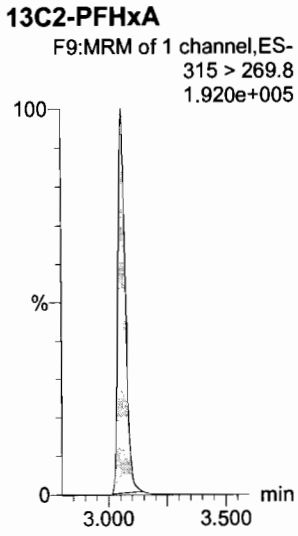
13C3-PFPeA



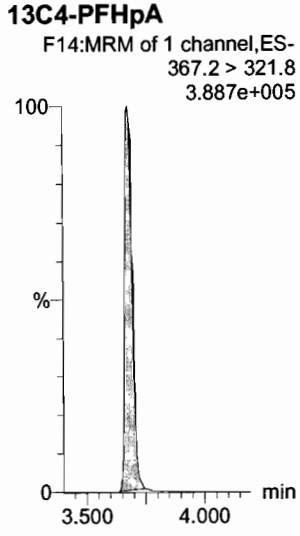
13C3-PFBS



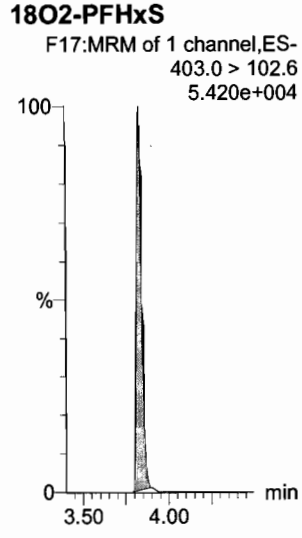
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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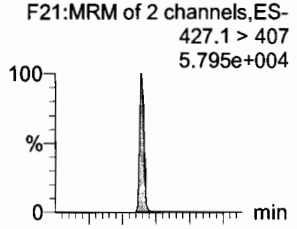
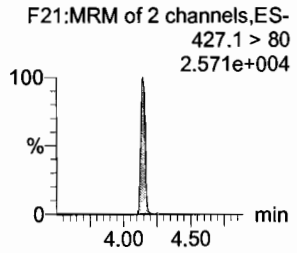
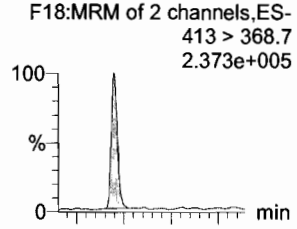
Name: 171206M2_6, Date: 07-Dec-2017, Time: 02:37:24, ID: ST171206M2-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

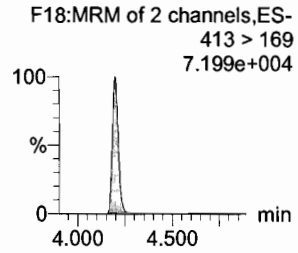
6:2 FTS



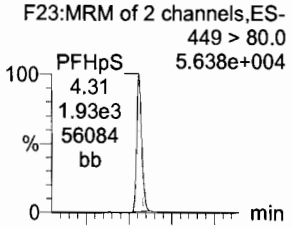


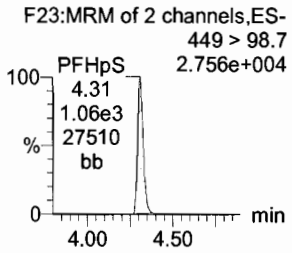
L-PFOA



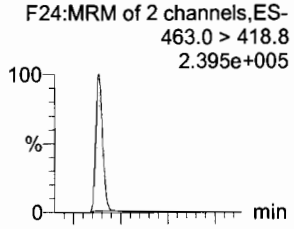


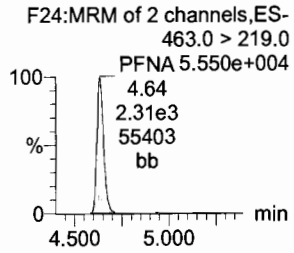
PFHpS



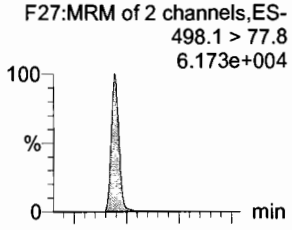


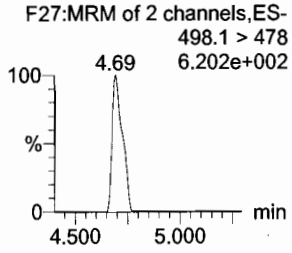
PFNA



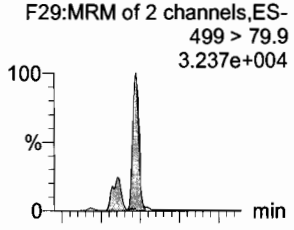


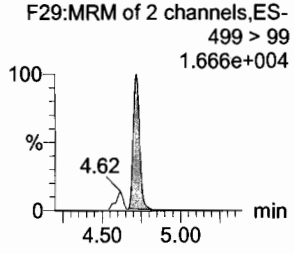
PFOSA



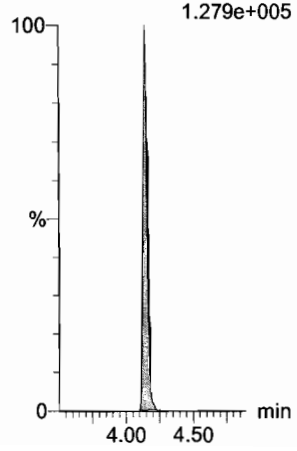


L-PFOS

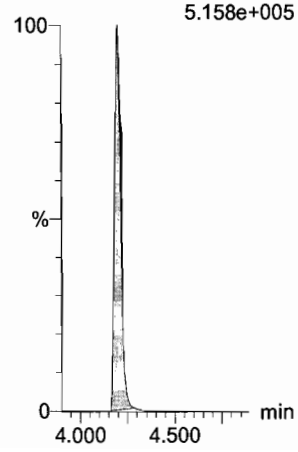




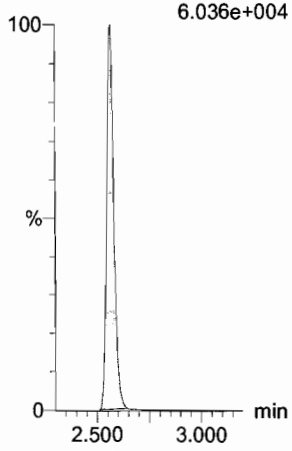
13C2-6:2 FTS



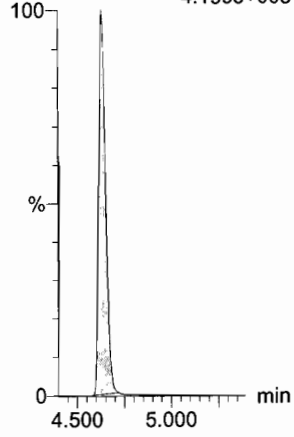
13C2-PFOA



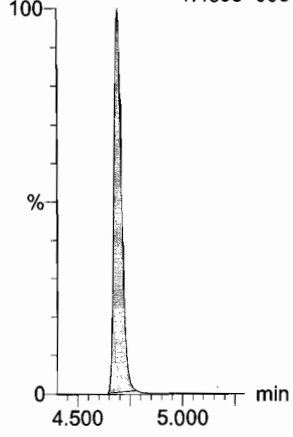
13C3-PFBS



13C5-PFNA



13C8-PFOSA



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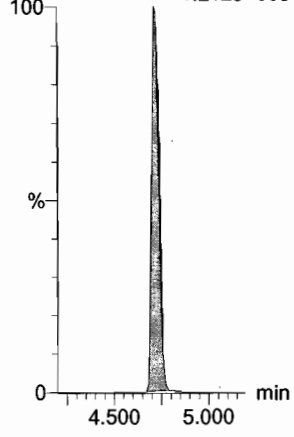

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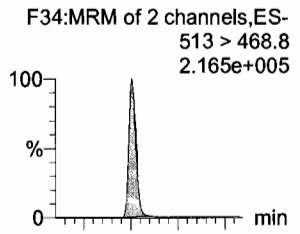
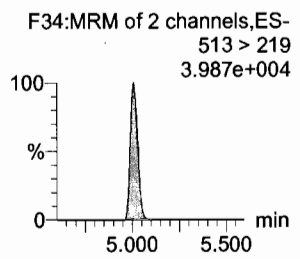
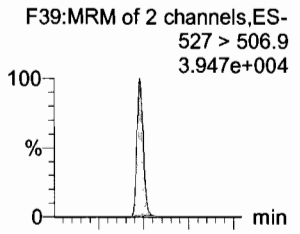
Name: 171206M2_6, Date: 07-Dec-2017, Time: 02:37:24, ID: ST171206M2-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

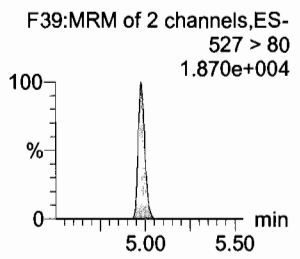
PFDA



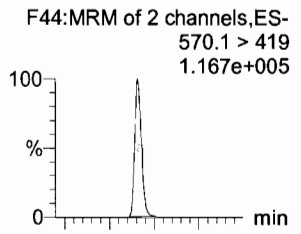


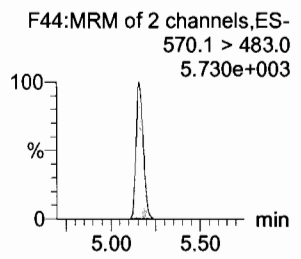
8:2 FTS



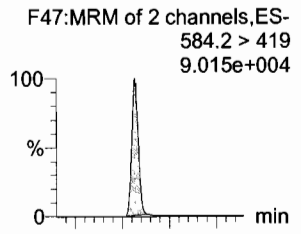


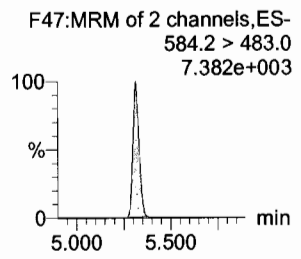
N-MeFOSAA



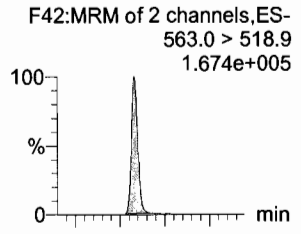


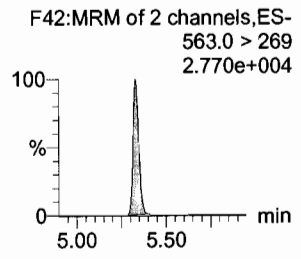
N-EtFOSAA



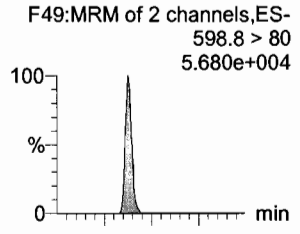


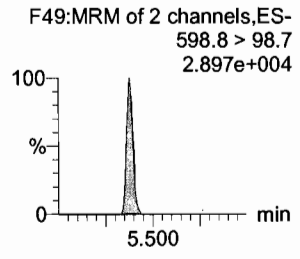
PFUdA



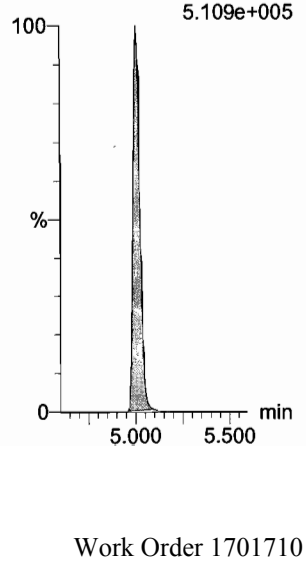


PFDS

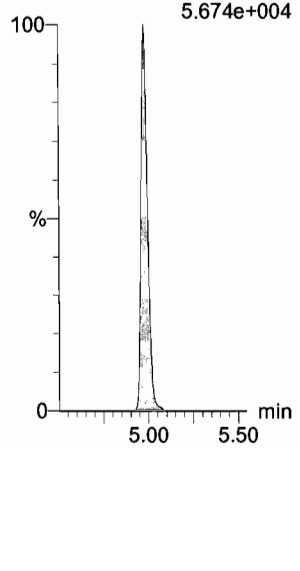




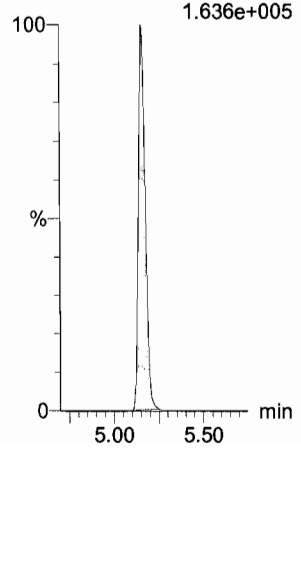
13C2-PFDA



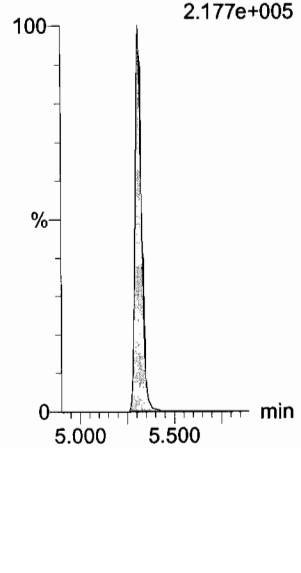
13C2-8:2 FTS



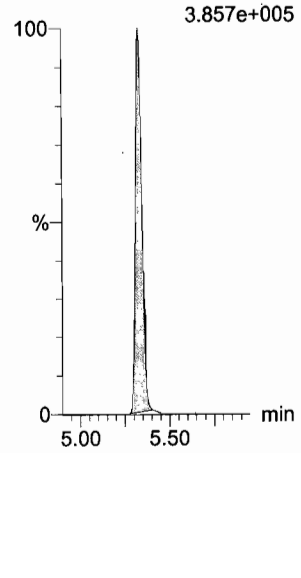
d3-N-MeFOSAA



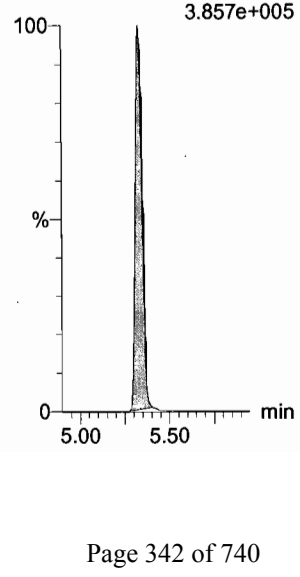
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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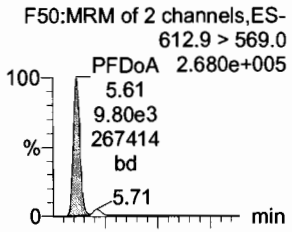
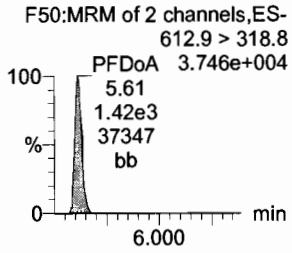
Name: 171206M2_6, Date: 07-Dec-2017, Time: 02:37:24, ID: ST171206M2-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

PFDoA





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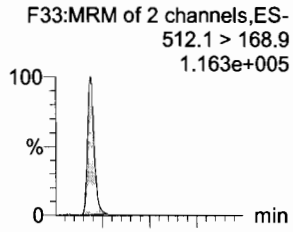

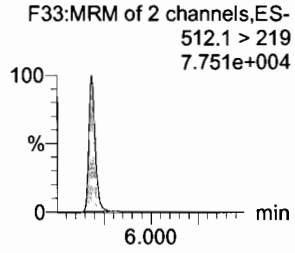

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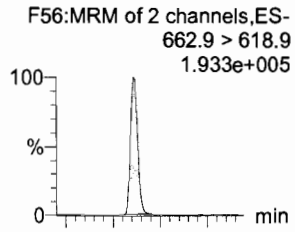

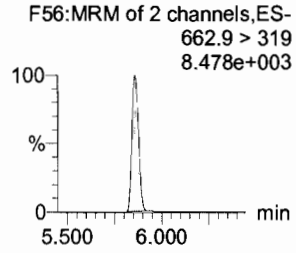

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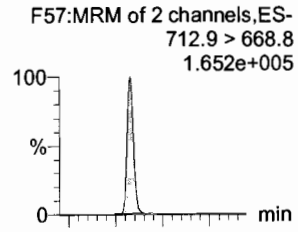
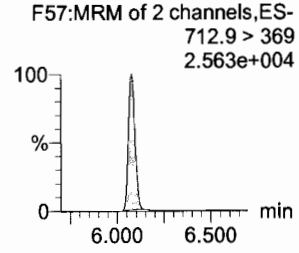
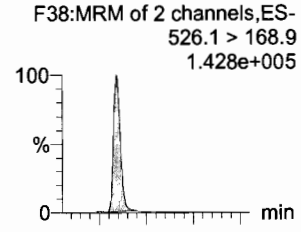
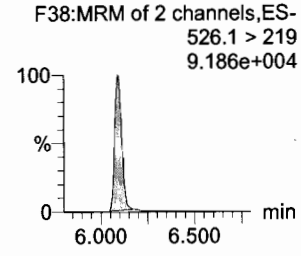


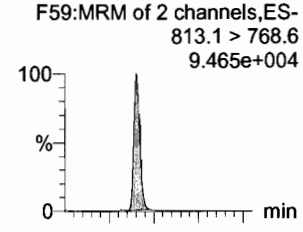


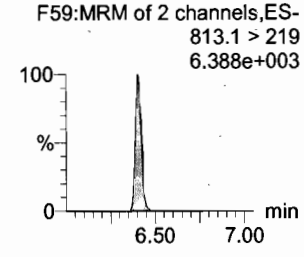
N-EtFOSA



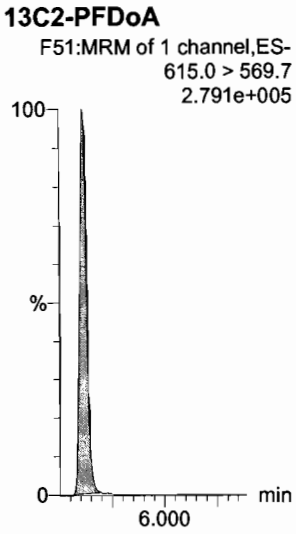


PFHxDA

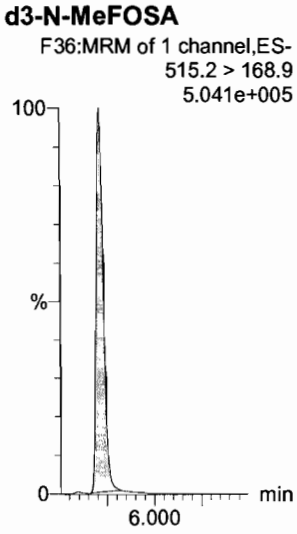




13C2-PFDoA



d3-N-MeFOSA



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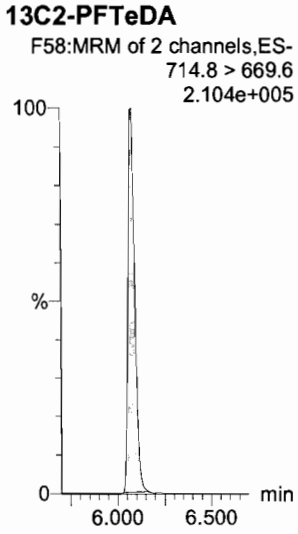

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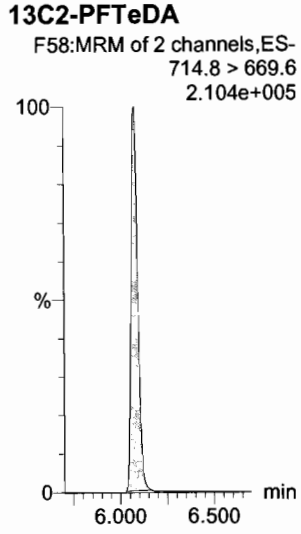
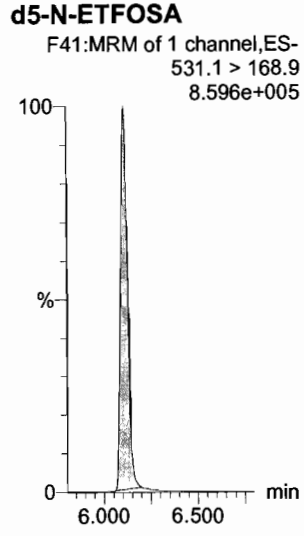
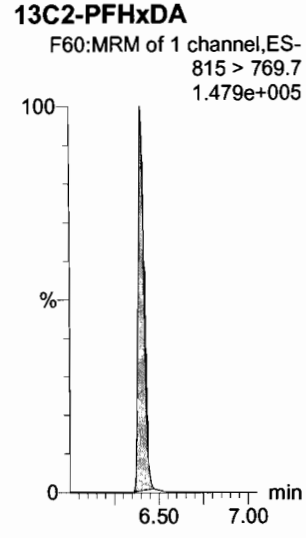


d5-N-ETFOSA



13C2-PFHxDA



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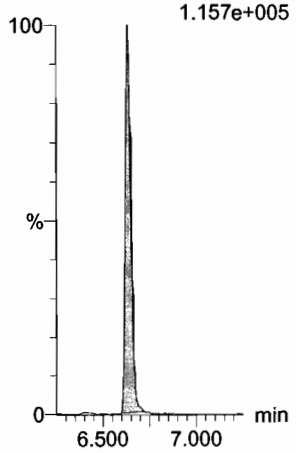
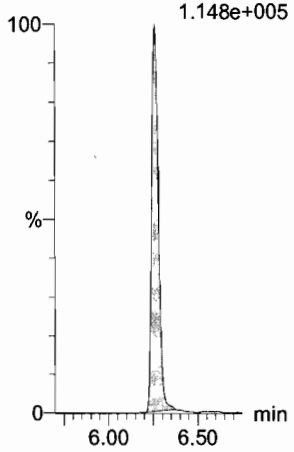
Name: 171206M2_6, Date: 07-Dec-2017, Time: 02:37:24, ID: ST171206M2-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

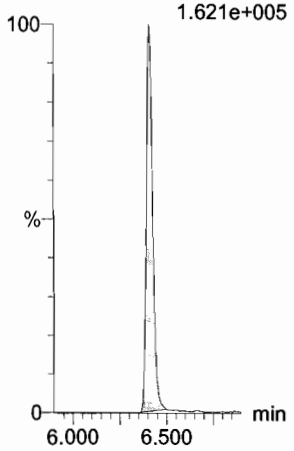
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.157e+005



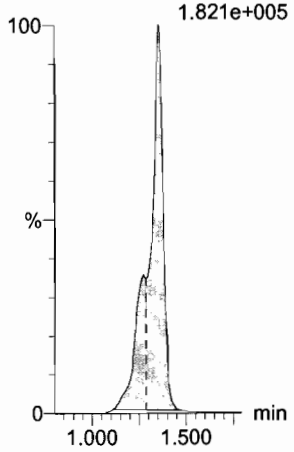
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.148e+005



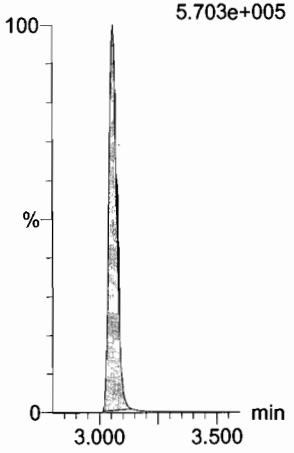
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.621e+005



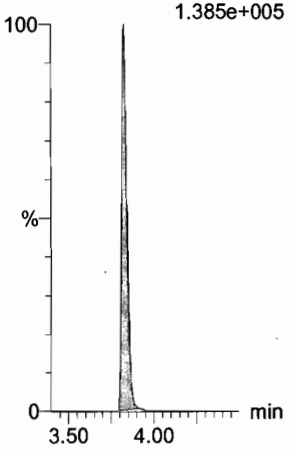
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.821e+005



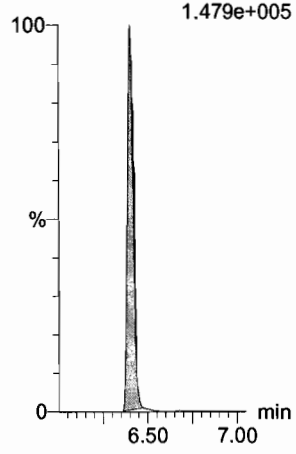
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.703e+005



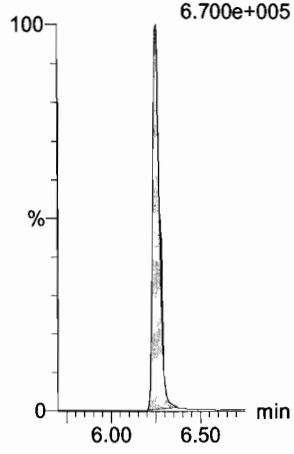
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.385e+005



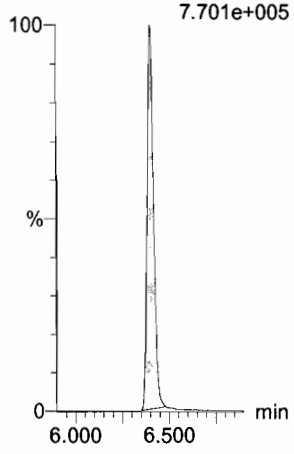
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.479e+005



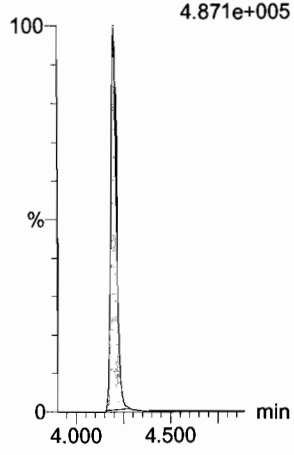
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.700e+005



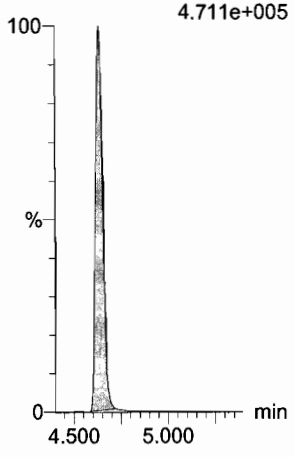
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.701e+005



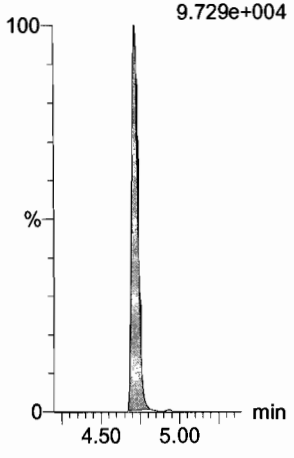
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.871e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.711e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.729e+004



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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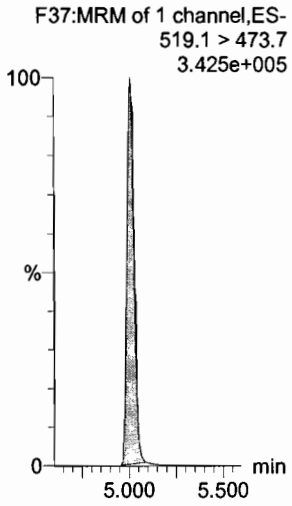
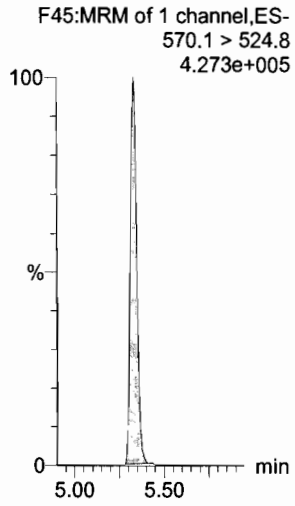
Name: 171206M2_6, Date: 07-Dec-2017, Time: 02:37:24, ID: ST171206M2-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

13C6-PFDA



13C7-PFUdA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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Name: 171206M2_7, Date: 07-Dec-2017, Time: 02:48:34, ID: ST171206M2-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

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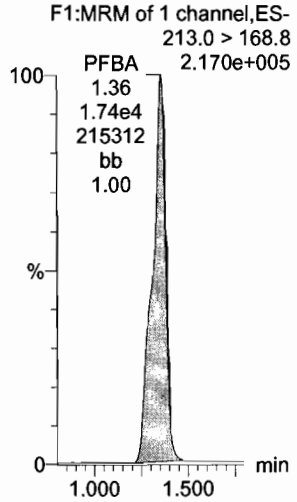

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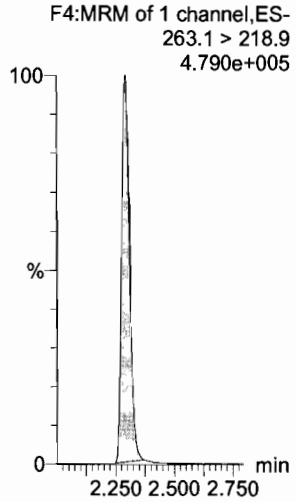

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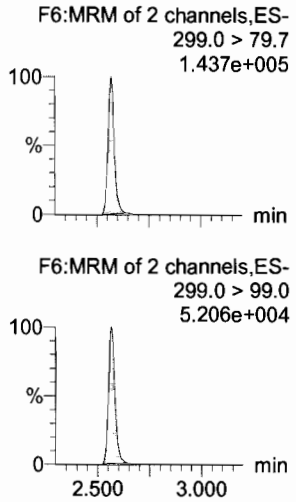

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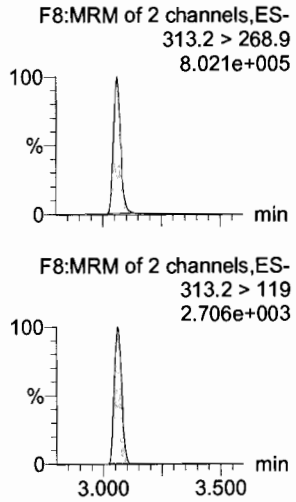

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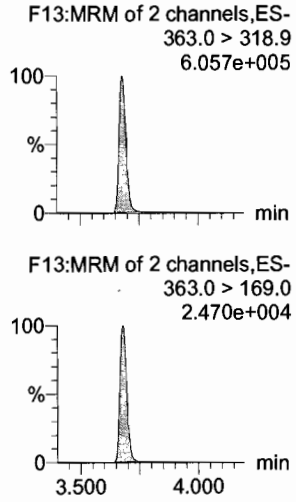

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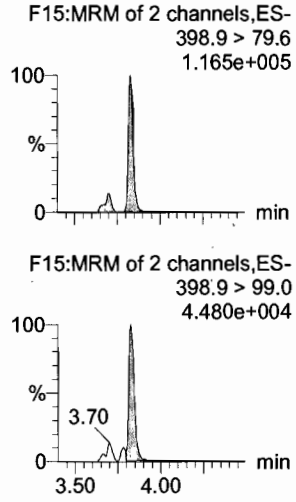

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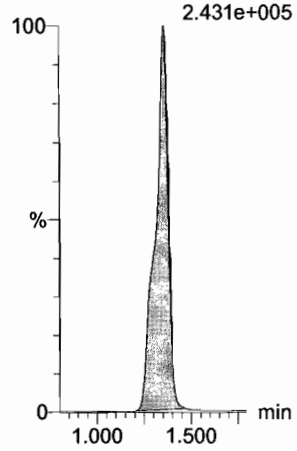

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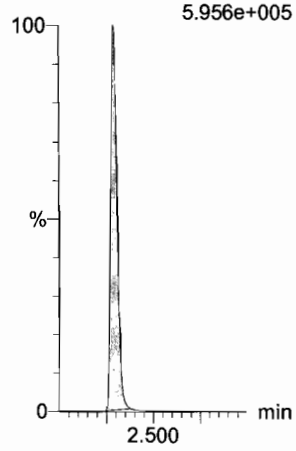

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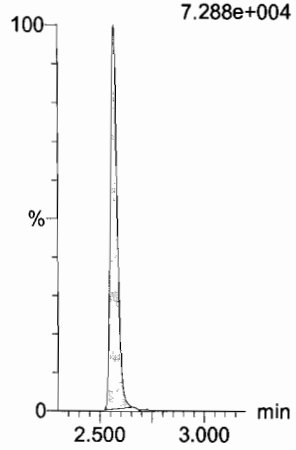

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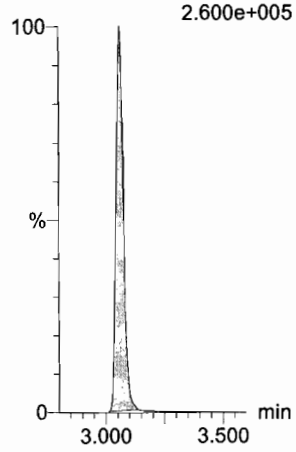

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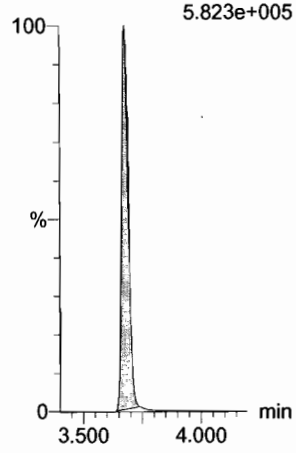

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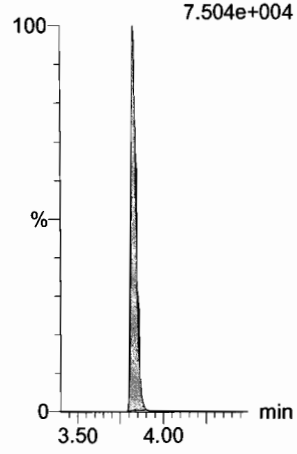

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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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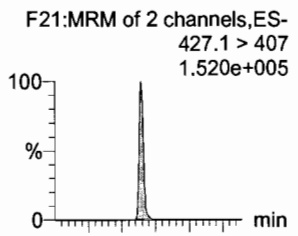
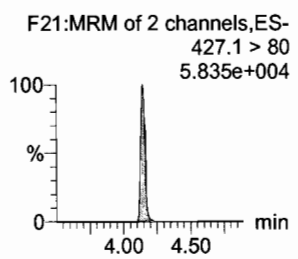
Name: 171206M2_7, Date: 07-Dec-2017, Time: 02:48:34, ID: ST171206M2-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

6:2 FTS





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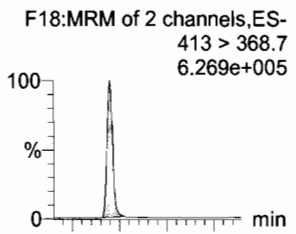

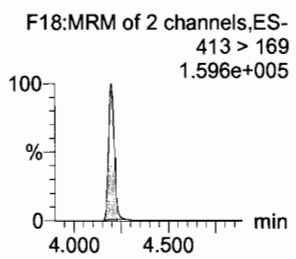

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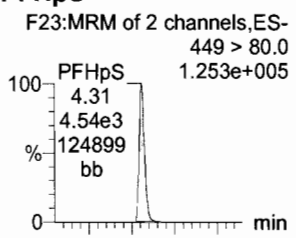

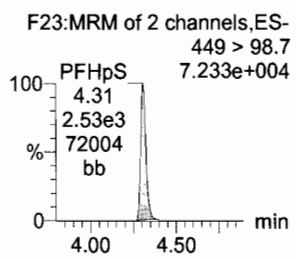

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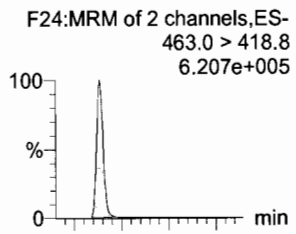

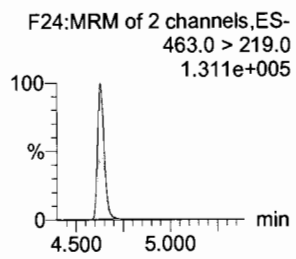

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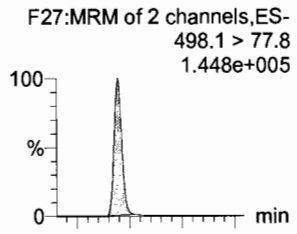

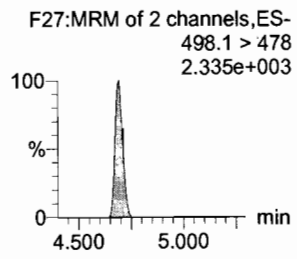

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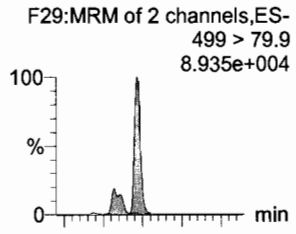

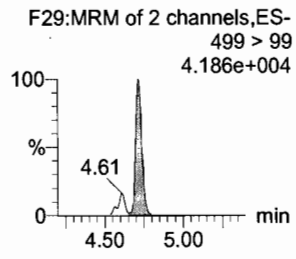

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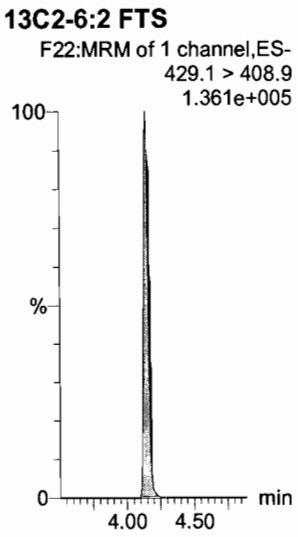
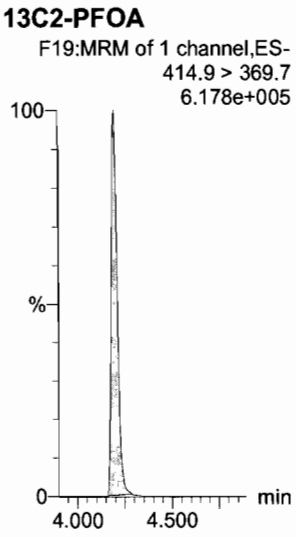
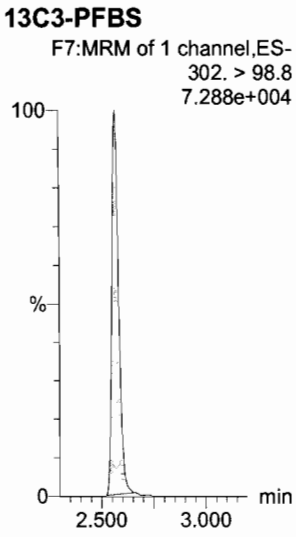


13C2-PFOA



13C3-PFBS



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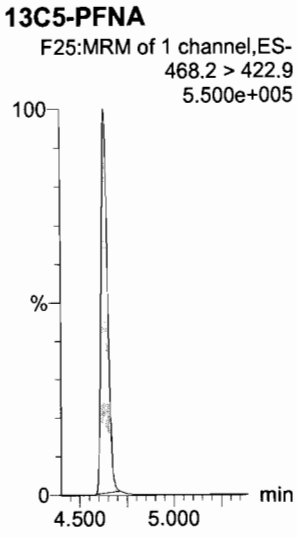

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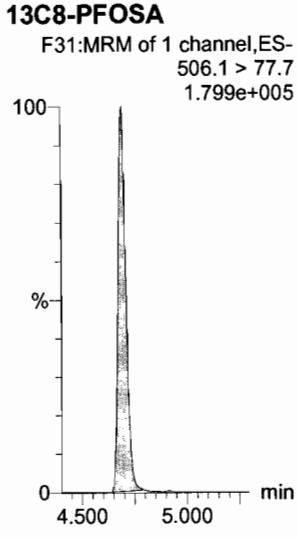
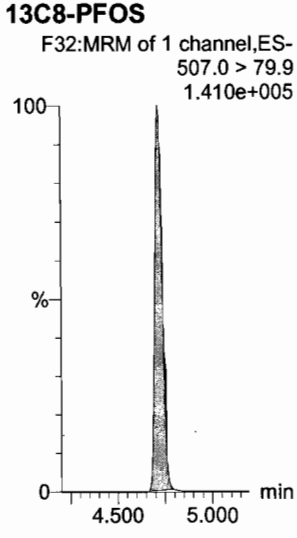


13C8-PFOS



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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Name: 171206M2_7, Date: 07-Dec-2017, Time: 02:48:34, ID: ST171206M2-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

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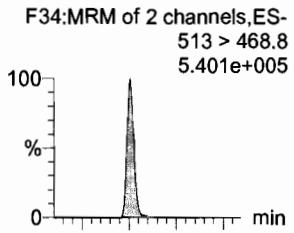
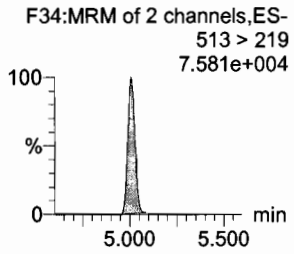
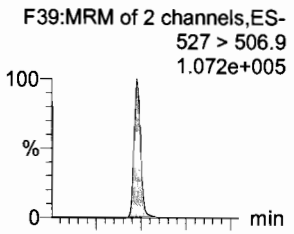
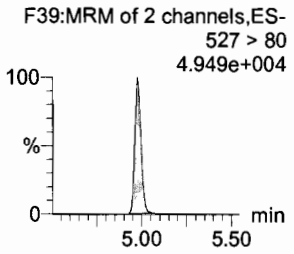




8:2 FTS





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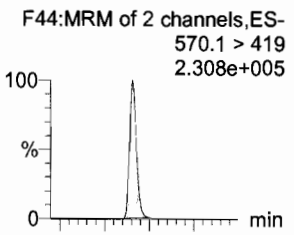

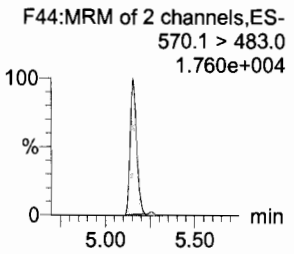

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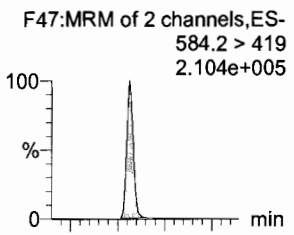
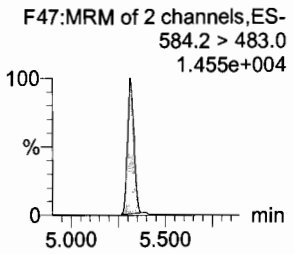
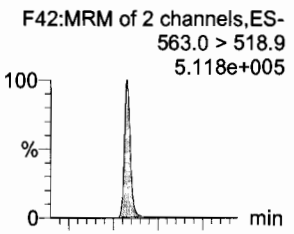
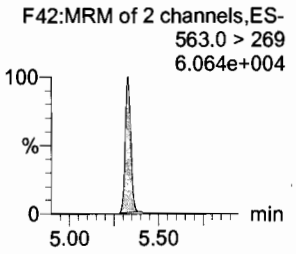




PFUdA





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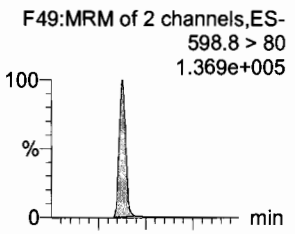

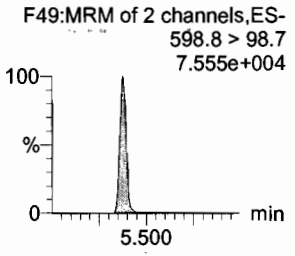

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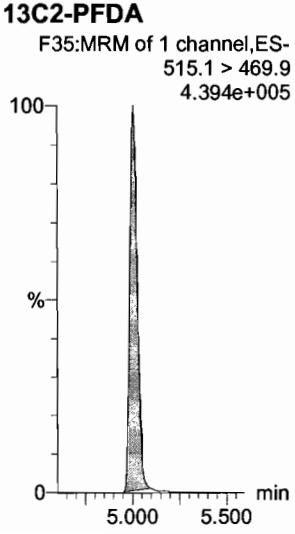
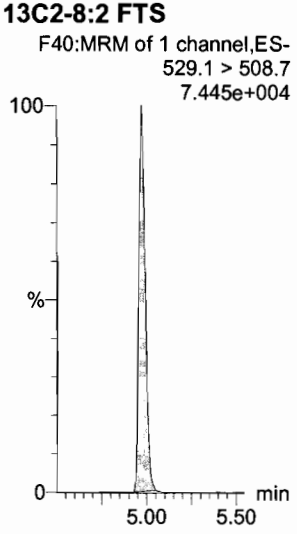


13C2-8:2 FTS



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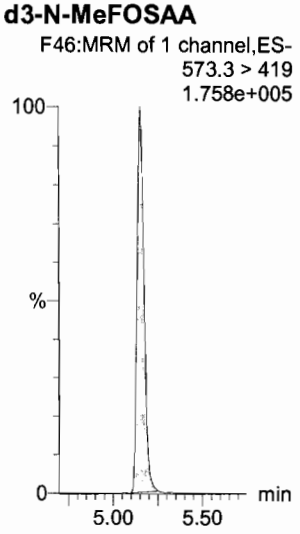

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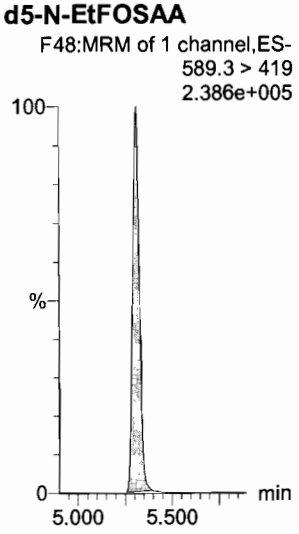

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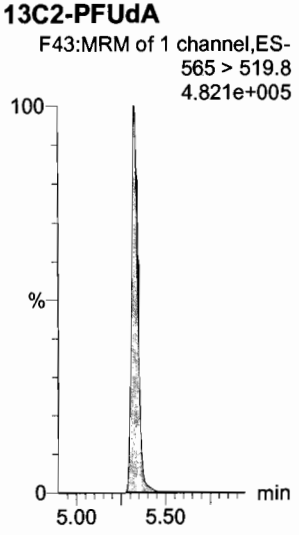

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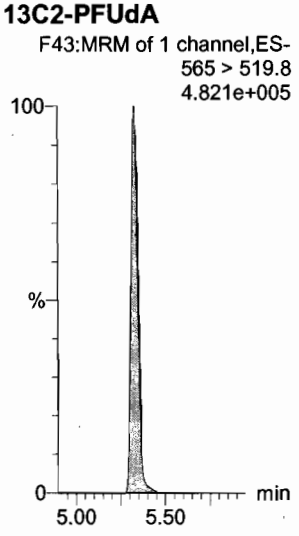

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Name: 171206M2_7, Date: 07-Dec-2017, Time: 02:48:34, ID: ST171206M2-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

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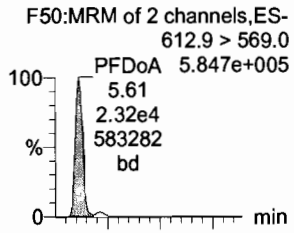
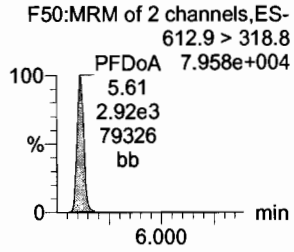
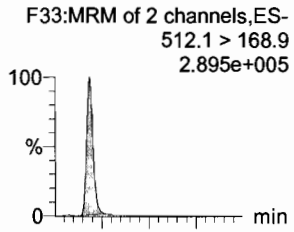
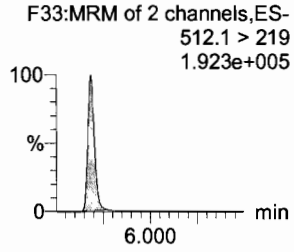


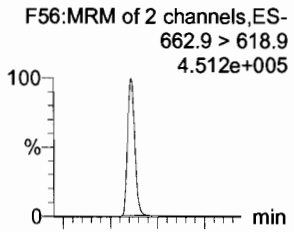


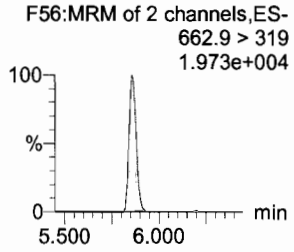
N-MeFOSA



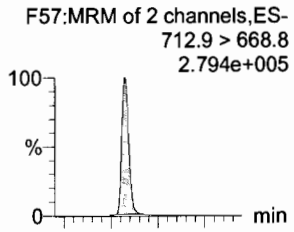


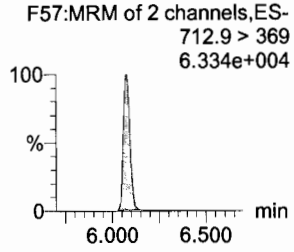
PFTrDA



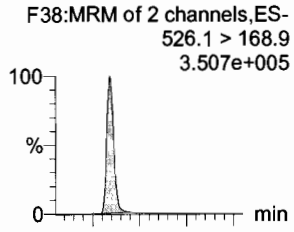


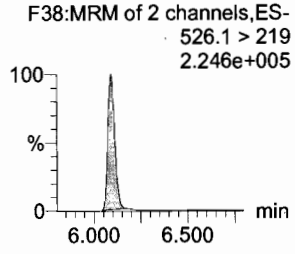
PFTeDA



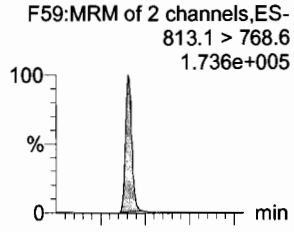


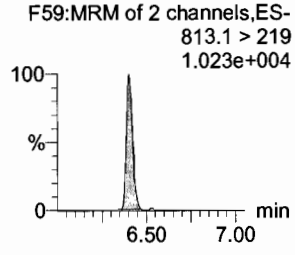
N-EtFOSA



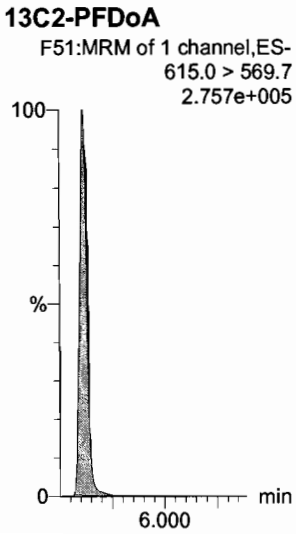


PFHxDA

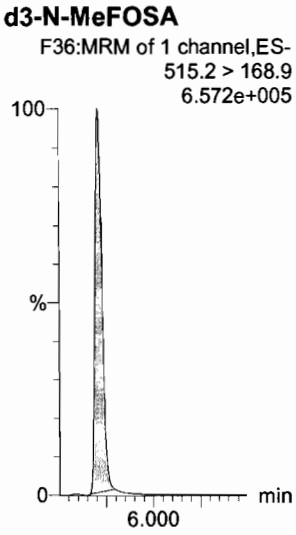




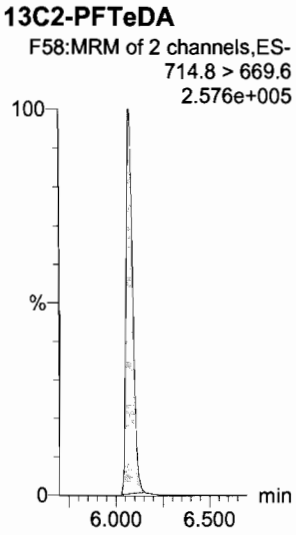
13C2-PFDoA



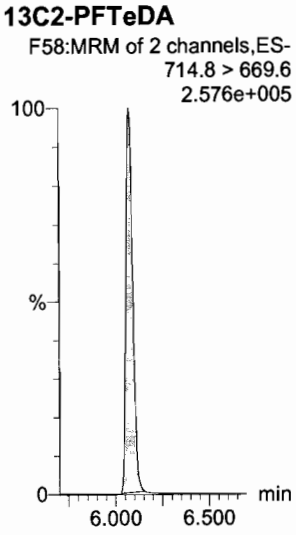
d3-N-MeFOSA



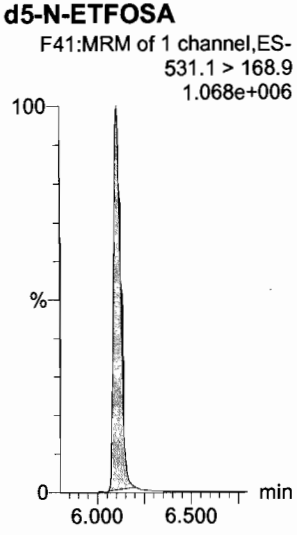
13C2-PFTeDA



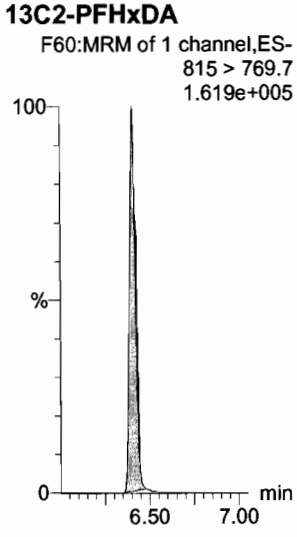
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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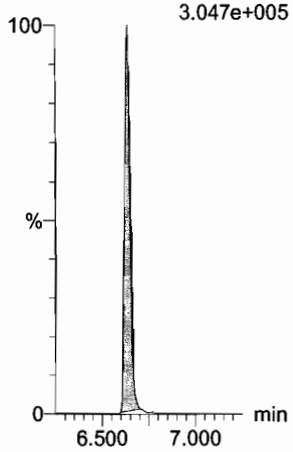
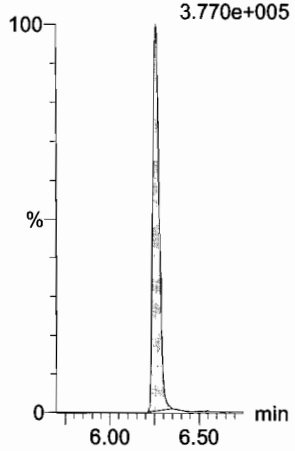
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_7, Date: 07-Dec-2017, Time: 02:48:34, ID: ST171206M2-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

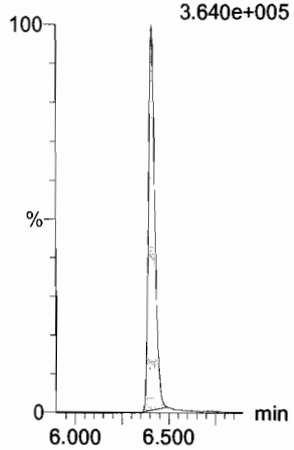
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.047e+005



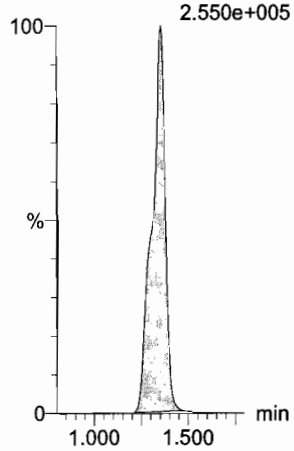
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.770e+005



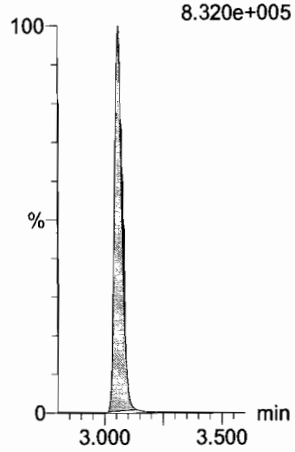
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.640e+005



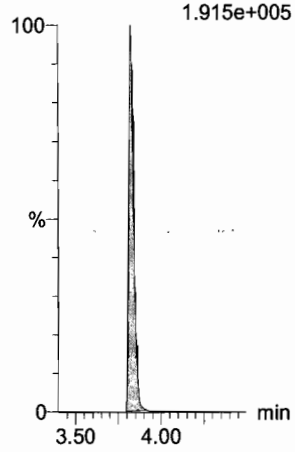
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.550e+005



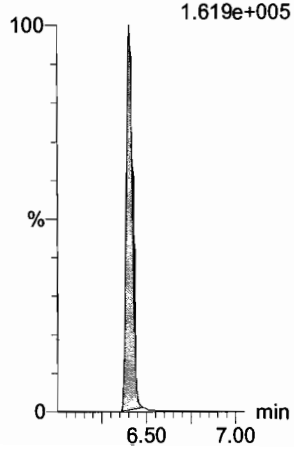
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
8.320e+005



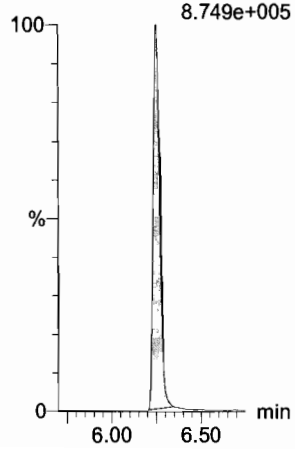
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.915e+005



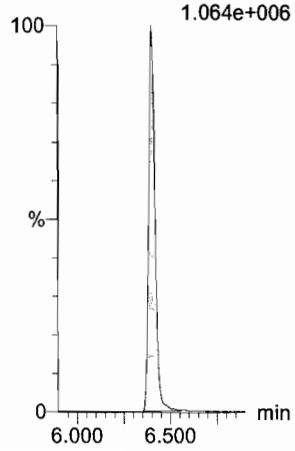
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.619e+005



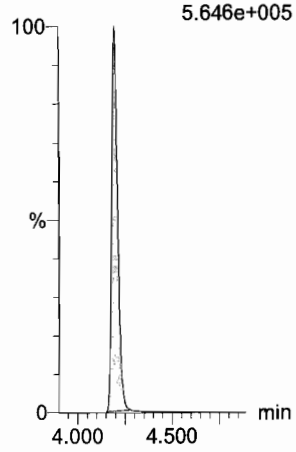
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
8.749e+005



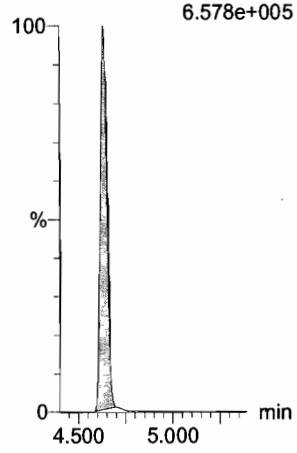
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
1.064e+006



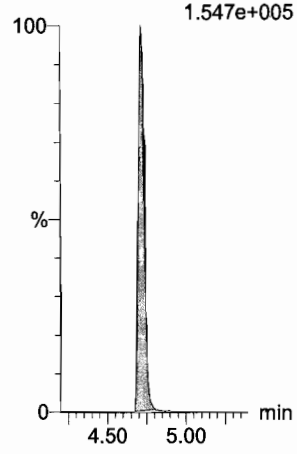
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.646e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
6.578e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.547e+005



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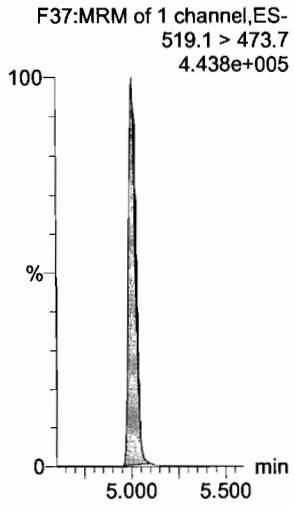
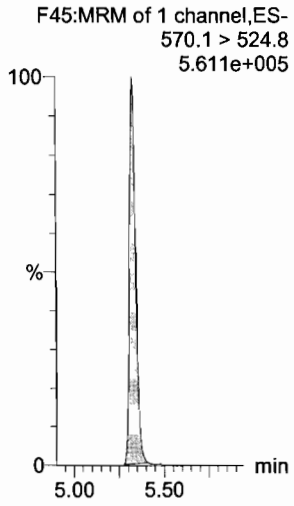
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_7, Date: 07-Dec-2017, Time: 02:48:34, ID: ST171206M2-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

13C6-PFDA



13C7-PFUdA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_8, Date: 07-Dec-2017, Time: 02:59:45, ID: ST171206M2-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

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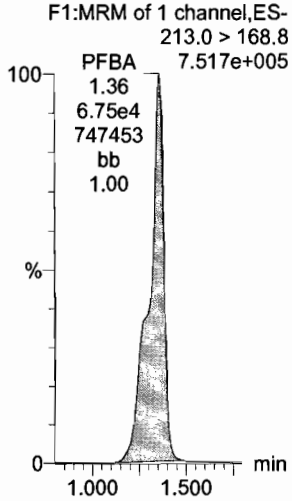
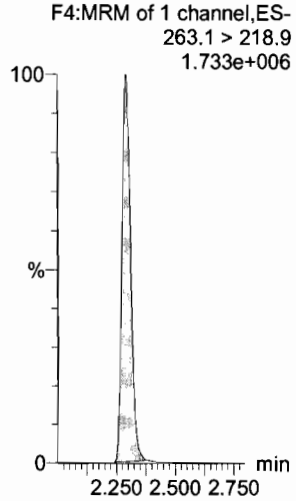
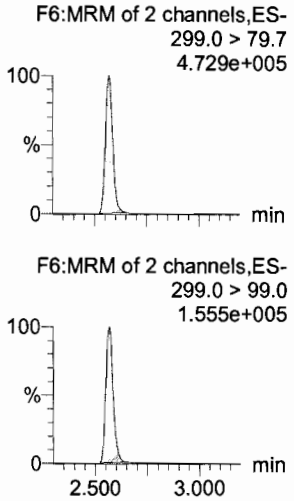


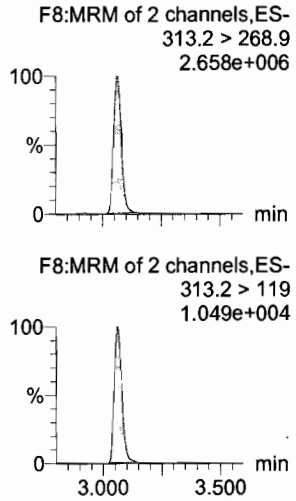
PFPeA



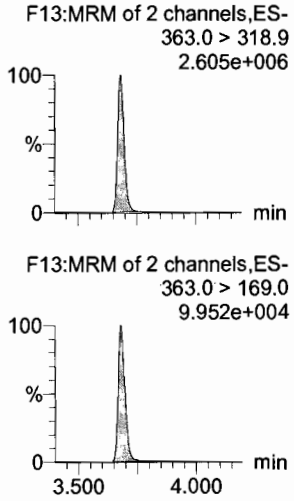
PFBS



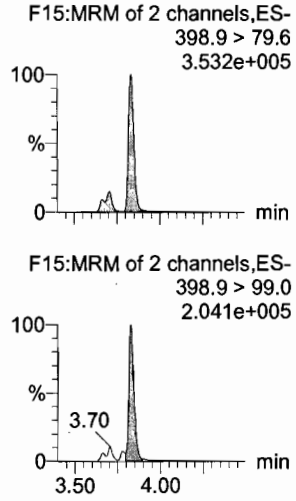
PFHxA



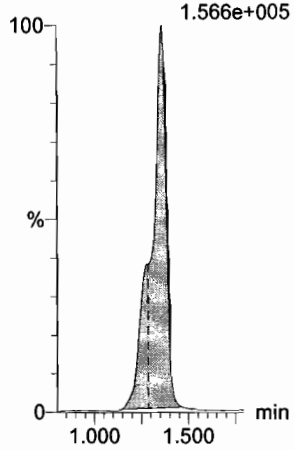
PFHpA



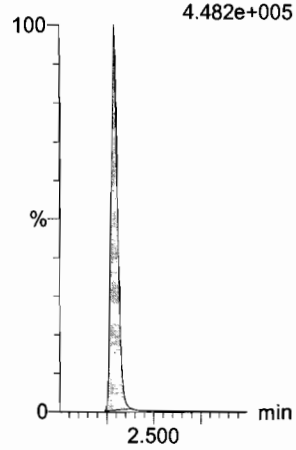
L-PFHxS



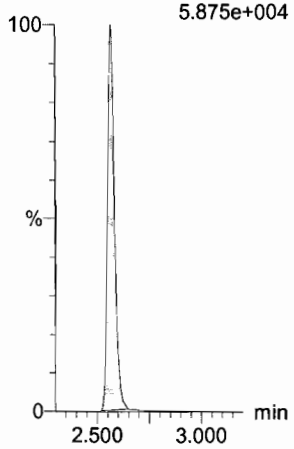
13C3-PFBA



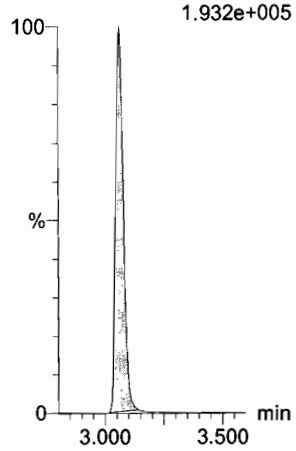
13C3-PFPeA



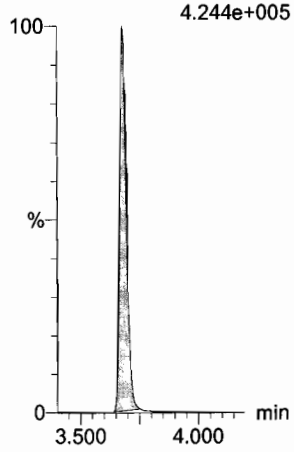
13C3-PFBS



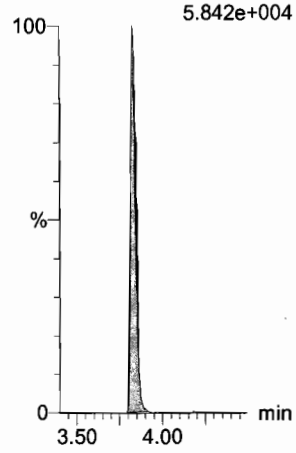
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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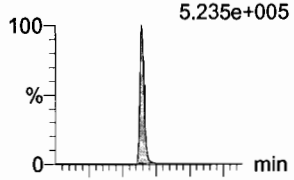
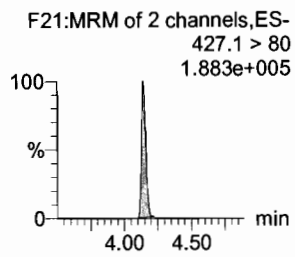
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

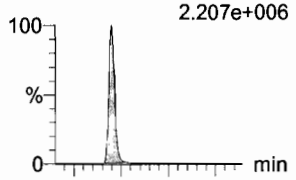
Name: 171206M2_8, Date: 07-Dec-2017, Time: 02:59:45, ID: ST171206M2-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

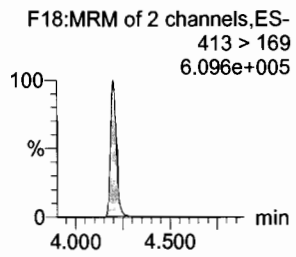
6:2 FTS



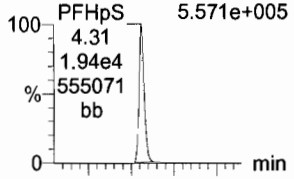


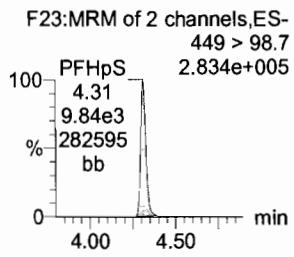
L-PFOA



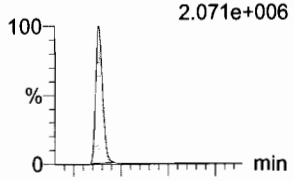


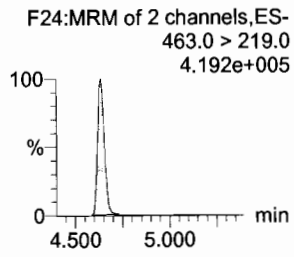
PFHpS



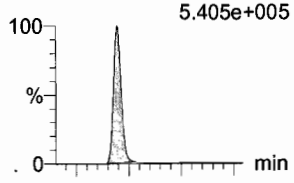


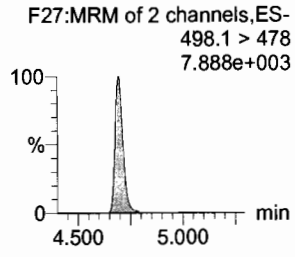
PFNA



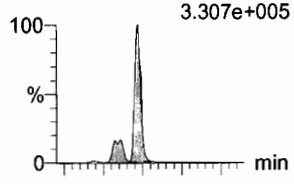


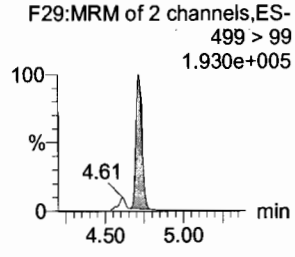
PFOSA



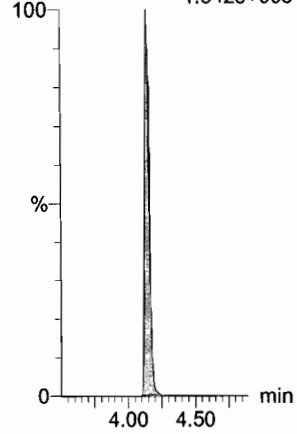


L-PFOS

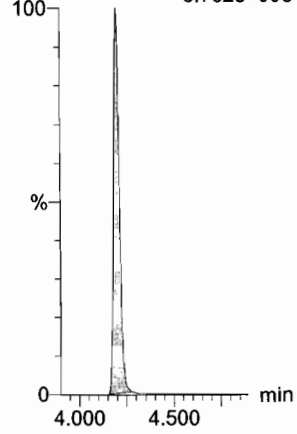




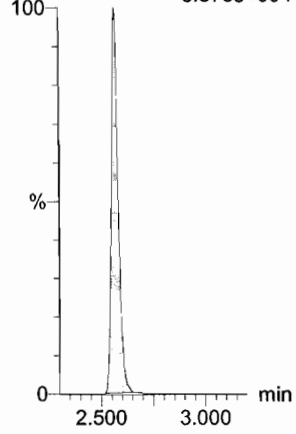
13C2-6:2 FTS



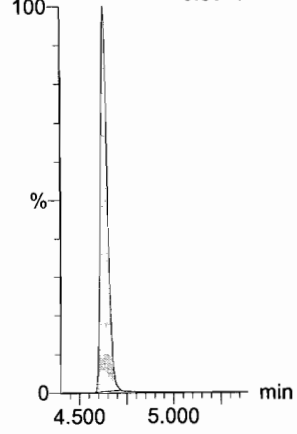
13C2-PFOA



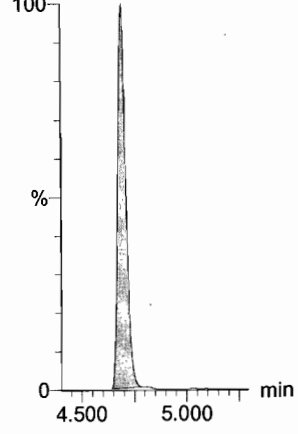
13C3-PFBS



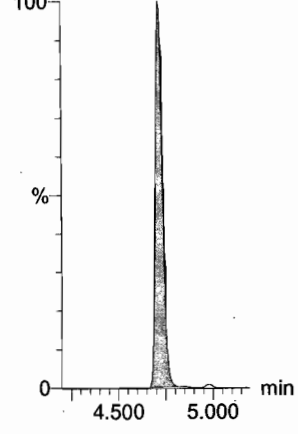
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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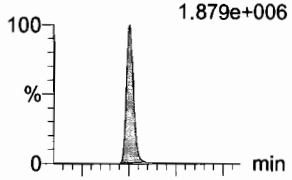
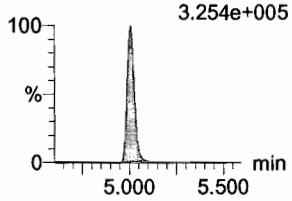
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_8, Date: 07-Dec-2017, Time: 02:59:45, ID: ST171206M2-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

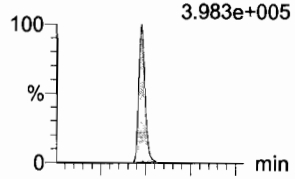
PFDA
F34:MRM of 2 channels,ES-
513 > 468.8
1.879e+006



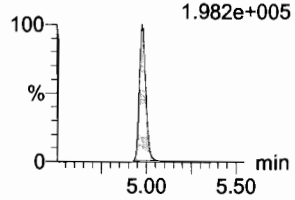
F34:MRM of 2 channels,ES-
513 > 219
3.254e+005



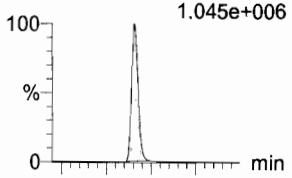
8:2 FTS
F39:MRM of 2 channels,ES-
527 > 506.9
3.983e+005



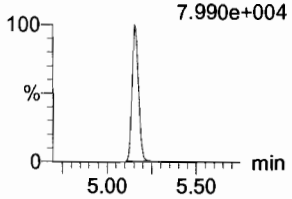
F39:MRM of 2 channels,ES-
527 > 80
1.982e+005



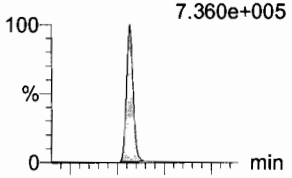
N-MeFOSAA
F44:MRM of 2 channels,ES-
570.1 > 419
1.045e+006



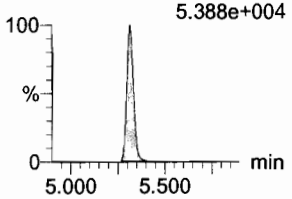
F44:MRM of 2 channels,ES-
570.1 > 483.0
7.990e+004



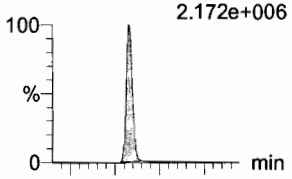
N-EtFOSAA
F47:MRM of 2 channels,ES-
584.2 > 419
7.360e+005



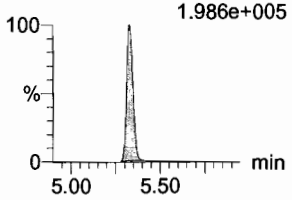
F47:MRM of 2 channels,ES-
584.2 > 483.0
5.388e+004



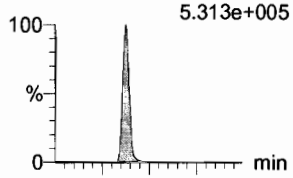
PFUdA
F42:MRM of 2 channels,ES-
563.0 > 518.9
2.172e+006



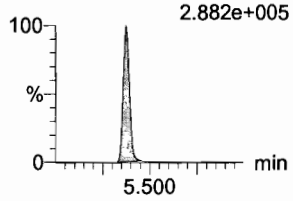
F42:MRM of 2 channels,ES-
563.0 > 269
1.986e+005



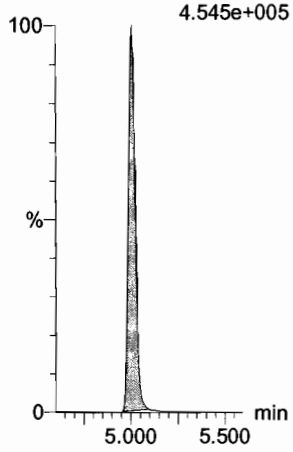
PFDS
F49:MRM of 2 channels,ES-
598.8 > 80
5.313e+005



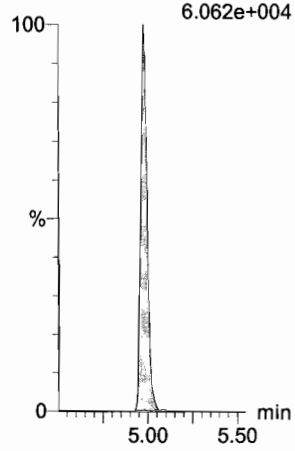
F49:MRM of 2 channels,ES-
598.8 > 98.7
2.882e+005



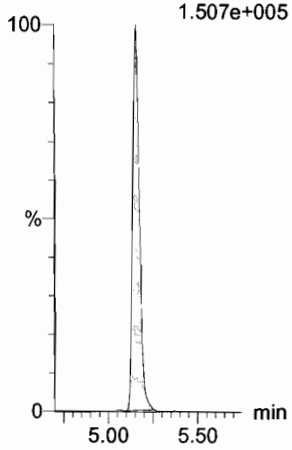
13C2-PFDA
F35:MRM of 1 channel,ES-
515.1 > 469.9
4.545e+005



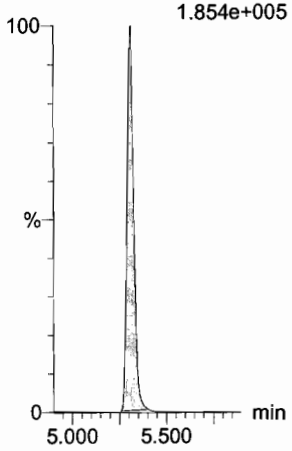
13C2-8:2 FTS
F40:MRM of 1 channel,ES-
529.1 > 508.7
6.062e+004



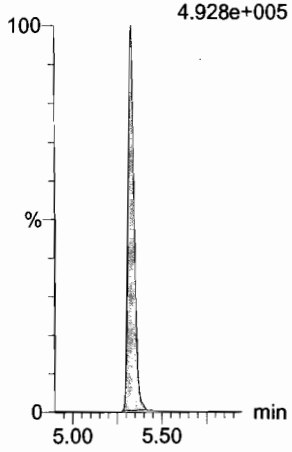
d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
573.3 > 419
1.507e+005



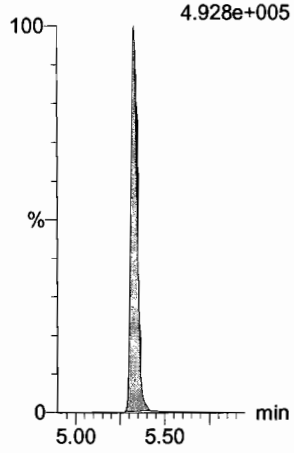
d5-N-EtFOSAA
F48:MRM of 1 channel,ES-
589.3 > 419
1.854e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
4.928e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
4.928e+005



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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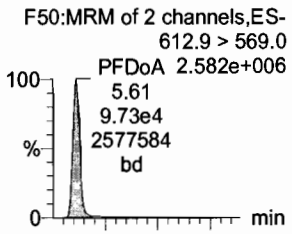
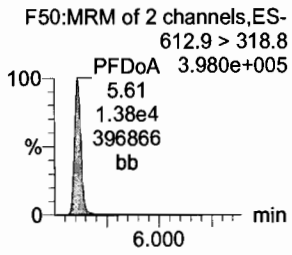
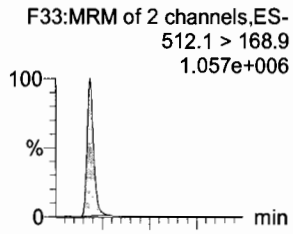
Name: 171206M2_8, Date: 07-Dec-2017, Time: 02:59:45, ID: ST171206M2-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

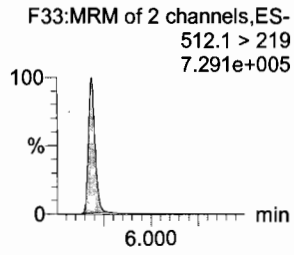
PFDoA



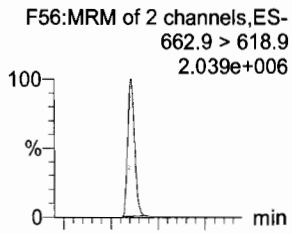


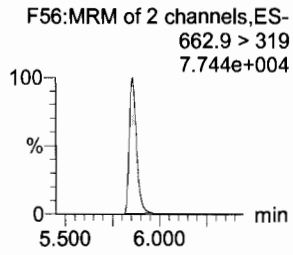
N-MeFOSA



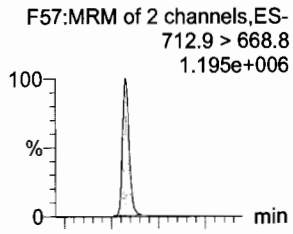


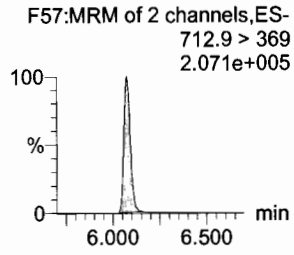
PFTrDA



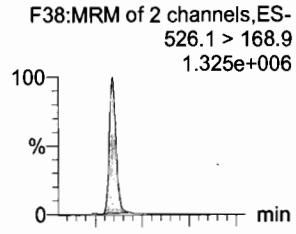


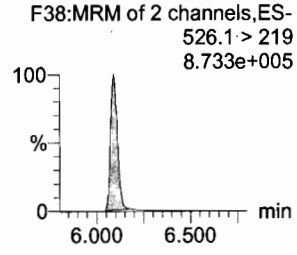
PFTeDA



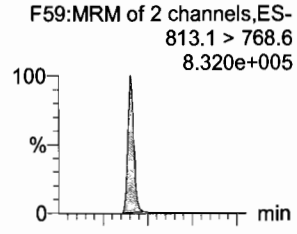


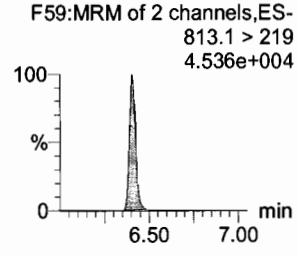
N-EtFOSA



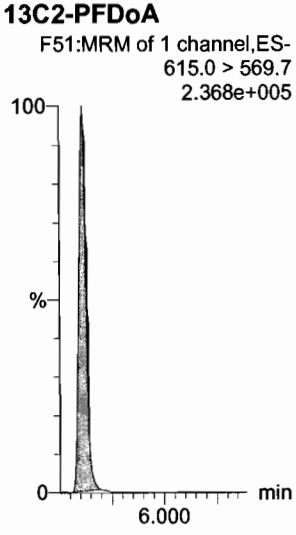


PFHxDA

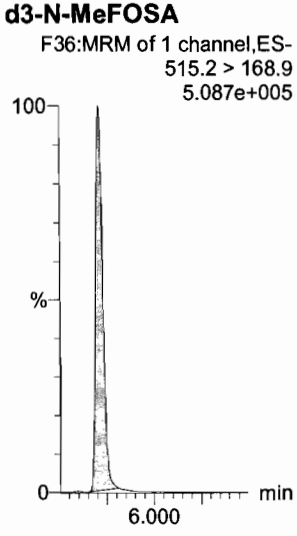




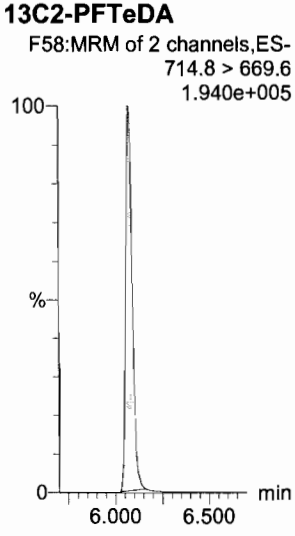
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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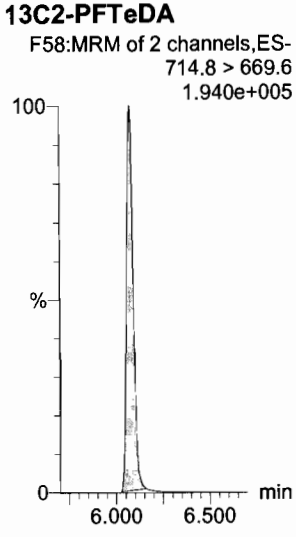
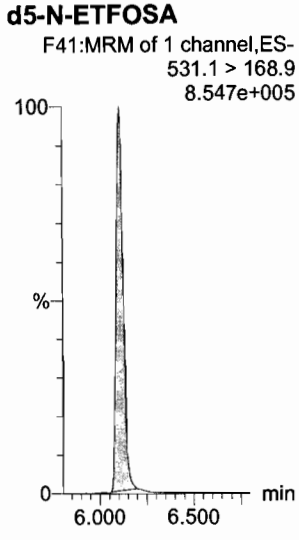
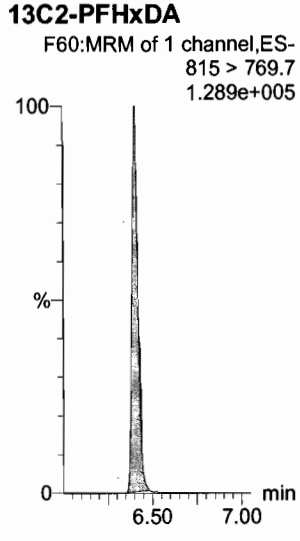


d5-N-ETFOSA



13C2-PFHxDA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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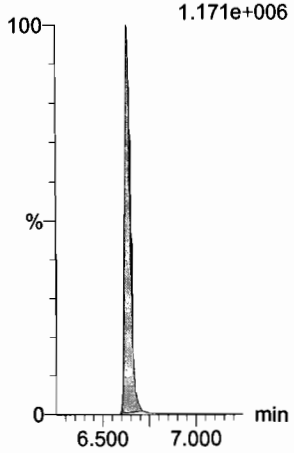
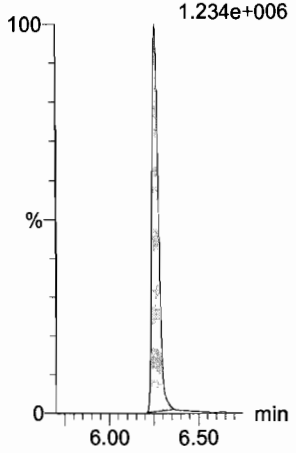
Name: 171206M2_8, Date: 07-Dec-2017, Time: 02:59:45, ID: ST171206M2-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

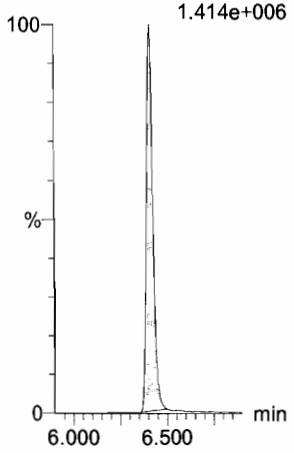
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.171e+006



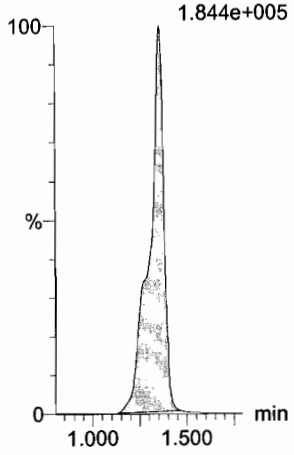
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.234e+006



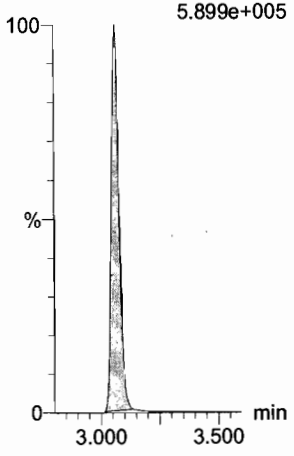
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.414e+006



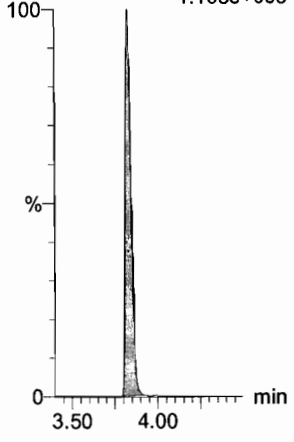
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.844e+005



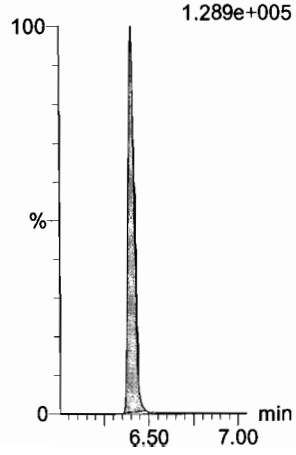
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.899e+005



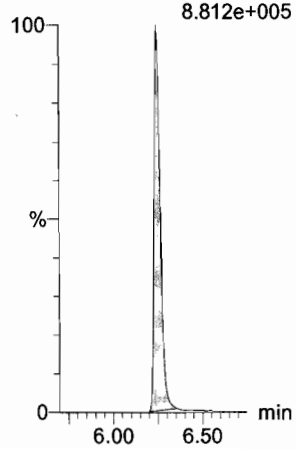
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.168e+005



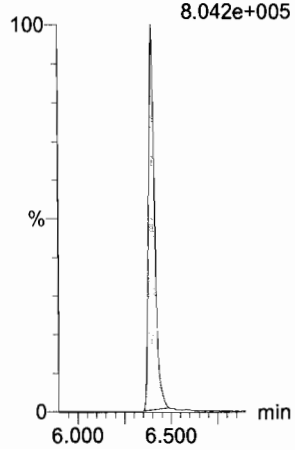
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.289e+005



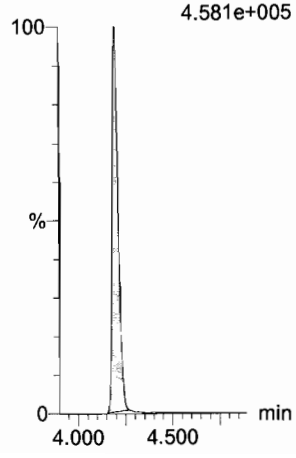
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
8.812e+005



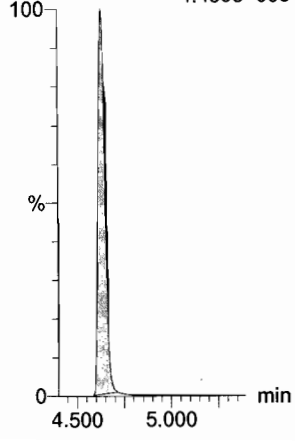
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
8.042e+005



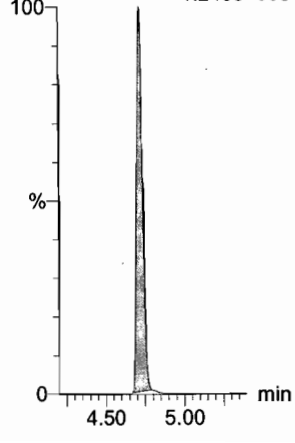
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.581e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.453e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.249e+005



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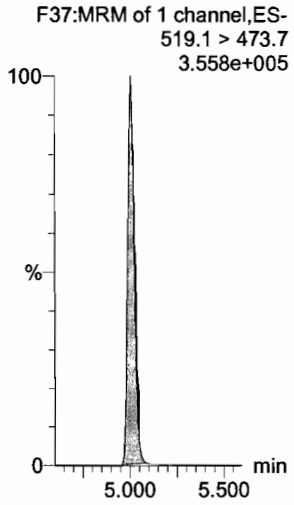
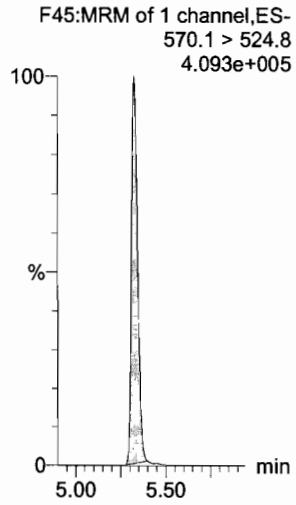
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_8, Date: 07-Dec-2017, Time: 02:59:45, ID: ST171206M2-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

13C6-PFDA



13C7-PFUdA



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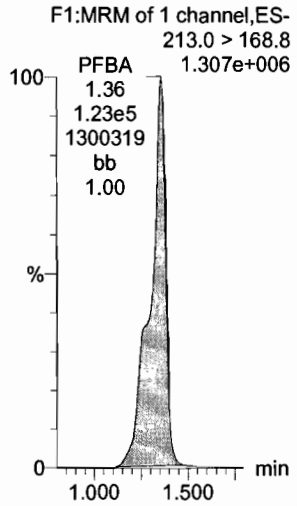
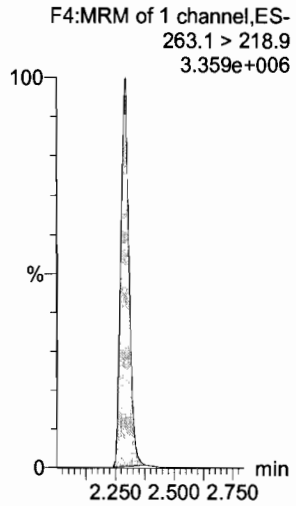
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_9, Date: 07-Dec-2017, Time: 03:10:56, ID: ST171206M2-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

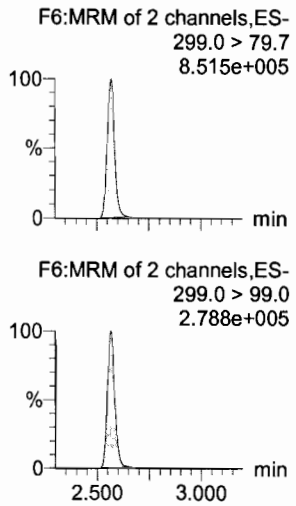
PFBA



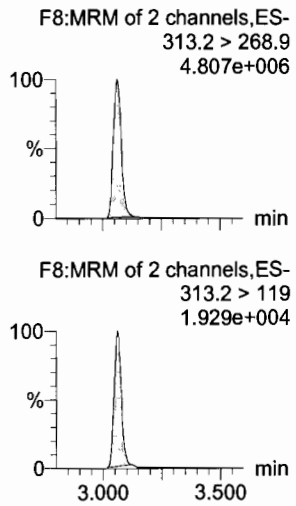
PFPeA



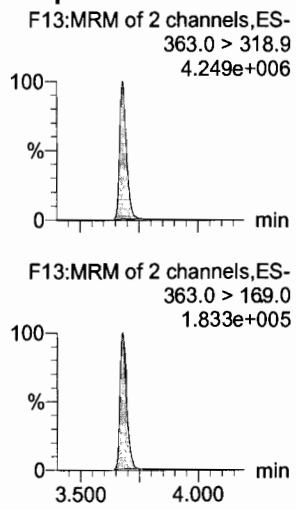
PFBS



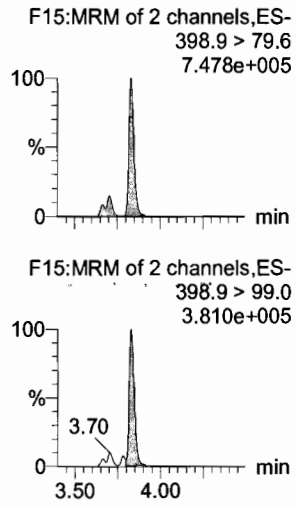
PFHxA



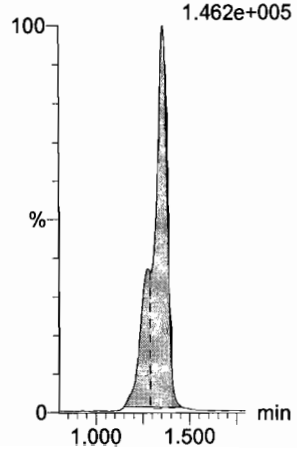
PFHpA



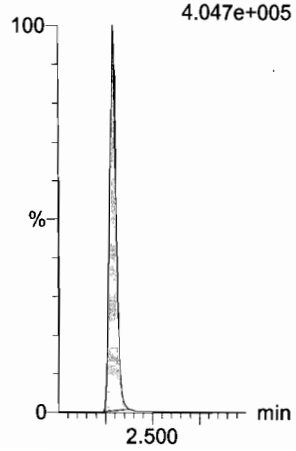
L-PFHxS



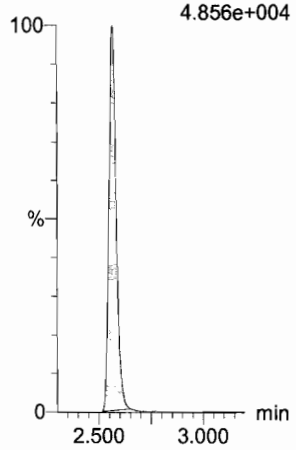
13C3-PFBA



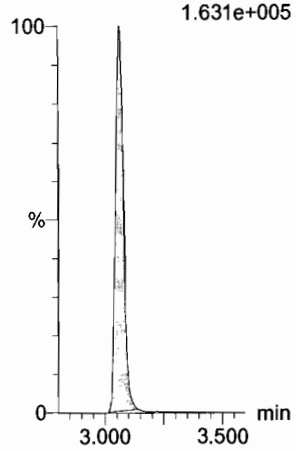
13C3-PFPeA



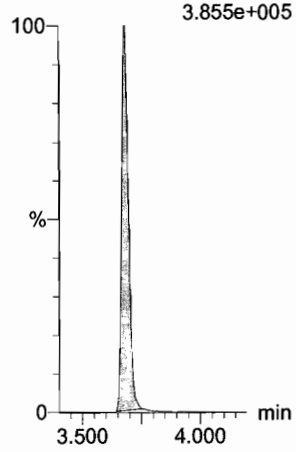
13C3-PFBS



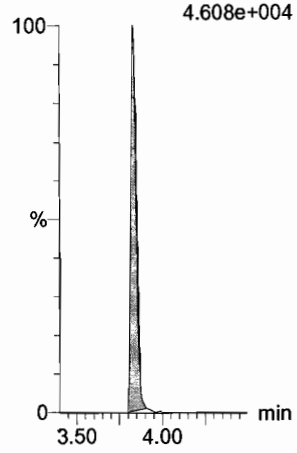
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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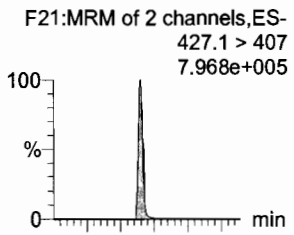
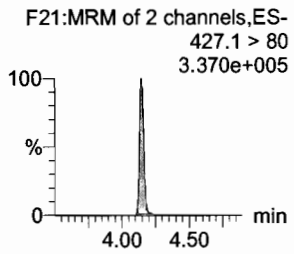
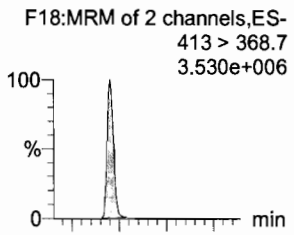
Name: 171206M2_9, Date: 07-Dec-2017, Time: 03:10:56, ID: ST171206M2-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

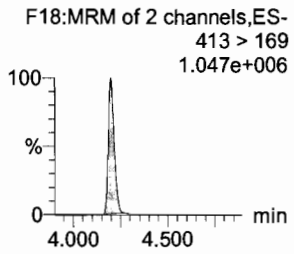
6:2 FTS



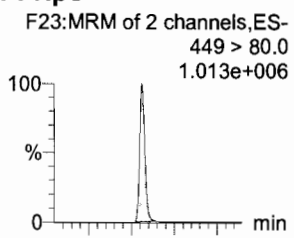


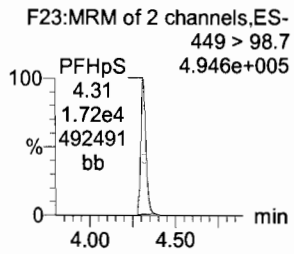
L-PFOA



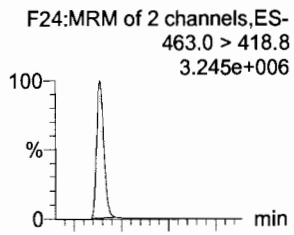


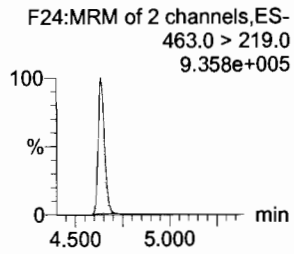
PFHpS



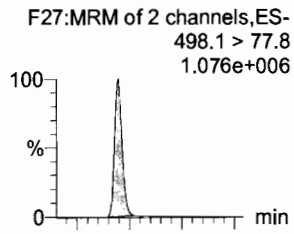


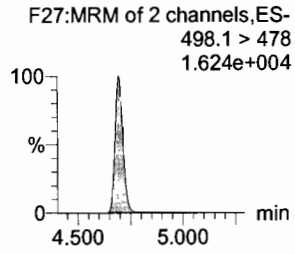
PFNA



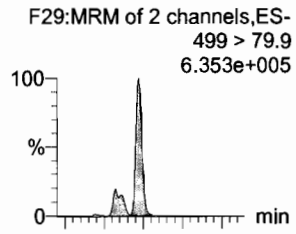


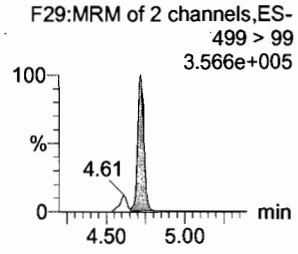
PFOSA



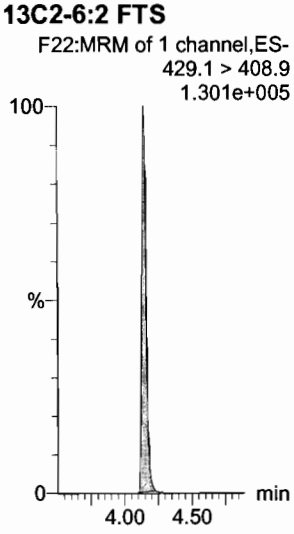


L-PFOS

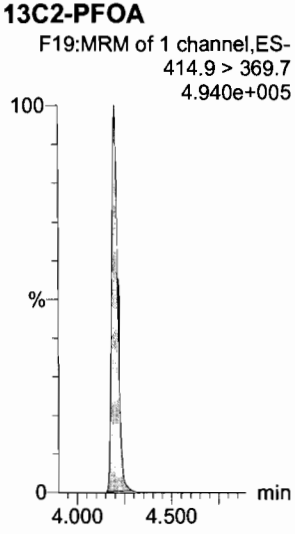




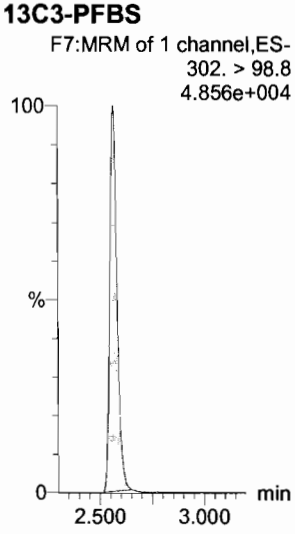
13C2-6:2 FTS



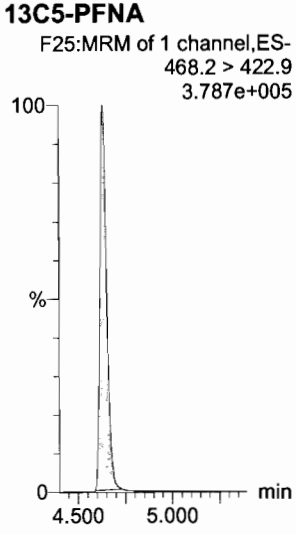
13C2-PFOA



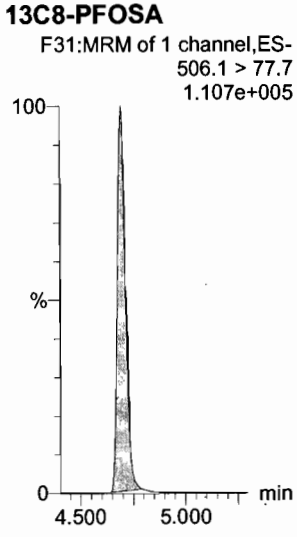
13C3-PFBS



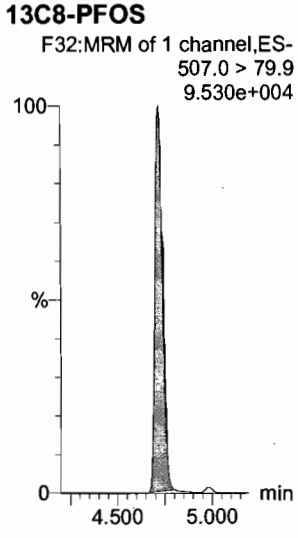
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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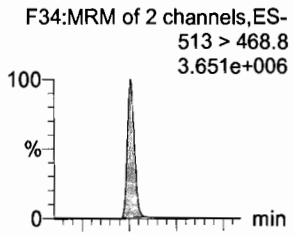
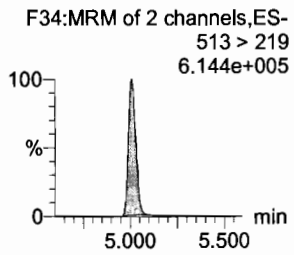
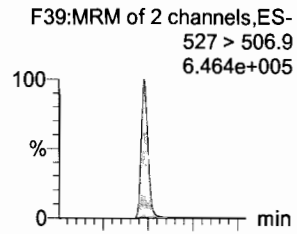
Name: 171206M2_9, Date: 07-Dec-2017, Time: 03:10:56, ID: ST171206M2-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

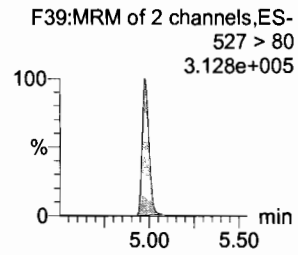
PFDA



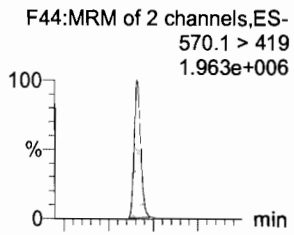


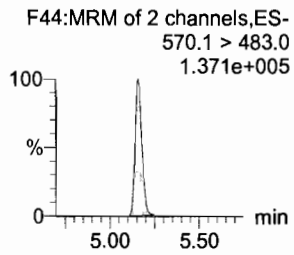
8:2 FTS





N-MeFOSAA





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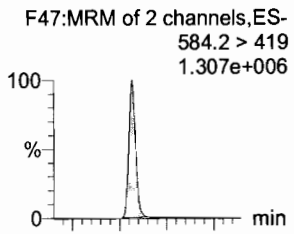
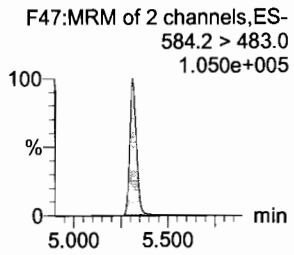
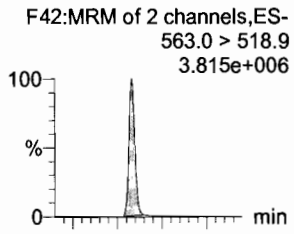
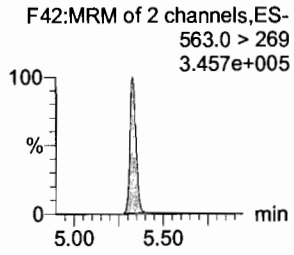


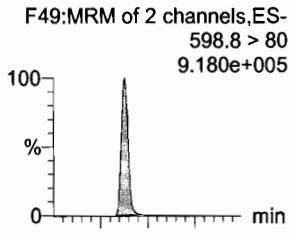


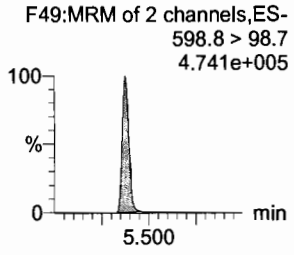
PFUdA



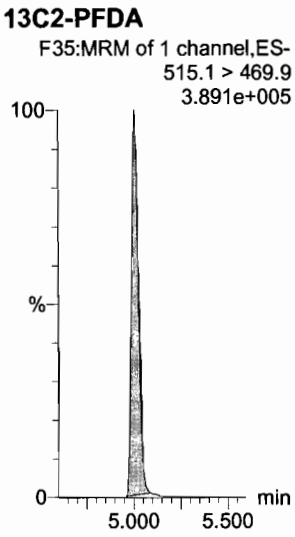


PFDS

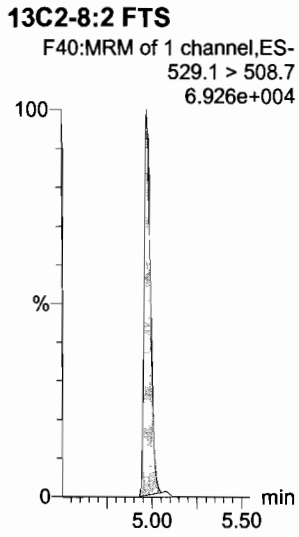




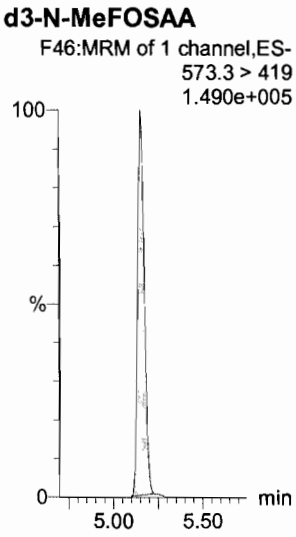
13C2-PFDA



13C2-8:2 FTS



d3-N-MeFOSAA



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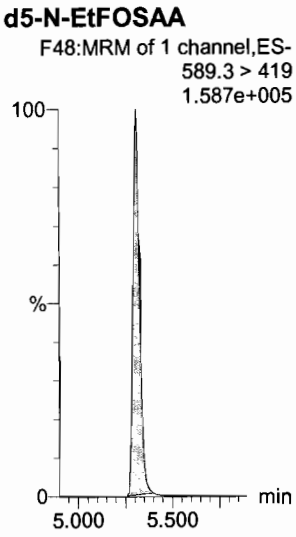

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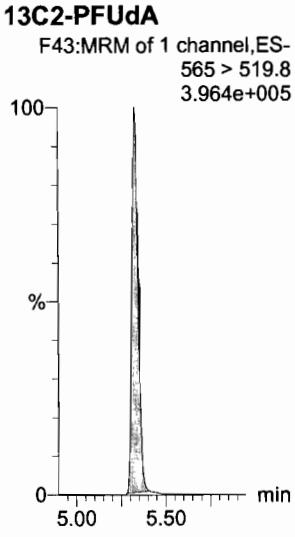
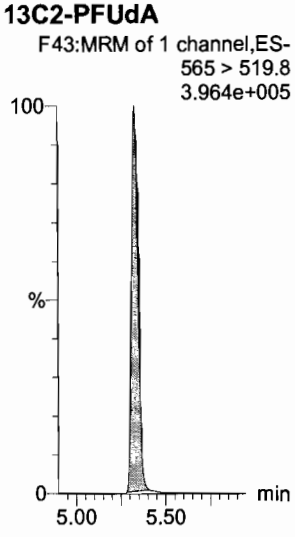


13C2-PFUdA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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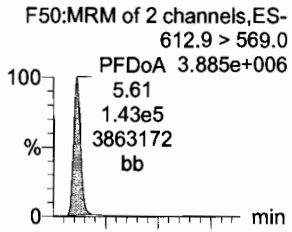
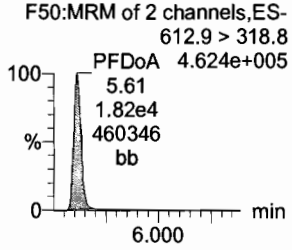
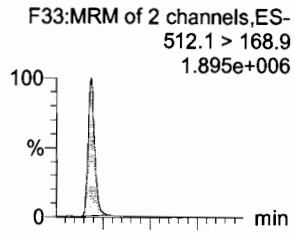
Name: 171206M2_9, Date: 07-Dec-2017, Time: 03:10:56, ID: ST171206M2-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

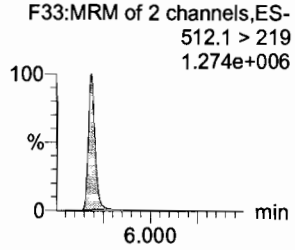
PFDoA



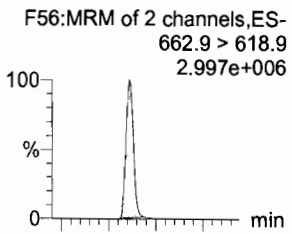


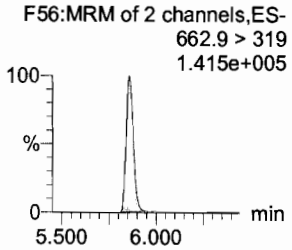
N-MeFOSA



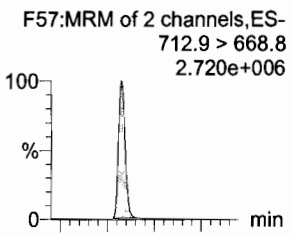


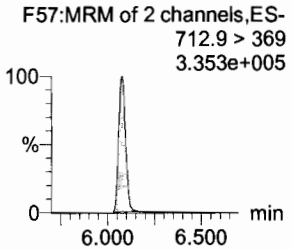
PFTrDA





PFTeDA





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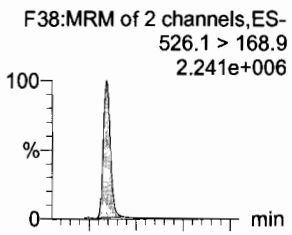
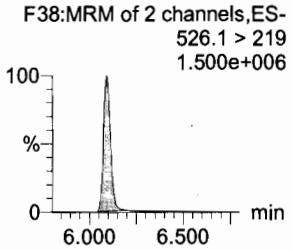
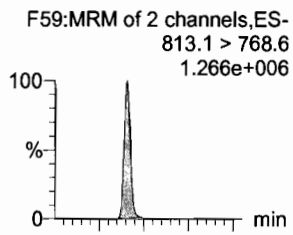
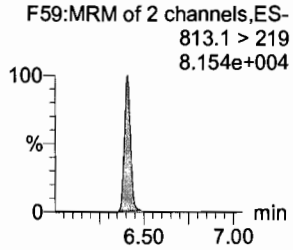


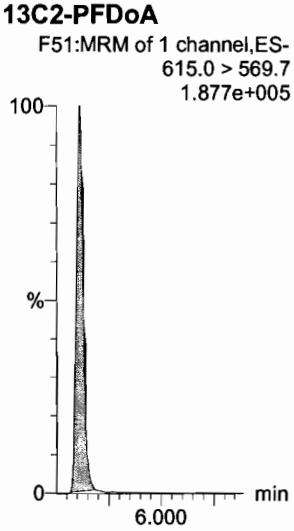


PFHxDA

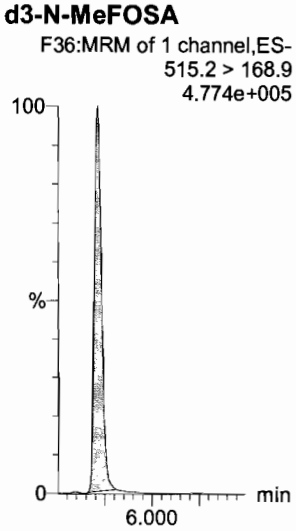




13C2-PFDoA



d3-N-MeFOSA



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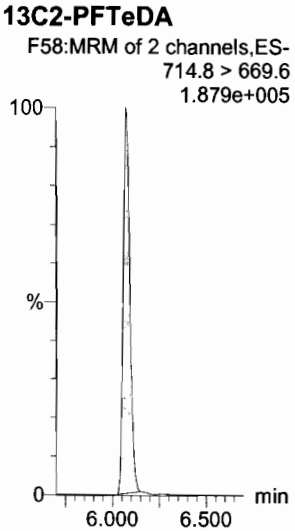

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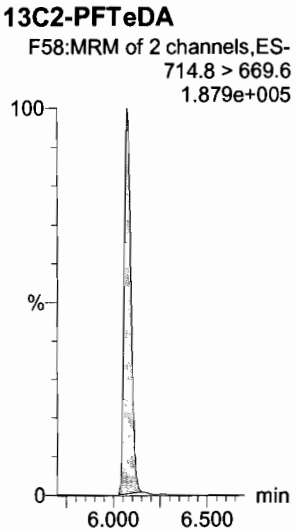

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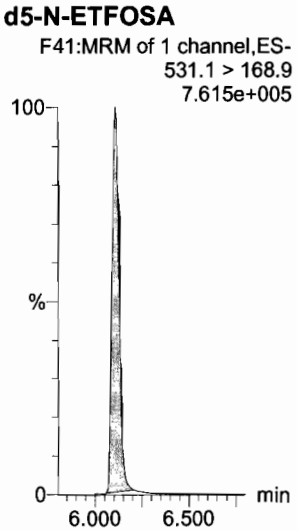
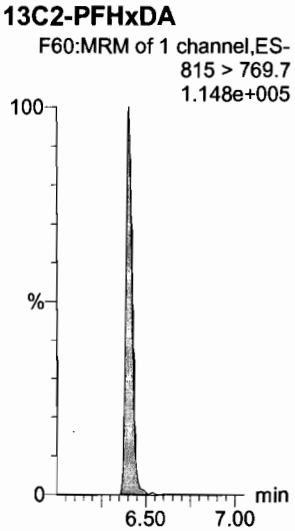


13C2-PFHxDA



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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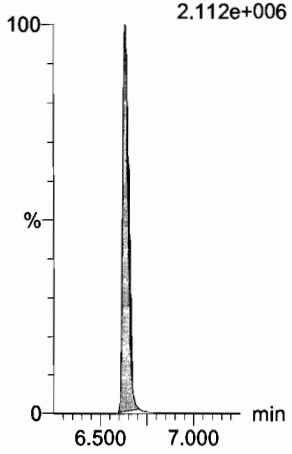
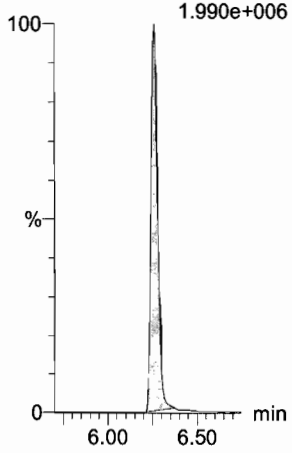
Name: 171206M2_9, Date: 07-Dec-2017, Time: 03:10:56, ID: ST171206M2-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

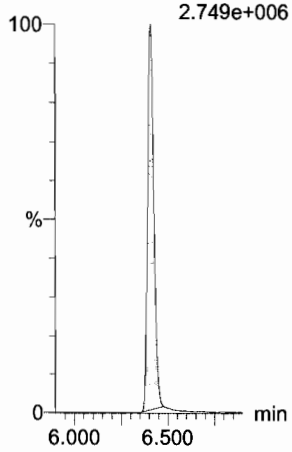
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.112e+006



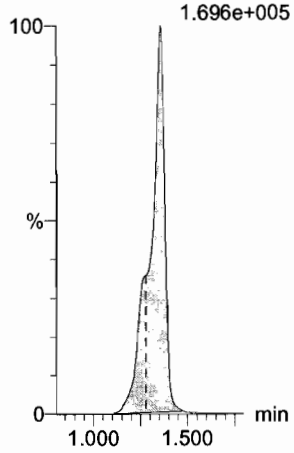
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.990e+006



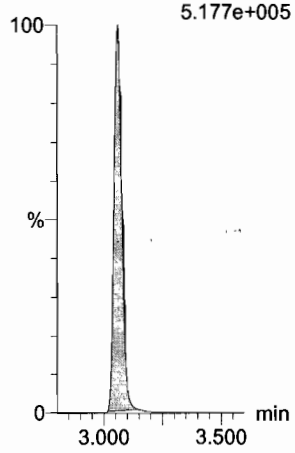
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.749e+006



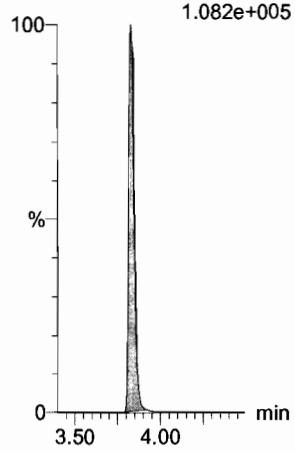
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.696e+005



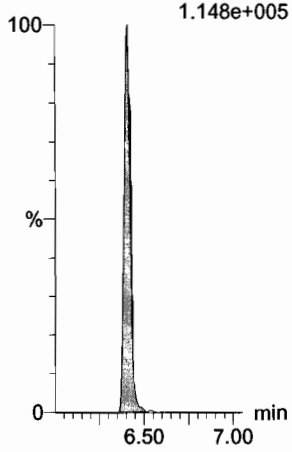
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.177e+005



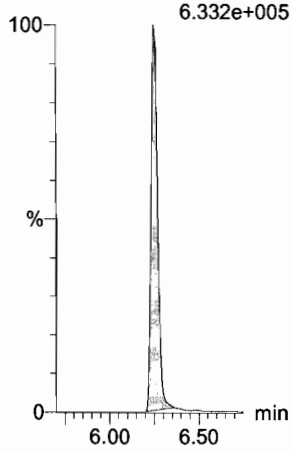
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.082e+005



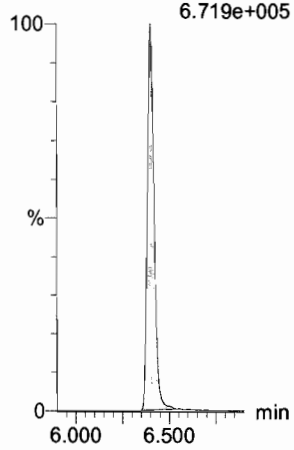
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.148e+005



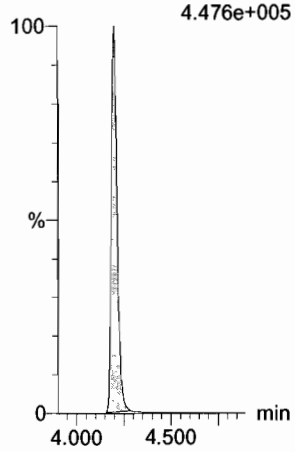
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.332e+005



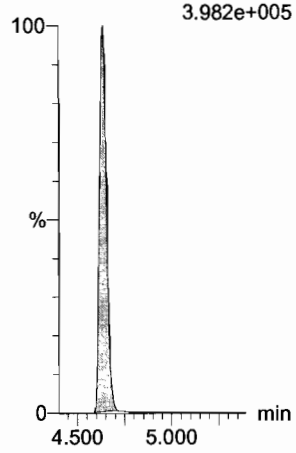
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.719e+005



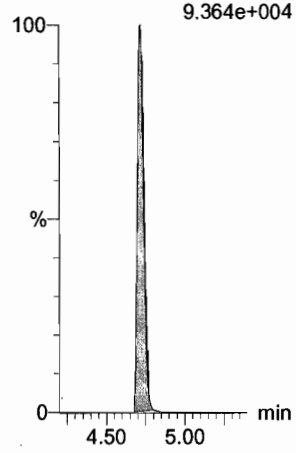
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.476e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.982e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.364e+004



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Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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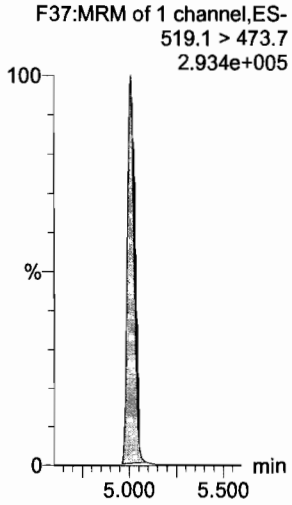
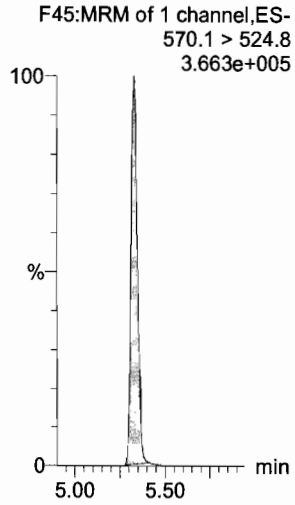
Name: 171206M2_9, Date: 07-Dec-2017, Time: 03:10:56, ID: ST171206M2-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

13C6-PFDA



13C7-PFUdA



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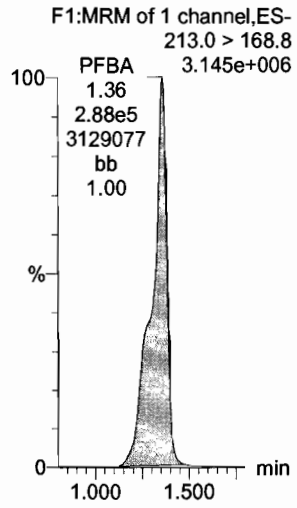
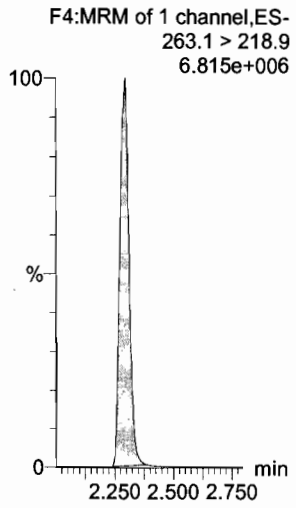
Name: 171206M2_10, Date: 07-Dec-2017, Time: 03:22:06, ID: ST171206M2-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

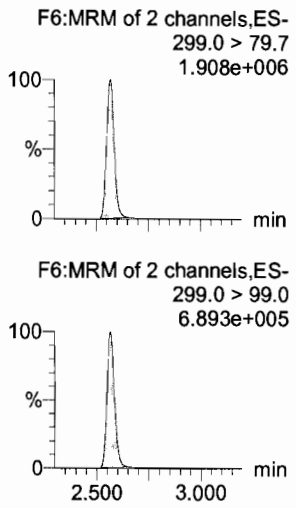
PFBA



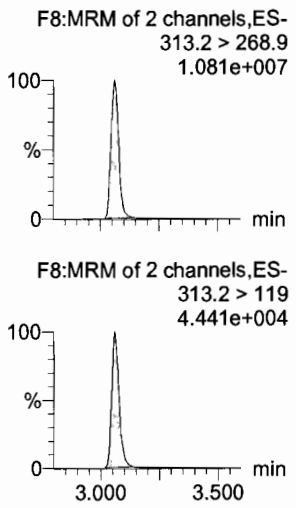
PFPeA



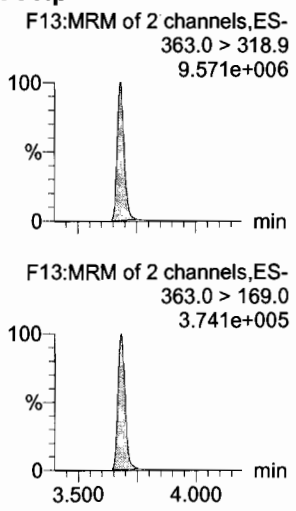
PFBS



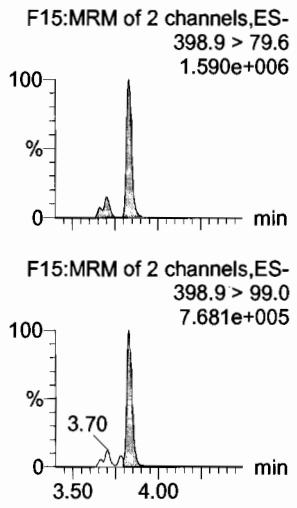
PFHxA



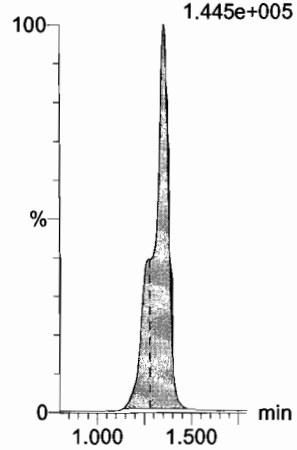
PFHpA



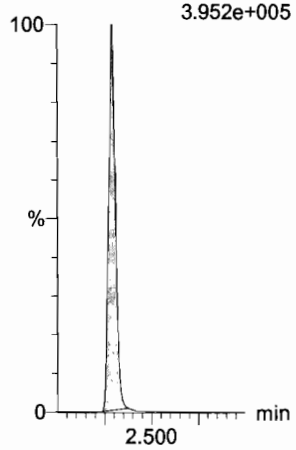
L-PFHxS



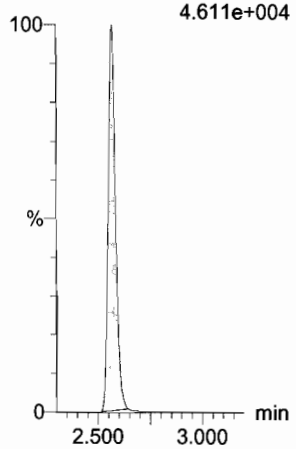
13C3-PFBA



13C3-PFPeA



13C3-PFBS



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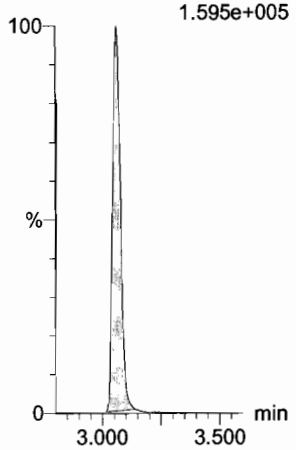

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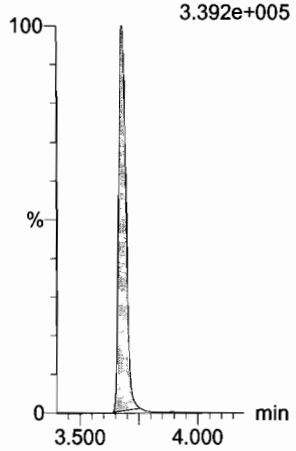
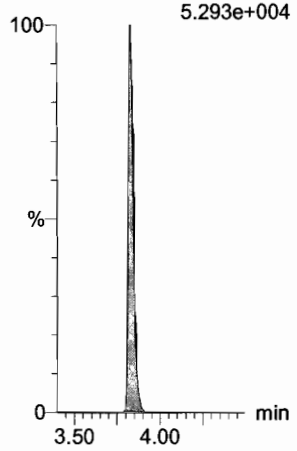


18O2-PFHxS



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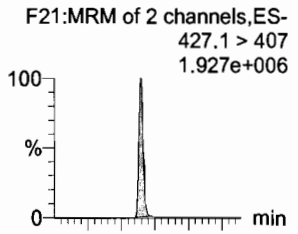
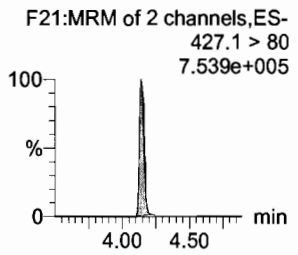
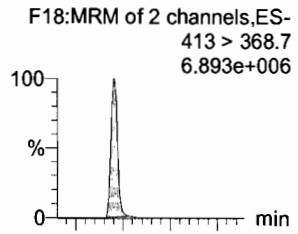
Name: 171206M2_10, Date: 07-Dec-2017, Time: 03:22:06, ID: ST171206M2-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

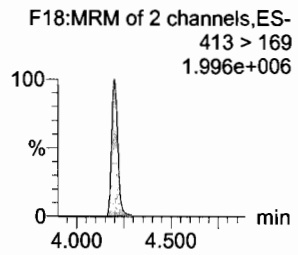
6:2 FTS





L-PFOA





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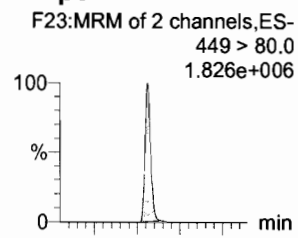

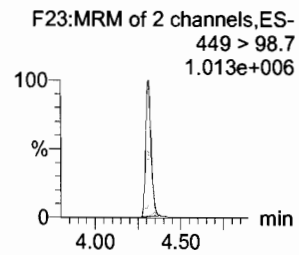

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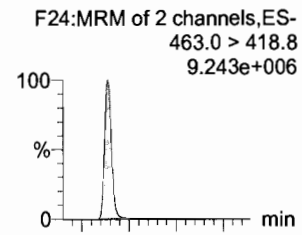

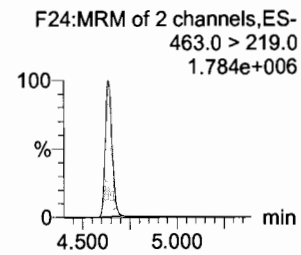

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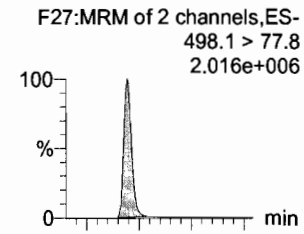

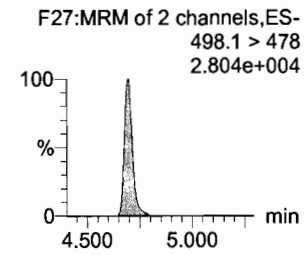

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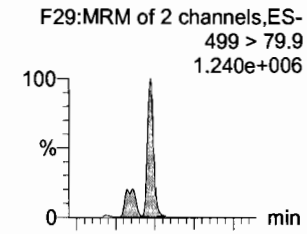
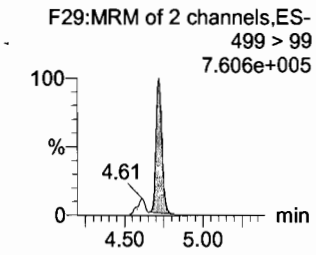
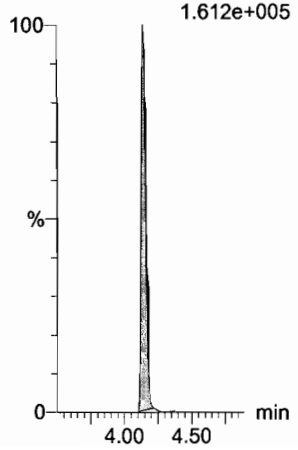
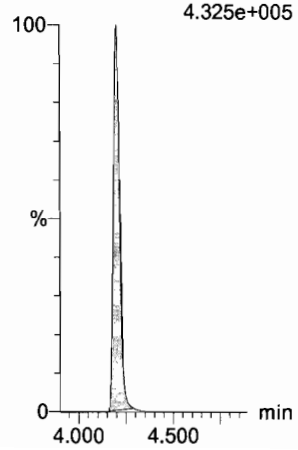




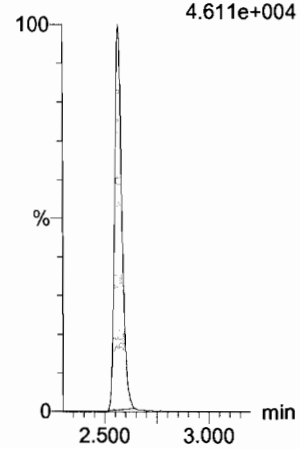
13C2-6:2 FTS



13C2-PFOA



13C3-PFBS



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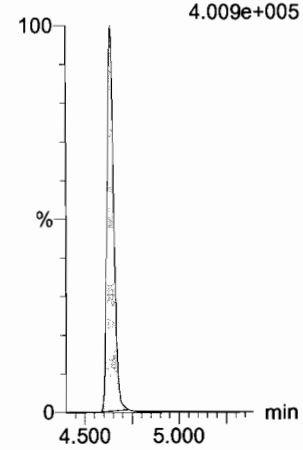

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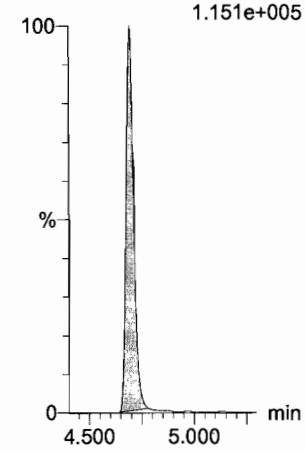

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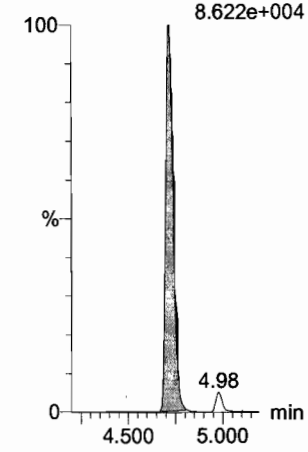

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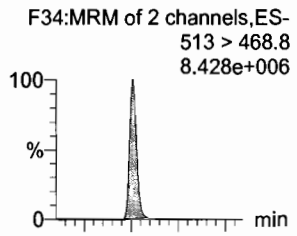
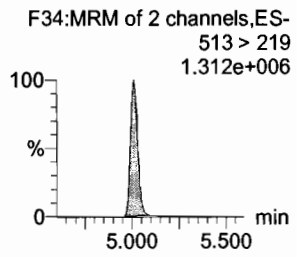
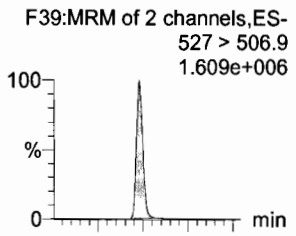
Name: 171206M2_10, Date: 07-Dec-2017, Time: 03:22:06, ID: ST171206M2-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

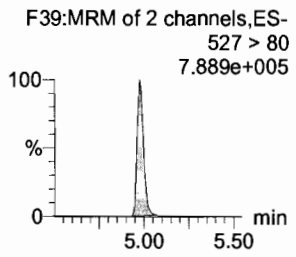
PFDA





8:2 FTS





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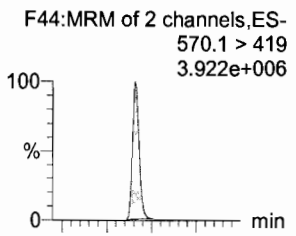

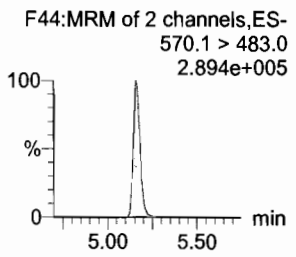

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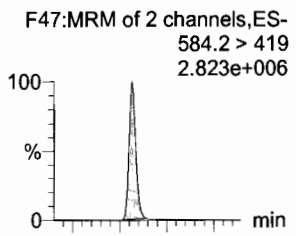

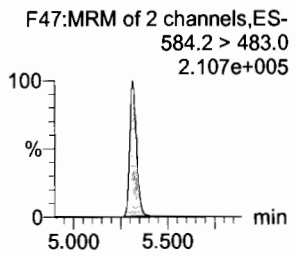

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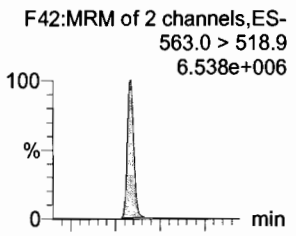

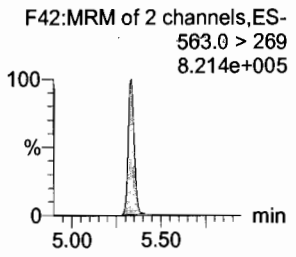

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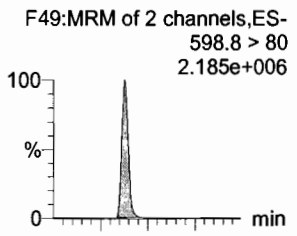
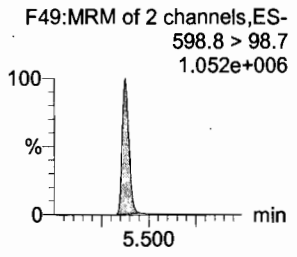
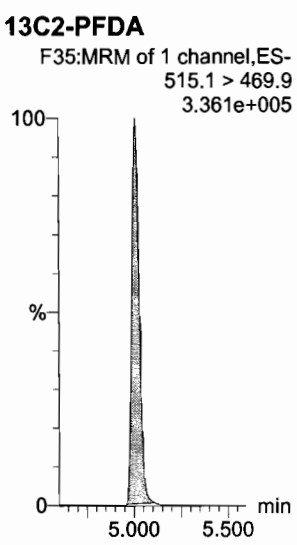




13C2-PFDA



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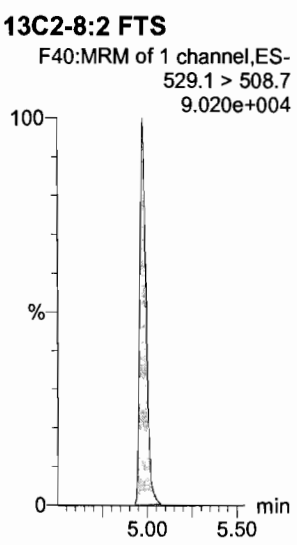

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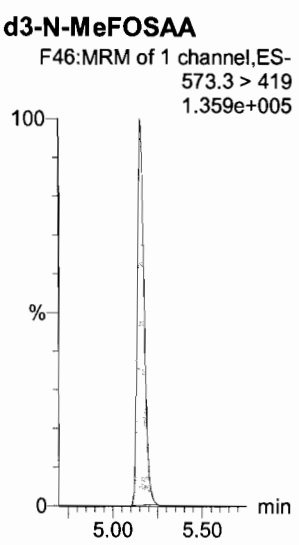

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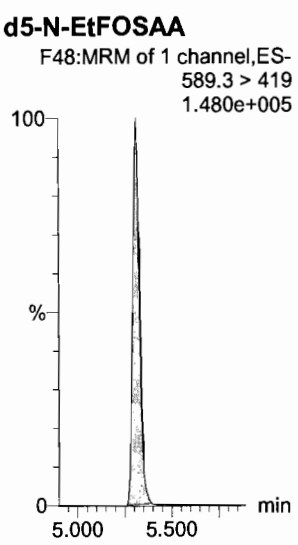

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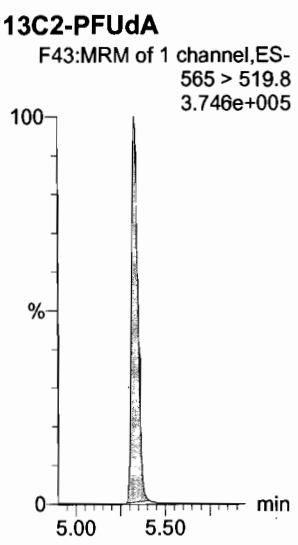

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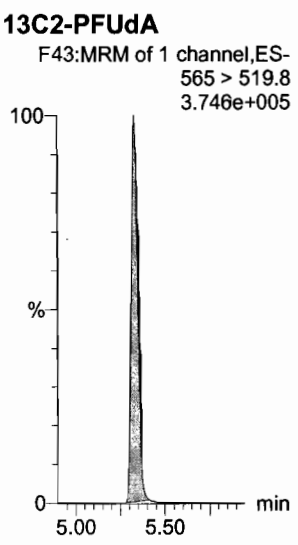

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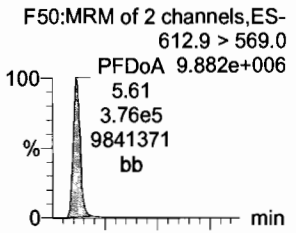
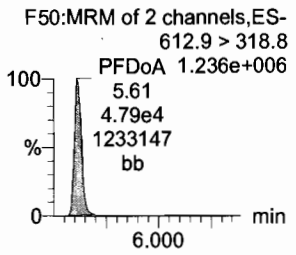
PFDoA





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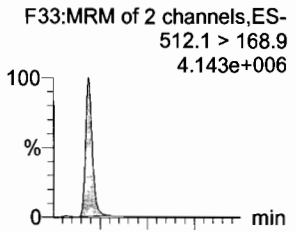

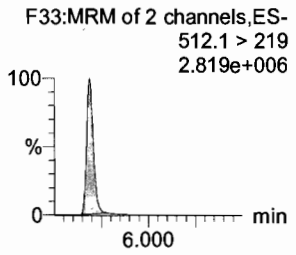

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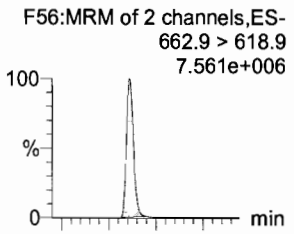

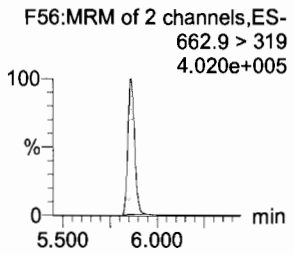

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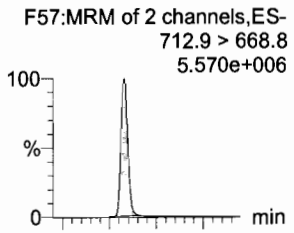

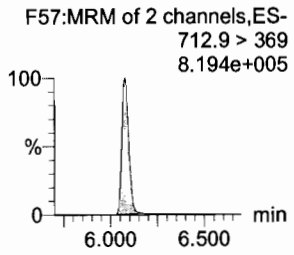

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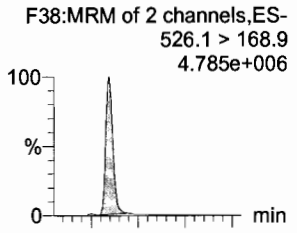

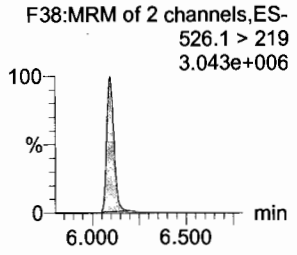

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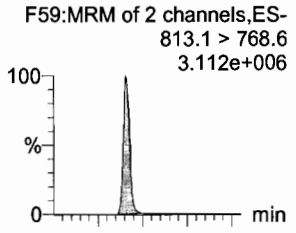
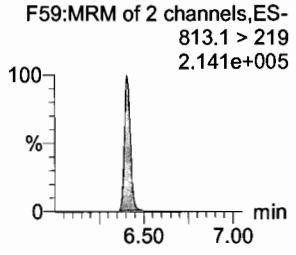
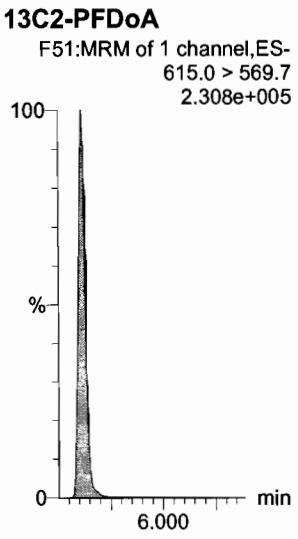
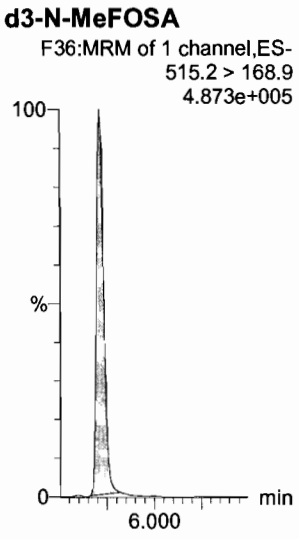




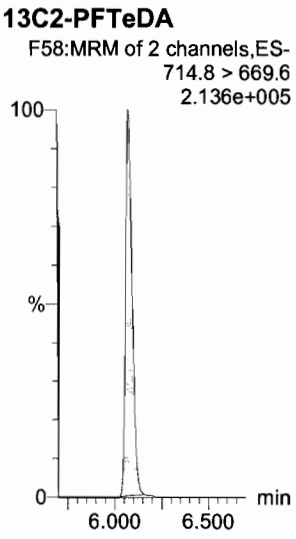
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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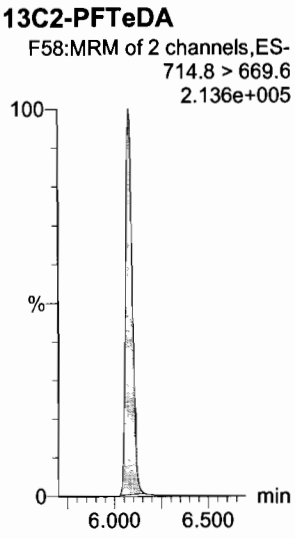
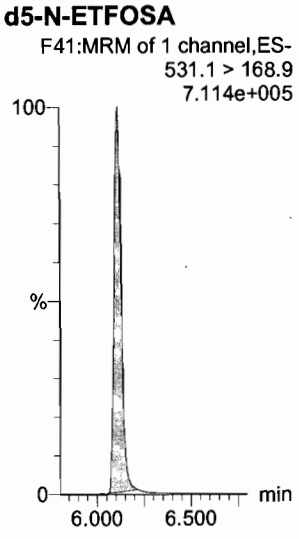
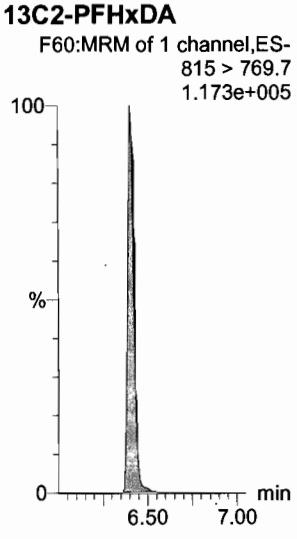


d5-N-ETFOSA



13C2-PFHxDA



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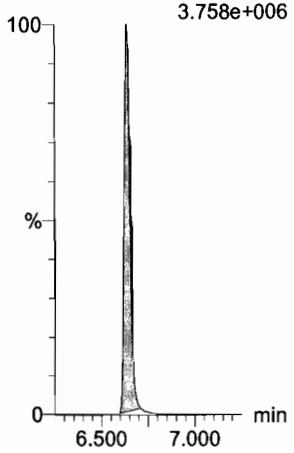
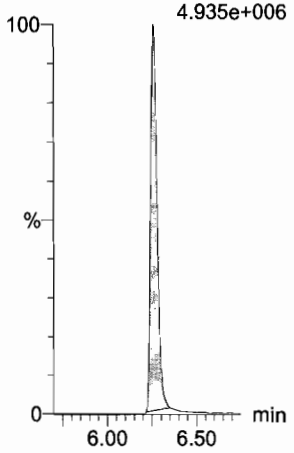
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_10, Date: 07-Dec-2017, Time: 03:22:06, ID: ST171206M2-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

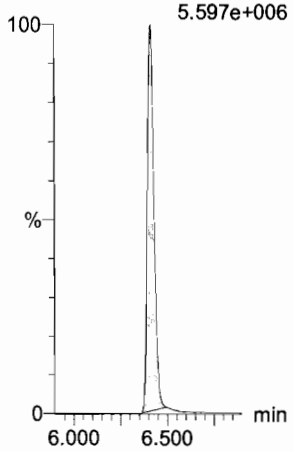
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.758e+006



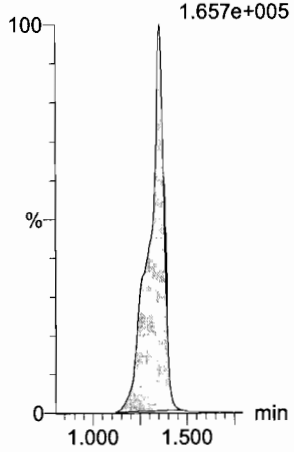
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
4.935e+006



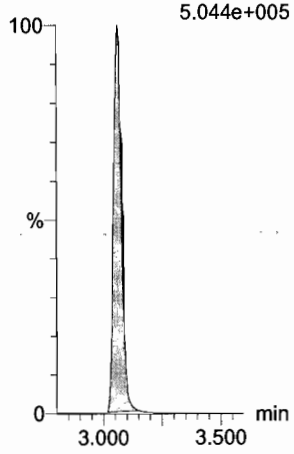
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
5.597e+006



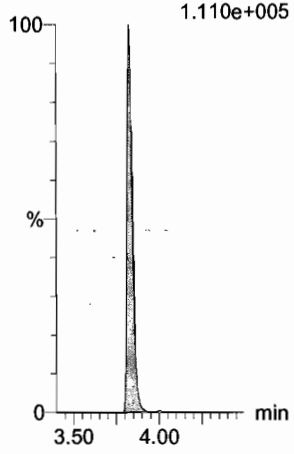
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.657e+005



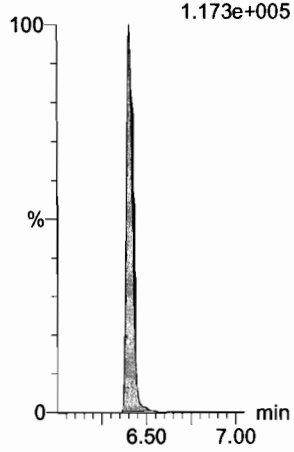
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.044e+005



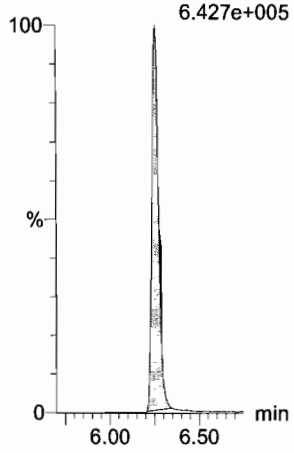
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.110e+005



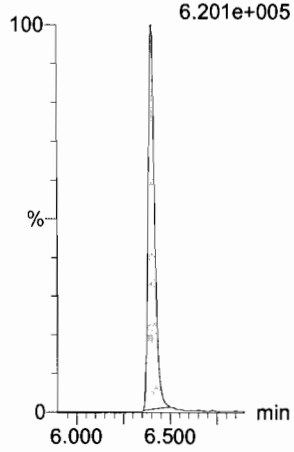
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.173e+005



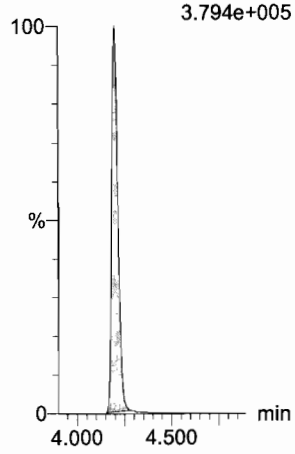
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.427e+005



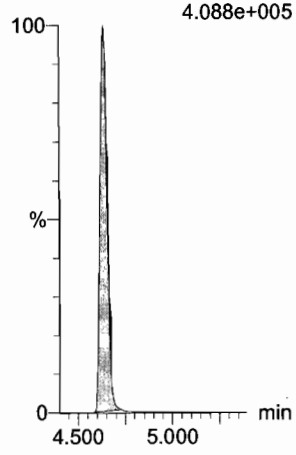
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.201e+005



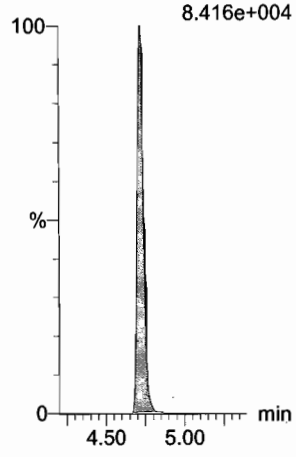
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.794e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.088e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.416e+004

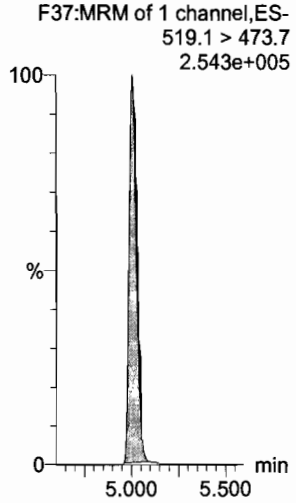


Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

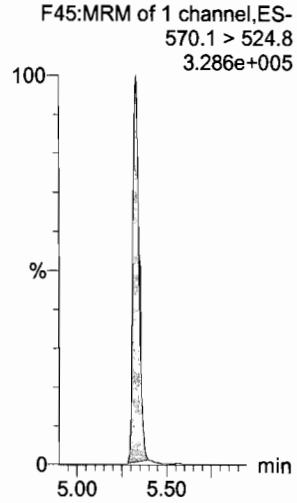
Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
Printed: Thursday, December 07, 2017 13:52:40 Pacific Standard Time

Name: 171206M2_10, Date: 07-Dec-2017, Time: 03:22:06, ID: ST171206M2-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171206M2\171206M2-13.qld

Last Altered: Thursday, December 07, 2017 14:24:57 Pacific Standard Time
Printed: Thursday, December 07, 2017 14:25:17 Pacific Standard Time

(A) No second source available.
AC 12/7/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

JHA 12/07/2017

Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.34e4	1.46e4	1.0000		1.41	1.36	11.5	10.378	103.8
2	2	PFPeA	263.1 > 218.9	1.46e4	1.74e4	1.0000		2.63	2.29	10.5	10.708	107.1
3	3	PFBS	299.0 > 79.7	3.74e3	2.23e3	1.0000		2.90	2.57	20.9	9.678	96.8
4	4	PFHxA	313.2 > 268.9	2.10e4	6.37e3	1.0000		3.40	3.06	16.5	11.860	118.6
5	5	PFHpA	363.0 > 318.9	1.62e4	1.49e4	1.0000		4.03	3.68	13.6	9.949	99.5
6	6	L-PFHxS	398.9 > 79.6	2.94e3	1.94e3	1.0000		3.90	3.83	18.9	8.378	83.8
7	8	6:2 FTS	427.1 > 407	3.81e3	4.34e3	1.0000		4.21	4.15	11.0	9.472	94.7
8	9	L-PFOA	413 > 368.7	1.65e4	1.76e4	1.0000		4.26	4.20	11.8	11.301	113.0
9	11	PFHpS	449 > 80.0	3.62e3	1.76e4	1.0000		4.38	4.31	2.58	9.927	99.3
10	12	PFNA	463.0 > 418.8	1.82e4	1.81e4	1.0000		4.63	4.64	12.5	9.440	94.4
11	13	PFOSA	498.1 > 77.8	4.96e3	6.22e3	1.0000		5.02	4.70	9.96	8.462	84.6
12	14	L-PFOS	499 > 79.9	3.55e3	5.23e3	1.0000		4.80	4.72	8.47	8.412	84.1
13	16	PFDA	513 > 468.8	1.76e4	1.90e4	1.0000		5.34	5.01	11.5	9.969	99.7
14	17	8:2 FTS	527 > 506.9	3.22e3	2.41e3	1.0000		4.98	4.98	16.7	8.763	87.6
15	18	N-MeFOSAA	570.1 > 419	7.82e3	7.17e3	1.0000		5.49	5.16	13.6	7.863	78.6
16	19	N-EtFOSAA	584.2 > 419	7.13e3	8.06e3	1.0000		5.64	5.32	11.1	10.534	105.3
17	20	PFUdA	563.0 > 518.9	1.66e4	1.78e4	1.0000		5.66	5.33	11.7	9.699	97.0
18	21	PFDS	598.8 > 80	4.13e3	1.78e4	1.0000		5.73	5.38	2.91	9.771	97.7
19	22	PFDoA	612.9 > 569.0	1.95e4	9.81e3	1.0000		5.94	5.61	24.8	9.165	91.7
20	23	N-MeFOSA	512.1 > 168.9		2.31e4	1.0000		5.85				(A)
21	24	PFTrDA	662.9 > 618.9	1.52e4	9.81e3	1.0000		6.18	5.86	19.4	7.721	77.2
22	25	PFTeDA	712.9 > 668.8	9.40e3	7.22e3	1.0000		6.37	6.07	16.3	9.144	91.4
23	26	N-EtFOSA	526.1 > 168.9		3.59e4	1.0000		6.21				(A)
24	27	PFHxDA	813.1 > 768.6		5.68e3	1.0000		6.66				
25	28	PFODA	913.1 > 868.8		5.68e3	1.0000		6.87				
26	29	N-MeFOSE	616.1 > 58.9		3.13e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		3.54e4	1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	1.46e4	1.80e4	1.0000	0.873	1.41	1.36	10.1	11.585	92.7
29	32	13C3-PFPeA	266. > 221.8	1.74e4	2.81e4	1.0000	0.789	2.63	2.29	7.74	9.803	78.4
30	33	13C3-PFBS	302. > 98.8	2.23e3	2.81e4	1.0000	0.097	2.90	2.57	0.994	10.268	82.1
31	34	13C2-PFHxA	315 > 269.8	6.37e3	2.81e4	1.0000	0.767	3.40	3.06	2.84	3.699	74.0

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Dataset: U:\Q4.PRO\results\171206M2\171206M2-13.qld

Last Altered: Thursday, December 07, 2017 14:24:57 Pacific Standard Time
Printed: Thursday, December 07, 2017 14:25:17 Pacific Standard Time

Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.49e4	2.81e4	1.0000	0.605	4.03	3.68	6.63	10.957	87.7
33	36	18O2-PFHxS	403.0 > 102.6	1.94e3	4.71e3	1.0000	0.427	4.17	3.83	5.15	12.051	96.4
34	37	13C2-6:2 FTS	429.1 > 408.9	4.34e3	1.76e4	1.0000	0.261	4.21	4.14	3.08	11.801	94.4
35	38	13C2-PFOA	414.9 > 369.7	1.76e4	1.76e4	1.0000	1.112	4.54	4.21	12.5	11.218	89.7
36	39	13C5-PFNA	468.2 > 422.9	1.81e4	1.96e4	1.0000	0.939	4.63	4.64	11.5	12.289	98.3
37	40	13C8-PFOSA	506.1 > 77.7	6.22e3	1.56e4	1.0000	0.349	5.02	4.69	4.99	14.318	114.5
38	41	13C8-PFOS	507.0 > 79.9	5.23e3	5.17e3	1.0000	0.991	5.05	4.72	12.6	12.758	102.1
39	42	13C2-PFDA	515.1 > 469.9	1.90e4	1.48e4	1.0000	1.309	5.34	5.01	16.1	12.287	98.3
40	43	13C2-8:2 FTS	529.1 > 508.7	2.41e3	2.81e4	1.0000	0.103	4.98	4.98	1.07	10.347	82.8
41	44	d3-N-MeFOSAA	573.3 > 419	7.17e3	1.56e4	1.0000	0.405	5.49	5.16	5.76	14.206	113.7
42	45	d5-N-EtFOSAA	589.3 > 419	8.06e3	1.56e4	1.0000	0.450	5.64	5.31	6.47	14.382	115.1
43	46	13C2-PFUdA	565 > 519.8	1.78e4	1.56e4	1.0000	1.082	5.66	5.33	14.3	13.199	105.6
44	47	13C2-PFDoA	615.0 > 569.7	9.81e3	1.56e4	1.0000	0.544	5.94	5.61	7.88	14.478	115.8
45	48	d3-N-MeFOSA	515.2 > 168.9	2.31e4	1.56e4	1.0000	0.112	5.85	5.72	18.5	165.789	110.5
46	49	13C2-PFTeDA	714.8 > 669.6	7.22e3	1.56e4	1.0000	0.533	6.37	6.08	5.80	10.877	87.0
47	50	d5-N-ETFOSA	531.1 > 168.9	3.59e4	1.56e4	1.0000	0.176	6.21	6.11	28.9	163.958	109.3
48	51	13C2-PFHxDA	815 > 769.7	5.68e3	1.56e4	1.0000	0.752	6.66	6.40	4.56	6.068	121.4
49	52	d7-N-MeFOSE	623.1 > 58.9	3.13e4	1.56e4	1.0000	0.150	6.30	6.25	25.2	168.189	112.1
50	53	d9-N-EtFOSE	639.2 > 58.8	3.54e4	1.56e4	1.0000	0.152	6.42	6.40	28.4	186.824	124.5
51	54	13C4-PFBA	217. > 171.8	1.80e4	1.80e4	1.0000	1.000	1.41	1.36	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	2.81e4	2.81e4	1.0000	1.000	3.40	3.06	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.71e3	4.71e3	1.0000	1.000	4.17	3.83	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.76e4	1.76e4	1.0000	1.000	4.54	4.20	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.96e4	1.96e4	1.0000	1.000	4.63	4.64	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	5.17e3	5.17e3	1.0000	1.000	5.05	4.72	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.48e4	1.48e4	1.0000	1.000	5.34	5.01	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.56e4	1.56e4	1.0000	1.000	5.66	5.33	12.5	12.500	100.0

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Dataset: U:\Q4.PRO\results\171206M2\171206M2-13.qld

Last Altered: Thursday, December 07, 2017 14:24:57 Pacific Standard Time
Printed: Thursday, December 07, 2017 14:25:17 Pacific Standard Time

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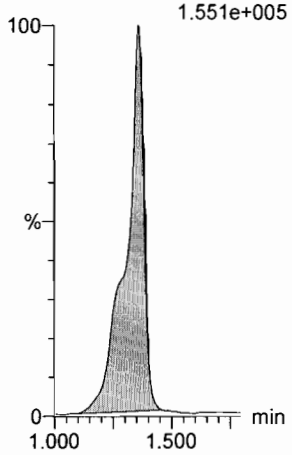
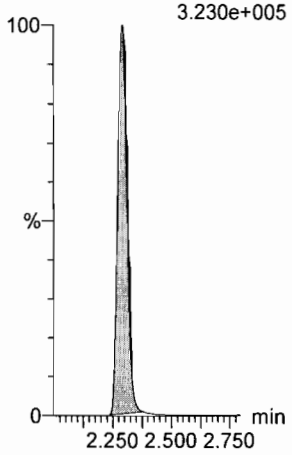
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

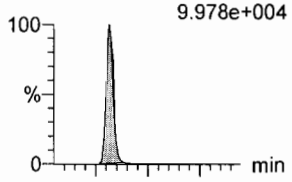
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.551e+005



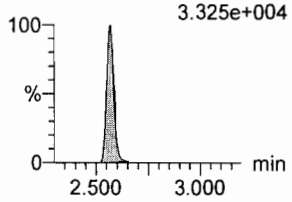
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
3.230e+005



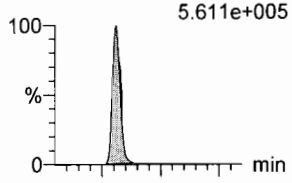
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
9.978e+004



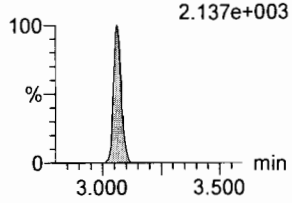
F6:MRM of 2 channels,ES-
299.0 > 99.0
3.325e+004



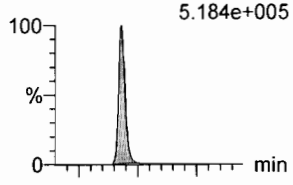
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
5.611e+005



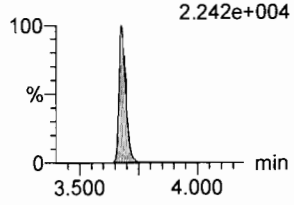
F8:MRM of 2 channels,ES-
313.2 > 119
2.137e+003



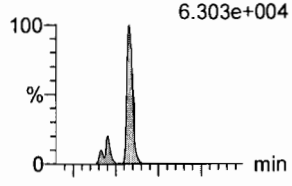
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
5.184e+005



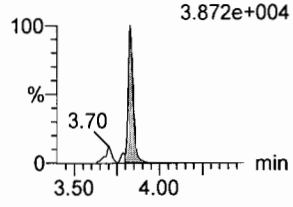
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.242e+004



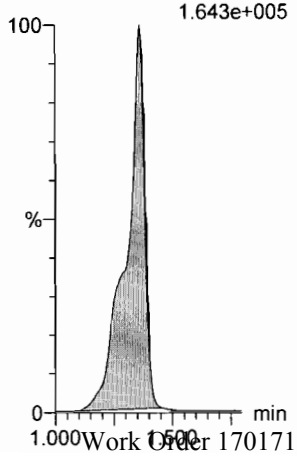
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
6.303e+004



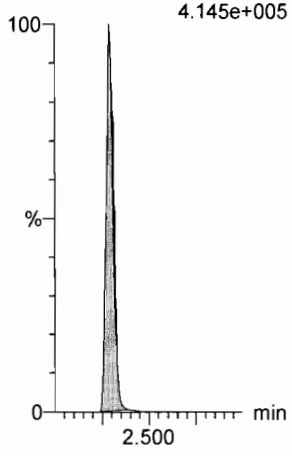
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.872e+004



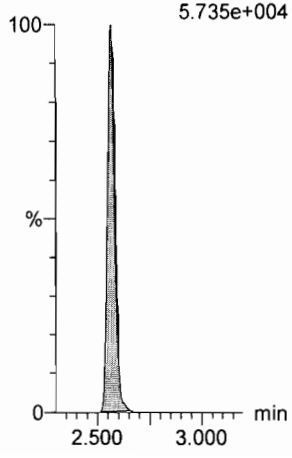
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.643e+005



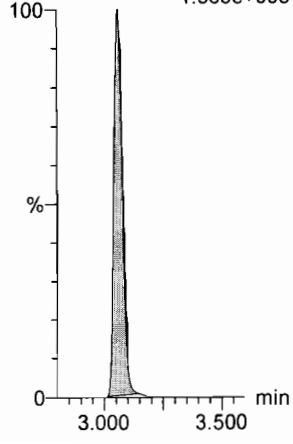
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
4.145e+005



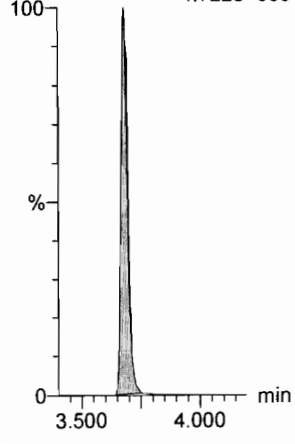
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.735e+004



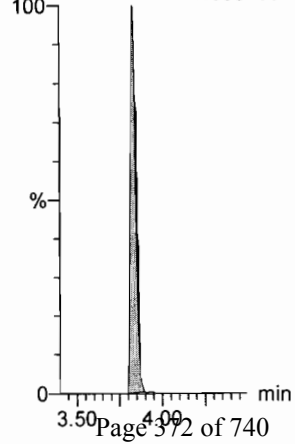
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.583e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
4.722e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
5.430e+004



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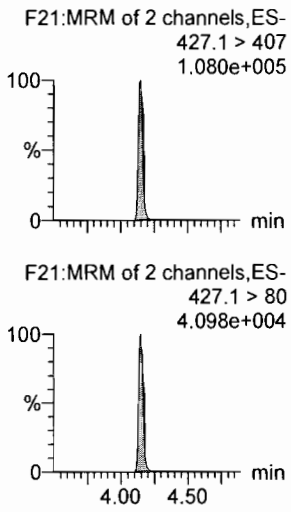
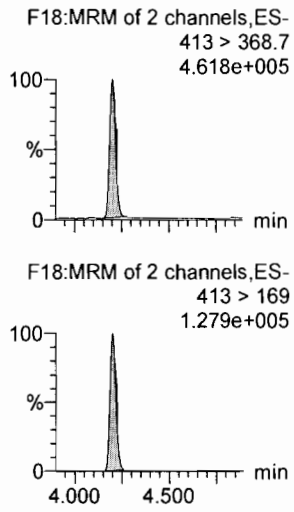
Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

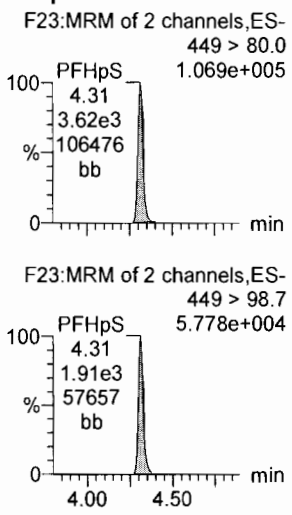
6:2 FTS



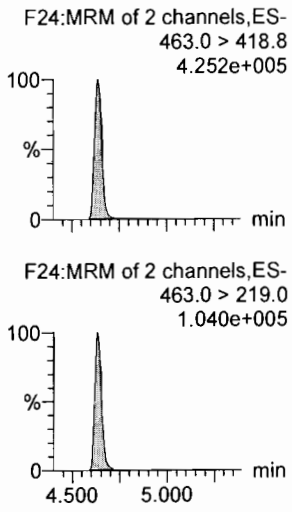
L-PFOA



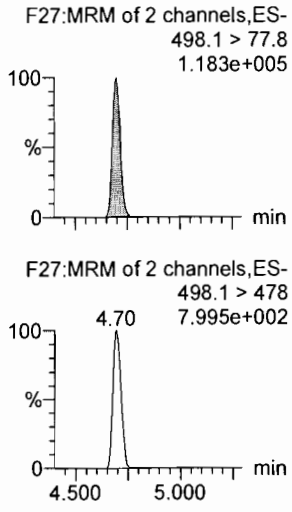
PFHpS



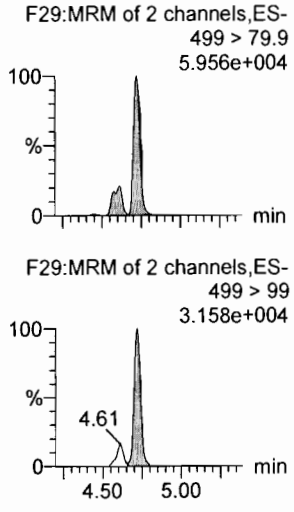
PFNA



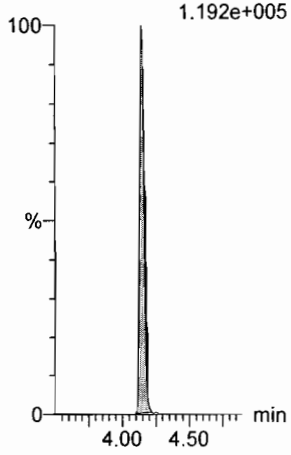
PFOSA



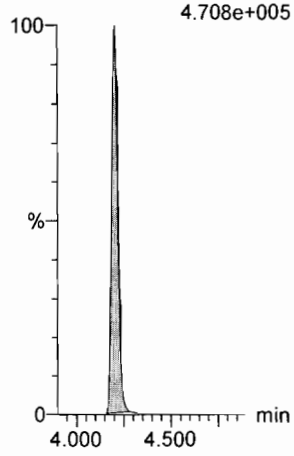
L-PFOS



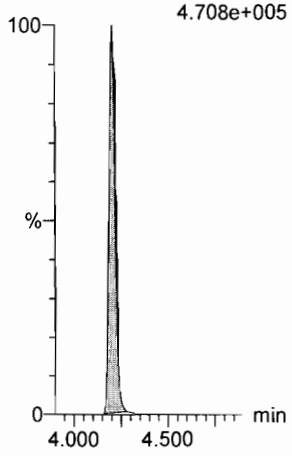
13C2-6:2 FTS



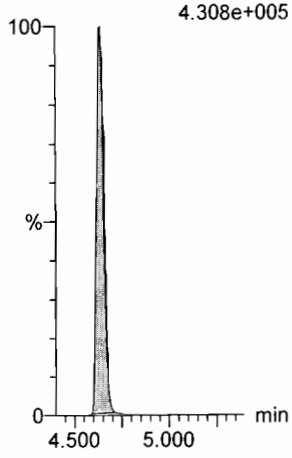
13C2-PFOA



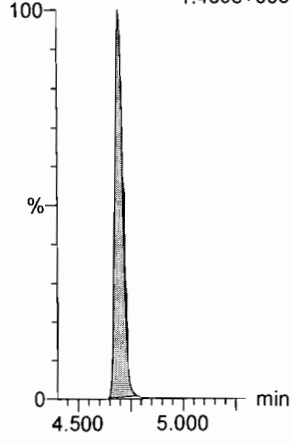
13C2-PFOA



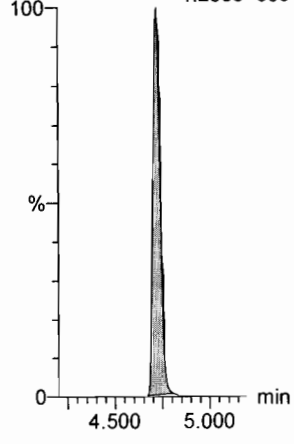
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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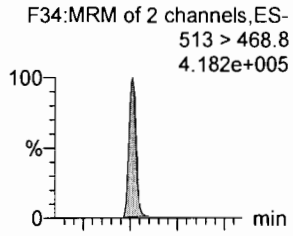
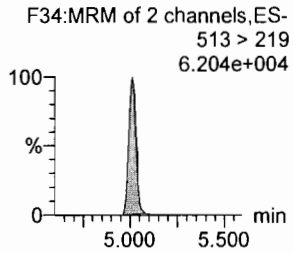
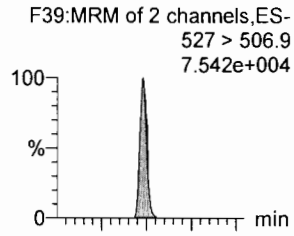
Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

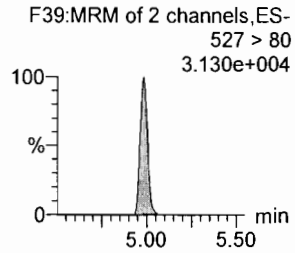
PFDA



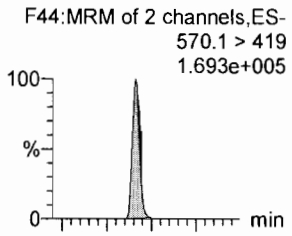


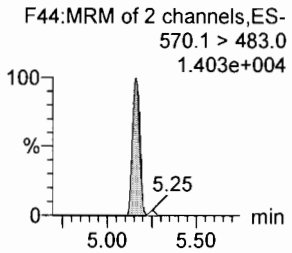
8:2 FTS





N-MeFOSAA





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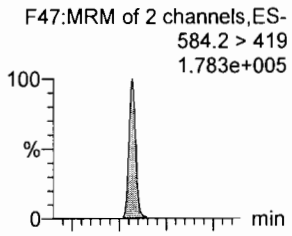
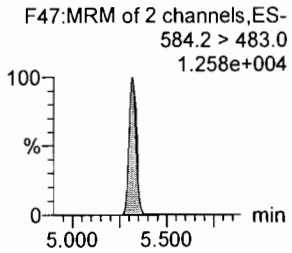
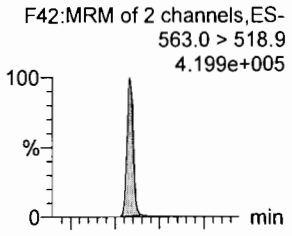
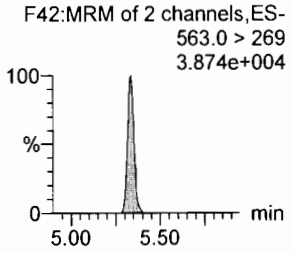


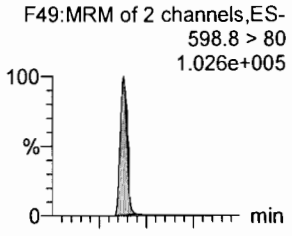


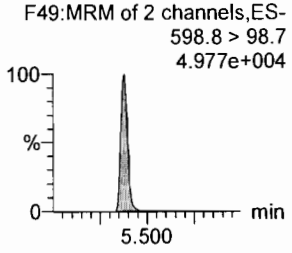
PFUdA





PFDS





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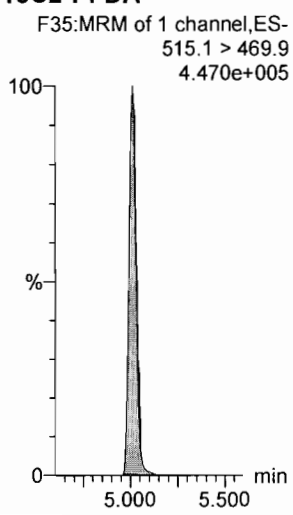
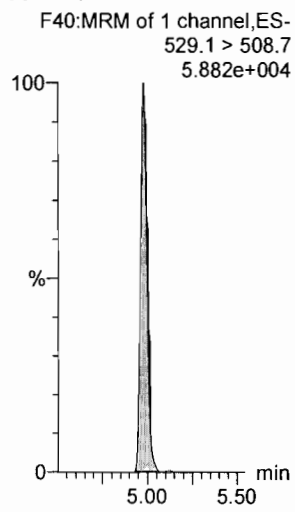
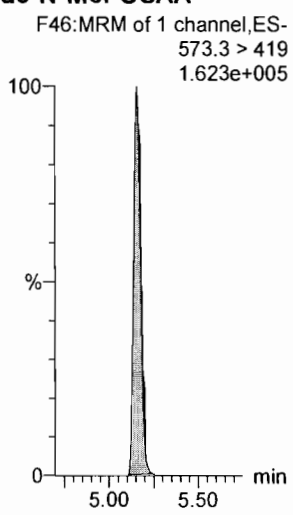


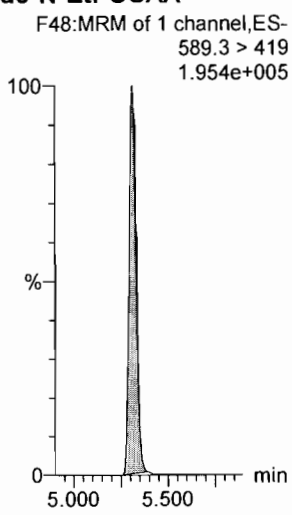
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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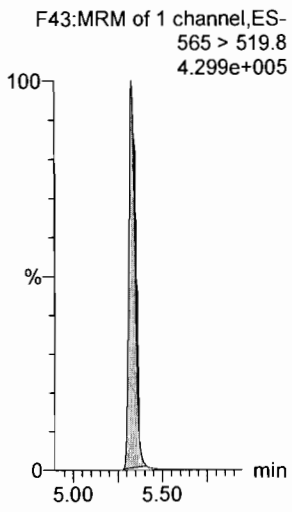

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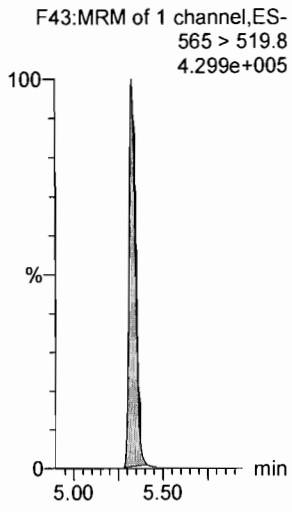

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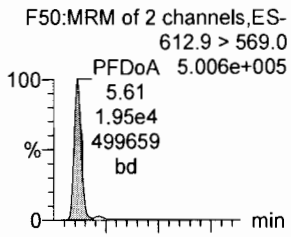
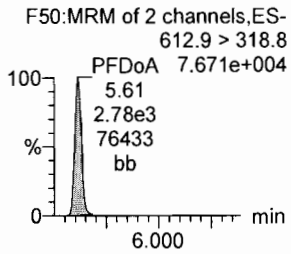
PFDoA





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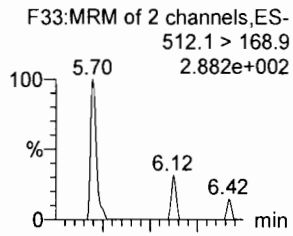
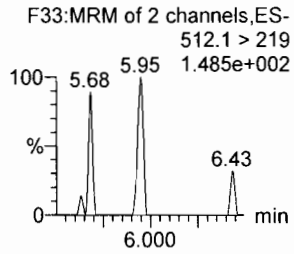
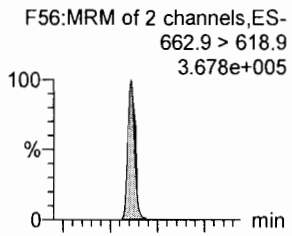
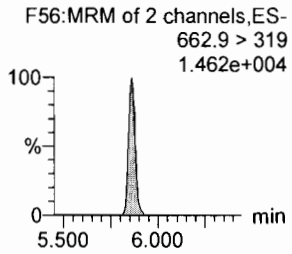




PFTrDA





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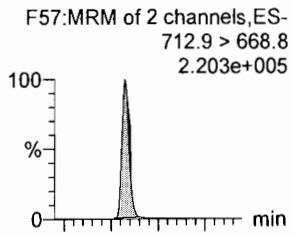
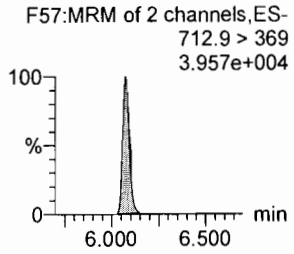
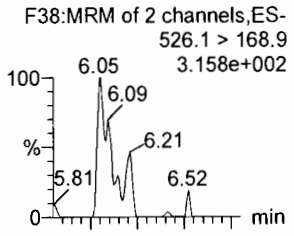
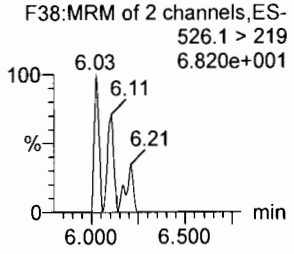


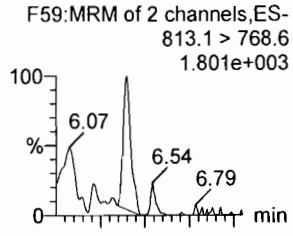


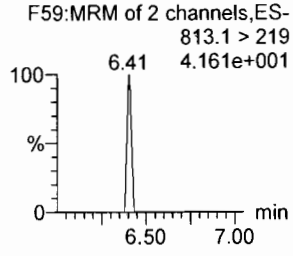
N-EtFOSA



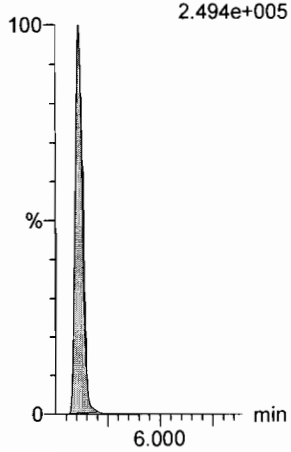


PFHxDA

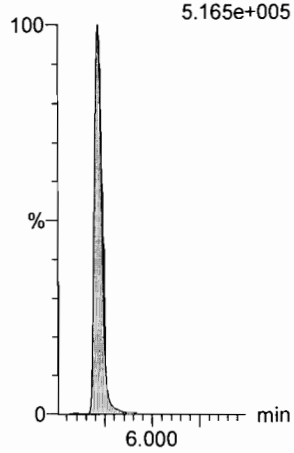




13C2-PFDoA



d3-N-MeFOSA



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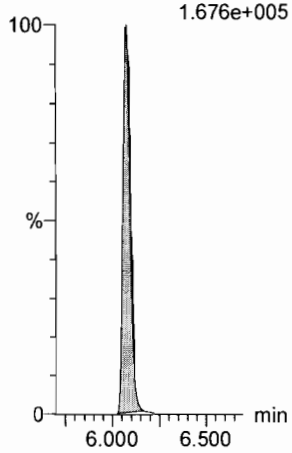

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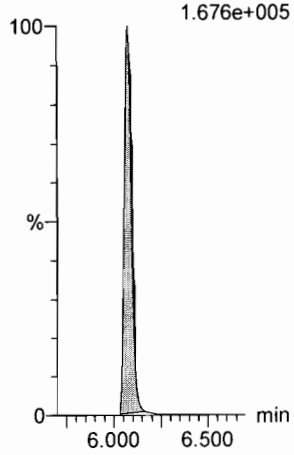
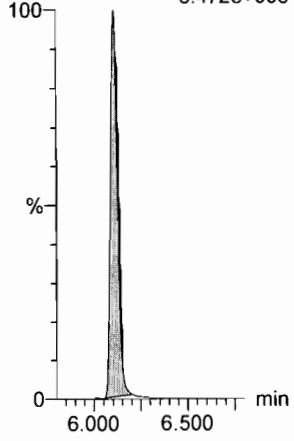
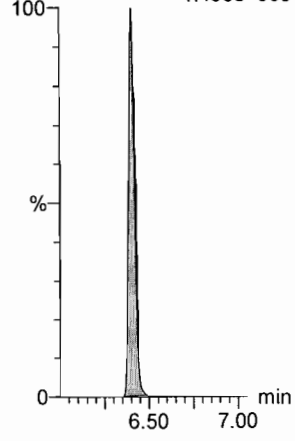


d5-N-ETFOSA



13C2-PFHxDA

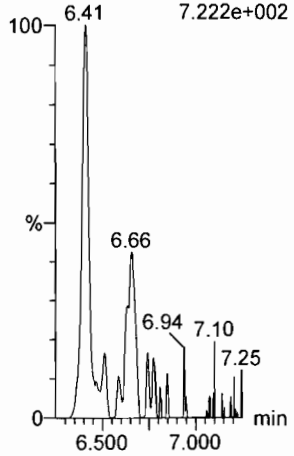


Dataset: U:\Q4.PRO\results\171206M2\171206M2-13.qld

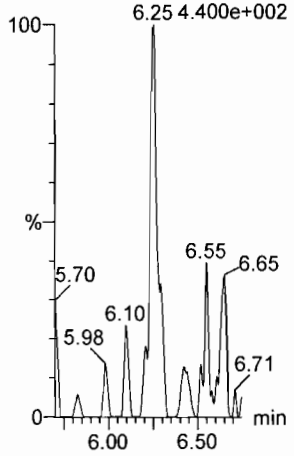
Last Altered: Thursday, December 07, 2017 14:24:57 Pacific Standard Time
Printed: Thursday, December 07, 2017 14:25:17 Pacific Standard Time

Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

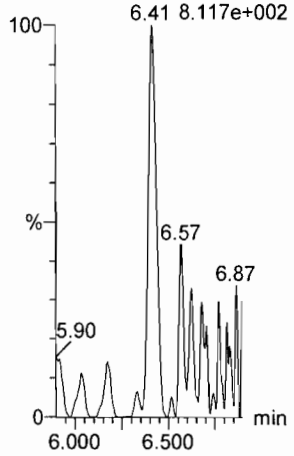
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.222e+002



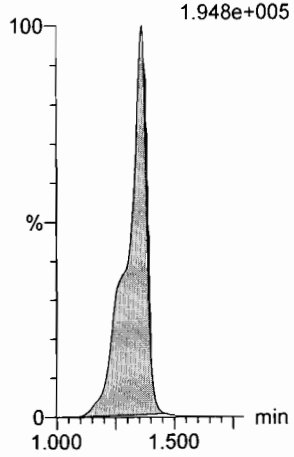
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
6.25 4.400e+002



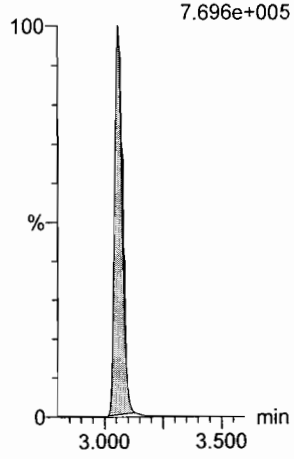
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
6.41 8.117e+002



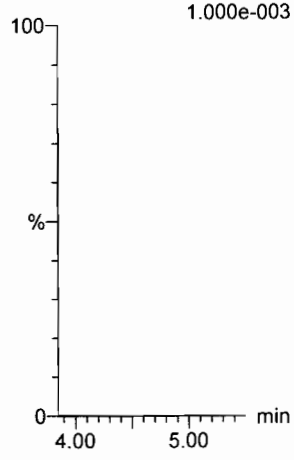
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.948e+005



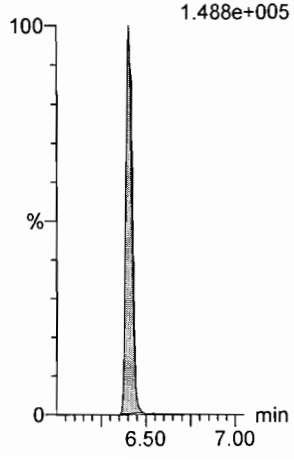
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
7.696e+005



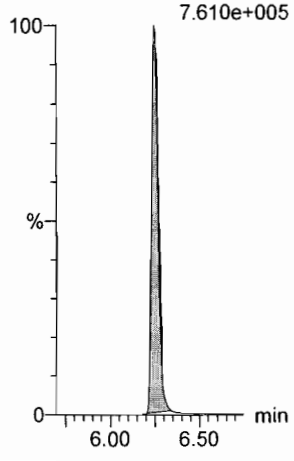
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



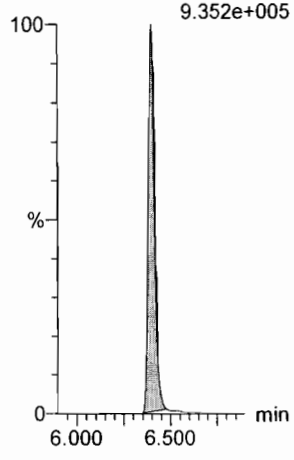
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.488e+005



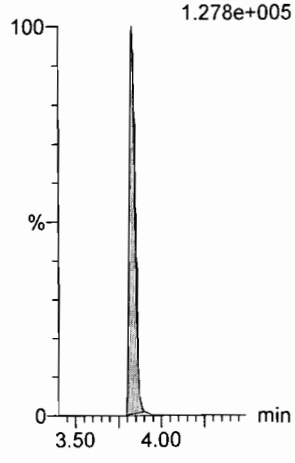
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
7.610e+005



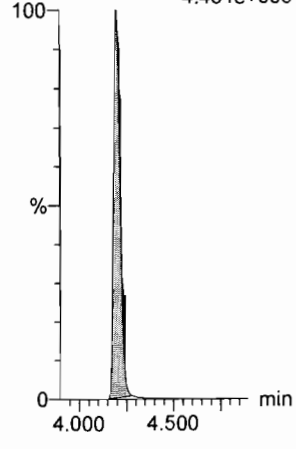
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
9.352e+005



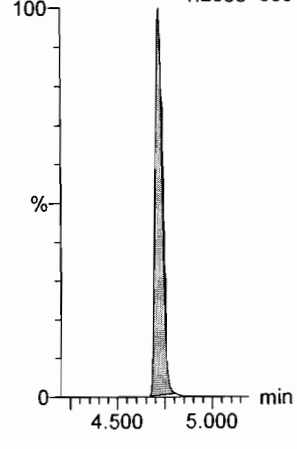
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.278e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.454e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.238e+005

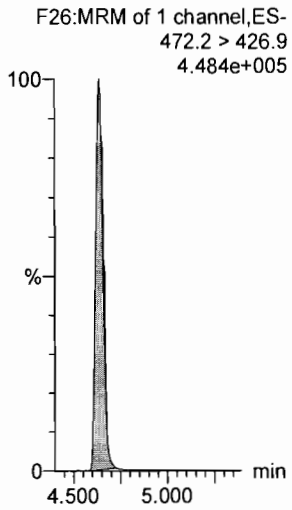


Dataset: U:\Q4.PRO\results\171206M2\171206M2-13.qld

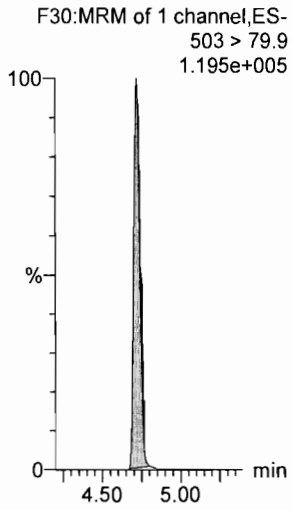
Last Altered: Thursday, December 07, 2017 14:24:57 Pacific Standard Time
Printed: Thursday, December 07, 2017 14:25:17 Pacific Standard Time

Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

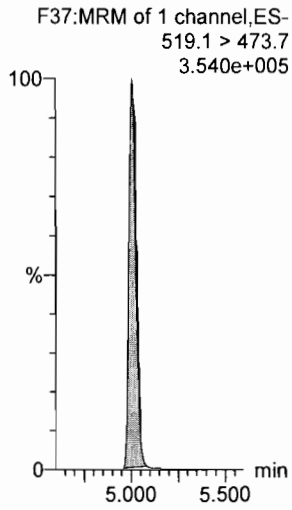
13C9-PFNA



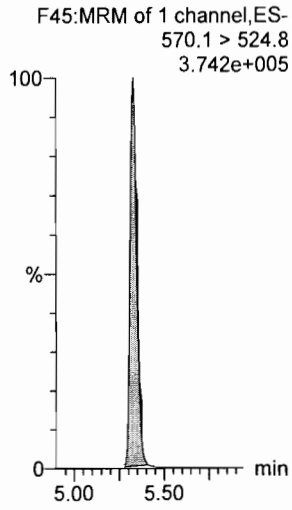
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

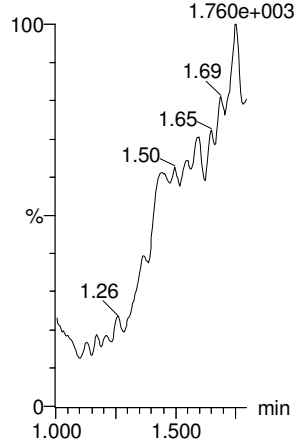
Dataset: U:\Q4.PRO\results\171206M2\171206M2-12.qld

Last Altered: Thursday, December 07, 2017 15:02:40 Pacific Standard Time
Printed: Thursday, December 07, 2017 15:09:06 Pacific Standard Time

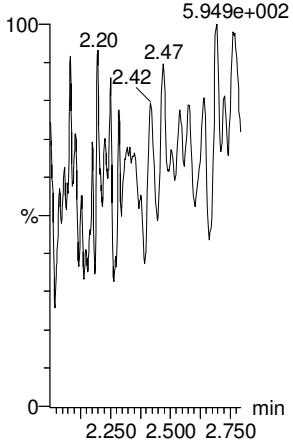
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171206M2_12, Date: 07-Dec-2017, Time: 03:44:28, ID: IPA, Description: IPA

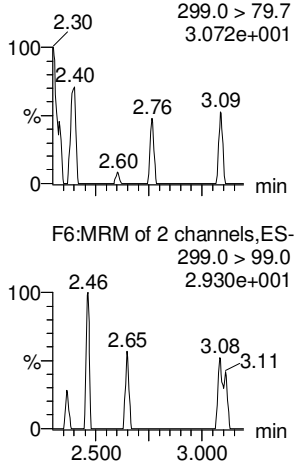
PFBA



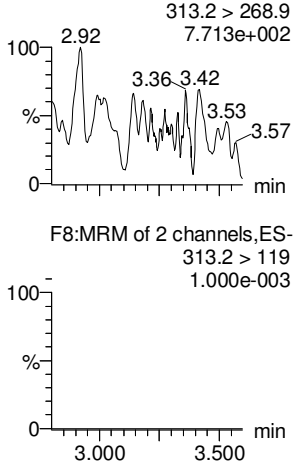
PFPeA



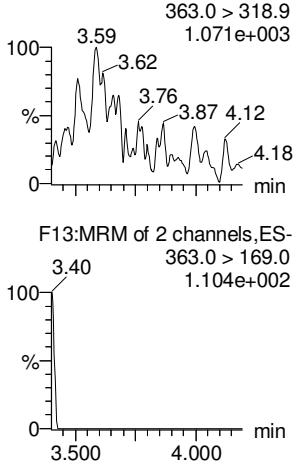
PFBS



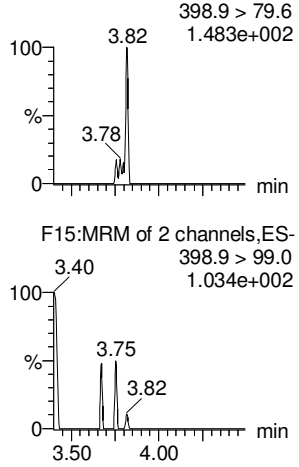
PFHxA



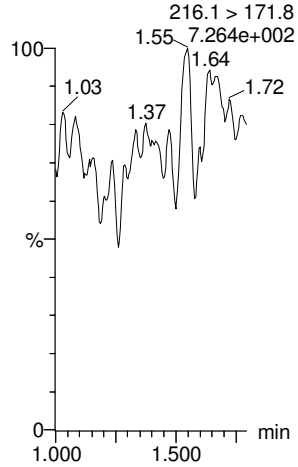
PFHpA



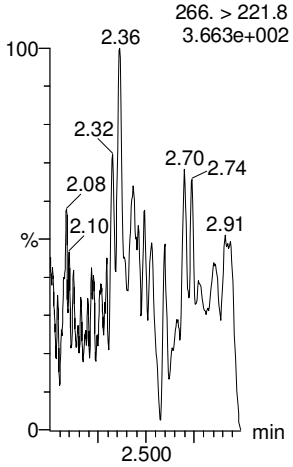
L-PFHxS



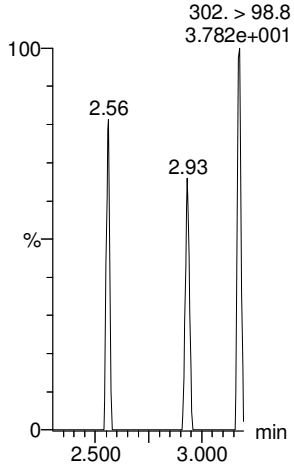
13C3-PFBA



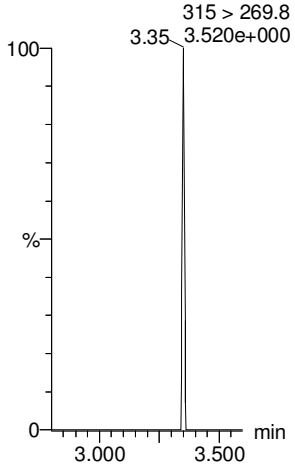
13C3-PFPeA



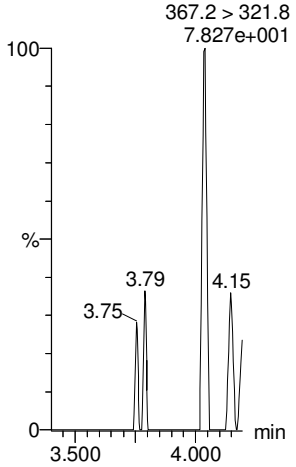
13C3-PFBS



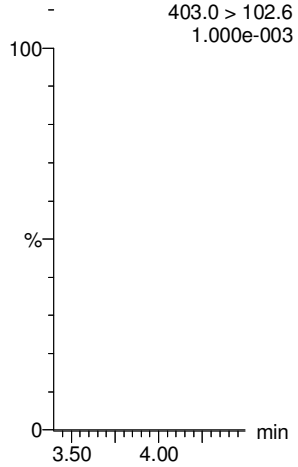
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



AC 12/7/17

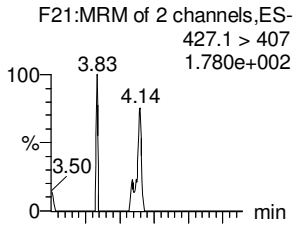
Vista Analytical Laboratory

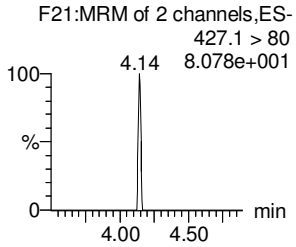
Dataset: U:\Q4.PRO\results\171206M2\171206M2-12.qld

Last Altered: Thursday, December 07, 2017 15:02:40 Pacific Standard Time
Printed: Thursday, December 07, 2017 15:09:06 Pacific Standard Time

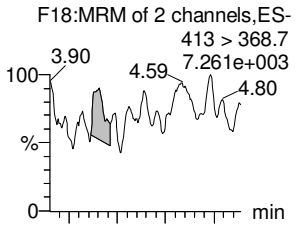
Name: 171206M2_12, Date: 07-Dec-2017, Time: 03:44:28, ID: IPA, Description: IPA

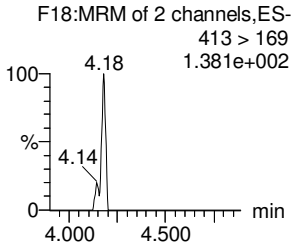
6:2 FTS



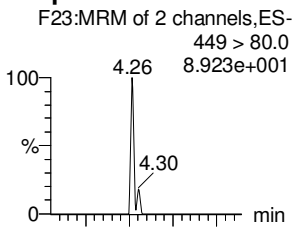


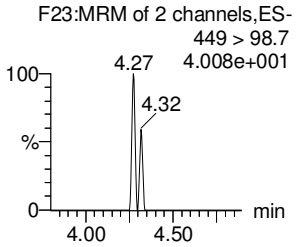
L-PFOA



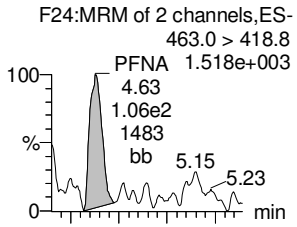


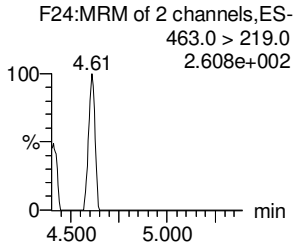
PFHpS



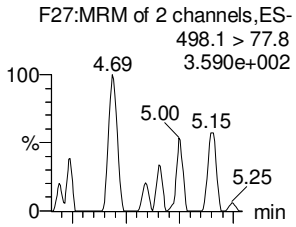


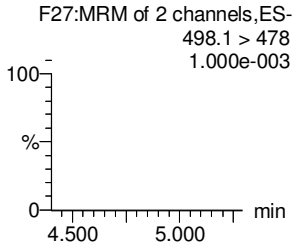
PFNA





PFOSA





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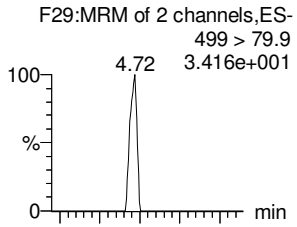
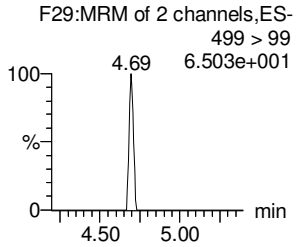
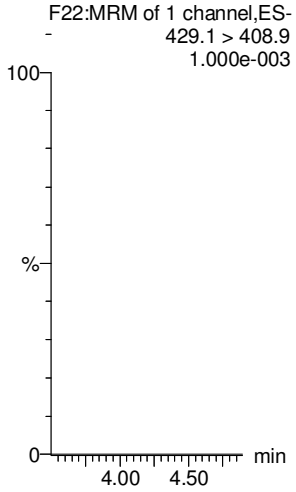




13C2-6:2 FTS



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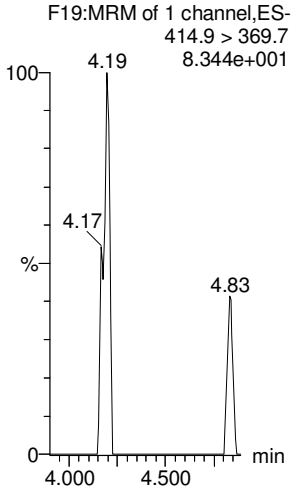

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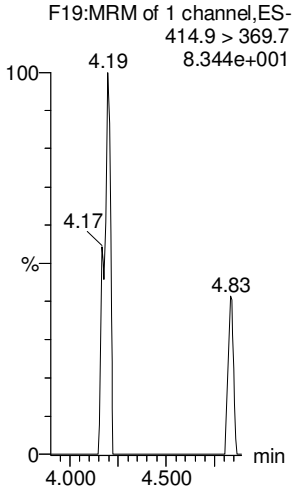

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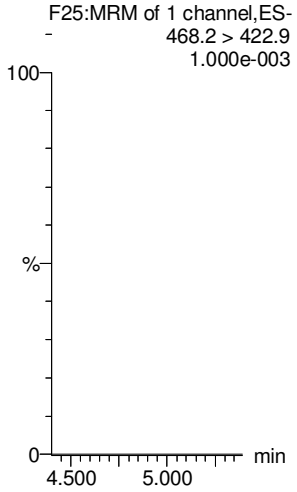

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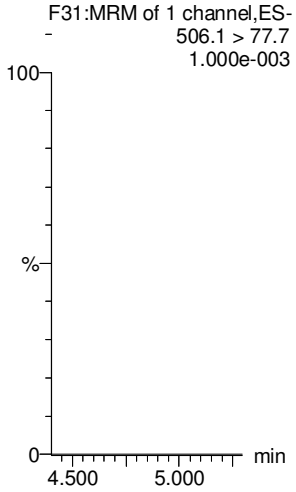

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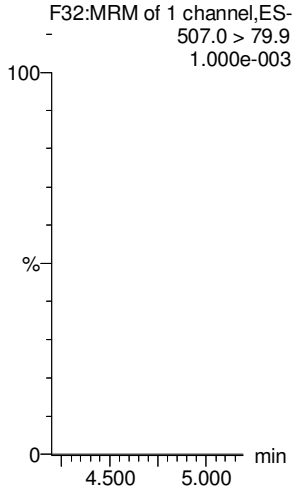

AC 12/7/17

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Last Altered: Thursday, December 07, 2017 15:02:40 Pacific Standard Time
Printed: Thursday, December 07, 2017 15:09:06 Pacific Standard Time

Name: 171206M2_12, Date: 07-Dec-2017, Time: 03:44:28, ID: IPA, Description: IPA

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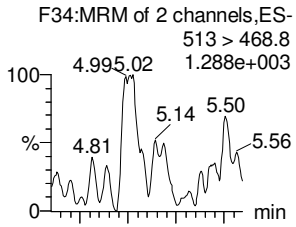
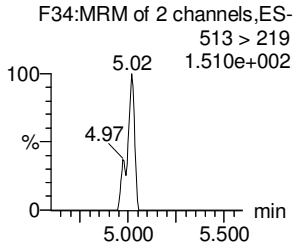
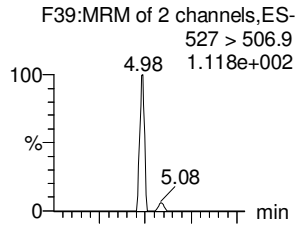
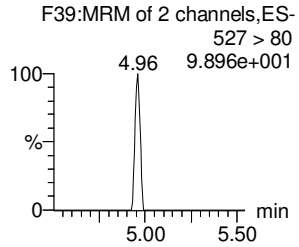




8:2 FTS





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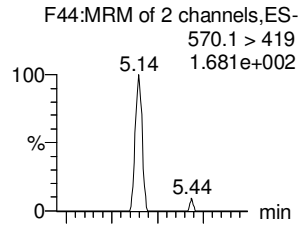

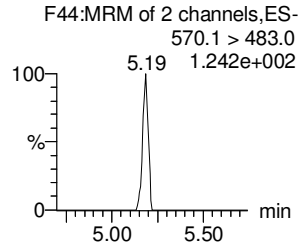

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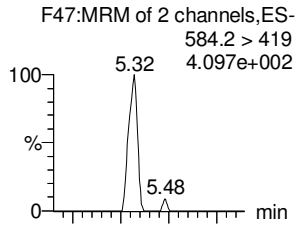

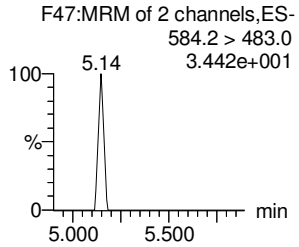

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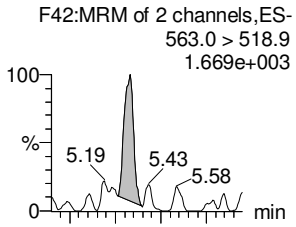

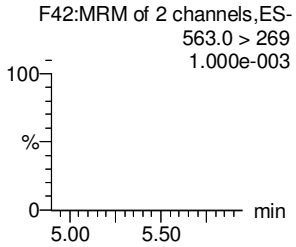

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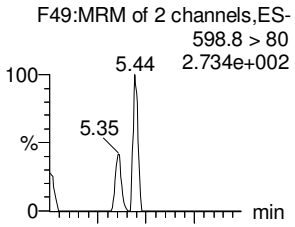

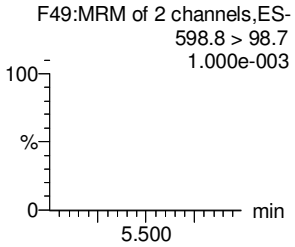

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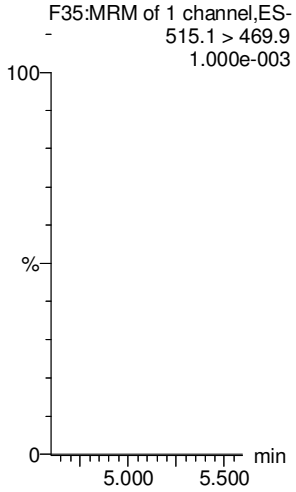

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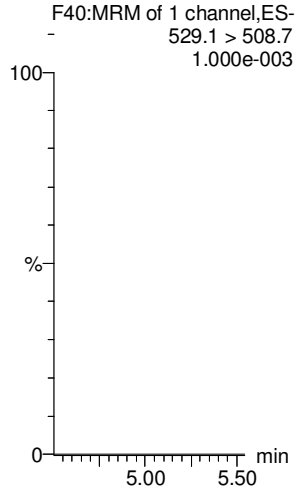

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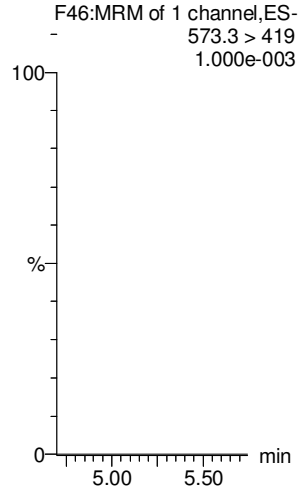

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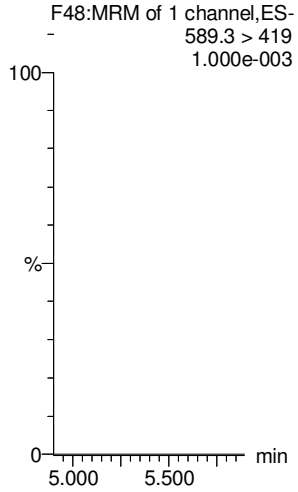

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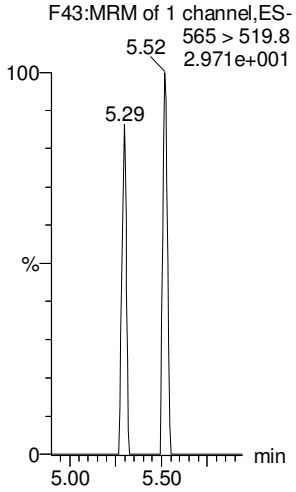

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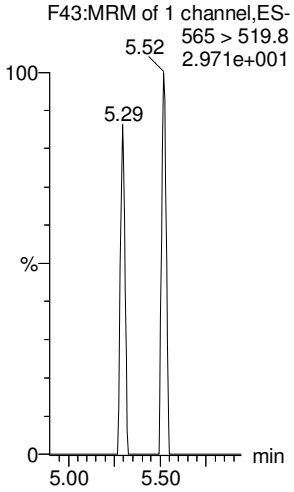

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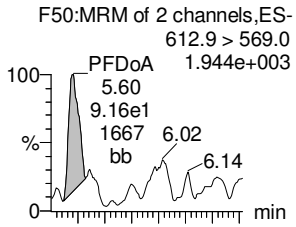

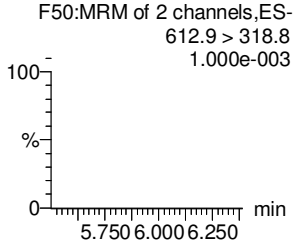

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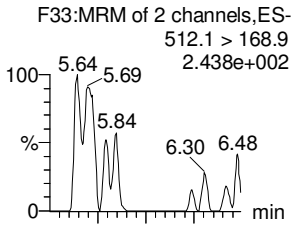

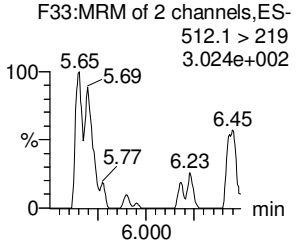

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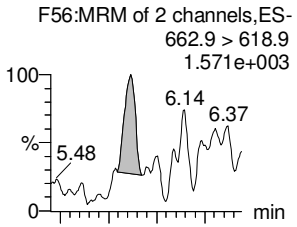

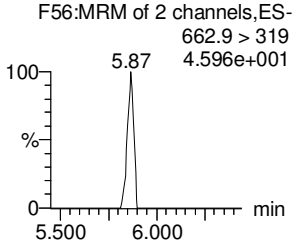

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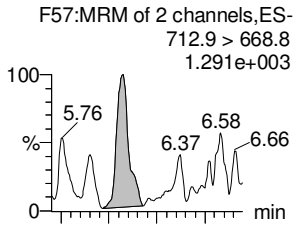

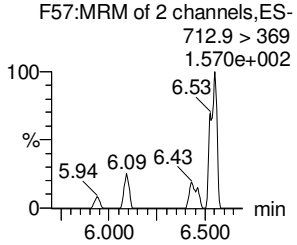

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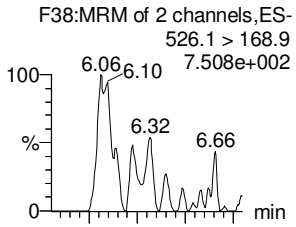

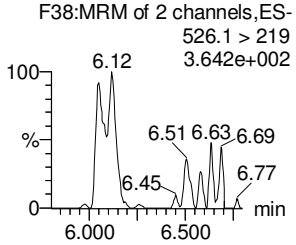

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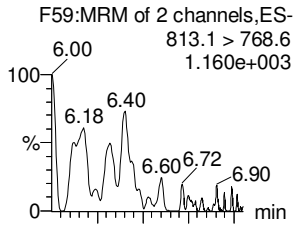

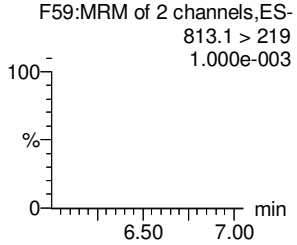

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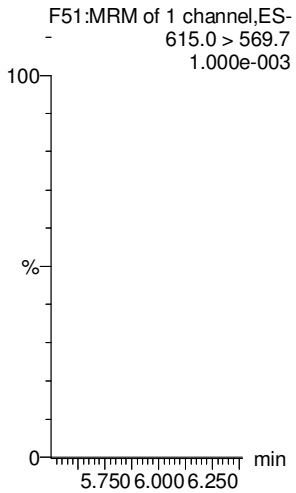

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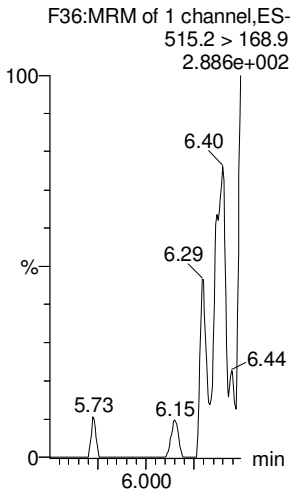

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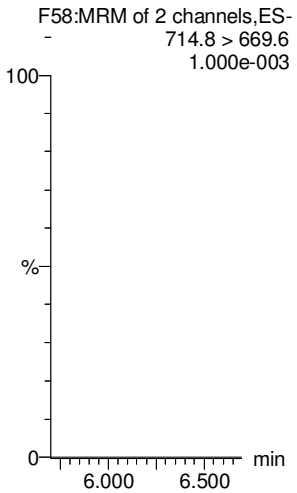

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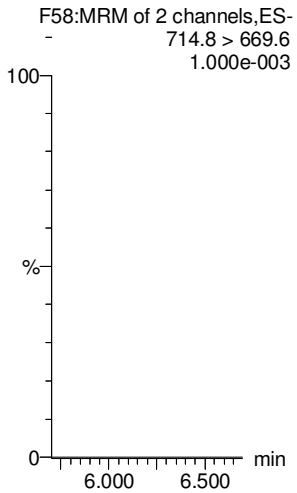

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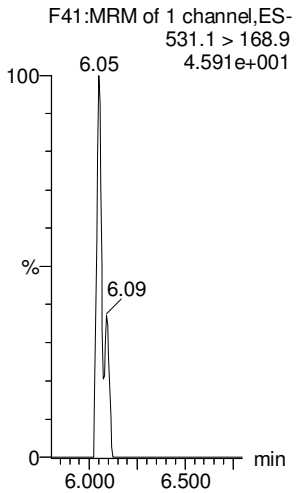

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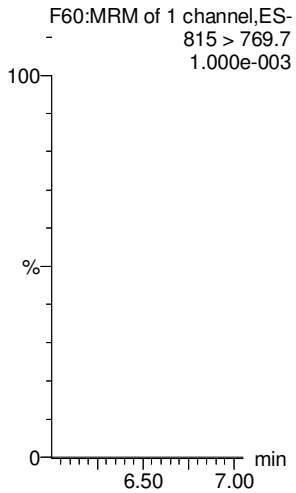

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Vista Analytical Laboratory

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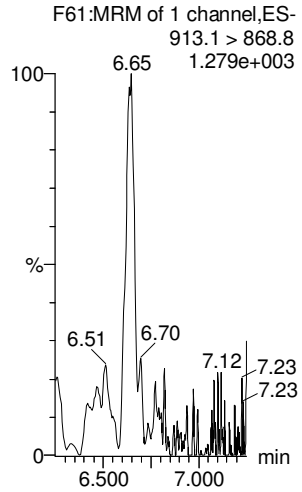

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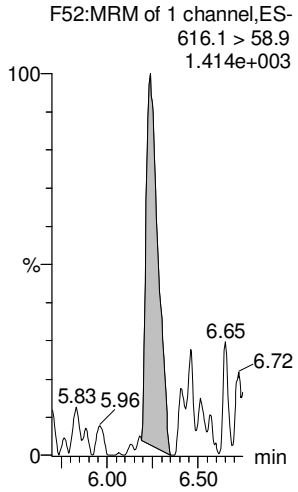

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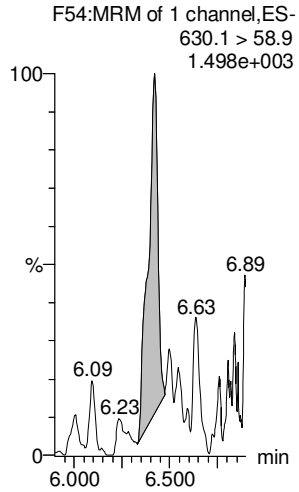

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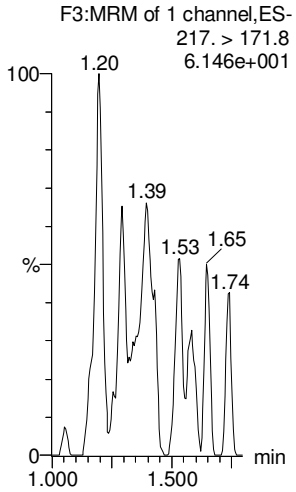

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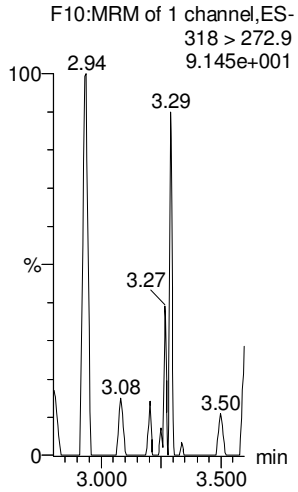

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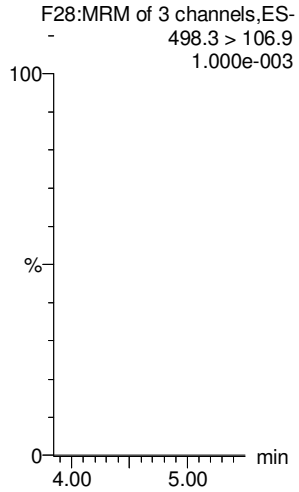

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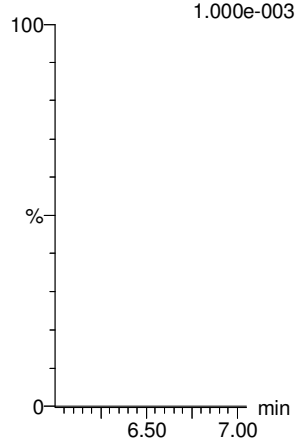

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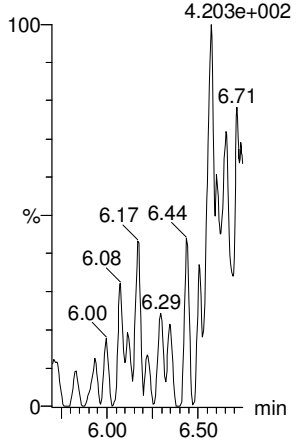

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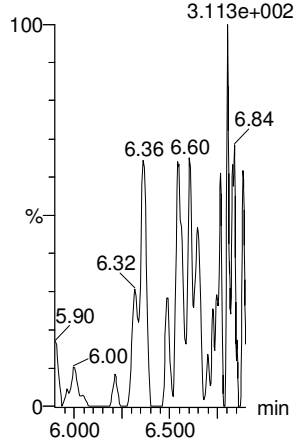

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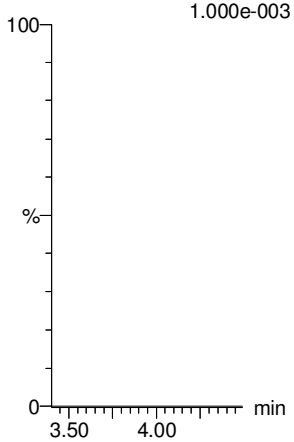
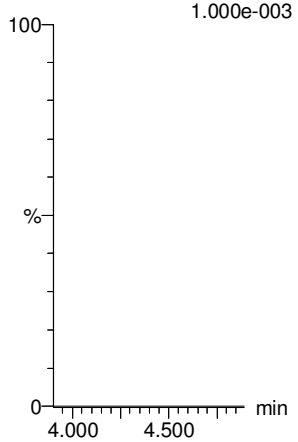
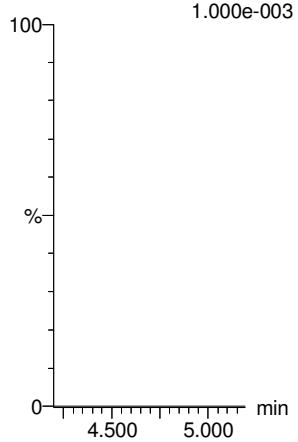


13C8-PFOA



13C8-PFOS



AC 12/7/17

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Dataset: U:\Q4.PRO\results\171206M2\171206M2-12.qld

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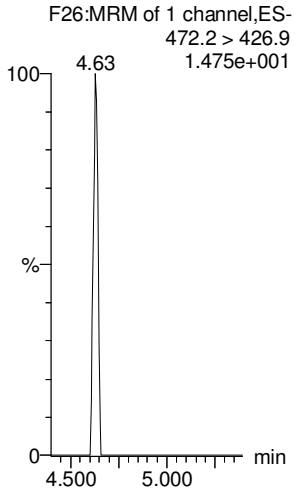
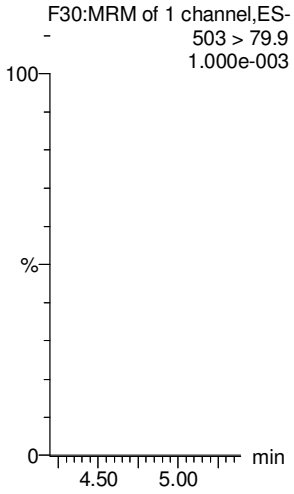
Name: 171206M2_12, Date: 07-Dec-2017, Time: 03:44:28, ID: IPA, Description: IPA

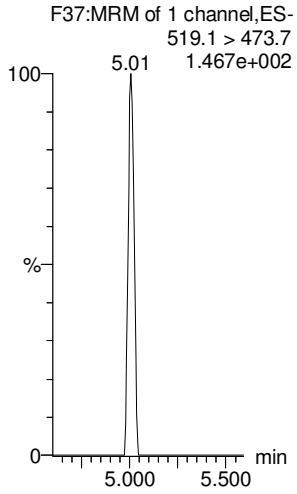
13C9-PFNA



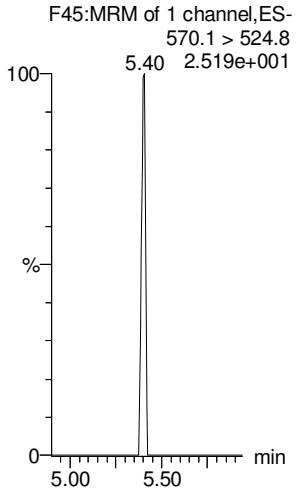
13C4-PFOS



13C6-PFDA



13C7-PFUdA



AC 12/7/17

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Second source std <70% for 6:2 FTS; not used.

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

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AC 12/11/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Compound name: PFBA
Correlation coefficient: r = 0.999263, r^2 = 0.998527
Calibration curve: 1.08182 * x + 0.0176598
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

vjla 12/11/2017

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171209M2_2	Standard	0.250	1.35	79.007	7194.714	0.137	0.1	-55.8	NO	0.999	NO	bbX
2	2	171209M2_3	Standard	0.500	1.34	220.503	6640.622	0.415	0.4	-26.5	NO	0.999	NO	MM
3	3	171209M2_4	Standard	1.000	1.34	722.126	8089.782	1.116	1.0	1.5	NO	0.999	NO	db
4	4	171209M2_5	Standard	2.000	1.34	1205.506	6749.064	2.233	2.0	2.4	NO	0.999	NO	db
5	5	171209M2_6	Standard	5.000	1.34	3257.255	6976.839	5.836	5.4	7.6	NO	0.999	NO	db
6	6	171209M2_7	Standard	10.000	1.34	6335.401	6136.306	12.906	11.9	19.1	NO	0.999	NO	db
7	7	171209M2_8	Standard	50.000	1.34	32260.043	7606.514	53.014	49.0	-2.0	NO	0.999	NO	db
8	8	171209M2_9	Standard	100.000	1.34	68014.906	7638.538	111.302	102.9	2.9	NO	0.999	NO	db
9	9	171209M2_10	Standard	250.000	1.34	159589.063	7497.786	266.060	245.9	-1.6	NO	0.999	NO	db

Compound name: PFPeA
Correlation coefficient: r = 0.999843, r^2 = 0.999686
Calibration curve: 0.97915 * x + 0.0424461
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	171209M2_2	Standard	0.250	2.28	298.733	13272.832	0.281	0.2	-2.4	NO	1.000	NO	MM
2	2	171209M2_3	Standard	0.500	2.27	448.371	13261.604	0.423	0.4	-22.3	NO	1.000	NO	db
3	3	171209M2_4	Standard	1.000	2.28	1277.676	14793.755	1.080	1.1	5.9	NO	1.000	NO	bb
4	4	171209M2_5	Standard	2.000	2.28	2078.773	12518.253	2.076	2.1	3.8	NO	1.000	NO	bb
5	5	171209M2_6	Standard	5.000	2.29	5358.080	12625.518	5.305	5.4	7.5	NO	1.000	NO	bb
6	6	171209M2_7	Standard	10.000	2.28	10364.964	12280.884	10.550	10.7	7.3	NO	1.000	NO	bb
7	7	171209M2_8	Standard	50.000	2.28	48755.719	12369.729	49.269	50.3	0.5	NO	1.000	NO	bb
8	8	171209M2_9	Standard	100.000	2.29	94330.008	11994.732	98.304	100.4	0.4	NO	1.000	NO	bb
9	9	171209M2_10	Standard	250.000	2.28	229668.844	11808.688	243.114	248.2	-0.7	NO	1.000	NO	bb

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

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Compound name: PFBS
Correlation coefficient: r = 0.999669, r^2 = 0.999338
Calibration curve: 2.12803 * x + 0.0745164
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	171209M2_2	Standard	0.250	2.55	69.775	1672.039	0.522	0.2	-16.0	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	2.55	158.016	1608.684	1.228	0.5	8.4	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	2.56	329.956	1920.615	2.147	1.0	-2.6	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	2.57	557.626	1567.305	4.447	2.1	2.7	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	2.57	1453.337	1662.107	10.930	5.1	2.0	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	2.57	2873.959	1525.102	23.555	11.0	10.3	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	2.57	13496.618	1666.859	101.213	47.5	-4.9	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	2.57	25449.775	1507.769	210.989	99.1	-0.9	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	2.57	60723.602	1414.148	536.751	252.2	0.9	NO	0.999	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998437
Calibration curve: 0.000133423 * x^2 + 1.29902 * x + 0.19425
Response type: Internal Std (Ref 34), 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	171209M2_2	Standard	0.250	3.04	332.791	4830.886	0.344	0.1	-53.8	NO	0.998	NO	bbX
2	2	171209M2_3	Standard	0.500	3.04	757.400	5252.126	0.721	0.4	-18.9	NO	0.998	NO	bb
3	3	171209M2_4	Standard	1.000	3.05	1828.379	5817.276	1.572	1.1	6.0	NO	0.998	NO	bb
4	4	171209M2_5	Standard	2.000	3.05	3282.608	5163.659	3.179	2.3	14.8	NO	0.998	NO	bb
5	5	171209M2_6	Standard	5.000	3.05	7938.672	4771.276	8.319	6.3	25.0	NO	0.998	NO	bb
6	6	171209M2_7	Standard	10.000	3.05	13398.591	4836.588	13.851	10.5	5.0	NO	0.998	NO	bb
7	7	171209M2_8	Standard	50.000	3.05	66715.633	5013.819	66.532	50.8	1.6	NO	0.998	NO	bb
8	8	171209M2_9	Standard	100.000	3.06	124858.625	4964.156	125.760	95.7	-4.3	NO	0.998	NO	bb
9	9	171209M2_10	Standard	250.000	3.06	324579.438	4840.386	335.283	251.5	0.6	NO	0.998	NO	bb

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Compound name: PFHpA
Correlation coefficient: r = 0.998660, r^2 = 0.997321
Calibration curve: 1.32378 * x + 0.0946486
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	171209M2_2	Standard	0.250	3.65	305.248	10568.426	0.361	0.2	-19.5	NO	0.997	NO	bb
2	2	171209M2_3	Standard	0.500	3.66	564.405	11017.162	0.640	0.4	-17.6	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	3.67	1371.908	11542.928	1.486	1.1	5.1	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	3.67	2217.943	10123.013	2.739	2.0	-0.1	NO	0.997	NO	bb
5	5	171209M2_6	Standard	5.000	3.67	5688.696	9271.844	7.669	5.7	14.4	NO	0.997	NO	bb
6	6	171209M2_7	Standard	10.000	3.67	11517.970	9791.908	14.703	11.0	10.4	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	3.67	55155.297	9812.723	70.260	53.0	6.0	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	3.67	98996.383	8871.913	139.480	105.3	5.3	NO	0.997	NO	bb
9	9	171209M2_10	Standard	250.000	3.67	233816.328	9195.322	317.847	240.0	-4.0	NO	0.997	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999212, r^2 = 0.998424
Calibration curve: 1.98166 * x + 0.429333
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	171209M2_2	Standard	0.250	3.80	52.740	1435.493	0.459	0.0	-94.0	NO	0.998	NO	MMX
2	2	171209M2_3	Standard	0.500	3.81	135.711	1234.737	1.374	0.5	-4.7	NO	0.998	NO	MM
3	3	171209M2_4	Standard	1.000	3.82	255.465	1590.471	2.008	0.8	-20.3	NO	0.998	NO	MM
4	4	171209M2_5	Standard	2.000	3.82	493.271	1462.096	4.217	1.9	-4.4	NO	0.998	NO	MM
5	5	171209M2_6	Standard	5.000	3.82	1210.931	1364.796	11.091	5.4	7.6	NO	0.998	NO	MM
6	6	171209M2_7	Standard	10.000	3.82	2371.571	1207.039	24.560	12.2	21.8	NO	0.998	NO	MM
7	7	171209M2_8	Standard	50.000	3.82	10576.032	1328.286	99.527	50.0	0.0	NO	0.998	NO	MM
8	8	171209M2_9	Standard	100.000	3.82	19590.338	1213.639	201.773	101.6	1.6	NO	0.998	NO	MM
9	9	171209M2_10	Standard	250.000	3.83	49342.180	1263.339	488.212	246.1	-1.5	NO	0.998	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997458
Calibration curve: -0.0107898 * x^2 + 1.4815 * x + -0.49576
Response type: Internal Std (Ref 37), 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	171209M2_2	Standard	0.250	4.11	97.858	3539.680	0.346	0.6	128.1	NO	0.997	NO	MMX
2	2	171209M2_3	Standard	0.500	4.12	94.230	3510.388	0.336	0.6	12.7	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	4.13	350.222	4408.585	0.993	1.0	1.2	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	4.13	530.417	3407.743	1.946	1.7	-16.6	NO	0.997	NO	bb
5	5	171209M2_6	Standard	5.000	4.13	1552.576	2959.530	6.558	4.9	-1.2	NO	0.997	NO	bb
6	6	171209M2_7	Standard	10.000	4.14	3387.996	3075.096	13.772	10.4	4.2	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	4.13	14096.171	3787.280	46.525	49.8	-0.4	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	4.14	25294.453	4311.516	73.334			NO	0.997	NO	bbXI
9	9	171209M2_10	Standard	250.000	4.14	63888.504	6069.366	131.580			NO	0.997	NO	bbXI

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.996374
Calibration curve: -0.000315002 * x^2 + 0.914272 * x + 0.318187
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	171209M2_2	Standard	0.250	4.17	543.170	12735.109	0.533	0.2	-5.9	NO	0.996	NO	MM
2	2	171209M2_3	Standard	0.500	4.17	729.751	14081.530	0.648	0.4	-27.9	NO	0.996	NO	bb
3	3	171209M2_4	Standard	1.000	4.19	1633.723	16083.188	1.270	1.0	4.1	NO	0.996	NO	bb
4	4	171209M2_5	Standard	2.000	4.19	2126.570	13732.789	1.936	1.8	-11.5	NO	0.996	NO	bb
5	5	171209M2_6	Standard	5.000	4.19	5824.764	12694.002	5.736	5.9	18.8	NO	0.996	NO	bb
6	6	171209M2_7	Standard	10.000	4.19	12151.242	12527.078	12.125	13.0	29.7	NO	0.996	NO	bb
7	7	171209M2_8	Standard	50.000	4.19	44207.191	12916.910	42.780	47.2	-5.6	NO	0.996	NO	bb
8	8	171209M2_9	Standard	100.000	4.19	89411.867	12892.190	86.692	97.8	-2.2	NO	0.996	NO	bb
9	9	171209M2_10	Standard	250.000	4.19	220018.406	13075.800	210.330	251.5	0.6	NO	0.996	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.998891
Calibration curve: -0.000257769 * x^2 + 0.253775 * x + -0.0025961
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	171209M2_2	Standard	0.250	4.27	68.374	12735.109	0.067	0.3	9.9	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	4.28	118.479	14081.530	0.105	0.4	-15.0	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	4.30	363.456	16083.188	0.282	1.1	12.5	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	4.30	442.229	13732.789	0.403	1.6	-20.1	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	4.30	1317.253	12694.002	1.297	5.1	3.0	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	4.30	2826.837	12527.078	2.821	11.3	12.5	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	4.30	12072.780	12916.910	11.683	48.4	-3.1	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	4.31	23569.773	12892.190	22.853	100.3	0.3	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	4.31	49549.504	13075.800	47.368	250.3	0.1	NO	0.999	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.999165
Calibration curve: 0.000123298 * x^2 + 1.25512 * x + 0.0931614
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	171209M2_2	Standard	0.250	4.60	421.000	13859.624	0.380	0.2	-8.7	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	4.60	641.881	14678.116	0.547	0.4	-27.7	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	4.62	1897.431	14563.864	1.629	1.2	22.3	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	4.63	3211.067	14729.793	2.725	2.1	4.8	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	4.63	7279.533	14685.603	6.196	4.9	-2.8	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	4.63	12901.297	11195.371	14.405	11.4	13.9	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	4.63	55892.301	11040.015	63.284	50.1	0.2	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	4.63	107413.445	10842.911	123.829	97.6	-2.4	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	4.63	296278.031	11476.924	322.689	250.8	0.3	NO	0.999	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.998811, r^2 = 0.997624
Calibration curve: 0.961254 * x + 0.0498215
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	171209M2_2	Standard	0.250	4.66	82.307	4364.232	0.236	0.2	-22.6	NO	0.998	NO	bb
2	2	171209M2_3	Standard	0.500	4.66	232.771	5135.240	0.567	0.5	7.5	NO	0.998	NO	bb
3	3	171209M2_4	Standard	1.000	4.68	414.044	5429.919	0.953	0.9	-6.0	NO	0.998	NO	bb
4	4	171209M2_5	Standard	2.000	4.68	851.184	5352.142	1.988	2.0	0.8	NO	0.998	NO	bb
5	5	171209M2_6	Standard	5.000	4.68	2221.620	5189.228	5.352	5.5	10.3	NO	0.998	NO	bb
6	6	171209M2_7	Standard	10.000	4.69	4408.886	4850.200	11.363	11.8	17.7	NO	0.998	NO	bb
7	7	171209M2_8	Standard	50.000	4.68	17861.439	5171.684	43.171	44.9	-10.3	NO	0.998	NO	bb
8	8	171209M2_9	Standard	100.000	4.69	34936.266	4434.214	98.485	102.4	2.4	NO	0.998	NO	bb
9	9	171209M2_10	Standard	250.000	4.69	82685.266	4291.153	240.860	250.5	0.2	NO	0.998	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.998032
Calibration curve: -0.000484698 * x^2 + 1.07964 * x + -0.0234359
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	171209M2_2	Standard	0.250	4.68	58.904	3842.410	0.192	0.2	-20.3	NO	0.998	NO	MM
2	2	171209M2_3	Standard	0.500	4.69	160.744	3625.137	0.554	0.5	7.0	NO	0.998	NO	MM
3	3	171209M2_4	Standard	1.000	4.71	317.127	3931.757	1.008	1.0	-4.4	NO	0.998	NO	MM
4	4	171209M2_5	Standard	2.000	4.71	576.980	3610.229	1.998	1.9	-6.3	NO	0.998	NO	MM
5	5	171209M2_6	Standard	5.000	4.71	1588.293	3536.073	5.615	5.2	4.7	NO	0.998	NO	MM
6	6	171209M2_7	Standard	10.000	4.71	3314.124	3529.114	11.739	10.9	9.5	NO	0.998	NO	MM
7	7	171209M2_8	Standard	50.000	4.71	14632.392	3253.235	56.222	53.4	6.8	NO	0.998	NO	MM
8	8	171209M2_9	Standard	100.000	4.71	24517.822	3167.414	96.758	93.6	-6.4	NO	0.998	NO	MM
9	9	171209M2_10	Standard	250.000	4.71	63526.230	3289.625	241.389	252.1	0.9	NO	0.998	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999050
Calibration curve: -0.000341594 * x^2 + 1.17662 * x + 0.0313114
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	171209M2_2	Standard	0.250	4.97	386.885	14142.096	0.342	0.3	5.6	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	4.98	639.211	11821.728	0.676	0.5	9.6	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	5.00	1429.898	16603.191	1.077	0.9	-11.1	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	5.00	2216.131	13710.460	2.020	1.7	-15.4	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	5.00	7503.499	14222.091	6.595	5.6	11.7	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	5.00	12130.844	12594.671	12.040	10.2	2.4	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	5.00	58148.574	13225.231	54.960	47.3	-5.3	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	5.00	121161.664	12892.802	117.470	102.9	2.9	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	5.00	288467.594	13249.602	272.147	249.3	-0.3	NO	0.999	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998285
Calibration curve: -0.00628407 * x^2 + 1.91156 * x + 0.0298837
Response type: Internal Std (Ref 43), 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	171209M2_2	Standard	0.250	4.95	63.466	1797.115	0.441	0.2	-13.8	NO	0.998	NO	bb
2	2	171209M2_3	Standard	0.500	4.95	142.254	1924.636	0.924	0.5	-6.3	NO	0.998	NO	bb
3	3	171209M2_4	Standard	1.000	4.97	415.674	2126.555	2.443	1.3	26.8	NO	0.998	NO	bb
4	4	171209M2_5	Standard	2.000	4.97	589.316	1760.973	4.183	2.2	9.4	NO	0.998	NO	bb
5	5	171209M2_6	Standard	5.000	4.97	1392.504	2080.485	8.366	4.4	-11.5	NO	0.998	NO	bb
6	6	171209M2_7	Standard	10.000	4.97	2795.046	1856.638	18.818	10.2	1.7	NO	0.998	NO	bb
7	7	171209M2_8	Standard	50.000	4.97	14698.220	2298.707	79.927	50.0	0.0	NO	0.998	NO	bb
8	8	171209M2_9	Standard	100.000	4.97	25355.684	2469.544	128.342	100.0	-0.0	NO	0.998	NO	bb
9	9	171209M2_10	Standard	250.000	4.97	56622.855	3327.465	212.710			NO	0.998	NO	bbXI

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Compound name: N-MeFOSAA
Correlation coefficient: r = 0.999360, r^2 = 0.998720
Calibration curve: 1.44429 * x + 0.117056
Response type: Internal Std (Ref 44), 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	171209M2_2	Standard	0.250	5.12	164.550	4892.210	0.420	0.2	-16.0	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	5.13	322.378	5350.064	0.753	0.4	-11.9	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	5.15	740.463	6363.212	1.455	0.9	-7.4	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	5.15	1314.765	5187.545	3.168	2.1	5.6	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	5.15	3651.190	5493.045	8.309	5.7	13.4	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	5.15	7468.266	5419.712	17.225	11.8	18.5	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	5.15	32332.678	5566.527	72.605	50.2	0.4	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	5.15	55221.668	4901.958	140.815	97.4	-2.6	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	5.15	146297.375	5064.275	361.101	249.9	-0.0	NO	0.999	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997027
Calibration curve: -0.00188762 * x^2 + 1.12222 * x + -0.0692818
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	171209M2_2	Standard	0.250	5.28	85.296	5691.060	0.187	0.2	-8.5	NO	0.997	NO	bb
2	2	171209M2_3	Standard	0.500	5.29	184.712	6382.940	0.362	0.4	-23.1	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	5.31	588.874	7095.972	1.037	1.0	-1.2	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	5.31	873.290	5834.416	1.871	1.7	-13.3	NO	0.997	NO	bb
5	5	171209M2_6	Standard	5.000	5.31	2682.530	5054.267	6.634	6.0	20.7	NO	0.997	NO	bb
6	6	171209M2_7	Standard	10.000	5.31	4935.506	5416.267	11.390	10.4	3.9	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	5.31	23365.777	5923.965	49.304	47.8	-4.3	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	5.31	38276.023	5079.483	94.193	101.2	1.2	NO	0.997	NO	bb
9	9	171209M2_10	Standard	250.000	5.31	90769.570	4506.369	251.781			NO	0.997	NO	bbXl

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.994620
Calibration curve: 0.000105937 * x^2 + 1.01487 * x + 0.187332
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	171209M2_2	Standard	0.250	5.29	368.833	10917.813	0.422	0.2	-7.4	NO	0.995	NO	bb
2	2	171209M2_3	Standard	0.500	5.30	642.057	11474.210	0.699	0.5	0.9	NO	0.995	NO	bb
3	3	171209M2_4	Standard	1.000	5.32	1744.148	16925.512	1.288	1.1	8.5	NO	0.995	NO	bb
4	4	171209M2_5	Standard	2.000	5.33	2269.165	14561.603	1.948	1.7	-13.3	NO	0.995	NO	bb
5	5	171209M2_6	Standard	5.000	5.33	5648.338	11903.784	5.931	5.7	13.1	NO	0.995	NO	bb
6	6	171209M2_7	Standard	10.000	5.32	11377.188	12972.512	10.963	10.6	6.1	NO	0.995	NO	bb
7	7	171209M2_8	Standard	50.000	5.32	52370.773	15216.763	43.021	42.0	-16.0	NO	0.995	NO	bb
8	8	171209M2_9	Standard	100.000	5.33	103940.656	11612.390	111.886	108.8	8.8	NO	0.995	NO	bb
9	9	171209M2_10	Standard	250.000	5.33	275517.969	13324.768	258.464	248.1	-0.8	NO	0.995	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.992447
Calibration curve: -0.00247411 * x^2 + 0.350454 * x + -0.0138862
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	171209M2_2	Standard	0.250	5.33	72.882	10917.813	0.083	0.3	11.3	NO	0.992	NO	bb
2	2	171209M2_3	Standard	0.500	5.35	159.546	11474.210	0.174	0.5	7.5	NO	0.992	NO	bb
3	3	171209M2_4	Standard	1.000	5.37	402.249	16925.512	0.297	0.9	-10.7	NO	0.992	NO	bb
4	4	171209M2_5	Standard	2.000	5.38	619.589	14561.603	0.532	1.6	-21.3	NO	0.992	NO	bb
5	5	171209M2_6	Standard	5.000	5.38	1866.480	11903.784	1.960	5.9	17.5	NO	0.992	NO	bb
6	6	171209M2_7	Standard	10.000	5.37	3233.340	12972.512	3.116	9.6	-4.2	NO	0.992	NO	bb
7	7	171209M2_8	Standard	50.000	5.38	13788.953	15216.763	11.327	50.0	0.1	NO	0.992	NO	bb
8	8	171209M2_9	Standard	100.000	5.38	28493.371	11612.390	30.671			NO	0.992	NO	bbXI
9	9	171209M2_10	Standard	250.000	5.38	62734.105	13324.768	58.851			NO	0.992	NO	bbXI

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.996727
Calibration curve: -0.00099772 * x^2 + 2.29275 * x + 0.20549
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	171209M2_2	Standard	0.250	5.57	431.707	8577.511	0.629	0.2	-26.1	NO	0.997	NO	bd
2	2	171209M2_3	Standard	0.500	5.58	734.236	6490.883	1.414	0.5	5.4	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	5.61	1793.868	9923.930	2.260	0.9	-10.4	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	5.61	2504.261	6822.258	4.588	1.9	-4.3	NO	0.997	NO	bd
5	5	171209M2_6	Standard	5.000	5.61	8041.234	6691.379	15.022	6.5	29.6	NO	0.997	NO	bd
6	6	171209M2_7	Standard	10.000	5.61	13522.503	6487.578	26.055	11.3	13.3	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	5.61	62585.387	7709.370	101.476	45.1	-9.9	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	5.61	134504.688	7488.561	224.517	102.4	2.4	NO	0.997	NO	bb
9	9	171209M2_10	Standard	250.000	5.61	291475.938	7129.791	511.018	250.0	-0.0	NO	0.997	NO	bd

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999484, r^2 = 0.998969
Calibration curve: 1.08161 * x + 0.286547
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	171209M2_2	Standard	1.250	5.66	172.524	17501.615	1.479	1.1	-11.8	NO	0.999	NO	bb
2	2	171209M2_3	Standard	2.500	5.67	314.379	17659.174	2.670	2.2	-11.8	NO	0.999	NO	bb
3	3	171209M2_4	Standard	5.000	5.69	750.401	18543.326	6.070	5.3	6.9	NO	0.999	NO	bb
4	4	171209M2_5	Standard	10.000	5.69	1315.716	16188.531	12.191	11.0	10.1	NO	0.999	NO	bb
5	5	171209M2_6	Standard	25.000	5.69	3347.783	16395.305	30.629	28.1	12.2	NO	0.999	NO	bb
6	6	171209M2_7	Standard	50.000	5.69	6372.616	15376.892	62.164	57.2	14.4	NO	0.999	NO	bb
7	7	171209M2_8	Standard	250.000	5.69	29245.027	15699.413	279.422	258.1	3.2	NO	0.999	NO	bb
8	8	171209M2_9	Standard	500.000	5.70	54728.074	15289.952	536.902	496.1	-0.8	NO	0.999	NO	bb
9	9	171209M2_10	Standard	1250.000	5.70	132475.203	14877.414	1335.668	1234.6	-1.2	NO	0.999	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999543
Calibration curve: -0.000584956 * x^2 + 2.0682 * x + 0.168629
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	171209M2_2	Standard	0.250	5.81	366.904	8577.511	0.535	0.2	-29.2	NO	1.000	NO	bb
2	2	171209M2_3	Standard	0.500	5.83	728.974	6490.883	1.404	0.6	19.5	NO	1.000	NO	bb
3	3	171209M2_4	Standard	1.000	5.86	1589.762	9923.930	2.002	0.9	-11.3	NO	1.000	NO	bb
4	4	171209M2_5	Standard	2.000	5.86	2707.831	6822.258	4.961	2.3	15.9	NO	1.000	NO	bb
5	5	171209M2_6	Standard	5.000	5.86	5769.761	6691.379	10.778	5.1	2.7	NO	1.000	NO	bb
6	6	171209M2_7	Standard	10.000	5.86	11075.319	6487.578	21.339	10.3	2.7	NO	1.000	NO	bb
7	7	171209M2_8	Standard	50.000	5.86	63927.211	7709.370	103.652	50.8	1.5	NO	1.000	NO	bb
8	8	171209M2_9	Standard	100.000	5.86	118000.500	7488.561	196.968	97.9	-2.1	NO	1.000	NO	bb
9	9	171209M2_10	Standard	250.000	5.86	274917.219	7129.791	481.987	250.7	0.3	NO	1.000	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997496
Calibration curve: -0.00214058 * x^2 + 1.82561 * x + -0.292017
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	171209M2_2	Standard	0.250	6.03	297.877	7906.575	0.471	0.4	67.2	NO	0.997	NO	bbX
2	2	171209M2_3	Standard	0.500	6.05	509.327	8449.690	0.753	0.6	14.6	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	6.07	1067.381	9264.609	1.440	0.9	-5.0	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	6.07	1967.640	6677.964	3.683	2.2	9.1	NO	0.997	NO	bb
5	5	171209M2_6	Standard	5.000	6.07	4143.733	6879.414	7.529	4.3	-13.9	NO	0.997	NO	bb
6	6	171209M2_7	Standard	10.000	6.07	8615.093	6306.218	17.077	9.6	-3.8	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	6.07	40058.082	6253.770	80.068	46.6	-6.9	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	6.07	83944.781	6143.704	170.794	107.2	7.2	NO	0.997	NO	bb
9	9	171209M2_10	Standard	250.000	6.07	166752.344	6523.629	319.516	246.3	-1.5	NO	0.997	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999921
Calibration curve: -5.48088e-005 * x^2 + 0.95351 * x + -0.0378792
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	171209M2_2	Standard	1.250	6.07	216.197	27138.092	1.195	1.3	3.4	NO	1.000	NO	bb
2	2	171209M2_3	Standard	2.500	6.09	421.082	28264.578	2.235	2.4	-4.7	NO	1.000	NO	bb
3	3	171209M2_4	Standard	5.000	6.12	974.858	30807.682	4.747	5.0	0.4	NO	1.000	NO	bb
4	4	171209M2_5	Standard	10.000	6.12	1643.966	26720.947	9.229	9.7	-2.8	NO	1.000	NO	bb
5	5	171209M2_6	Standard	25.000	6.12	4276.811	26474.705	24.231	25.5	2.0	NO	1.000	NO	bb
6	6	171209M2_7	Standard	50.000	6.12	8093.004	24884.027	48.784	51.4	2.7	NO	1.000	NO	bb
7	7	171209M2_8	Standard	250.000	6.12	37408.328	24288.953	231.021	245.8	-1.7	NO	1.000	NO	bb
8	8	171209M2_9	Standard	500.000	6.12	71723.430	23091.309	465.912	503.2	0.6	NO	1.000	NO	bb
9	9	171209M2_10	Standard	1250.000	6.12	166938.359	22645.502	1105.772	1249.5	-0.0	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.996489
Calibration curve: -5.21712e-005 * x^2 + 0.569394 * x + 0.0885019
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	171209M2_2	Standard	0.250	6.37	149.235	3807.137	0.196	0.2	-24.5	NO	0.996	NO	bb
2	2	171209M2_3	Standard	0.500	6.39	257.993	3815.536	0.338	0.4	-12.3	NO	0.996	NO	bb
3	3	171209M2_4	Standard	1.000	6.41	556.777	4350.777	0.640	1.0	-3.2	NO	0.996	NO	bb
4	4	171209M2_5	Standard	2.000	6.41	957.569	3767.952	1.271	2.1	3.8	NO	0.996	NO	bb
5	5	171209M2_6	Standard	5.000	6.41	2336.417	3605.912	3.240	5.5	10.7	NO	0.996	NO	bb
6	6	171209M2_7	Standard	10.000	6.41	4530.156	3037.115	7.458	13.0	29.6	NO	0.996	NO	bb
7	7	171209M2_8	Standard	50.000	6.41	21596.824	3747.816	28.813	50.7	1.4	NO	0.996	NO	bb
8	8	171209M2_9	Standard	100.000	6.41	38008.875	3593.938	52.879	93.5	-6.5	NO	0.996	NO	bb
9	9	171209M2_10	Standard	250.000	6.41	99354.422	3536.330	140.477	252.4	1.0	NO	0.996	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.997921
Calibration curve: -0.000294559 * x^2 + 0.724527 * x + 0.0302394
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	171209M2_2	Standard	0.250	6.59	161.253	3807.137	0.212	0.3	0.2	NO	0.998	NO	bb
2	2	171209M2_3	Standard	0.500	6.62	249.168	3815.536	0.327	0.4	-18.2	NO	0.998	NO	bb
3	3	171209M2_4	Standard	1.000	6.64	697.938	4350.777	0.802	1.1	6.6	NO	0.998	NO	bb
4	4	171209M2_5	Standard	2.000	6.64	1094.793	3767.952	1.453	2.0	-1.8	NO	0.998	NO	bb
5	5	171209M2_6	Standard	5.000	6.64	2937.637	3605.912	4.073	5.6	11.9	NO	0.998	NO	bb
6	6	171209M2_7	Standard	10.000	6.64	5394.610	3037.115	8.881	12.3	22.8	NO	0.998	NO	bb
7	7	171209M2_8	Standard	50.000	6.64	26118.656	3747.816	34.845	49.0	-1.9	NO	0.998	NO	bb
8	8	171209M2_9	Standard	100.000	6.64	48298.313	3593.938	67.194	96.5	-3.5	NO	0.998	NO	bb
9	9	171209M2_10	Standard	250.000	6.64	115815.094	3536.330	163.750	251.7	0.7	NO	0.998	NO	bb

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997837
Calibration curve: -0.000204768 * x^2 + 1.15269 * x + -0.639979
Response type: Internal Std (Ref 52), 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	171209M2_2	Standard	1.250	6.25	164.547	25107.529	0.983	1.4	12.7	NO	0.998	NO	bb
2	2	171209M2_3	Standard	2.500	6.27	373.564	23688.844	2.365	2.6	4.3	NO	0.998	NO	bb
3	3	171209M2_4	Standard	5.000	6.30	951.747	26169.707	5.455	5.3	5.9	NO	0.998	NO	bb
4	4	171209M2_5	Standard	10.000	6.30	1444.482	24596.740	8.809	8.2	-17.9	NO	0.998	NO	bb
5	5	171209M2_6	Standard	25.000	6.30	4787.895	26474.201	27.128	24.2	-3.2	NO	0.998	NO	bb
6	6	171209M2_7	Standard	50.000	6.30	7773.122	20522.459	56.814	50.3	0.6	NO	0.998	NO	bb
7	7	171209M2_8	Standard	250.000	6.30	38151.855	22519.309	254.128	230.5	-7.8	NO	0.998	NO	bb
8	8	171209M2_9	Standard	500.000	6.30	68266.672	18440.770	555.291	532.7	6.5	NO	0.998	NO	bb
9	9	171209M2_10	Standard	1250.000	6.30	174568.750	23545.859	1112.098	1237.3	-1.0	NO	0.998	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.996509, r^2 = 0.993029
Calibration curve: 1.09377 * x + 0.220458
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	171209M2_2	Standard	1.250	6.40	234.905	23326.148	1.511	1.2	-5.6	NO	0.993	NO	bb
2	2	171209M2_3	Standard	2.500	6.42	441.486	26346.238	2.514	2.1	-16.1	NO	0.993	NO	bb
3	3	171209M2_4	Standard	5.000	6.45	1157.336	27351.148	6.347	5.6	12.0	NO	0.993	NO	bb
4	4	171209M2_5	Standard	10.000	6.45	1702.073	22146.760	11.528	10.3	3.4	NO	0.993	NO	bb
5	5	171209M2_6	Standard	25.000	6.45	4566.440	23734.525	28.859	26.2	4.7	NO	0.993	NO	bb
6	6	171209M2_7	Standard	50.000	6.45	10806.551	25903.035	62.579	57.0	14.0	NO	0.993	NO	bb
7	7	171209M2_8	Standard	250.000	6.45	40618.281	23360.105	260.818	238.3	-4.7	NO	0.993	NO	bd
8	8	171209M2_9	Standard	500.000	6.45	77168.992	24382.434	474.741	433.8	-13.2	NO	0.993	NO	bb
9	9	171209M2_10	Standard	1250.000	6.45	211876.688	22021.973	1443.172	1319.2	5.5	NO	0.993	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.828629
RRF SD: 0.0681988, Relative SD: 8.23032
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	171209M2_2	Standard	12.500	1.34	7194.714	8260.546	10.887	13.1	5.1	NO		NO	db
2	2	171209M2_3	Standard	12.500	1.33	6640.622	7716.212	10.758	13.0	3.9	NO		NO	db
3	3	171209M2_4	Standard	12.500	1.33	8089.782	8675.444	11.656	14.1	12.5	NO		NO	db
4	4	171209M2_5	Standard	12.500	1.34	6749.064	7773.321	10.853	13.1	4.8	NO		NO	db
5	5	171209M2_6	Standard	12.500	1.34	6976.839	8126.659	10.731	13.0	3.6	NO		NO	db
6	6	171209M2_7	Standard	12.500	1.34	6136.306	8522.572	9.000	10.9	-13.1	NO		NO	db
7	7	171209M2_8	Standard	12.500	1.34	7606.514	10254.229	9.272	11.2	-10.5	NO		NO	MM
8	8	171209M2_9	Standard	12.500	1.34	7638.538	9697.683	9.846	11.9	-4.9	NO		NO	db
9	9	171209M2_10	Standard	12.500	1.34	7497.786	9172.973	10.217	12.3	-1.4	NO		NO	db

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Compound name: 13C3-PFPeA
Response Factor: 0.742635
RRF SD: 0.0556369, Relative SD: 7.49183
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	171209M2_2	Standard	12.500	2.27	13272.832	16649.502	9.965	13.4	7.3	NO		NO	bb
2	2	171209M2_3	Standard	12.500	2.27	13261.604	16031.110	10.341	13.9	11.4	NO		NO	MM
3	3	171209M2_4	Standard	12.500	2.28	14793.755	20184.537	9.162	12.3	-1.3	NO		NO	bb
4	4	171209M2_5	Standard	12.500	2.29	12518.253	17856.613	8.763	11.8	-5.6	NO		NO	bb
5	5	171209M2_6	Standard	12.500	2.28	12625.518	17688.961	8.922	12.0	-3.9	NO		NO	bb
6	6	171209M2_7	Standard	12.500	2.29	12280.884	15125.810	10.149	13.7	9.3	NO		NO	bb
7	7	171209M2_8	Standard	12.500	2.29	12369.729	18151.398	8.518	11.5	-8.2	NO		NO	bb
8	8	171209M2_9	Standard	12.500	2.29	11994.732	16355.733	9.167	12.3	-1.2	NO		NO	bb
9	9	171209M2_10	Standard	12.500	2.29	11808.688	17243.887	8.560	11.5	-7.8	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.0938349
RRF SD: 0.00632324, Relative SD: 6.73868
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	171209M2_2	Standard	12.500	2.55	1672.039	16649.502	1.255	13.4	7.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	2.55	1608.684	16031.110	1.254	13.4	6.9	NO		NO	bb
3	3	171209M2_4	Standard	12.500	2.56	1920.615	20184.537	1.189	12.7	1.4	NO		NO	bb
4	4	171209M2_5	Standard	12.500	2.57	1567.305	17856.613	1.097	11.7	-6.5	NO		NO	bb
5	5	171209M2_6	Standard	12.500	2.57	1662.107	17688.961	1.175	12.5	0.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	2.57	1525.102	15125.810	1.260	13.4	7.5	NO		NO	bb
7	7	171209M2_8	Standard	12.500	2.57	1666.859	18151.398	1.148	12.2	-2.1	NO		NO	bb
8	8	171209M2_9	Standard	12.500	2.57	1507.769	16355.733	1.152	12.3	-1.8	NO		NO	bb
9	9	171209M2_10	Standard	12.500	2.57	1414.148	17243.887	1.025	10.9	-12.6	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.734743
RRF SD: 0.0487156, Relative SD: 6.63029
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	171209M2_2	Standard	5.000	3.04	4830.886	16649.502	3.627	4.9	-1.3	NO		NO	bb
2	2	171209M2_3	Standard	5.000	3.04	5252.126	16031.110	4.095	5.6	11.5	NO		NO	bb
3	3	171209M2_4	Standard	5.000	3.05	5817.276	20184.537	3.603	4.9	-1.9	NO		NO	bb
4	4	171209M2_5	Standard	5.000	3.05	5163.659	17856.613	3.615	4.9	-1.6	NO		NO	bb
5	5	171209M2_6	Standard	5.000	3.05	4771.276	17688.961	3.372	4.6	-8.2	NO		NO	bb
6	6	171209M2_7	Standard	5.000	3.05	4836.588	15125.810	3.997	5.4	8.8	NO		NO	bb
7	7	171209M2_8	Standard	5.000	3.05	5013.819	18151.398	3.453	4.7	-6.0	NO		NO	bb
8	8	171209M2_9	Standard	5.000	3.06	4964.156	16355.733	3.794	5.2	3.3	NO		NO	bb
9	9	171209M2_10	Standard	5.000	3.05	4840.386	17243.887	3.509	4.8	-4.5	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.583176
RRF SD: 0.0585766, Relative SD: 10.0444
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	171209M2_2	Standard	12.500	3.65	10568.426	16649.502	7.934	13.6	8.8	NO		NO	bb
2	2	171209M2_3	Standard	12.500	3.65	11017.162	16031.110	8.590	14.7	17.8	NO		NO	bb
3	3	171209M2_4	Standard	12.500	3.67	11542.928	20184.537	7.148	12.3	-1.9	NO		NO	bb
4	4	171209M2_5	Standard	12.500	3.67	10123.013	17856.613	7.086	12.2	-2.8	NO		NO	bb
5	5	171209M2_6	Standard	12.500	3.67	9271.844	17688.961	6.552	11.2	-10.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	3.67	9791.908	15125.810	8.092	13.9	11.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	3.67	9812.723	18151.398	6.758	11.6	-7.3	NO		NO	bb
8	8	171209M2_9	Standard	12.500	3.67	8871.913	16355.733	6.780	11.6	-7.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	3.67	9195.322	17243.887	6.666	11.4	-8.6	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.405881
RRF SD: 0.0381409, Relative SD: 9.39707
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	171209M2_2	Standard	12.500	3.80	1435.493	3249.111	5.523	13.6	8.9	NO		NO	bb
2	2	171209M2_3	Standard	12.500	3.80	1234.737	3320.056	4.649	11.5	-8.4	NO		NO	bb
3	3	171209M2_4	Standard	12.500	3.82	1590.471	3637.098	5.466	13.5	7.7	NO		NO	bb
4	4	171209M2_5	Standard	12.500	3.82	1462.096	3138.457	5.823	14.3	14.8	NO		NO	bb
5	5	171209M2_6	Standard	12.500	3.83	1364.796	3176.375	5.371	13.2	5.9	NO		NO	bb
6	6	171209M2_7	Standard	12.500	3.82	1207.039	3316.540	4.549	11.2	-10.3	NO		NO	bb
7	7	171209M2_8	Standard	12.500	3.82	1328.286	3377.537	4.916	12.1	-3.1	NO		NO	bb
8	8	171209M2_9	Standard	12.500	3.83	1213.639	3163.103	4.796	11.8	-5.5	NO		NO	bb
9	9	171209M2_10	Standard	12.500	3.82	1263.339	3456.571	4.569	11.3	-10.0	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.282882
RRF SD: 0.0304598, Relative SD: 10.7677
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	171209M2_2	Standard	12.500	4.11	3539.680	12836.077	3.447	12.2	-2.5	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.12	3510.388	11774.358	3.727	13.2	5.4	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.13	4408.585	13809.176	3.991	14.1	12.9	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.13	3407.743	12526.476	3.401	12.0	-3.8	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.14	2959.530	12470.496	2.967	10.5	-16.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.13	3075.096	12508.866	3.073	10.9	-13.1	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.13	3787.280	12647.543	3.743	13.2	5.9	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.14	4311.516	13676.085	3.941	13.9	11.4	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.14	6069.366	13022.429	5.826	20.6	64.8	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 1.0485
RRF SD: 0.0849682, Relative SD: 8.10378
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	171209M2_2	Standard	12.500	4.16	12735.109	12836.077	12.402	11.8	-5.4	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.17	14081.530	11774.358	14.949	14.3	14.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.19	16083.188	13809.176	14.558	13.9	11.1	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.19	13732.789	12526.476	13.704	13.1	4.6	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.19	12694.002	12470.496	12.724	12.1	-2.9	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.19	12527.078	12508.866	12.518	11.9	-4.5	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.19	12916.910	12647.543	12.766	12.2	-2.6	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.19	12892.190	13676.085	11.784	11.2	-10.1	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.19	13075.800	13022.429	12.551	12.0	-4.2	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.913202
RRF SD: 0.0954167, Relative SD: 10.4486
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	171209M2_2	Standard	12.500	4.60	13859.624	15055.019	11.507	12.6	0.8	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.60	14678.116	16474.178	11.137	12.2	-2.4	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.63	14563.864	13201.420	13.790	15.1	20.8	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.63	14729.793	14707.504	12.519	13.7	9.7	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.63	14685.603	16051.853	11.436	12.5	0.2	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.63	11195.371	12179.379	11.490	12.6	0.7	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.63	11040.015	13054.377	10.571	11.6	-7.4	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.63	10842.911	12750.059	10.630	11.6	-6.9	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.63	11476.924	14860.361	9.654	10.6	-15.4	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.357466
RRF SD: 0.0381819, Relative SD: 10.6812
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	171209M2_2	Standard	12.500	4.66	4364.232	12370.228	4.410	12.3	-1.3	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.66	5135.240	12440.443	5.160	14.4	15.5	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.68	5429.919	17018.324	3.988	11.2	-10.7	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.68	5352.142	15776.181	4.241	11.9	-5.1	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.68	5189.228	15153.919	4.280	12.0	-4.2	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.68	4850.200	11233.194	5.397	15.1	20.8	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.68	5171.684	15532.576	4.162	11.6	-6.9	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.69	4434.214	12836.940	4.318	12.1	-3.4	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.69	4291.153	12595.108	4.259	11.9	-4.7	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 1.00624
RRF SD: 0.124671, Relative SD: 12.3899
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	171209M2_2	Standard	12.500	4.68	3842.410	3285.559	14.619	14.5	16.2	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.69	3625.137	3076.150	14.731	14.6	17.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.71	3931.757	3923.509	12.526	12.4	-0.4	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.71	3610.229	3561.627	12.671	12.6	0.7	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.71	3536.073	3336.423	13.248	13.2	5.3	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.71	3529.114	3534.801	12.480	12.4	-0.8	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.71	3253.235	4143.241	9.815	9.8	-22.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.71	3167.414	3570.649	11.088	11.0	-11.8	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.71	3289.625	3419.787	12.024	11.9	-4.4	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.45225
RRF SD: 0.251795, Relative SD: 17.3383
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	171209M2_2	Standard	12.500	4.97	14142.096	9955.654	17.756	12.2	-2.2	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.98	11821.728	9288.953	15.908	11.0	-12.4	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.00	16603.191	8697.105	23.863	16.4	31.5	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.00	13710.460	10501.184	16.320	11.2	-10.1	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.00	14222.091	7907.077	22.483	15.5	23.9	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.00	12594.671	8183.759	19.237	13.2	6.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.00	13225.231	10453.241	15.815	10.9	-12.9	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.00	12892.802	9314.625	17.302	11.9	-4.7	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.00	13249.602	11272.105	14.693	10.1	-19.1	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.118745
RRF SD: 0.0161344, Relative SD: 13.5875
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	171209M2_2	Standard	12.500	4.94	1797.115	16649.502	1.349	11.4	-9.1	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.95	1924.636	16031.110	1.501	12.6	1.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.97	2126.555	20184.537	1.317	11.1	-11.3	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.97	1760.973	17856.613	1.233	10.4	-17.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.97	2080.485	17688.961	1.470	12.4	-1.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.97	1856.638	15125.810	1.534	12.9	3.4	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.97	2298.707	18151.398	1.583	13.3	6.6	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.97	2469.544	16355.733	1.887	15.9	27.2	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.97	3327.465	17243.887	2.412	20.3	62.5	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.390616
RRF SD: 0.0449353, Relative SD: 11.5037
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	171209M2_2	Standard	12.500	5.11	4892.210	12370.228	4.944	12.7	1.2	NO		NO	bb
2	2	171209M2_3	Standard	12.500	5.13	5350.064	12440.443	5.376	13.8	10.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.15	6363.212	17018.324	4.674	12.0	-4.3	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.15	5187.545	15776.181	4.110	10.5	-15.8	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.15	5493.045	15153.919	4.531	11.6	-7.2	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.15	5419.712	11233.194	6.031	15.4	23.5	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.15	5566.527	15532.576	4.480	11.5	-8.3	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.15	4901.958	12836.940	4.773	12.2	-2.2	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.15	5064.275	12595.108	5.026	12.9	2.9	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.412277
RRF SD: 0.060779, Relative SD: 14.7423
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	171209M2_2	Standard	12.500	5.27	5691.060	12370.228	5.751	13.9	11.6	NO		NO	bb
2	2	171209M2_3	Standard	12.500	5.28	6382.940	12440.443	6.413	15.6	24.5	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.30	7095.972	17018.324	5.212	12.6	1.1	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.30	5834.416	15776.181	4.623	11.2	-10.3	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.30	5054.267	15153.919	4.169	10.1	-19.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.30	5416.267	11233.194	6.027	14.6	17.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.30	5923.965	15532.576	4.767	11.6	-7.5	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.31	5079.483	12836.940	4.946	12.0	-4.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.31	4506.369	12595.108	4.472	10.8	-13.2	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.956116
RRF SD: 0.106821, Relative SD: 11.1724
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	171209M2_2	Standard	12.500	5.29	10917.813	12370.228	11.032	11.5	-7.7	NO		NO	bb
2	2	171209M2_3	Standard	12.500	5.30	11474.210	12440.443	11.529	12.1	-3.5	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.32	16925.512	17018.324	12.432	13.0	4.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.32	14561.603	15776.181	11.538	12.1	-3.5	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.32	11903.784	15153.919	9.819	10.3	-17.8	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.32	12972.512	11233.194	14.435	15.1	20.8	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.32	15216.763	15532.576	12.246	12.8	2.5	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.33	11612.390	12836.940	11.308	11.8	-5.4	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.32	13324.768	12595.108	13.224	13.8	10.6	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.543955
RRF SD: 0.0811779, Relative SD: 14.9236
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	171209M2_2	Standard	12.500	5.57	8577.511	12370.228	8.667	15.9	27.5	NO		NO	bb
2	2	171209M2_3	Standard	12.500	5.58	6490.883	12440.443	6.522	12.0	-4.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.61	9923.930	17018.324	7.289	13.4	7.2	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.61	6822.258	15776.181	5.406	9.9	-20.5	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.61	6691.379	15153.919	5.520	10.1	-18.8	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.61	6487.578	11233.194	7.219	13.3	6.2	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.61	7709.370	15532.576	6.204	11.4	-8.8	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.61	7488.561	12836.940	7.292	13.4	7.2	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.61	7129.791	12595.108	7.076	13.0	4.1	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0998509
RRF SD: 0.0136749, Relative SD: 13.6953
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	171209M2_2	Standard	150.000	5.68	17501.615	12370.228	17.685	177.1	18.1	NO		NO	bb
2	2	171209M2_3	Standard	150.000	5.69	17659.174	12440.443	17.744	177.7	18.5	NO		NO	bb
3	3	171209M2_4	Standard	150.000	5.72	18543.326	17018.324	13.620	136.4	-9.1	NO		NO	bb
4	4	171209M2_5	Standard	150.000	5.72	16188.531	15776.181	12.827	128.5	-14.4	NO		NO	bb
5	5	171209M2_6	Standard	150.000	5.72	16395.305	15153.919	13.524	135.4	-9.7	NO		NO	bb
6	6	171209M2_7	Standard	150.000	5.72	15376.892	11233.194	17.111	171.4	14.2	NO		NO	bb
7	7	171209M2_8	Standard	150.000	5.72	15699.413	15532.576	12.634	126.5	-15.6	NO		NO	bb
8	8	171209M2_9	Standard	150.000	5.72	15289.952	12836.940	14.889	149.1	-0.6	NO		NO	bb
9	9	171209M2_10	Standard	150.000	5.72	14877.414	12595.108	14.765	147.9	-1.4	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.522287
RRF SD: 0.0942184, Relative SD: 18.0396
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	171209M2_2	Standard	12.500	6.03	7906.575	12370.228	7.990	15.3	22.4	NO		NO	MM
2	2	171209M2_3	Standard	12.500	6.05	8449.690	12440.443	8.490	16.3	30.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	6.07	9264.609	17018.324	6.805	13.0	4.2	NO		NO	bb
4	4	171209M2_5	Standard	12.500	6.07	6677.964	15776.181	5.291	10.1	-19.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	6.07	6879.414	15153.919	5.675	10.9	-13.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	6.07	6306.218	11233.194	7.017	13.4	7.5	NO		NO	bb
7	7	171209M2_8	Standard	12.500	6.07	6253.770	15532.576	5.033	9.6	-22.9	NO		NO	bb
8	8	171209M2_9	Standard	12.500	6.08	6143.704	12836.940	5.982	11.5	-8.4	NO		NO	bb
9	9	171209M2_10	Standard	12.500	6.07	6523.629	12595.108	6.474	12.4	-0.8	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.158265
RRF SD: 0.021485, Relative SD: 13.5753
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	171209M2_2	Standard	150.000	6.08	27138.092	12370.228	27.423	173.3	15.5	NO		NO	bb
2	2	171209M2_3	Standard	150.000	6.11	28264.578	12440.443	28.400	179.4	19.6	NO		NO	bb
3	3	171209M2_4	Standard	150.000	6.13	30807.682	17018.324	22.628	143.0	-4.7	NO		NO	bd
4	4	171209M2_5	Standard	150.000	6.13	26720.947	15776.181	21.172	133.8	-10.8	NO		NO	bb
5	5	171209M2_6	Standard	150.000	6.13	26474.705	15153.919	21.838	138.0	-8.0	NO		NO	bb
6	6	171209M2_7	Standard	150.000	6.13	24884.027	11233.194	27.690	175.0	16.6	NO		NO	bb
7	7	171209M2_8	Standard	150.000	6.13	24288.953	15532.576	19.547	123.5	-17.7	NO		NO	bb
8	8	171209M2_9	Standard	150.000	6.13	23091.309	12836.940	22.485	142.1	-5.3	NO		NO	bb
9	9	171209M2_10	Standard	150.000	6.13	22645.502	12595.108	22.475	142.0	-5.3	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.67203
RRF SD: 0.0684919, Relative SD: 10.1918
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	171209M2_2	Standard	5.000	6.37	3807.137	12370.228	3.847	5.7	14.5	NO		NO	bb
2	2	171209M2_3	Standard	5.000	6.39	3815.536	12440.443	3.834	5.7	14.1	NO		NO	bb
3	3	171209M2_4	Standard	5.000	6.41	4350.777	17018.324	3.196	4.8	-4.9	NO		NO	bb
4	4	171209M2_5	Standard	5.000	6.41	3767.952	15776.181	2.985	4.4	-11.2	NO		NO	bb
5	5	171209M2_6	Standard	5.000	6.41	3605.912	15153.919	2.974	4.4	-11.5	NO		NO	bb
6	6	171209M2_7	Standard	5.000	6.41	3037.115	11233.194	3.380	5.0	0.6	NO		NO	bb
7	7	171209M2_8	Standard	5.000	6.41	3747.816	15532.576	3.016	4.5	-10.2	NO		NO	bb
8	8	171209M2_9	Standard	5.000	6.41	3593.938	12836.940	3.500	5.2	4.2	NO		NO	bb
9	9	171209M2_10	Standard	5.000	6.41	3536.330	12595.108	3.510	5.2	4.4	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.142226
RRF SD: 0.0180468, Relative SD: 12.6888
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	171209M2_2	Standard	150.000	6.24	25107.529	12370.228	25.371	178.4	18.9	NO		NO	bb
2	2	171209M2_3	Standard	150.000	6.26	23688.844	12440.443	23.802	167.4	11.6	NO		NO	bb
3	3	171209M2_4	Standard	150.000	6.29	26169.707	17018.324	19.222	135.1	-9.9	NO		NO	bb
4	4	171209M2_5	Standard	150.000	6.29	24596.740	15776.181	19.489	137.0	-8.6	NO		NO	bb
5	5	171209M2_6	Standard	150.000	6.29	26474.201	15153.919	21.838	153.5	2.4	NO		NO	bb
6	6	171209M2_7	Standard	150.000	6.29	20522.459	11233.194	22.837	160.6	7.0	NO		NO	bb
7	7	171209M2_8	Standard	150.000	6.29	22519.309	15532.576	18.123	127.4	-15.1	NO		NO	bb
8	8	171209M2_9	Standard	150.000	6.29	18440.770	12836.940	17.957	126.3	-15.8	NO		NO	bb
9	9	171209M2_10	Standard	150.000	6.29	23545.859	12595.108	23.368	164.3	9.5	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.148504
RRF SD: 0.0248326, Relative SD: 16.7219
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	171209M2_2	Standard	150.000	6.39	23326.148	12370.228	23.571	158.7	5.8	NO		NO	bb
2	2	171209M2_3	Standard	150.000	6.41	26346.238	12440.443	26.472	178.3	18.8	NO		NO	bb
3	3	171209M2_4	Standard	150.000	6.43	27351.148	17018.324	20.089	135.3	-9.8	NO		NO	bb
4	4	171209M2_5	Standard	150.000	6.43	22146.760	15776.181	17.548	118.2	-21.2	NO		NO	bb
5	5	171209M2_6	Standard	150.000	6.44	23734.525	15153.919	19.578	131.8	-12.1	NO		NO	bb
6	6	171209M2_7	Standard	150.000	6.43	25903.035	11233.194	28.824	194.1	29.4	NO		NO	bb
7	7	171209M2_8	Standard	150.000	6.43	23360.105	15532.576	18.799	126.6	-15.6	NO		NO	bb
8	8	171209M2_9	Standard	150.000	6.44	24382.434	12836.940	23.742	159.9	6.6	NO		NO	bb
9	9	171209M2_10	Standard	150.000	6.43	22021.973	12595.108	21.856	147.2	-1.9	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	171209M2_2	Standard	12.500	1.34	8260.546	8260.546	12.500	12.5	0.0	NO		NO	db
2	2	171209M2_3	Standard	12.500	1.33	7716.212	7716.212	12.500	12.5	0.0	NO		NO	db
3	3	171209M2_4	Standard	12.500	1.34	8675.444	8675.444	12.500	12.5	0.0	NO		NO	db
4	4	171209M2_5	Standard	12.500	1.34	7773.321	7773.321	12.500	12.5	0.0	NO		NO	db
5	5	171209M2_6	Standard	12.500	1.34	8126.659	8126.659	12.500	12.5	0.0	NO		NO	db
6	6	171209M2_7	Standard	12.500	1.34	8522.572	8522.572	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	1.34	10254.229	10254.229	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	1.34	9697.683	9697.683	12.500	12.5	0.0	NO		NO	db
9	9	171209M2_10	Standard	12.500	1.34	9172.973	9172.973	12.500	12.5	0.0	NO		NO	db

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	171209M2_2	Standard	12.500	3.03	16649.502	16649.502	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	3.04	16031.110	16031.110	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	3.05	20184.537	20184.537	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	3.05	17856.613	17856.613	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	3.05	17688.961	17688.961	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	3.05	15125.810	15125.810	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	3.05	18151.398	18151.398	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	3.05	16355.733	16355.733	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	3.05	17243.887	17243.887	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-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	171209M2_2	Standard	12.500	3.80	3249.111	3249.111	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	3.80	3320.056	3320.056	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	3.82	3637.098	3637.098	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	3.82	3138.457	3138.457	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	3.83	3176.375	3176.375	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	3.82	3316.540	3316.540	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	3.82	3377.537	3377.537	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	3.83	3163.103	3163.103	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	3.83	3456.571	3456.571	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	171209M2_2	Standard	12.500	4.16	12836.077	12836.077	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.17	11774.358	11774.358	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.19	13809.176	13809.176	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.19	12526.476	12526.476	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.19	12470.496	12470.496	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.19	12508.866	12508.866	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.19	12647.543	12647.543	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.19	13676.085	13676.085	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.19	13022.429	13022.429	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	171209M2_2	Standard	12.500	4.60	15055.019	15055.019	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.60	16474.178	16474.178	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.62	13201.420	13201.420	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.63	14707.504	14707.504	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.62	16051.853	16051.853	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.63	12179.379	12179.379	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.63	13054.377	13054.377	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.63	12750.059	12750.059	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.63	14860.361	14860.361	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	171209M2_2	Standard	12.500	4.68	3285.559	3285.559	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.69	3076.150	3076.150	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.71	3923.509	3923.509	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.71	3561.627	3561.627	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.71	3336.423	3336.423	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.71	3534.801	3534.801	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.71	4143.241	4143.241	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.71	3570.649	3570.649	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.71	3419.787	3419.787	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 171209M2_2	Standard	12.500	4.97	9955.654	9955.654	12.500	12.5	0.0	NO		NO	bb
2	2 171209M2_3	Standard	12.500	4.98	9288.953	9288.953	12.500	12.5	0.0	NO		NO	bb
3	3 171209M2_4	Standard	12.500	5.00	8697.105	8697.105	12.500	12.5	0.0	NO		NO	bb
4	4 171209M2_5	Standard	12.500	5.00	10501.184	10501.184	12.500	12.5	0.0	NO		NO	bb
5	5 171209M2_6	Standard	12.500	5.00	7907.077	7907.077	12.500	12.5	0.0	NO		NO	bb
6	6 171209M2_7	Standard	12.500	5.00	8183.759	8183.759	12.500	12.5	0.0	NO		NO	bb
7	7 171209M2_8	Standard	12.500	5.00	10453.241	10453.241	12.500	12.5	0.0	NO		NO	bb
8	8 171209M2_9	Standard	12.500	5.00	9314.625	9314.625	12.500	12.5	0.0	NO		NO	bb
9	9 171209M2_10	Standard	12.500	5.00	11272.105	11272.105	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 171209M2_2	Standard	12.500	5.29	12370.228	12370.228	12.500	12.5	0.0	NO		NO	bb
2	2 171209M2_3	Standard	12.500	5.30	12440.443	12440.443	12.500	12.5	0.0	NO		NO	bb
3	3 171209M2_4	Standard	12.500	5.32	17018.324	17018.324	12.500	12.5	0.0	NO		NO	bb
4	4 171209M2_5	Standard	12.500	5.32	15776.181	15776.181	12.500	12.5	0.0	NO		NO	bb
5	5 171209M2_6	Standard	12.500	5.32	15153.919	15153.919	12.500	12.5	0.0	NO		NO	bb
6	6 171209M2_7	Standard	12.500	5.32	11233.194	11233.194	12.500	12.5	0.0	NO		NO	bb
7	7 171209M2_8	Standard	12.500	5.32	15532.576	15532.576	12.500	12.5	0.0	NO		NO	bb
8	8 171209M2_9	Standard	12.500	5.33	12836.940	12836.940	12.500	12.5	0.0	NO		NO	bb
9	9 171209M2_10	Standard	12.500	5.32	12595.108	12595.108	12.500	12.5	0.0	NO		NO	bb

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Dataset: Untitled

Last Altered: Monday, December 11, 2017 10:59:07 Pacific Standard Time
Printed: Monday, December 11, 2017 11:01:23 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171209M2_1	IPA	09-Dec-17	12:43:52
2	171209M2_2	ST171209M1-1 PFC CS-2 17K2806	09-Dec-17	12:55:02
3	171209M2_3	ST171209M1-2 PFC CS-1 17K2807	09-Dec-17	13:06:13
4	171209M2_4	ST171209M1-3 PFC CS0 17K2808	09-Dec-17	13:17:24
5	171209M2_5	ST171209M1-4 PFC CS1 17K2814	09-Dec-17	13:28:34
6	171209M2_6	ST171209M1-5 PFC CS2 17K2809	09-Dec-17	13:39:45
7	171209M2_7	ST171209M1-6 PFC CS3 17K2810	09-Dec-17	13:50:56
8	171209M2_8	ST171209M1-7 PFC CS4 17K2811	09-Dec-17	14:02:06
9	171209M2_9	ST171209M1-8 PFC CS5 17K2812	09-Dec-17	14:13:17
10	171209M2_10	ST171209M1-9 PFC CS6 17K2817	09-Dec-17	14:24:28
11	171209M2_11	ST171209M1-10 PFC CS7 17K2818	09-Dec-17	14:35:39
12	171209M2_12	IPA	09-Dec-17	14:46:49
13	171209M2_13	ICV171209M1-1 PFC ICV 17K3001	09-Dec-17	14:58:00
14	171209M2_14	IPA	09-Dec-17	15:09:11

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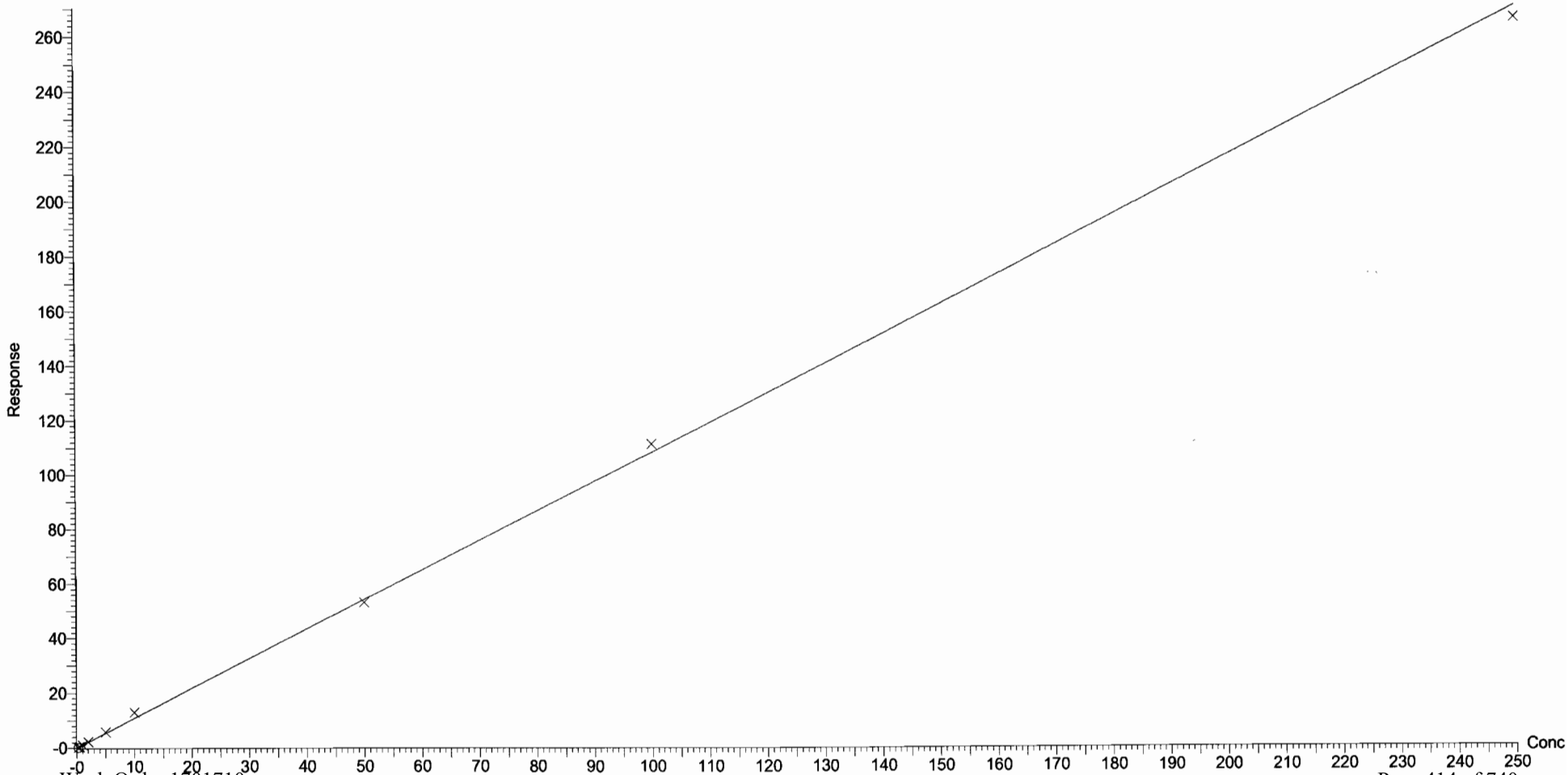
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Compound name: PFBA
Correlation coefficient: r = 0.999263, r^2 = 0.998527
Calibration curve: 1.08182 * x + 0.0176598
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\171209M2\171209M2-CRV.qld

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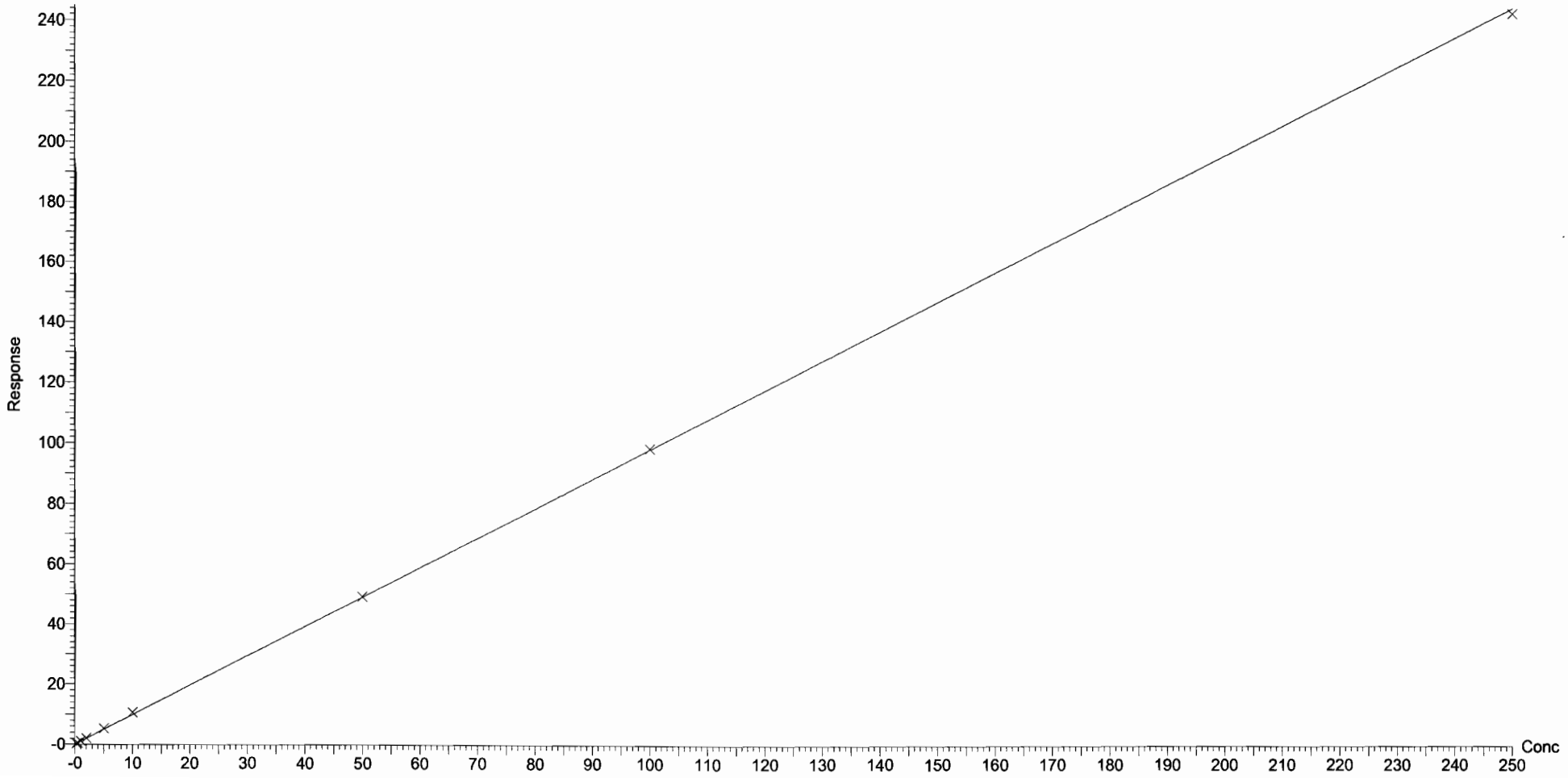
Compound name: PFPeA
Correlation coefficient: r = 0.999843, r^2 = 0.999686
Calibration curve: 0.97915 * x + 0.0424461
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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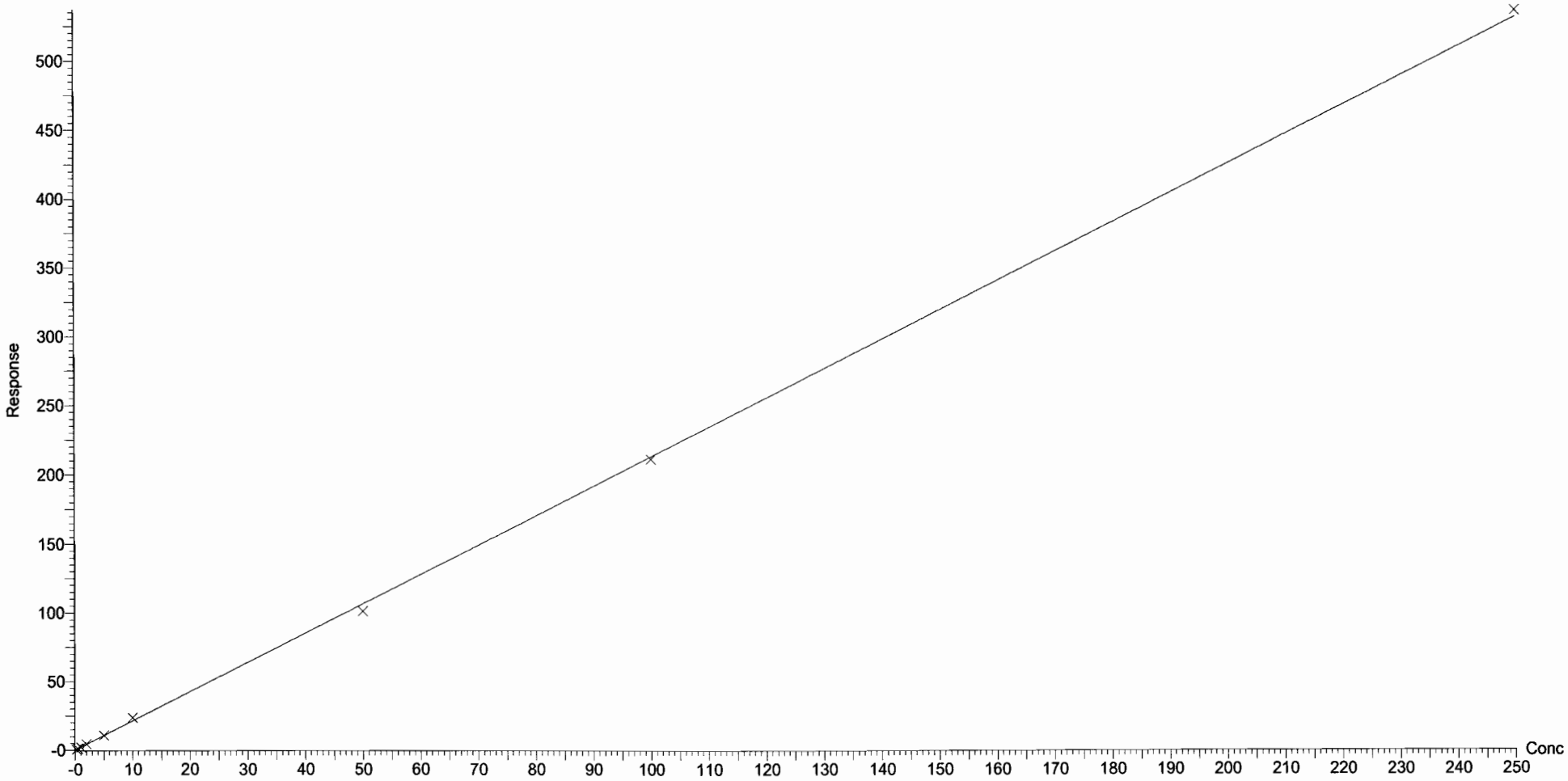
Compound name: PFBS
Correlation coefficient: r = 0.999669, r^2 = 0.999338
Calibration curve: 2.12803 * x + 0.0745164
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
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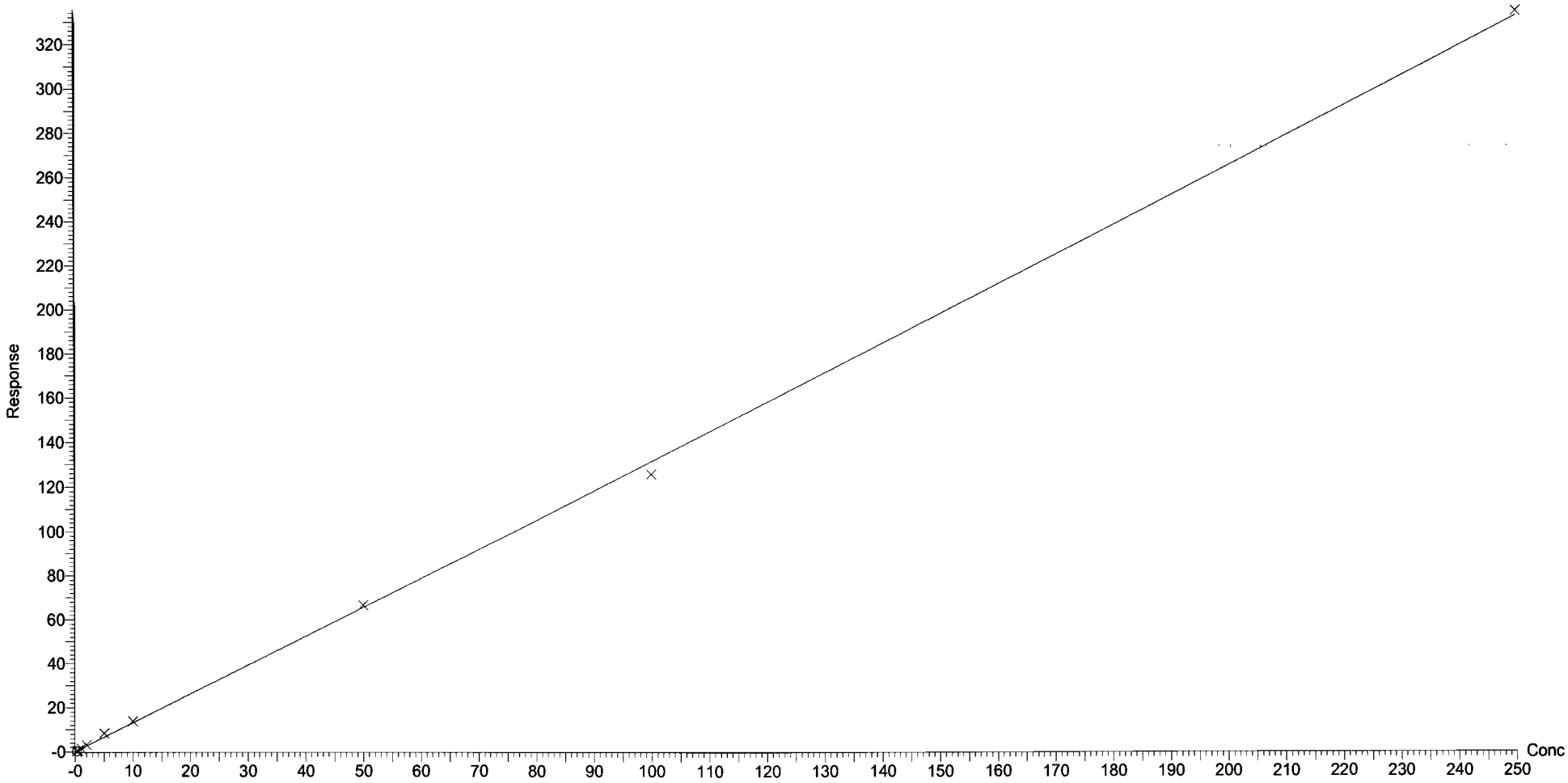
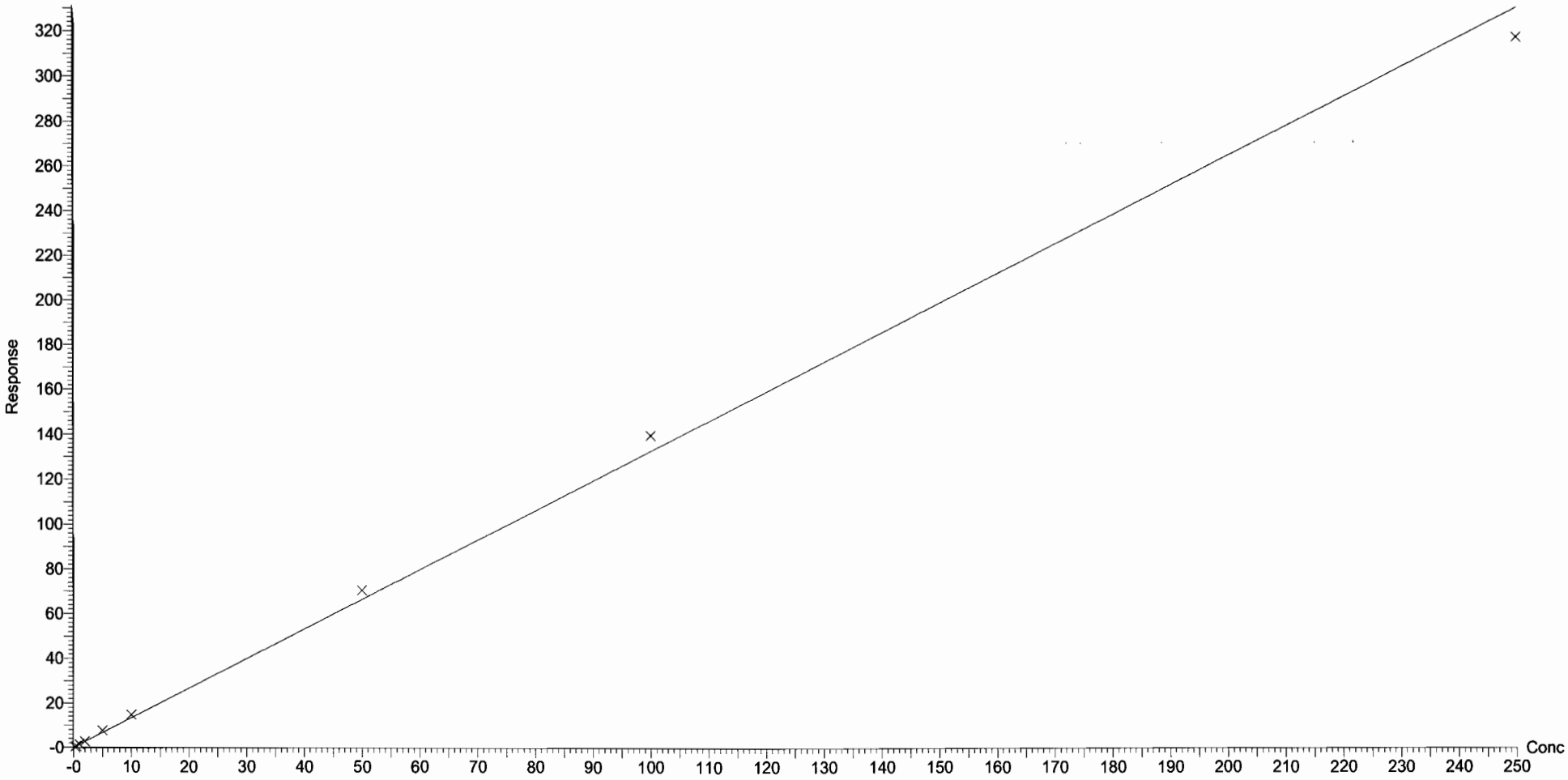
Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998437
Calibration curve: 0.000133423 * x^2 + 1.29902 * x + 0.19425
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

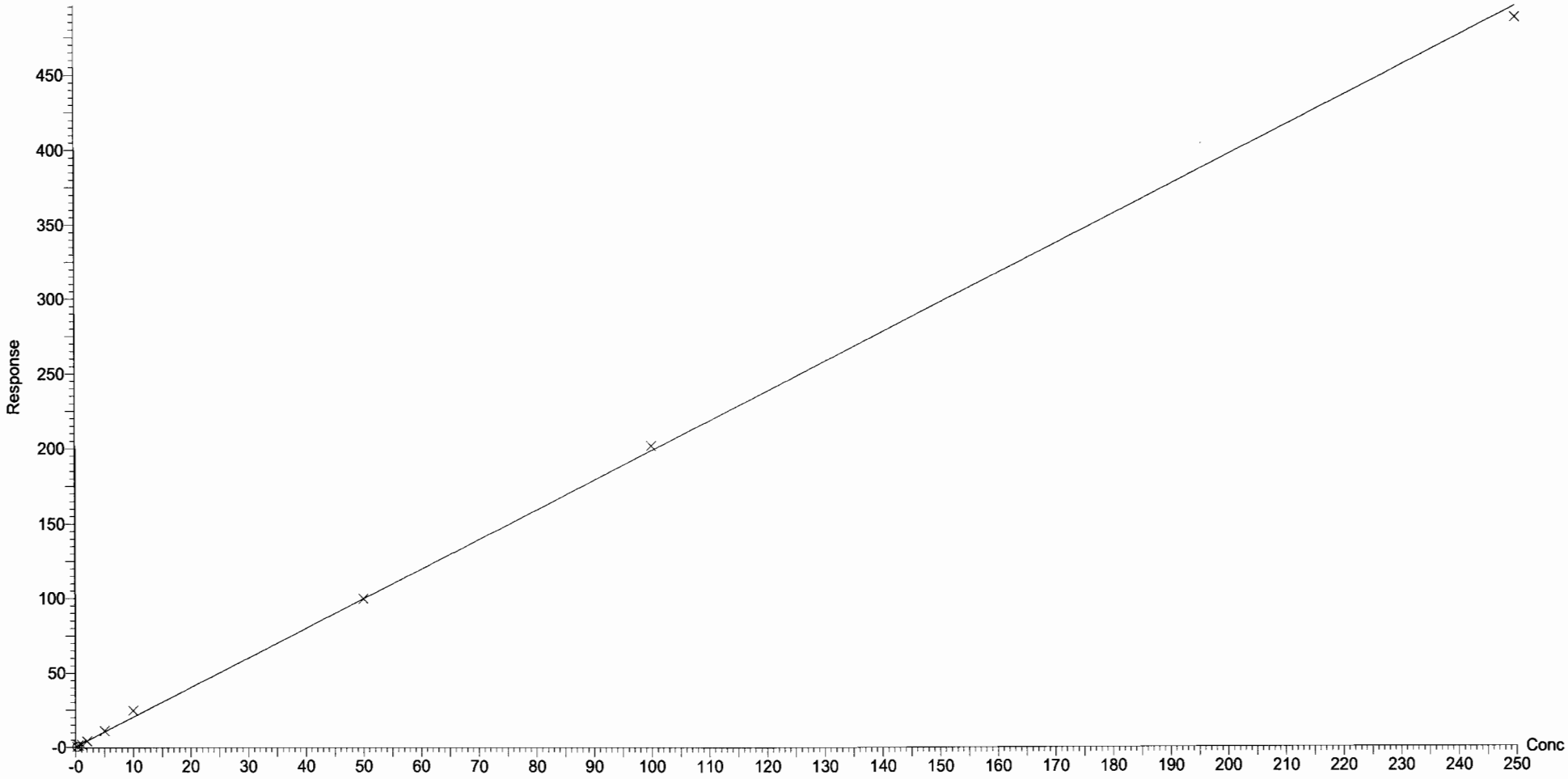
Compound name: PFHpA
Correlation coefficient: r = 0.998660, r^2 = 0.997321
Calibration curve: 1.32378 * x + 0.0946486
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

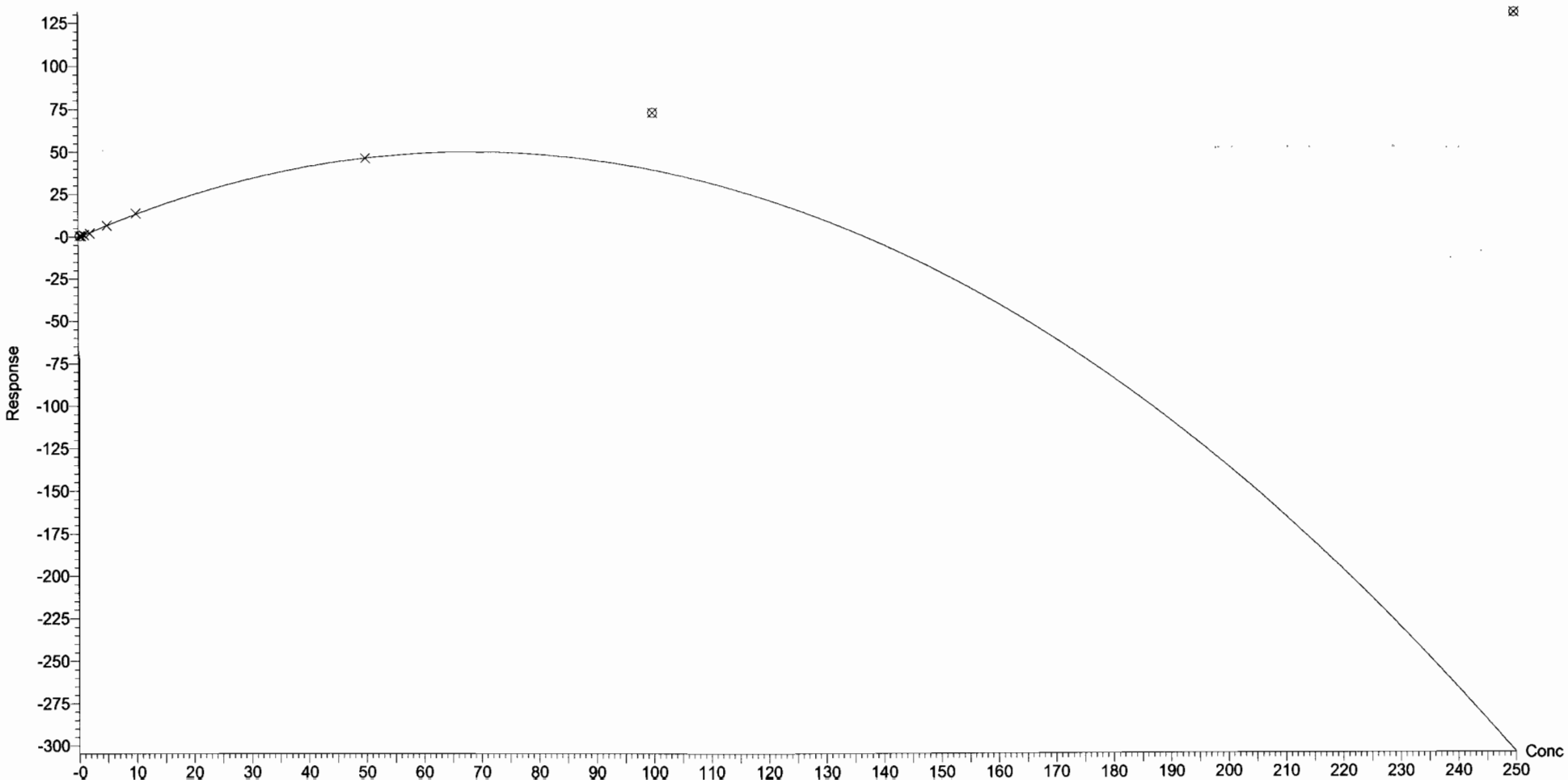
Compound name: L-PFHxS
Correlation coefficient: r = 0.999212, r^2 = 0.998424
Calibration curve: 1.98166 * x + 0.429333
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

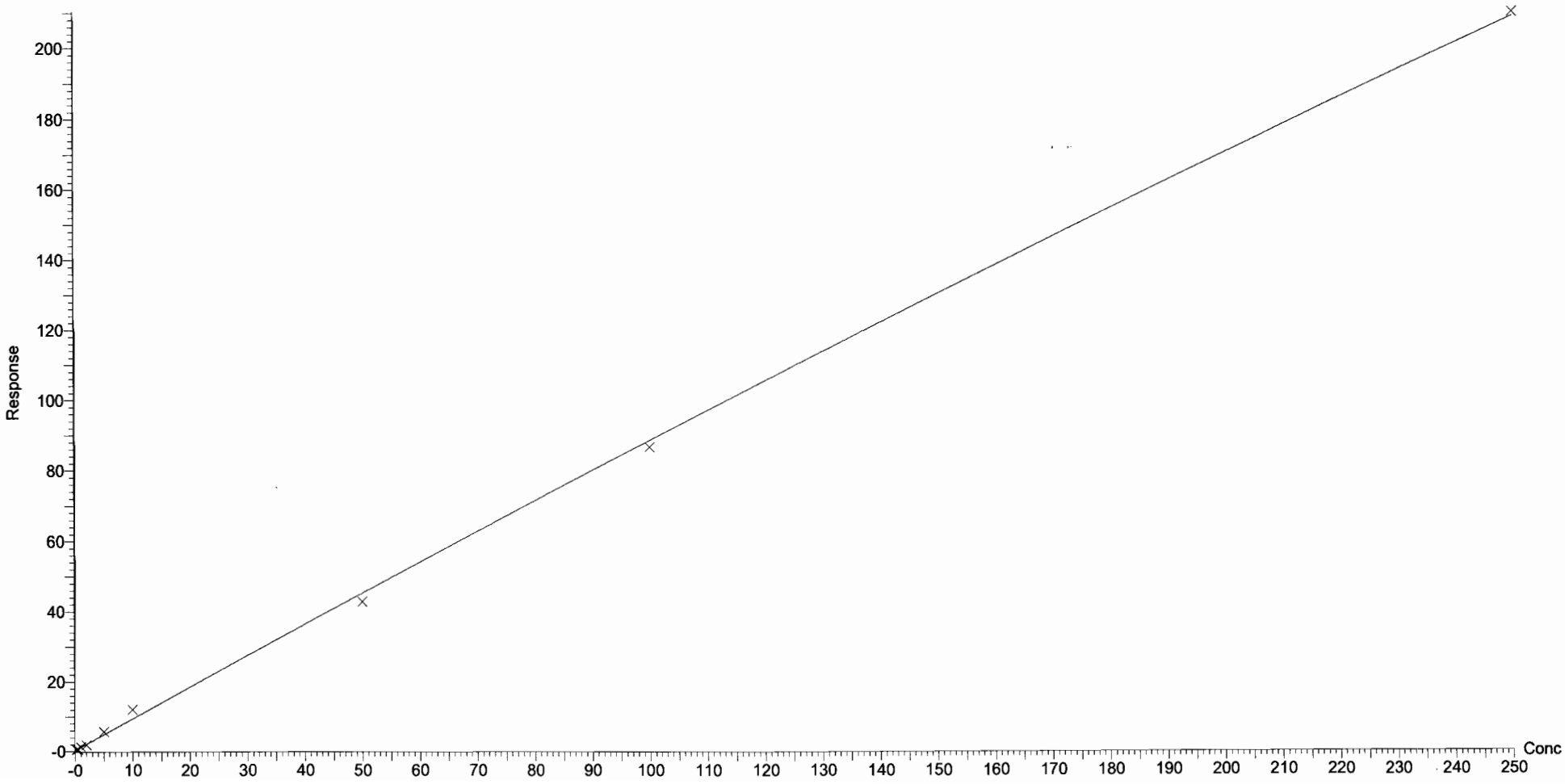
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997458
Calibration curve: -0.0107898 * x^2 + 1.4815 * x + -0.49576
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

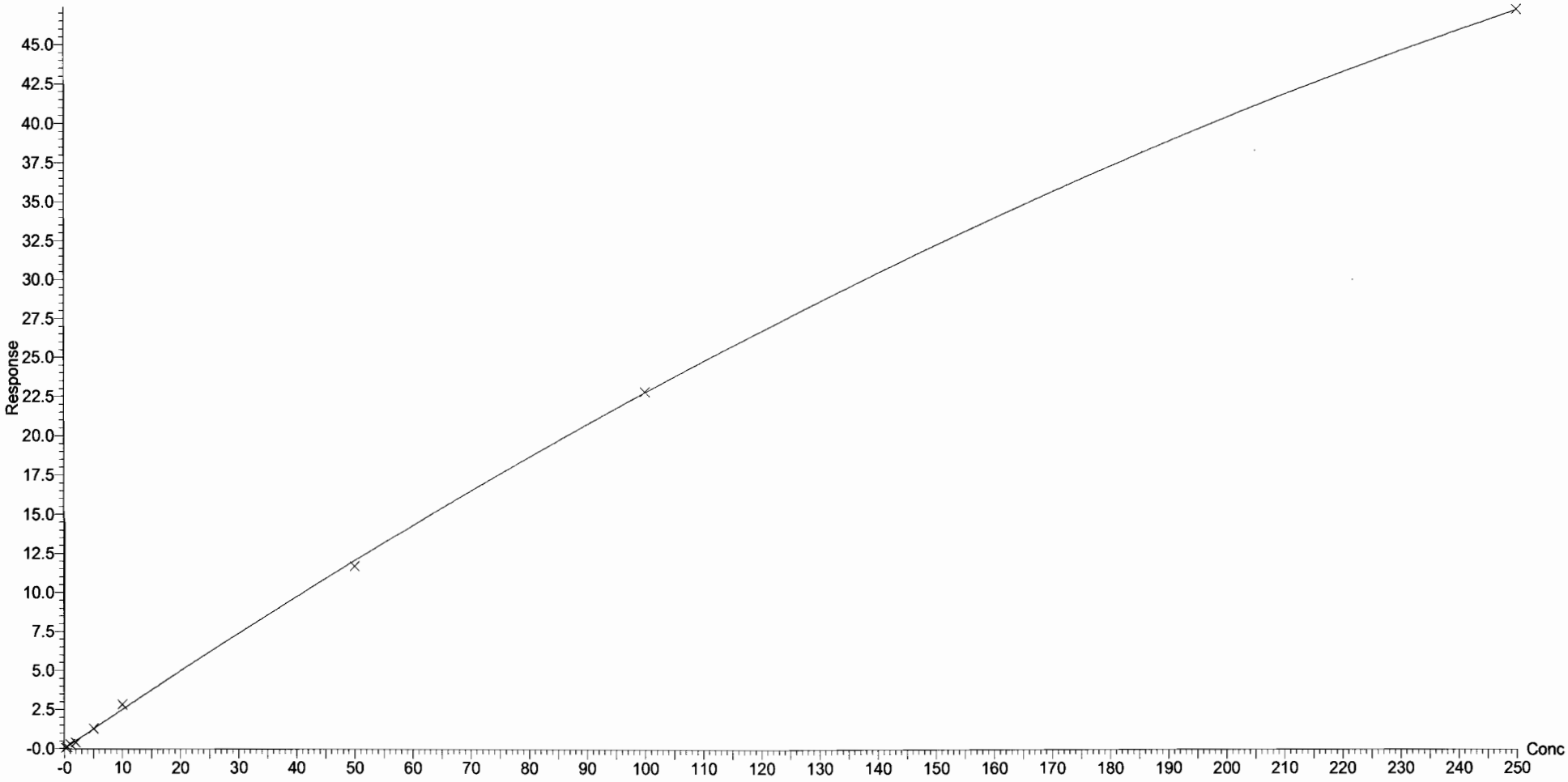
Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.996374
Calibration curve: -0.000315002 * x^2 + 0.914272 * x + 0.318187
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

Compound name: PFHpS
Coefficient of Determination: R^2 = 0.998891
Calibration curve: -0.000257769 * x^2 + 0.253775 * x + -0.0025961
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

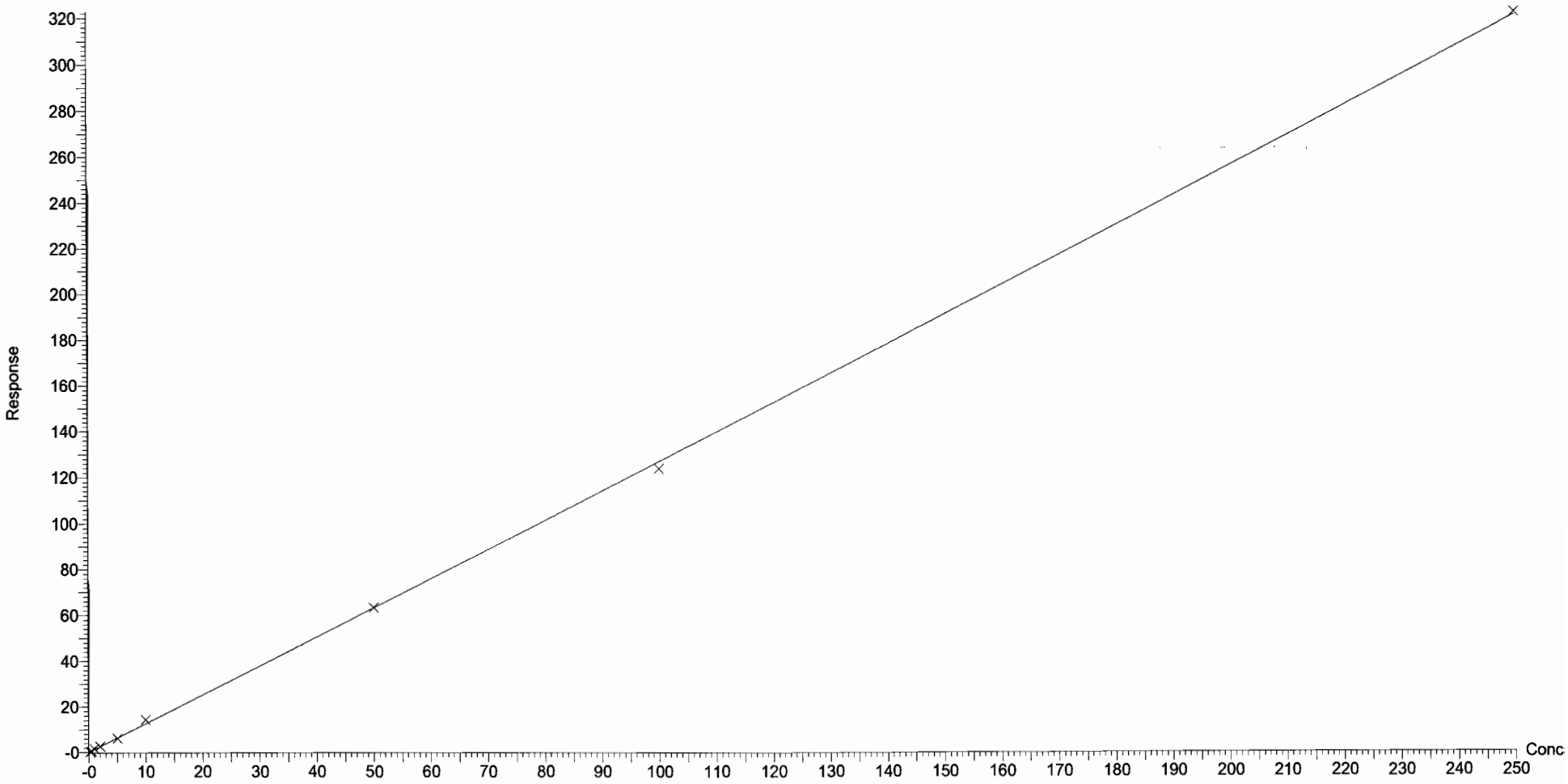


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

Compound name: PFNA
Coefficient of Determination: R^2 = 0.999165
Calibration curve: 0.000123298 * x^2 + 1.25512 * x + 0.0931614
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

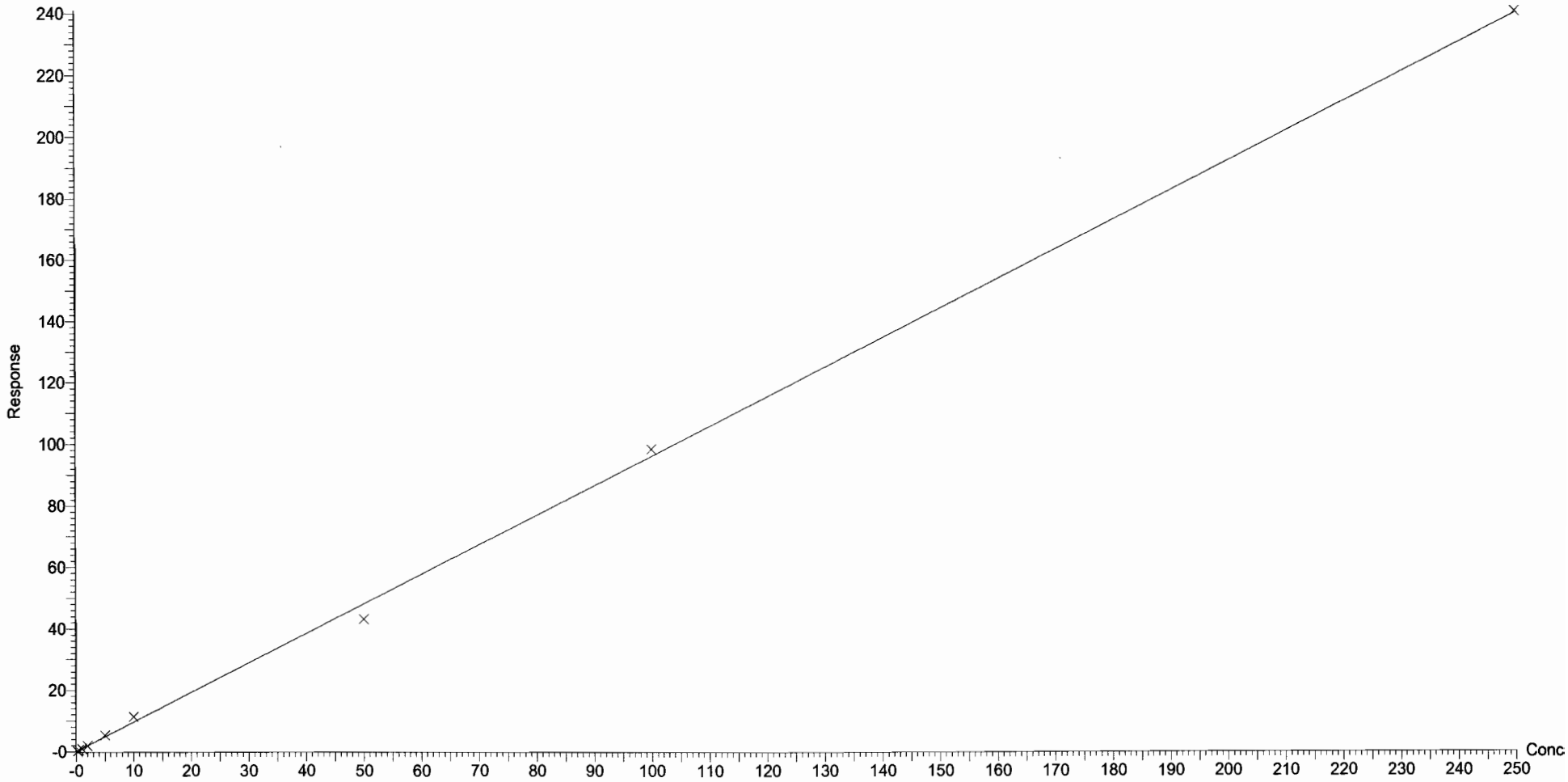


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

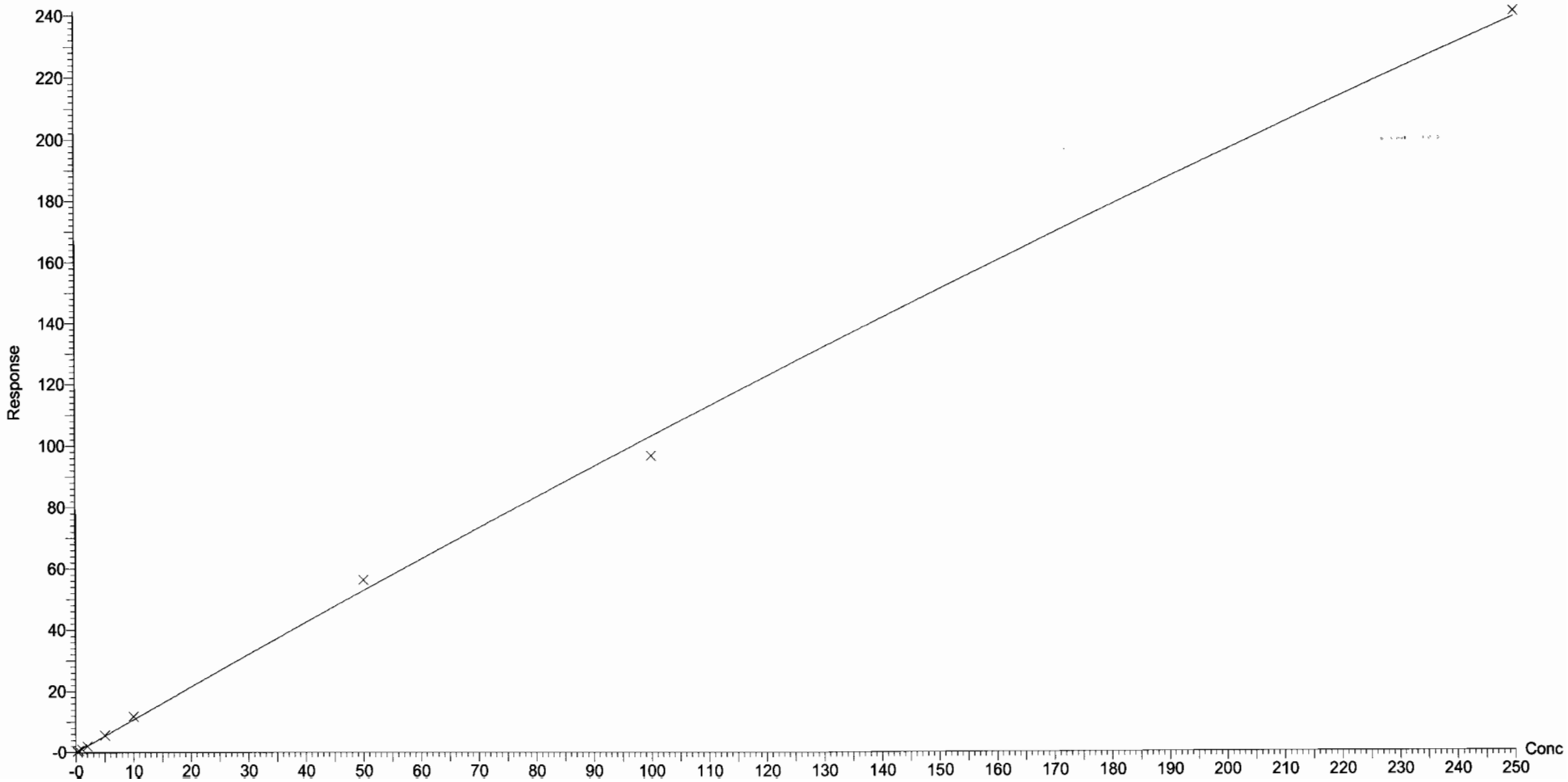
Compound name: PFOSA
Correlation coefficient: r = 0.998811, r^2 = 0.997624
Calibration curve: 0.961254 * x + 0.0498215
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

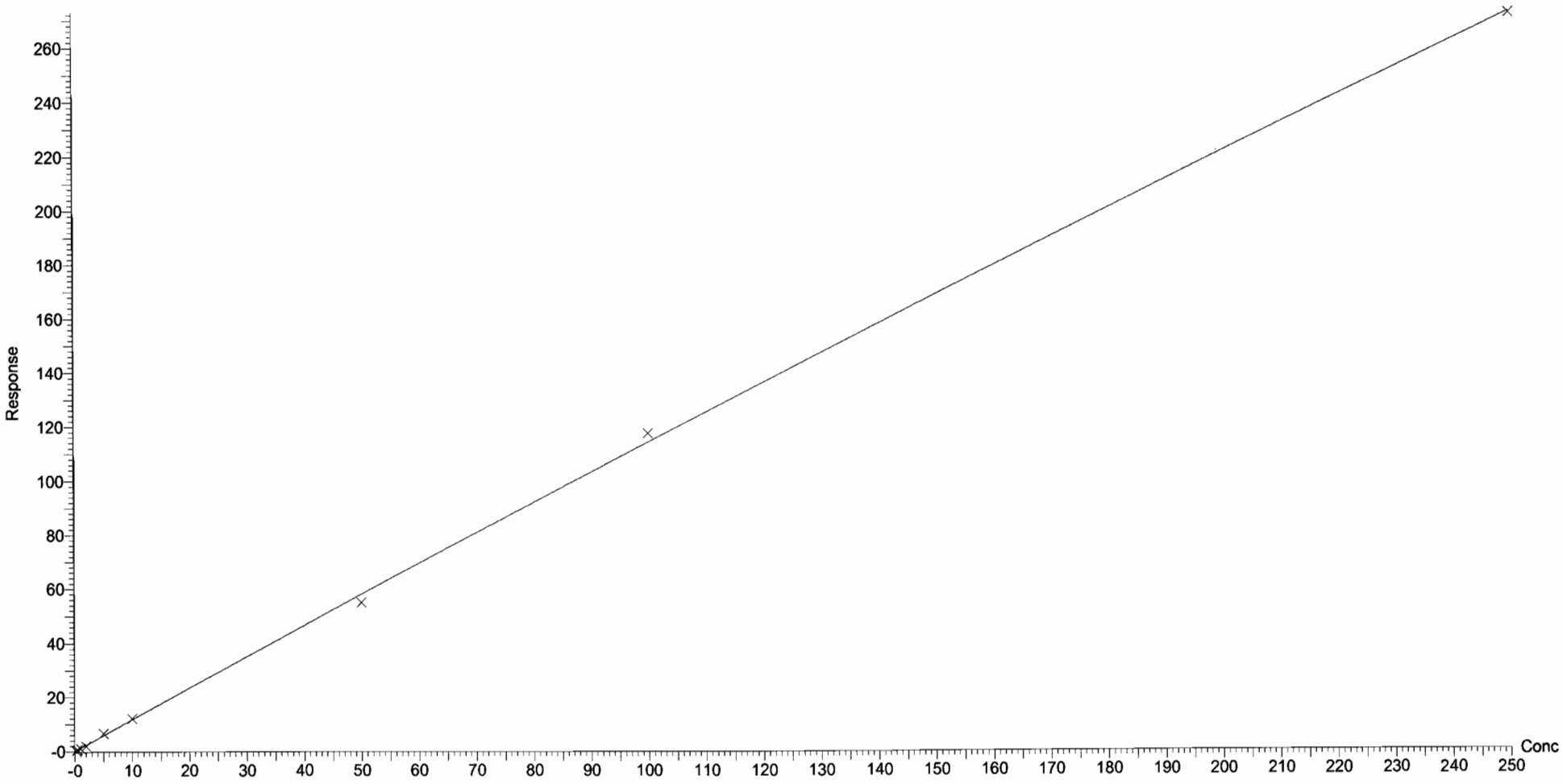
Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.998032
Calibration curve: -0.000484698 * x^2 + 1.07964 * x + -0.0234359
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

Compound name: PFDA
Coefficient of Determination: R^2 = 0.999050
Calibration curve: -0.000341594 * x^2 + 1.17662 * x + 0.0313114
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

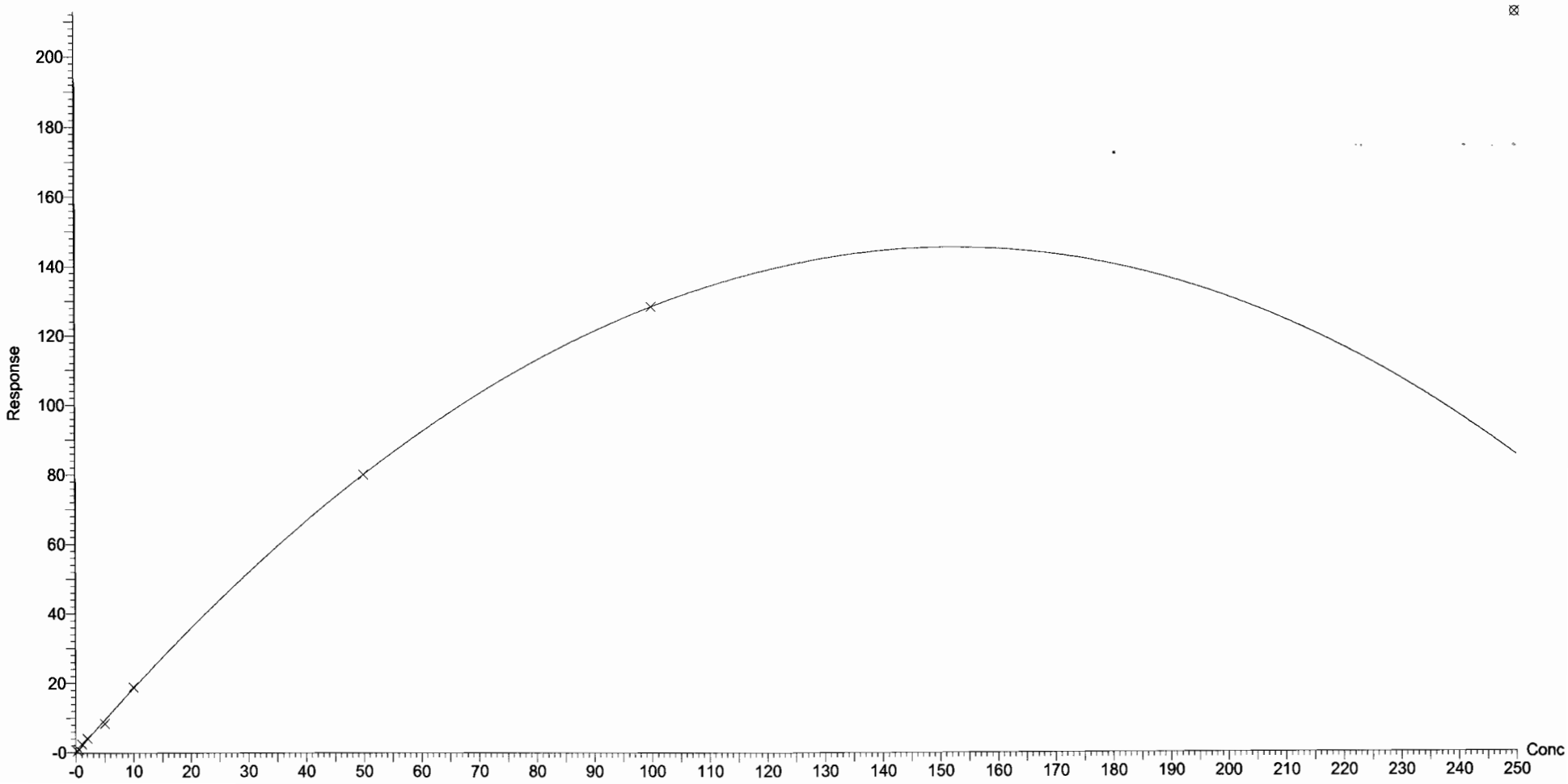


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

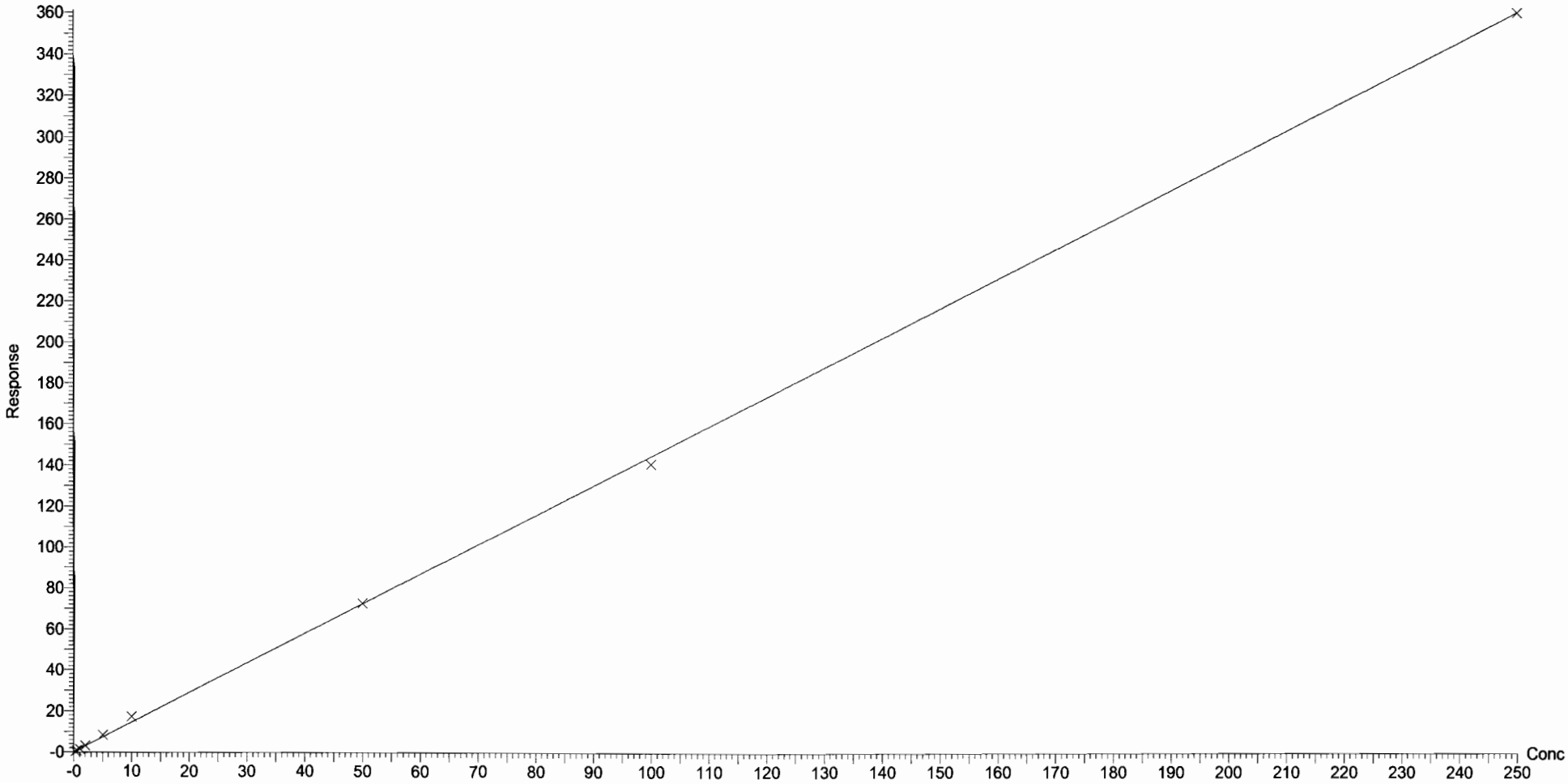
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998285
Calibration curve: -0.00628407 * x^2 + 1.91156 * x + 0.0298837
Response type: Internal Std (Ref 43), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

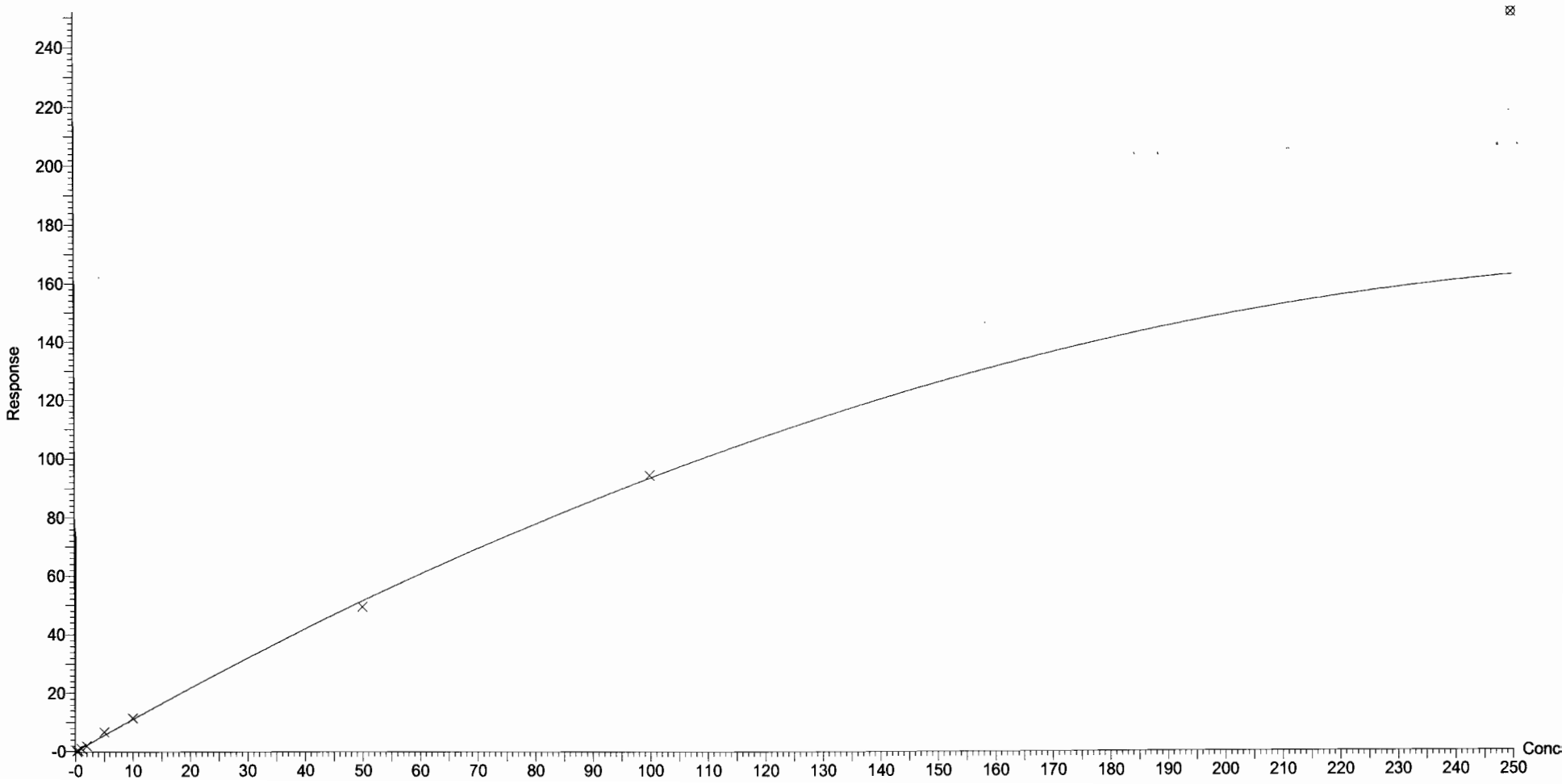
Compound name: N-MeFOSAA
Correlation coefficient: r = 0.999360, r^2 = 0.998720
Calibration curve: 1.44429 * x + 0.117056
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

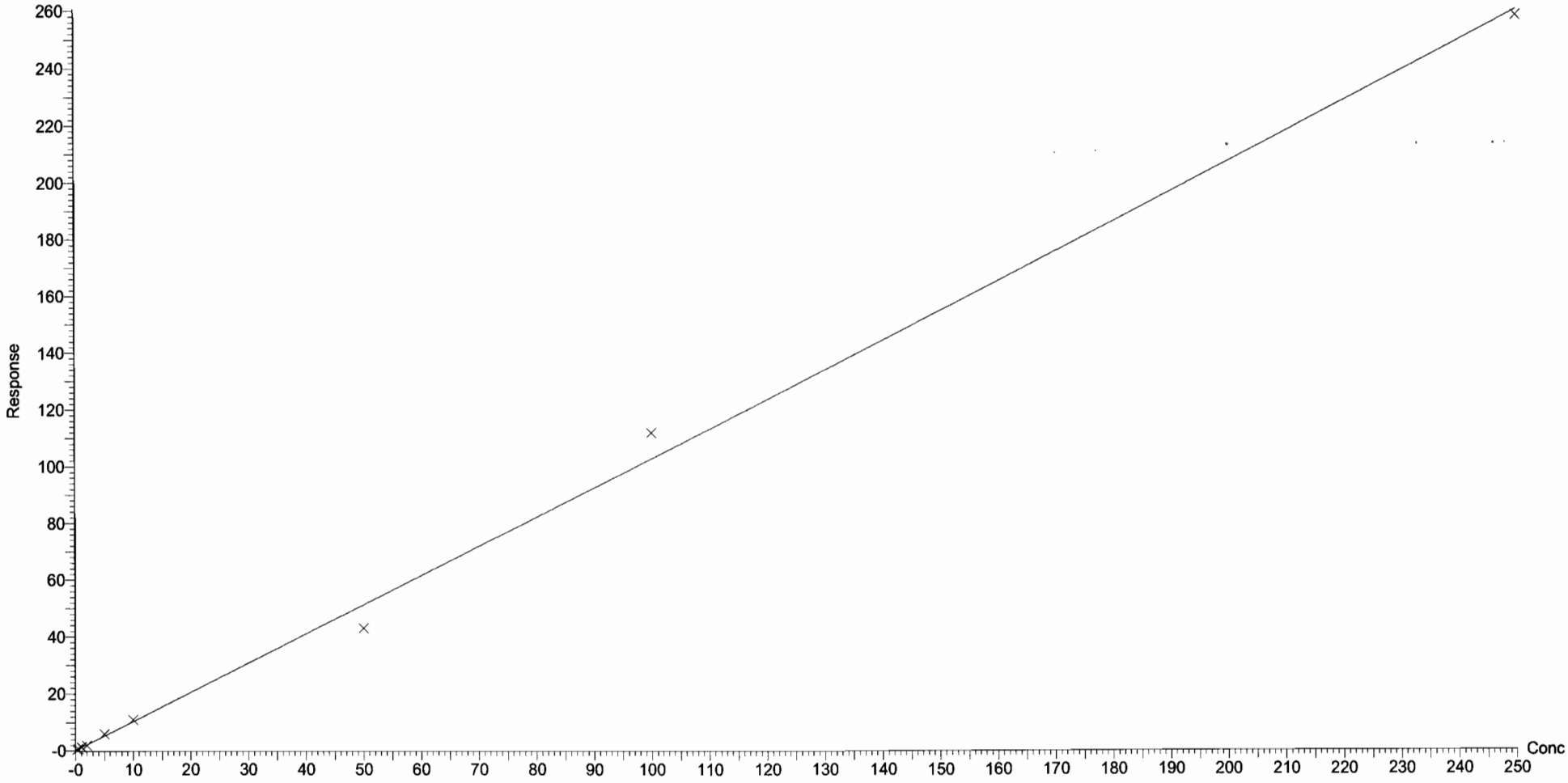
Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997027
Calibration curve: -0.00188762 * x^2 + 1.12222 * x + -0.0692818
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

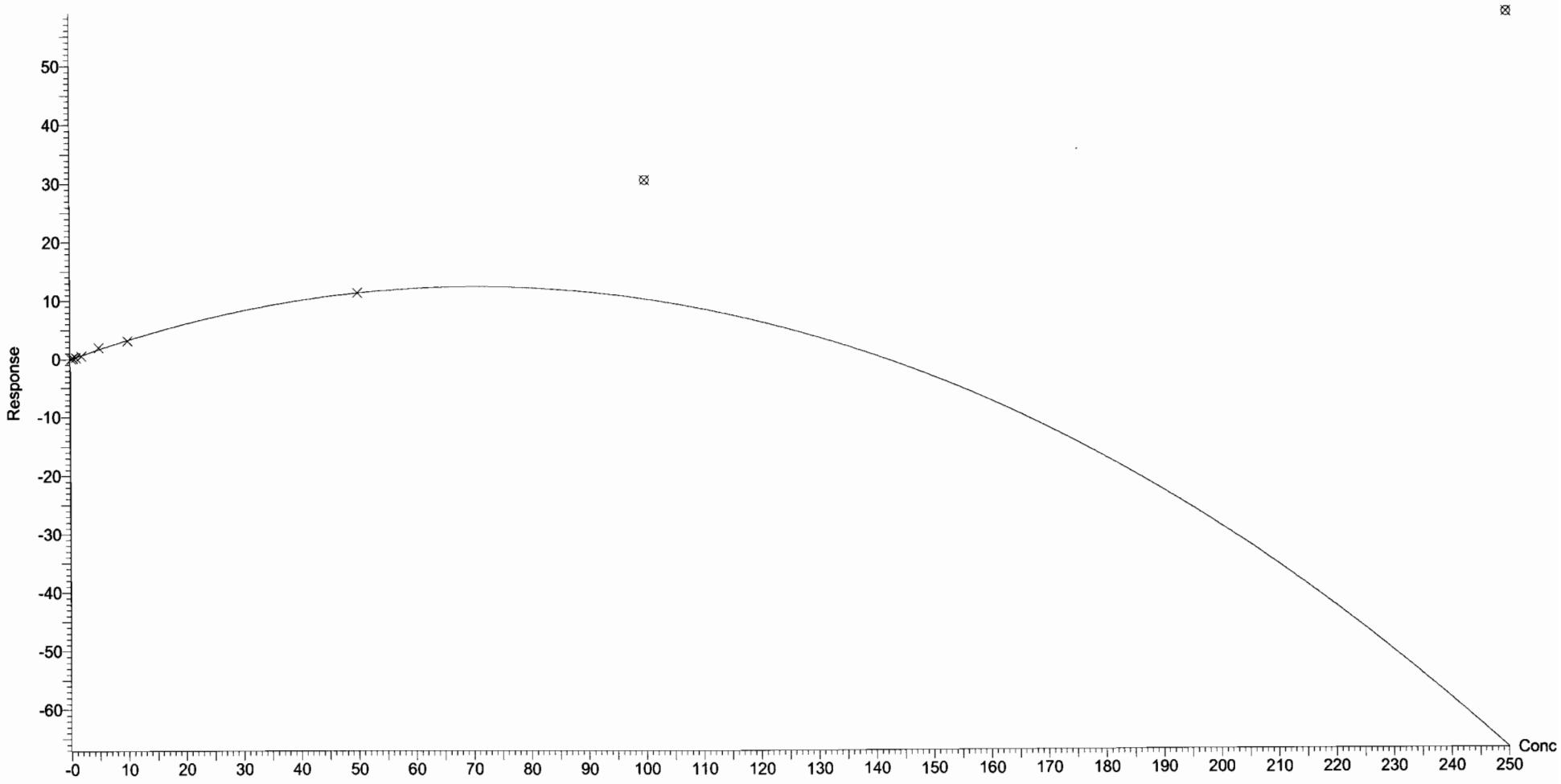
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.994620
Calibration curve: 0.000105937 * x^2 + 1.01487 * x + 0.187332
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

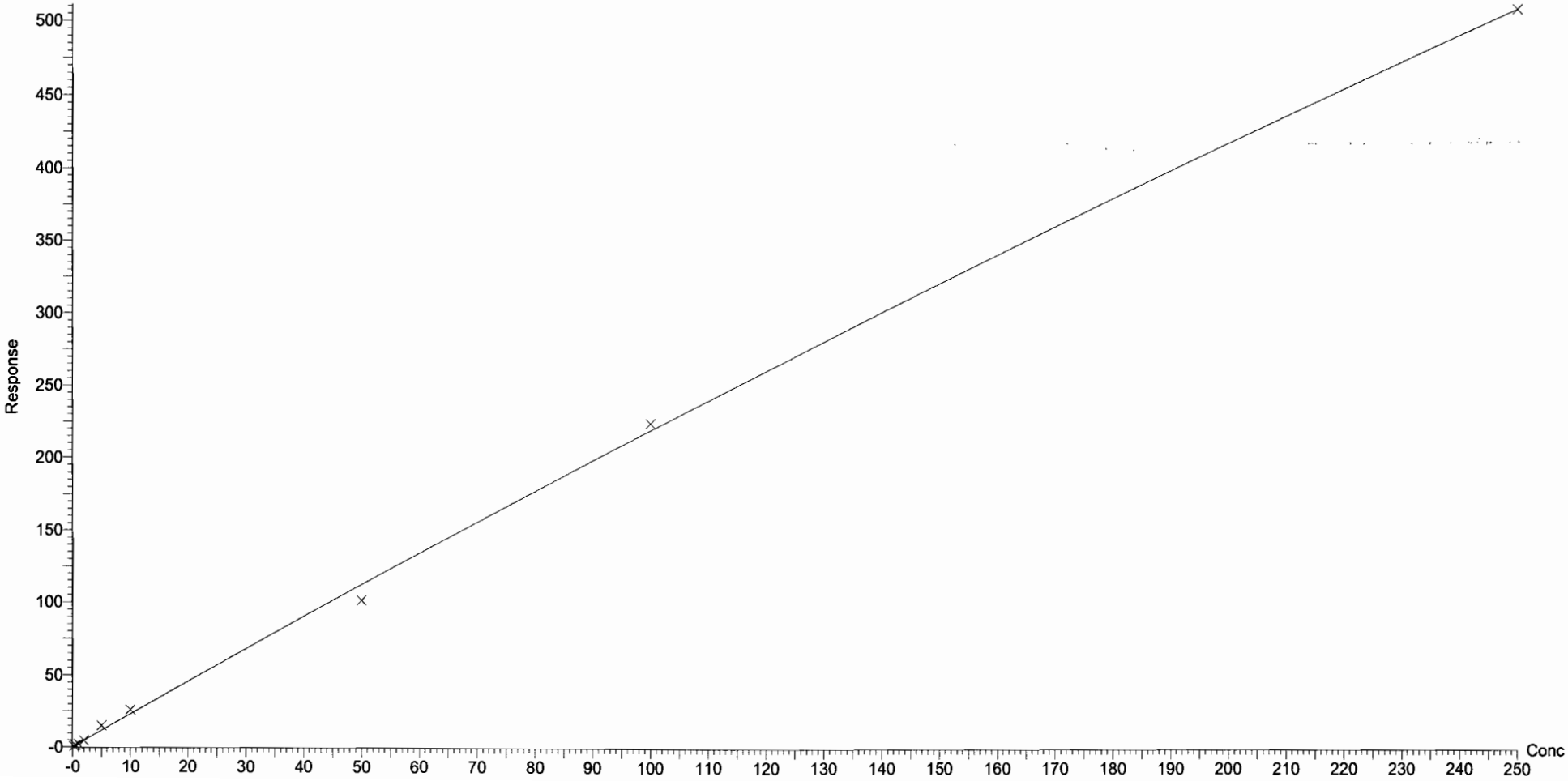
Compound name: PFDS
Coefficient of Determination: R^2 = 0.992447
Calibration curve: -0.00247411 * x^2 + 0.350454 * x + -0.0138862
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

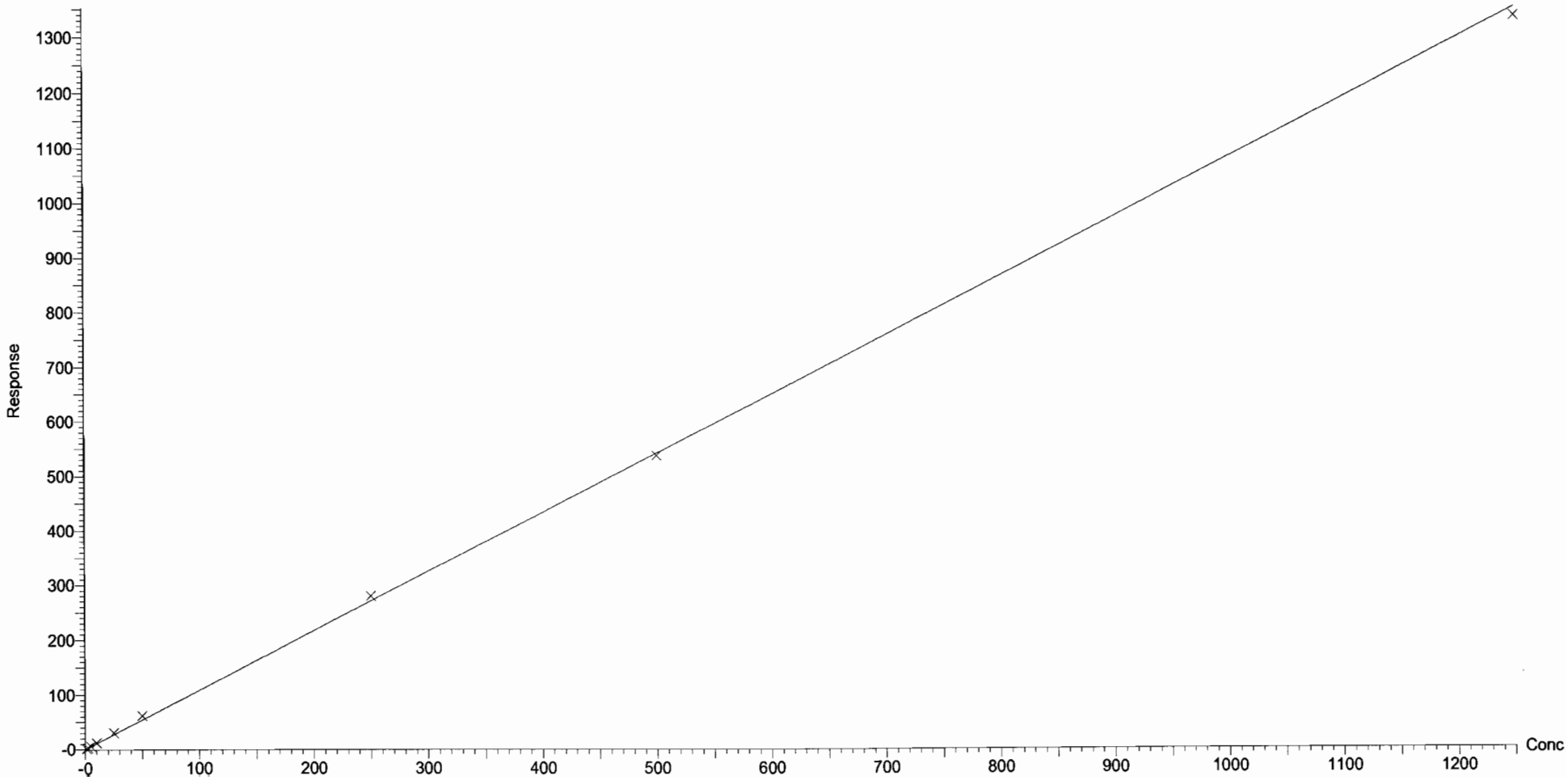
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.996727
Calibration curve: -0.00099772 * x^2 + 2.29275 * x + 0.20549
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

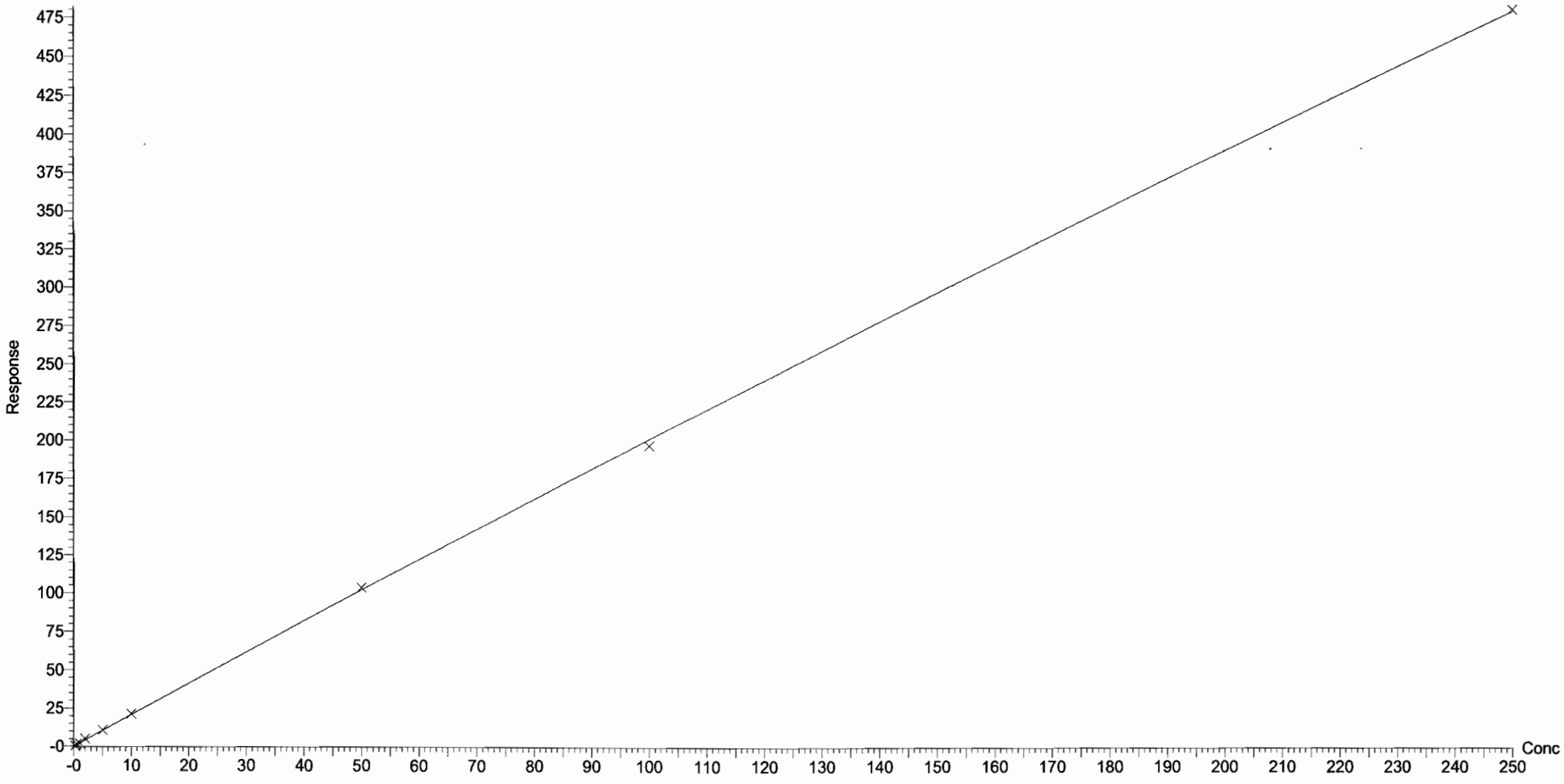
Compound name: N-MeFOSA
Correlation coefficient: r = 0.999484, r^2 = 0.998969
Calibration curve: 1.08161 * x + 0.286547
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

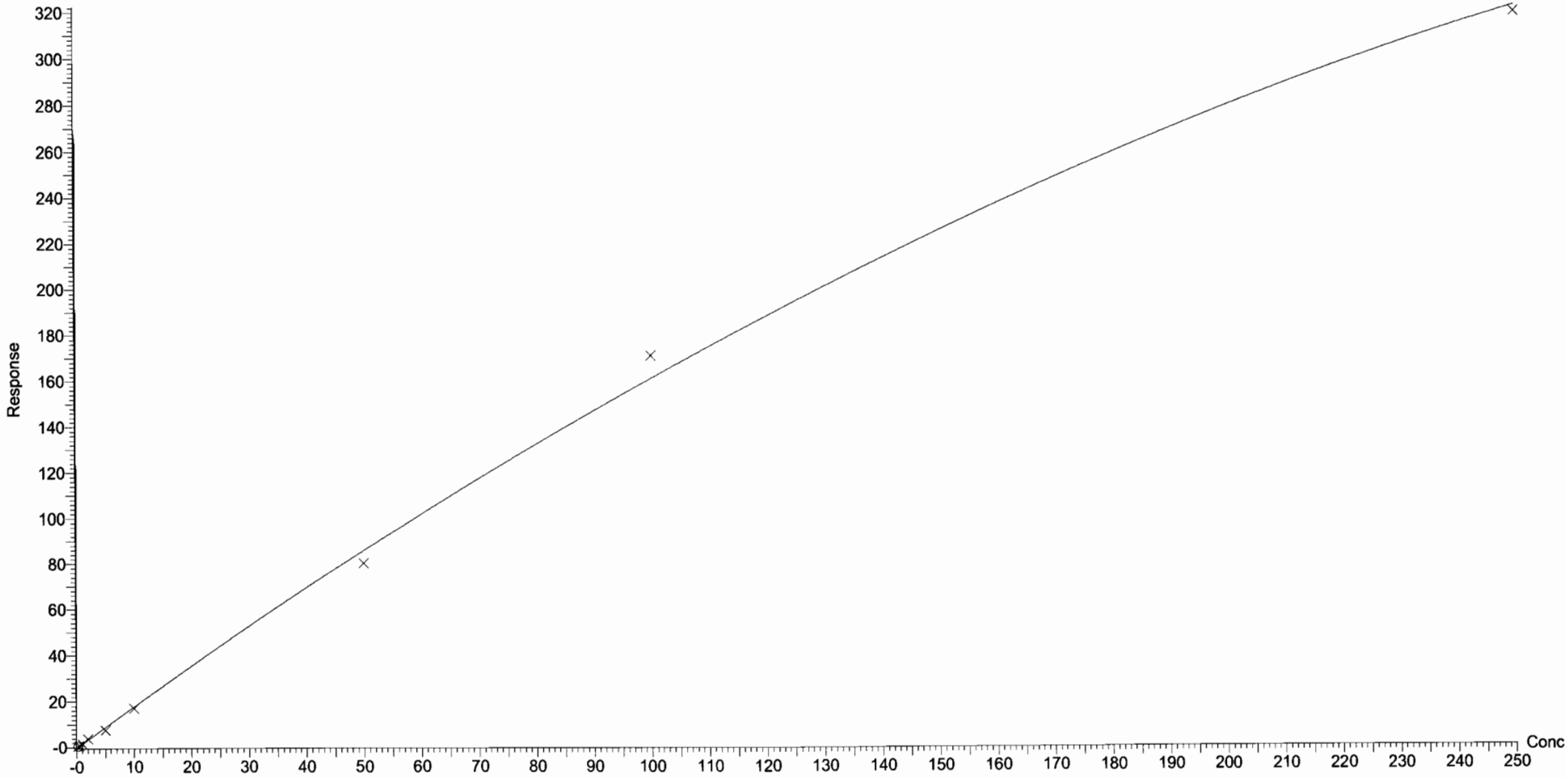
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999543
Calibration curve: -0.000584956 * x^2 + 2.0682 * x + 0.168629
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

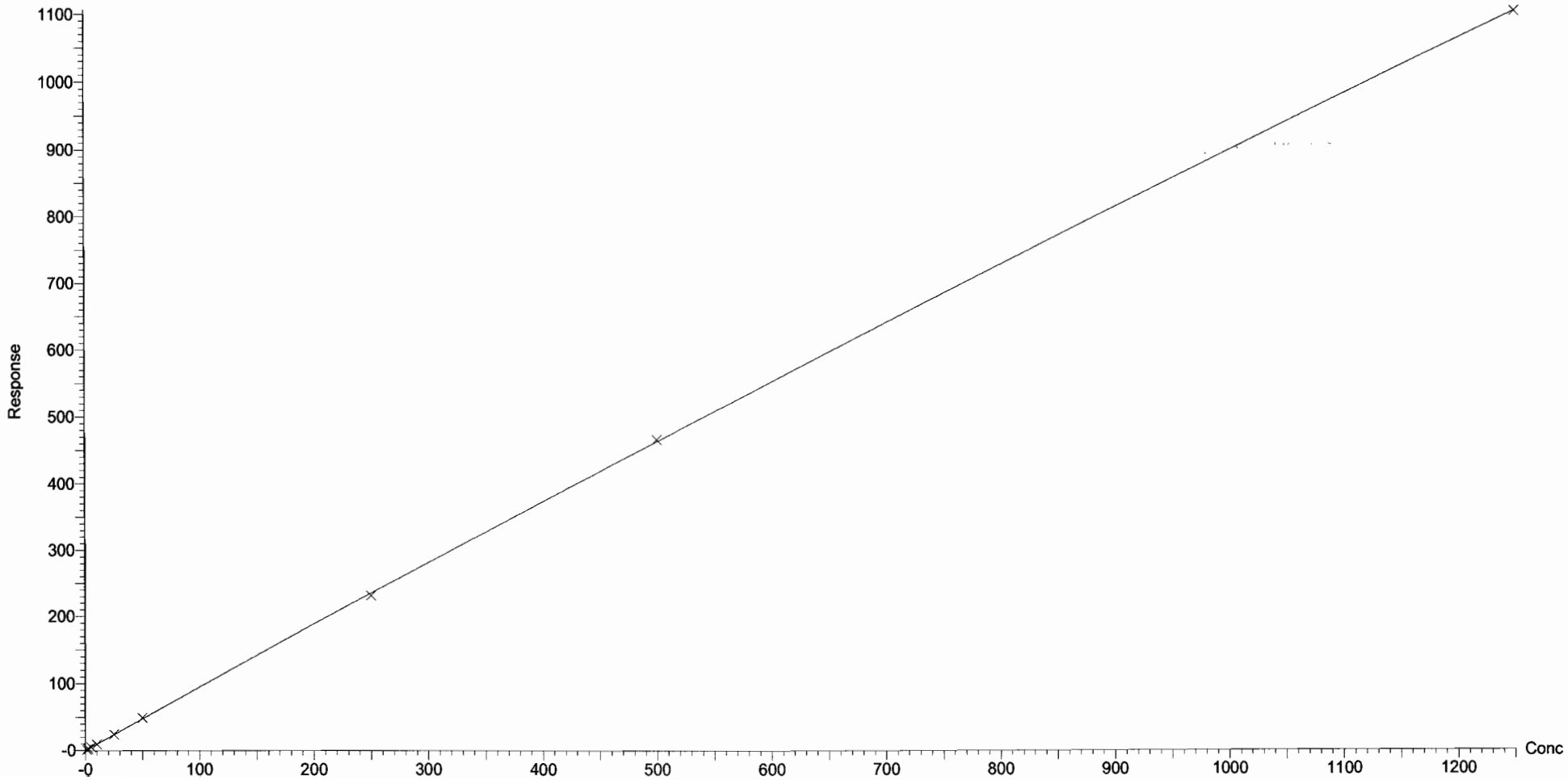
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997496
Calibration curve: -0.00214058 * x^2 + 1.82561 * x + -0.292017
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

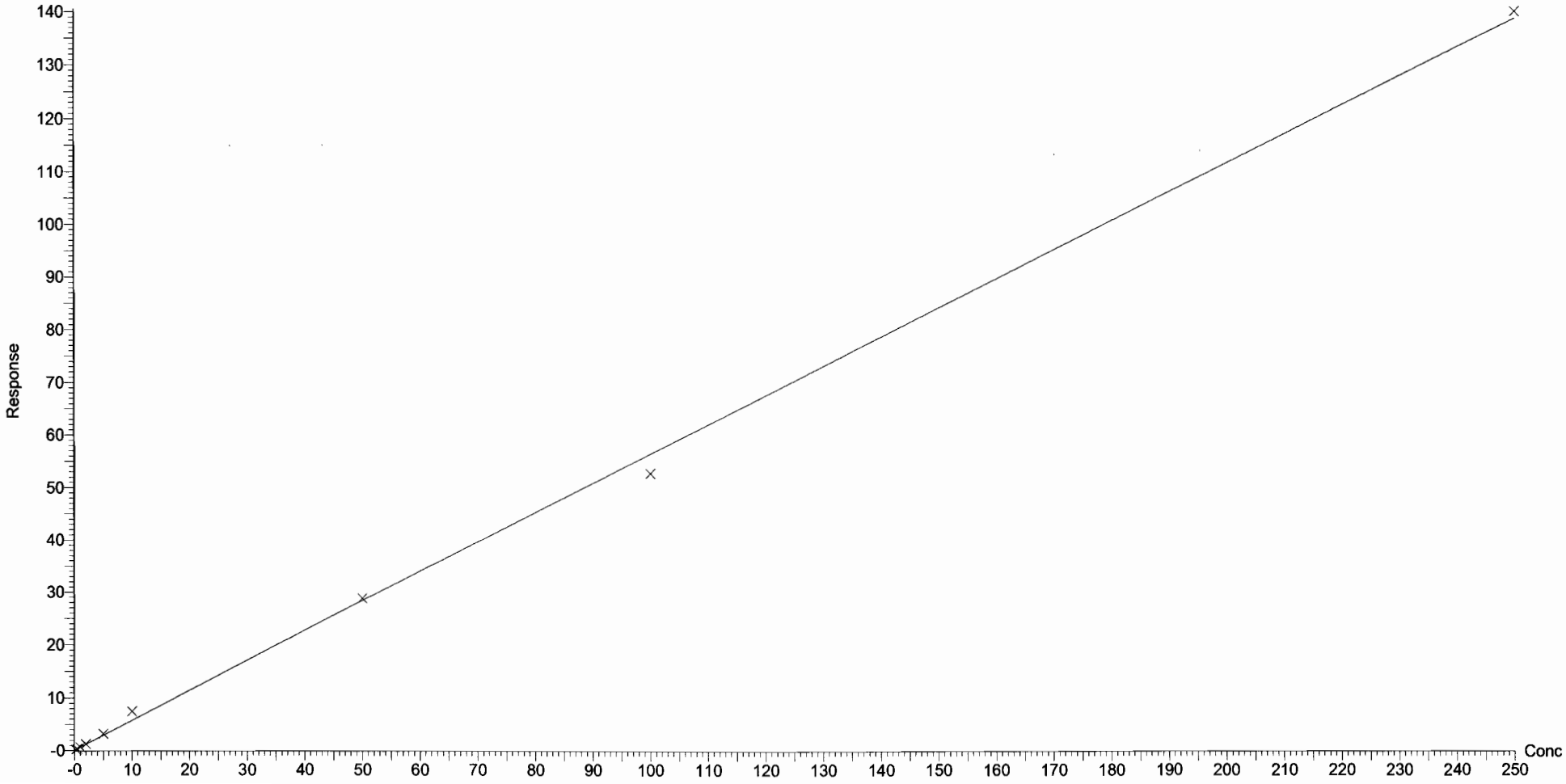
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999921
Calibration curve: -5.48088e-005 * x^2 + 0.95351 * x + -0.0378792
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

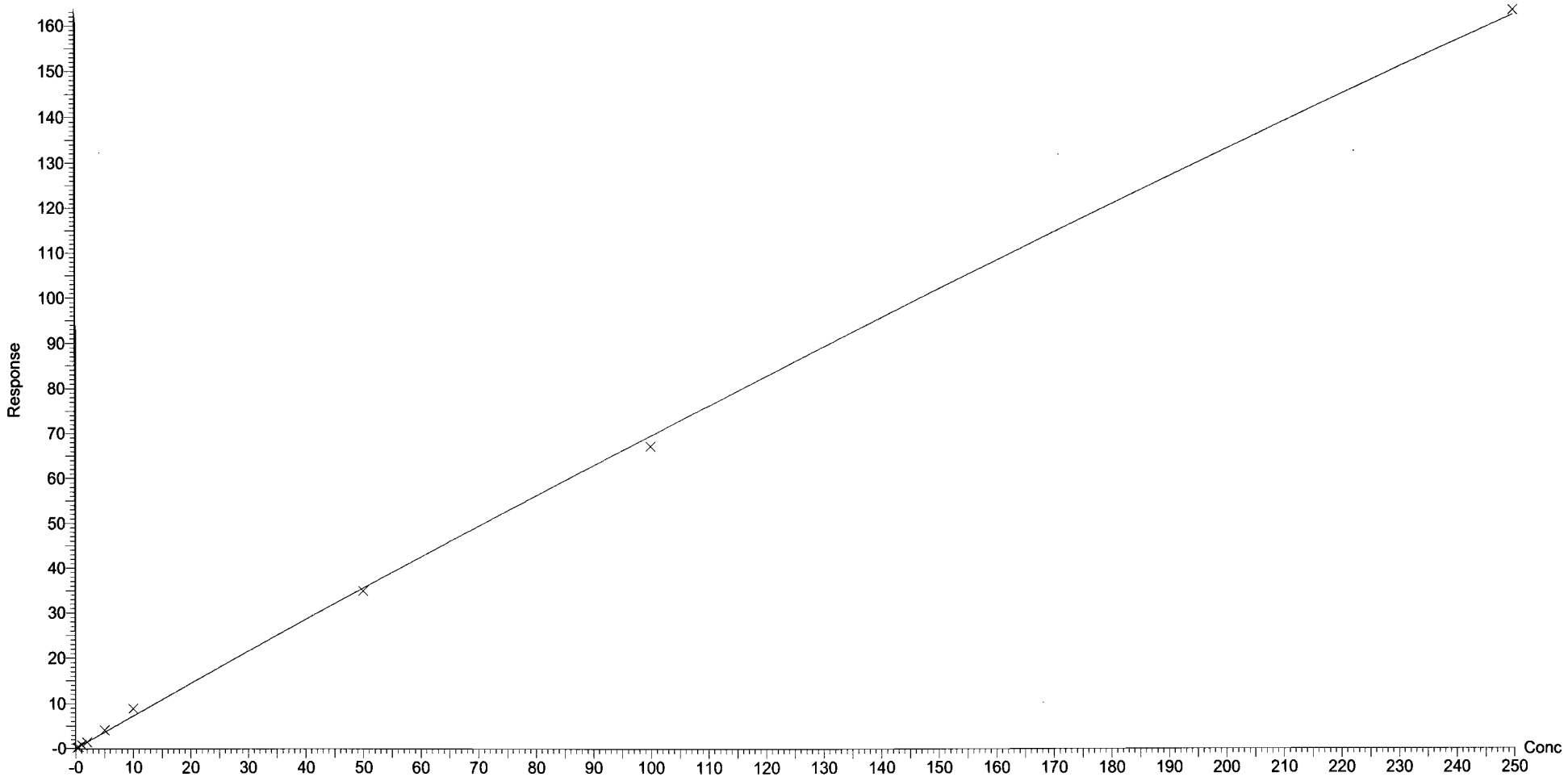
Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.996489
Calibration curve: -5.21712e-005 * x^2 + 0.569394 * x + 0.0885019
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

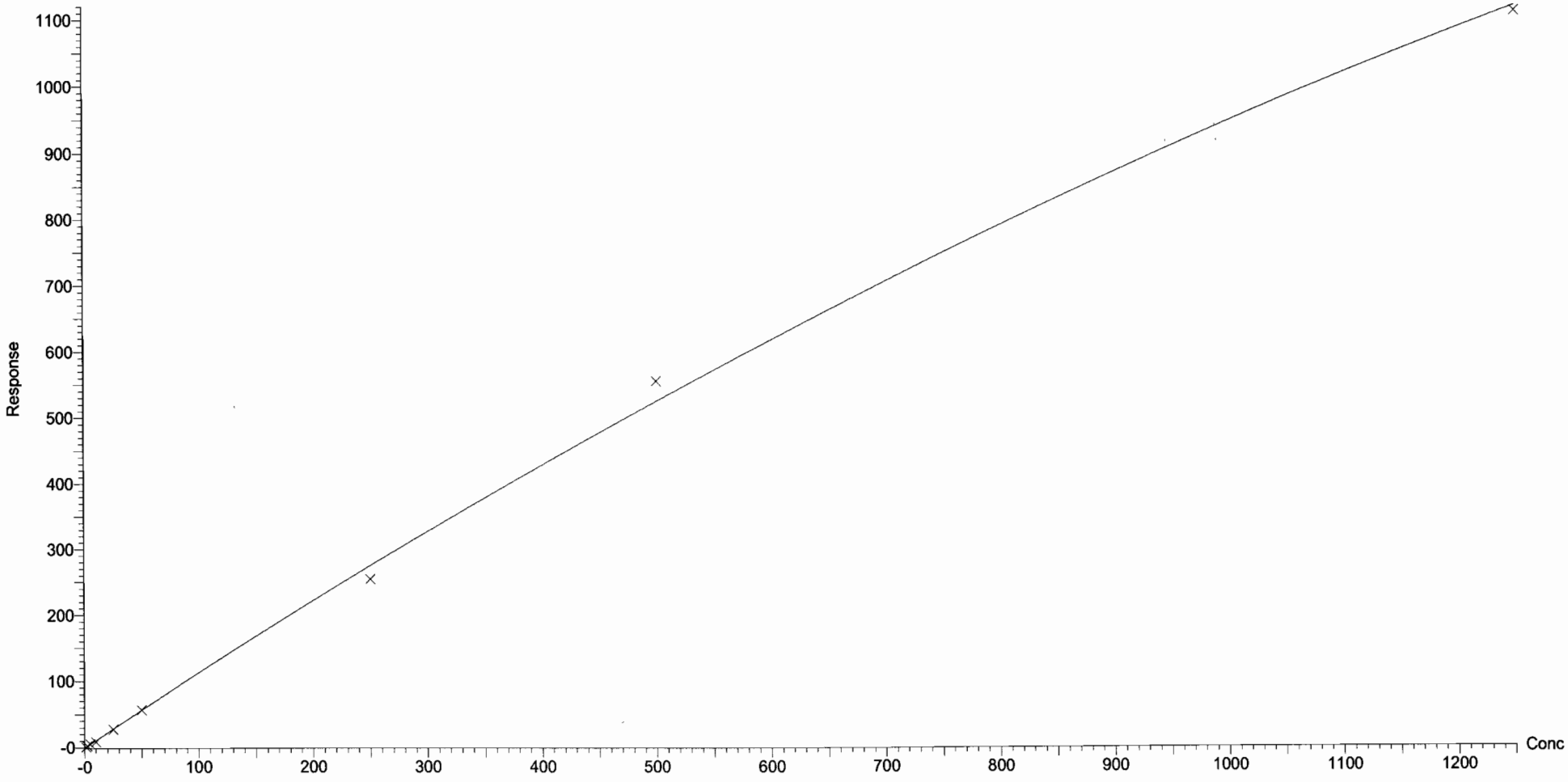
Compound name: PFODA
Coefficient of Determination: R^2 = 0.997921
Calibration curve: -0.000294559 * x^2 + 0.724527 * x + 0.0302394
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997837
Calibration curve: -0.000204768 * x^2 + 1.15269 * x + -0.639979
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

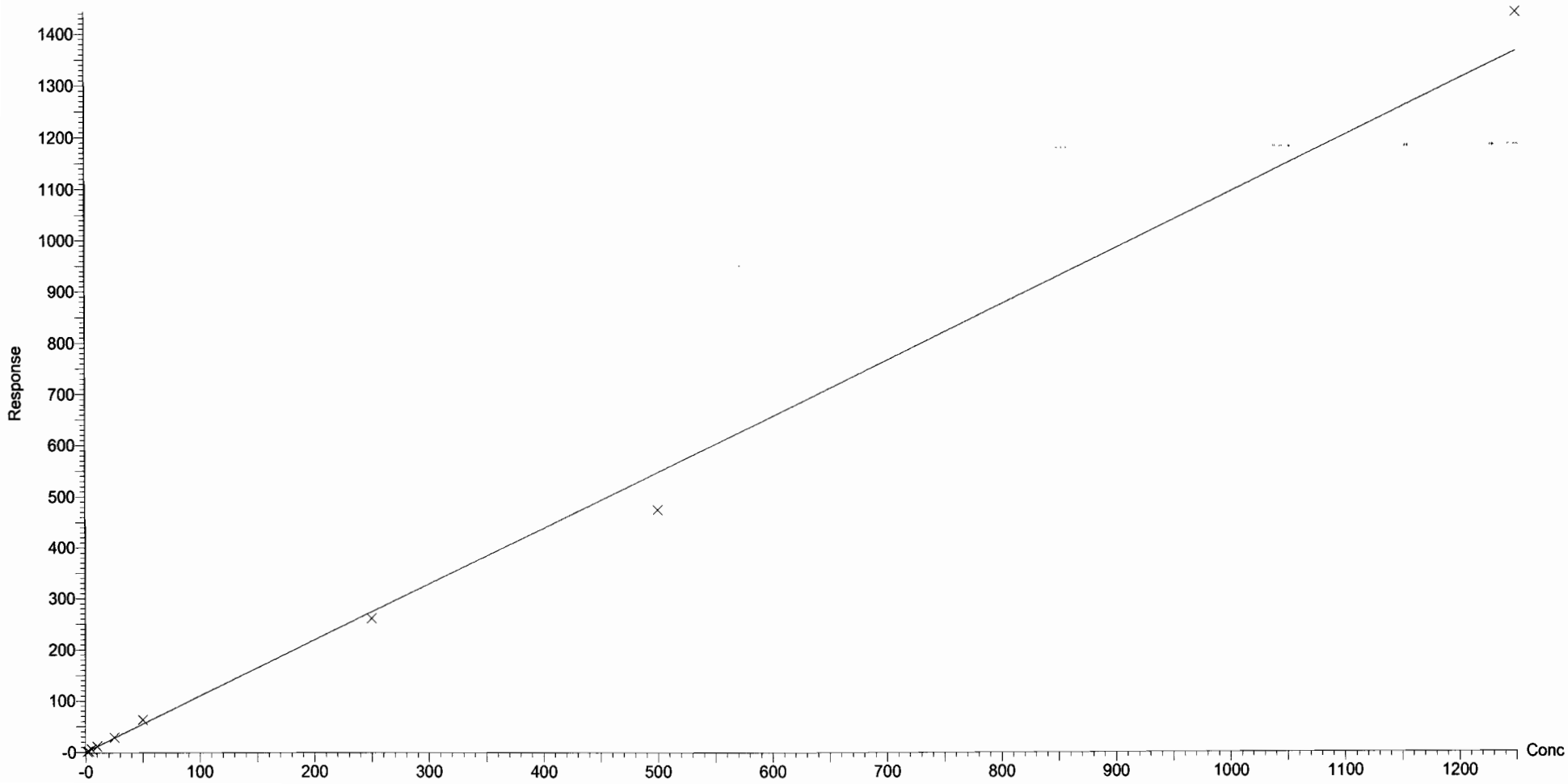


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:57:37 Pacific Standard Time

Compound name: N-EtFOSE
Correlation coefficient: r = 0.996509, r^2 = 0.993029
Calibration curve: 1.09377 * x + 0.220458
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



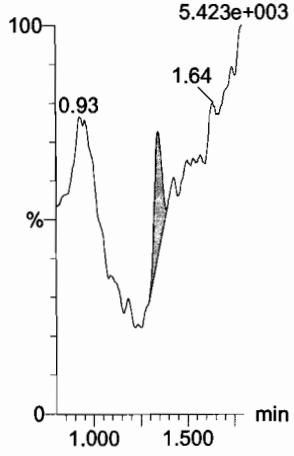
Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

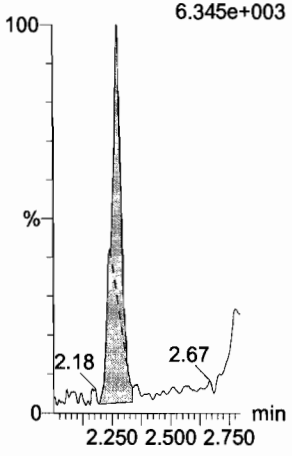
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:34:45

Name: 171209M2_2, Date: 09-Dec-2017, Time: 12:55:02, ID: ST171209M1-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

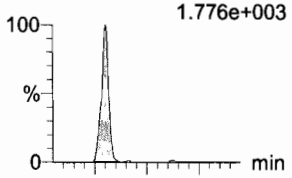
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
5.423e+003



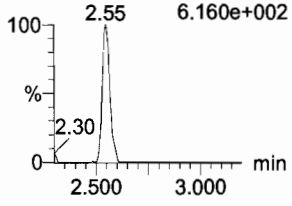
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
6.345e+003



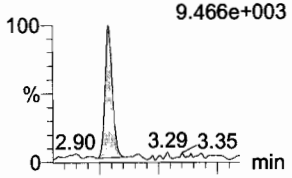
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
1.776e+003



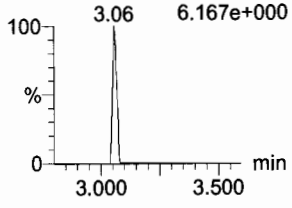
F6:MRM of 2 channels,ES-
299.0 > 99.0
6.160e+002



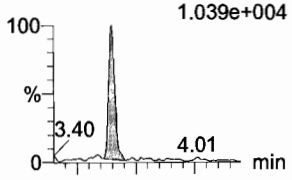
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
9.466e+003



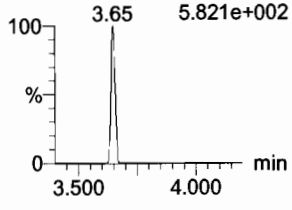
F8:MRM of 2 channels,ES-
313.2 > 119
6.167e+000



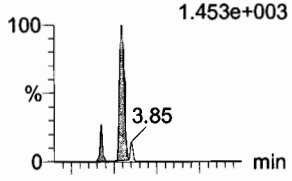
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
1.039e+004



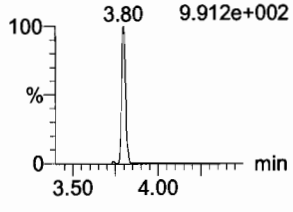
F13:MRM of 2 channels,ES-
363.0 > 169.0
5.821e+002



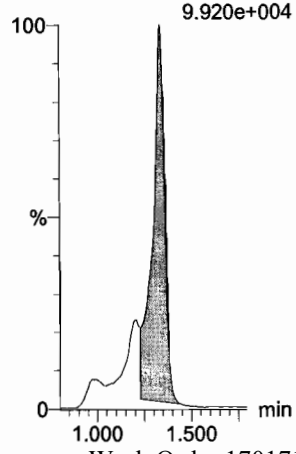
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
1.453e+003



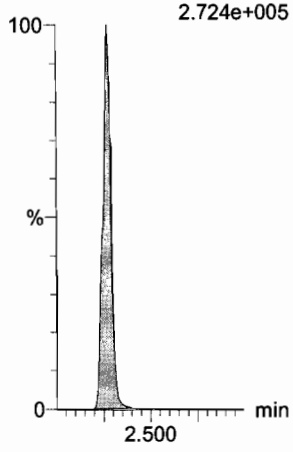
F15:MRM of 2 channels,ES-
398.9 > 99.0
9.912e+002



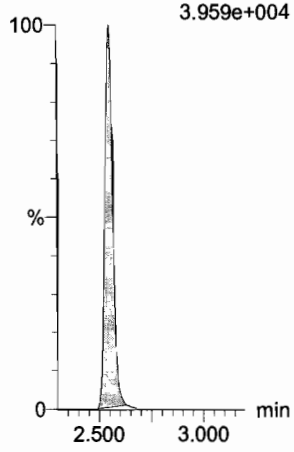
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
9.920e+004



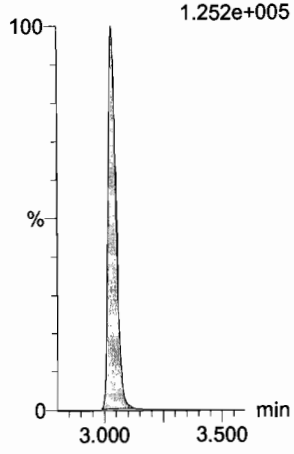
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
2.724e+005



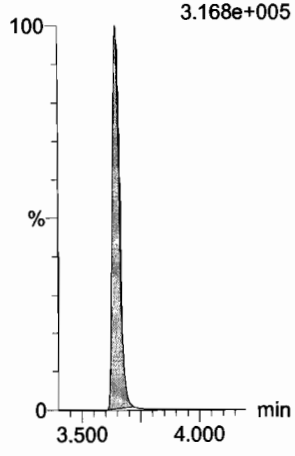
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
3.959e+004



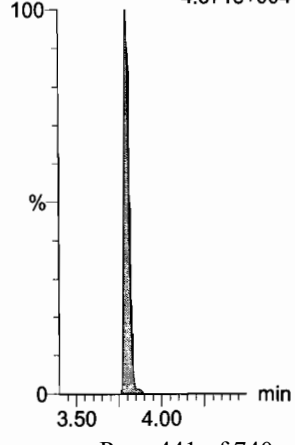
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.252e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.168e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.671e+004



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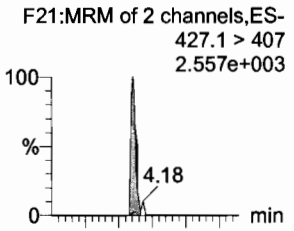
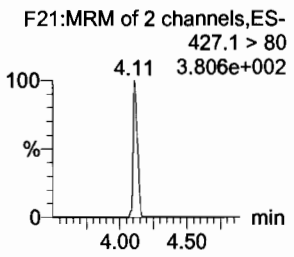
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

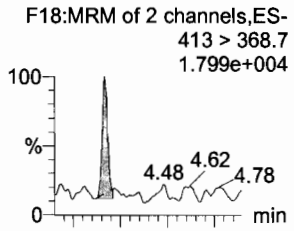
Name: 171209M2_2, Date: 09-Dec-2017, Time: 12:55:02, ID: ST171209M1-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

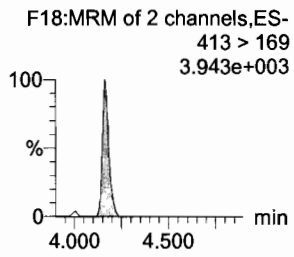
6:2 FTS



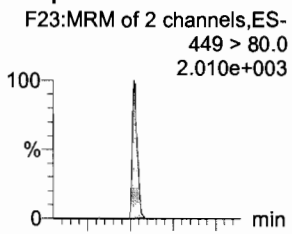


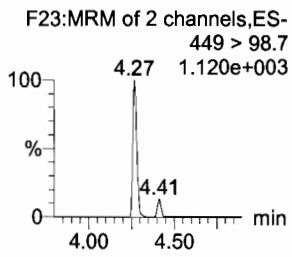
L-PFOA



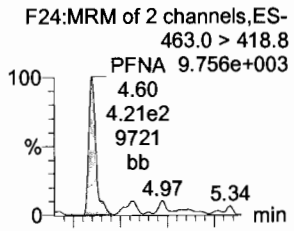


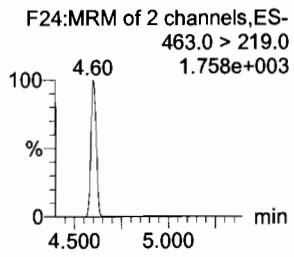
PFHpS



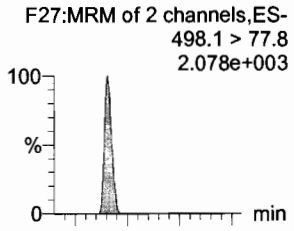


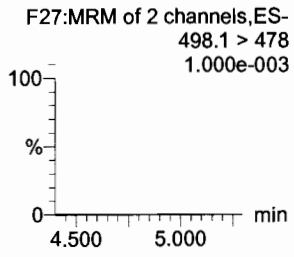
PFNA



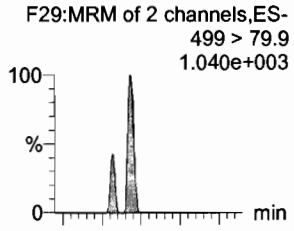


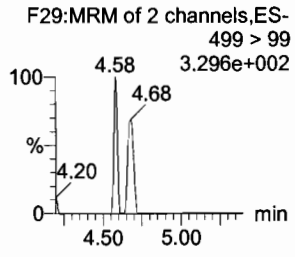
PFOSA



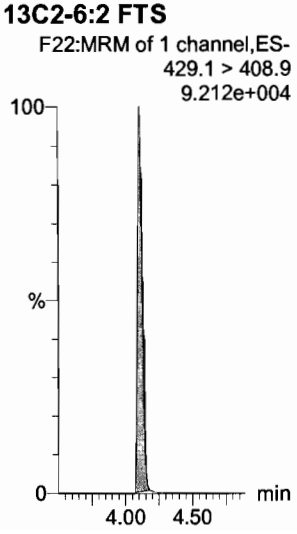


L-PFOS

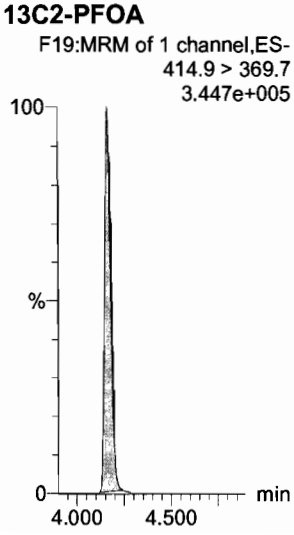




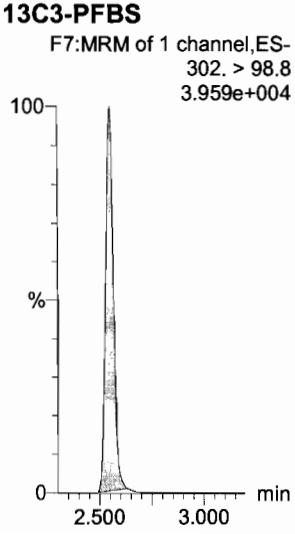
13C2-6:2 FTS



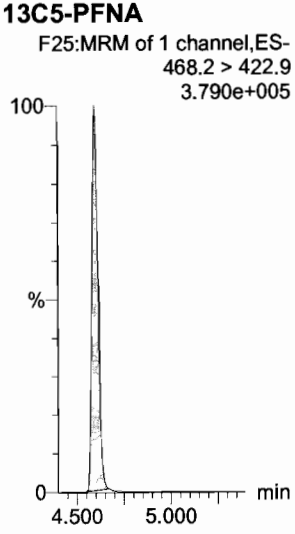
13C2-PFOA



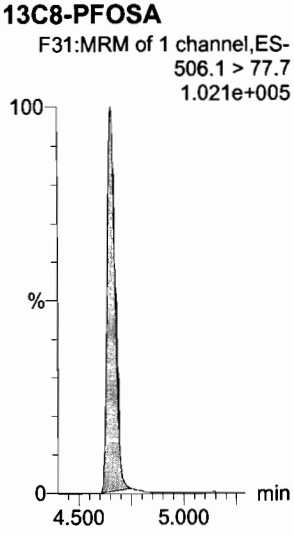
13C3-PFBS



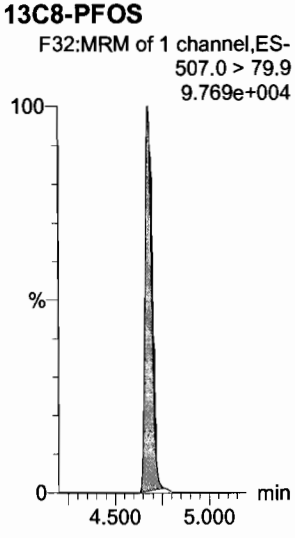
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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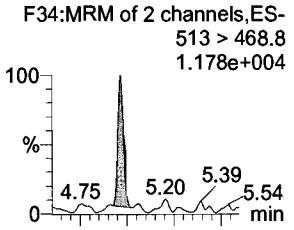
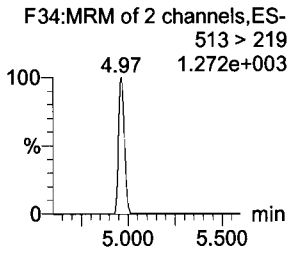
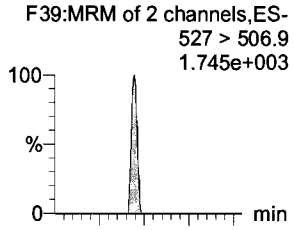
Name: 171209M2_2, Date: 09-Dec-2017, Time: 12:55:02, ID: ST171209M1-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

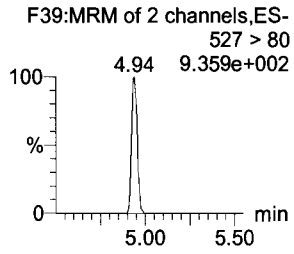
PFDA



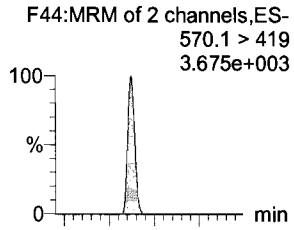


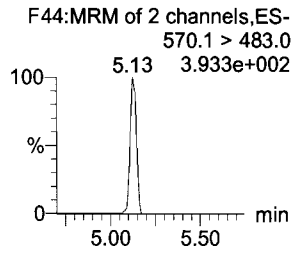
8:2 FTS



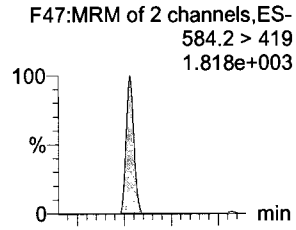


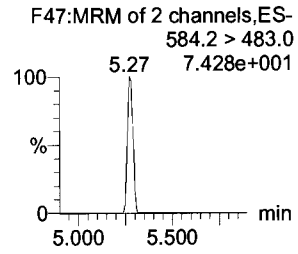
N-MeFOSAA



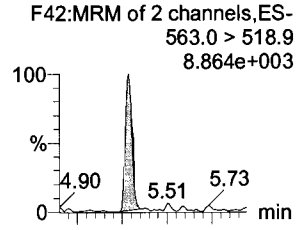


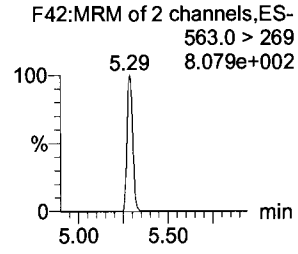
N-EtFOSAA



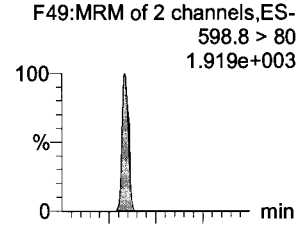


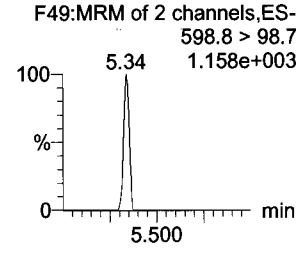
PFUdA



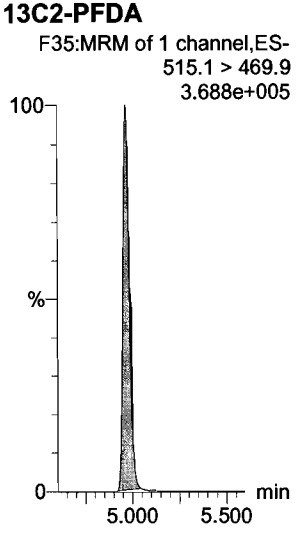


PFDS

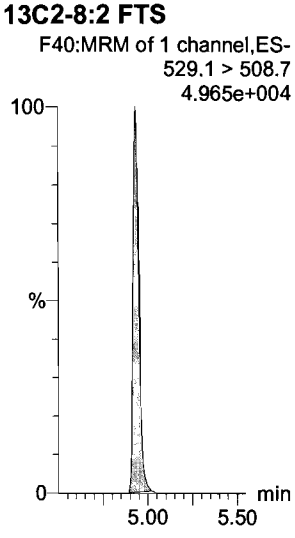




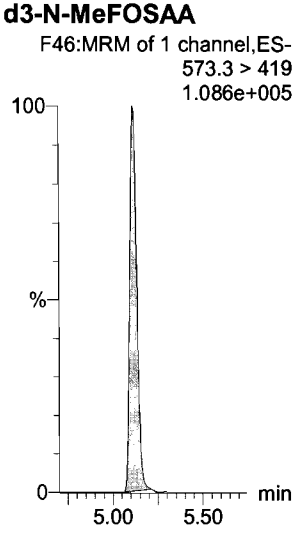
13C2-PFDA



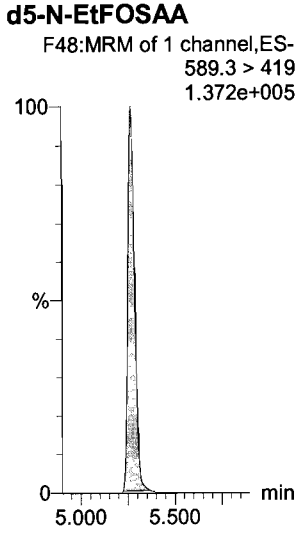
13C2-8:2 FTS



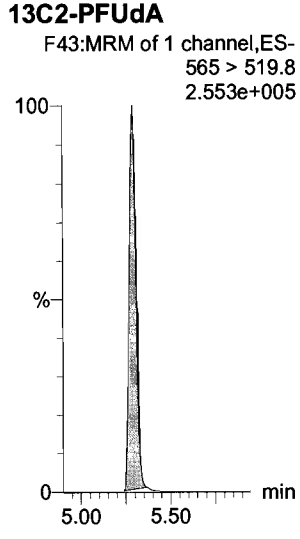
d3-N-MeFOSAA



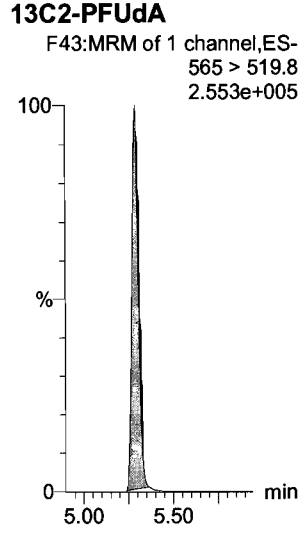
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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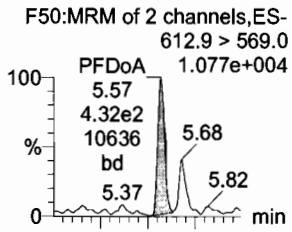
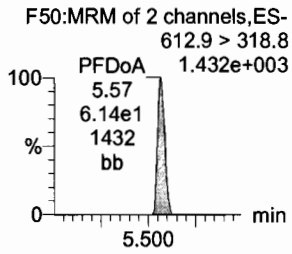
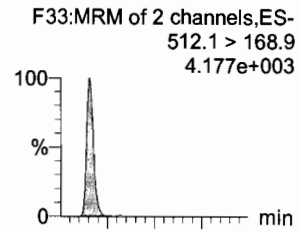
Name: 171209M2_2, Date: 09-Dec-2017, Time: 12:55:02, ID: ST171209M1-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

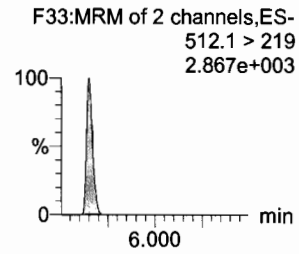
PFDoA



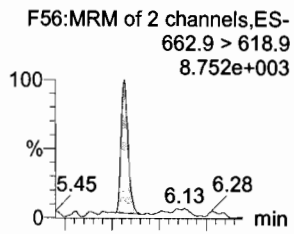


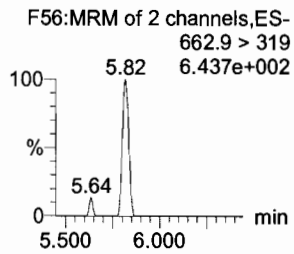
N-MeFOSA



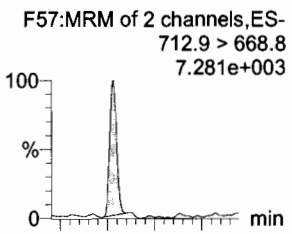


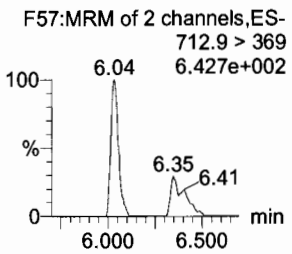
PFTrDA



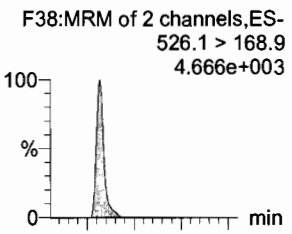


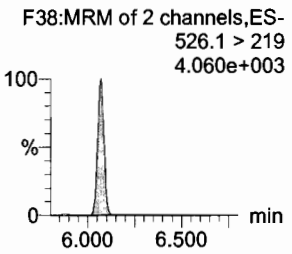
PFTeDA



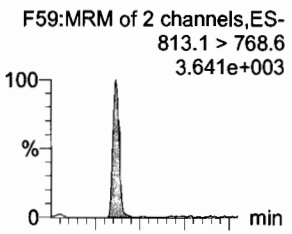


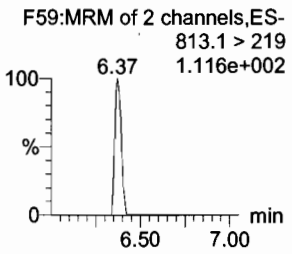
N-EtFOSA



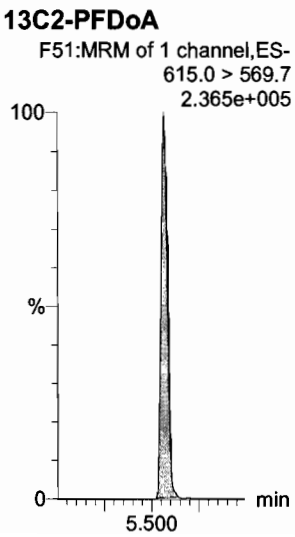


PFHxDA

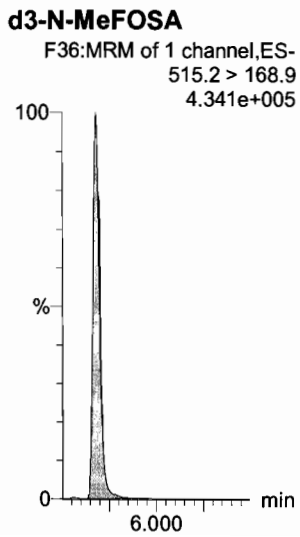




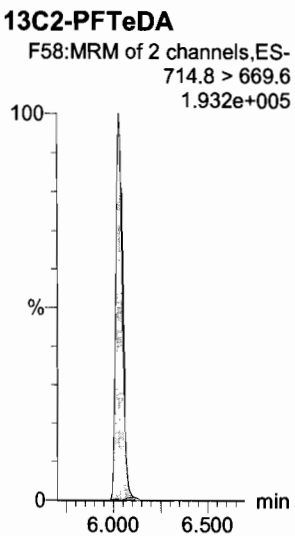
13C2-PFDoA



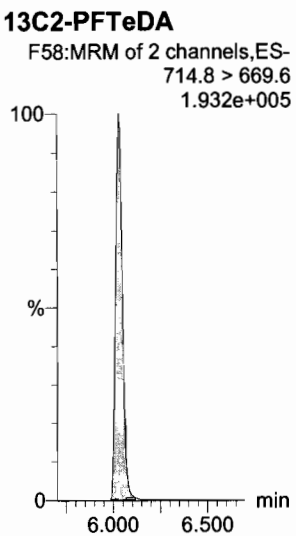
d3-N-MeFOSA



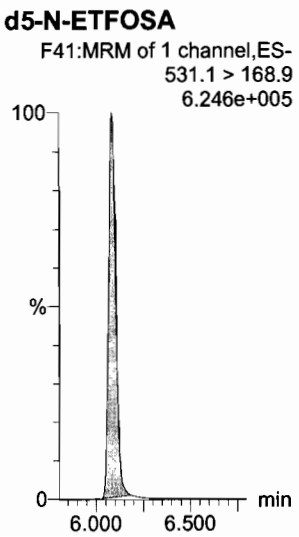
13C2-PFTeDA



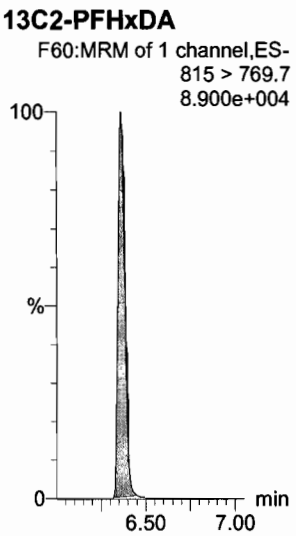
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

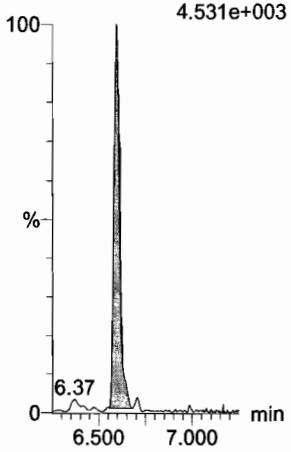


Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

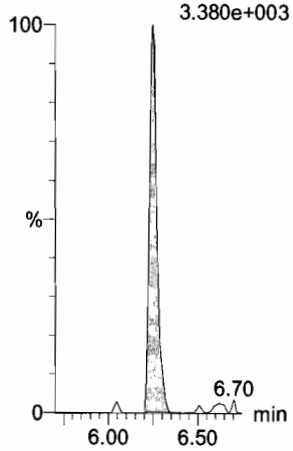
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_2, Date: 09-Dec-2017, Time: 12:55:02, ID: ST171209M1-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

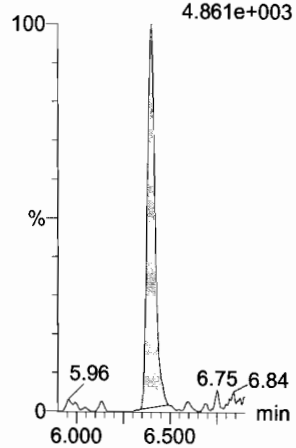
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
4.531e+003



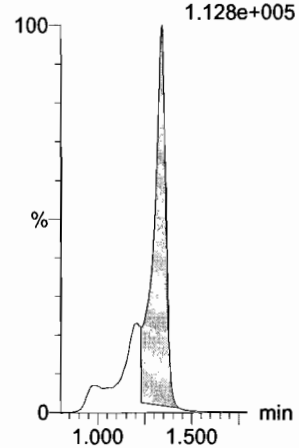
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.380e+003



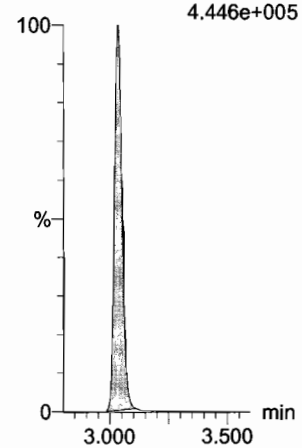
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.861e+003



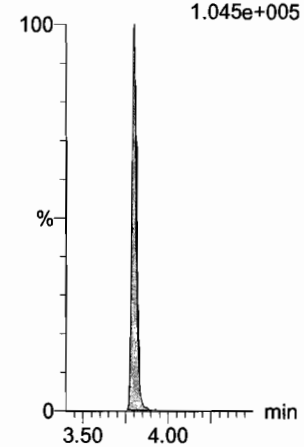
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.128e+005



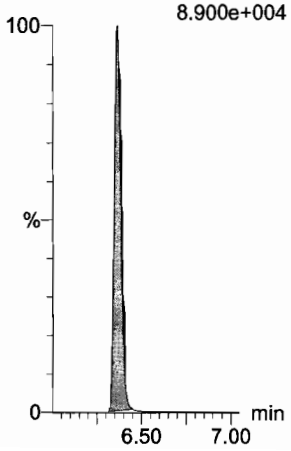
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.446e+005



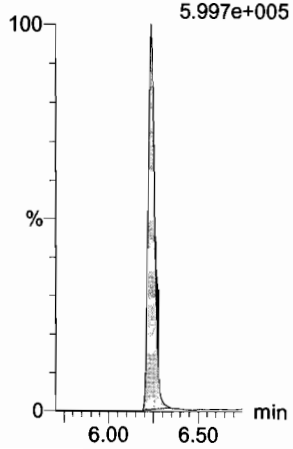
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.045e+005



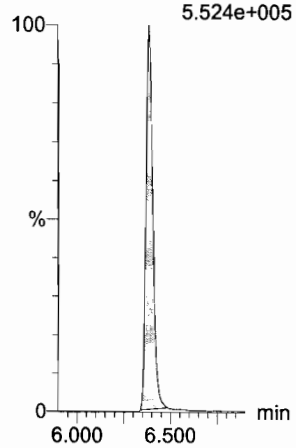
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.900e+004



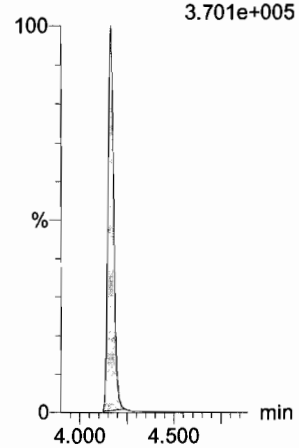
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.997e+005



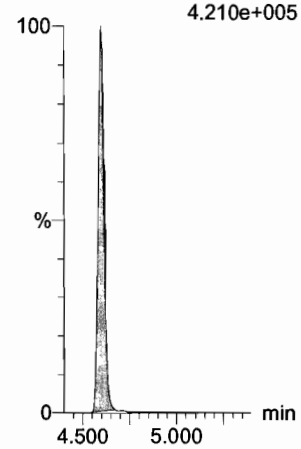
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.524e+005



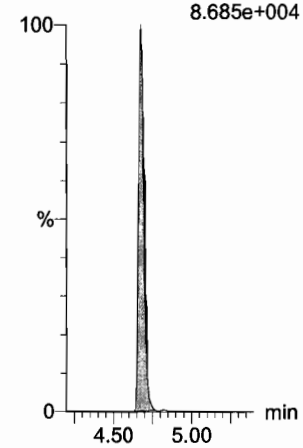
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.701e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.210e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.685e+004

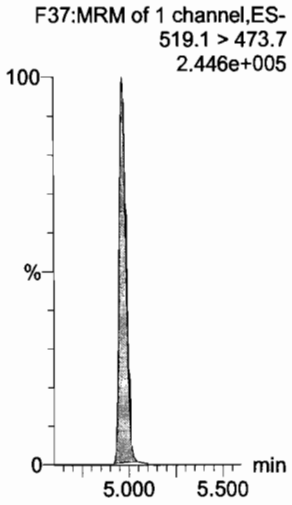


Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

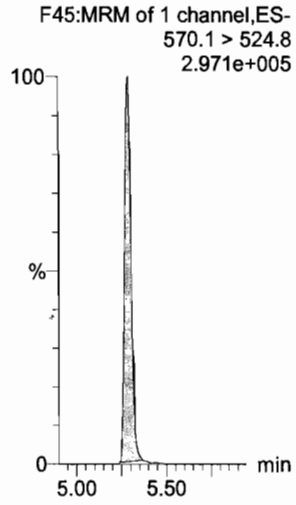
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_2, Date: 09-Dec-2017, Time: 12:55:02, ID: ST171209M1-1 PFC CS-2 17K2806, Description: PFC CS-2 17K2806

13C6-PFDA



13C7-PFUdA

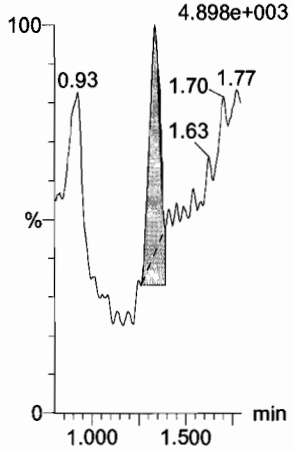


Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

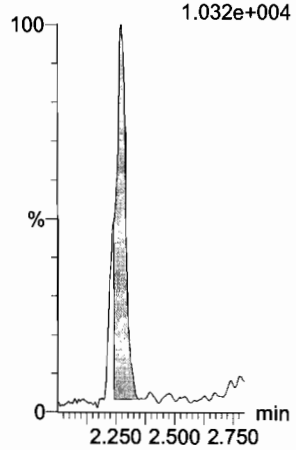
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_3, Date: 09-Dec-2017, Time: 13:06:13, ID: ST171209M1-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

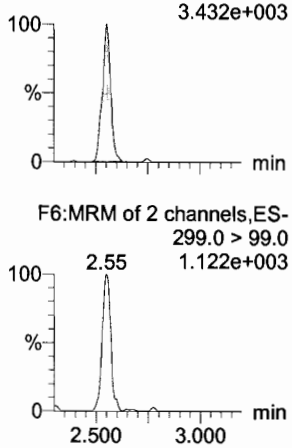
PFBA



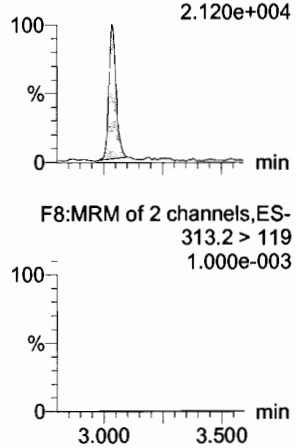
PFPeA



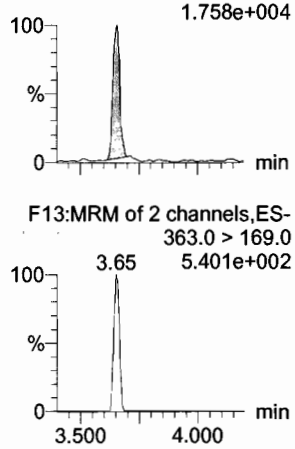
PFBS



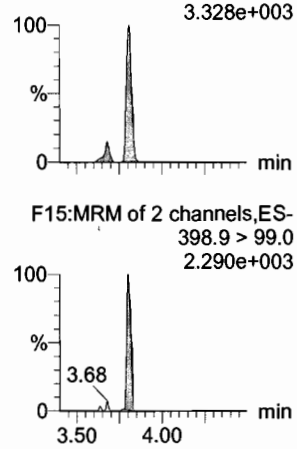
PFHxA



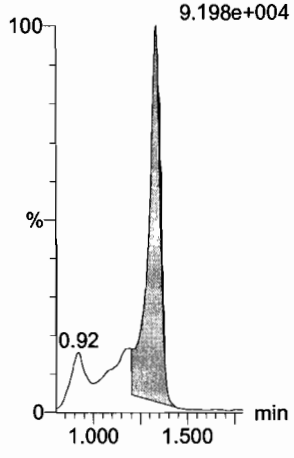
PFHpA



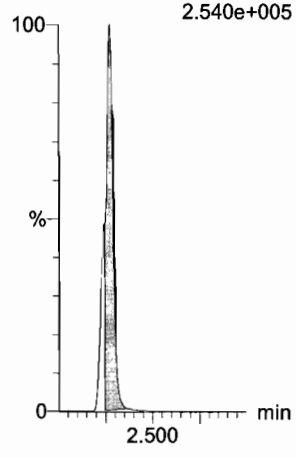
L-PFHxS



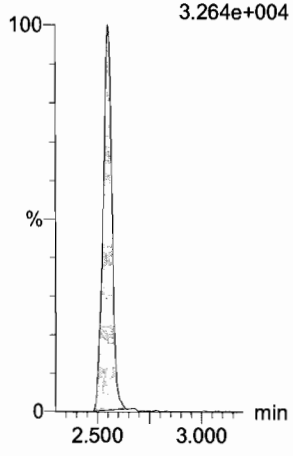
13C3-PFBA



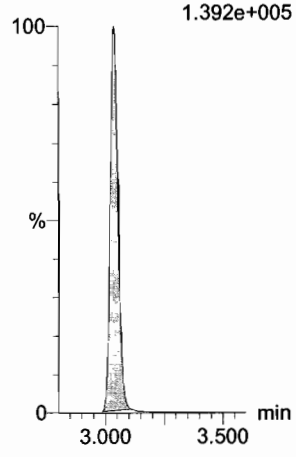
13C3-PFPeA



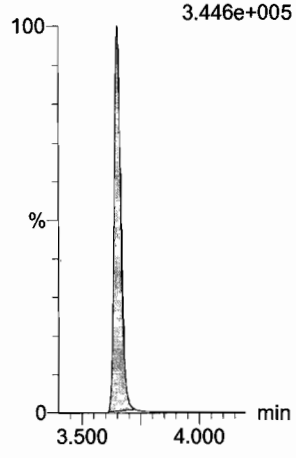
13C3-PFBS



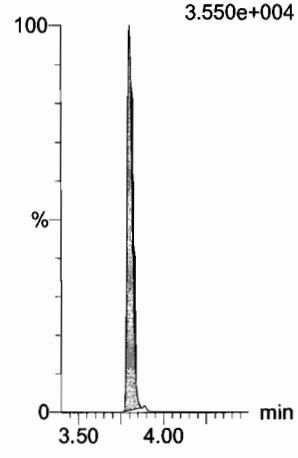
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

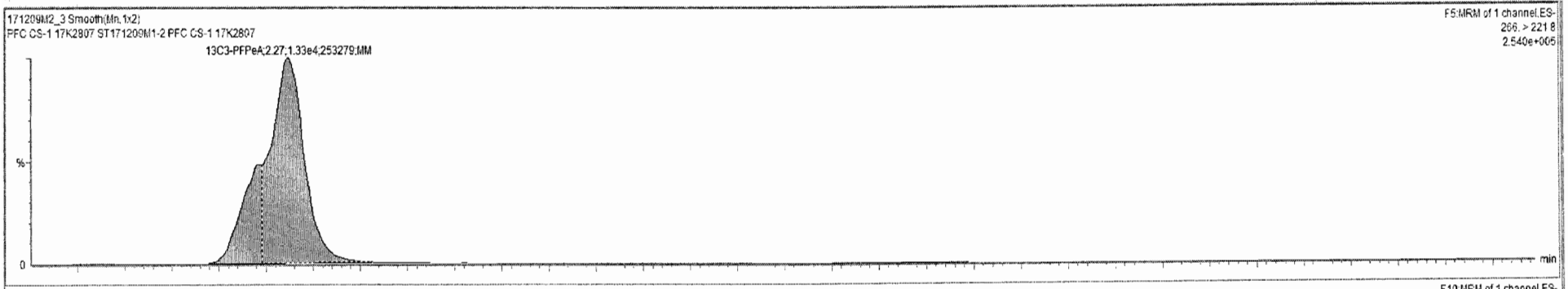


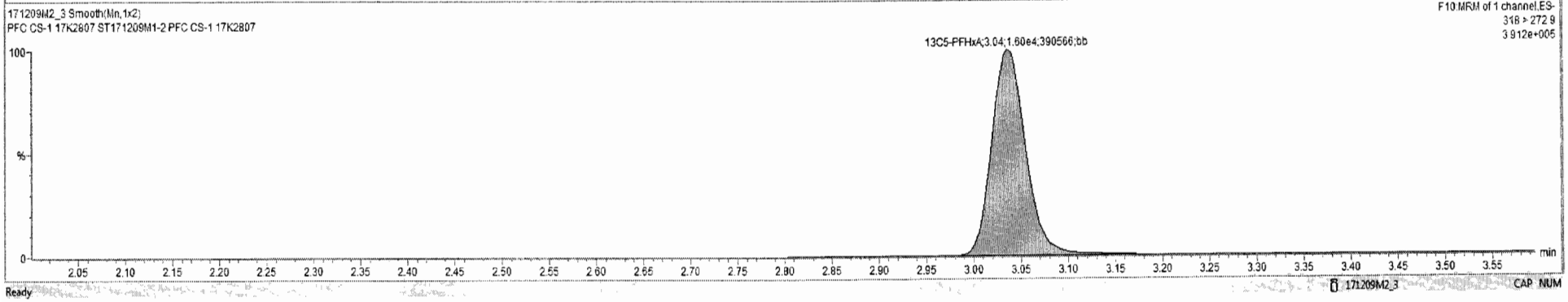
TargetLynx XS - 171209M2-CRV - [Chromatogram]

File Edit View Display Processing Window Help

171209M2_3 : ST171209M1-2 PFC CS-1 17K2807 , PFC CS-1 17K2807

	Name	RT	Resp	IS Resp	Conc.	%Dev	RRF %RSD	RRF Mean	RRF SD	Coeff. Of D...	CD Flag	Conc. Dev. Allowed
1	PFBA	1.34	2.21e2	6.64e3	0.367	-26.5				0.9965	NO	0.000
2	PFPeA	2.27	4.48e2	1.33e4	0.386	-22.3				0.9967	NO	0.000
3	PFBS	2.55	1.58e2	1.61e3	0.542	8.4				0.9993	NO	0.000
4	PFHxA	3.04	7.57e2	5.25e3	0.347	-30.7				0.9965	NO	0.000
5	PFHpA	3.86	5.64e2	1.10e4	0.412	-17.6				0.9973	NO	0.000
6	L-PFHxS	3.81	1.36e2	1.23e3	0.477	-4.7				0.9984	NO	0.000
7	Br-PFHxS			1.23e3						0.9987	NO	0.000
8	6:2 FTS	4.12	8.42e1	3.51e3	0.563	12.7				0.9975	NO	0.000
9	L-PFOA	4.17	7.30e2	1.41e4	0.327	-34.6				0.9954	NO	0.000
10	Br-PFOA			1.41e4						1.0000	NO	0.000
11	PFHpS	4.28	1.18e2	1.41e4	0.425	-15.0				0.9989	NO	0.000
12	PFNA	4.60	6.42e2	1.47e4	0.361	-27.7				0.9992	NO	0.000
13	PFOSA	4.66	2.33e2	5.14e3	0.538	7.5				0.9976	NO	0.000
14	L-PFOS	4.69	1.61e2	3.63e3	0.532	6.5				0.9962	NO	0.000
15	Br-PFOS			3.63e3						0.9982	NO	0.000
16	PFDA	4.98	6.39e2	1.18e4	0.548	9.6				0.9990	NO	0.000
17	8:2 FTS	4.95	1.42e2	1.92e3	0.468	-6.3				0.9983	NO	0.000
18	N-MeFOSAA	5.13	3.22e2	5.35e3	0.440	-11.9				0.9987	NO	0.000





Ready 171209M2_3 CAP NUM

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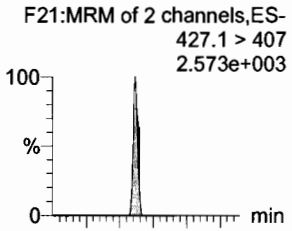
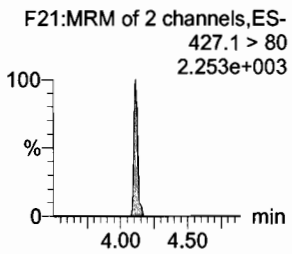
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_3, Date: 09-Dec-2017, Time: 13:06:13, ID: ST171209M1-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

6:2 FTS





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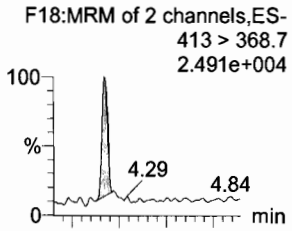

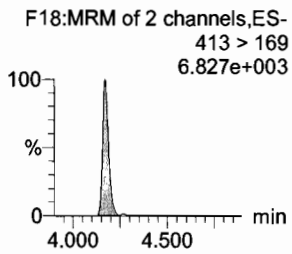

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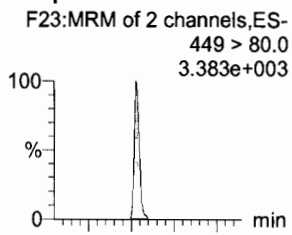

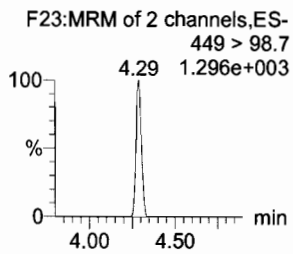

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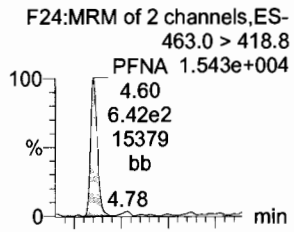

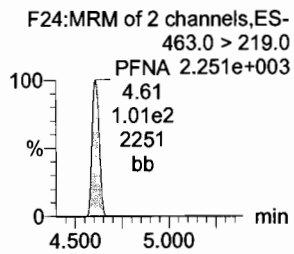

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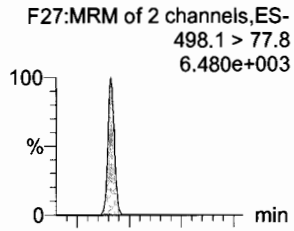

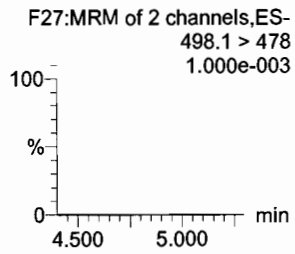

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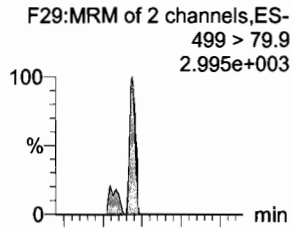

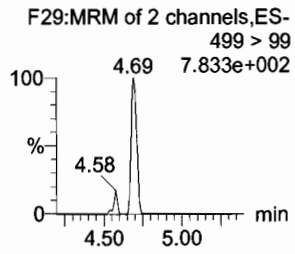

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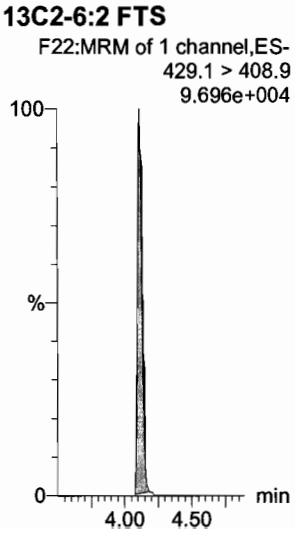

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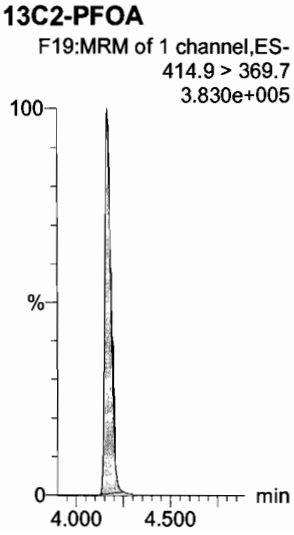

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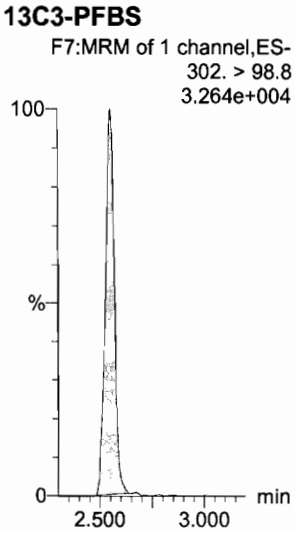

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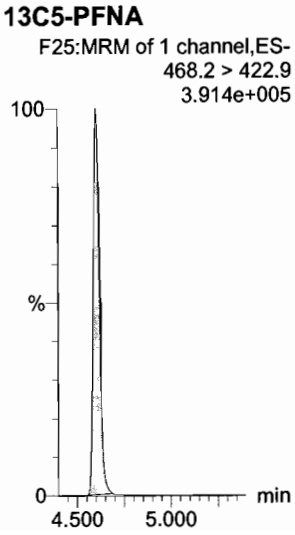

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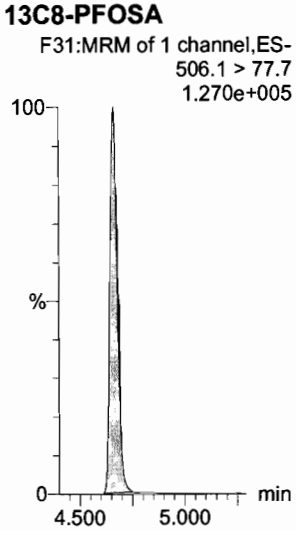

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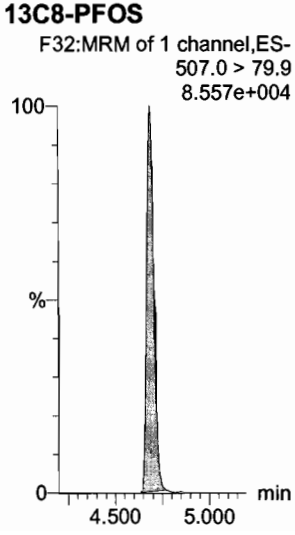

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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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Name: 171209M2_3, Date: 09-Dec-2017, Time: 13:06:13, ID: ST171209M1-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

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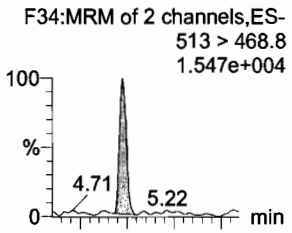
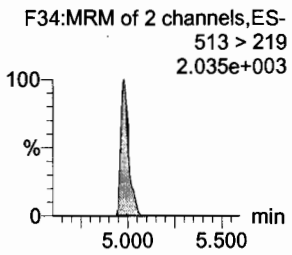
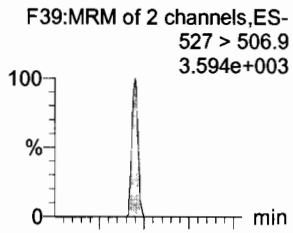
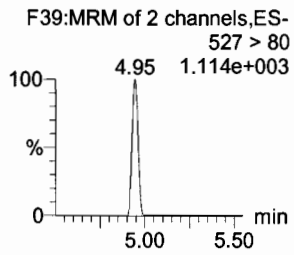




8:2 FTS





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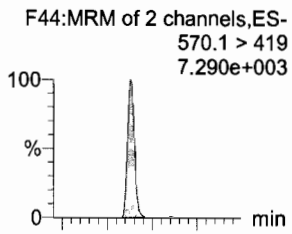

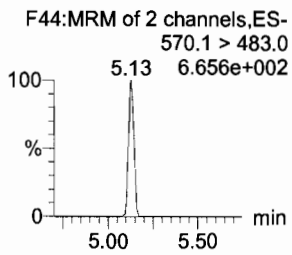

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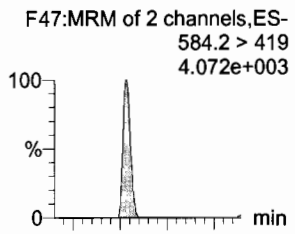

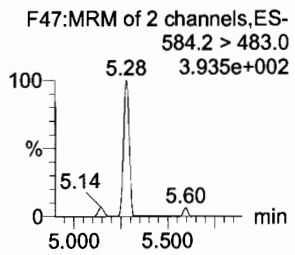

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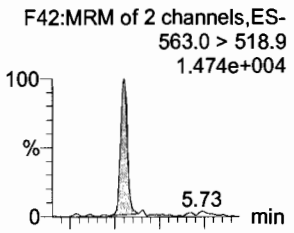

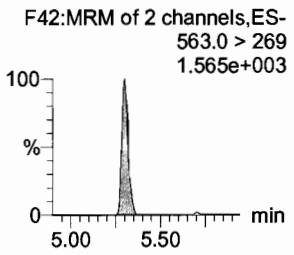

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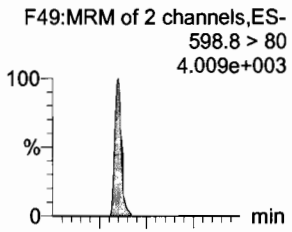

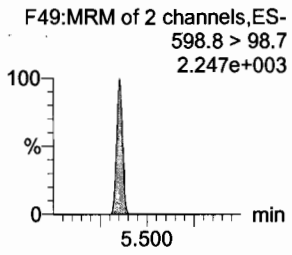

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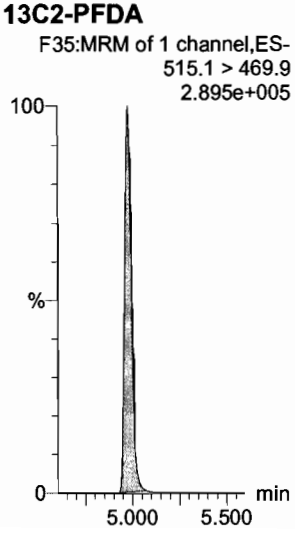

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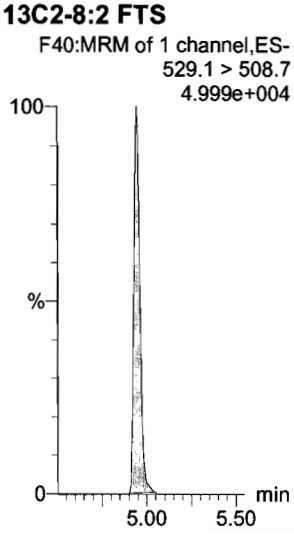

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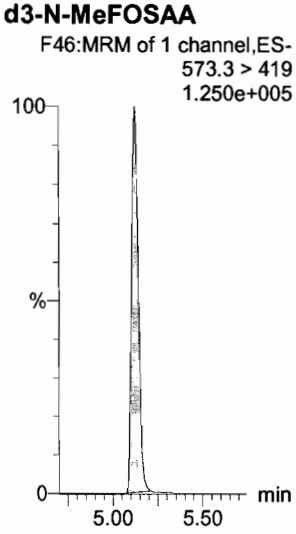

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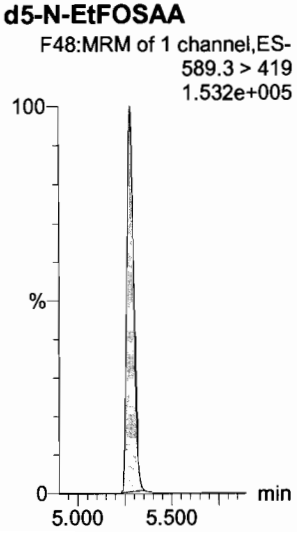

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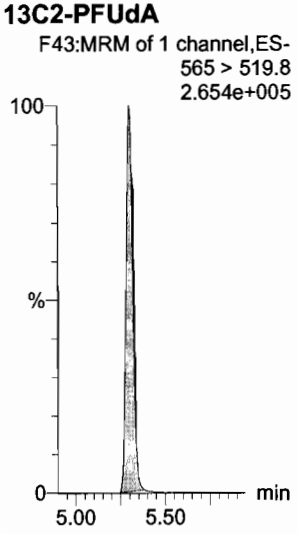

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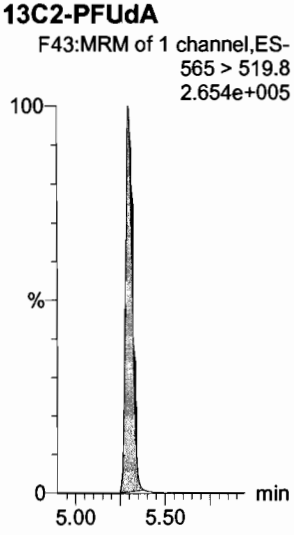

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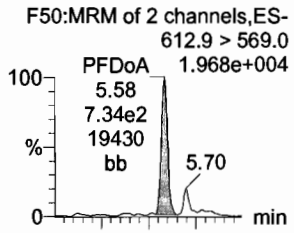
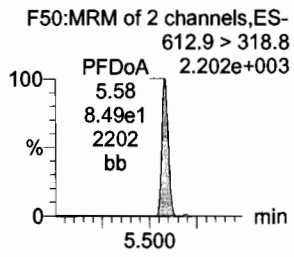
Name: 171209M2_3, Date: 09-Dec-2017, Time: 13:06:13, ID: ST171209M1-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

PFDoA





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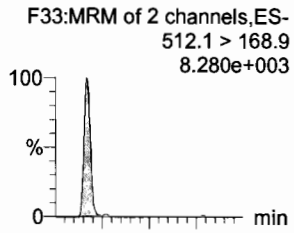

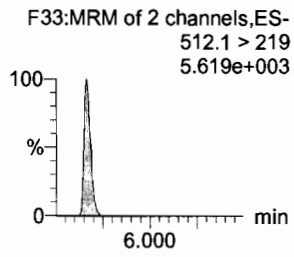

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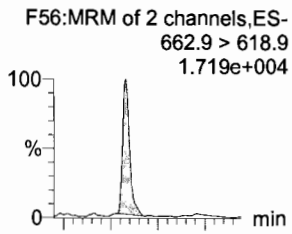

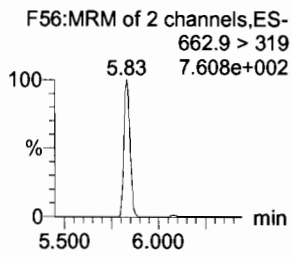

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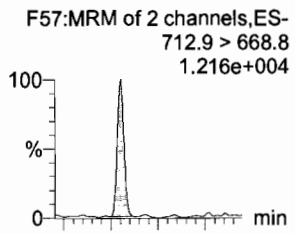

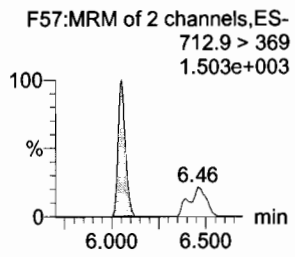

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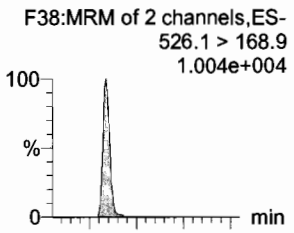

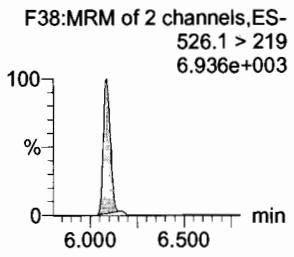

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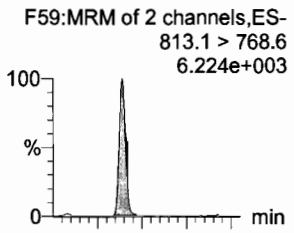

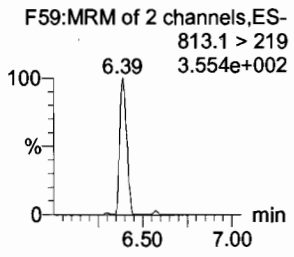

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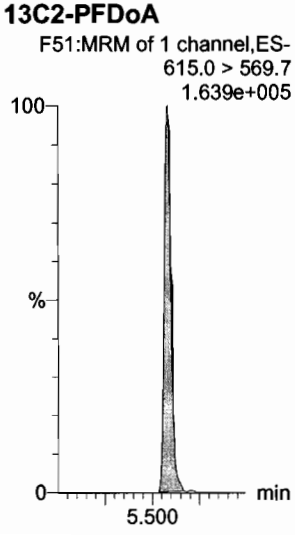

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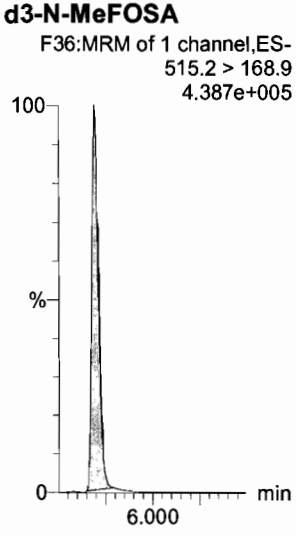

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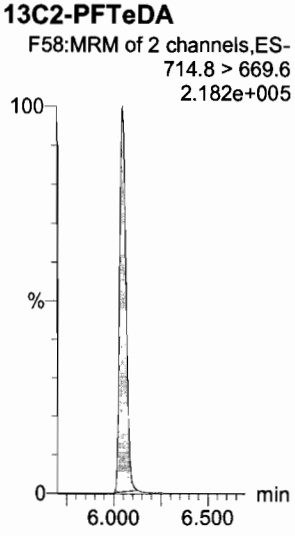
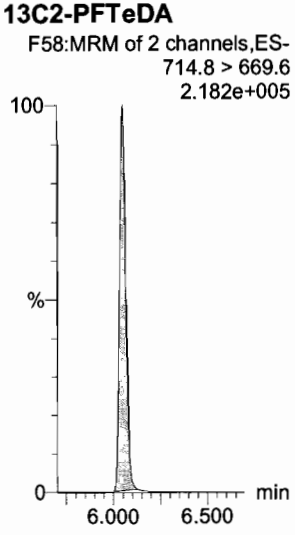
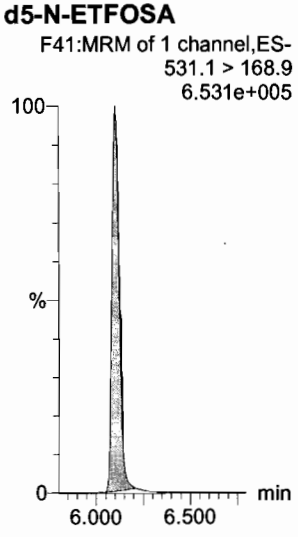


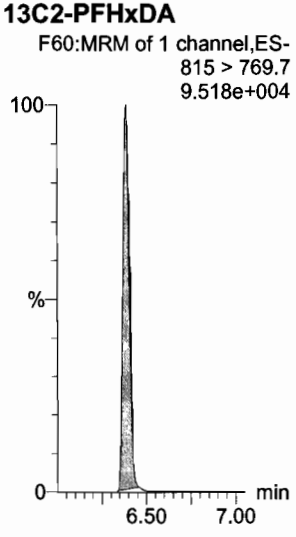
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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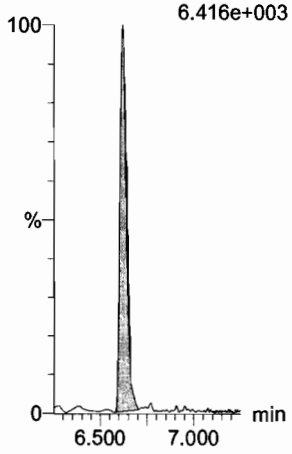
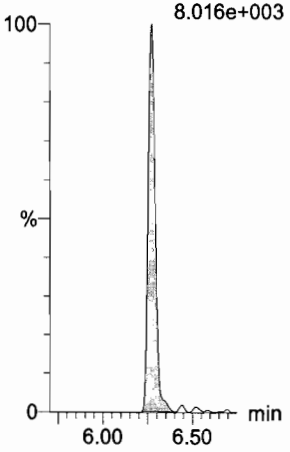
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_3, Date: 09-Dec-2017, Time: 13:06:13, ID: ST171209M1-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

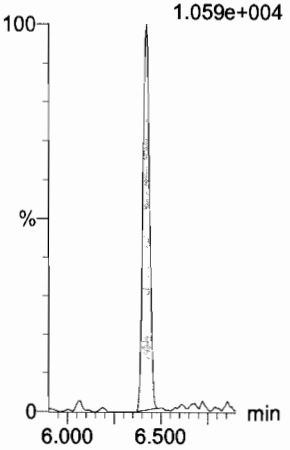
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
6.416e+003



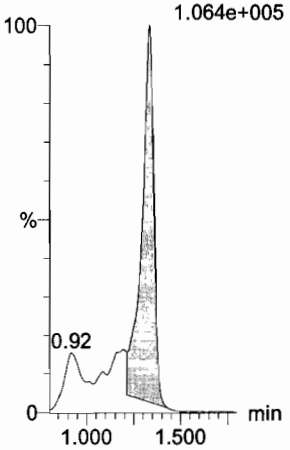
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
8.016e+003



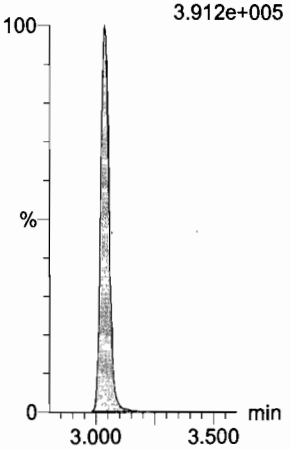
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.059e+004



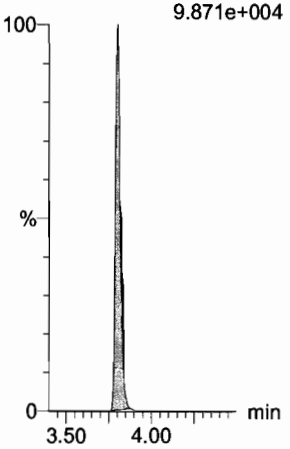
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.064e+005



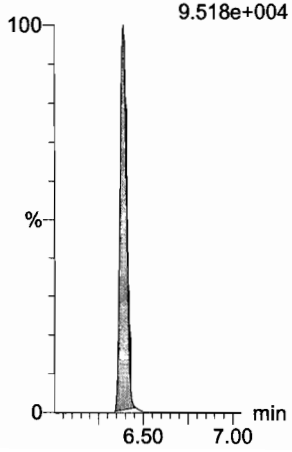
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.912e+005



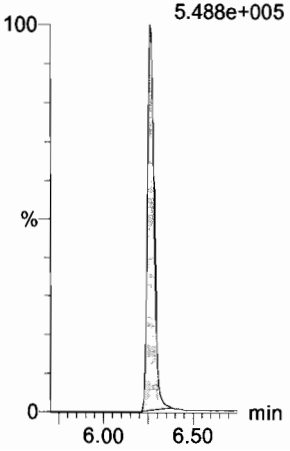
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.871e+004



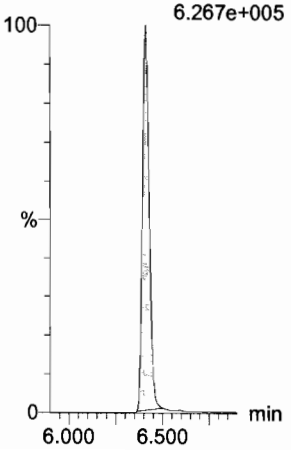
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.518e+004



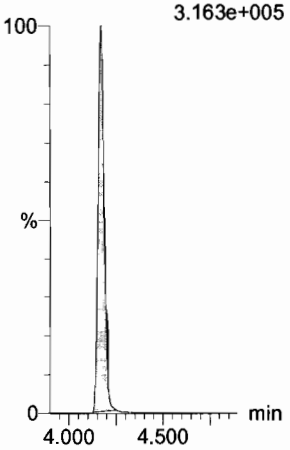
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.488e+005



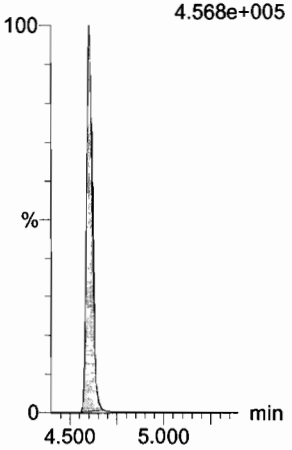
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.267e+005



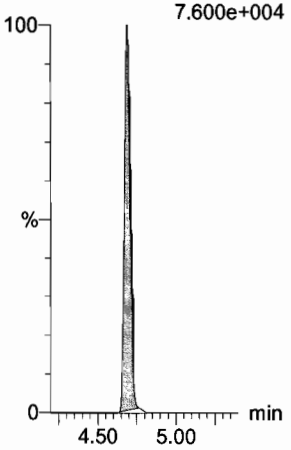
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.163e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.568e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.600e+004



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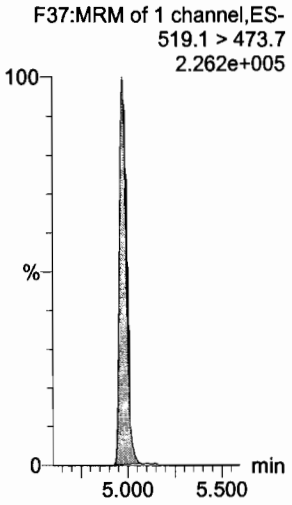
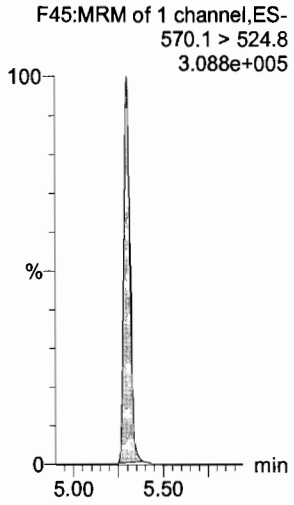
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_3, Date: 09-Dec-2017, Time: 13:06:13, ID: ST171209M1-2 PFC CS-1 17K2807, Description: PFC CS-1 17K2807

13C6-PFDA



13C7-PFUdA



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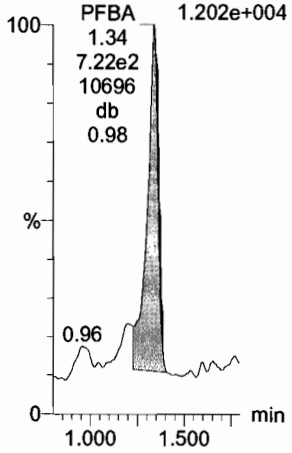
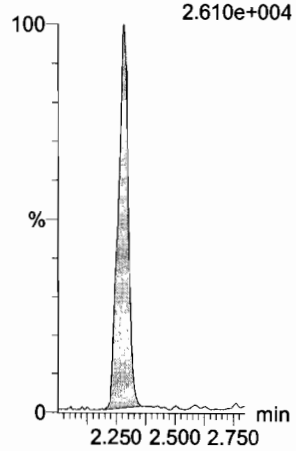
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_4, Date: 09-Dec-2017, Time: 13:17:24, ID: ST171209M1-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

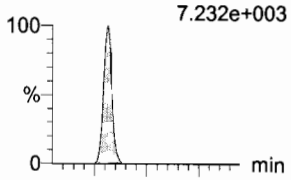
PFBA

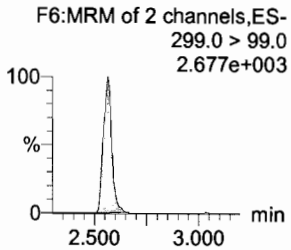


PFPeA

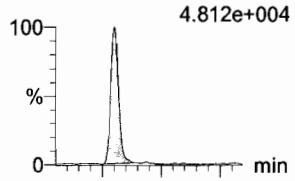


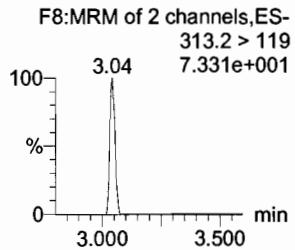
PFBS



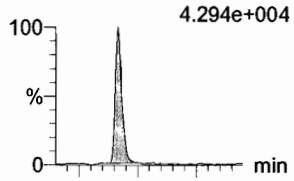


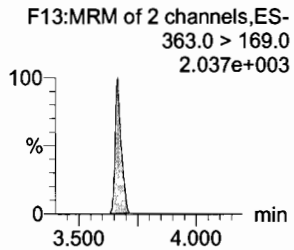
PFHxA



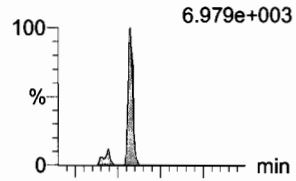


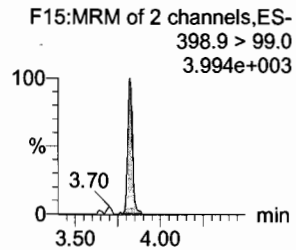
PFHpA



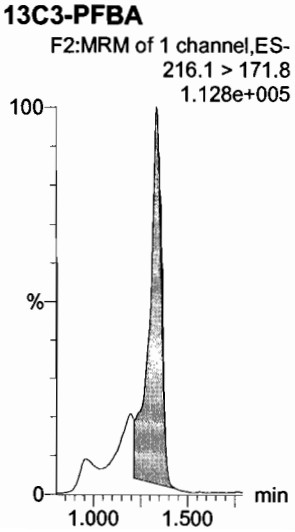


L-PFHxS

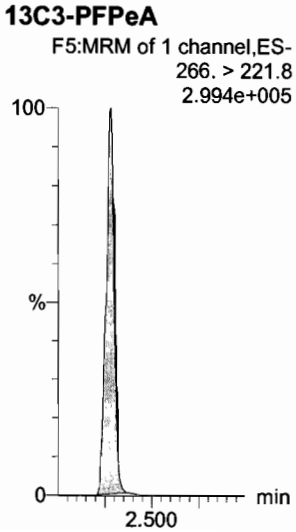




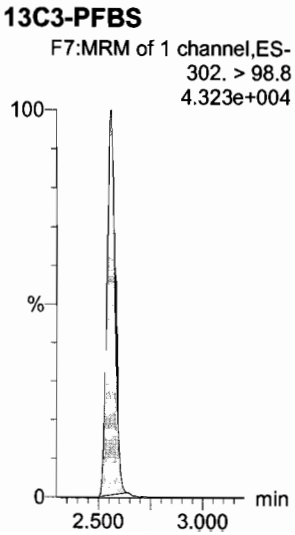
13C3-PFBA



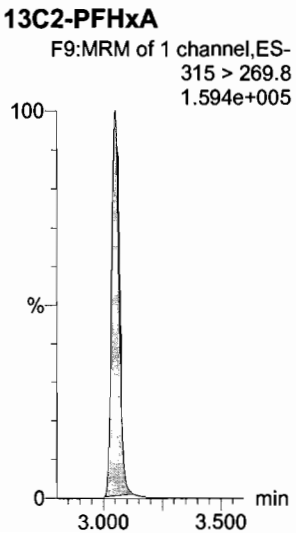
13C3-PFPeA



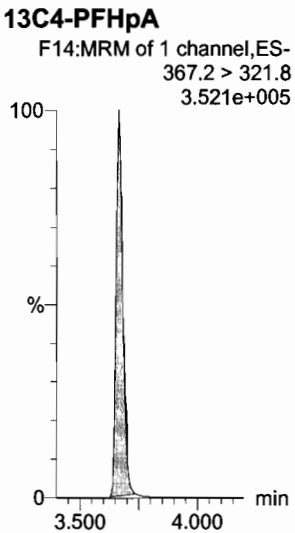
13C3-PFBS



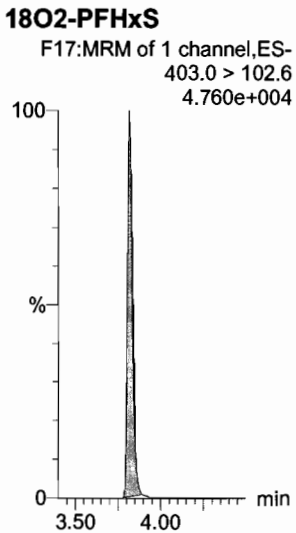
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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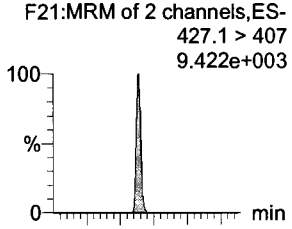
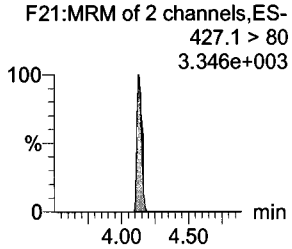
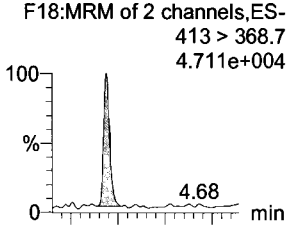
Name: 171209M2_4, Date: 09-Dec-2017, Time: 13:17:24, ID: ST171209M1-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

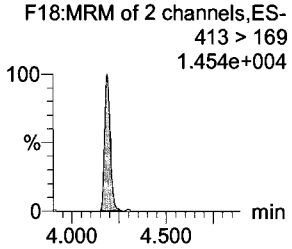
6:2 FTS



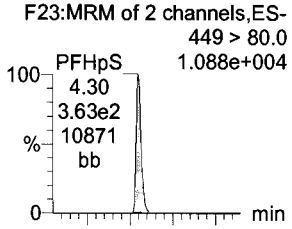


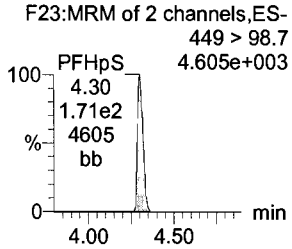
L-PFOA



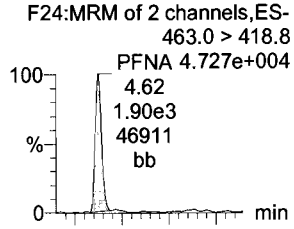


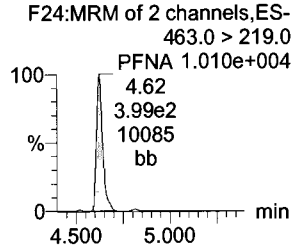
PFHpS



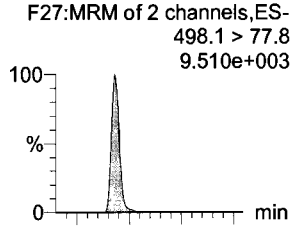


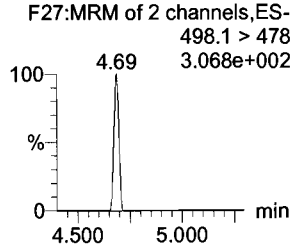
PFNA



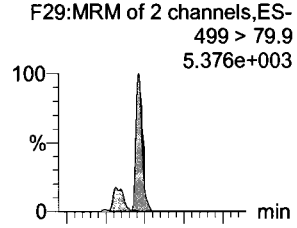


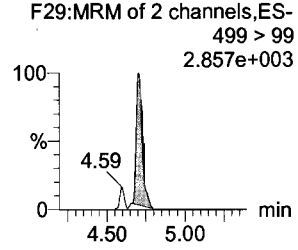
PFOSA



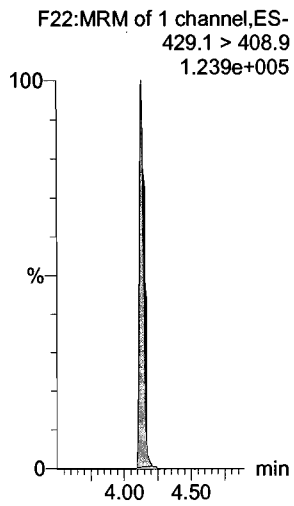


L-PFOS

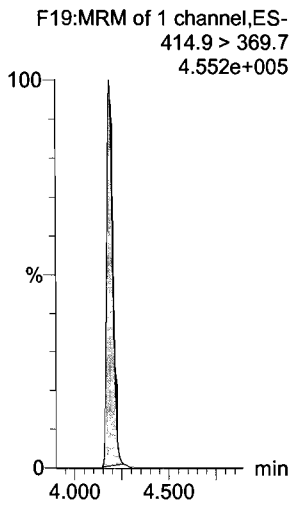




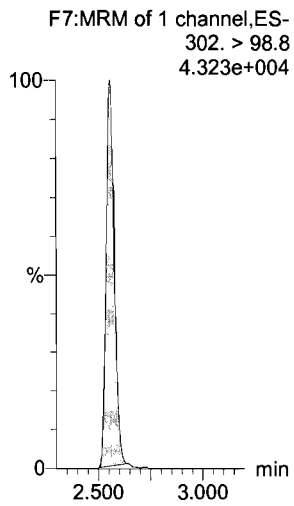
13C2-6:2 FTS



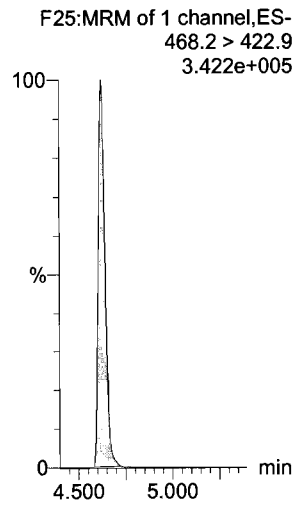
13C2-PFOA



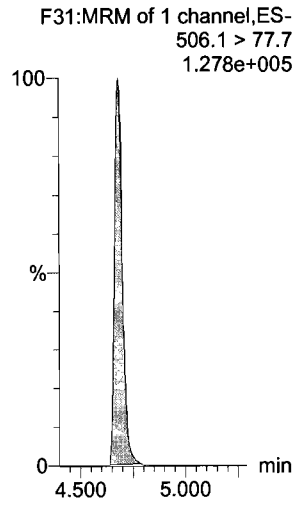
13C3-PFBS



13C5-PFNA



13C8-PFOSA



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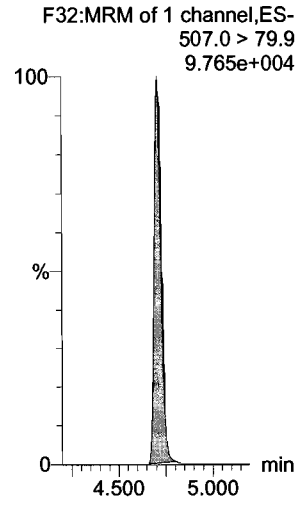

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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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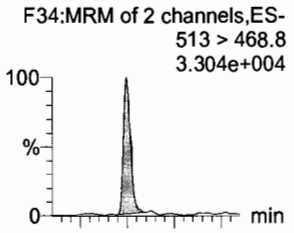
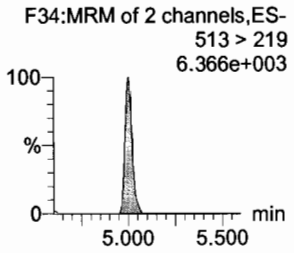
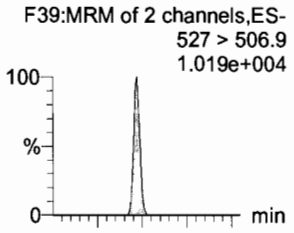
Name: 171209M2_4, Date: 09-Dec-2017, Time: 13:17:24, ID: ST171209M1-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

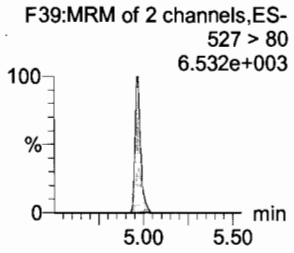
PFDA



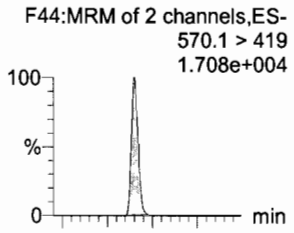


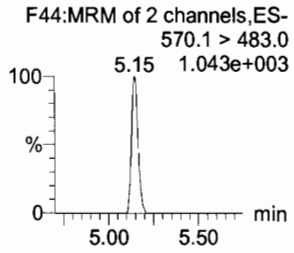
8:2 FTS



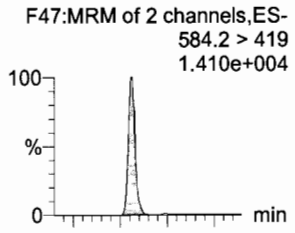


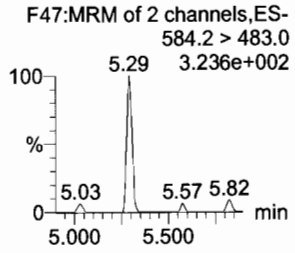
N-MeFOSAA



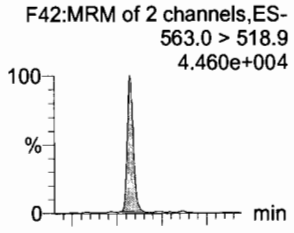


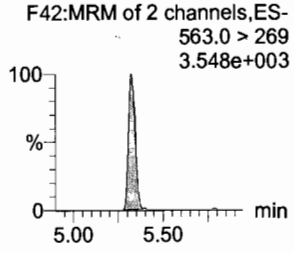
N-EtFOSAA



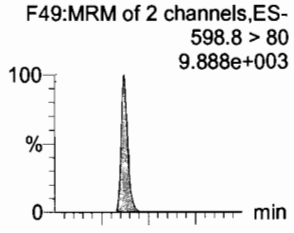


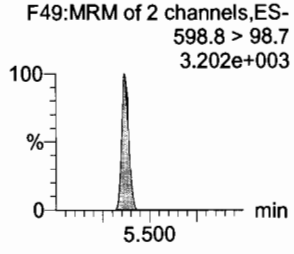
PFUdA



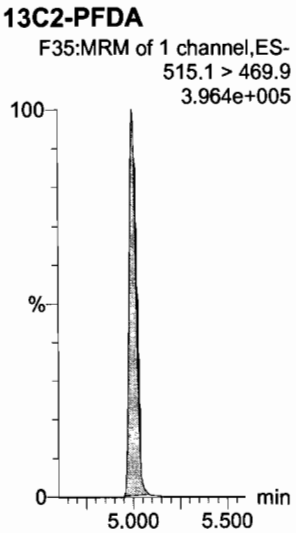


PFDS

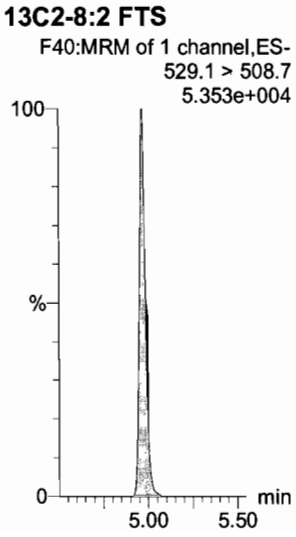




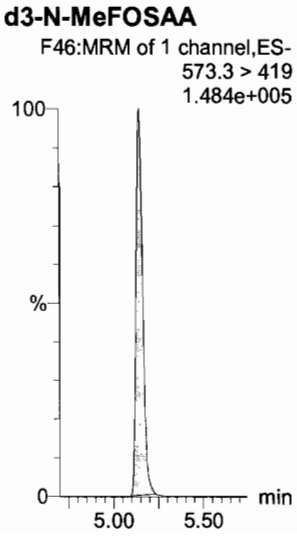
13C2-PFDA



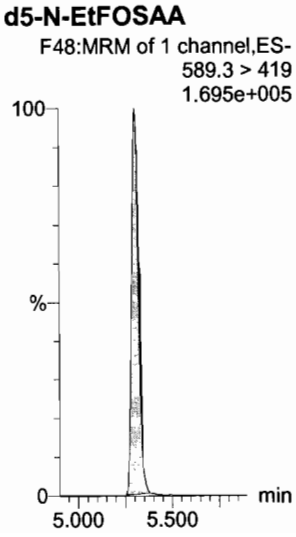
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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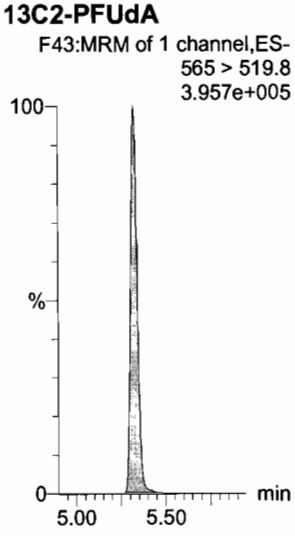
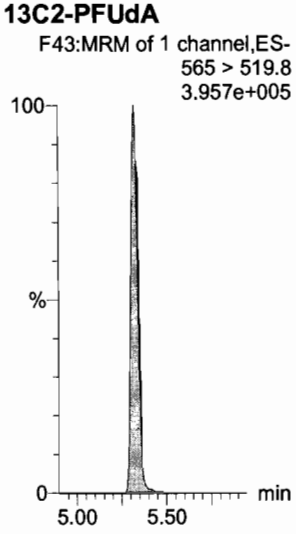


13C2-PFUdA



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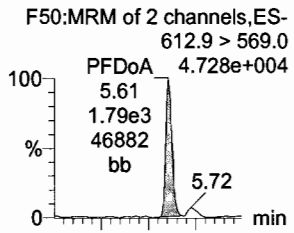
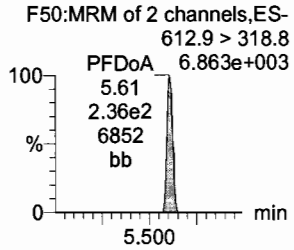
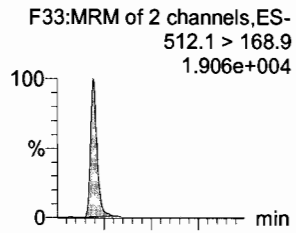
Name: 171209M2_4, Date: 09-Dec-2017, Time: 13:17:24, ID: ST171209M1-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

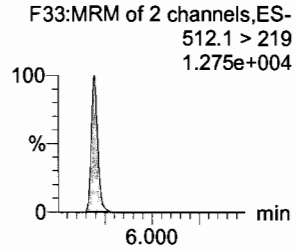
PFDoA





N-MeFOSA





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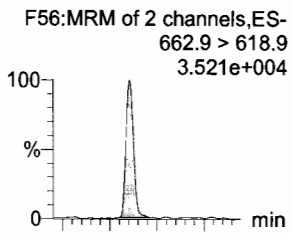

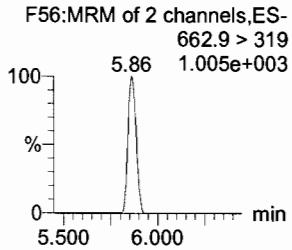

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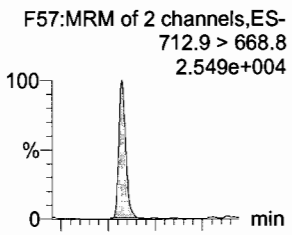

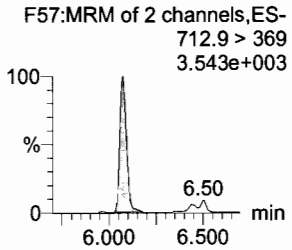

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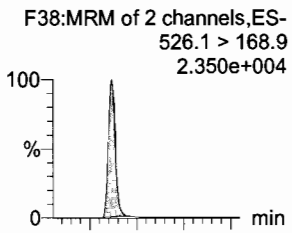
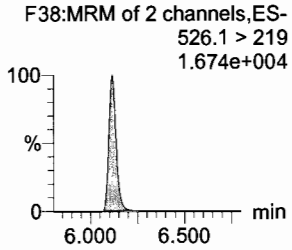
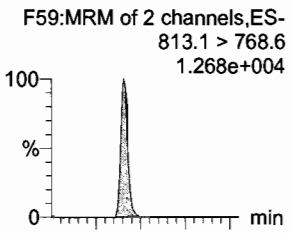
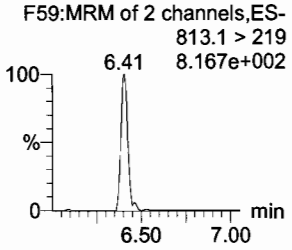




PFHxDA





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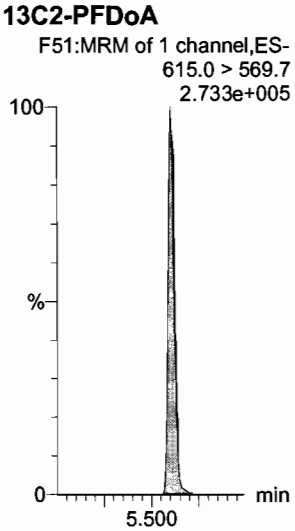
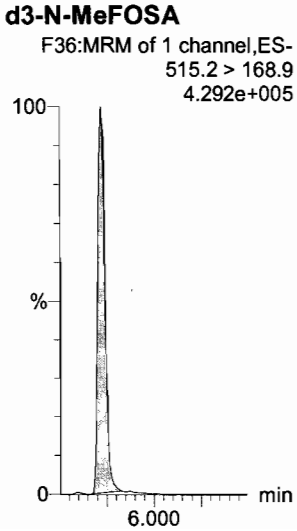


d3-N-MeFOSA



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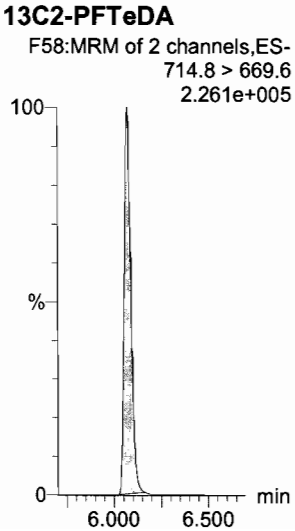

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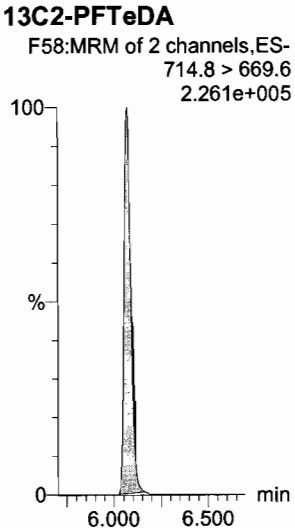
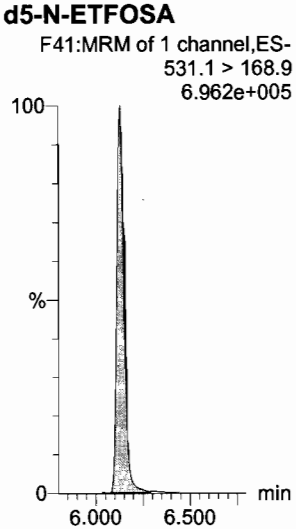


d5-N-ETFOSA



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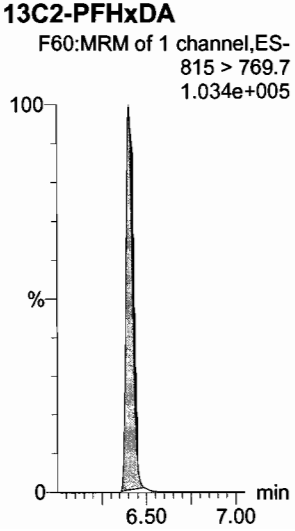

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Name: 171209M2_4, Date: 09-Dec-2017, Time: 13:17:24, ID: ST171209M1-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

PFODA
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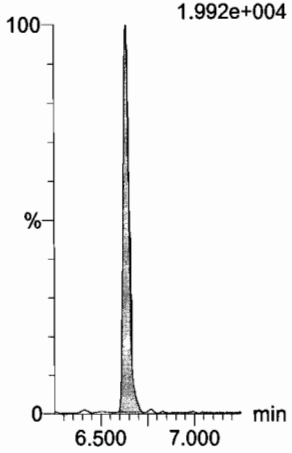
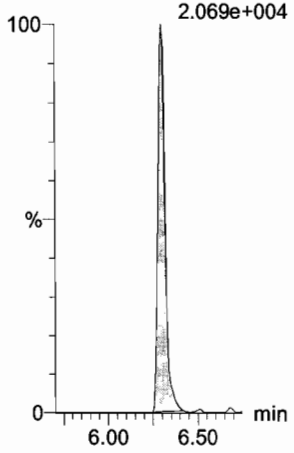
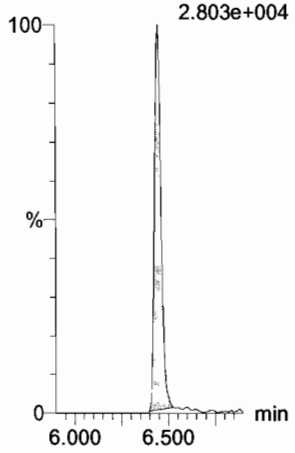
913.1 > 868.8
1.992e+004



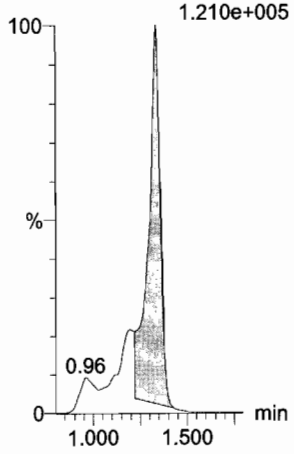
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.069e+004



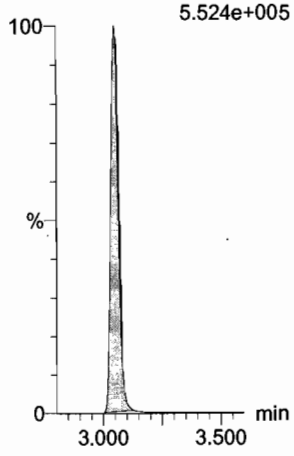
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.803e+004



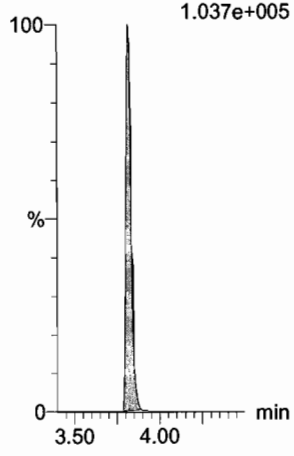
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.210e+005



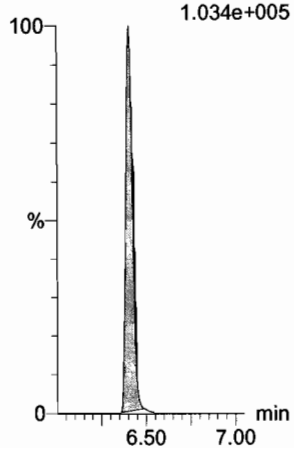
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.524e+005



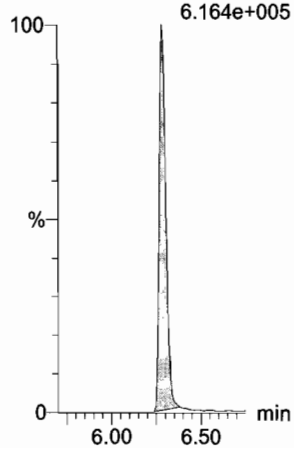
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.037e+005



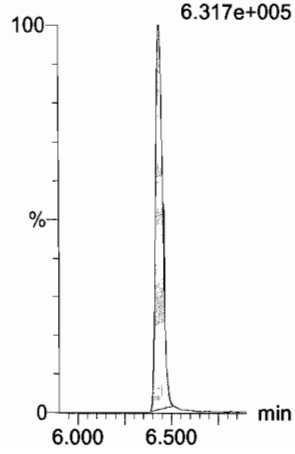
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.034e+005



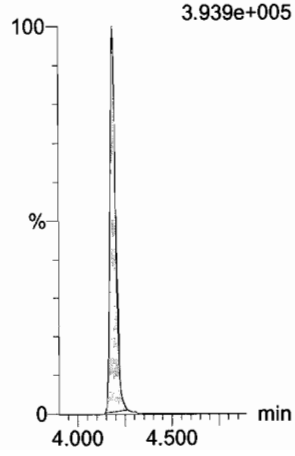
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.164e+005



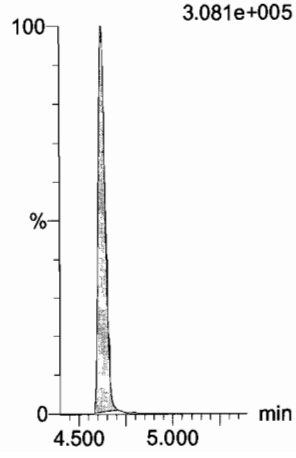
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.317e+005



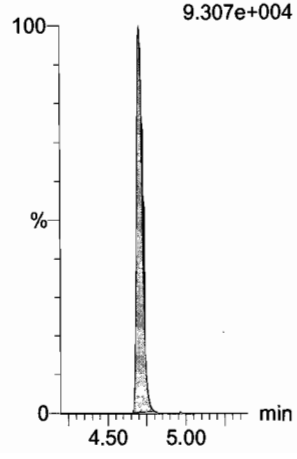
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.939e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.081e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.307e+004



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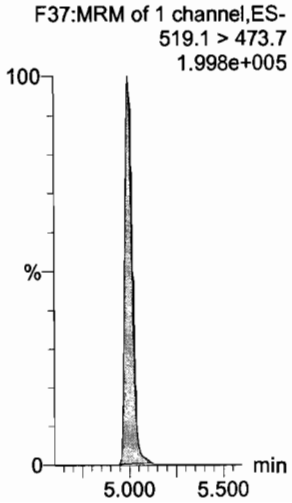
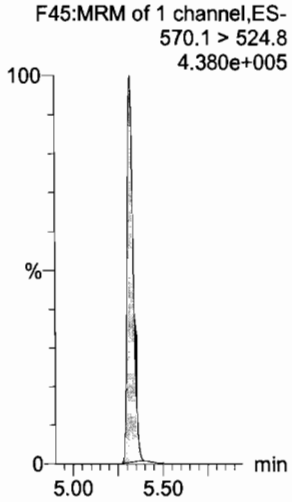
Name: 171209M2_4, Date: 09-Dec-2017, Time: 13:17:24, ID: ST171209M1-3 PFC CS0 17K2808, Description: PFC CS0 17K2808

13C6-PFDA



13C7-PFUdA



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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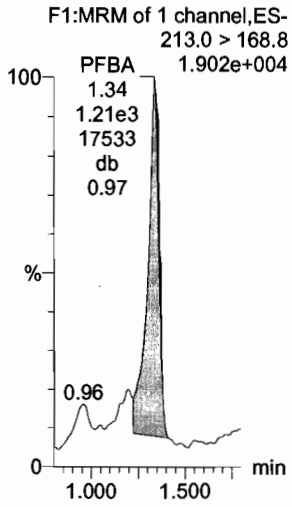
Name: 171209M2_5, Date: 09-Dec-2017, Time: 13:28:34, ID: ST171209M1-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

PFBA



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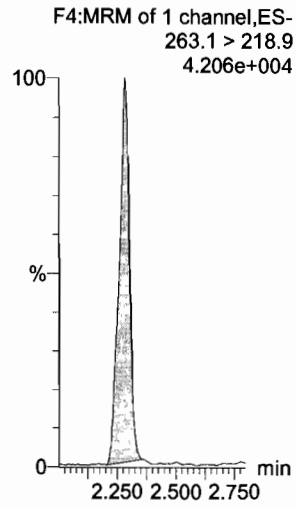

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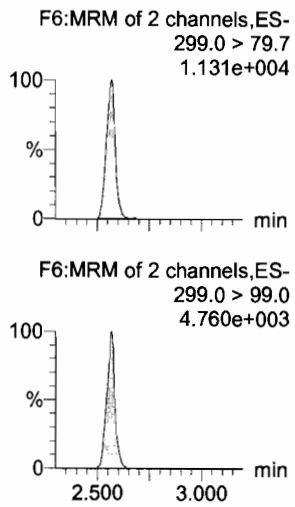

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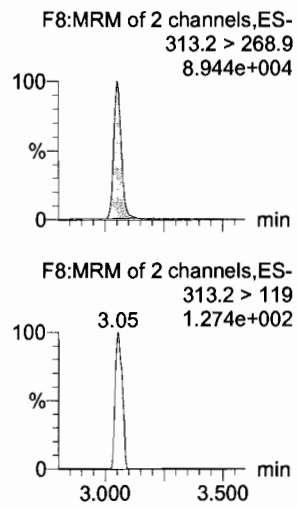

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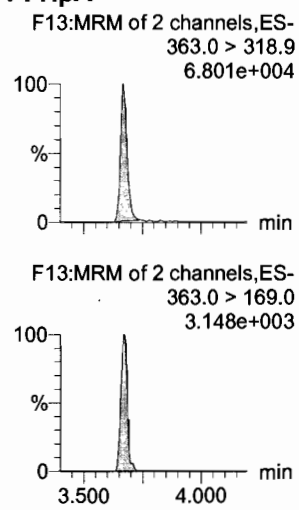

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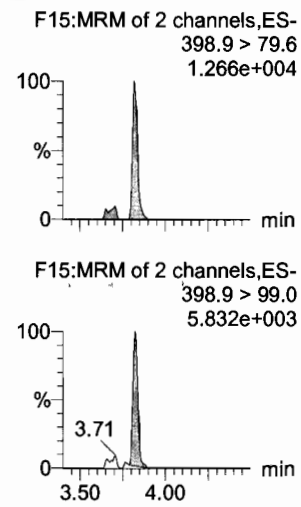

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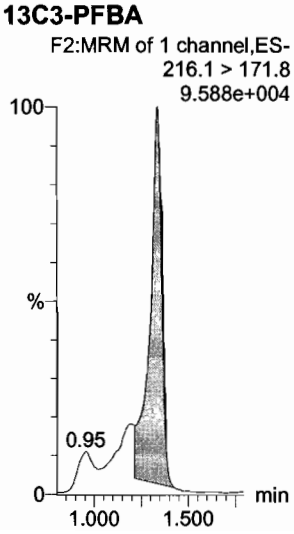

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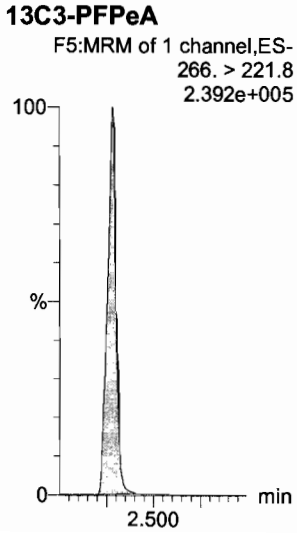

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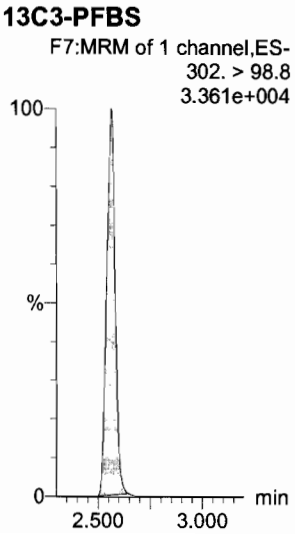

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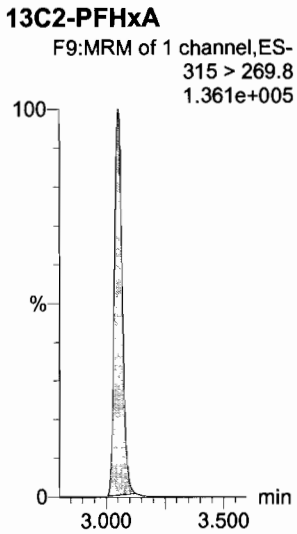

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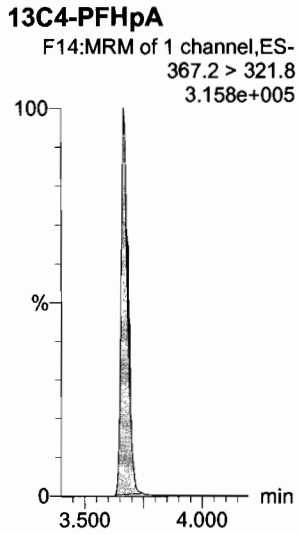
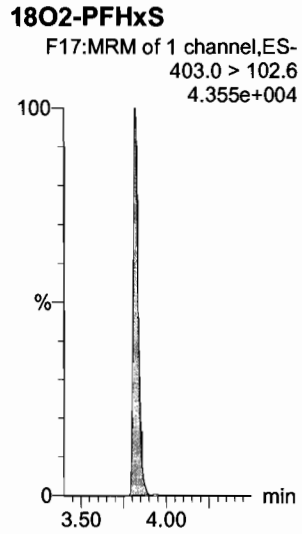


18O2-PFHxS



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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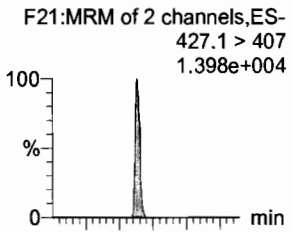
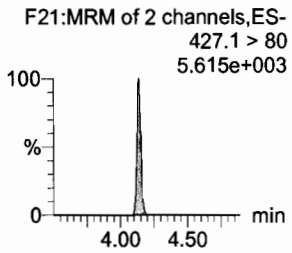
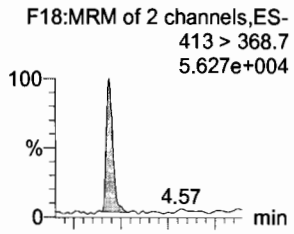
Name: 171209M2_5, Date: 09-Dec-2017, Time: 13:28:34, ID: ST171209M1-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

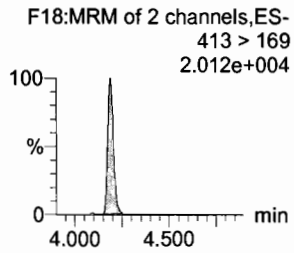
6:2 FTS





L-PFOA





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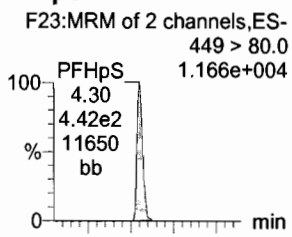

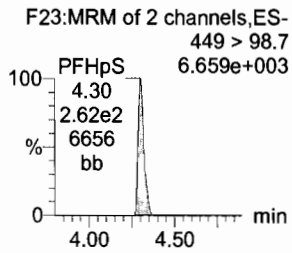

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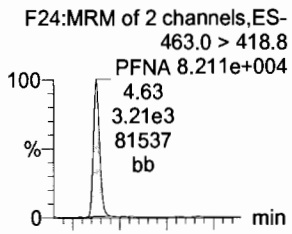
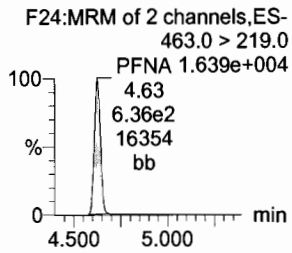
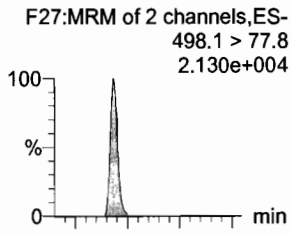
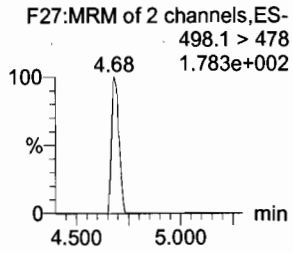


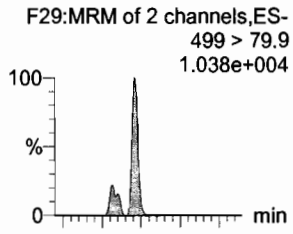


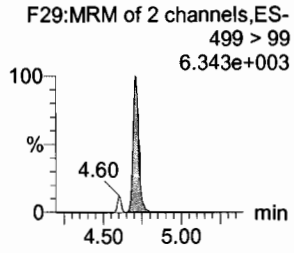
PFOSA



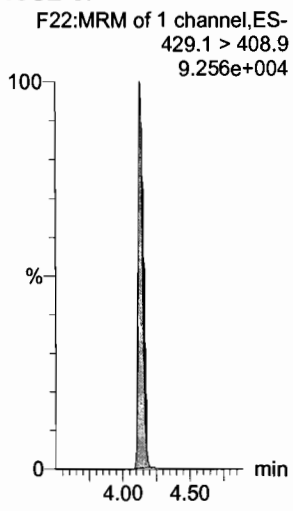


L-PFOS

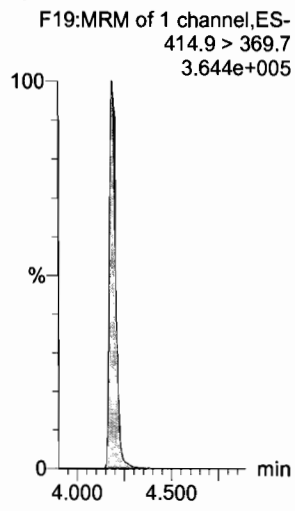




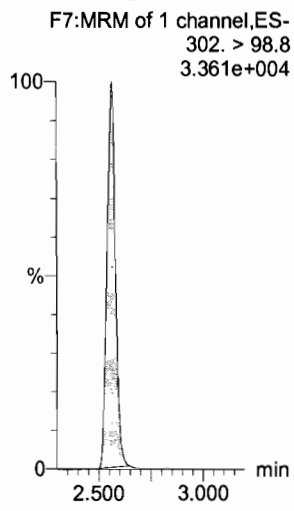
13C2-6:2 FTS



13C2-PFOA



13C3-PFBS



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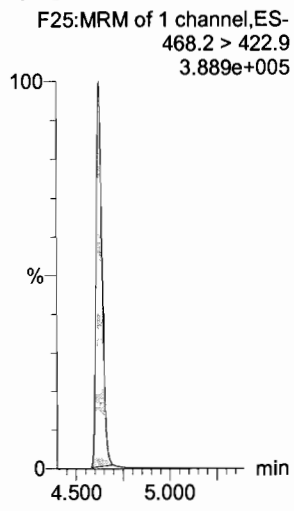

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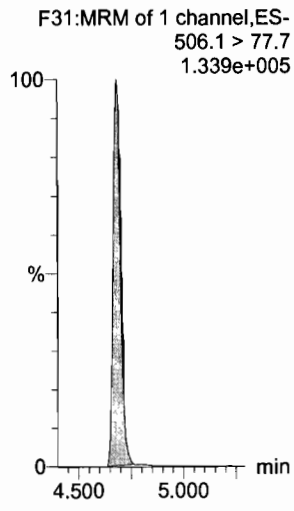
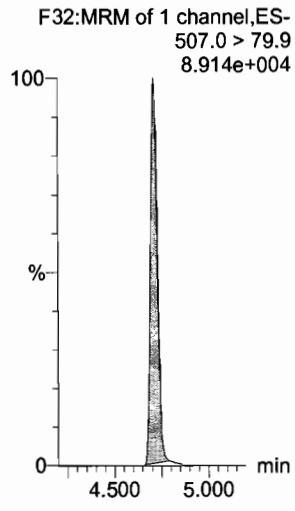


13C8-PFOS



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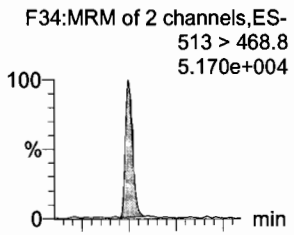
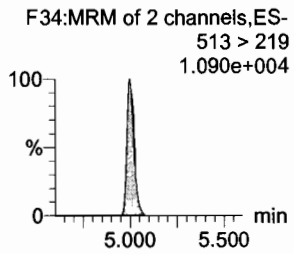
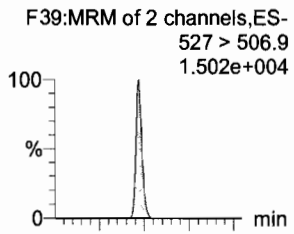
Name: 171209M2_5, Date: 09-Dec-2017, Time: 13:28:34, ID: ST171209M1-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

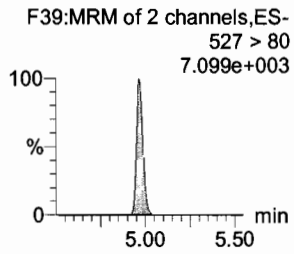
PFDA



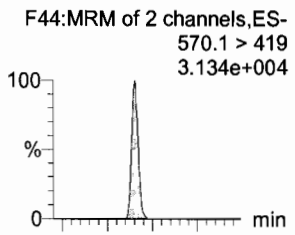


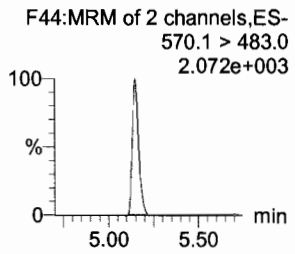
8:2 FTS





N-MeFOSAA





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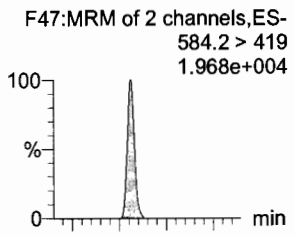
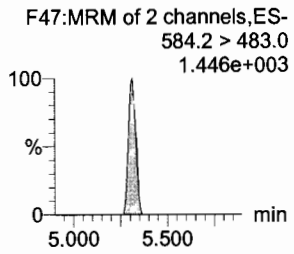
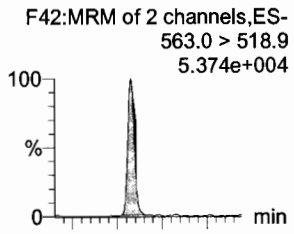
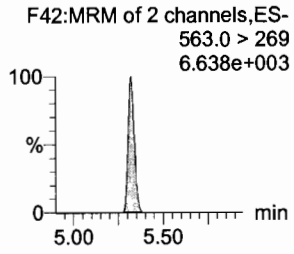




PFUdA





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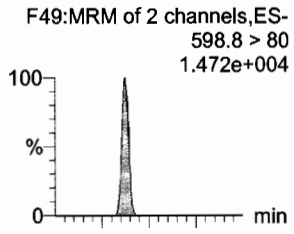

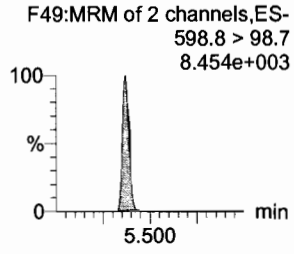

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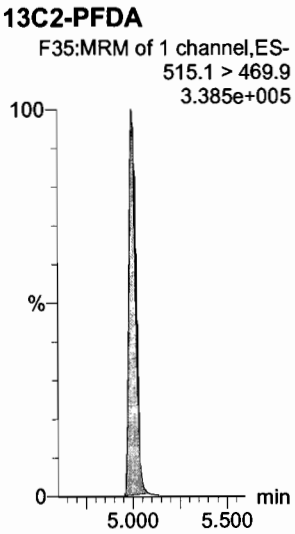
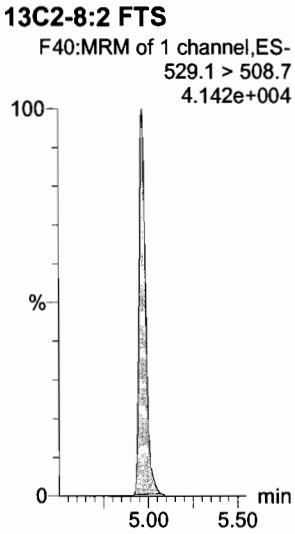


13C2-8:2 FTS



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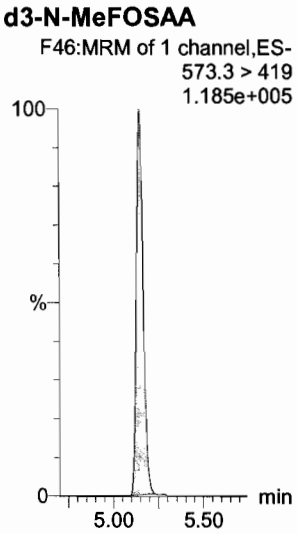

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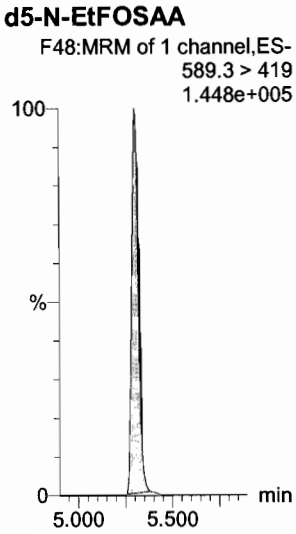

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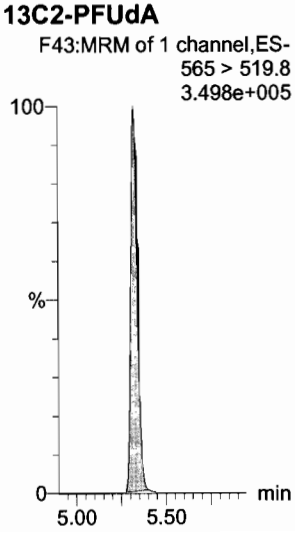

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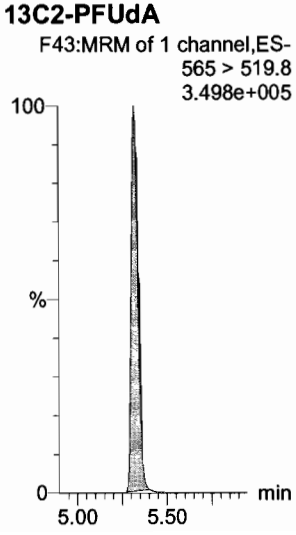

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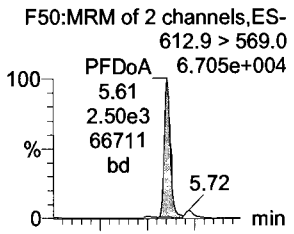
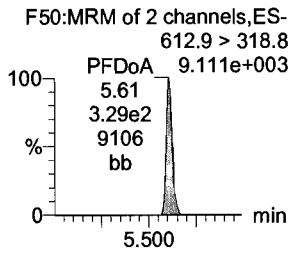
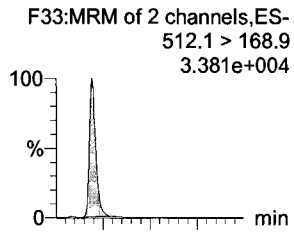
Name: 171209M2_5, Date: 09-Dec-2017, Time: 13:28:34, ID: ST171209M1-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

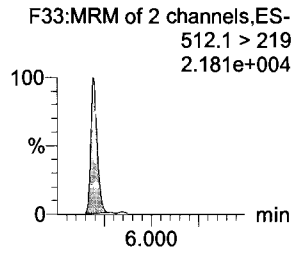
PFDoA



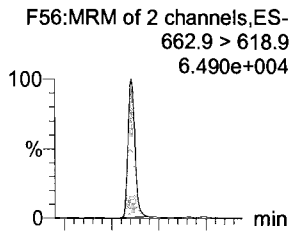


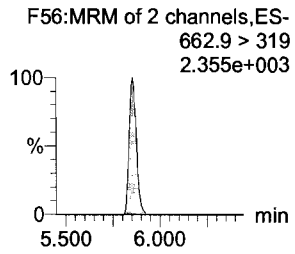
N-MeFOSA



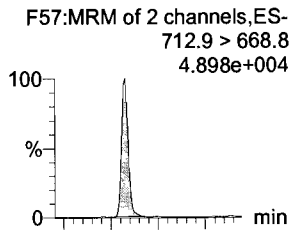


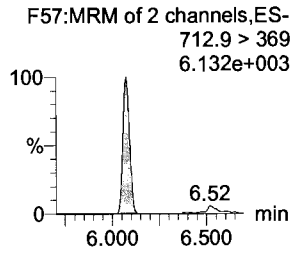
PFTrDA





PFTeDA





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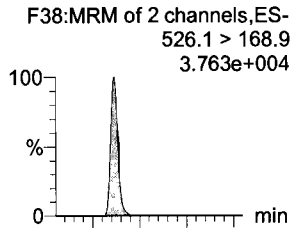
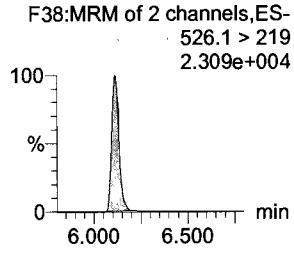
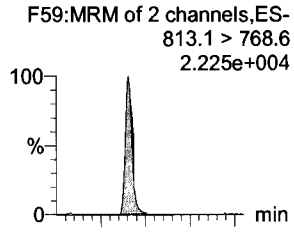
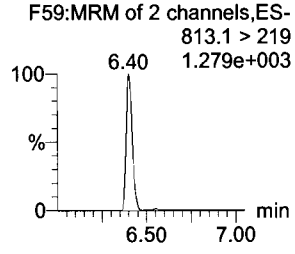


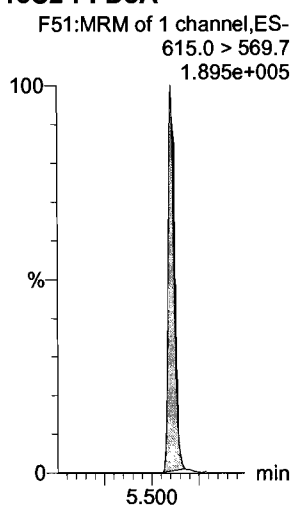


PFHxDA

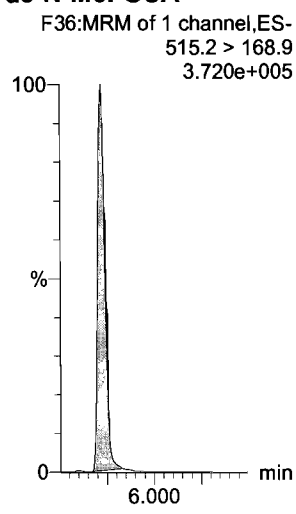




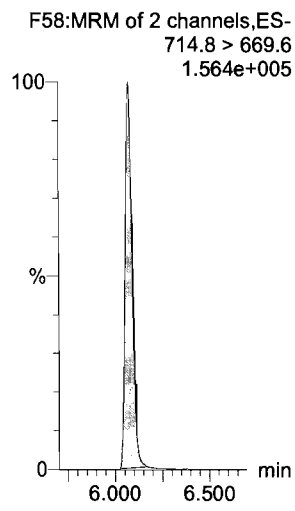
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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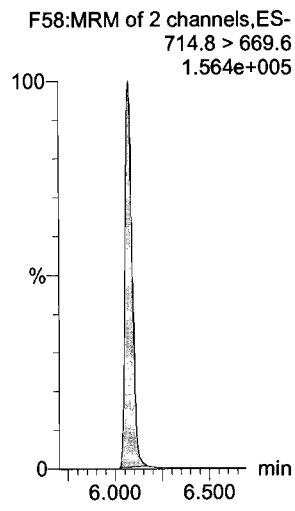
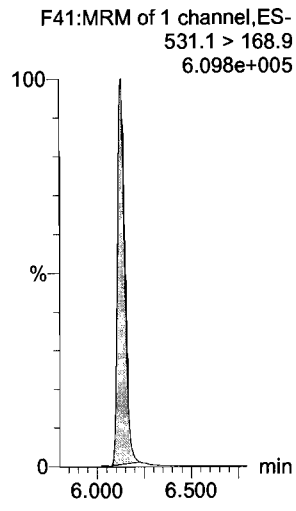
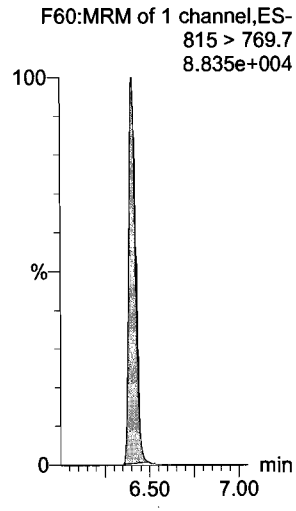


d5-N-ETFOSA



13C2-PFHxDA



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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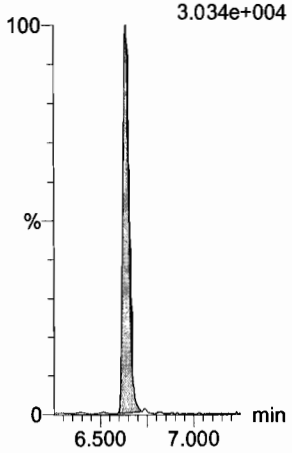
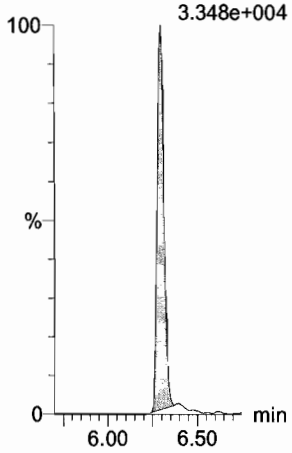
Name: 171209M2_5, Date: 09-Dec-2017, Time: 13:28:34, ID: ST171209M1-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

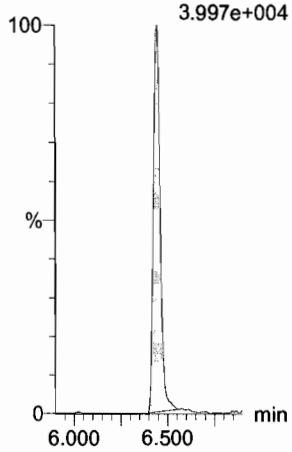
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.034e+004



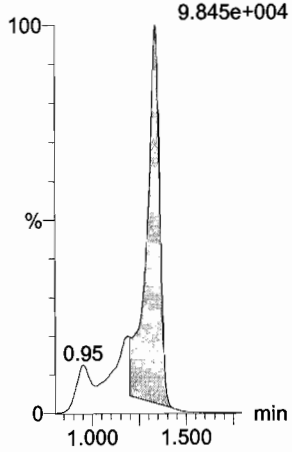
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.348e+004



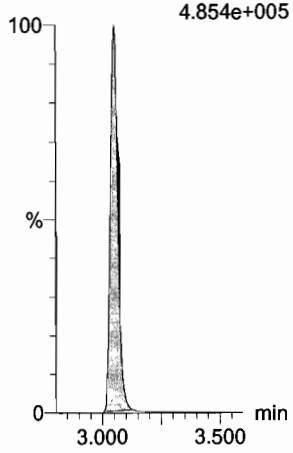
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.997e+004



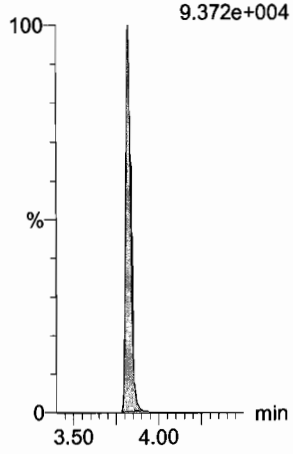
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
9.845e+004



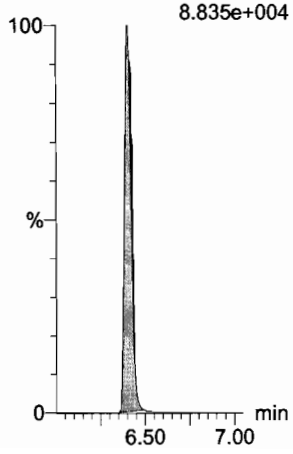
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.854e+005



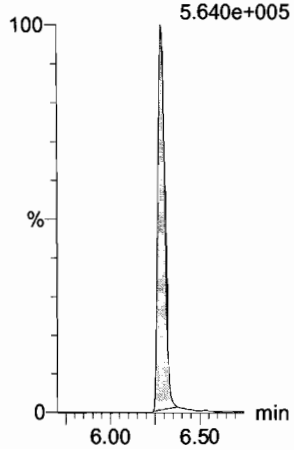
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.372e+004



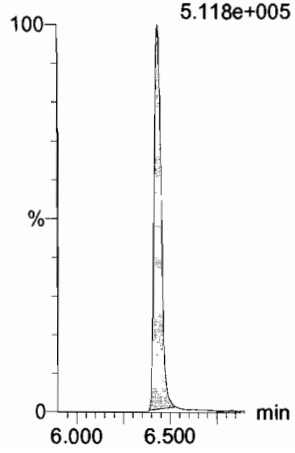
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.835e+004



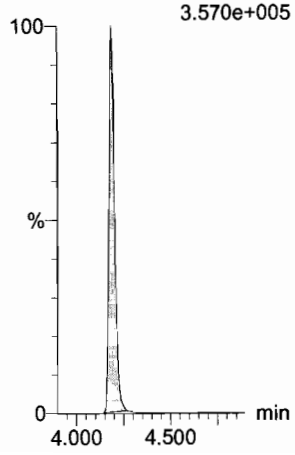
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.640e+005



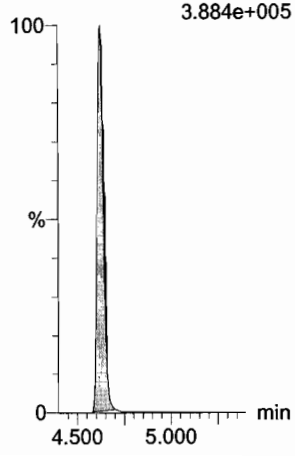
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.118e+005



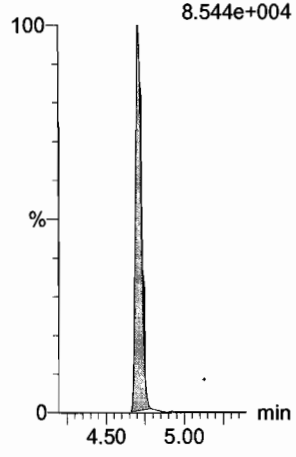
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.570e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.884e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.544e+004



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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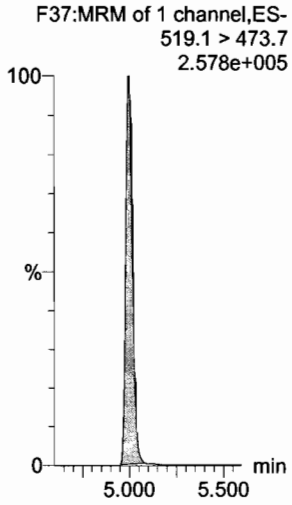
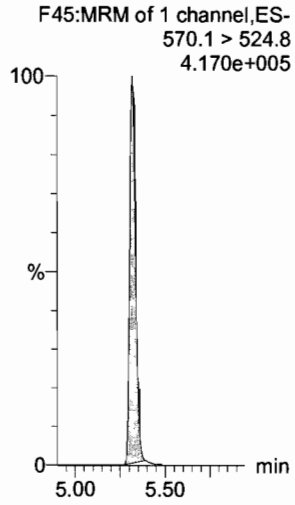
Name: 171209M2_5, Date: 09-Dec-2017, Time: 13:28:34, ID: ST171209M1-4 PFC CS1 17K2814, Description: PFC CS1 17K2814

13C6-PFDA



13C7-PFUdA



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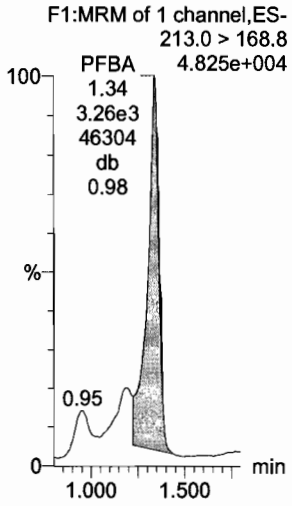
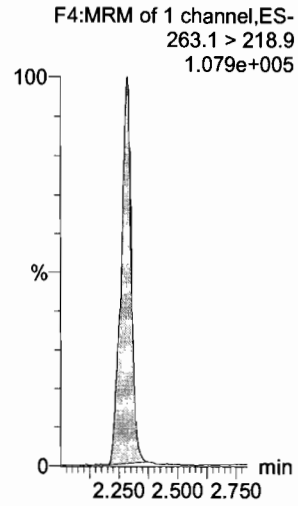
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_6, Date: 09-Dec-2017, Time: 13:39:45, ID: ST171209M1-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

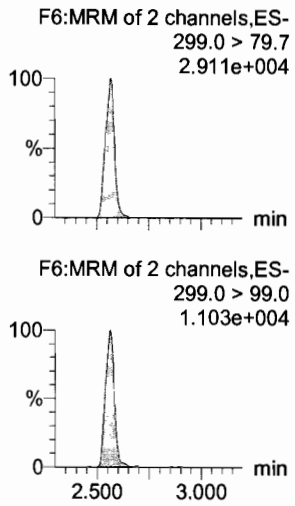
PFBA



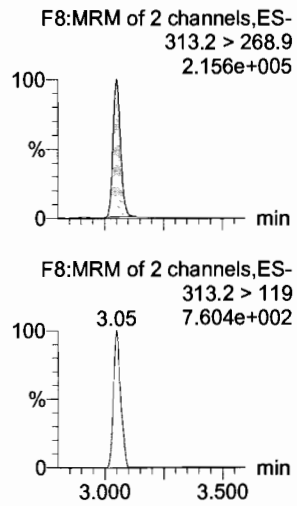
PFPeA



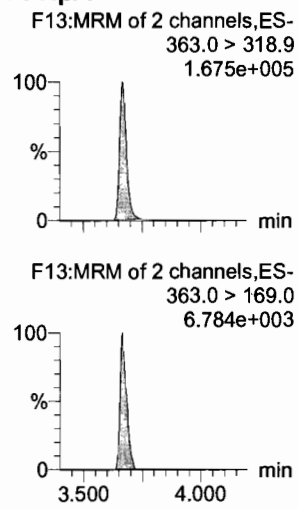
PFBS



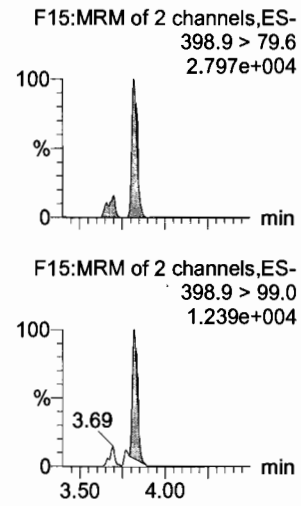
PFHxA



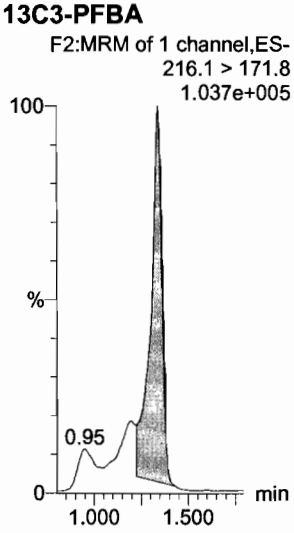
PFHpA



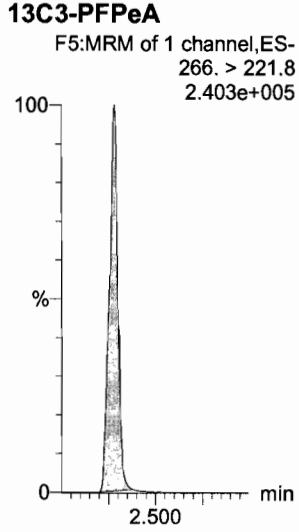
L-PFHxS



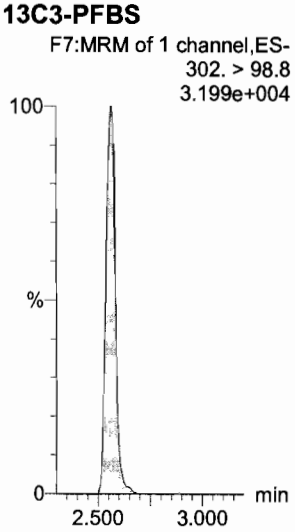
13C3-PFBA



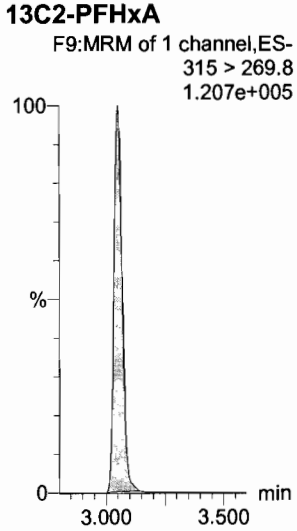
13C3-PFPeA



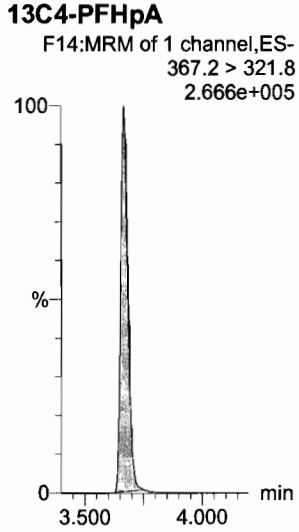
13C3-PFBS



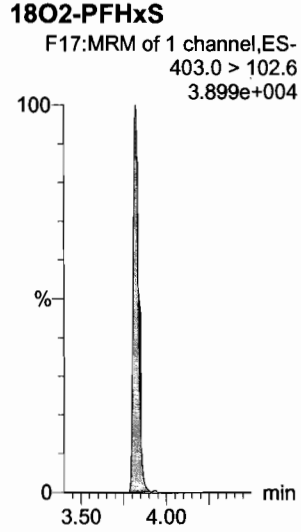
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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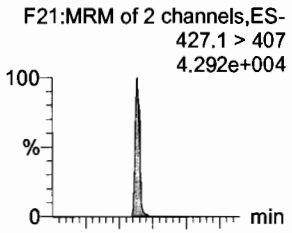
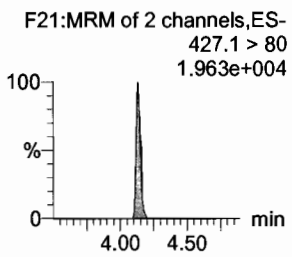
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

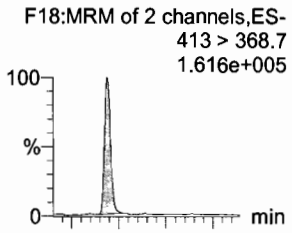
Name: 171209M2_6, Date: 09-Dec-2017, Time: 13:39:45, ID: ST171209M1-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

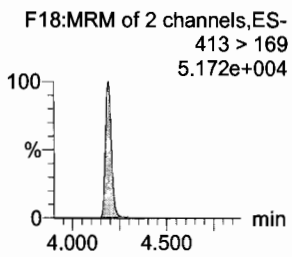
6:2 FTS



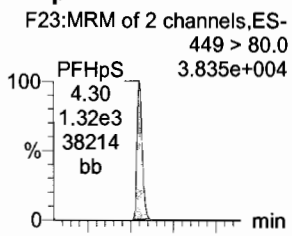


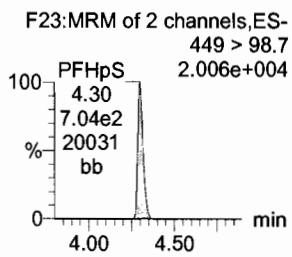
L-PFOA



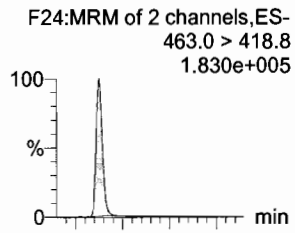


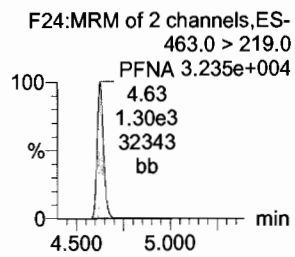
PFHpS



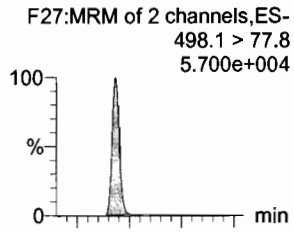


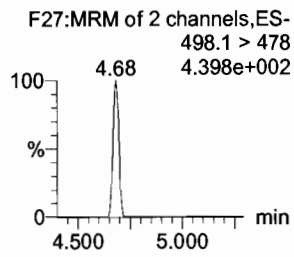
PFNA



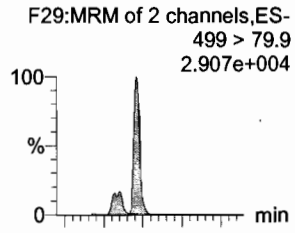


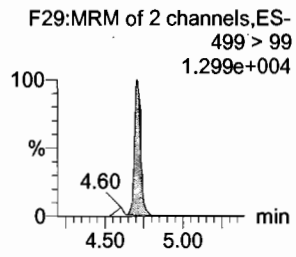
PFOSA



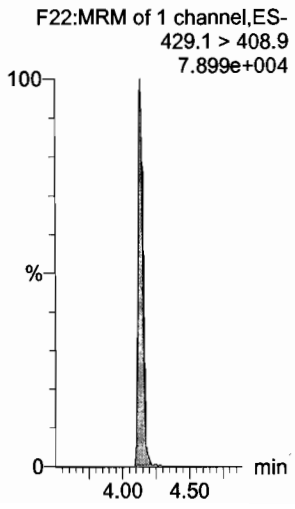


L-PFOS

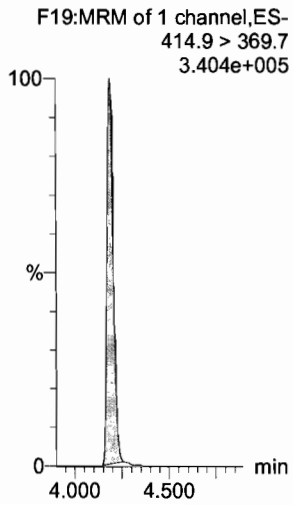




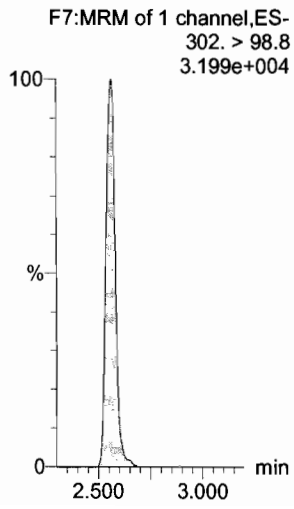
13C2-6:2 FTS



13C2-PFOA



13C3-PFBS



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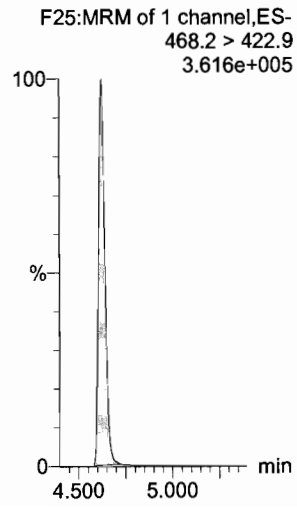

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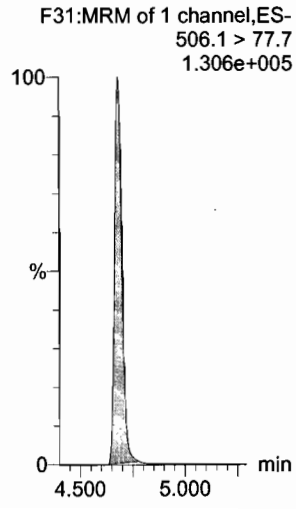
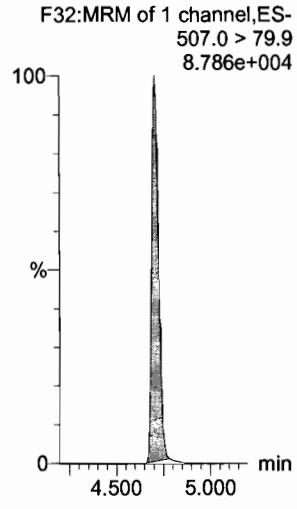


13C8-PFOS



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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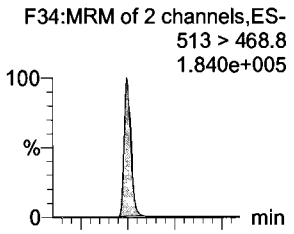
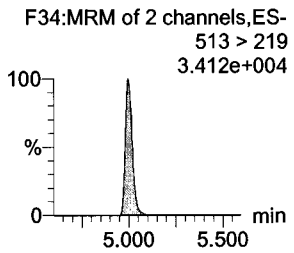
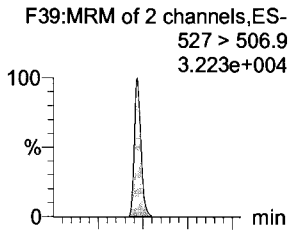
Name: 171209M2_6, Date: 09-Dec-2017, Time: 13:39:45, ID: ST171209M1-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

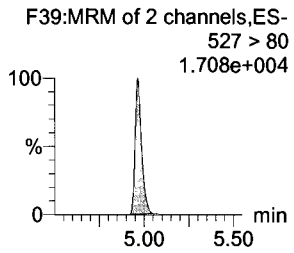
PFDA



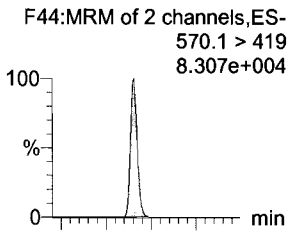


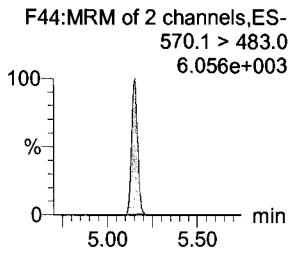
8:2 FTS





N-MeFOSAA





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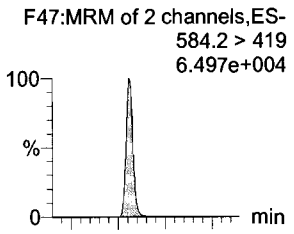

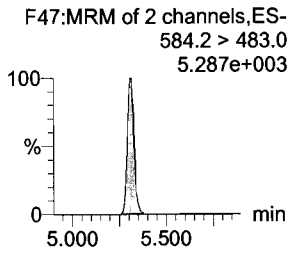

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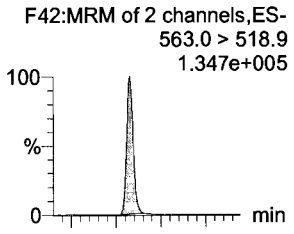

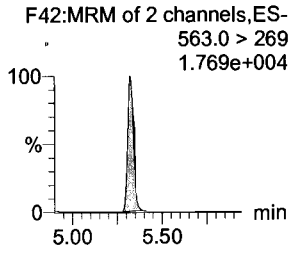

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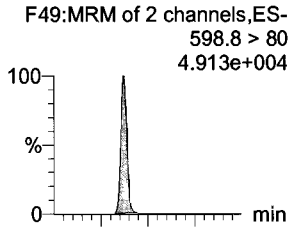
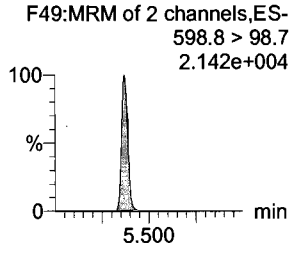
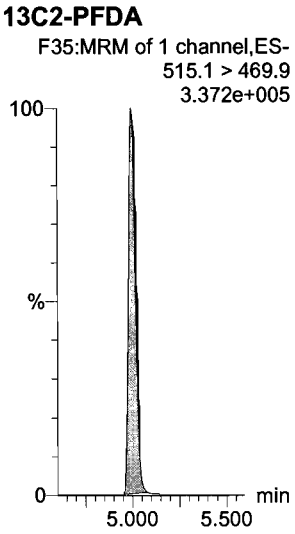
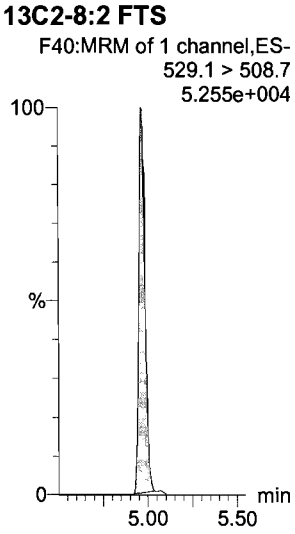




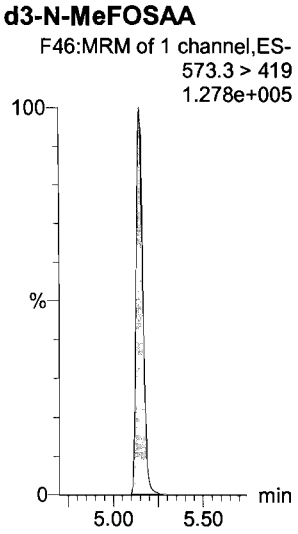
13C2-PFDA



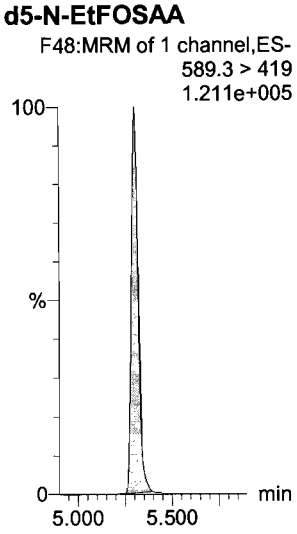
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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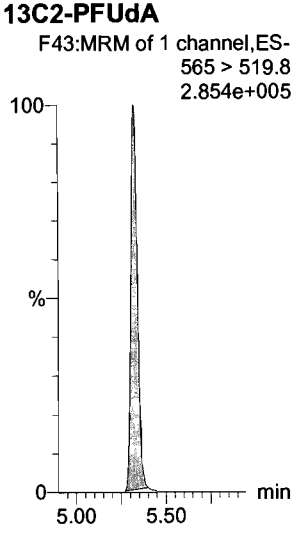
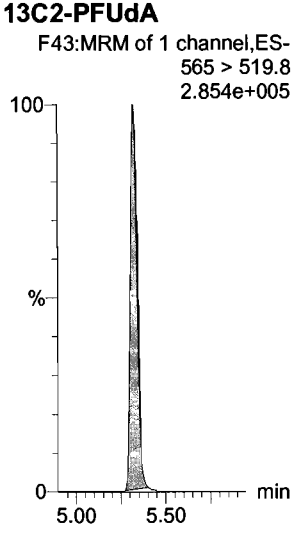


13C2-PFUdA



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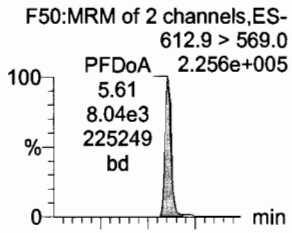
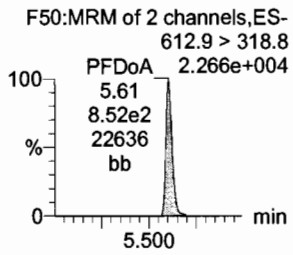
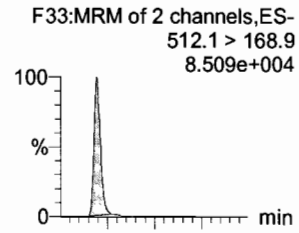
Name: 171209M2_6, Date: 09-Dec-2017, Time: 13:39:45, ID: ST171209M1-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

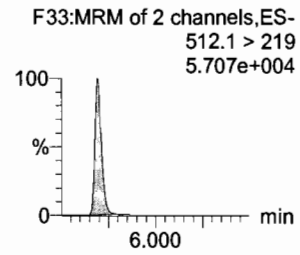
PFDoA





N-MeFOSA





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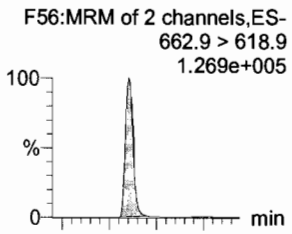
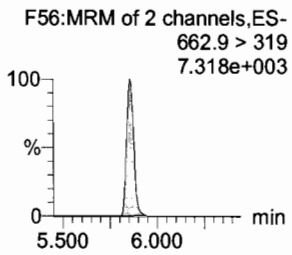
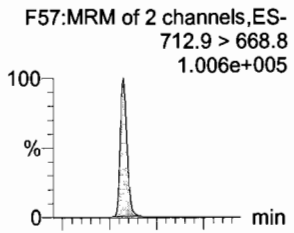
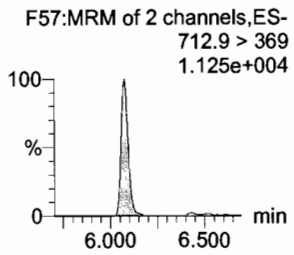


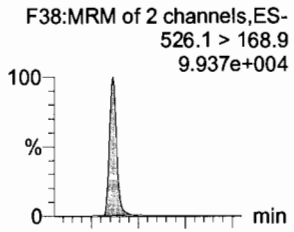


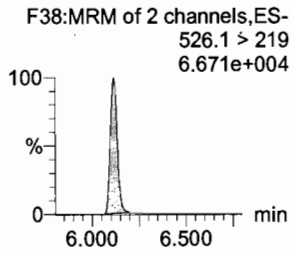
PFTeDA



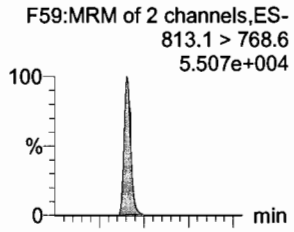


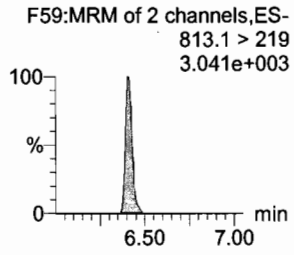
N-EtFOSA



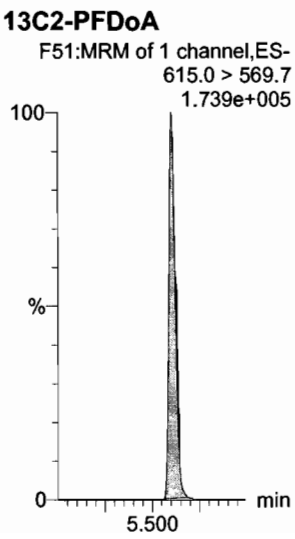


PFHxDA

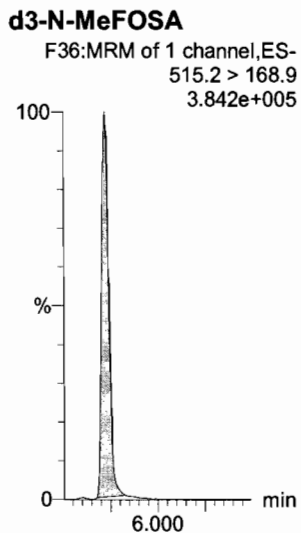




13C2-PFDoA



d3-N-MeFOSA



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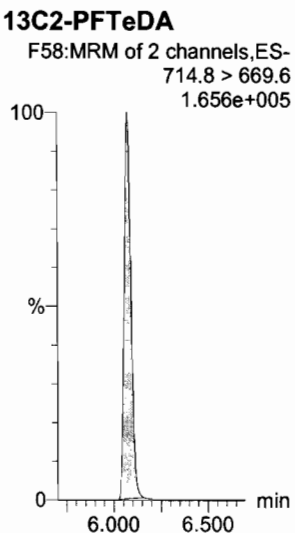

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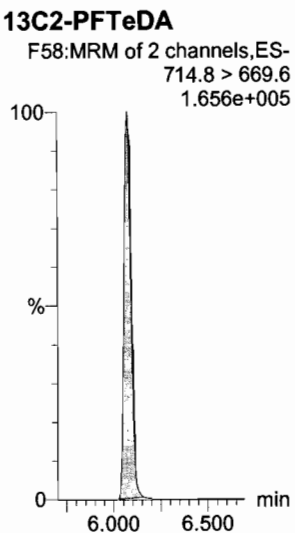
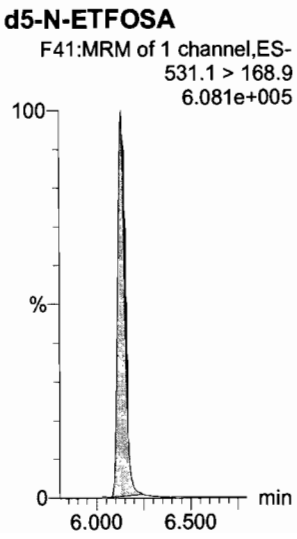


d5-N-ETFOSA



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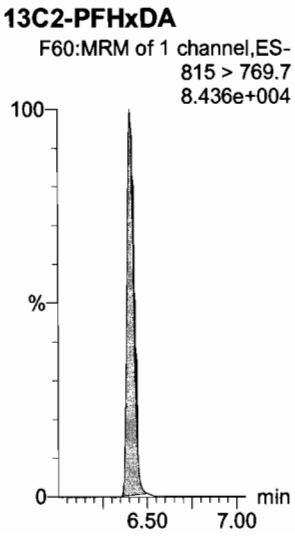

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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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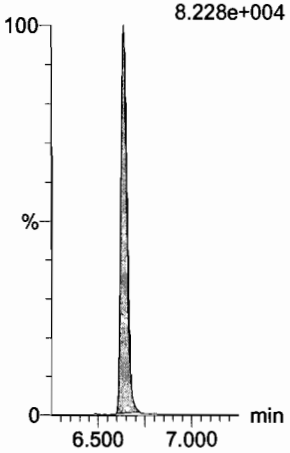
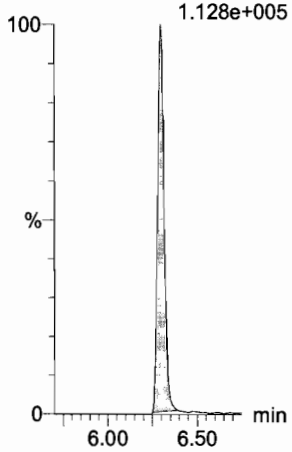
Name: 171209M2_6, Date: 09-Dec-2017, Time: 13:39:45, ID: ST171209M1-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

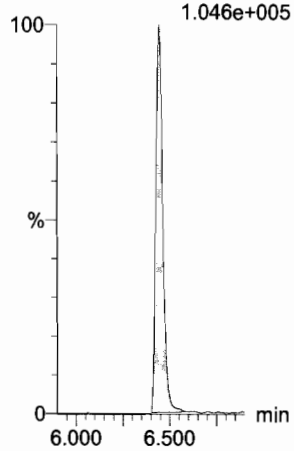
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.228e+004



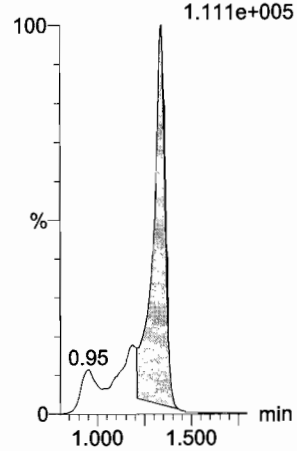
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.128e+005



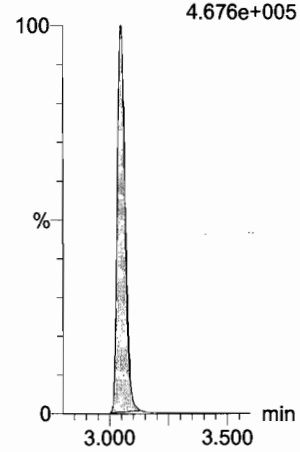
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.046e+005



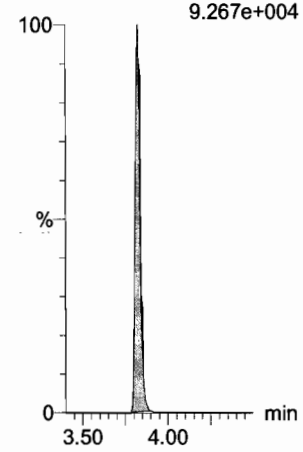
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.111e+005



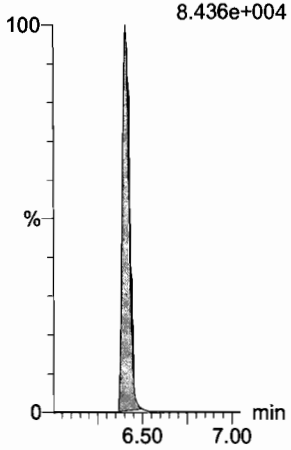
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.676e+005



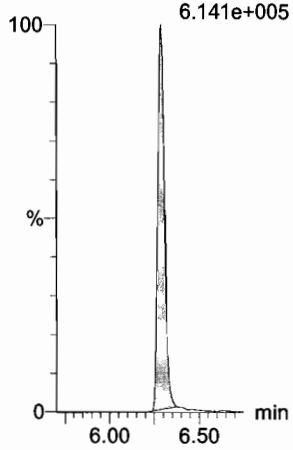
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.267e+004



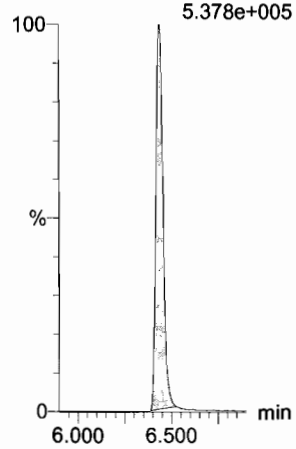
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.436e+004



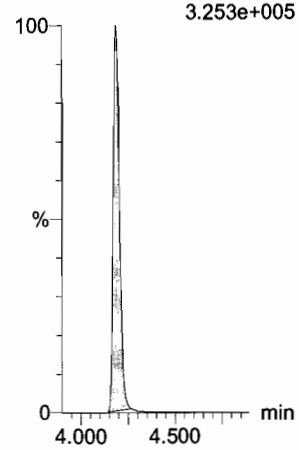
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.141e+005



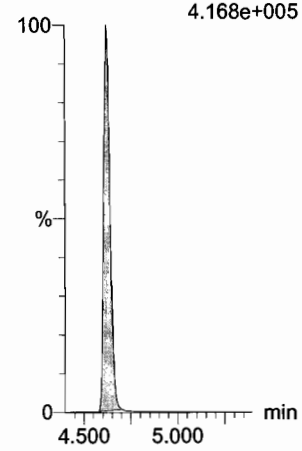
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.378e+005



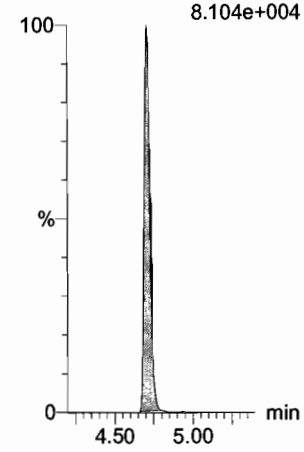
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.253e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.168e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.104e+004

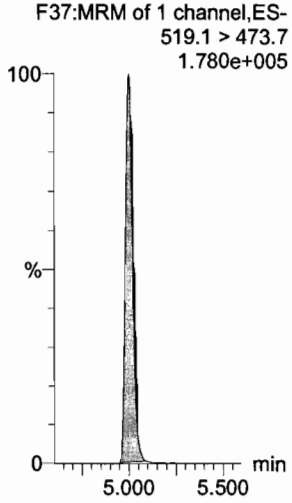


Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

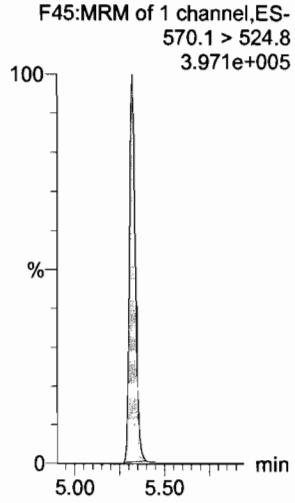
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_6, Date: 09-Dec-2017, Time: 13:39:45, ID: ST171209M1-5 PFC CS2 17K2809, Description: PFC CS2 17K2809

13C6-PFDA



13C7-PFUdA



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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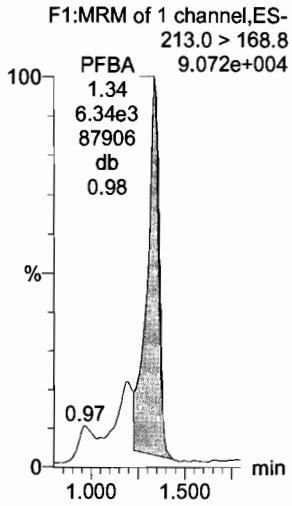
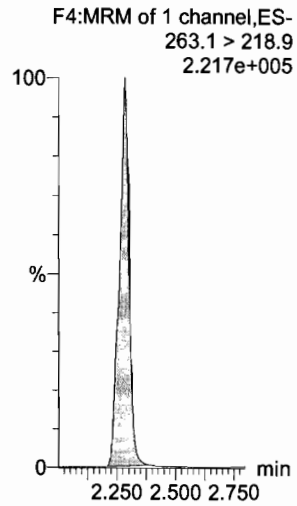
Name: 171209M2_7, Date: 09-Dec-2017, Time: 13:50:56, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

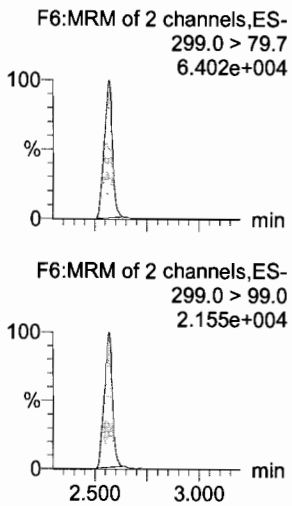
PFBA



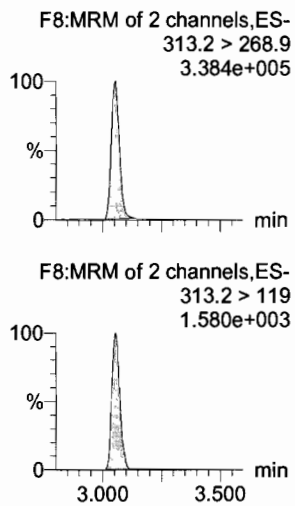
PFPeA



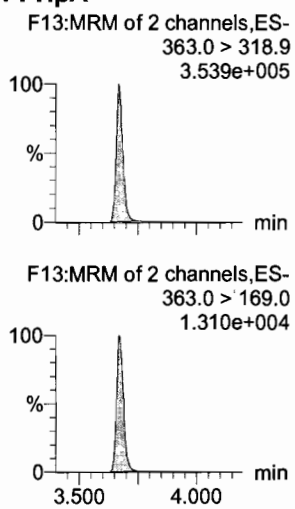
PFBS



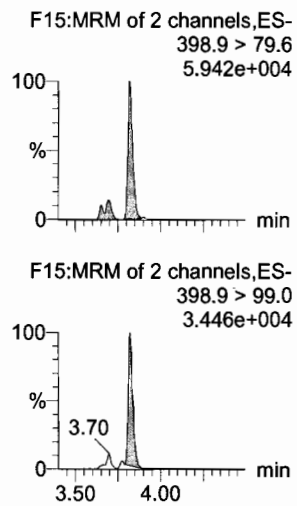
PFHxA



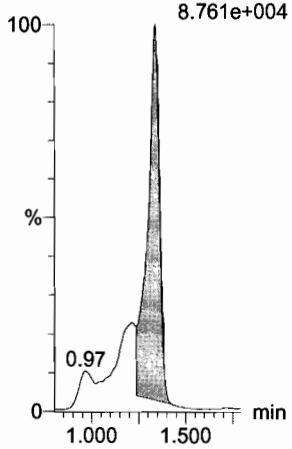
PFHpA



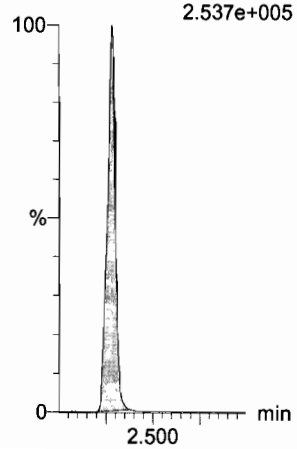
L-PFHxS



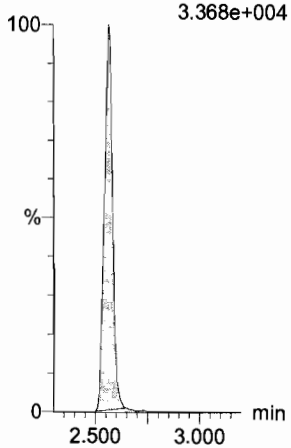
13C3-PFBA



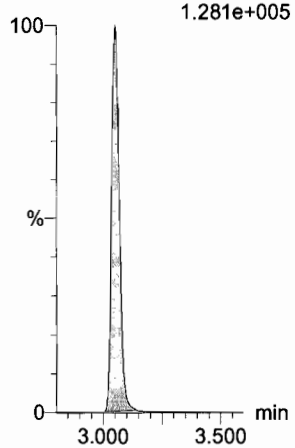
13C3-PFPeA



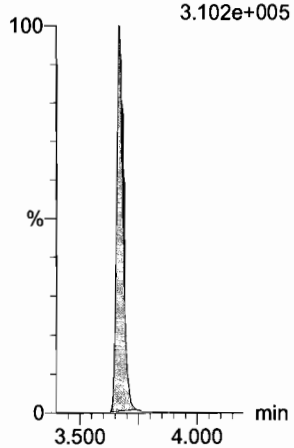
13C3-PFBS



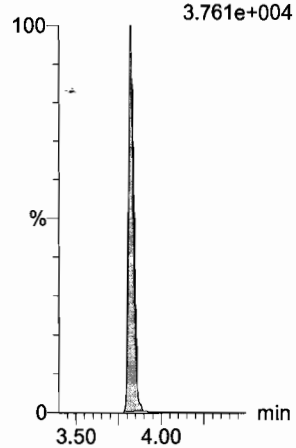
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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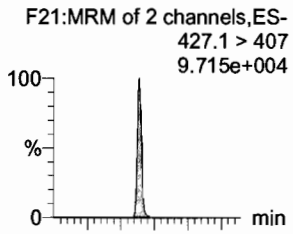
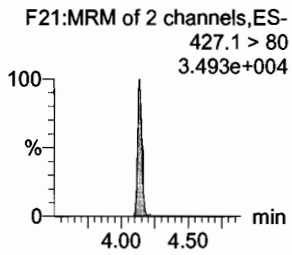
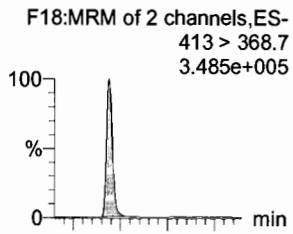
Name: 171209M2_7, Date: 09-Dec-2017, Time: 13:50:56, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

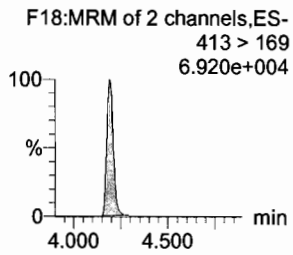
6:2 FTS





L-PFOA





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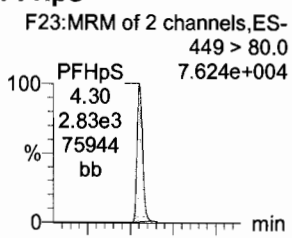
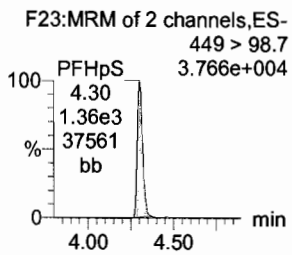
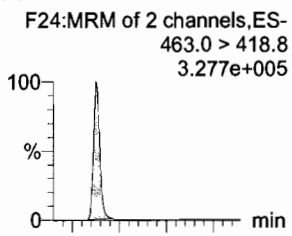
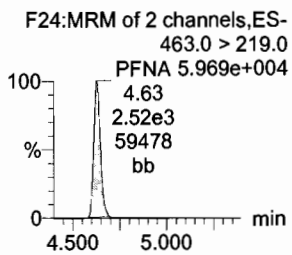


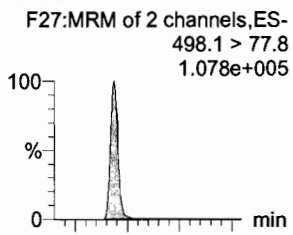


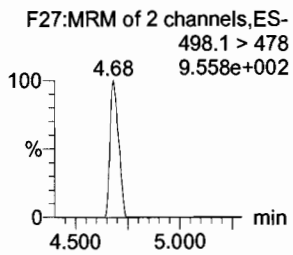
PFNA



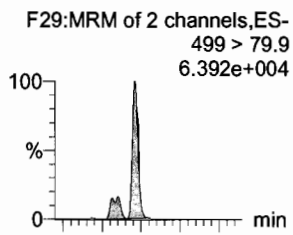


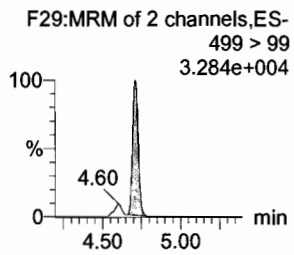
PFOSA



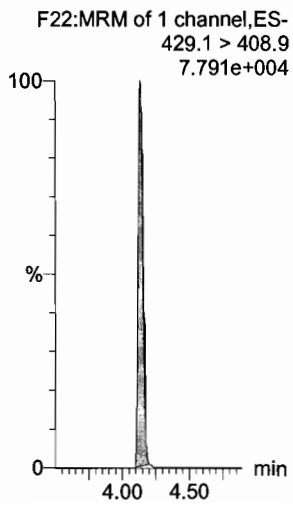


L-PFOS

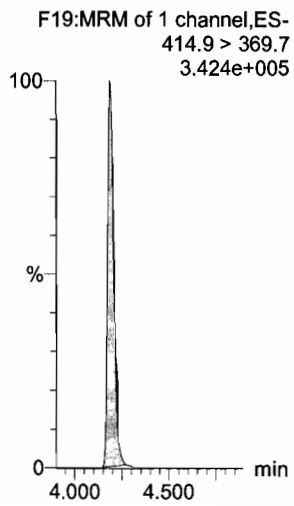




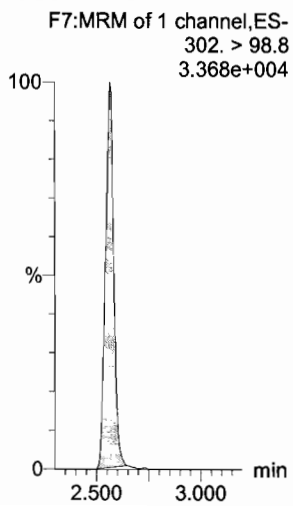
13C2-6:2 FTS



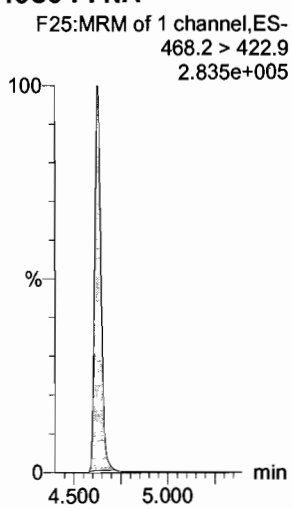
13C2-PFOA



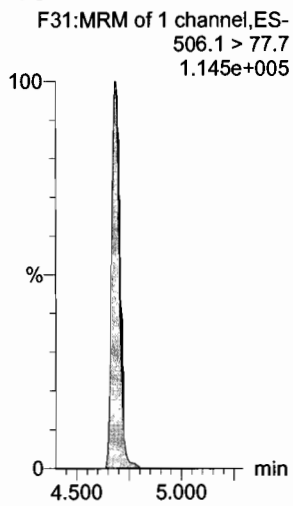
13C3-PFBS



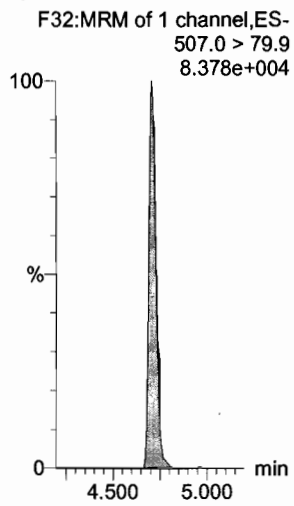
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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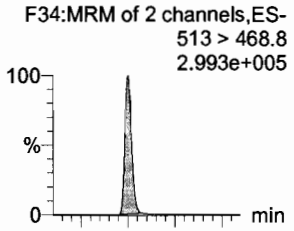
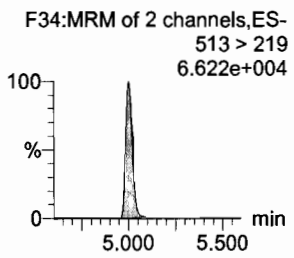
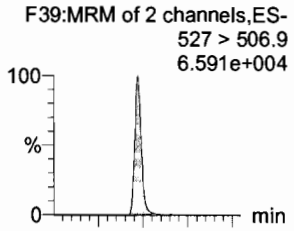
Name: 171209M2_7, Date: 09-Dec-2017, Time: 13:50:56, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

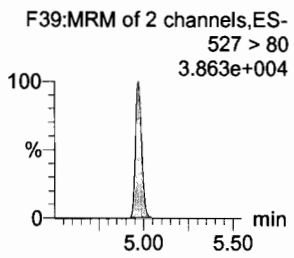
PFDA



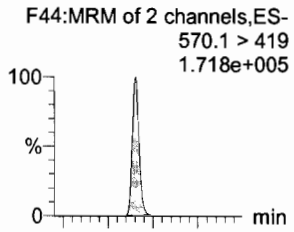


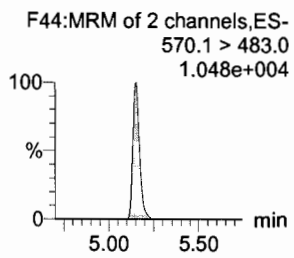
8:2 FTS



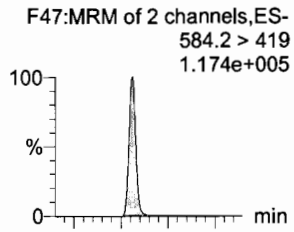


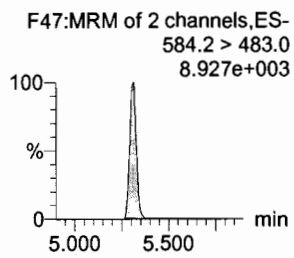
N-MeFOSAA



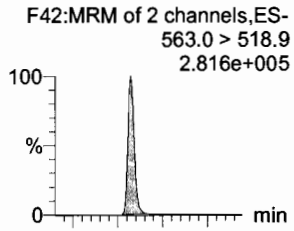


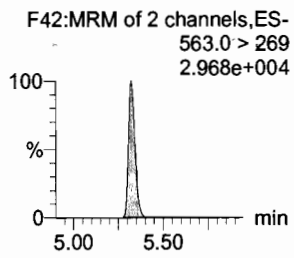
N-EtFOSAA



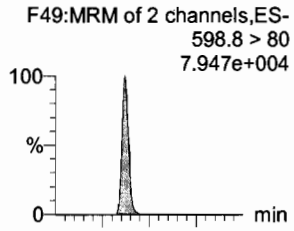


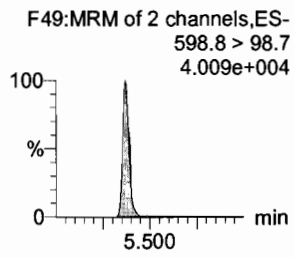
PFUdA



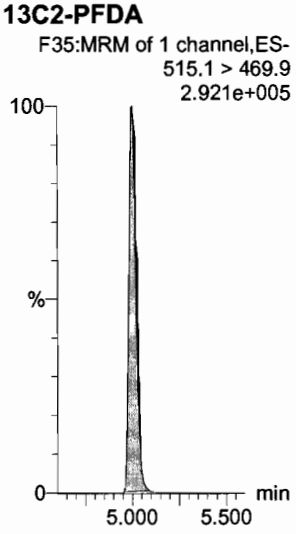


PFDS

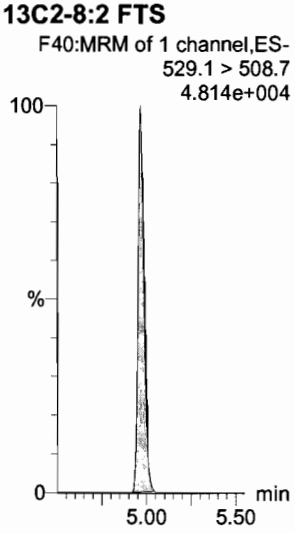




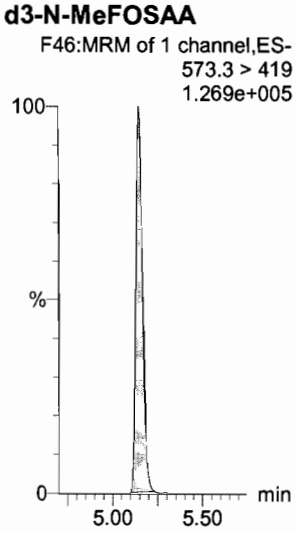
13C2-PFDA



13C2-8:2 FTS



d3-N-MeFOSAA



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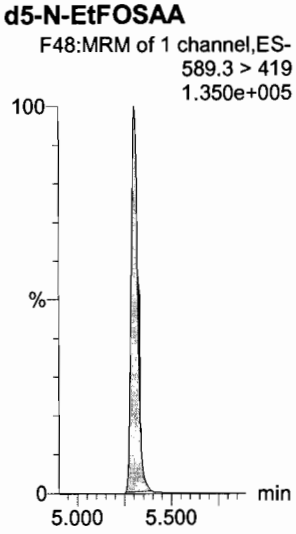
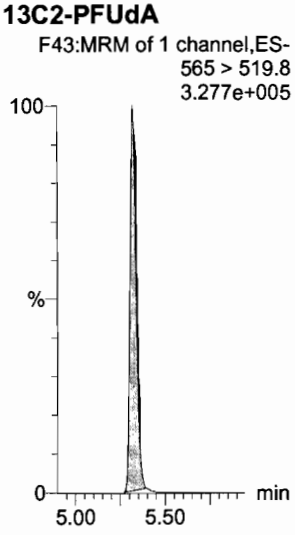
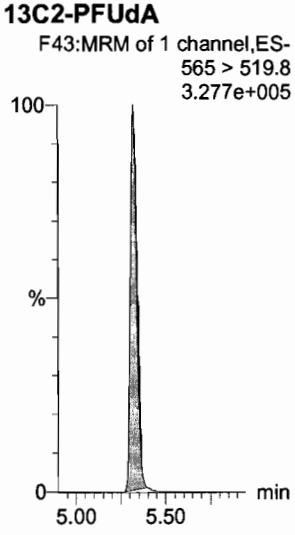


13C2-PFUdA



13C2-PFUdA



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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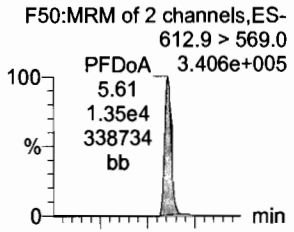
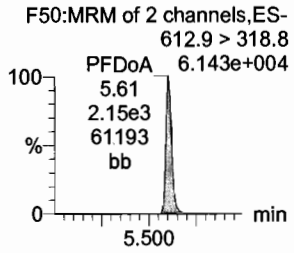
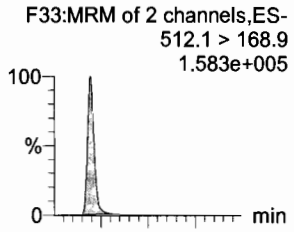
Name: 171209M2_7, Date: 09-Dec-2017, Time: 13:50:56, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

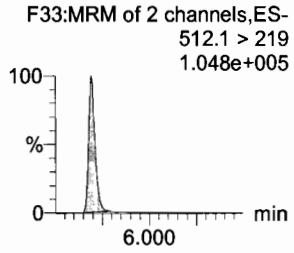
PFDoA



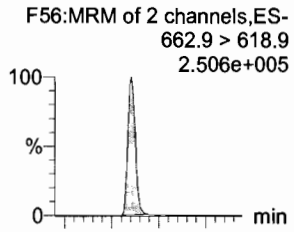


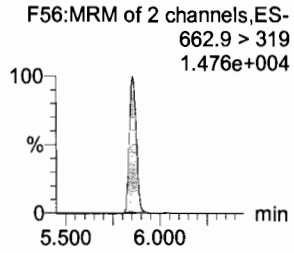
N-MeFOSA



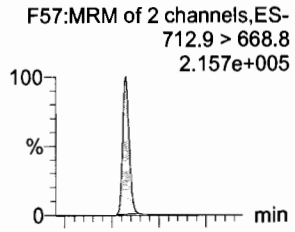


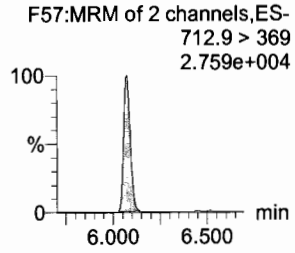
PFTrDA



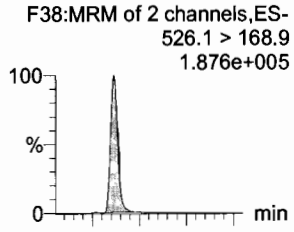


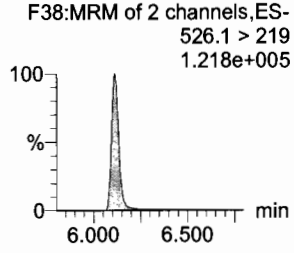
PFTeDA



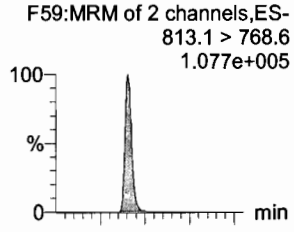


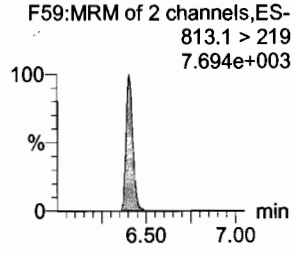
N-EtFOSA



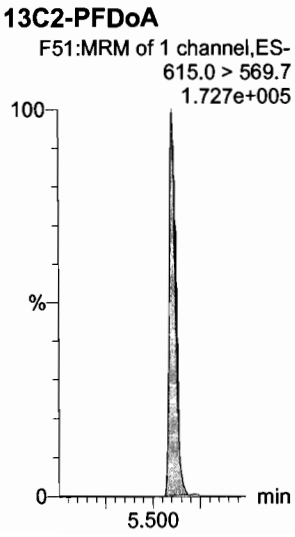


PFHxDA

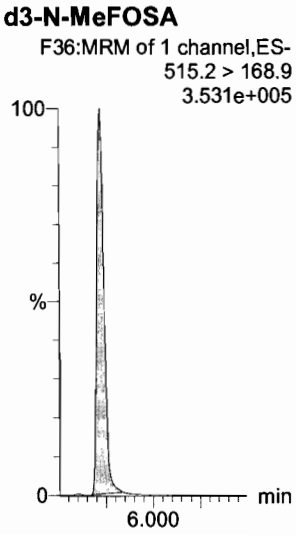




13C2-PFDoA



d3-N-MeFOSA



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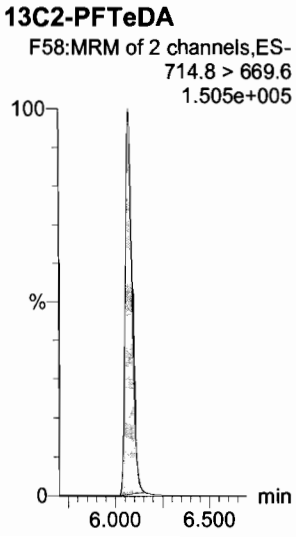
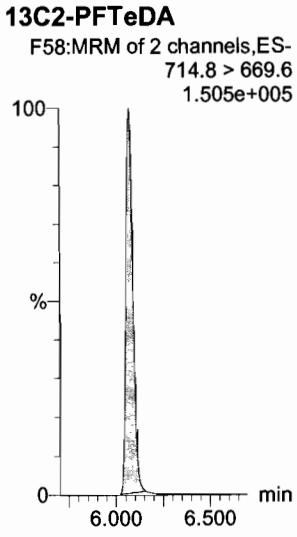
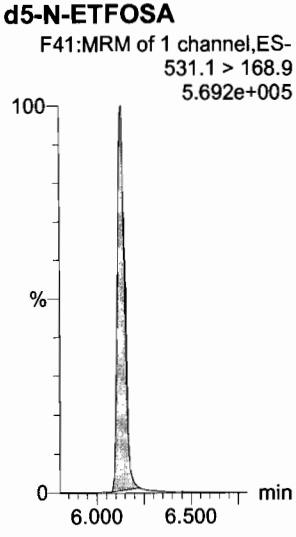


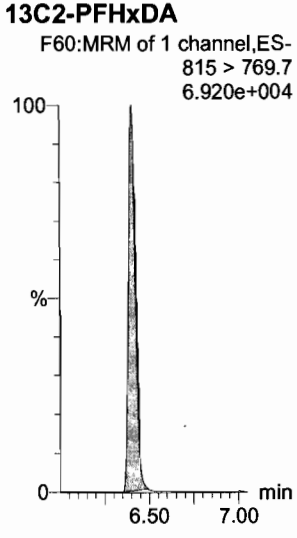
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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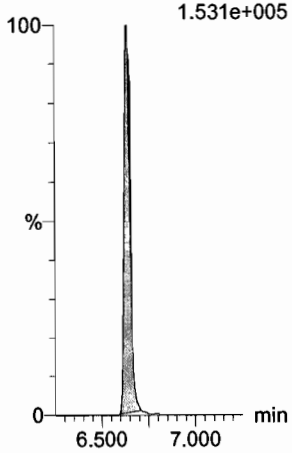
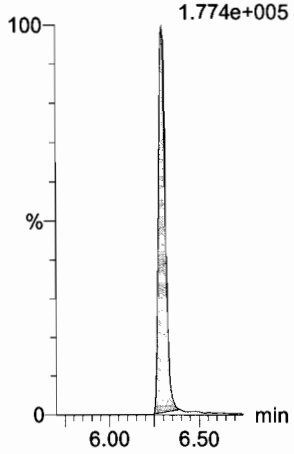
Name: 171209M2_7, Date: 09-Dec-2017, Time: 13:50:56, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

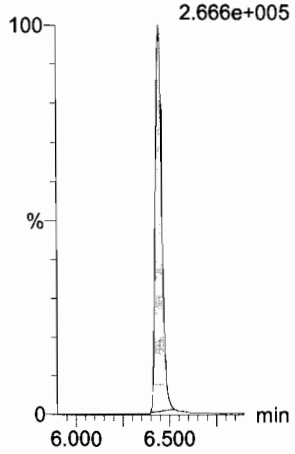
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.531e+005



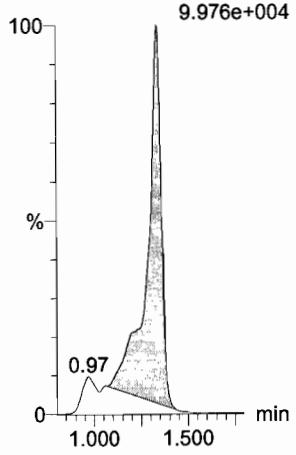
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.774e+005



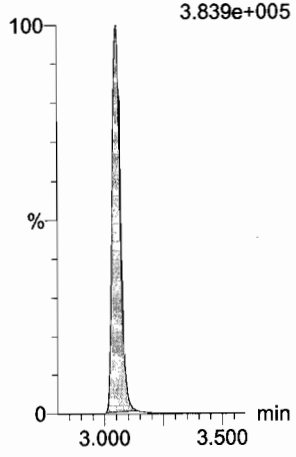
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.666e+005



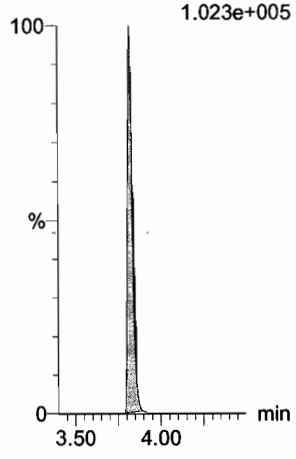
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
9.976e+004



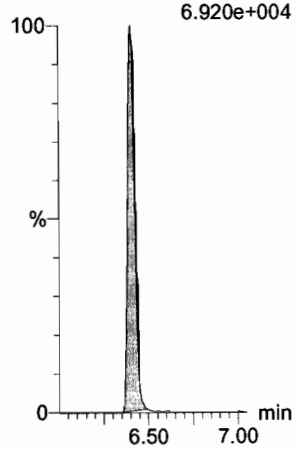
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.839e+005



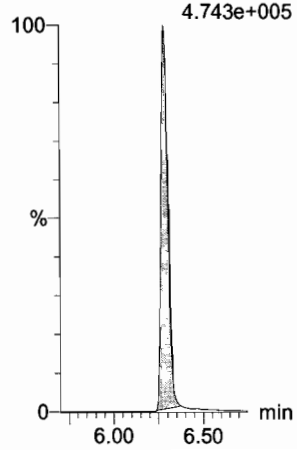
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.023e+005



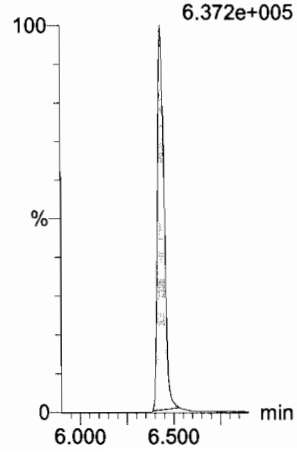
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.920e+004



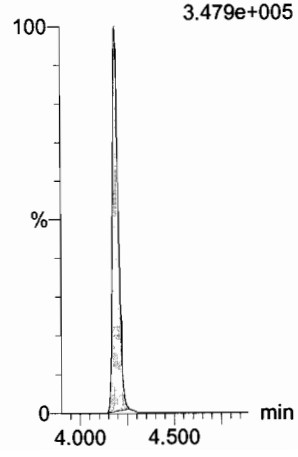
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.743e+005



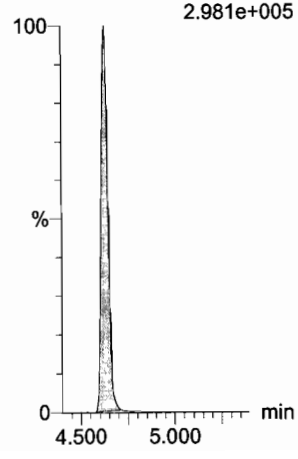
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.372e+005



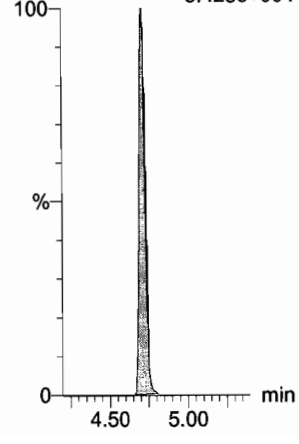
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.479e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.981e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.425e+004



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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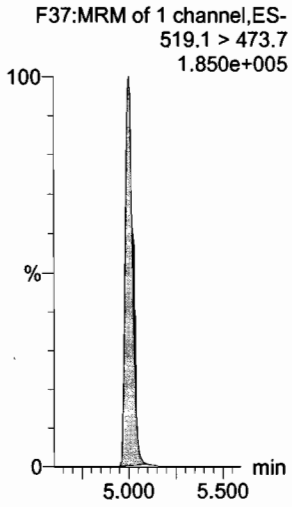
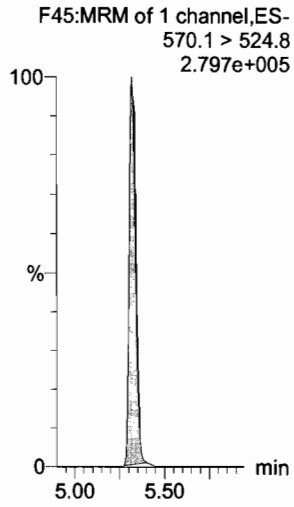
Name: 171209M2_7, Date: 09-Dec-2017, Time: 13:50:56, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

13C6-PFDA



13C7-PFUdA



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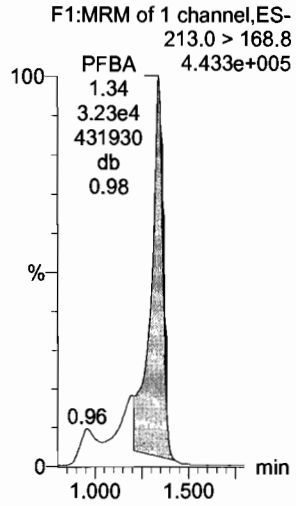
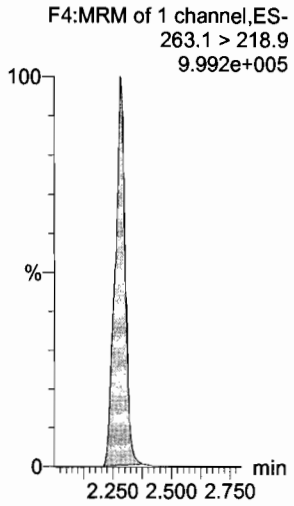
Name: 171209M2_8, Date: 09-Dec-2017, Time: 14:02:06, ID: ST171209M1-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

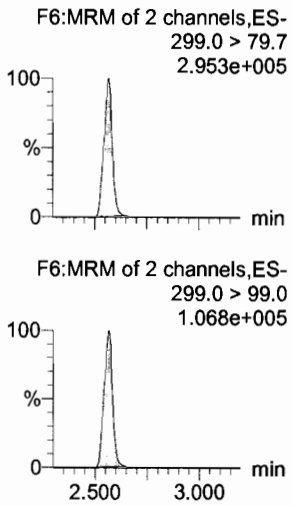
PFBA



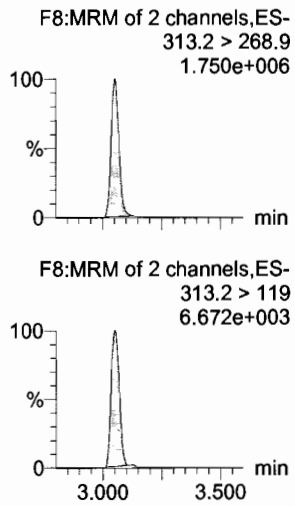
PFPeA



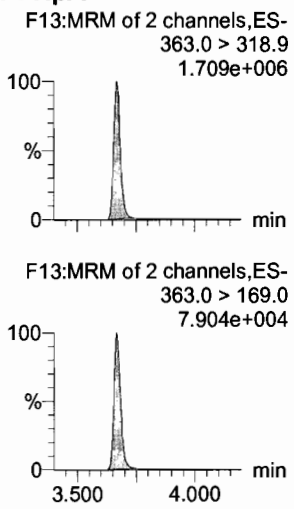
PFBS



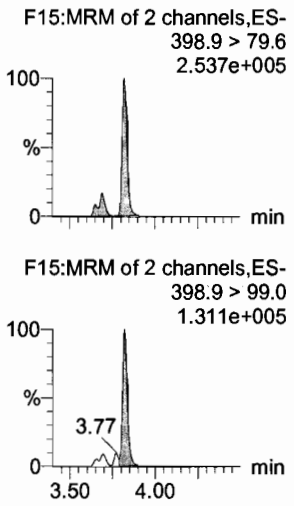
PFHxA



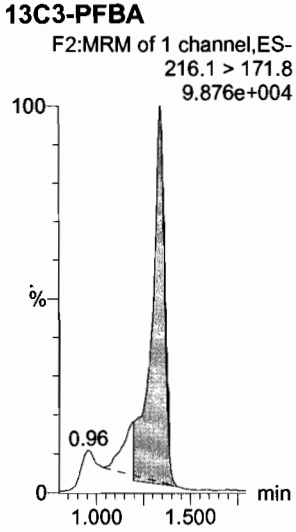
PFHpA



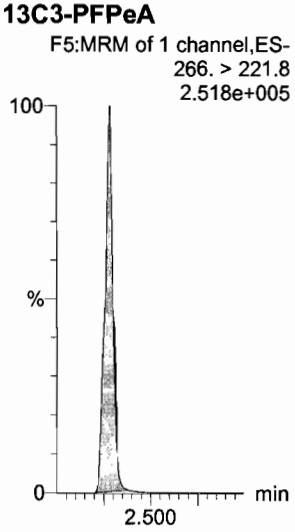
L-PFHxS



13C3-PFBA



13C3-PFPeA



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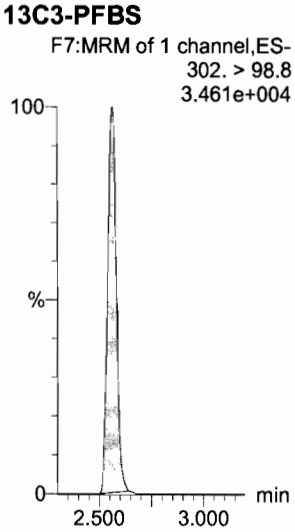
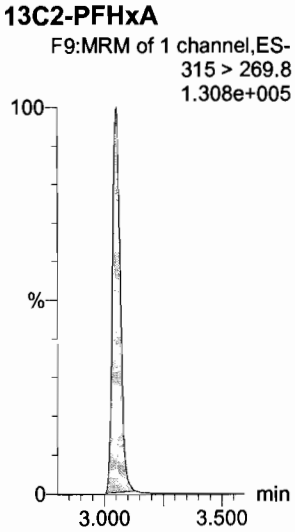
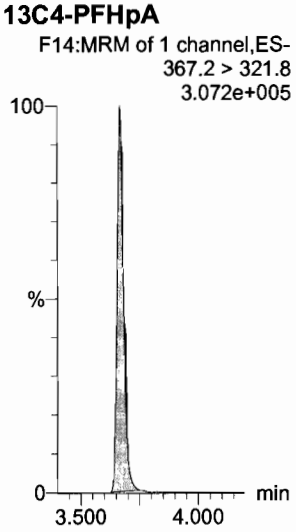


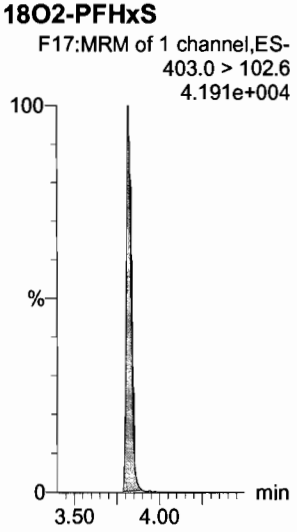
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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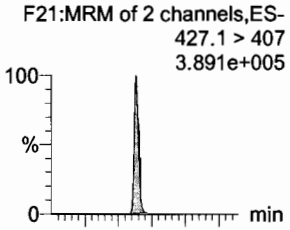
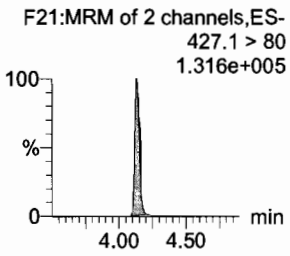
Name: 171209M2_8, Date: 09-Dec-2017, Time: 14:02:06, ID: ST171209M1-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

6:2 FTS





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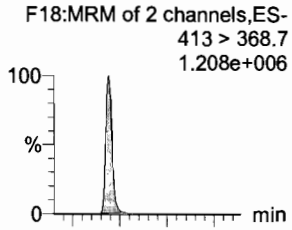

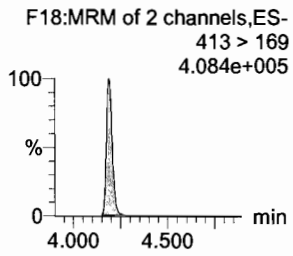

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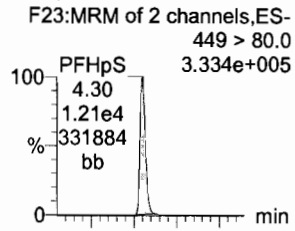

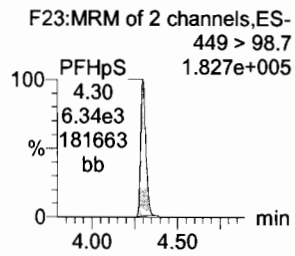

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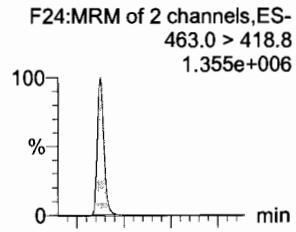

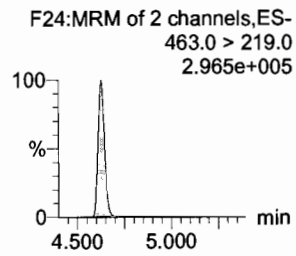

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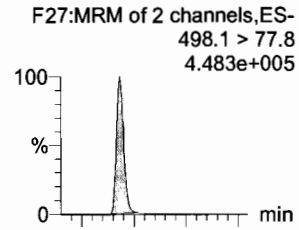

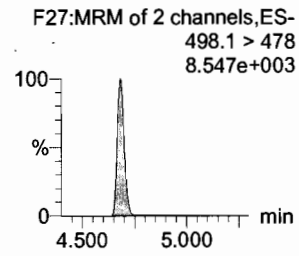

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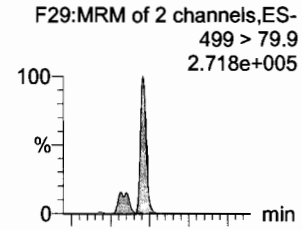
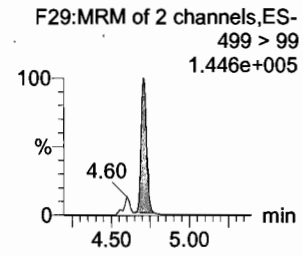
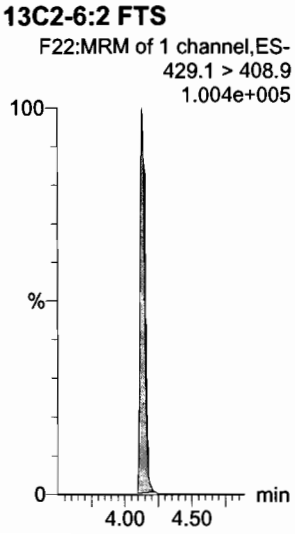




13C2-6:2 FTS



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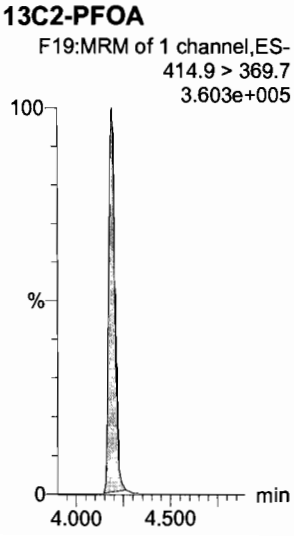

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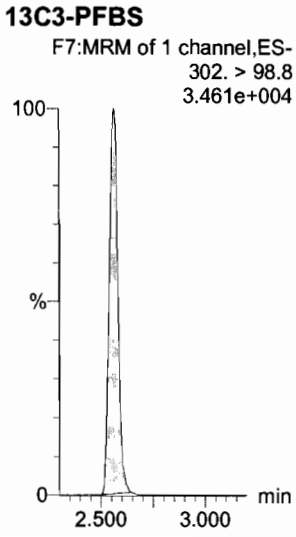

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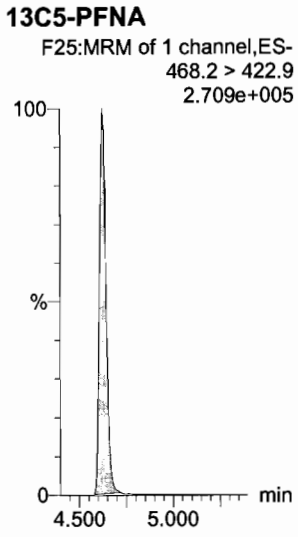

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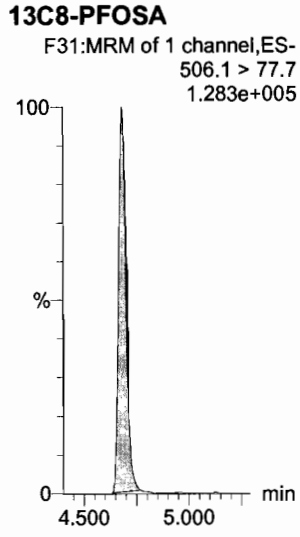

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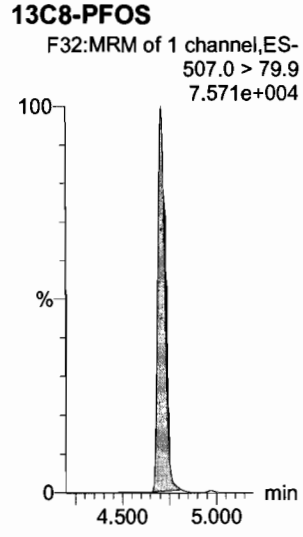

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Name: 171209M2_8, Date: 09-Dec-2017, Time: 14:02:06, ID: ST171209M1-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

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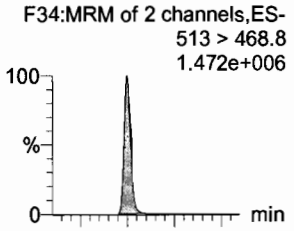
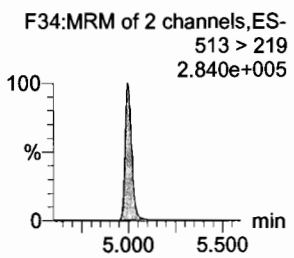
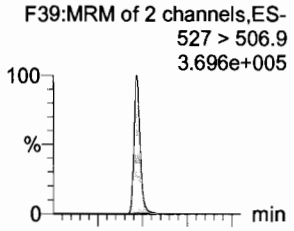
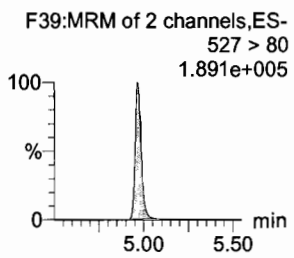




8:2 FTS





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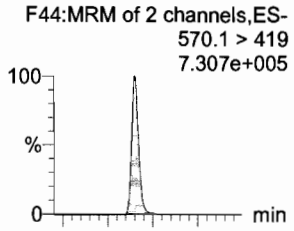

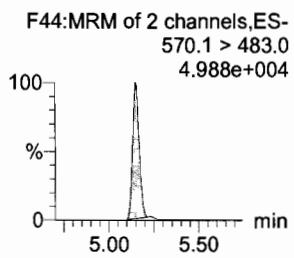

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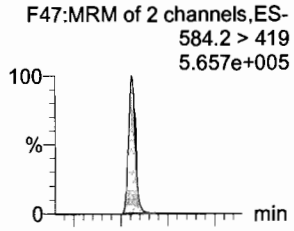

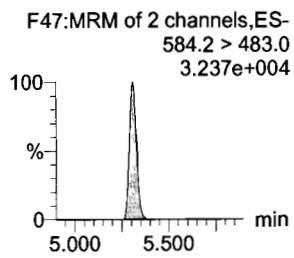

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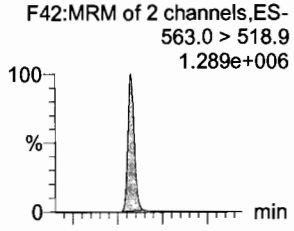

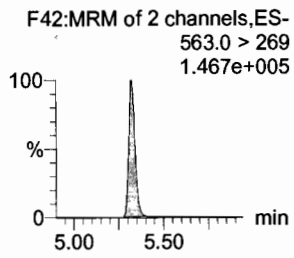

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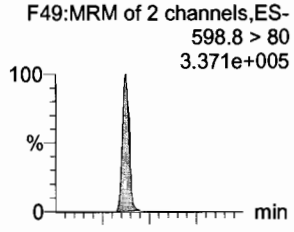

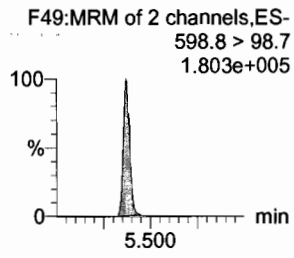

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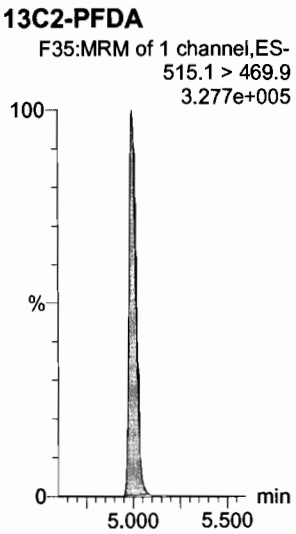

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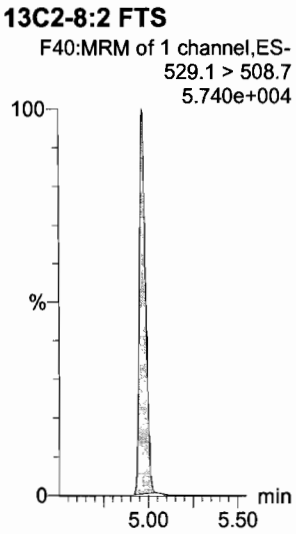

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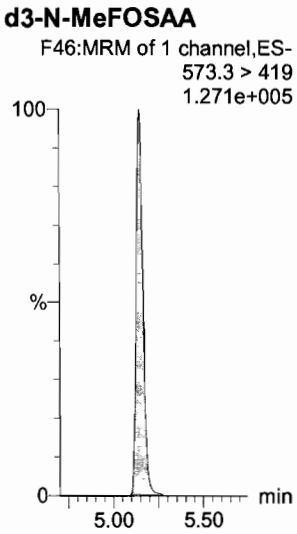

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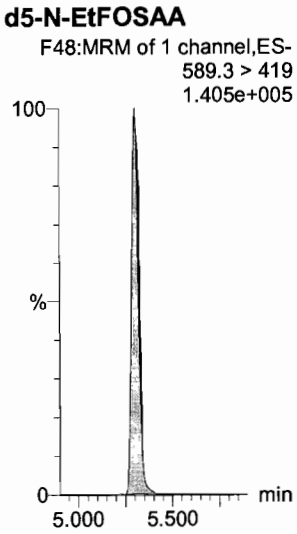

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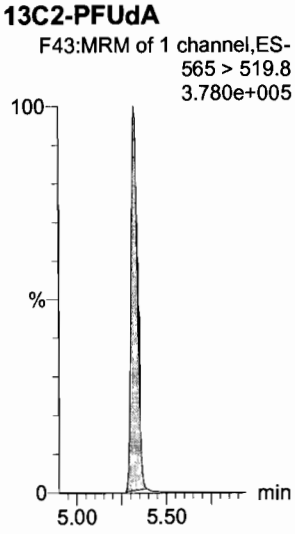

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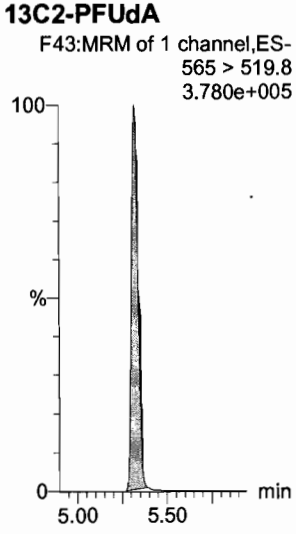

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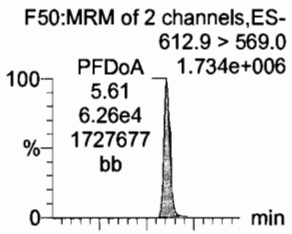

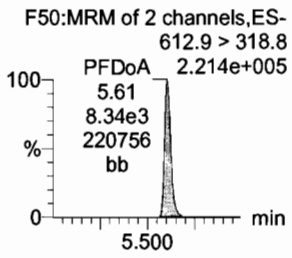

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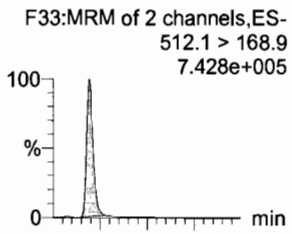

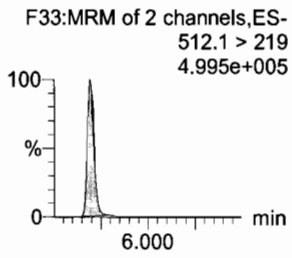

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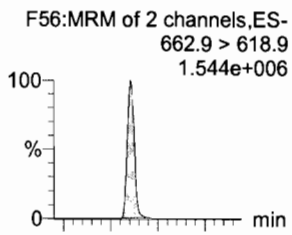

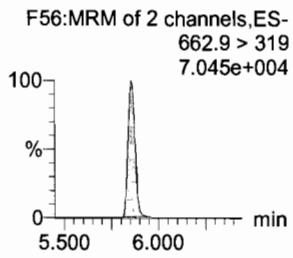

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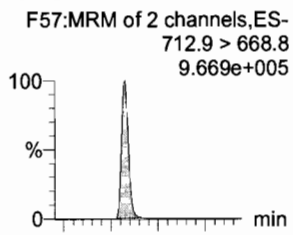

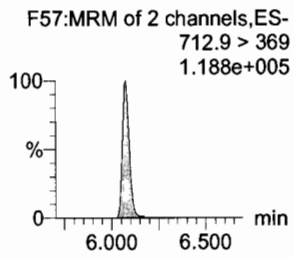

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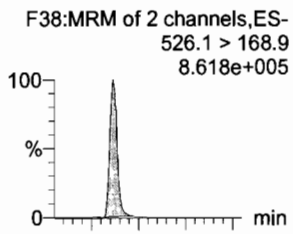

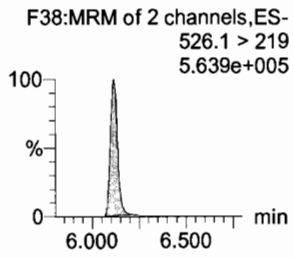

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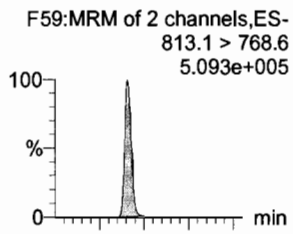

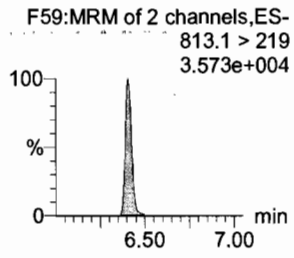

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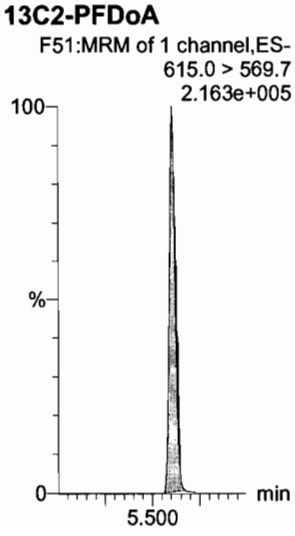

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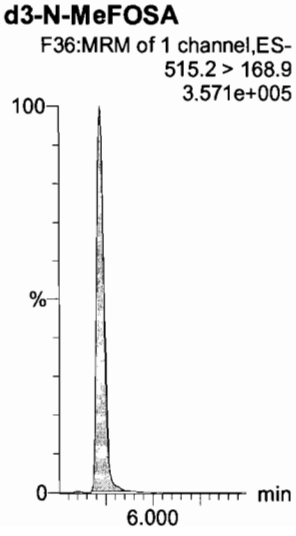

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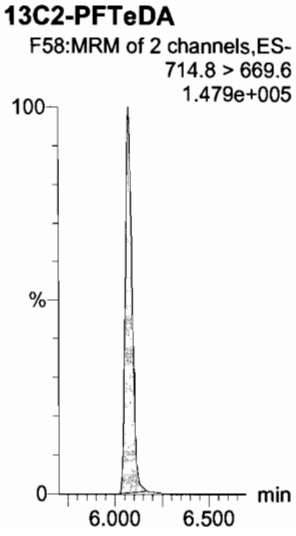

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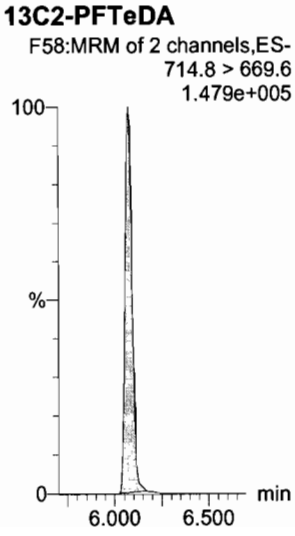

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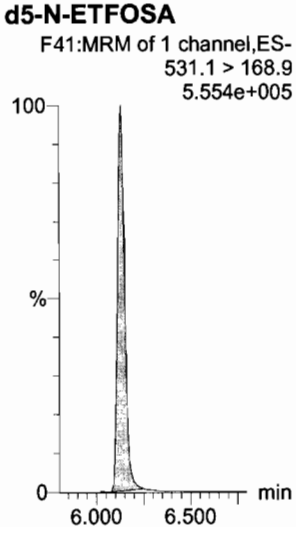

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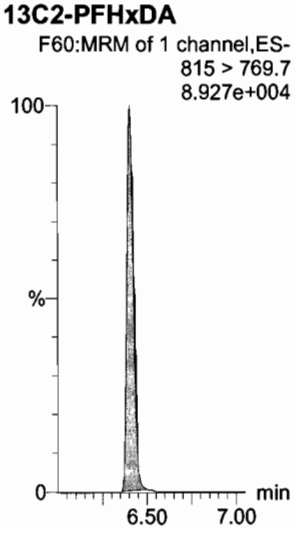

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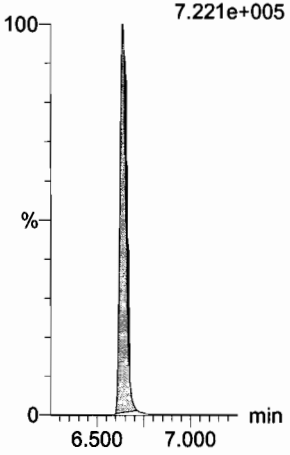
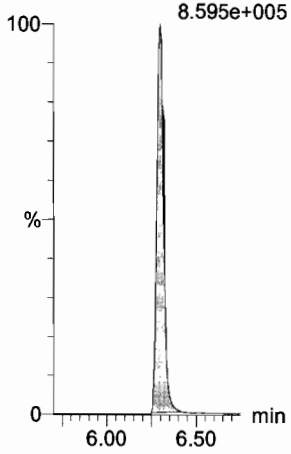
Name: 171209M2_8, Date: 09-Dec-2017, Time: 14:02:06, ID: ST171209M1-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

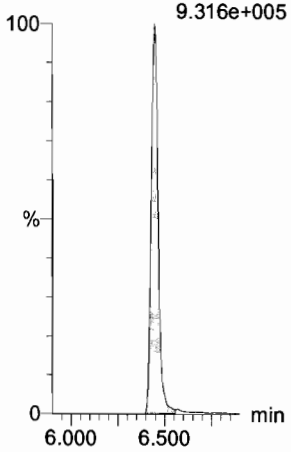
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.221e+005



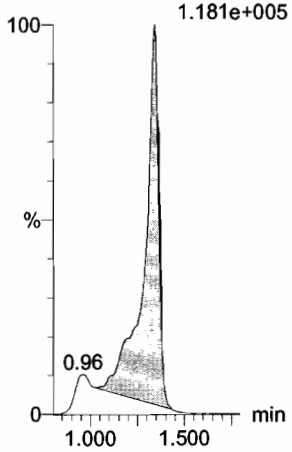
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
8.595e+005



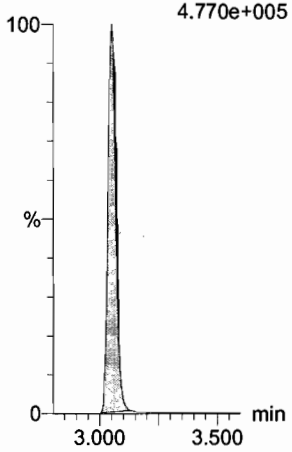
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
9.316e+005



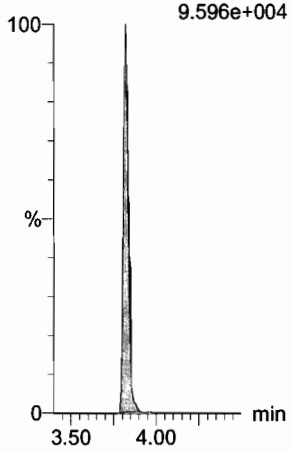
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.181e+005



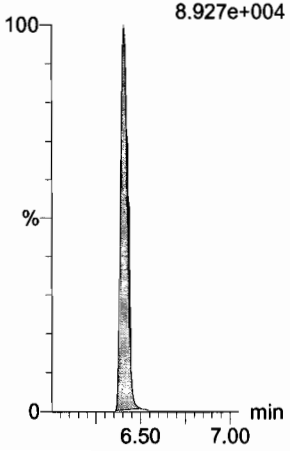
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.770e+005



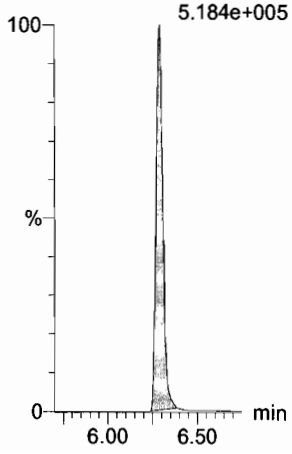
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.596e+004



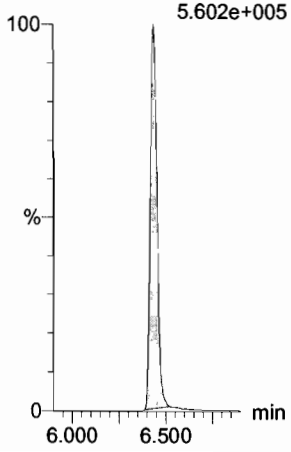
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.927e+004



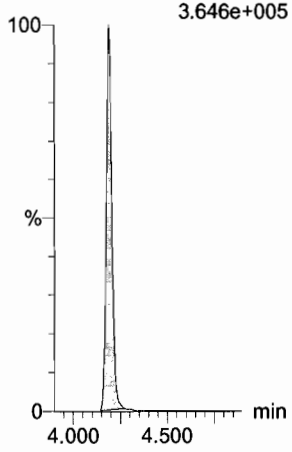
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.184e+005



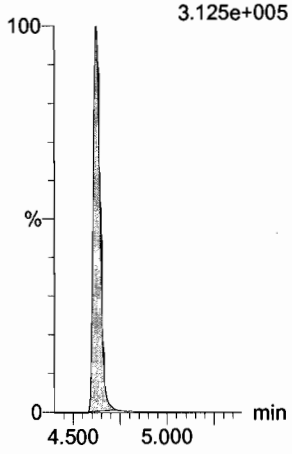
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.602e+005



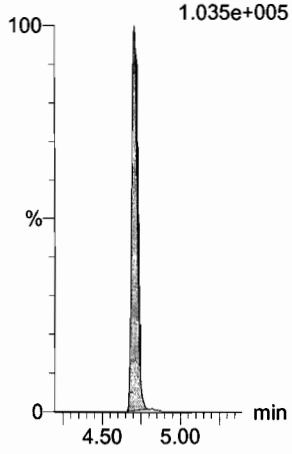
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.646e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.125e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.035e+005



Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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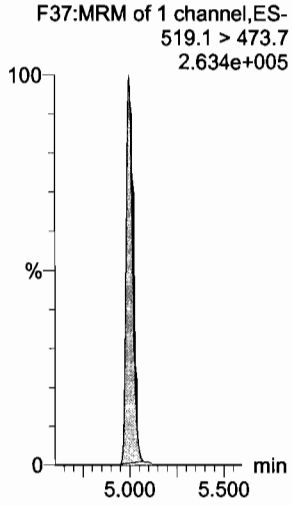
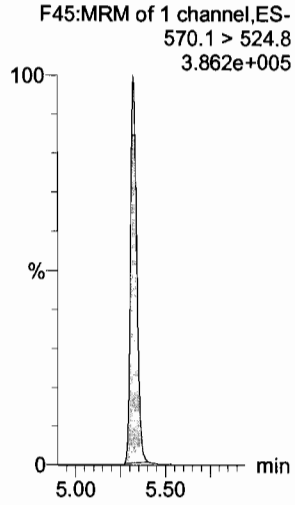
Name: 171209M2_8, Date: 09-Dec-2017, Time: 14:02:06, ID: ST171209M1-7 PFC CS4 17K2811, Description: PFC CS4 17K2811

13C6-PFDA



13C7-PFUdA



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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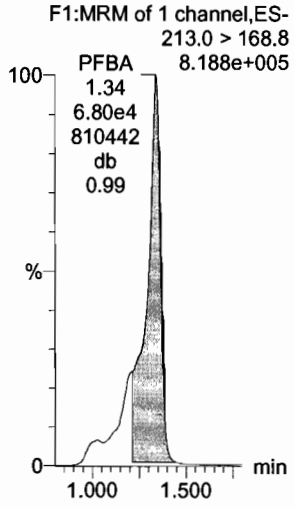
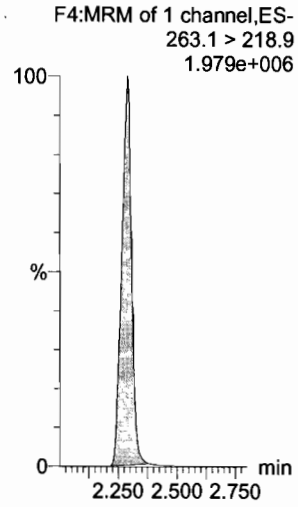
Name: 171209M2_9, Date: 09-Dec-2017, Time: 14:13:17, ID: ST171209M1-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

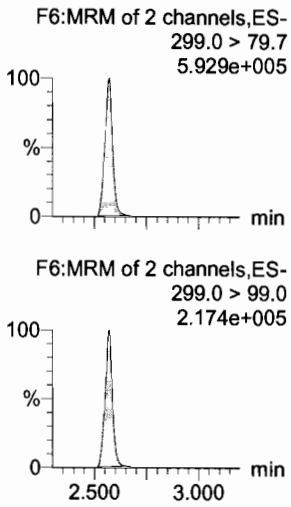
PFBA



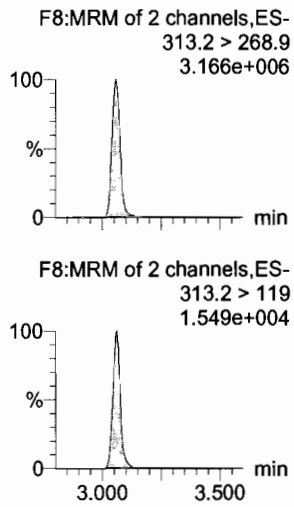
PFPeA



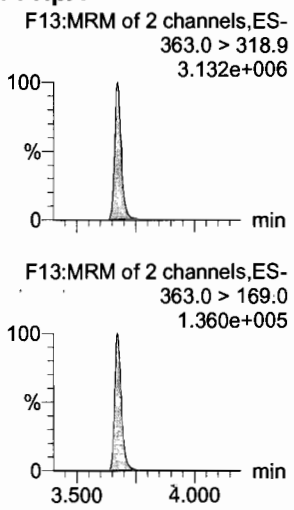
PFBS



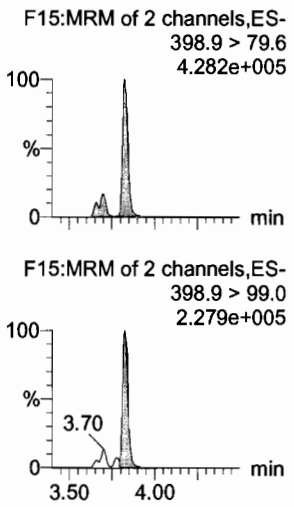
PFHxA



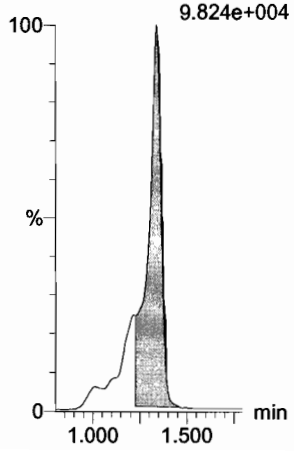
PFHpA



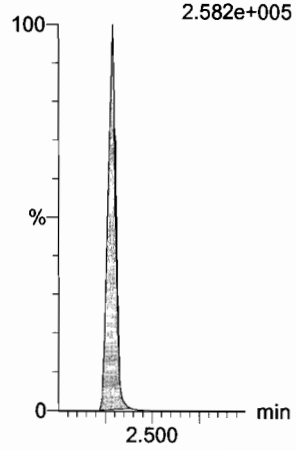
L-PFHxS



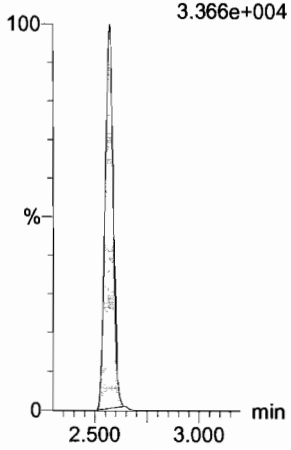
13C3-PFBA



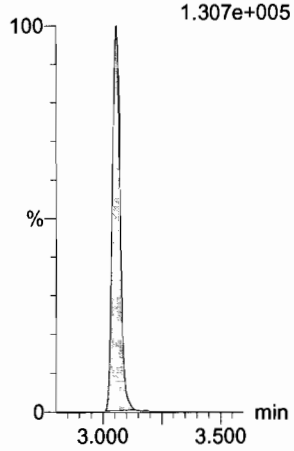
13C3-PFPeA



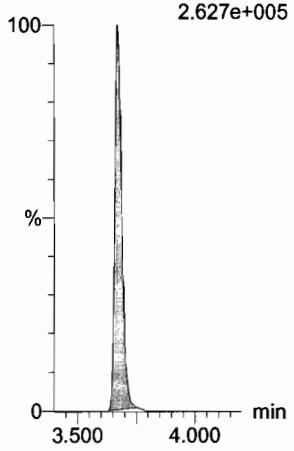
13C3-PFBS



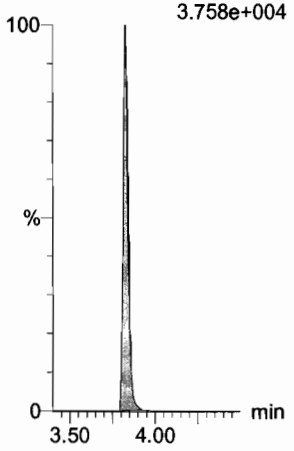
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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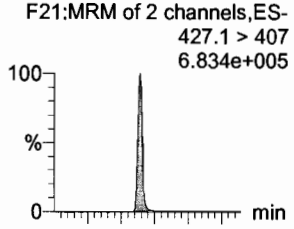
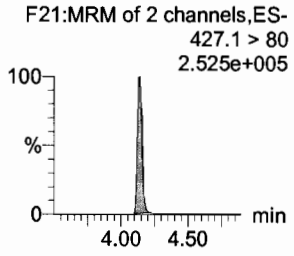
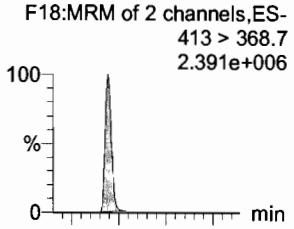
Name: 171209M2_9, Date: 09-Dec-2017, Time: 14:13:17, ID: ST171209M1-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

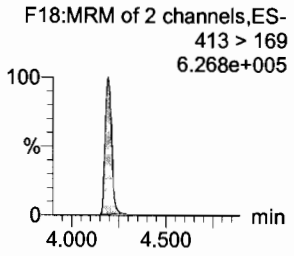
6:2 FTS



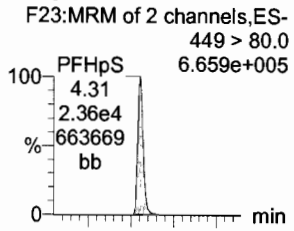


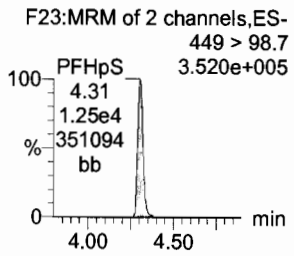
L-PFOA



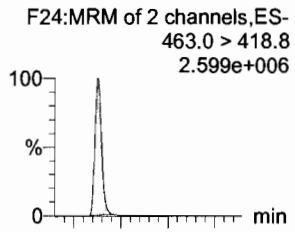


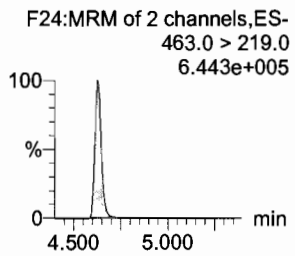
PFHpS



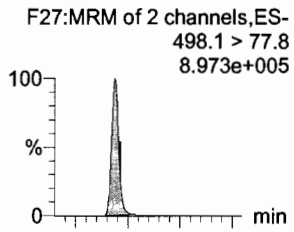


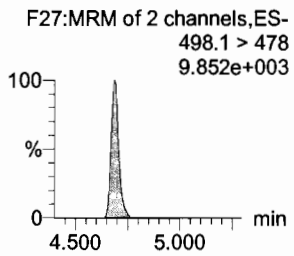
PFNA



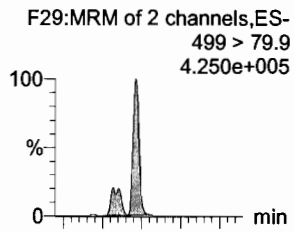


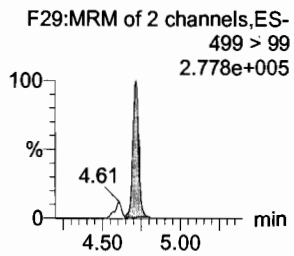
PFOSA



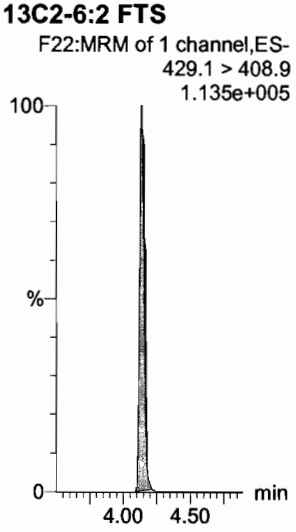


L-PFOS

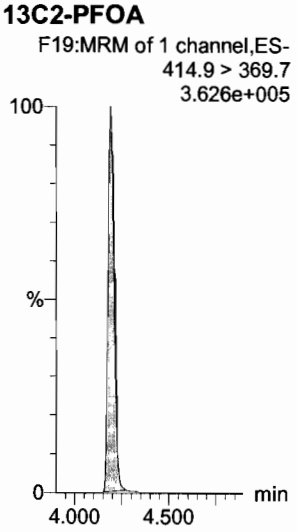




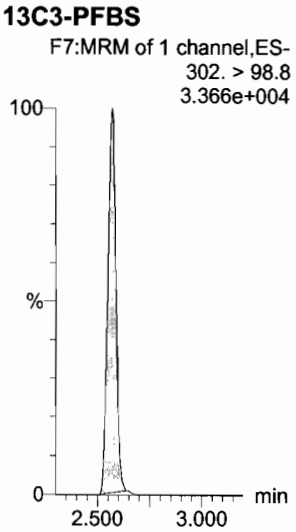
13C2-6:2 FTS



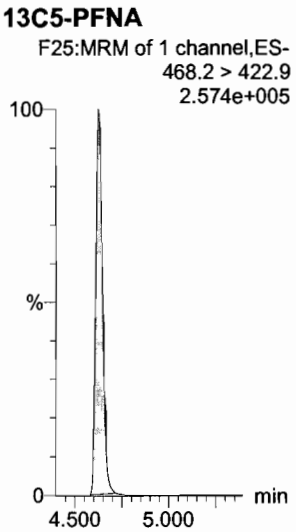
13C2-PFOA



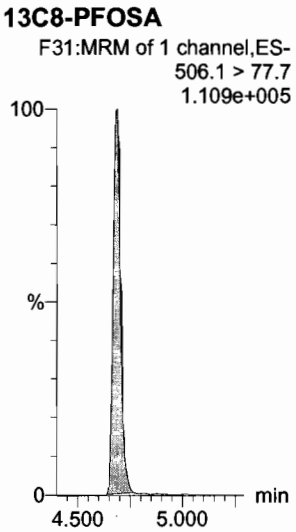
13C3-PFBS



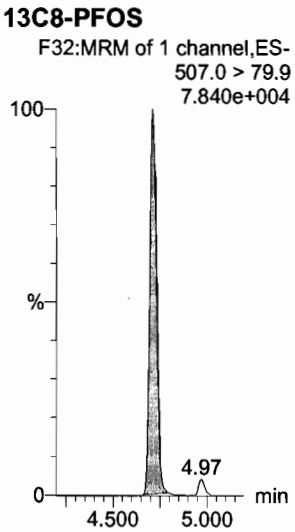
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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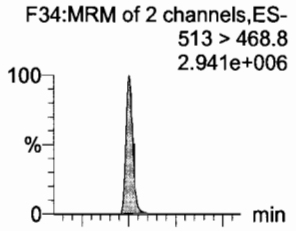
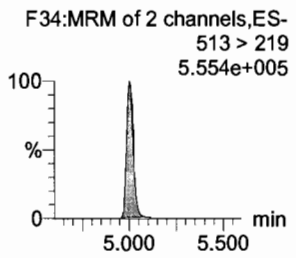
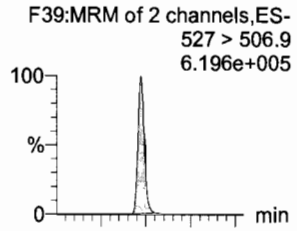
Name: 171209M2_9, Date: 09-Dec-2017, Time: 14:13:17, ID: ST171209M1-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

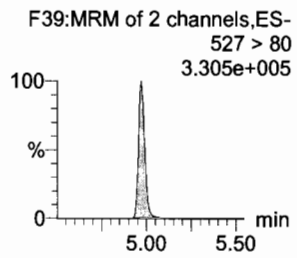
PFDA



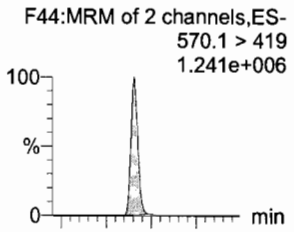


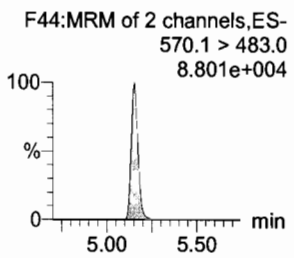
8:2 FTS



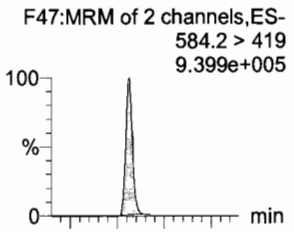


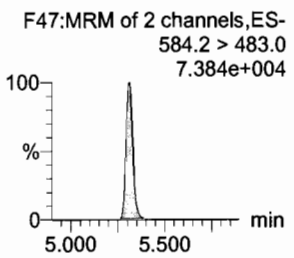
N-MeFOSAA



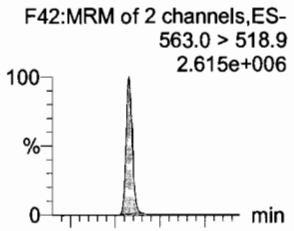


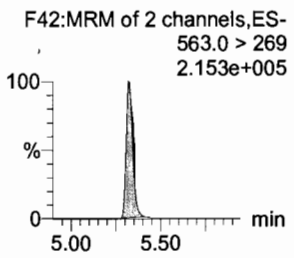
N-EtFOSAA



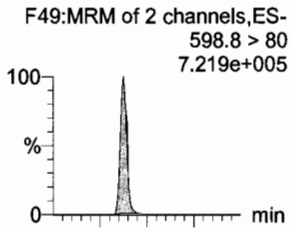


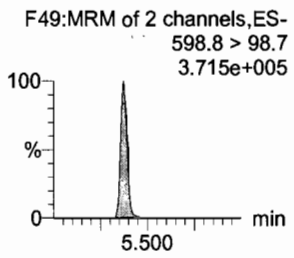
PFUdA



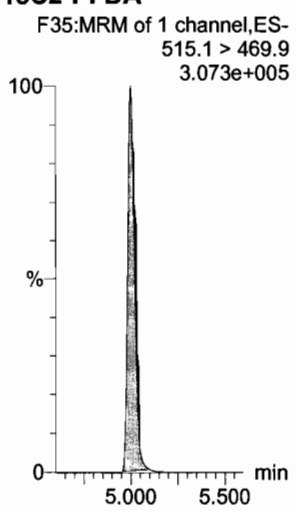


PFDS

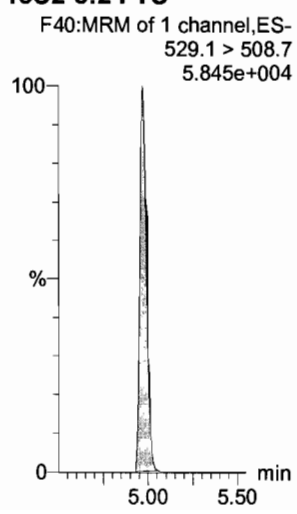




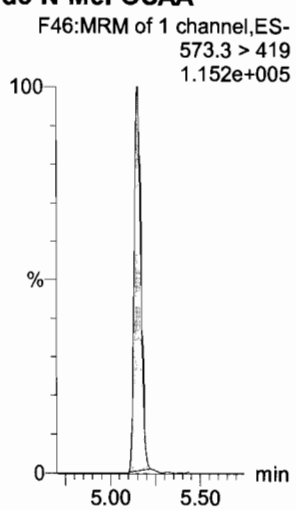
13C2-PFDA



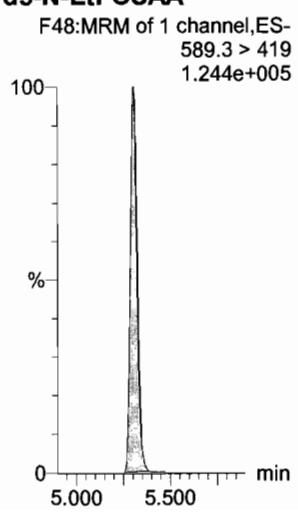
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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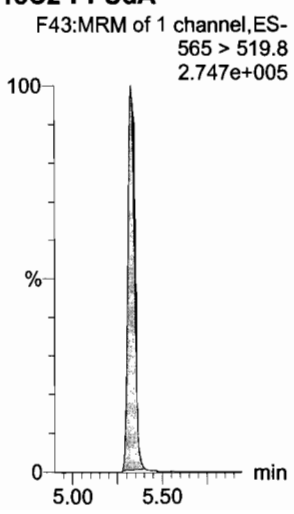
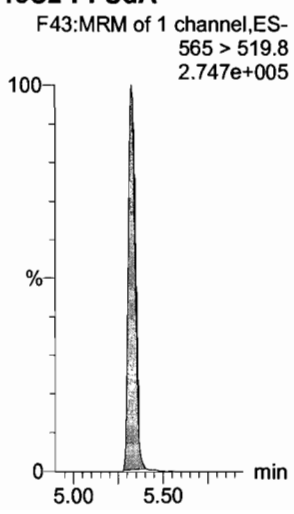


13C2-PFUdA



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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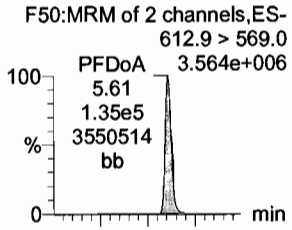
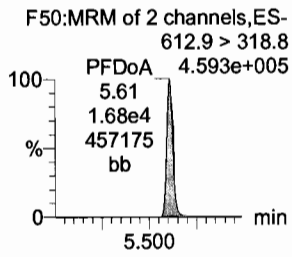
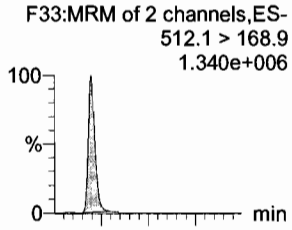
Name: 171209M2_9, Date: 09-Dec-2017, Time: 14:13:17, ID: ST171209M1-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

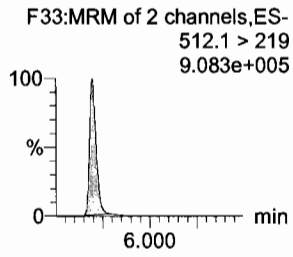
PFDoA





N-MeFOSA





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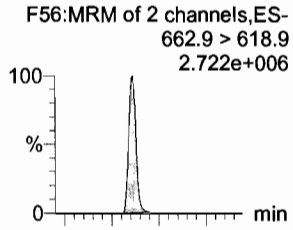
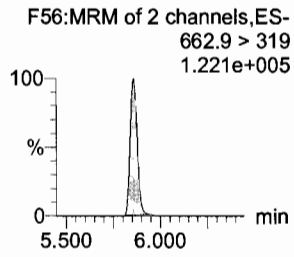
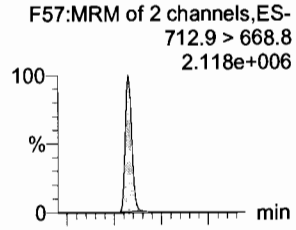
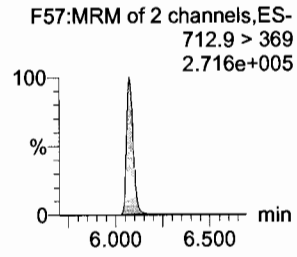


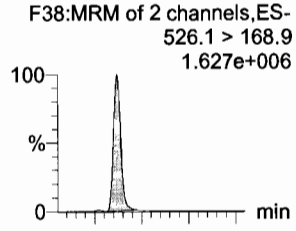


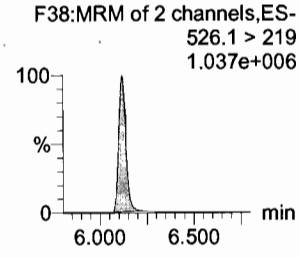
PFTeDA



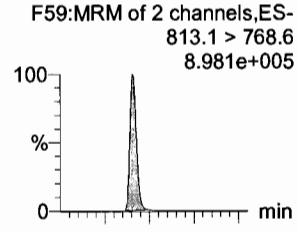


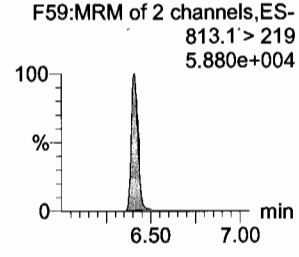
N-EtFOSA



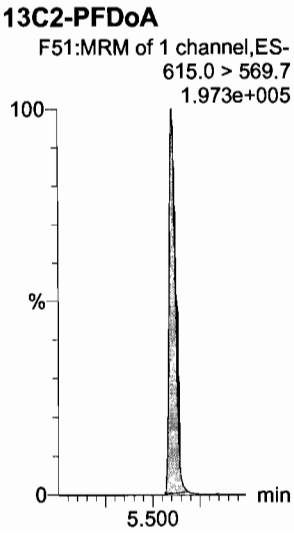


PFHxDA

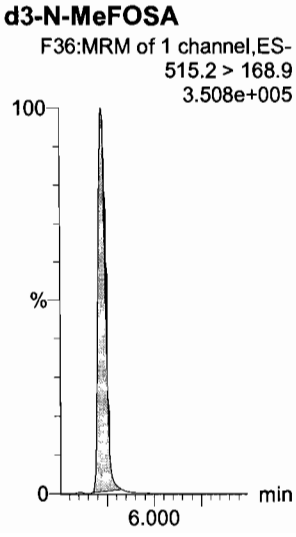




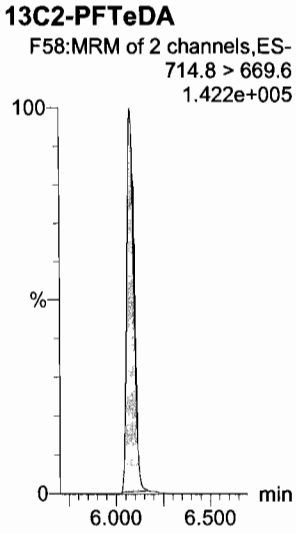
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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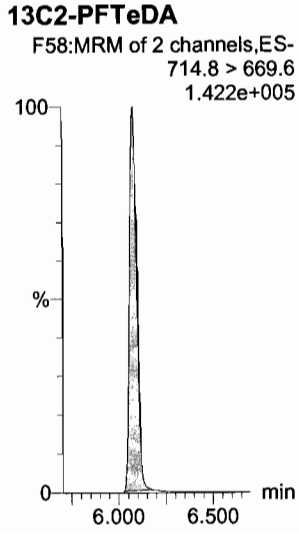
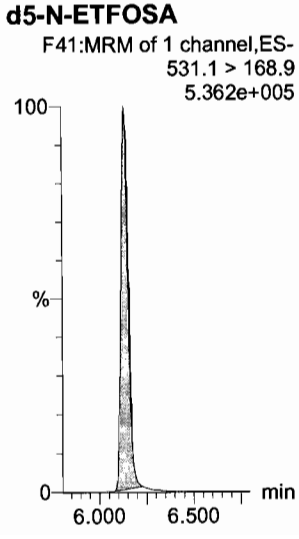
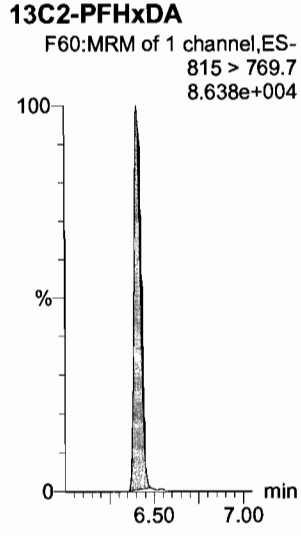


d5-N-ETFOSA



13C2-PFHxDA



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Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
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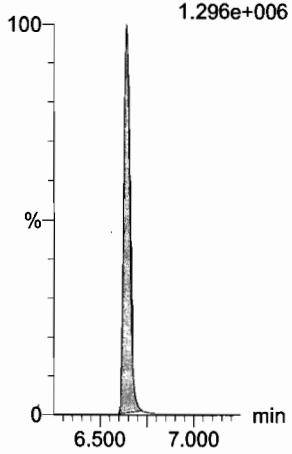
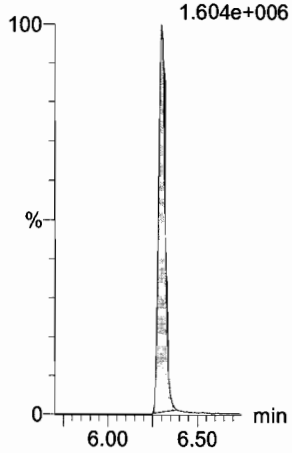
Name: 171209M2_9, Date: 09-Dec-2017, Time: 14:13:17, ID: ST171209M1-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

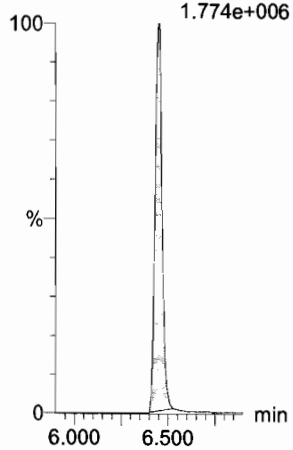
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.296e+006



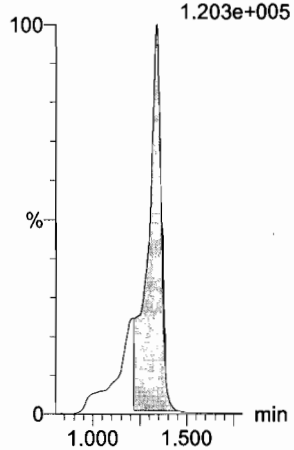
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.604e+006



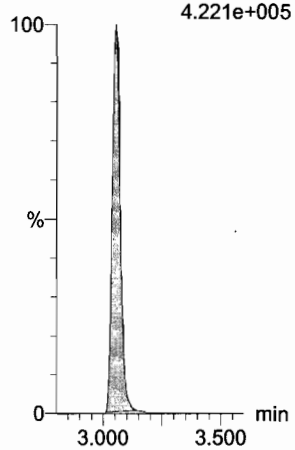
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.774e+006



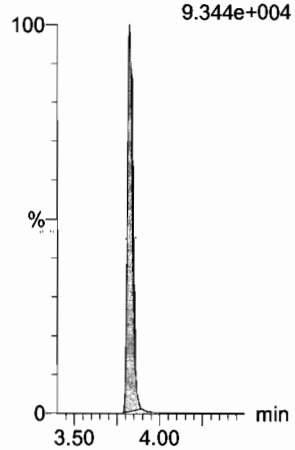
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.203e+005



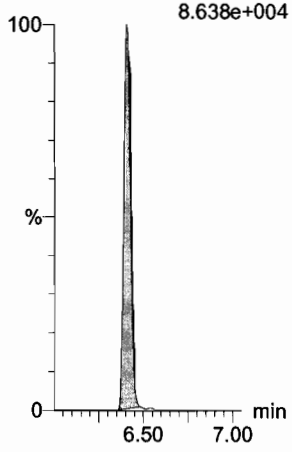
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.221e+005



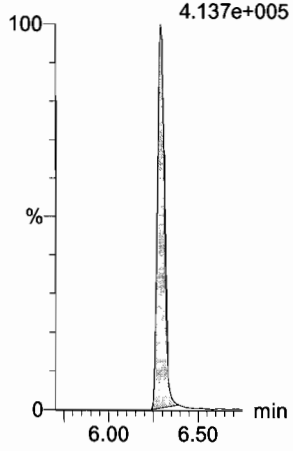
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.344e+004



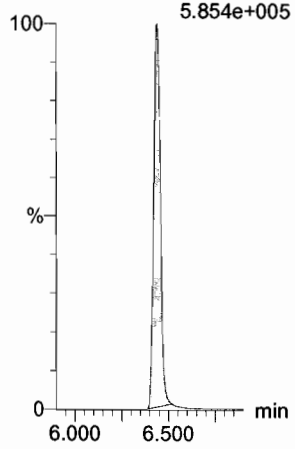
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.638e+004



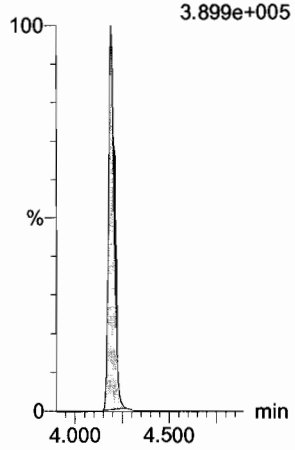
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.137e+005



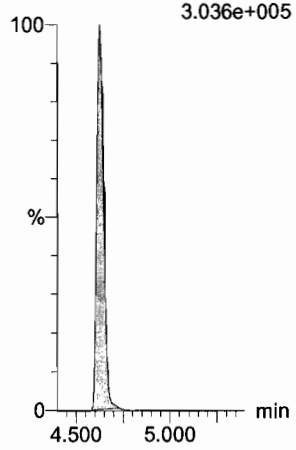
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.854e+005



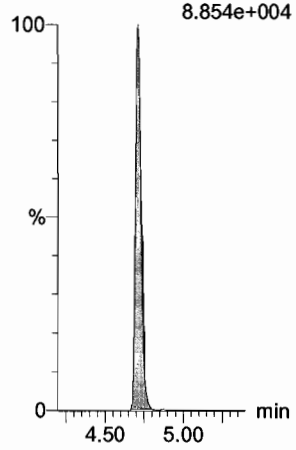
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.899e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.036e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.854e+004



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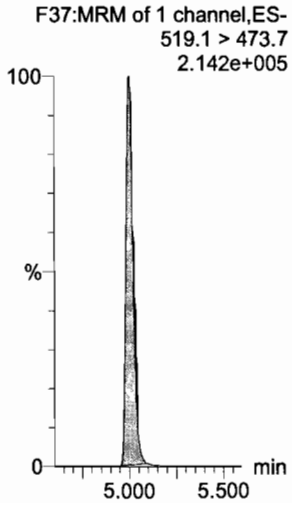
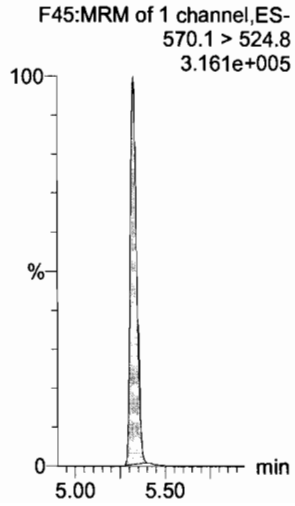
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_9, Date: 09-Dec-2017, Time: 14:13:17, ID: ST171209M1-8 PFC CS5 17K2812, Description: PFC CS5 17K2812

13C6-PFDA



13C7-PFUdA



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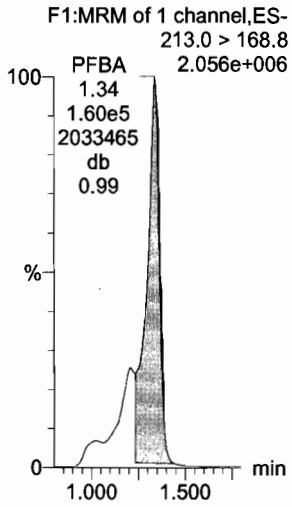
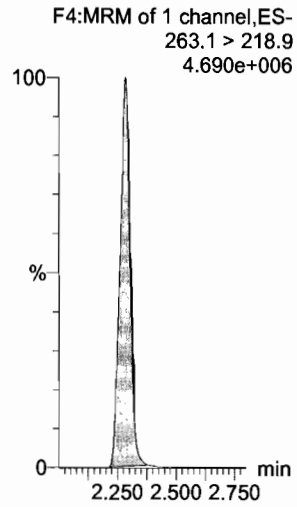
Name: 171209M2_10, Date: 09-Dec-2017, Time: 14:24:28, ID: ST171209M1-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

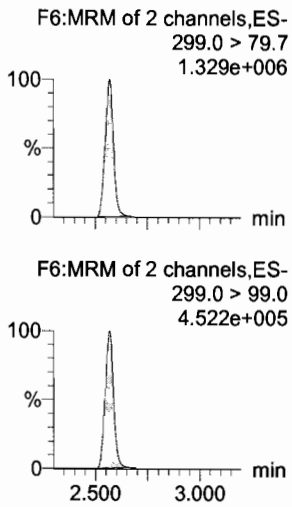
PFBA



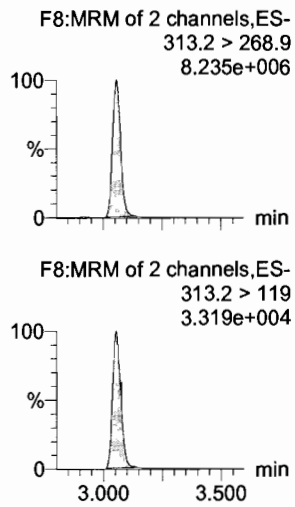
PFPeA



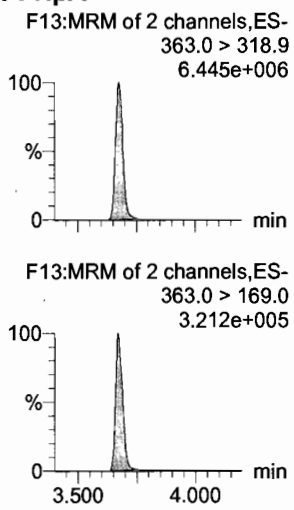
PFBS



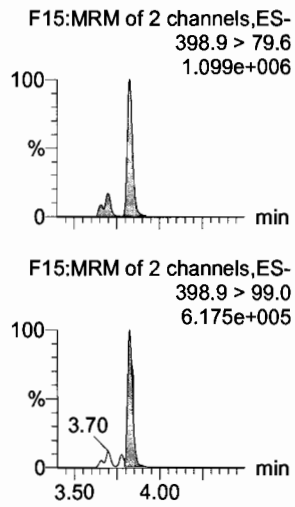
PFHxA



PFHpA



L-PFHxS



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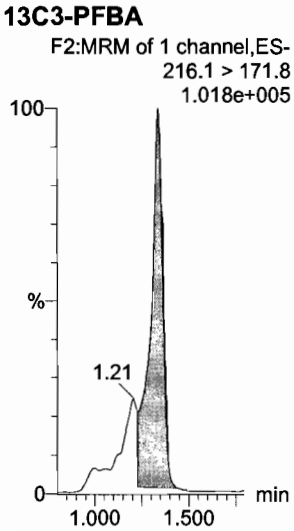

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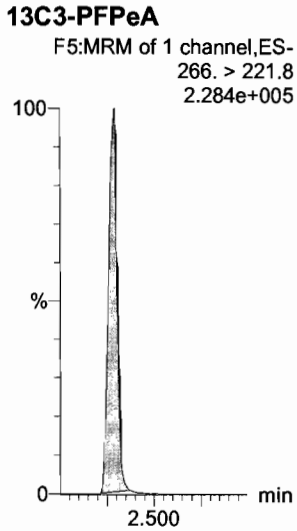

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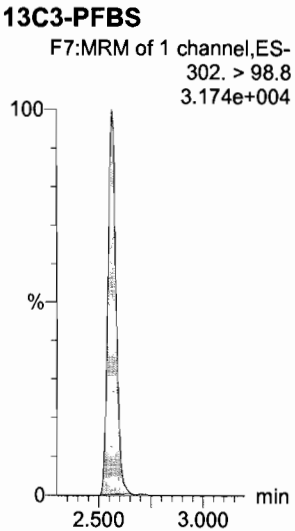

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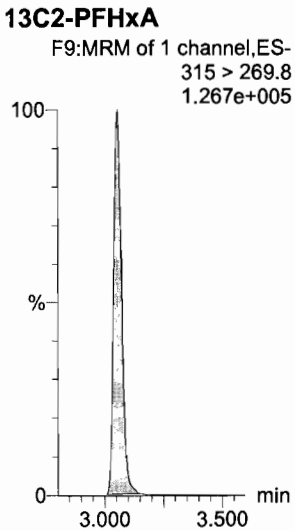

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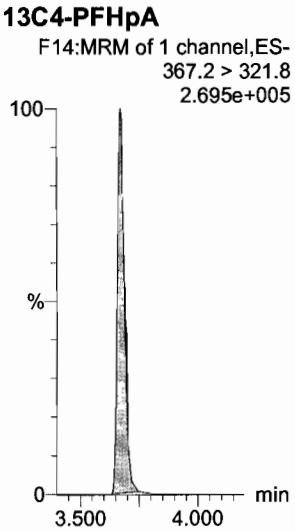

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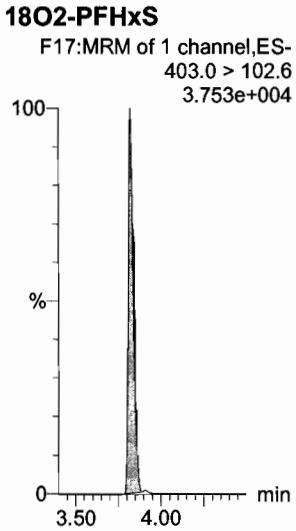

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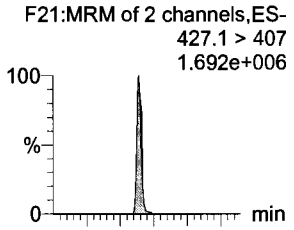
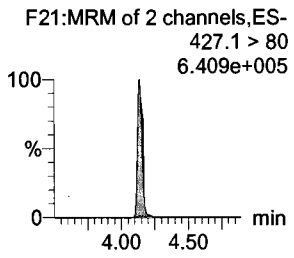
Name: 171209M2_10, Date: 09-Dec-2017, Time: 14:24:28, ID: ST171209M1-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

6:2 FTS





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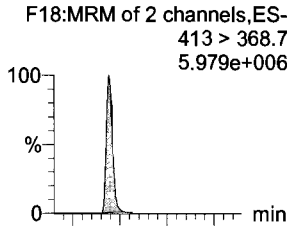

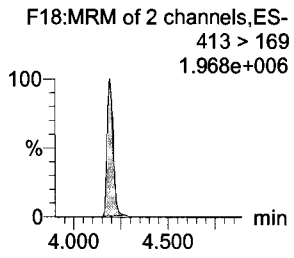

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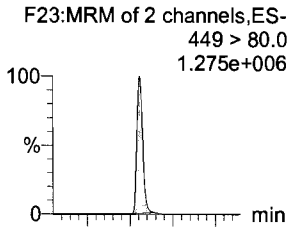

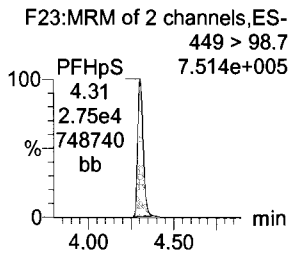

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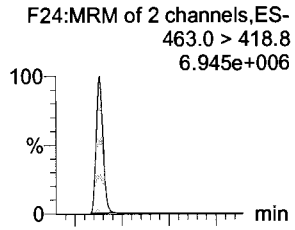

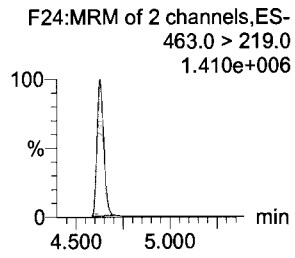

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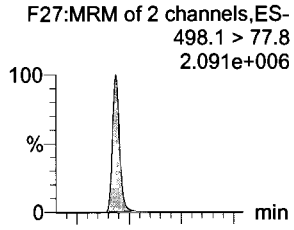

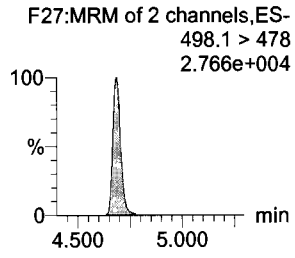

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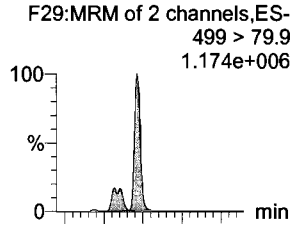

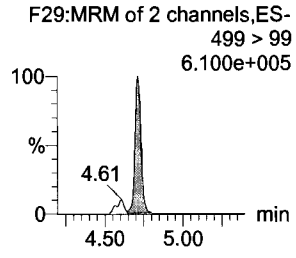

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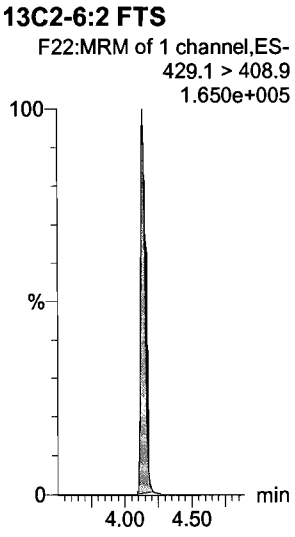
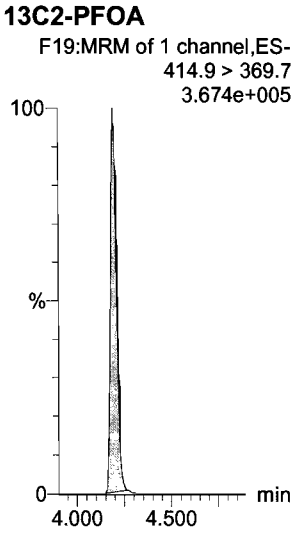
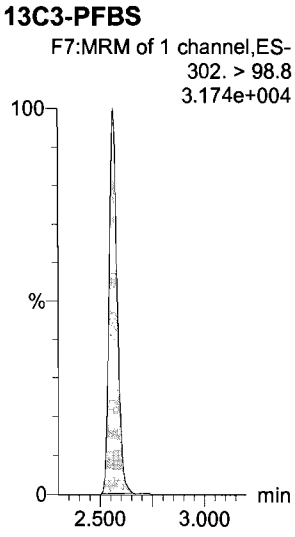


13C2-PFOA



13C3-PFBS



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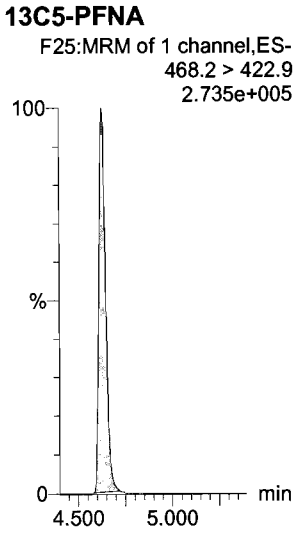

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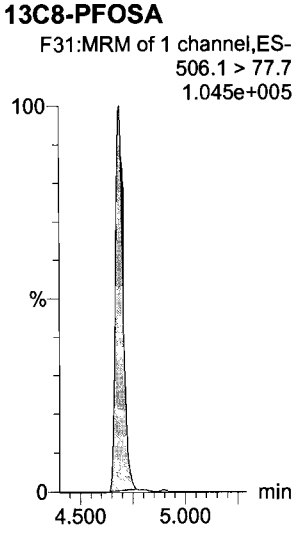

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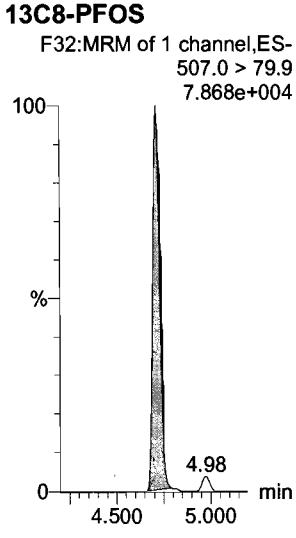

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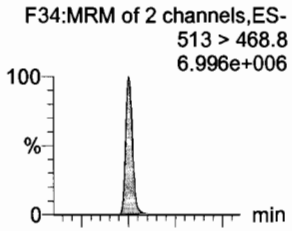
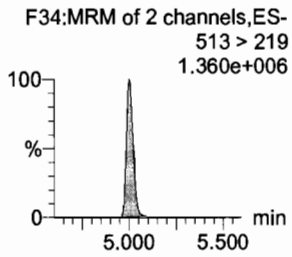
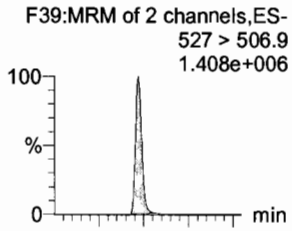
Name: 171209M2_10, Date: 09-Dec-2017, Time: 14:24:28, ID: ST171209M1-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

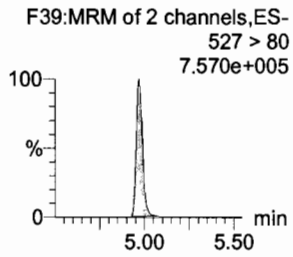
PFDA





8:2 FTS





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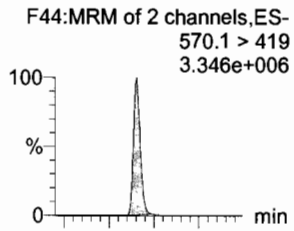

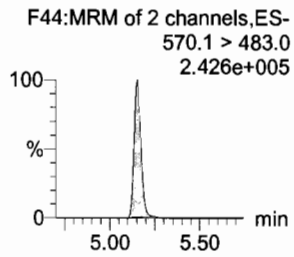

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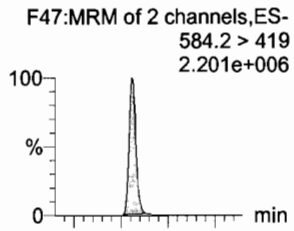

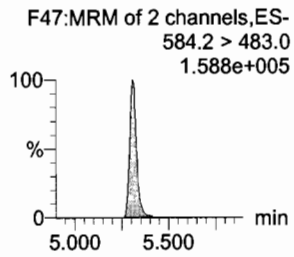

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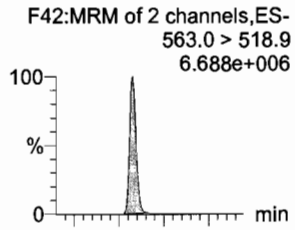

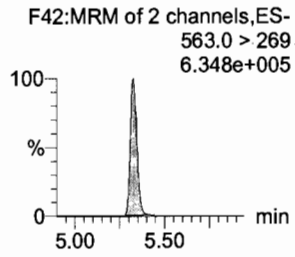

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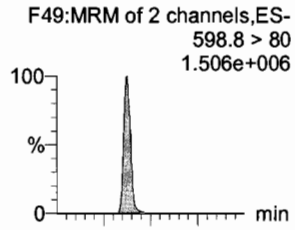

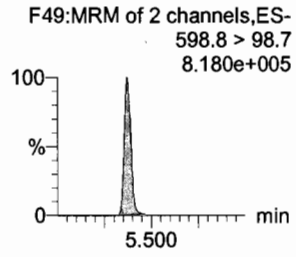

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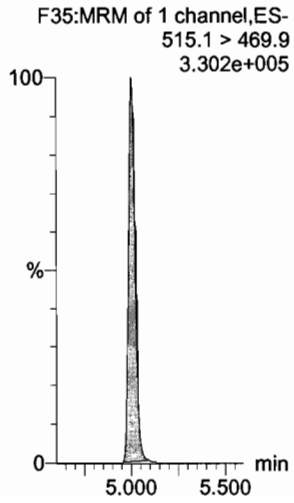
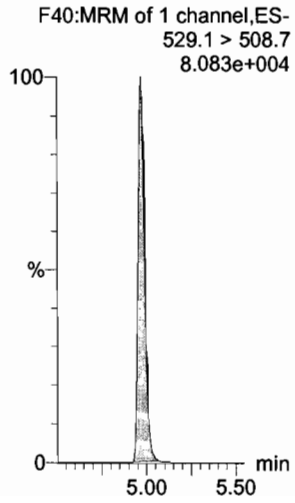


13C2-8:2 FTS



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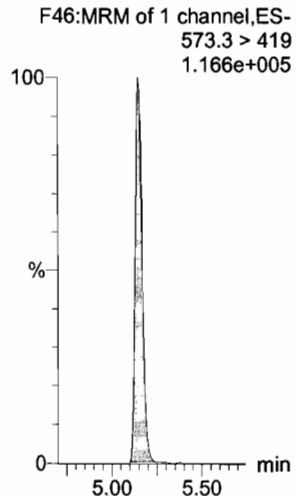

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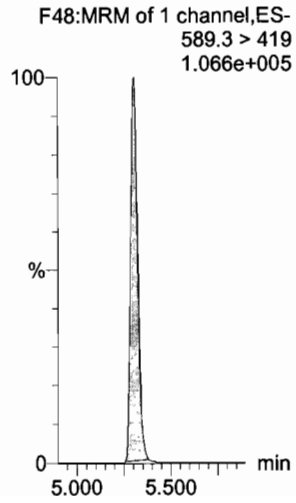

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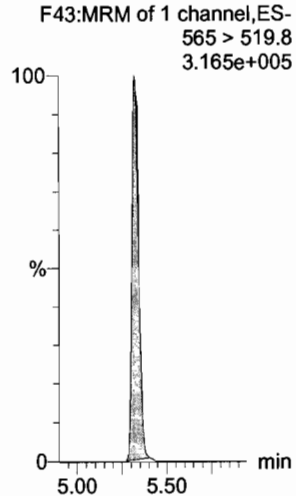

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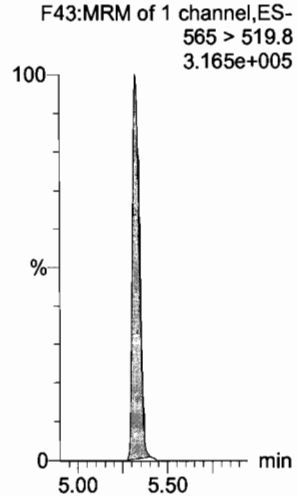

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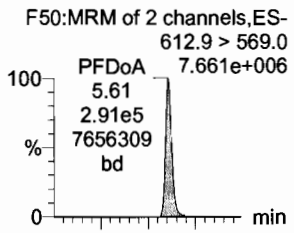

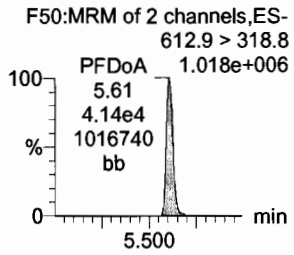

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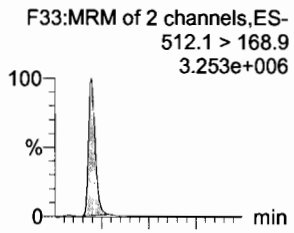

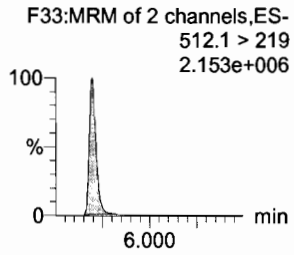

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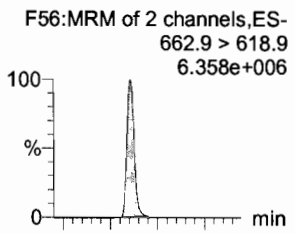

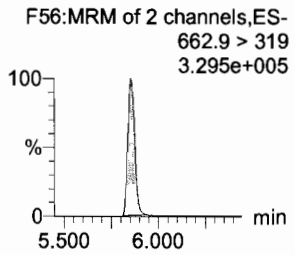

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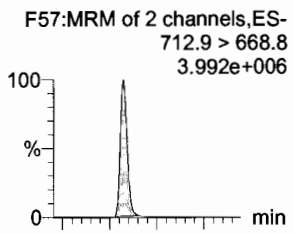

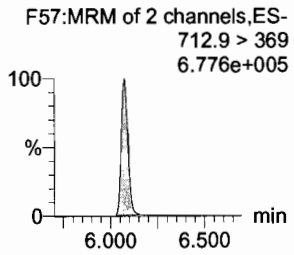

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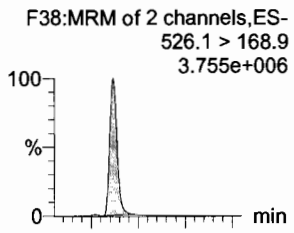
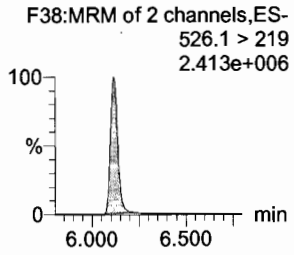
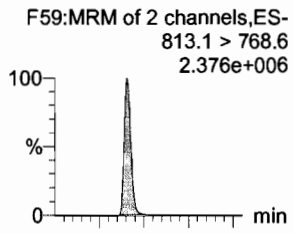
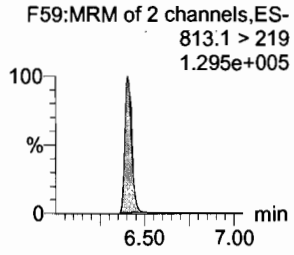


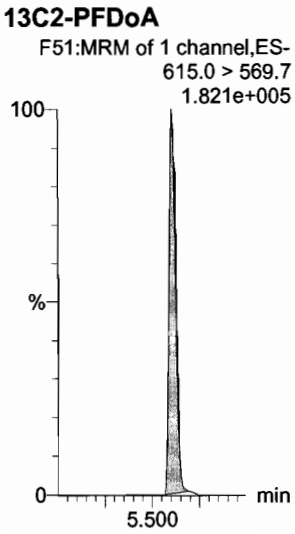


PFHxDA

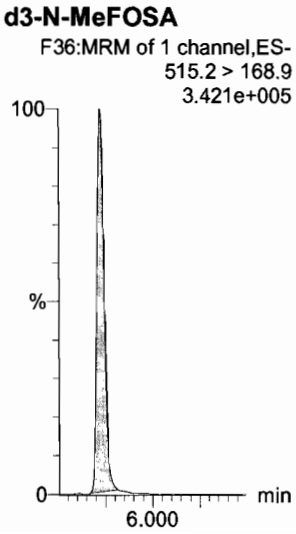




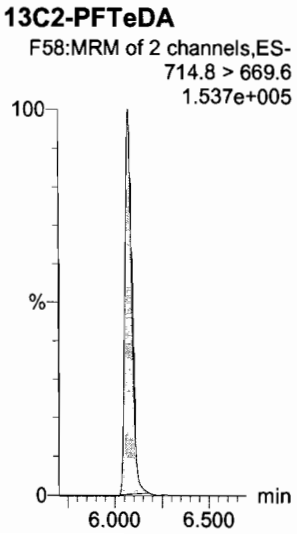
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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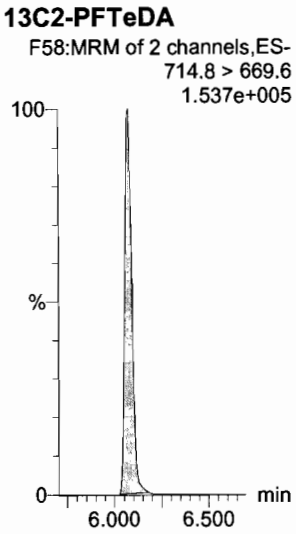
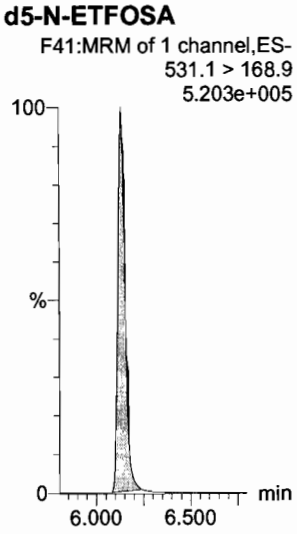
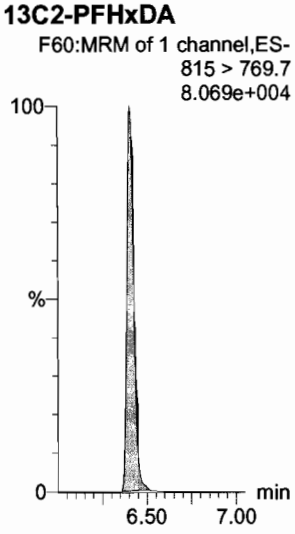


d5-N-ETFOSA



13C2-PFHxDA

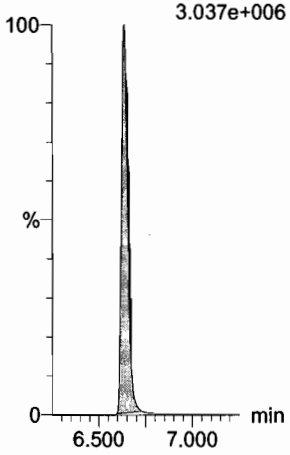


Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

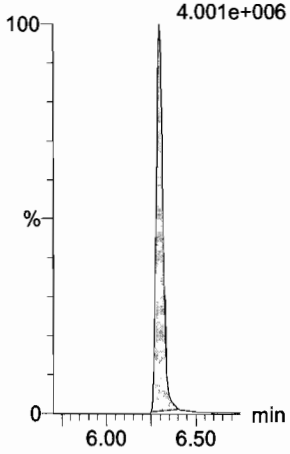
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_10, Date: 09-Dec-2017, Time: 14:24:28, ID: ST171209M1-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

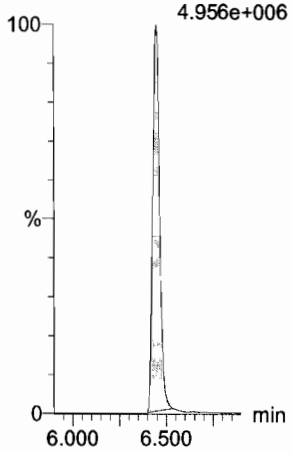
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.037e+006



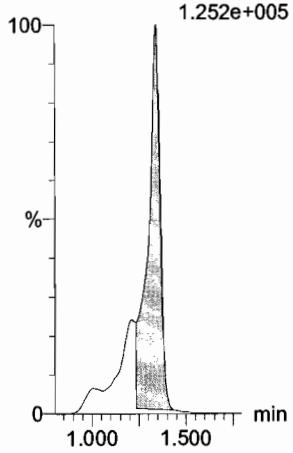
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
4.001e+006



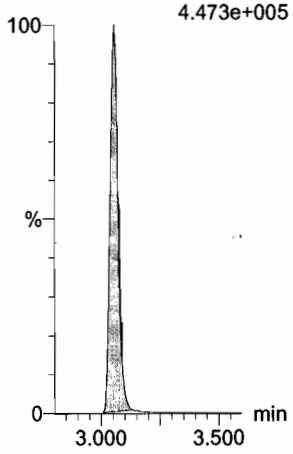
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.956e+006



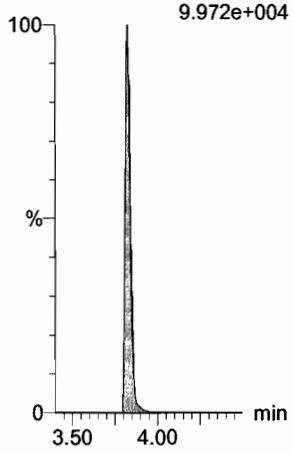
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.252e+005



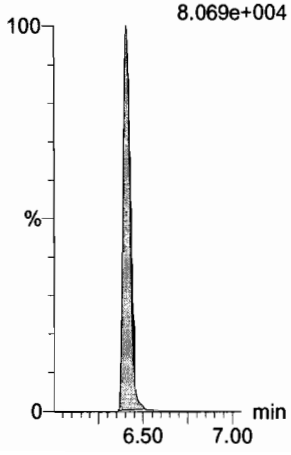
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.473e+005



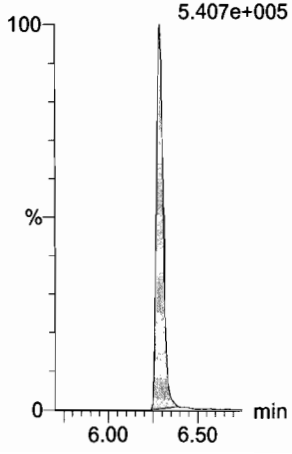
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.972e+004



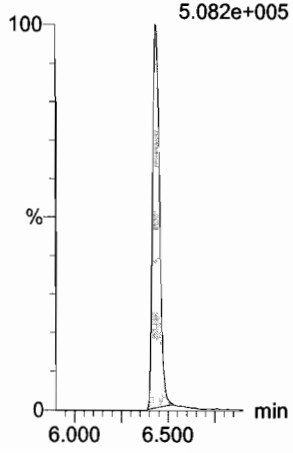
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.069e+004



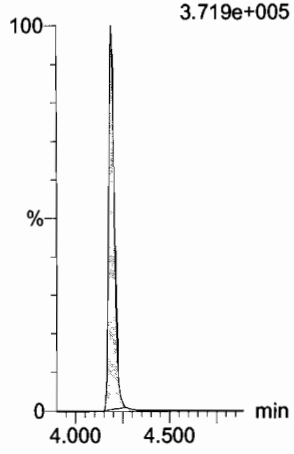
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.407e+005



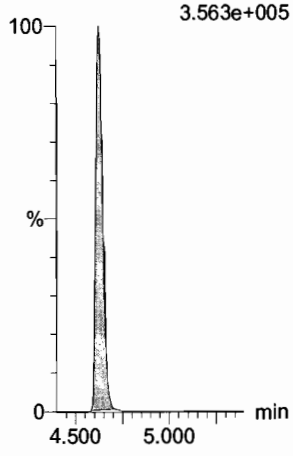
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.082e+005



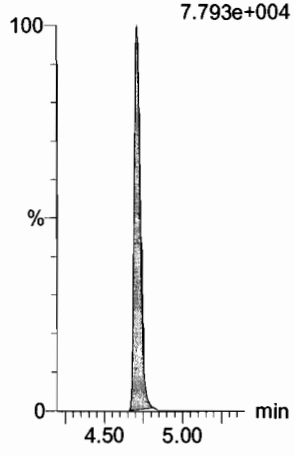
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.719e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.563e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.793e+004

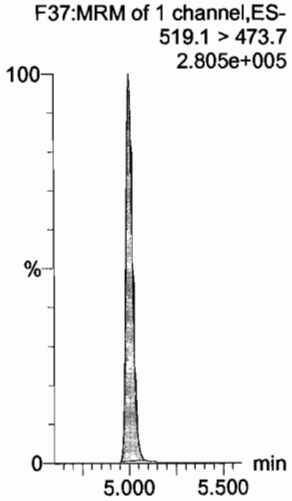


Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

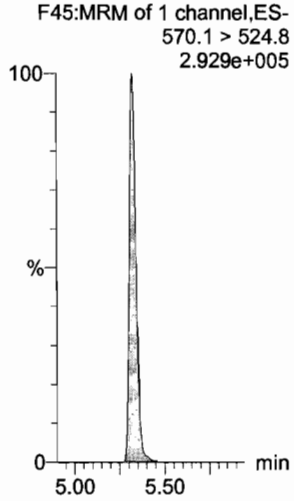
Last Altered: Monday, December 11, 2017 10:34:45 Pacific Standard Time
Printed: Monday, December 11, 2017 10:46:00 Pacific Standard Time

Name: 171209M2_10, Date: 09-Dec-2017, Time: 14:24:28, ID: ST171209M1-9 PFC CS6 17K2817, Description: PFC CS6 17K2817

13C6-PFDA



13C7-PFUdA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Ⓐ 6:2 FTS < 70%; not used

Dataset: U:\Q4.PRO\results\171209M2\171209M2-13.qld

Last Altered: Monday, December 11, 2017 11:04:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:04:52 Pacific Standard Time

AC 12/11/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

vJA 12/11/2017

Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.71e3	1.05e4	1.0000		1.34	1.34	11.6	10.702	107.0
2	2	PFPeA	263.1 > 218.9	1.43e4	1.71e4	1.0000		2.25	2.29	10.4	10.593	105.9
3	3	PFBS	299.0 > 79.7	3.56e3	2.11e3	1.0000		2.52	2.56	21.1	9.860	98.6
4	4	PFHxA	313.2 > 268.9	2.09e4	6.45e3	1.0000		3.04	3.05	16.2	12.302	123.0
5	5	PFHpA	363.0 > 318.9	1.52e4	1.29e4	1.0000		3.66	3.67	14.6	10.981	109.8
6	6	L-PFHxS	398.9 > 79.6	3.03e3	2.02e3	1.0000		3.80	3.83	18.7	9.235	92.3
7	8	6:2 FTS	427.1 > 407	3.87e3	5.50e3	1.0000		4.20	4.13	8.80	6.593	Ⓐ 65.9
8	9	L-PFOA	413 > 368.7	1.60e4	1.92e4	1.0000		4.20	4.20	10.4	11.053	110.5
9	11	PFHpS	449 > 80.0	3.57e3	1.92e4	1.0000		4.29	4.30	2.32	9.245	92.5
10	12	PFNA	463.0 > 418.8	1.85e4	1.81e4	1.0000		4.61	4.63	12.8	10.108	101.1
11	13	PFOSA	498.1 > 77.8	5.50e3	7.16e3	1.0000		4.67	4.69	9.60	9.930	99.3
12	14	L-PFOS	499 > 79.9	3.75e3	4.69e3	1.0000		4.69	4.71	9.97	9.300	93.0
13	16	PFDA	513 > 468.8	2.03e4	1.91e4	1.0000		5.00	5.00	13.2	11.271	112.7
14	17	8:2 FTS	527 > 506.9	3.54e3	1.88e3	1.0000		4.98	4.97	23.5	12.810	128.1
15	18	N-MeFOSAA	570.1 > 419	9.55e3	7.69e3	1.0000		5.15	5.15	15.5	10.666	106.7
16	19	N-EtFOSAA	584.2 > 419	6.46e3	7.78e3	1.0000		5.30	5.31	10.4	9.462	94.6
17	20	PFUdA	563.0 > 518.9	1.58e4	1.55e4	1.0000		5.31	5.32	12.8	12.370	123.7
18	21	PFDS	598.8 > 80	4.00e3	1.55e4	1.0000		5.35	5.37	3.23	9.959	99.6
19	22	PFDoA	612.9 > 569.0	1.92e4	9.04e3	1.0000		5.58	5.61	26.5	11.532	115.3
20	23	N-MeFOSA	512.1 > 168.9		2.24e4	1.0000		5.60				
21	24	PFTrDA	662.9 > 618.9	1.93e4	9.04e3	1.0000		5.75	5.86	26.7	12.885	128.8
22	25	PFTeDA	712.9 > 668.8	1.12e4	9.15e3	1.0000		6.10	6.07	15.4	8.662	86.6
23	26	N-EtFOSA	526.1 > 168.9		3.59e4	1.0000		6.21				
24	27	PFHxDA	813.1 > 768.6		4.37e3	1.0000		6.35				
25	28	PFODA	913.1 > 868.8		4.37e3	1.0000		6.65				
26	29	N-MeFOSE	616.1 > 58.9		2.98e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		3.15e4	1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	1.05e4	1.31e4	1.0000	0.829	1.34	1.34	9.98	12.042	96.3
29	32	13C3-PFPeA	266. > 221.8	1.71e4	2.39e4	1.0000	0.743	2.25	2.29	8.96	12.065	96.5
30	33	13C3-PFBS	302. > 98.8	2.11e3	2.39e4	1.0000	0.094	2.52	2.57	1.10	11.772	94.2
31	34	13C2-PFHxA	315 > 269.8	6.45e3	2.39e4	1.0000	0.735	3.04	3.05	3.37	4.593	91.9

70-130

Dataset: U:\Q4.PRO\results\171209M2\171209M2-13.qld

Last Altered: Monday, December 11, 2017 11:04:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:04:52 Pacific Standard Time

Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.29e4	2.39e4	1.0000	0.583	3.66	3.67	6.77	11.607	92.9
33	36	18O2-PFHxS	403.0 > 102.6	2.02e3	5.08e3	1.0000	0.406	3.80	3.83	4.97	12.251	98.0
34	37	13C2-6:2 FTS	429.1 > 408.9	5.50e3	1.92e4	1.0000	0.283	4.21	4.13	3.57	12.629	101.0
35	38	13C2-PFOA	414.9 > 369.7	1.92e4	1.92e4	1.0000	1.049	4.20	4.19	12.5	11.902	95.2
36	39	13C5-PFNA	468.2 > 422.9	1.81e4	1.84e4	1.0000	0.913	4.63	4.63	12.3	13.436	107.5
37	40	13C8-PFOSA	506.1 > 77.7	7.16e3	1.93e4	1.0000	0.357	4.67	4.69	4.65	12.996	104.0
38	41	13C8-PFOS	507.0 > 79.9	4.69e3	5.08e3	1.0000	1.006	4.69	4.71	11.6	11.486	91.9
39	42	13C2-PFDA	515.1 > 469.9	1.91e4	1.58e4	1.0000	1.452	5.00	5.00	15.1	10.418	83.3
40	43	13C2-8:2 FTS	529.1 > 508.7	1.88e3	2.39e4	1.0000	0.119	4.98	4.97	0.984	8.285	66.3
41	44	d3-N-MeFOSAA	573.3 > 419	7.69e3	1.93e4	1.0000	0.391	5.15	5.15	4.99	12.774	102.2
42	45	d5-N-EtFOSAA	589.3 > 419	7.78e3	1.93e4	1.0000	0.412	5.30	5.31	5.05	12.251	98.0
43	46	13C2-PFUdA	565 > 519.8	1.55e4	1.93e4	1.0000	0.956	5.31	5.33	10.0	10.510	84.1
44	47	13C2-PFDoA	615.0 > 569.7	9.04e3	1.93e4	1.0000	0.544	5.58	5.61	5.87	10.783	86.3
45	48	d3-N-MeFOSA	515.2 > 168.9	2.24e4	1.93e4	1.0000	0.100	5.60	5.72	14.5	145.487	97.0
46	49	13C2-PFTeDA	714.8 > 669.6	9.15e3	1.93e4	1.0000	0.522	6.10	6.07	5.93	11.361	90.9
47	50	d5-N-ETFOSA	531.1 > 168.9	3.59e4	1.93e4	1.0000	0.158	6.21	6.13	23.3	147.053	98.0
48	51	13C2-PFHxDA	815 > 769.7	4.37e3	1.93e4	1.0000	0.672	6.35	6.41	2.84	4.222	84.4
49	52	d7-N-MeFOSE	623.1 > 58.9	2.98e4	1.93e4	1.0000	0.142	6.30	6.29	19.4	136.081	90.7
50	53	d9-N-EtFOSE	639.2 > 58.8	3.15e4	1.93e4	1.0000	0.149	6.42	6.43	20.5	137.820	91.9
51	54	13C4-PFBA	217. > 171.8	1.31e4	1.31e4	1.0000	1.000	1.34	1.34	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	2.39e4	2.39e4	1.0000	1.000	3.04	3.05	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	5.08e3	5.08e3	1.0000	1.000	3.80	3.83	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.92e4	1.92e4	1.0000	1.000	4.20	4.19	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.84e4	1.84e4	1.0000	1.000	4.63	4.63	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	5.08e3	5.08e3	1.0000	1.000	4.69	4.71	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.58e4	1.58e4	1.0000	1.000	5.00	5.00	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.93e4	1.93e4	1.0000	1.000	5.31	5.32	12.5	12.500	100.0

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-13.qld

Last Altered: Monday, December 11, 2017 11:04:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:04:52 Pacific Standard Time

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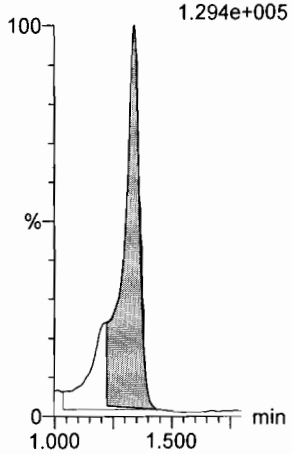
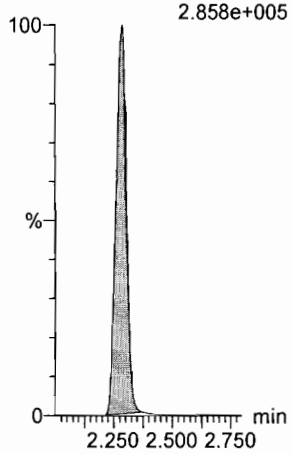
Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

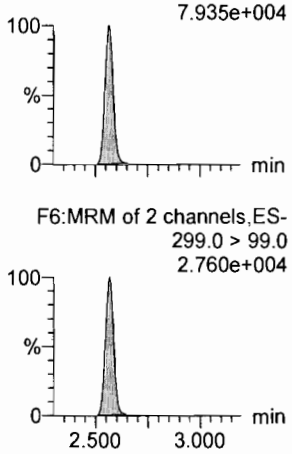
PFBA



PFPeA



PFBS



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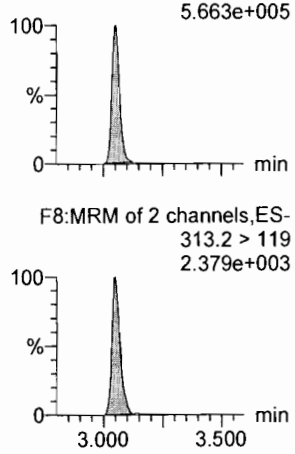
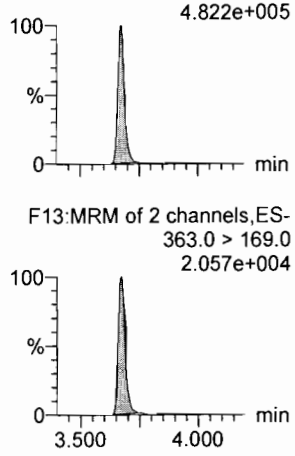
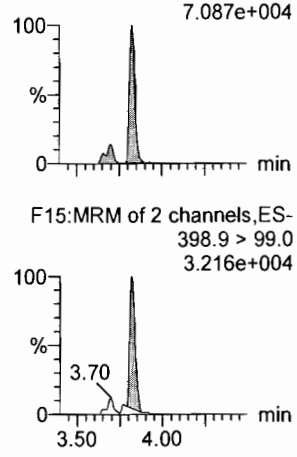


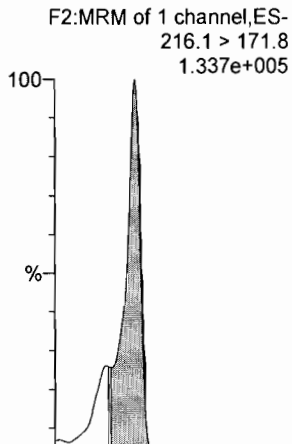
PFHpA



L-PFHxS



13C3-PFBA



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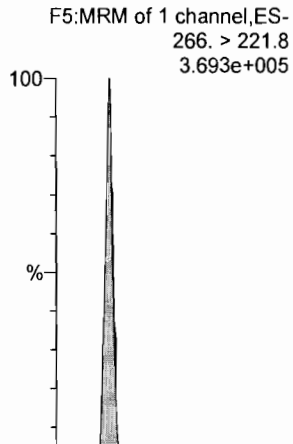
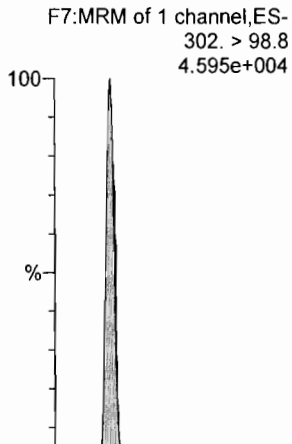
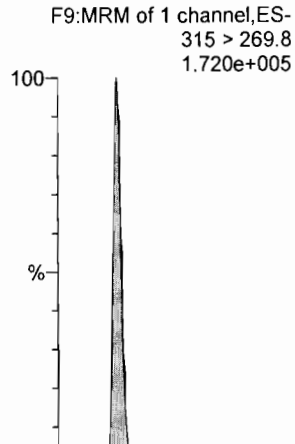


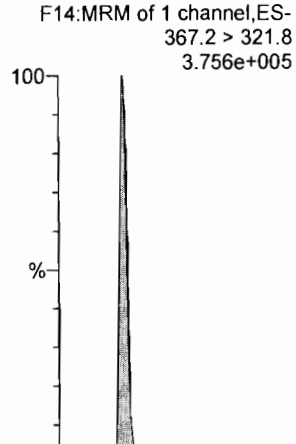
13C3-PFBS



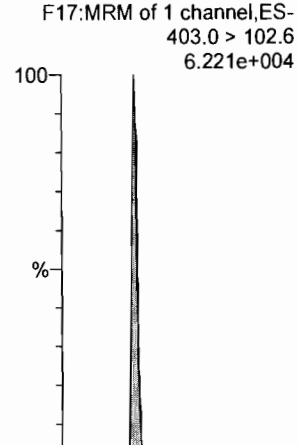
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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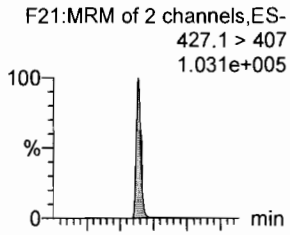
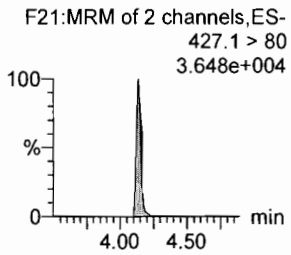
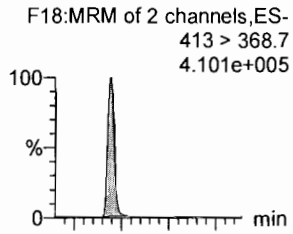
Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

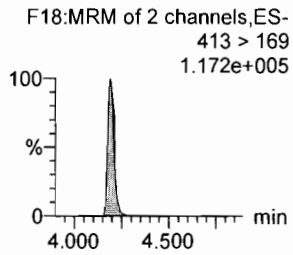
6:2 FTS





L-PFOA





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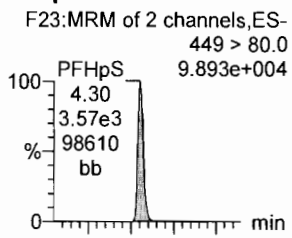

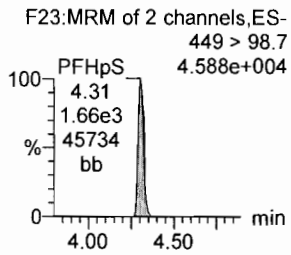

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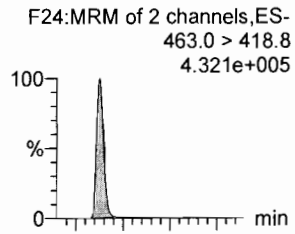
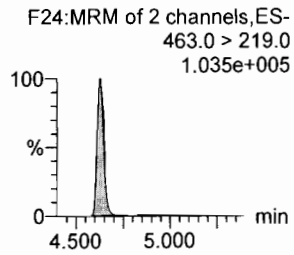
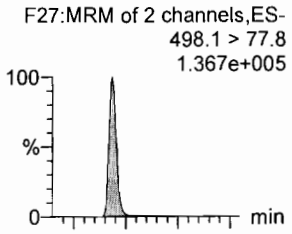
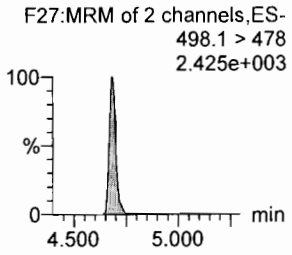


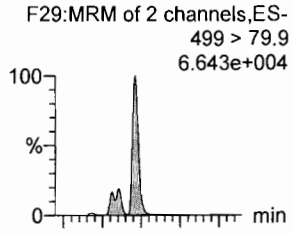


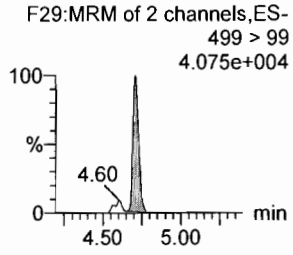
PFOSA



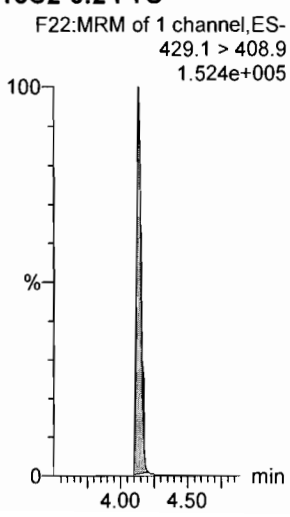


L-PFOS

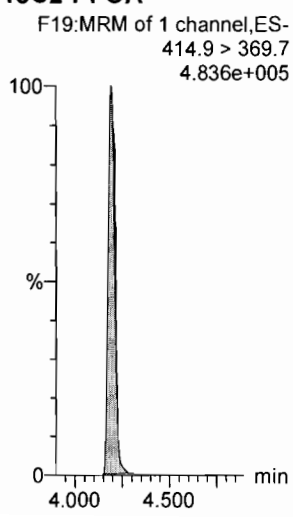




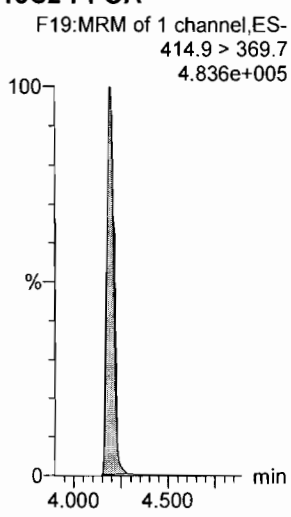
13C2-6:2 FTS



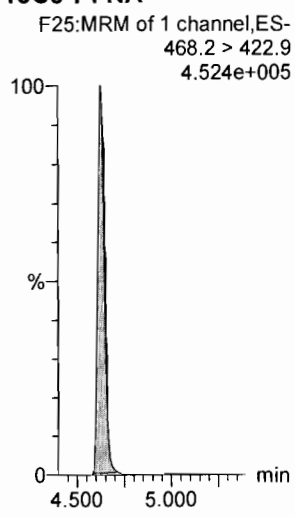
13C2-PFOA



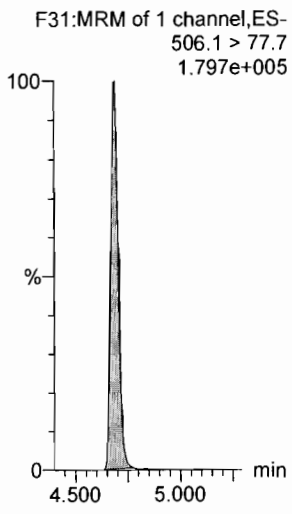
13C2-PFOA



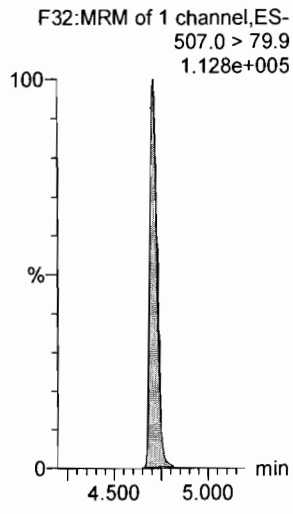
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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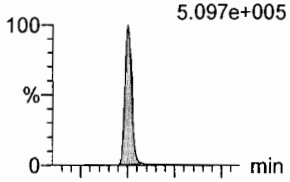
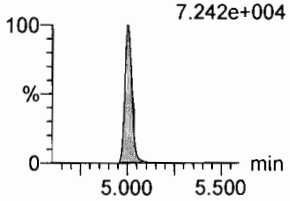
Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

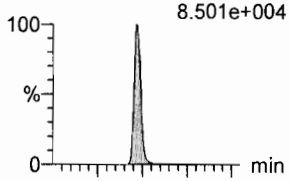
PFDA
F34:MRM of 2 channels,ES-
513 > 468.8
5.097e+005



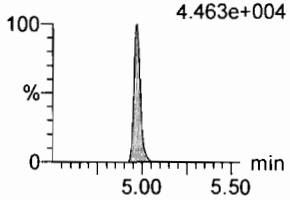
F34:MRM of 2 channels,ES-
513 > 219
7.242e+004



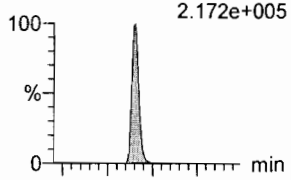
8:2 FTS
F39:MRM of 2 channels,ES-
527 > 506.9
8.501e+004



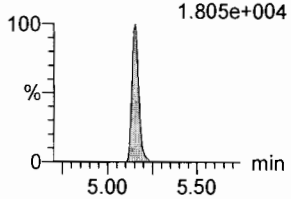
F39:MRM of 2 channels,ES-
527 > 80
4.463e+004



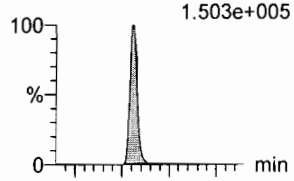
N-MeFOSAA
F44:MRM of 2 channels,ES-
570.1 > 419
2.172e+005



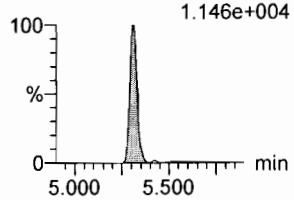
F44:MRM of 2 channels,ES-
570.1 > 483.0
1.805e+004



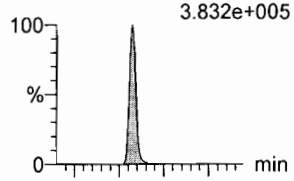
N-EtFOSAA
F47:MRM of 2 channels,ES-
584.2 > 419
1.503e+005



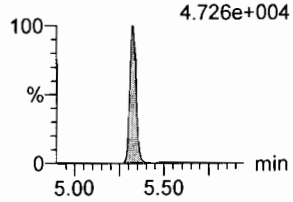
F47:MRM of 2 channels,ES-
584.2 > 483.0
1.146e+004



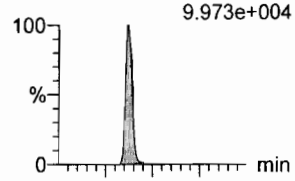
PFUdA
F42:MRM of 2 channels,ES-
563.0 > 518.9
3.832e+005



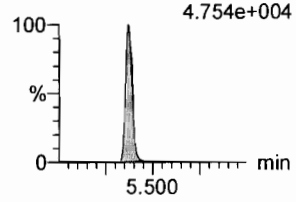
F42:MRM of 2 channels,ES-
563.0 > 269
4.726e+004



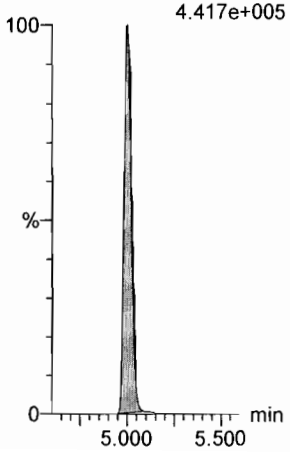
PFDS
F49:MRM of 2 channels,ES-
598.8 > 80
9.973e+004



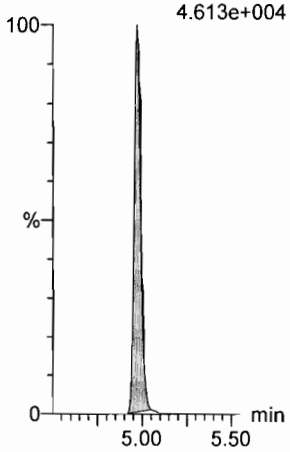
F49:MRM of 2 channels,ES-
598.8 > 98.7
4.754e+004



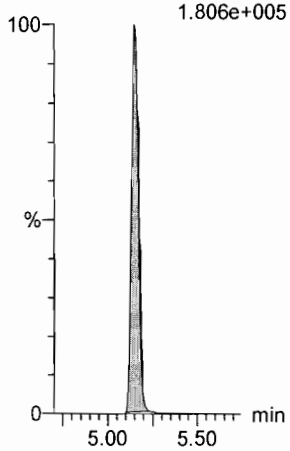
13C2-PFDA
F35:MRM of 1 channel,ES-
515.1 > 469.9
4.417e+005



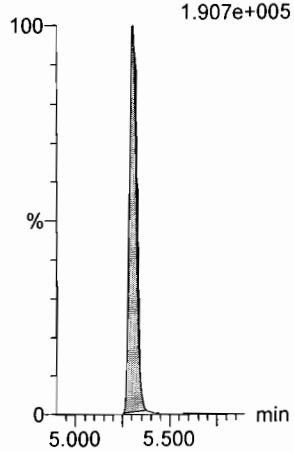
13C2-8:2 FTS
F40:MRM of 1 channel,ES-
529.1 > 508.7
4.613e+004



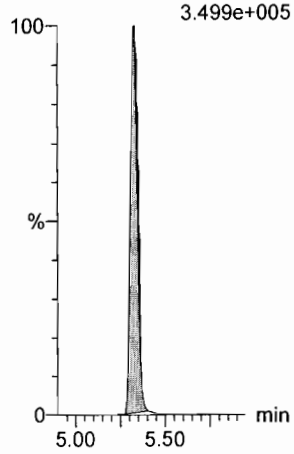
d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
573.3 > 419
1.806e+005



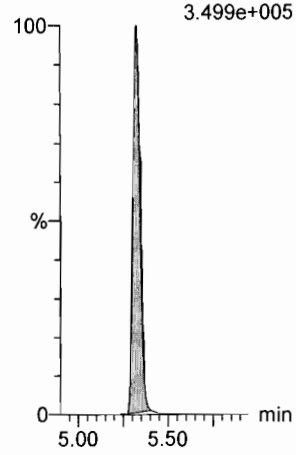
d5-N-EtFOSAA
F48:MRM of 1 channel,ES-
589.3 > 419
1.907e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
3.499e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
3.499e+005



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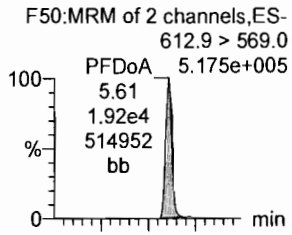
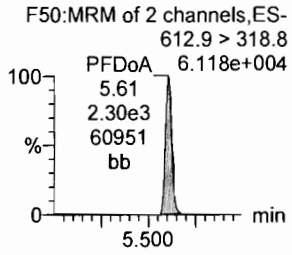
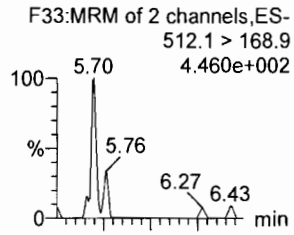
Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

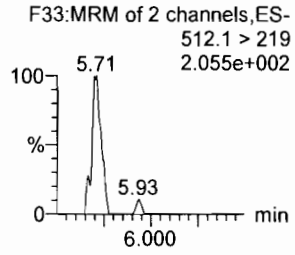
PFDoA



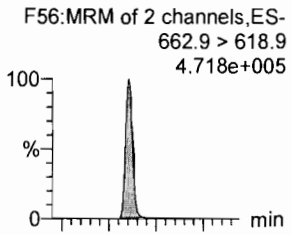


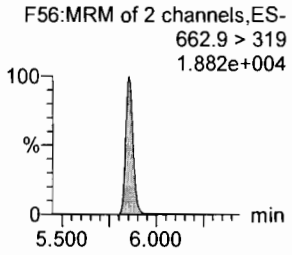
N-MeFOSA



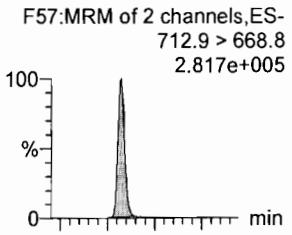


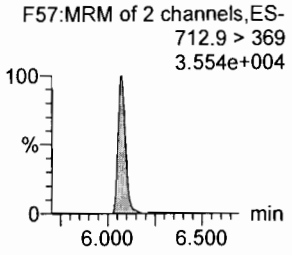
PFTrDA





PFTeDA





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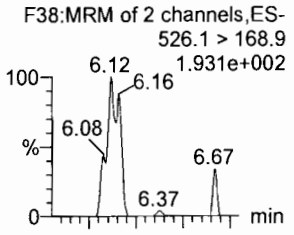
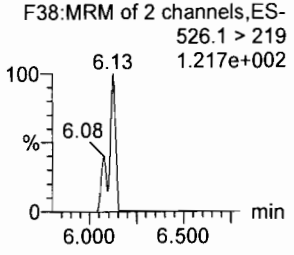
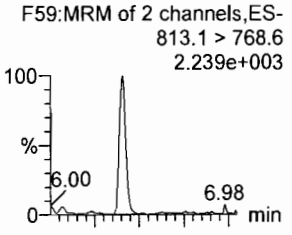
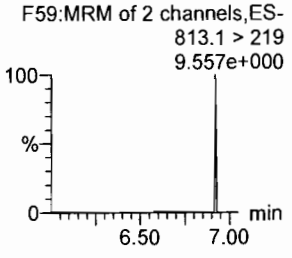


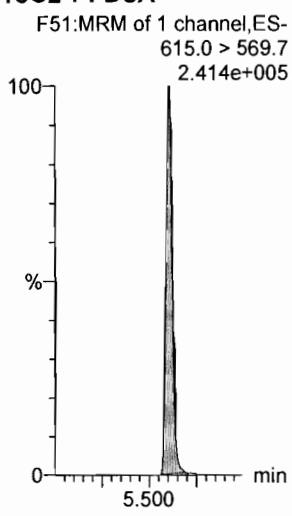


PFHxDA

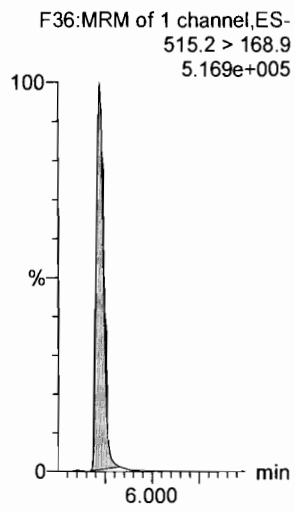




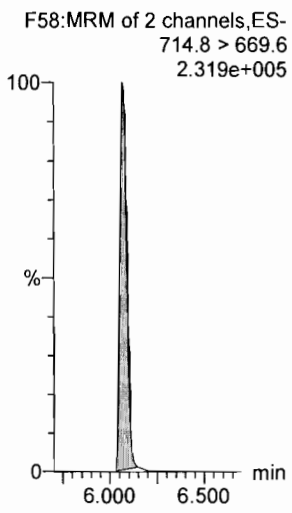
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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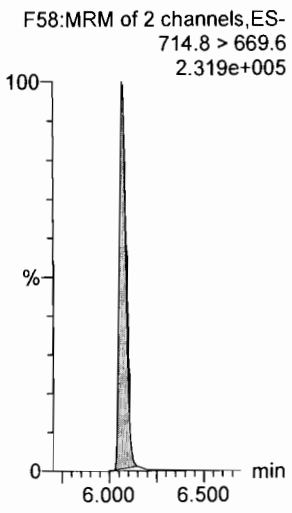

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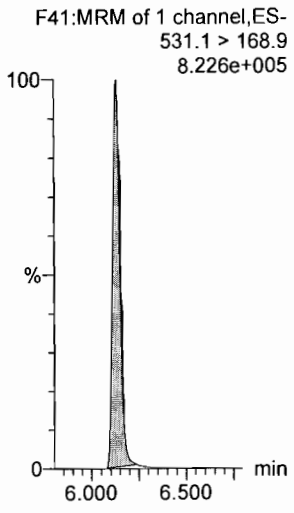
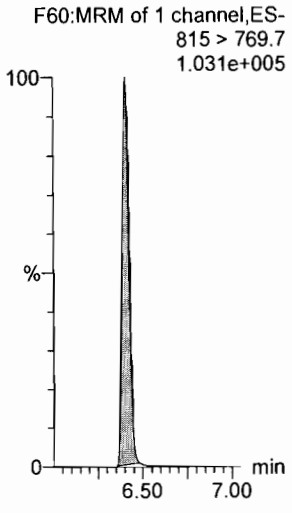


13C2-PFHxDA

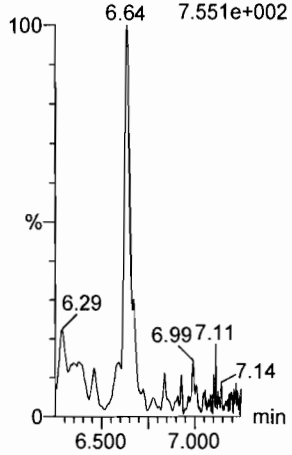


Dataset: U:\Q4.PRO\results\171209M2\171209M2-13.qld

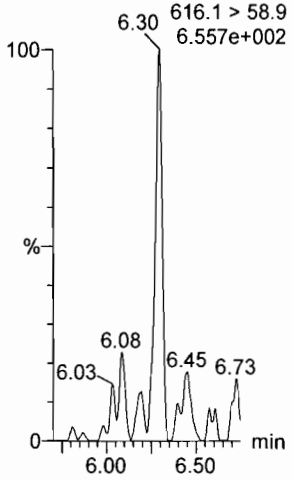
Last Altered: Monday, December 11, 2017 11:04:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:04:52 Pacific Standard Time

Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

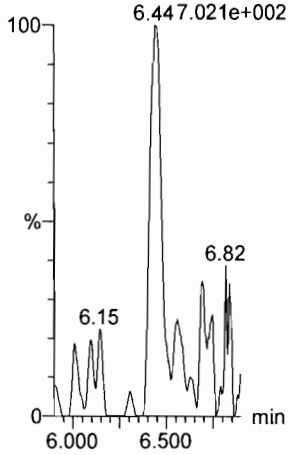
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.551e+002



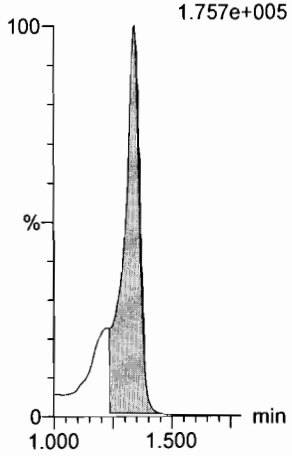
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
6.557e+002



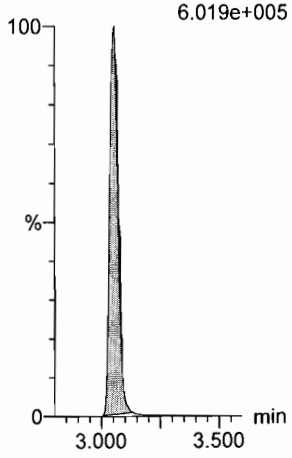
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
7.021e+002



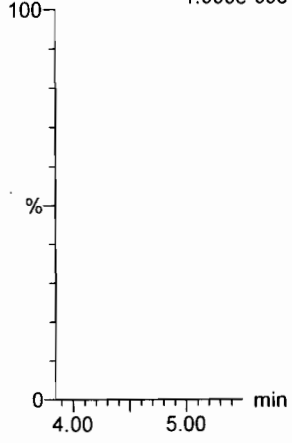
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.757e+005



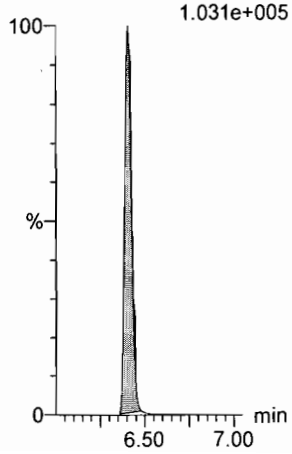
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
6.019e+005



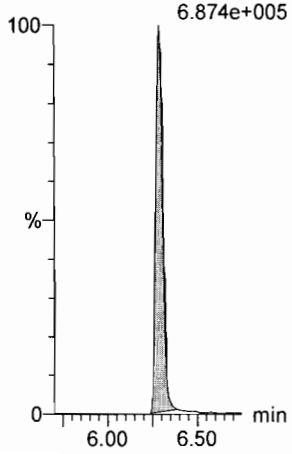
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



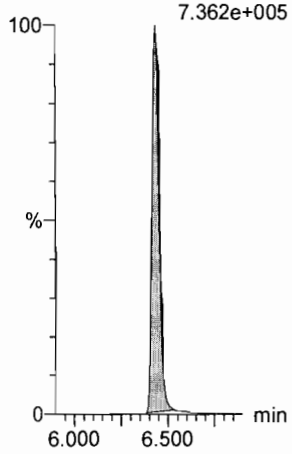
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.031e+005



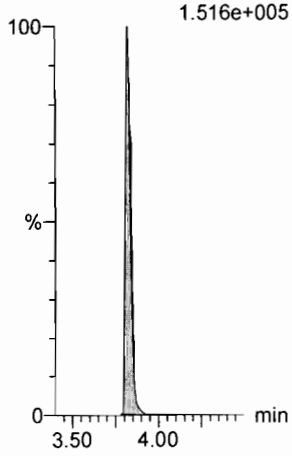
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.874e+005



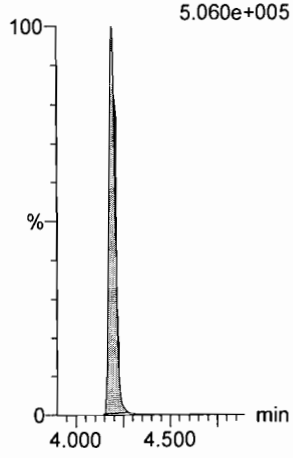
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.362e+005



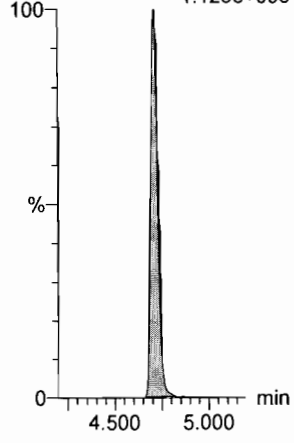
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.516e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.060e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.128e+005

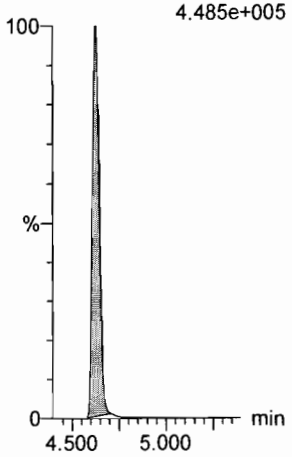


Dataset: U:\Q4.PRO\results\171209M2\171209M2-13.qld

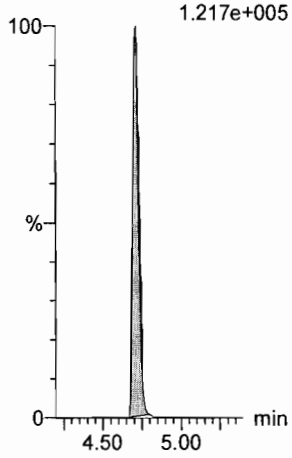
Last Altered: Monday, December 11, 2017 11:04:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:04:52 Pacific Standard Time

Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

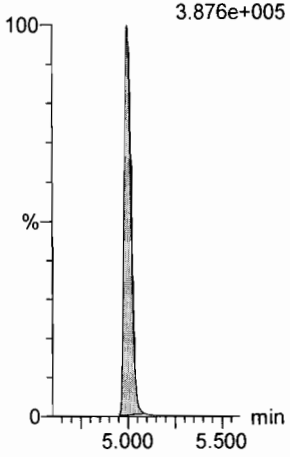
13C9-PFNA



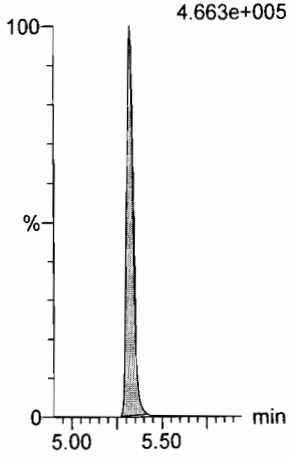
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

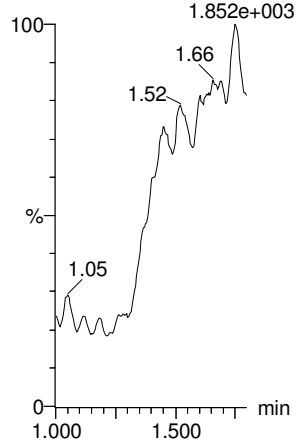
Dataset: U:\Q4.PRO\results\171209M2\171209M2-12.qld

Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
Printed: Monday, December 11, 2017 11:21:35 Pacific Standard Time

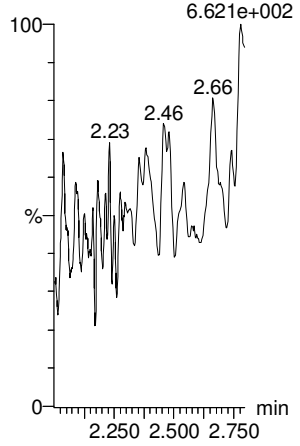
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

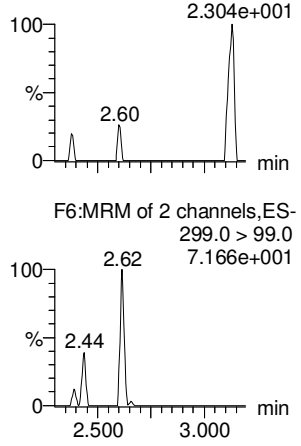
PFBA



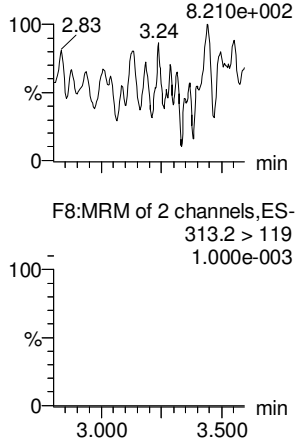
PFPeA



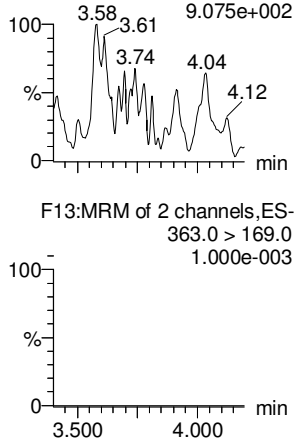
PFBS



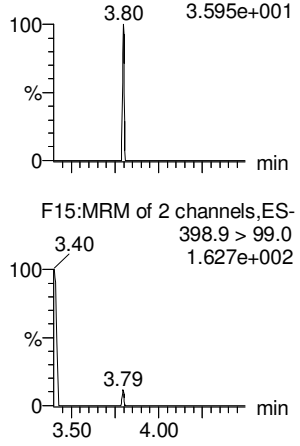
PFHxA



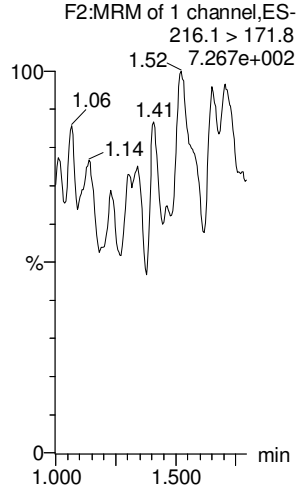
PFHpA



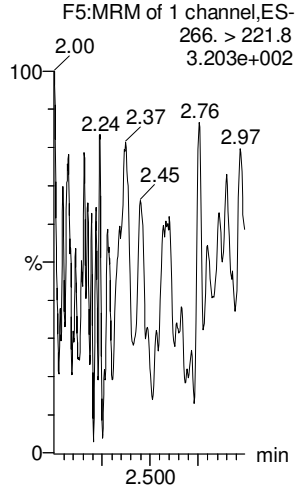
L-PFHxS



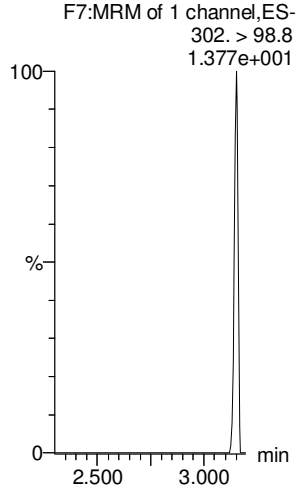
13C3-PFBA



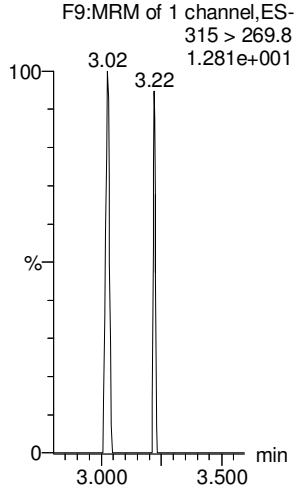
13C3-PFPeA



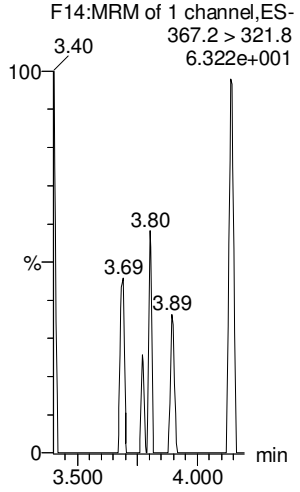
13C3-PFBS



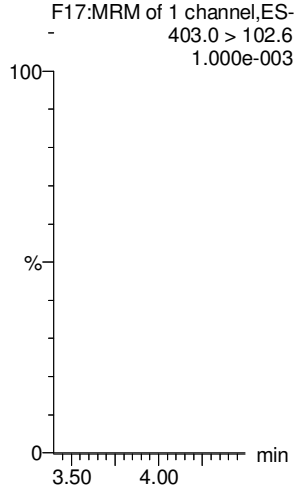
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



AC 12/11/17

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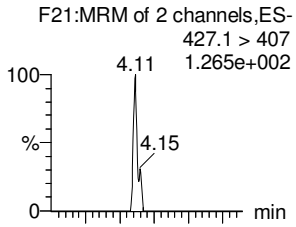
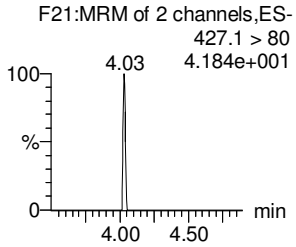
Dataset: U:\Q4.PRO\results\171209M2\171209M2-12.qld

Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
Printed: Monday, December 11, 2017 11:21:35 Pacific Standard Time

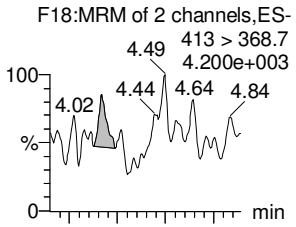
Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

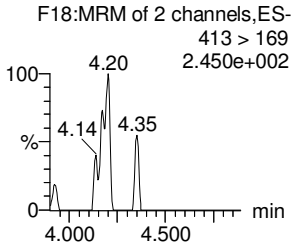
6:2 FTS



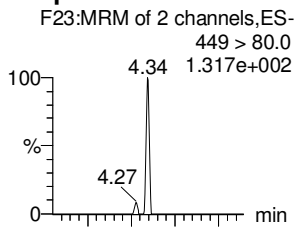


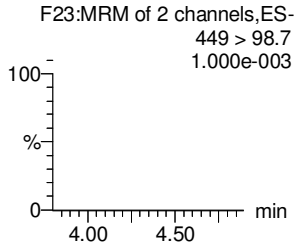
L-PFOA





PFHpS





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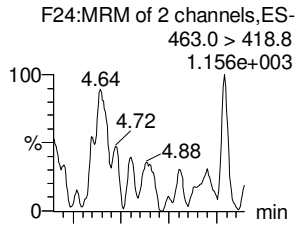

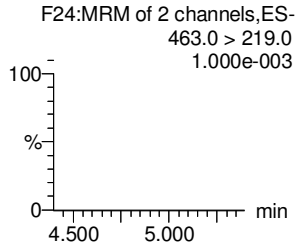

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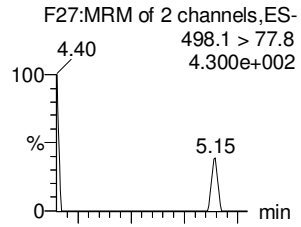
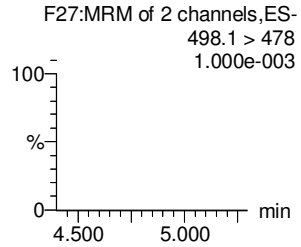
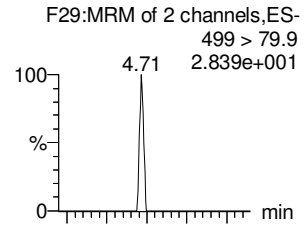
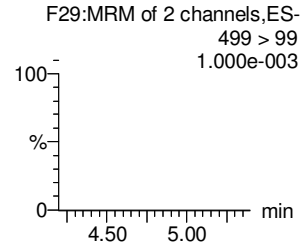


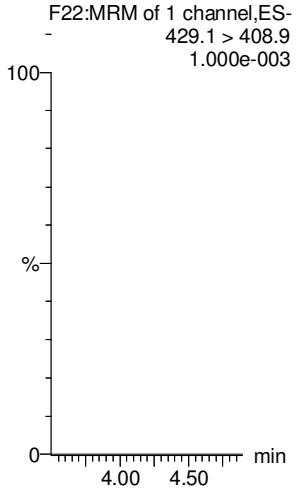


L-PFOS

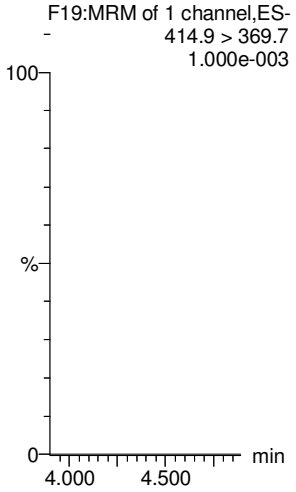




13C2-6:2 FTS



13C2-PFOA



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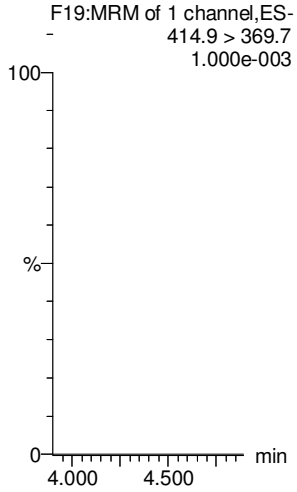

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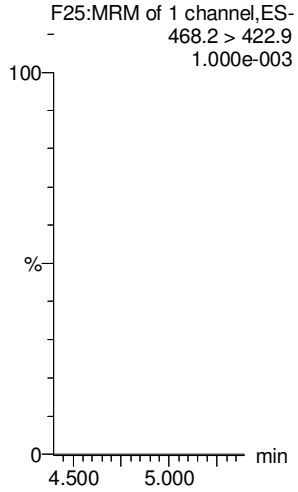

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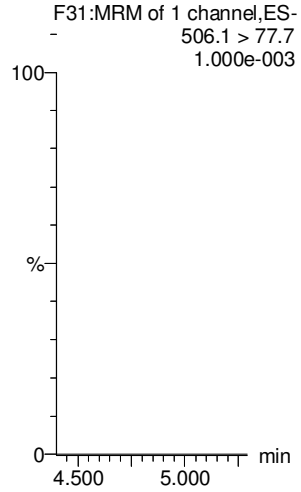

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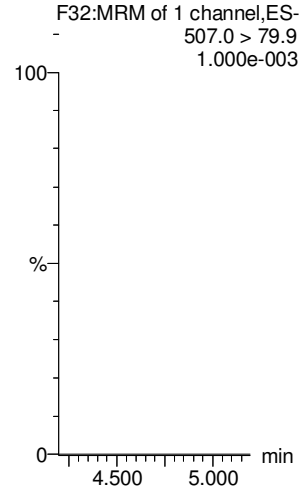


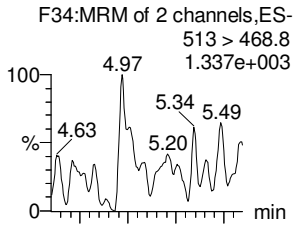
AC 12/11/17

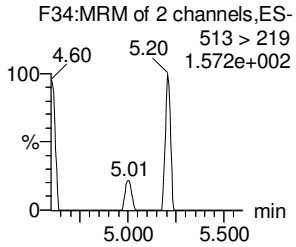
Dataset: U:\Q4.PRO\results\171209M2\171209M2-12.qld

Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
Printed: Monday, December 11, 2017 11:21:35 Pacific Standard Time

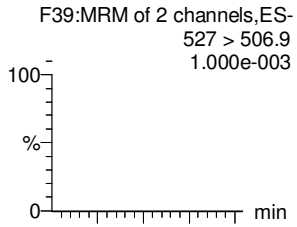
Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

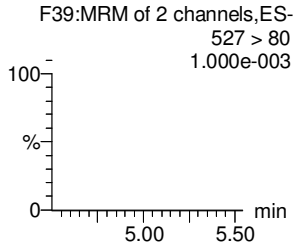
PFDA





8:2 FTS





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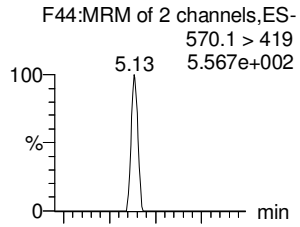

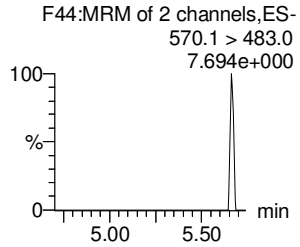

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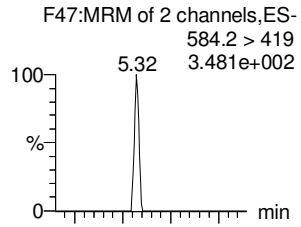

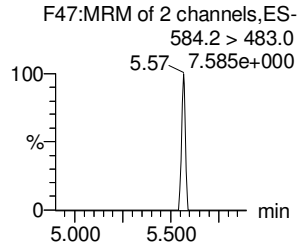

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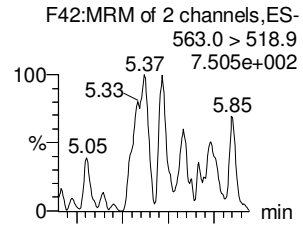

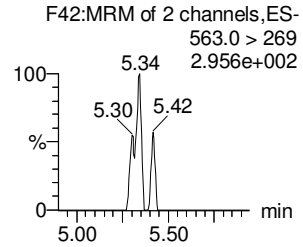

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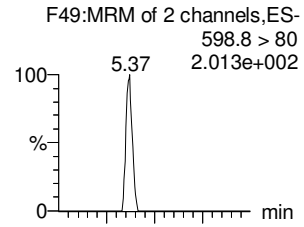

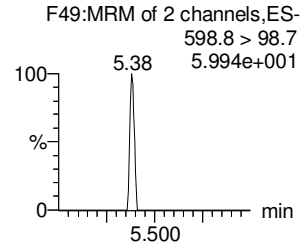

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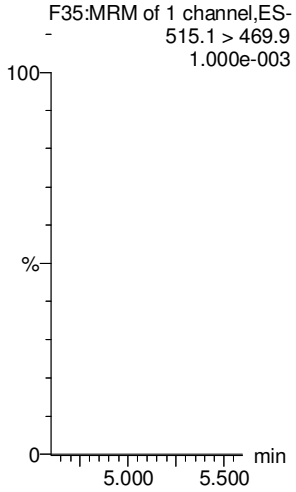

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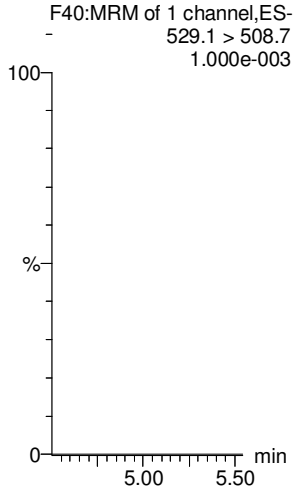

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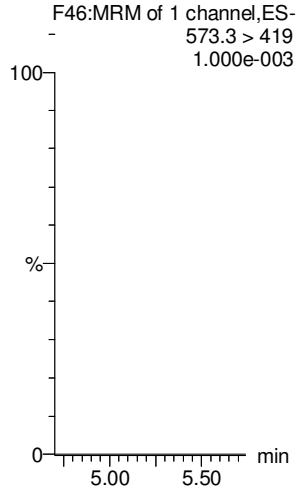
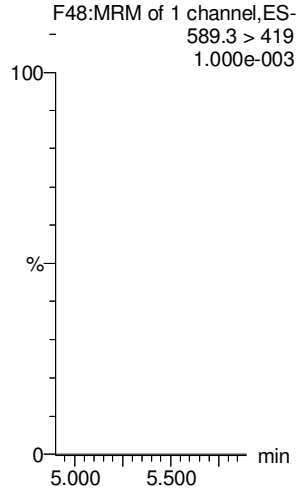


d5-N-EtFOSAA



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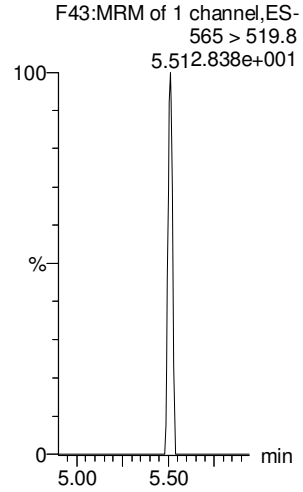

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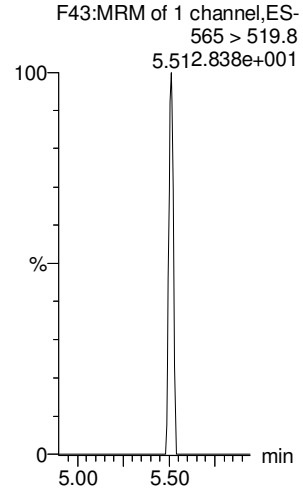

AC 12/11/17

Dataset: U:\Q4.PRO\results\171209M2\171209M2-12.qld

Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
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Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

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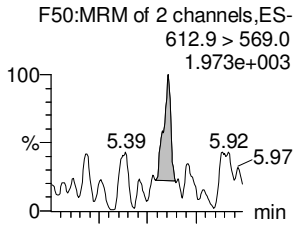

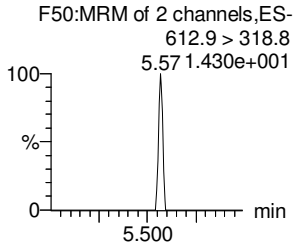

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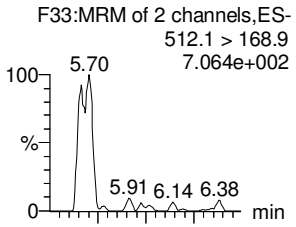

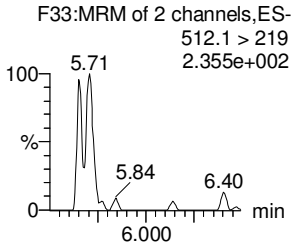

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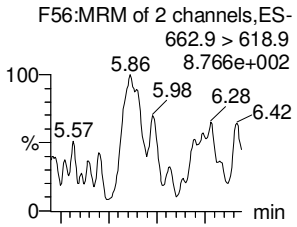

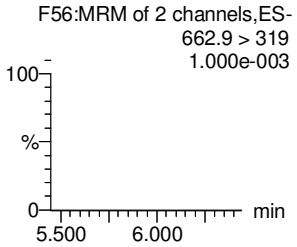

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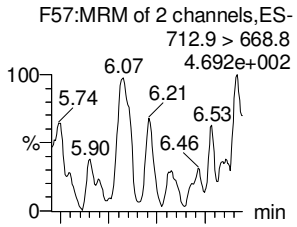

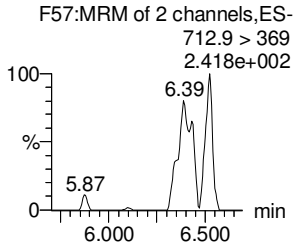

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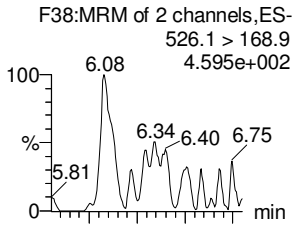

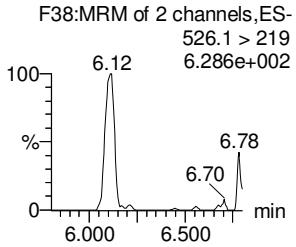

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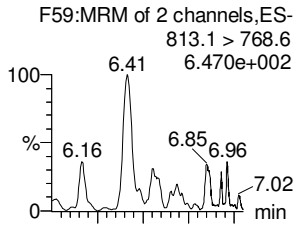
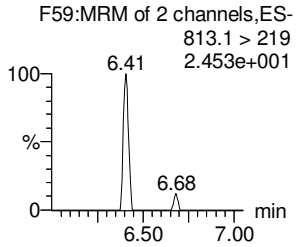
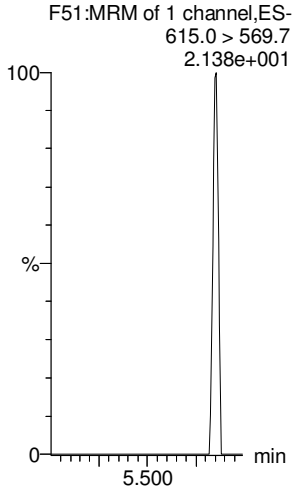
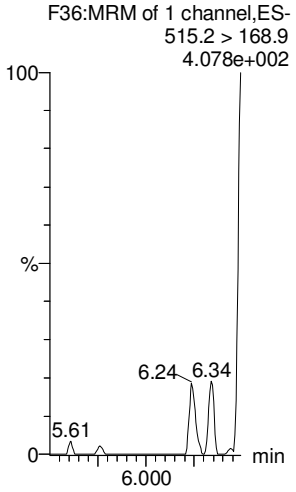




13C2-PFDoA



d3-N-MeFOSA



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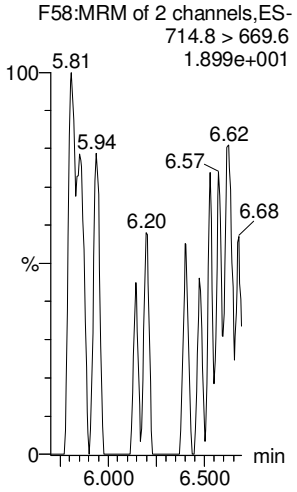

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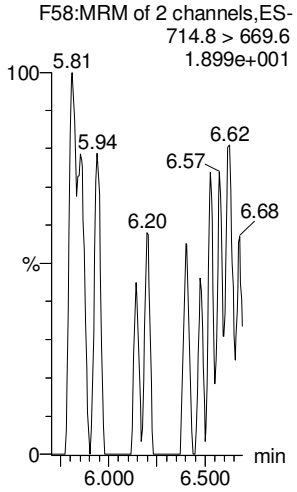

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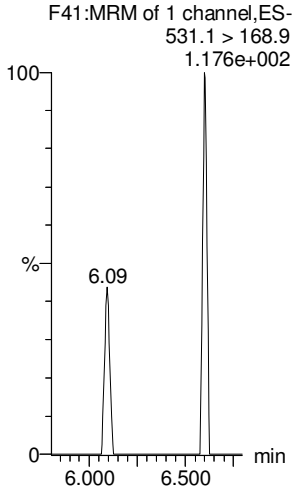

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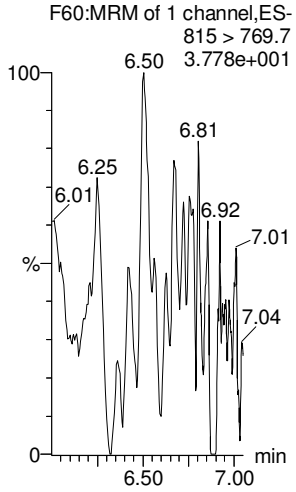

AC 12/11/17

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Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
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Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

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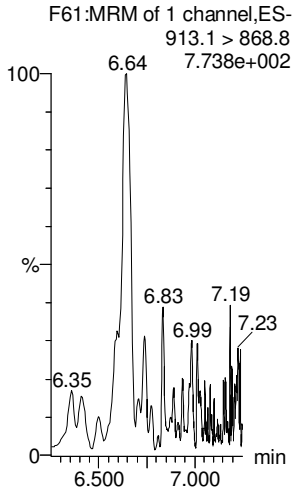

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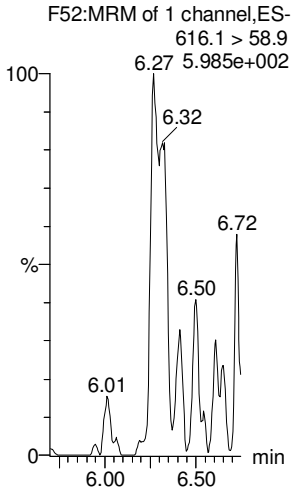

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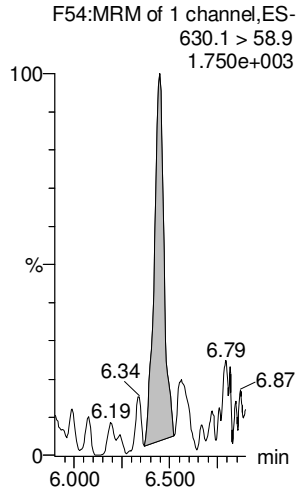

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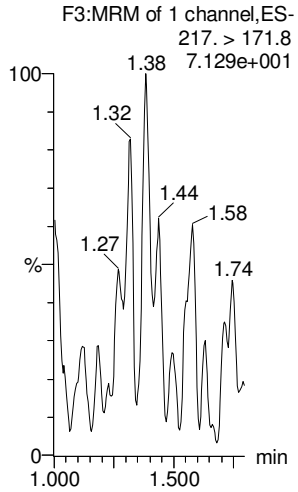
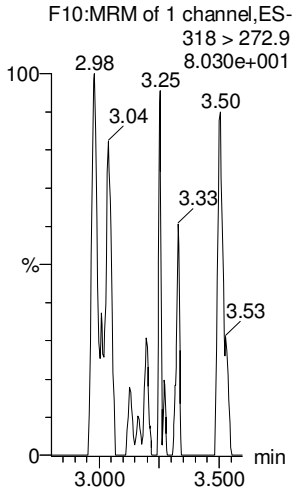


13C5-PFHxA



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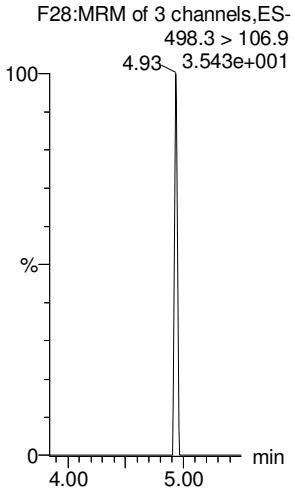

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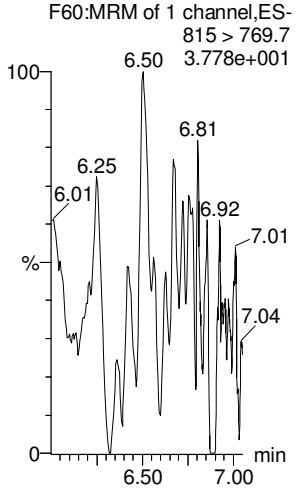

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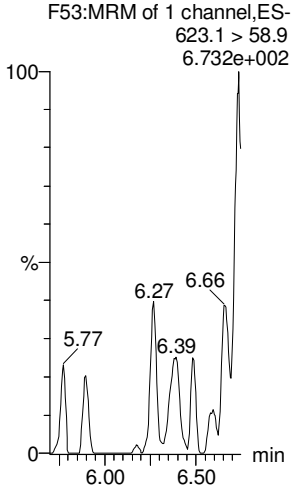

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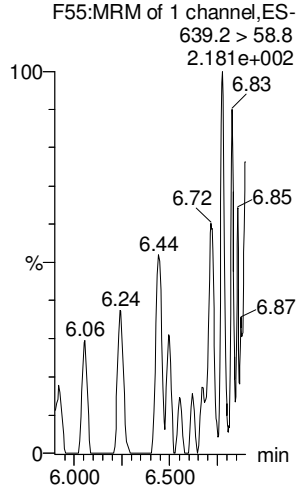

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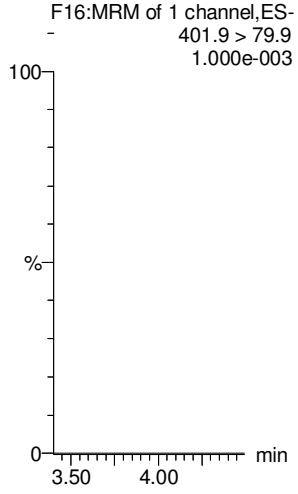

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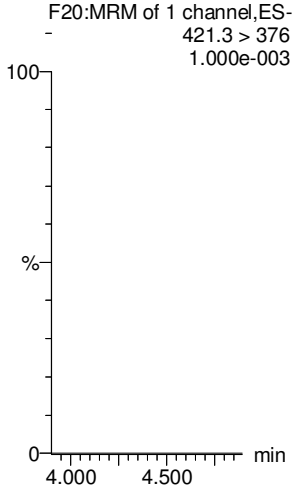

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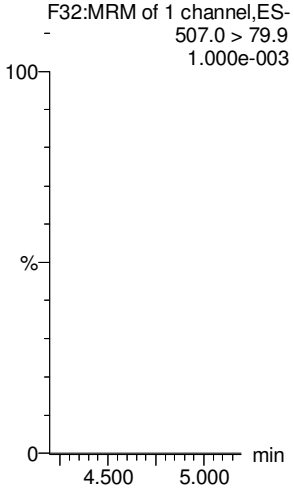

AC 12/11/17

Vista Analytical Laboratory

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Last Altered: Monday, December 11, 2017 11:19:41 Pacific Standard Time
Printed: Monday, December 11, 2017 11:21:35 Pacific Standard Time

Name: 171209M2_12, Date: 09-Dec-2017, Time: 14:46:49, ID: IPA, Description: IPA

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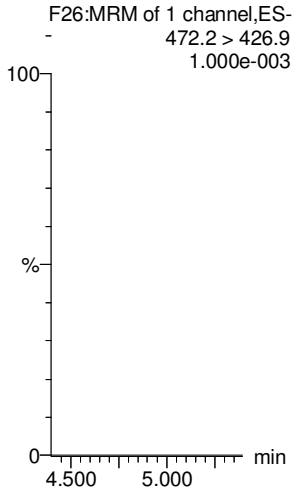

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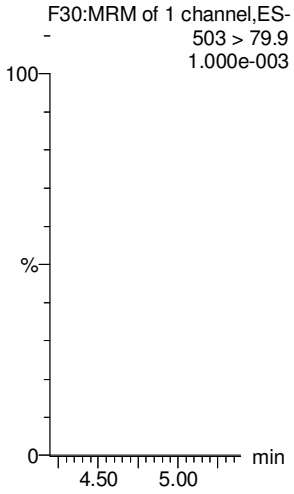

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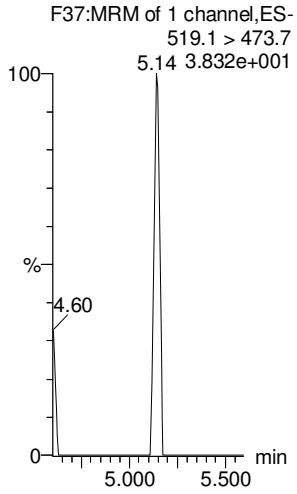

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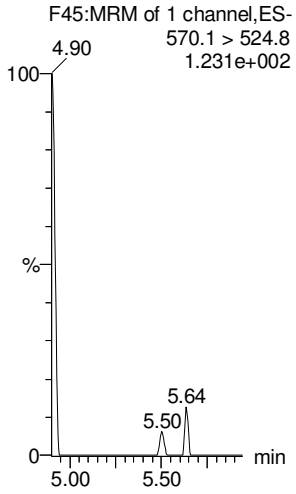


AC 12/11/17

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.

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 ISO 17025 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

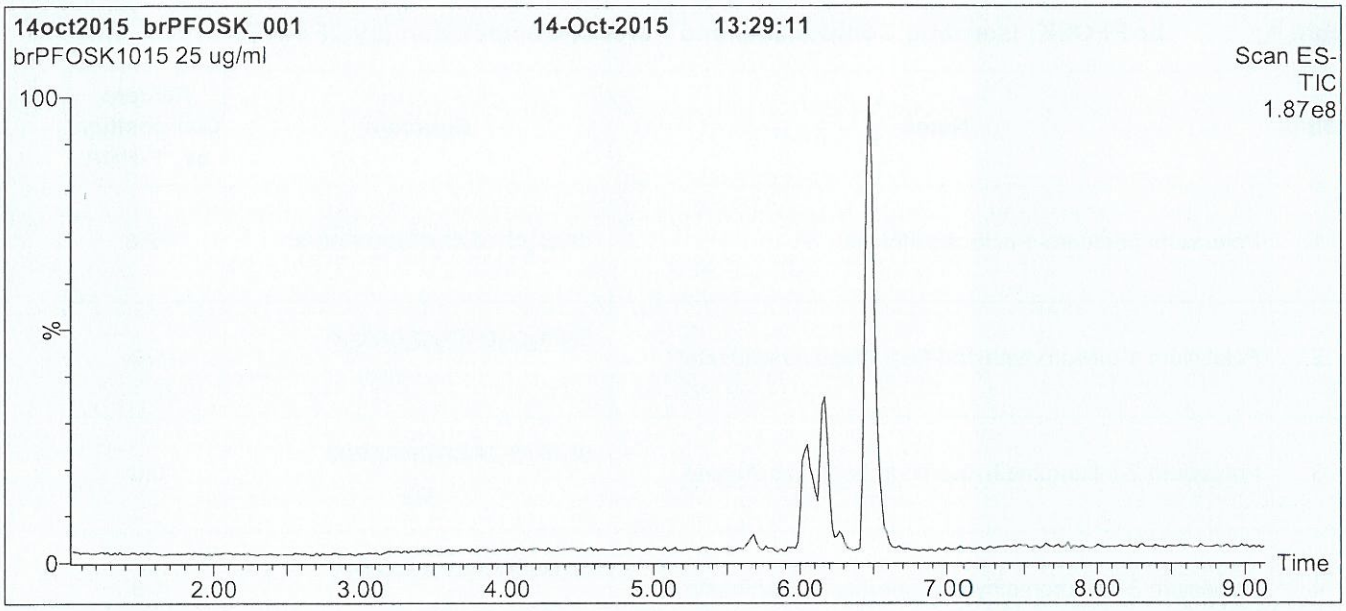
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

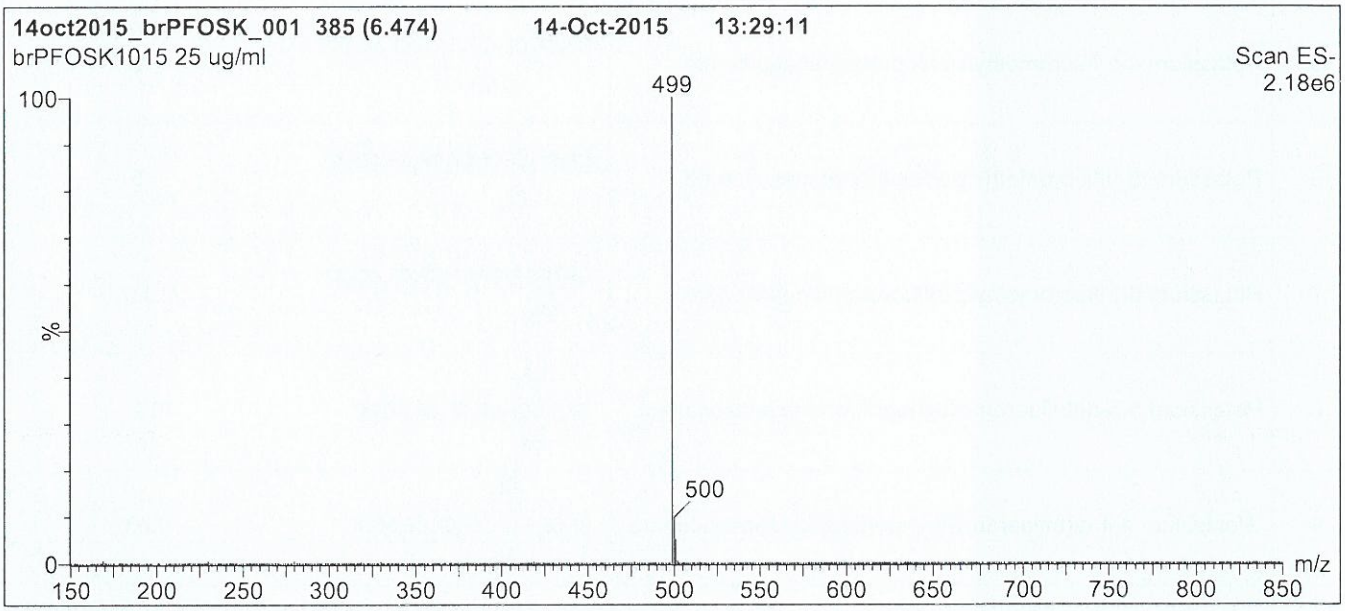
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	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

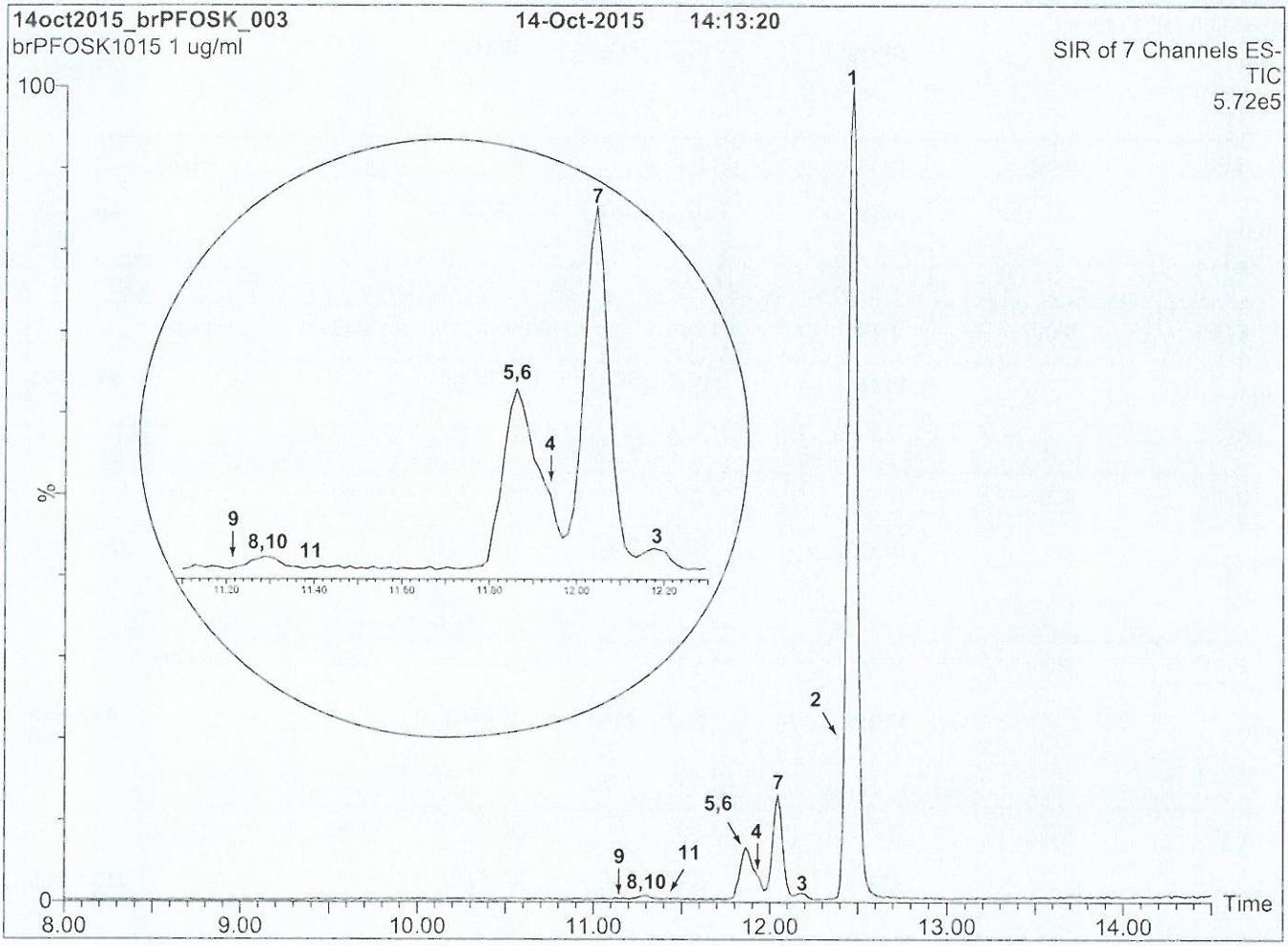
Flow: 300 µl/min

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

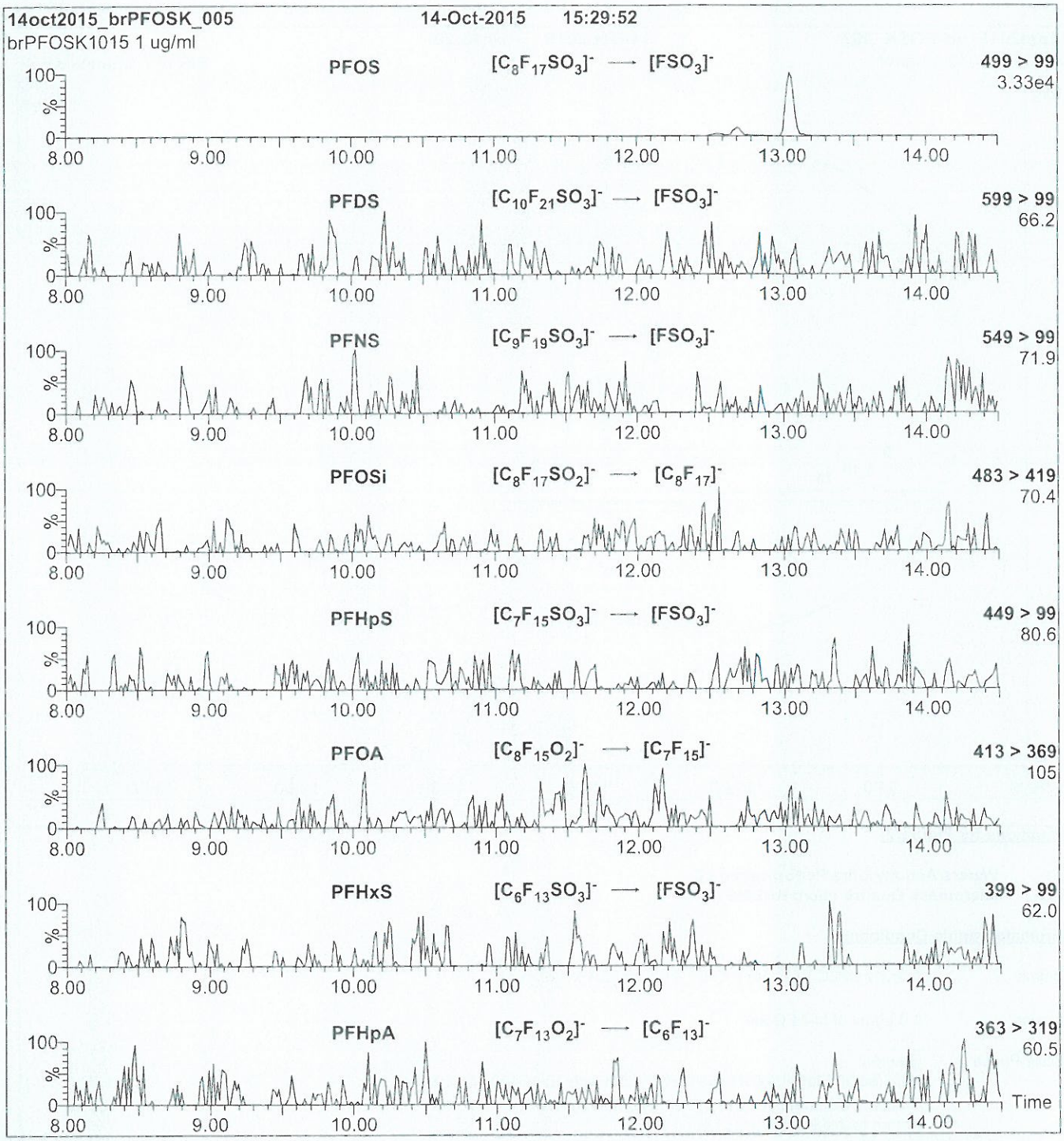
Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 15 min and hold for 3 min.
Return to initial conditions over 1 min.
Time: 20 min

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

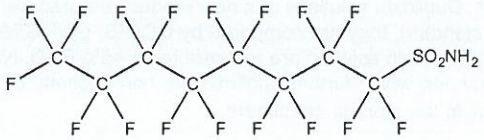
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I ✓ **LOT NUMBER:** FOSA0916I ✓

COMPOUND: Perfluoro-1-octanesulfonamide

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:

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:

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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,...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 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).

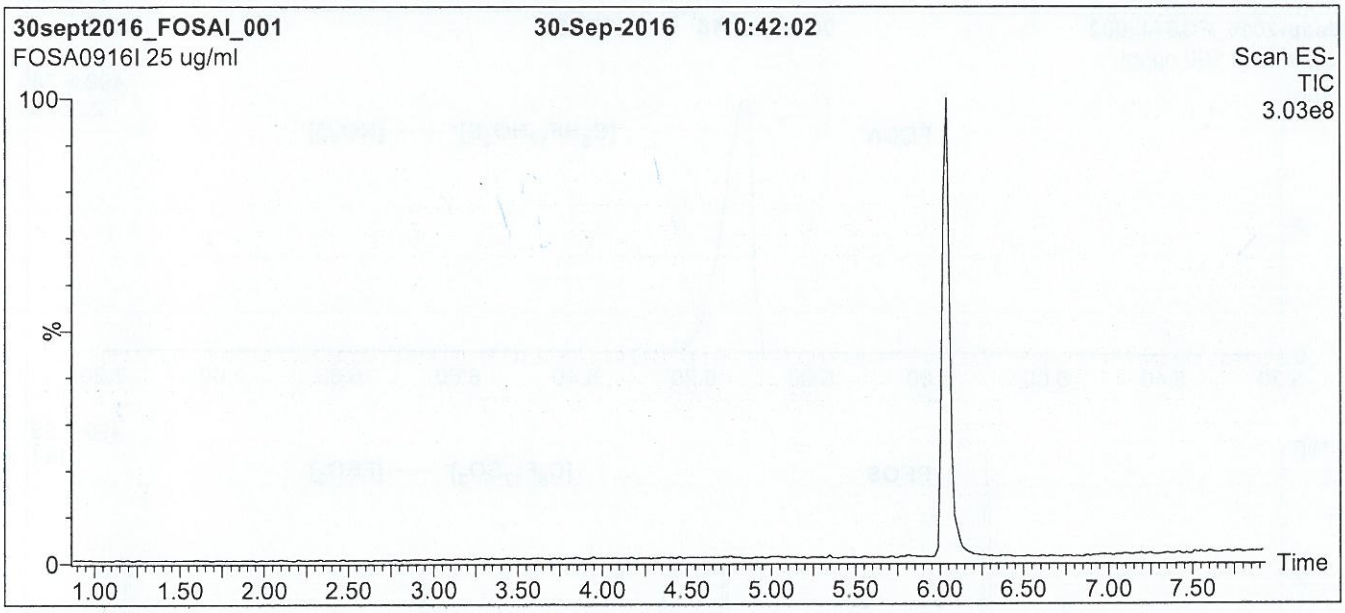
CALA Testing Accreditation No. A 1226

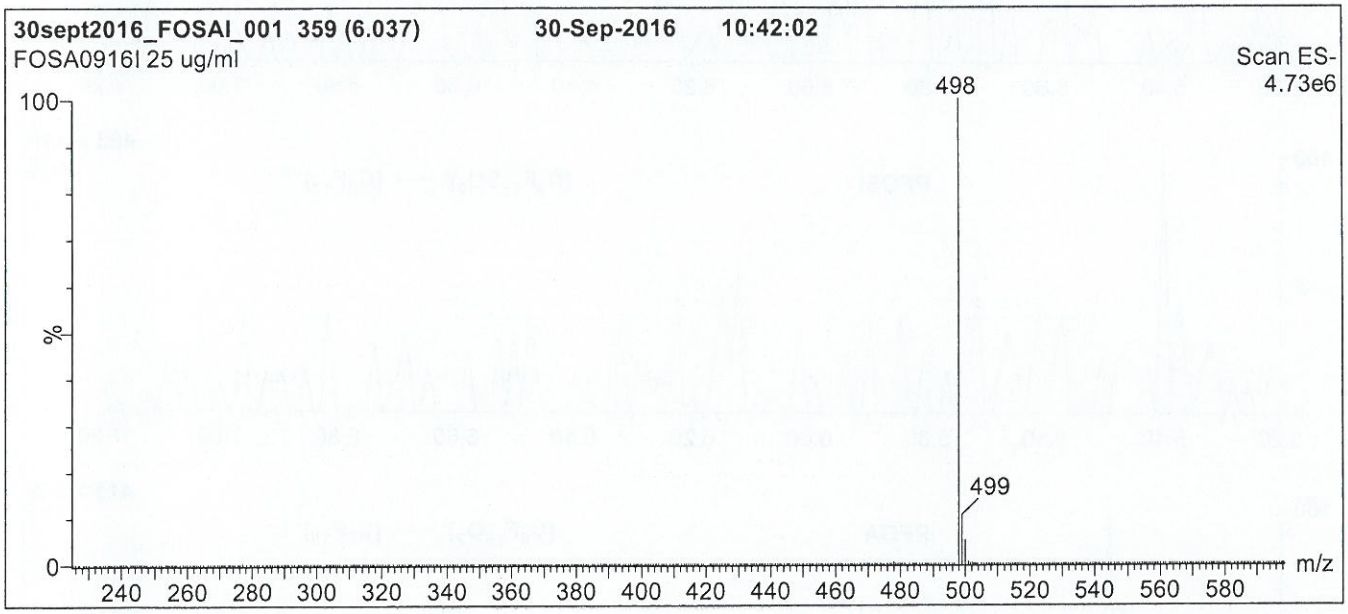
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

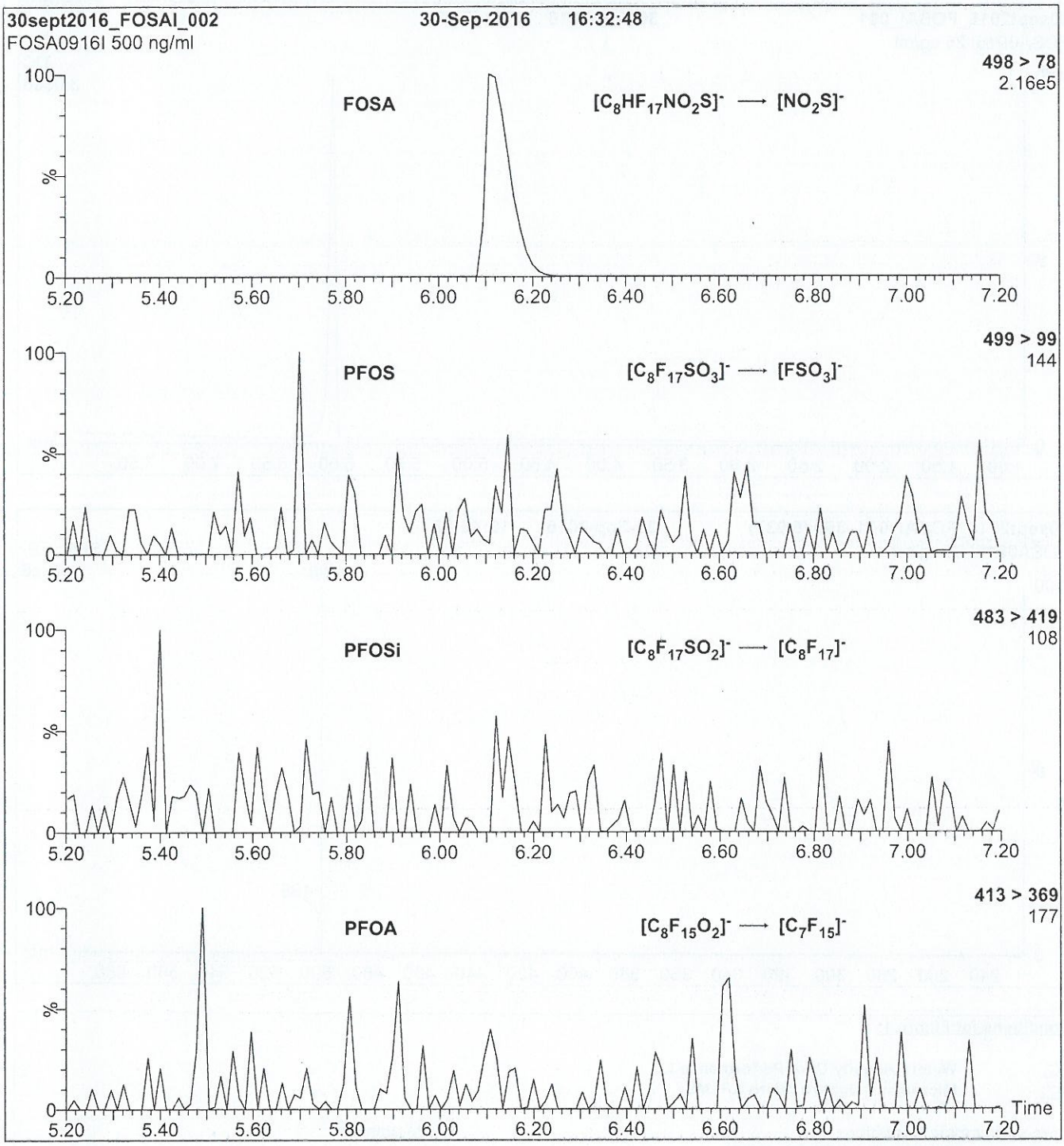
MS Parameters

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

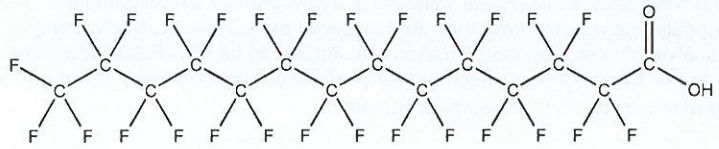
WELLINGTON LABORATORIES

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

INTENDED USE:

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SYNTHESIS / CHARACTERIZATION:

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$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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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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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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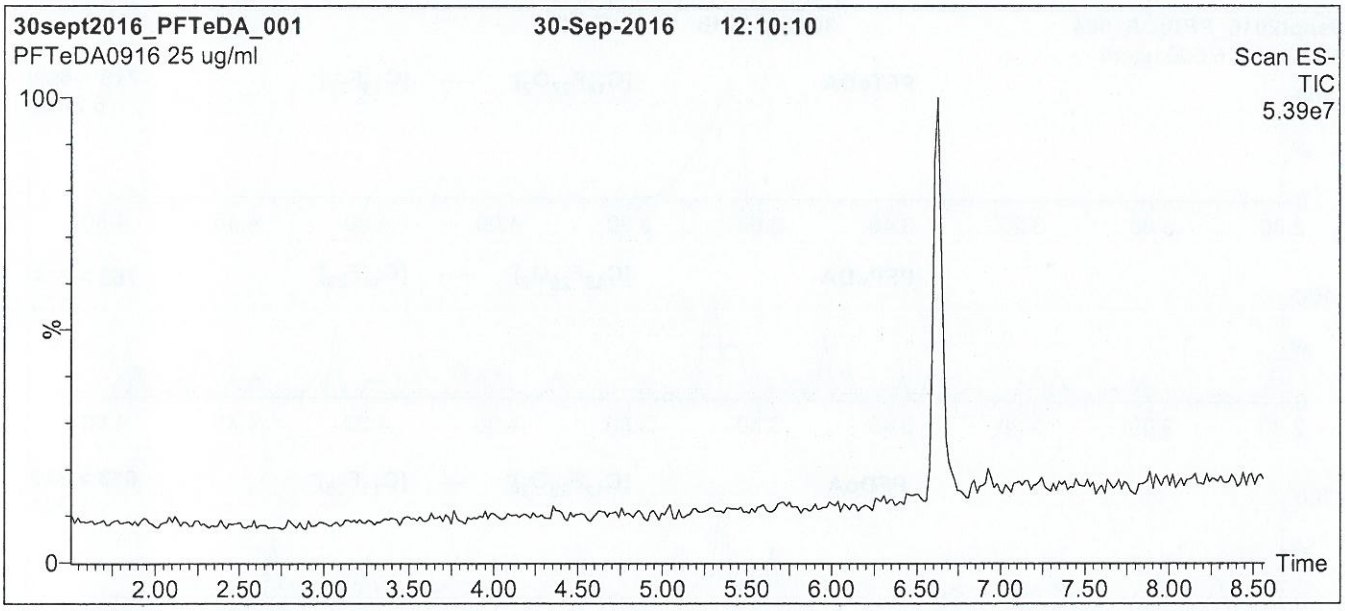
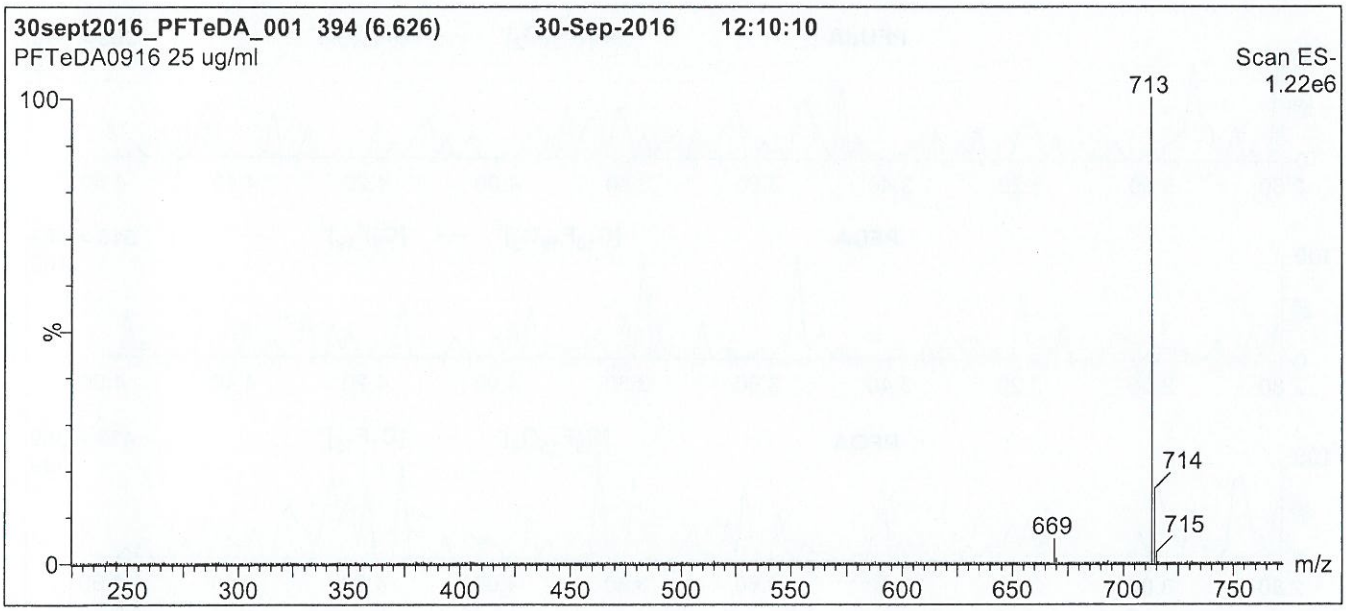
17G1312

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

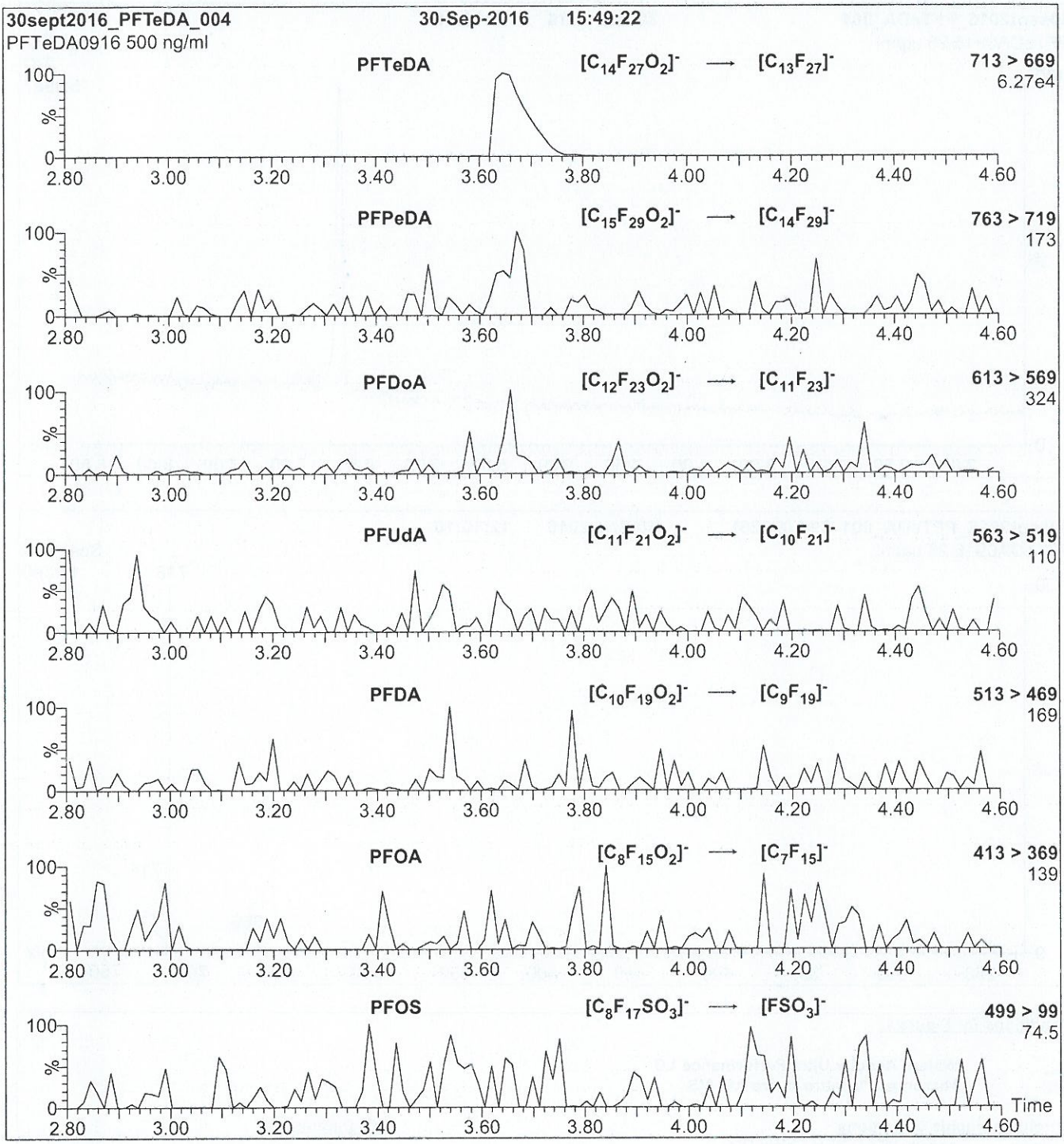
MS Parameters

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

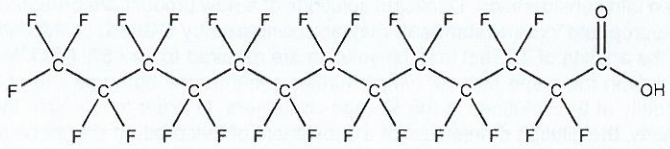
CERTIFICATE OF ANALYSIS DOCUMENTATION

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: B.G. Chittim, General Manager **Date:** 05/04/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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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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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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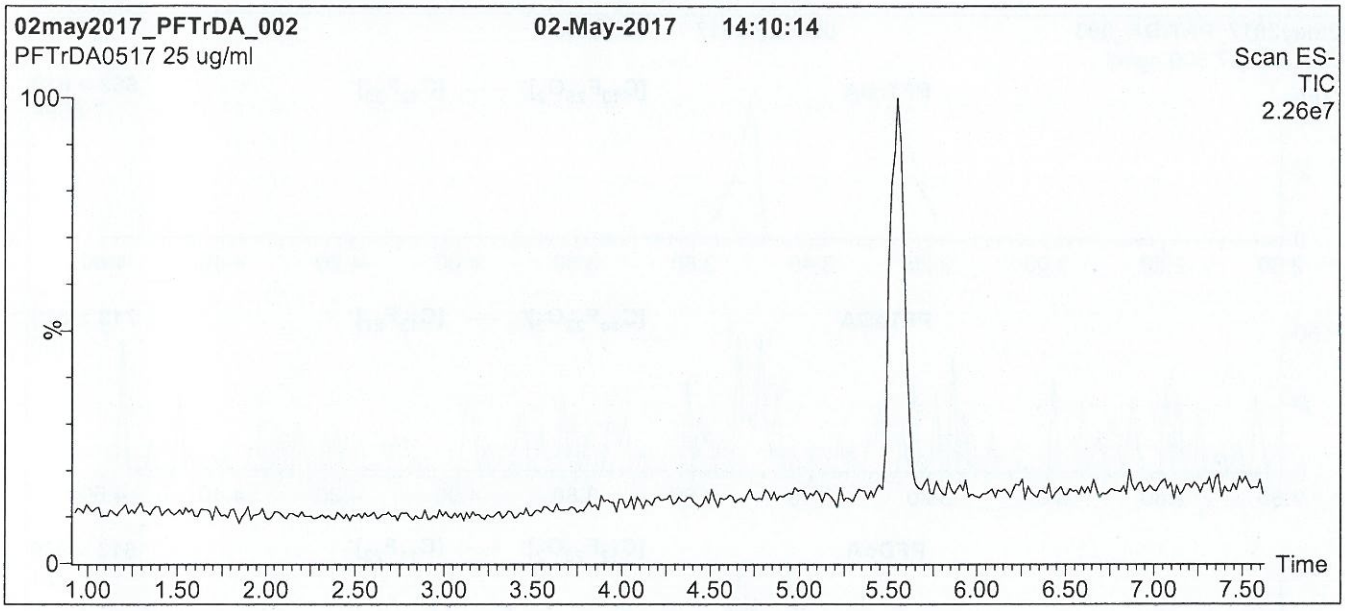
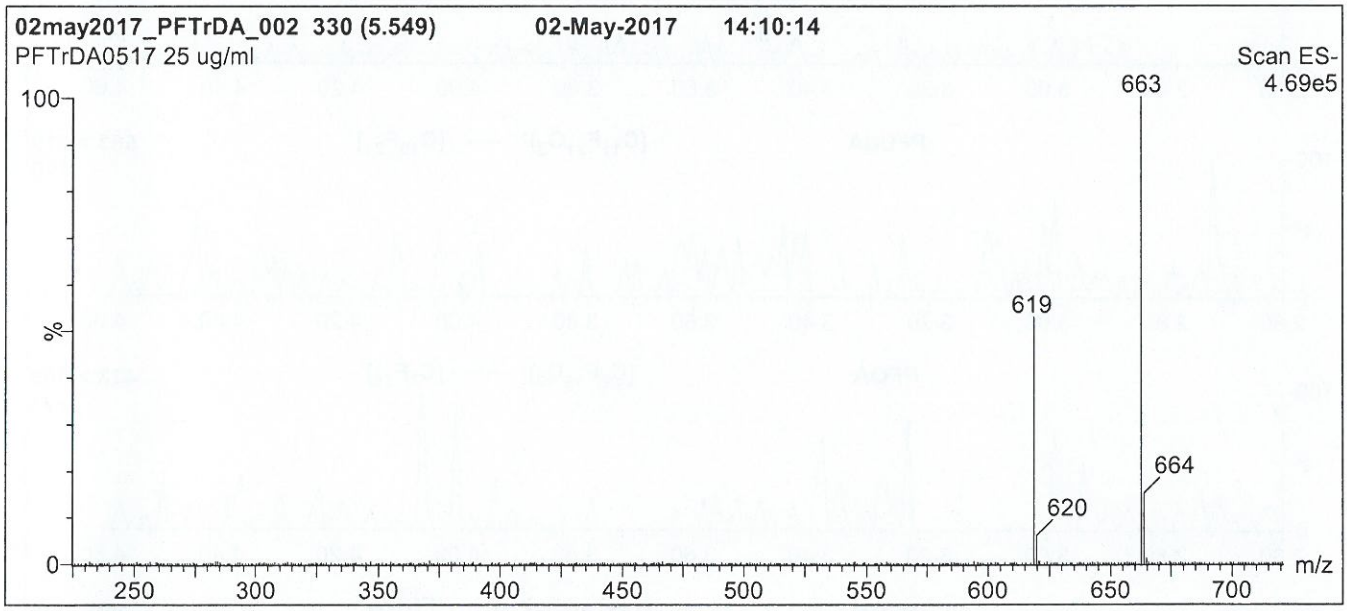
17G1313

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

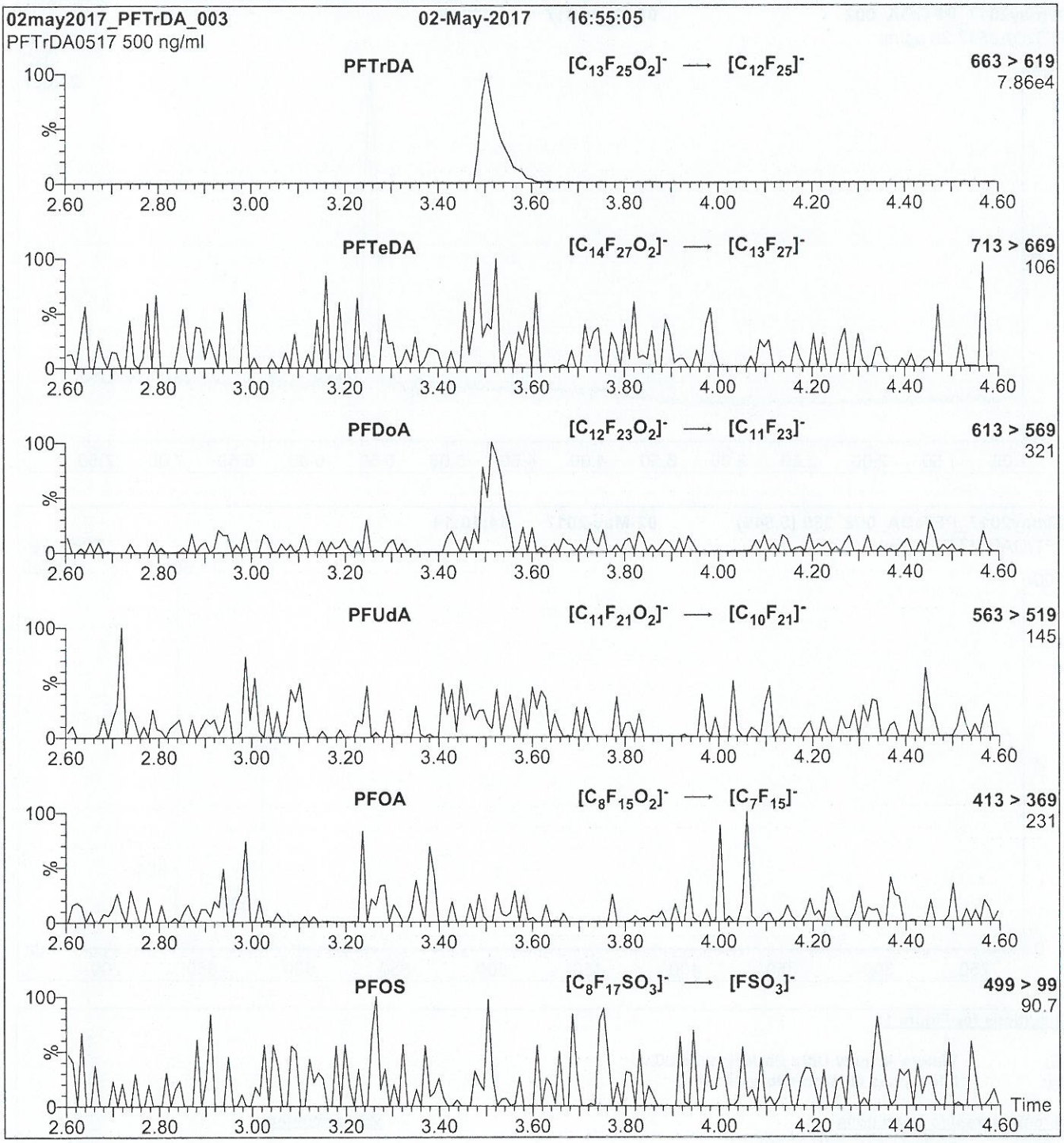
MS Parameters

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

WELLINGTON LABORATORIES

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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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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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,...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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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17G1323

Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

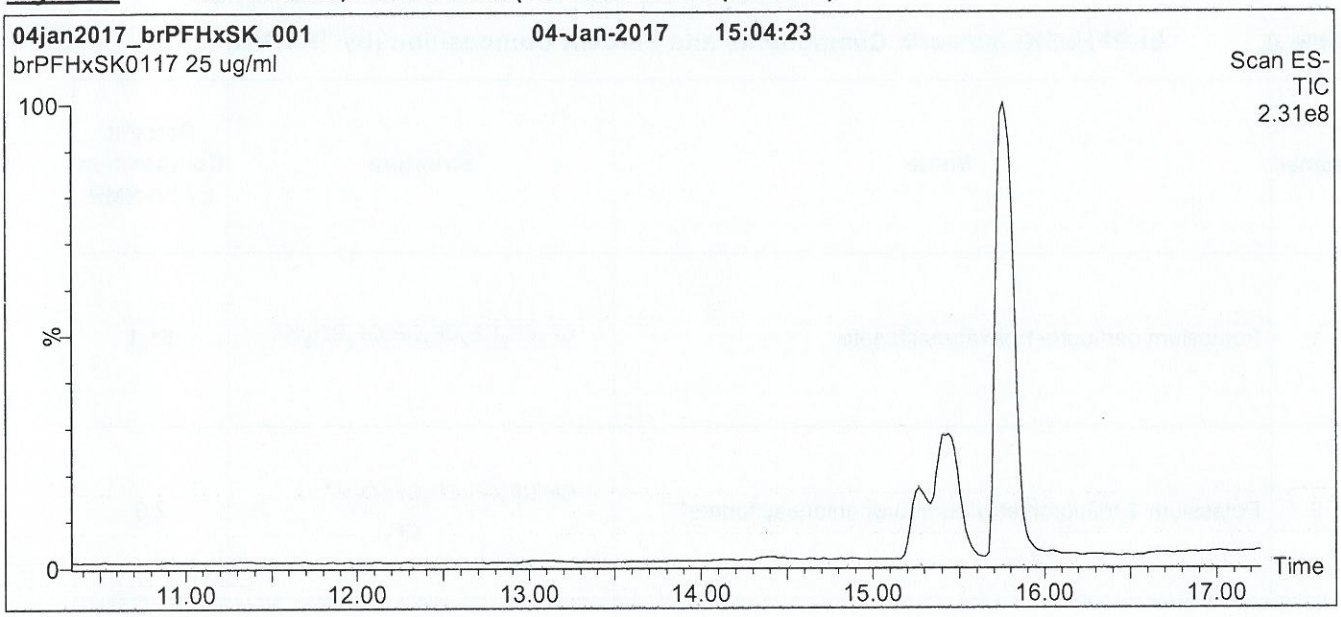
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	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

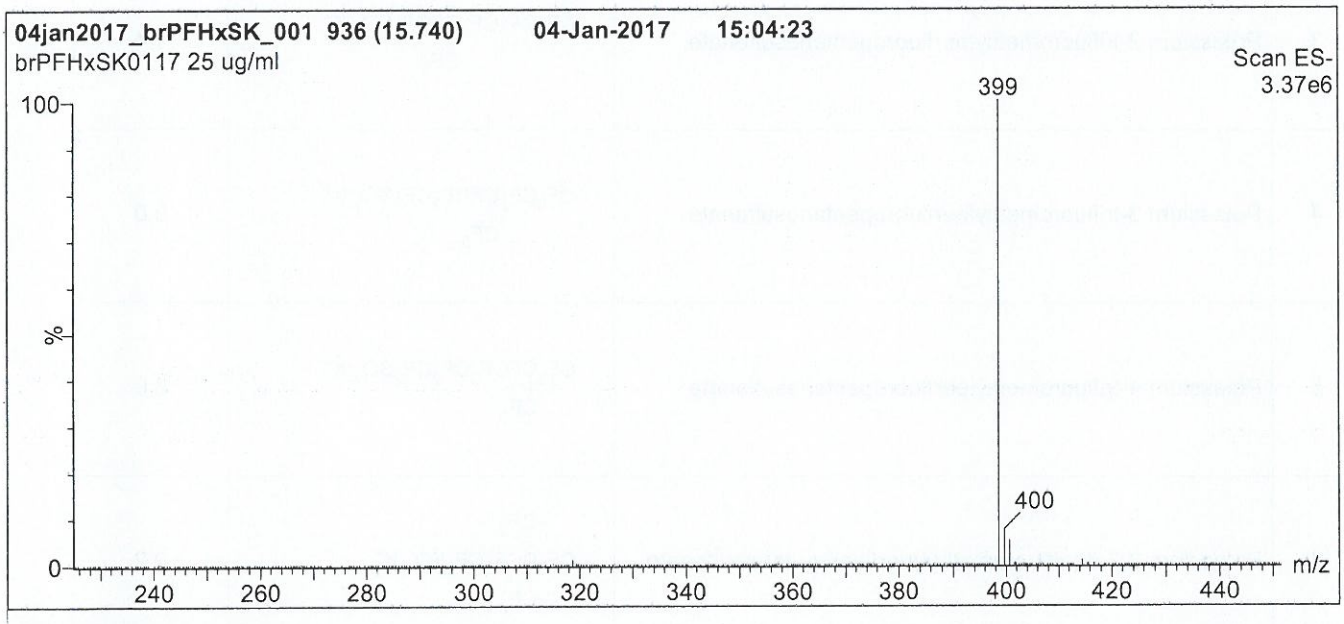
* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: B.G. Chittim **Date:** 01/20/2017 (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

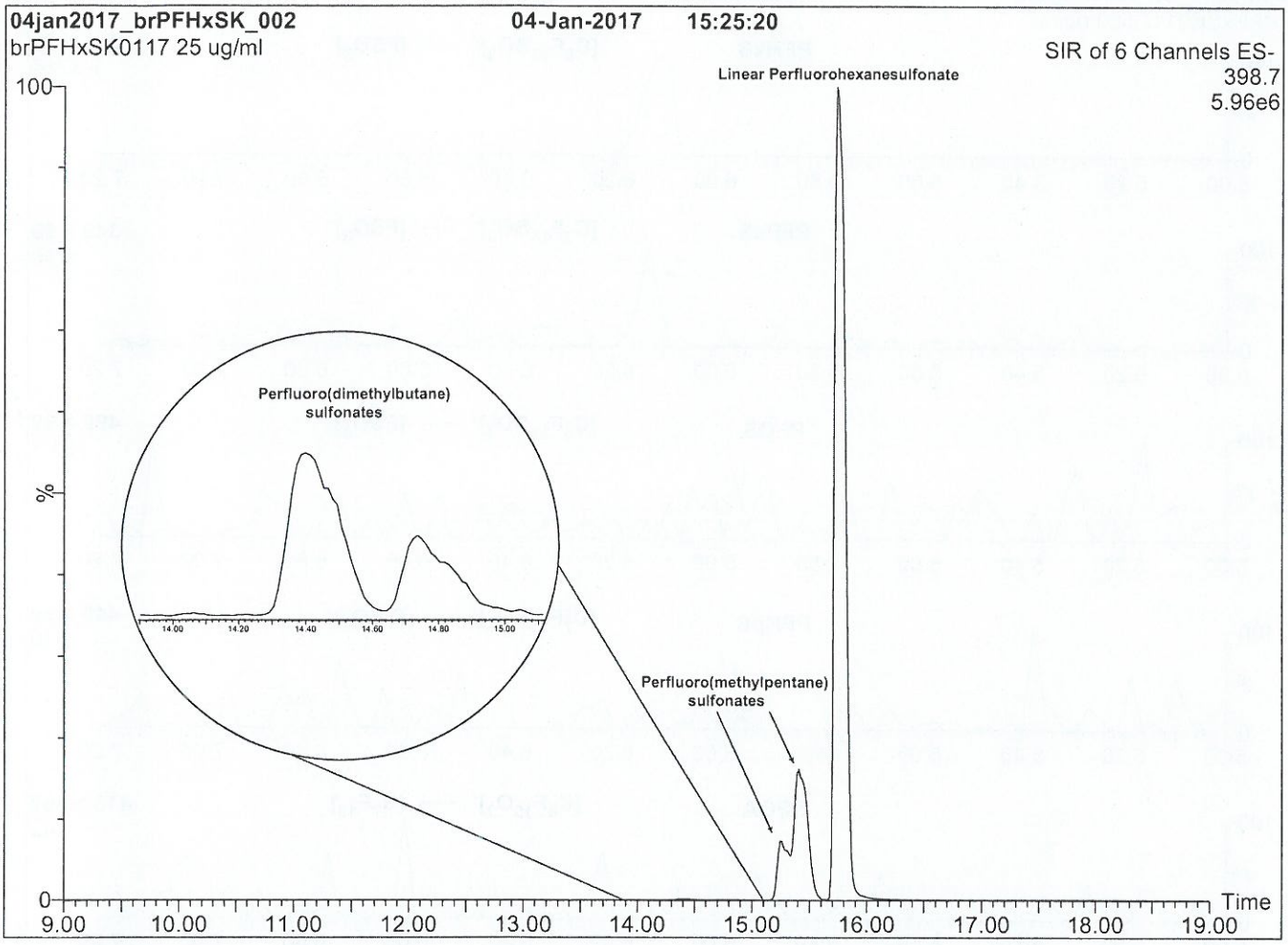
MS Parameters

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

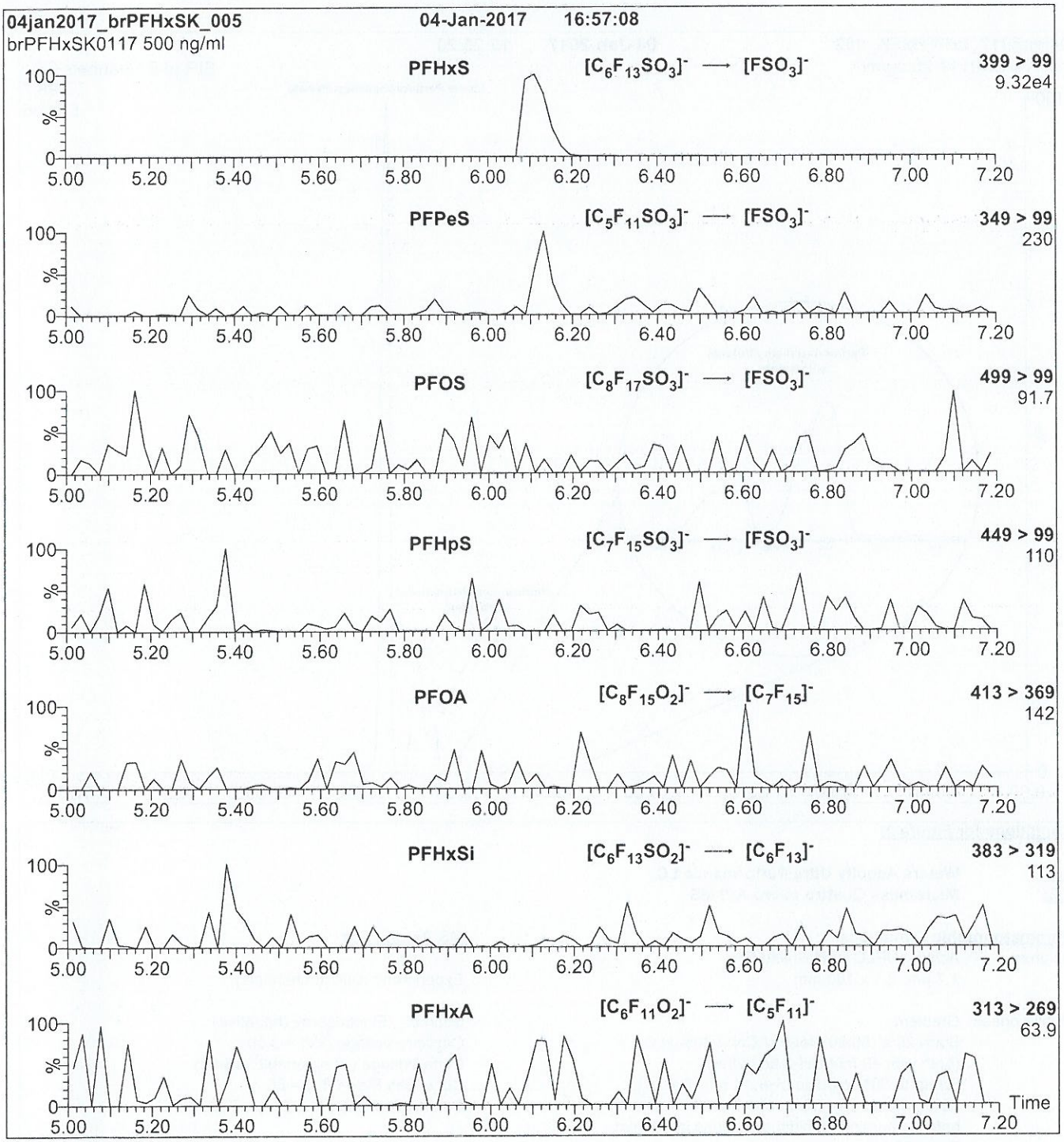
MS Parameters

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

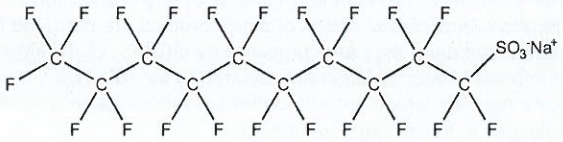
17G1325

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS
LOT NUMBER: LPFDS0217
COMPOUND: Sodium perfluoro-1-decanesulfonate

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:

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,...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 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 Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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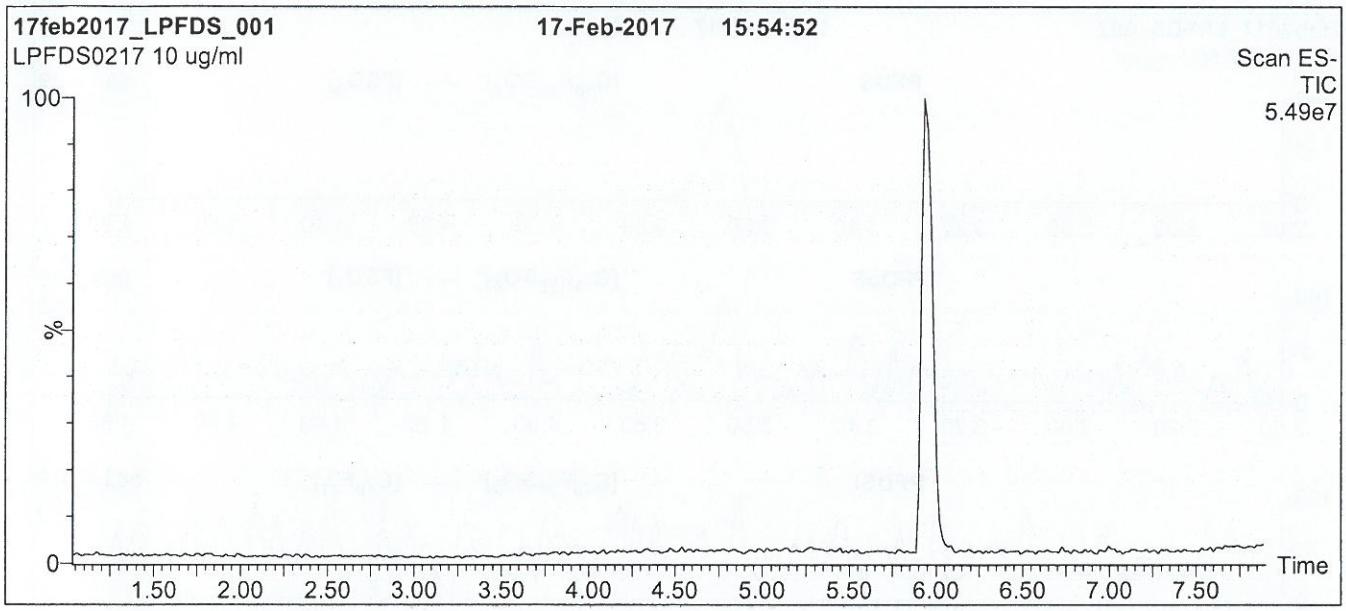
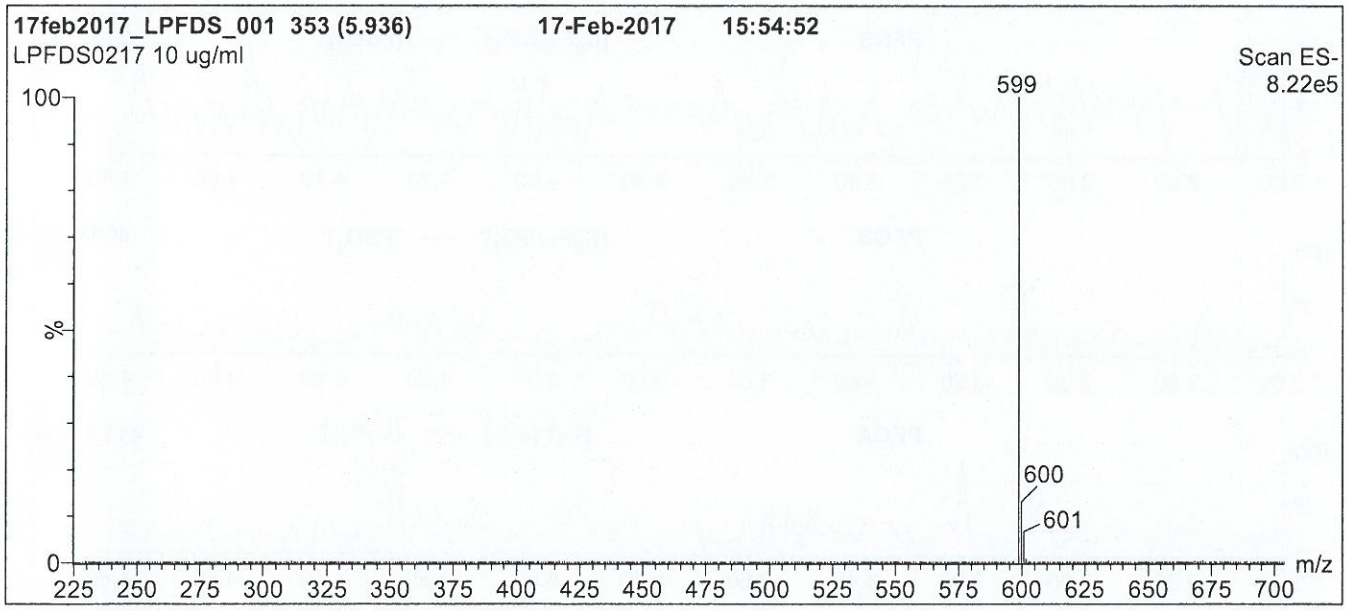
17G1325

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

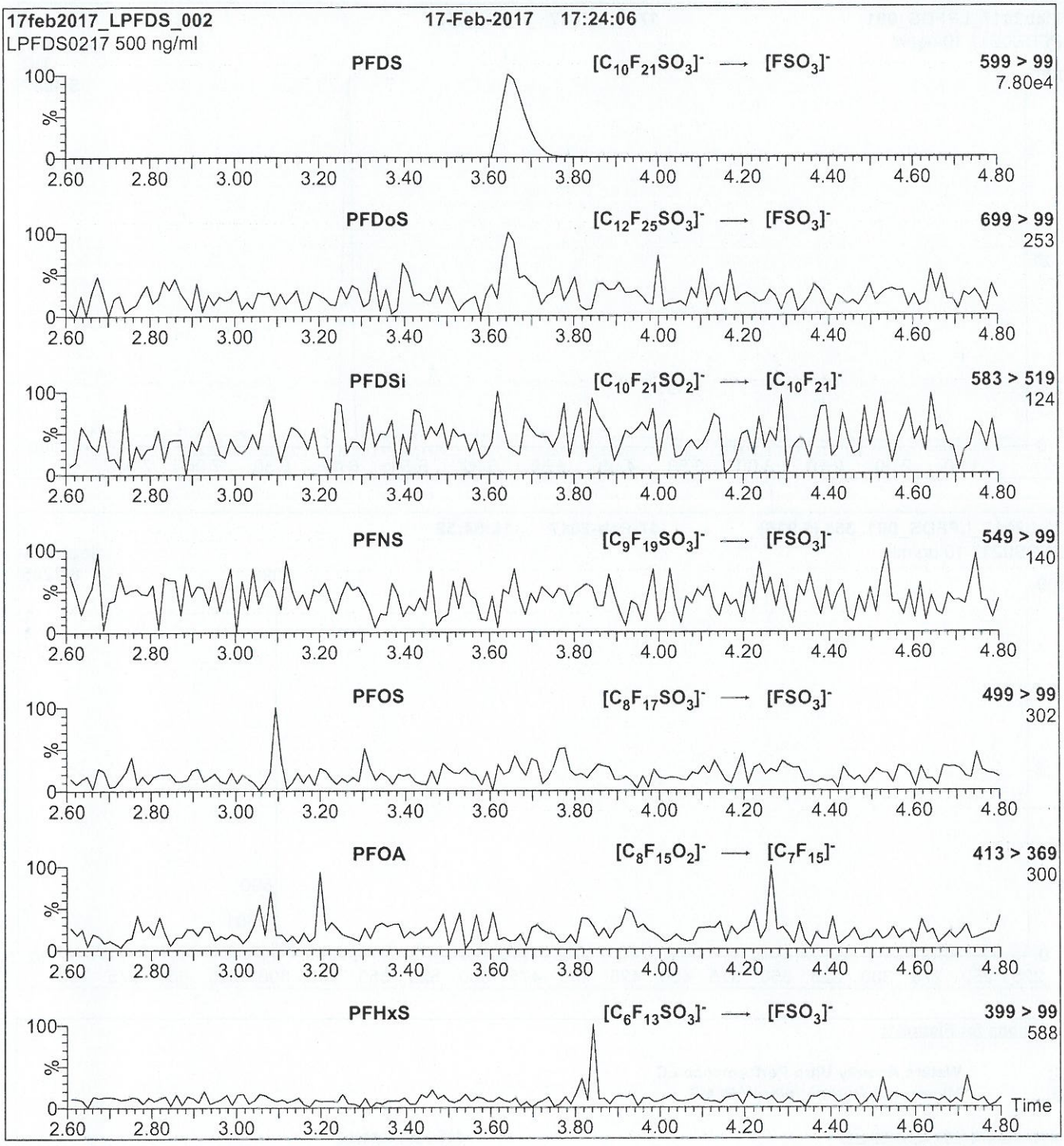
MS Parameters

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

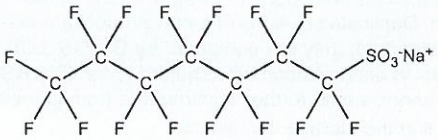
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS
LOT NUMBER: LPFHpS1016
COMPOUND: Sodium perfluoro-1-heptanesulfonate

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:

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where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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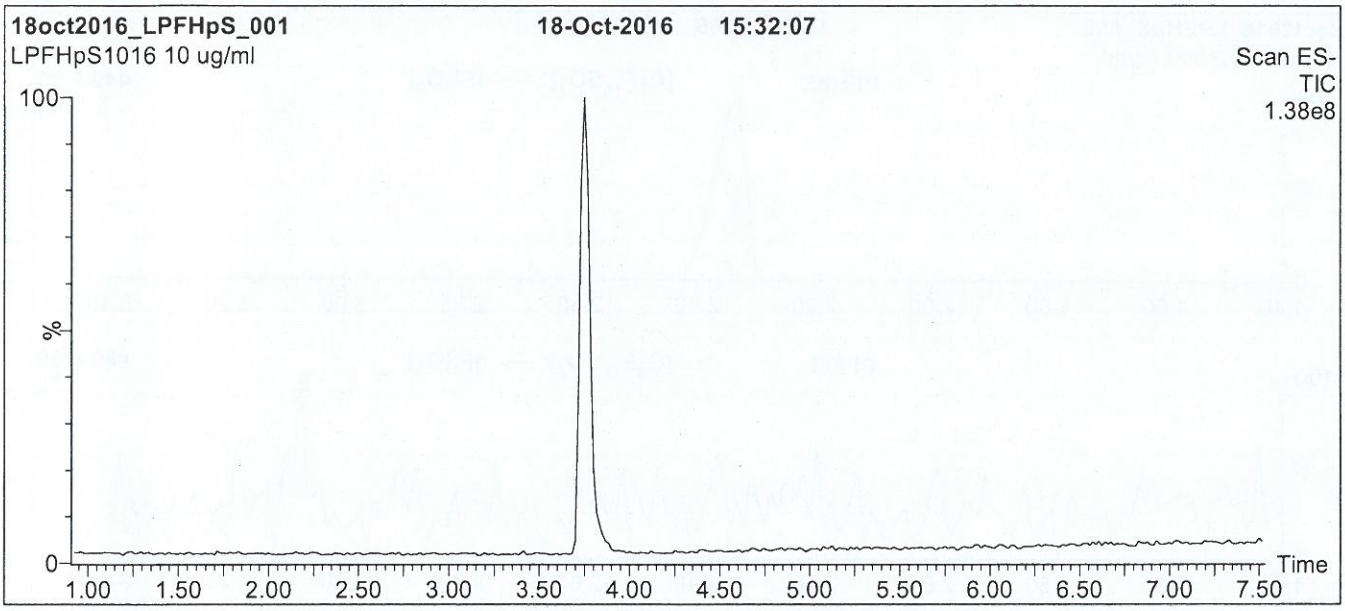
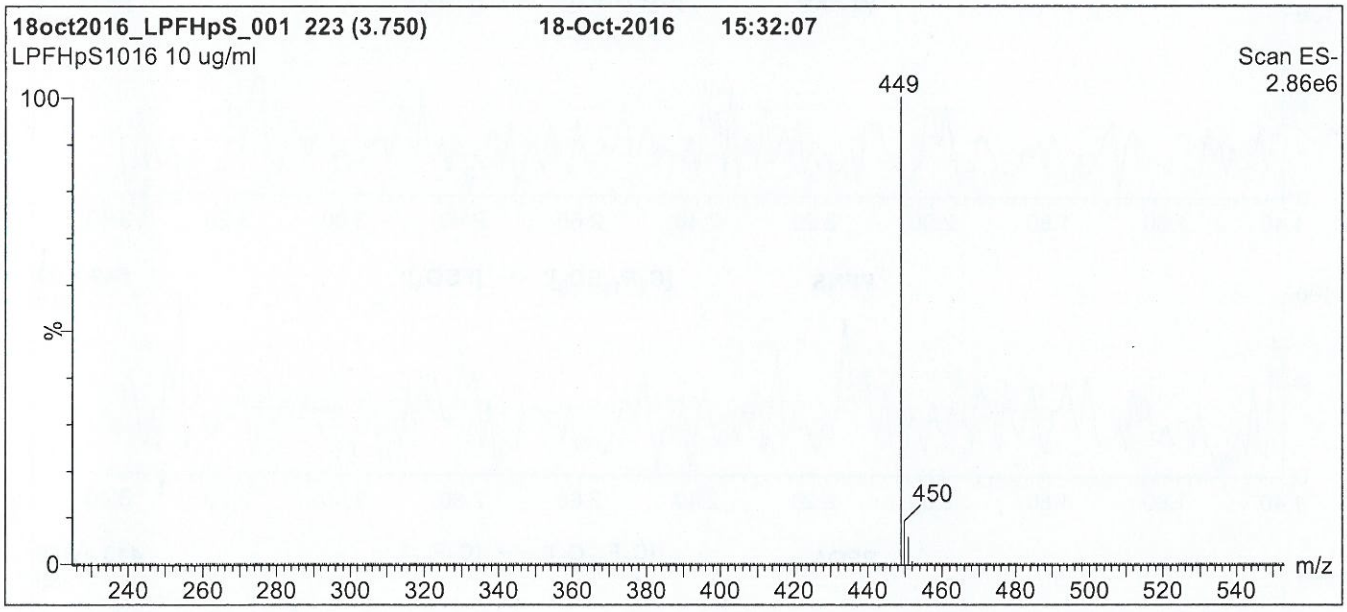
17G1326

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

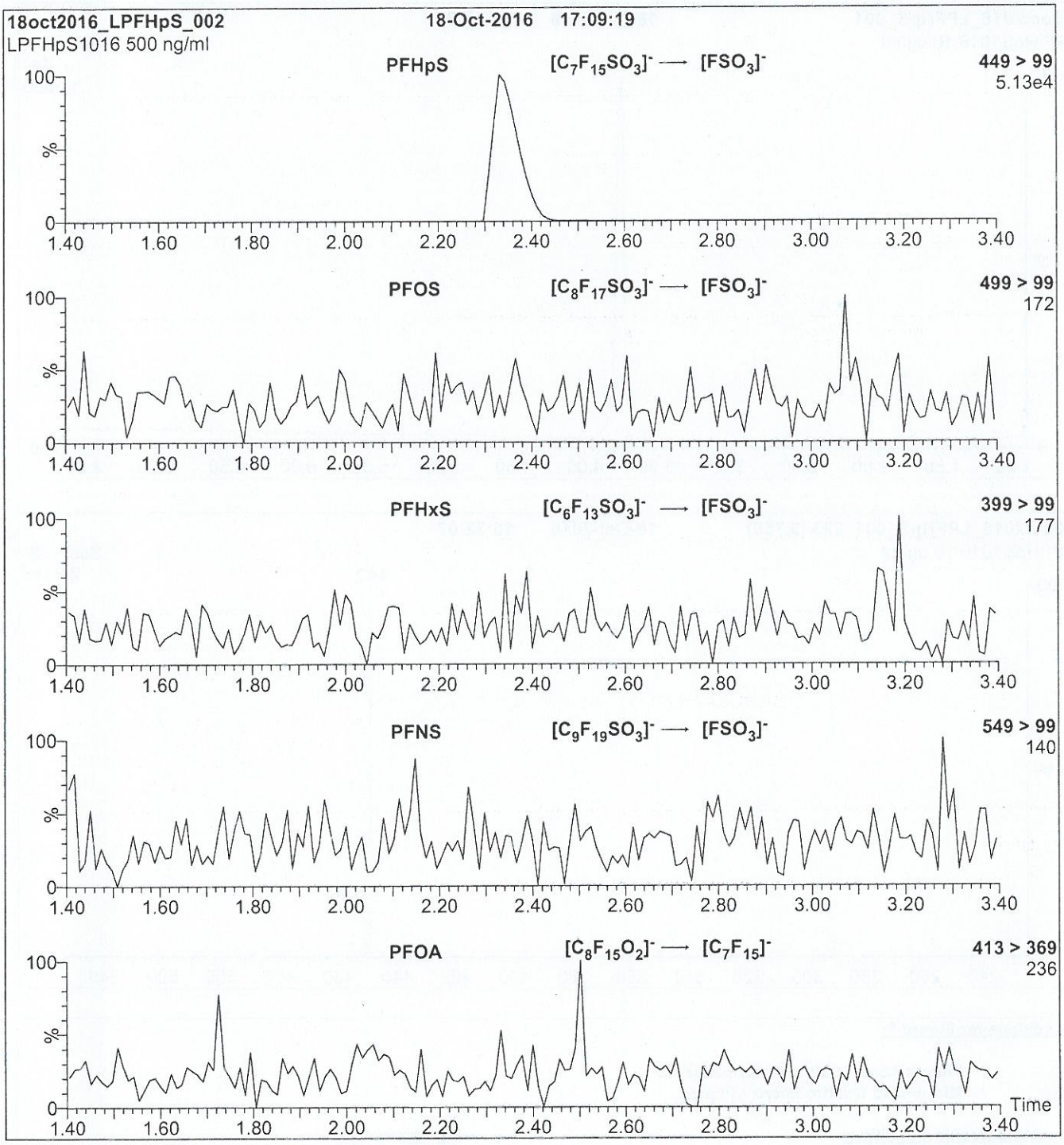
MS Parameters

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

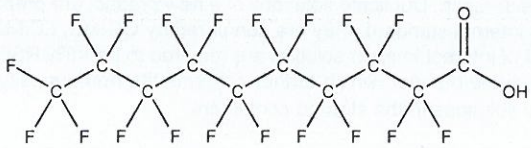
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 35

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: _____ **Date:** 06/13/2016 (mm/dd/yyyy)
B.G. Chittim

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:

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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:

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).

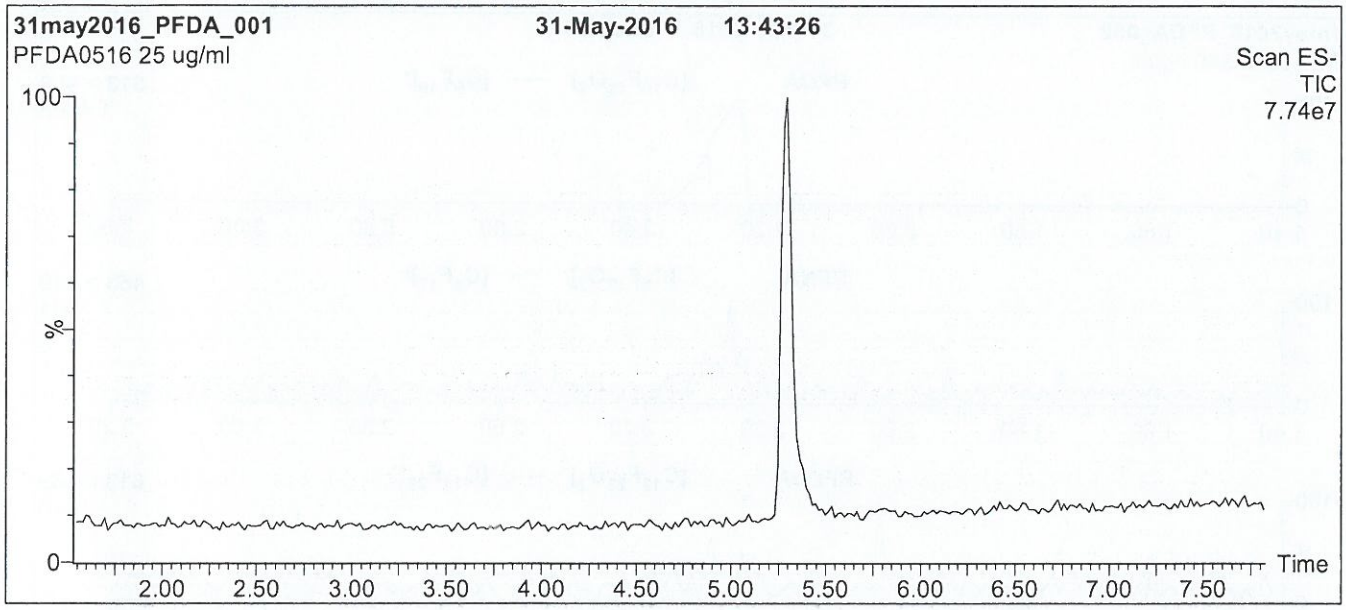
CALA Testing Accreditation No. A 1226

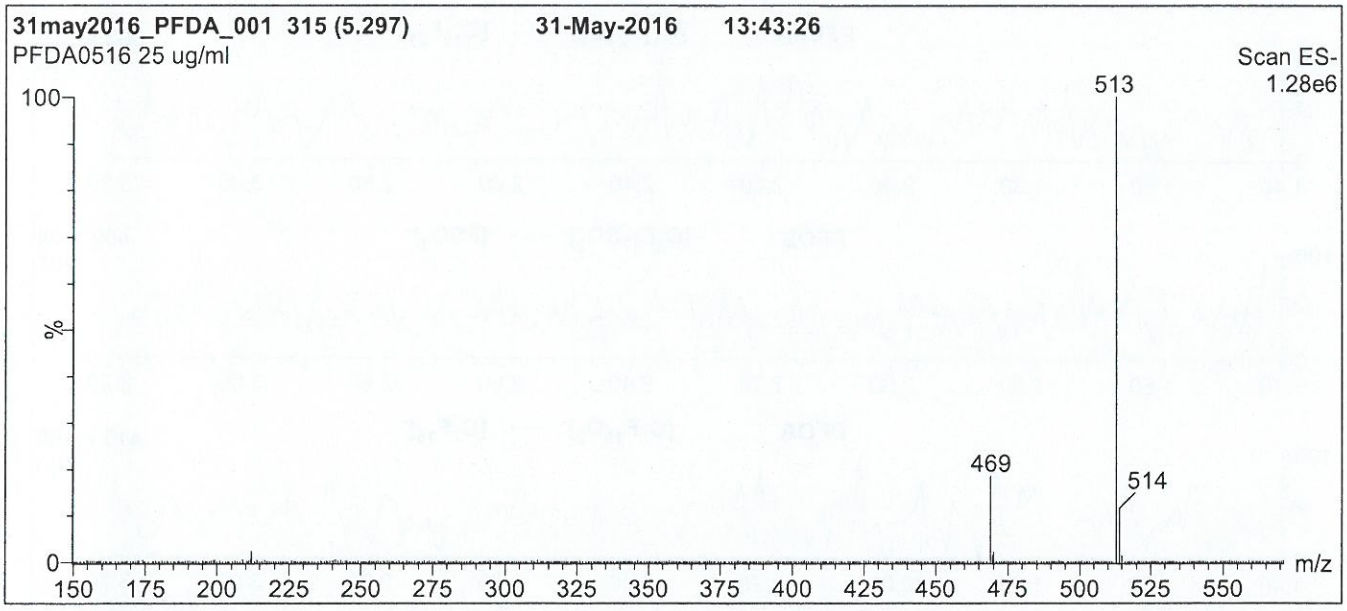
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

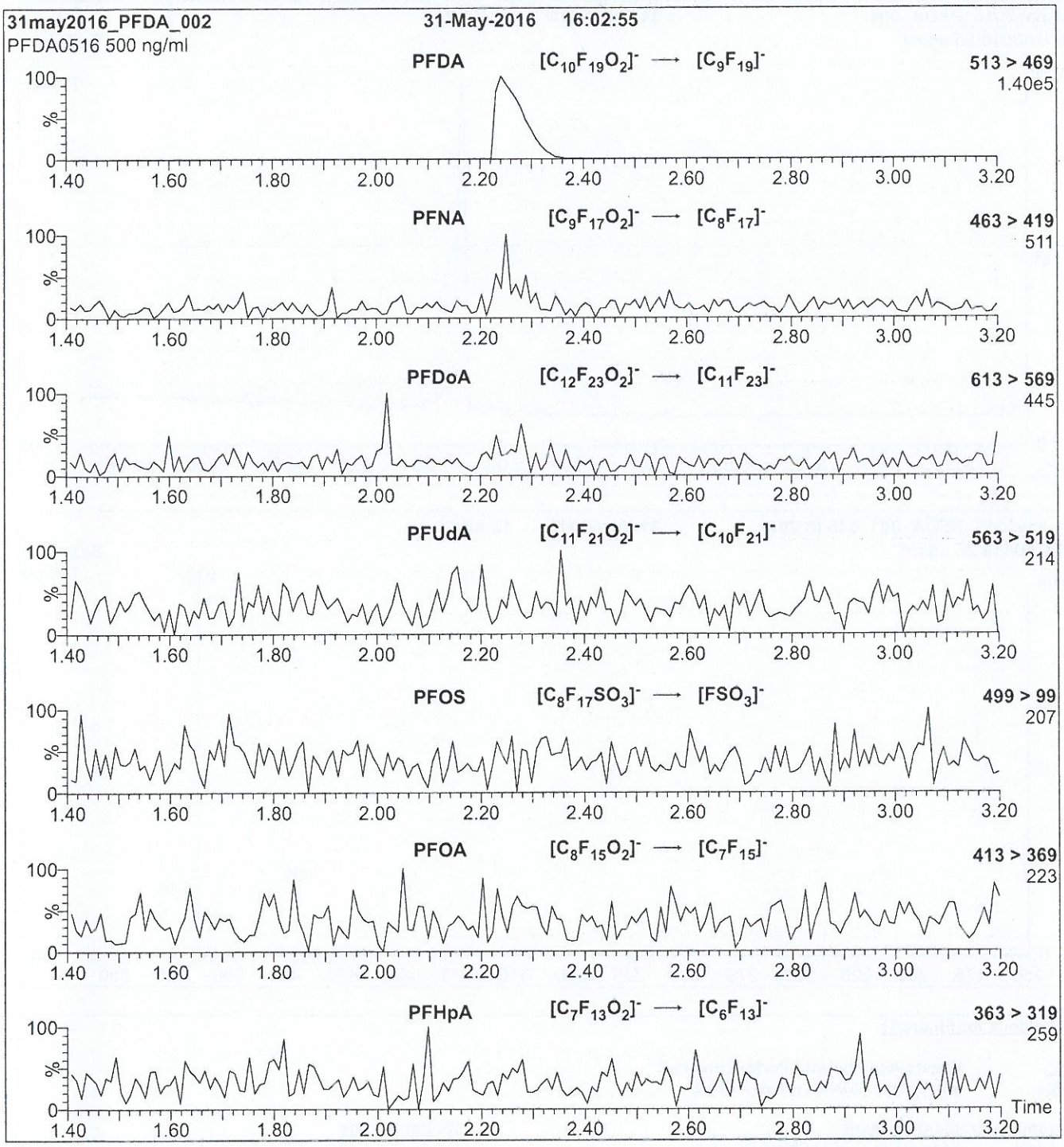
MS Parameters

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

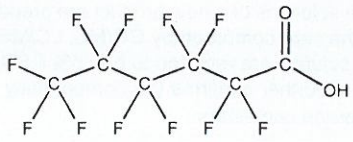
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17G1806

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFHxA	**LOT NUMBER:**	PFHxA1216
COMPOUND:	Perfluoro-n-hexanoic acid		
STRUCTURE:		**CAS #:**	307-24-4



MOLECULAR FORMULA:	$C_6HF_{11}O_2$	**MOLECULAR WEIGHT:**	314.05
CONCENTRATION:	50 ± 2.5 µg/ml	**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:

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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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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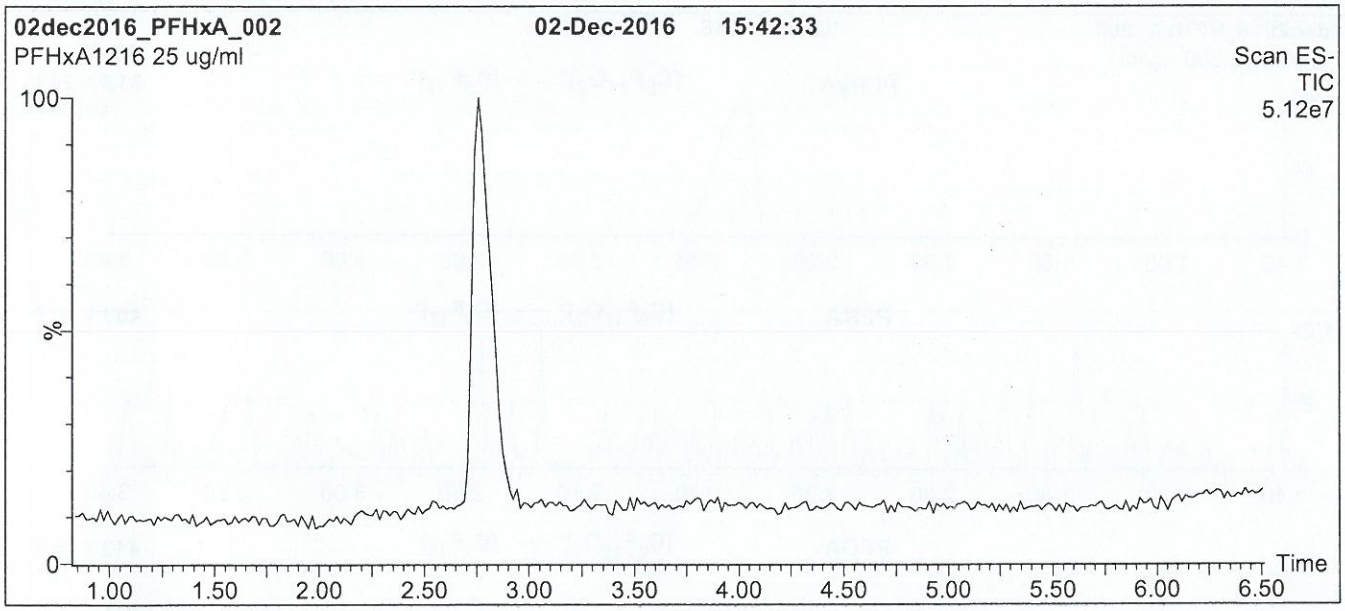
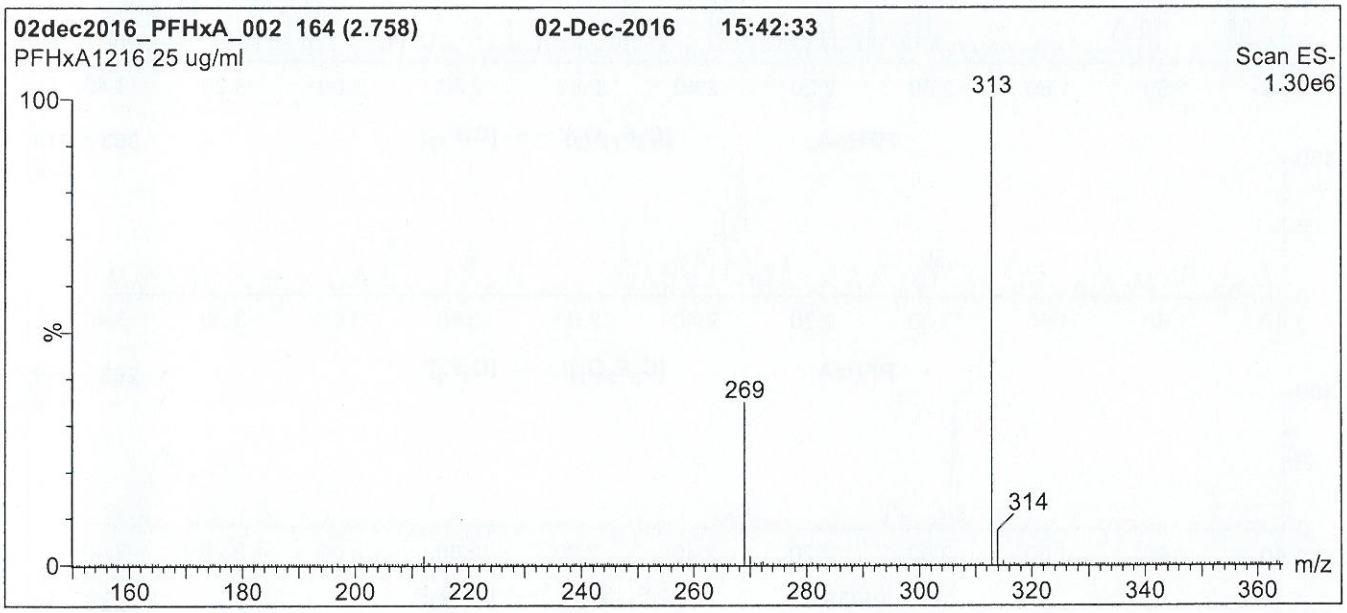
17G1806

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

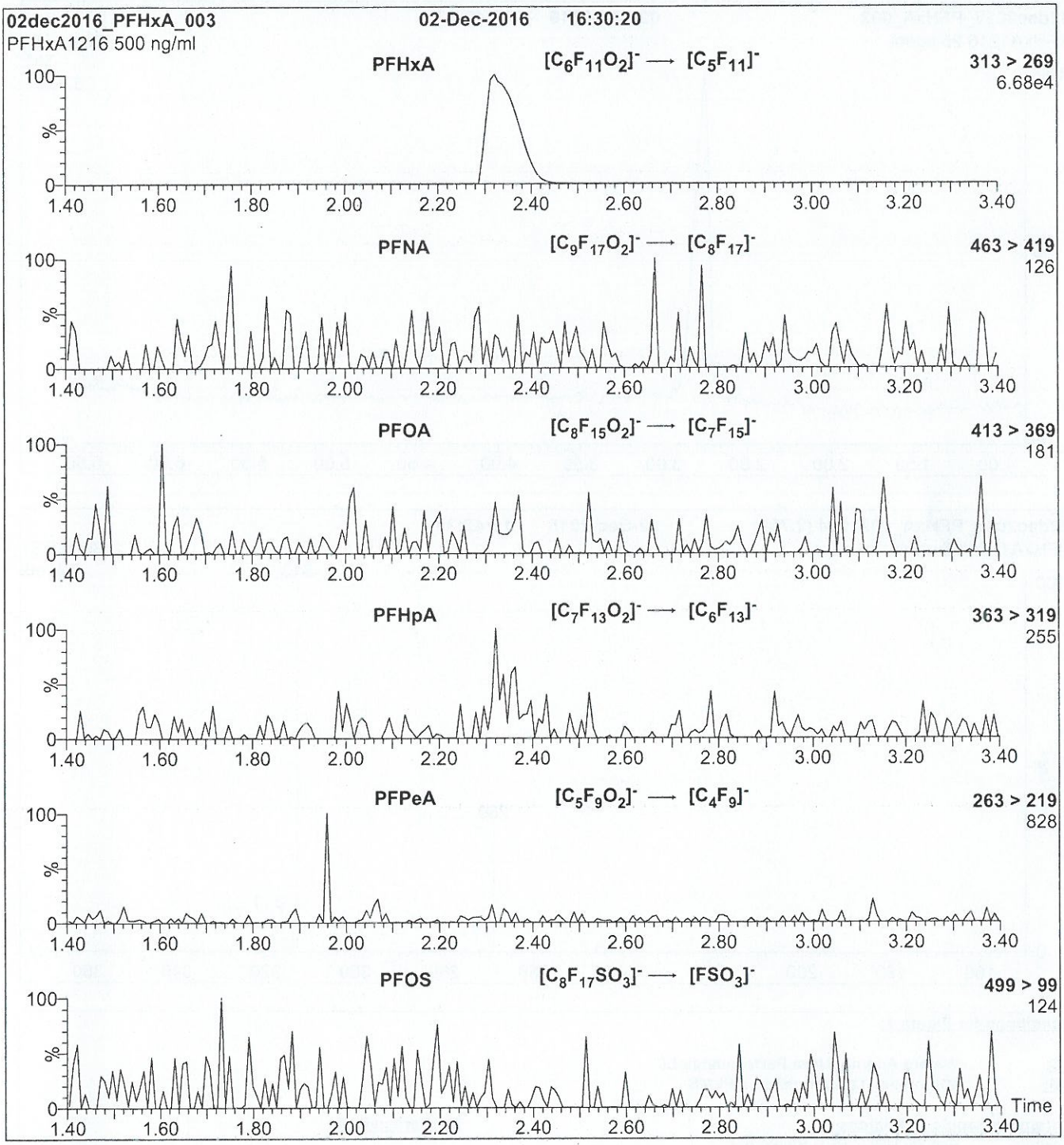
MS Parameters

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

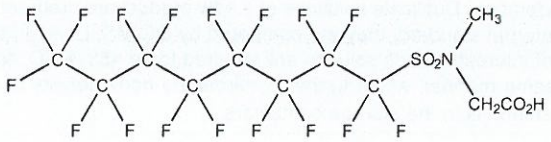
Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 10

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: _____ **Date:** 01/12/2017 (mm/dd/yyyy)
B.G. Chittim

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:

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:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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$$u_c\left(y(x_1, x_2, \ldots x_n)\right) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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:

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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:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER AR-1523

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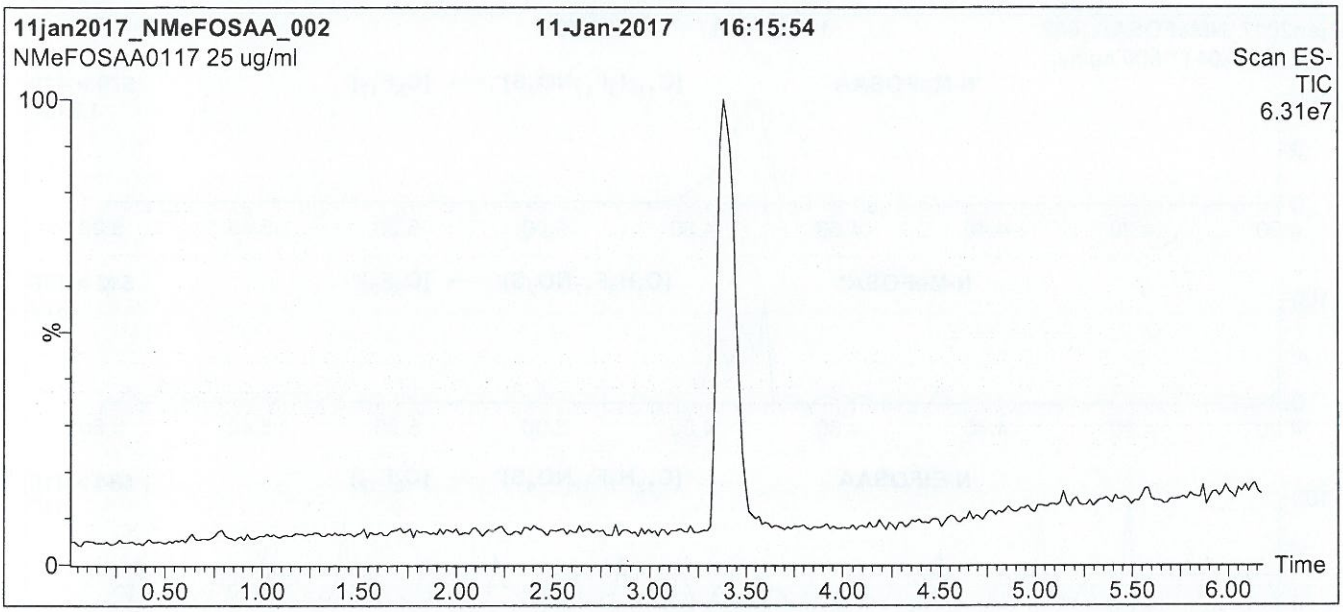
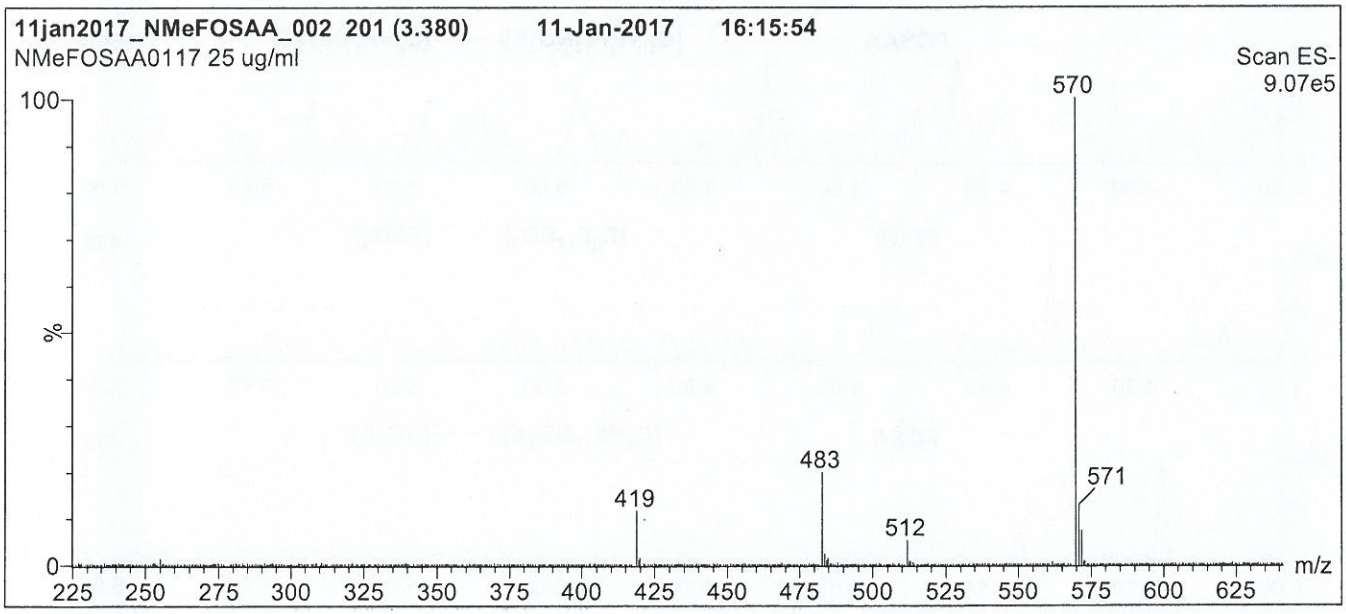
17G1807

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

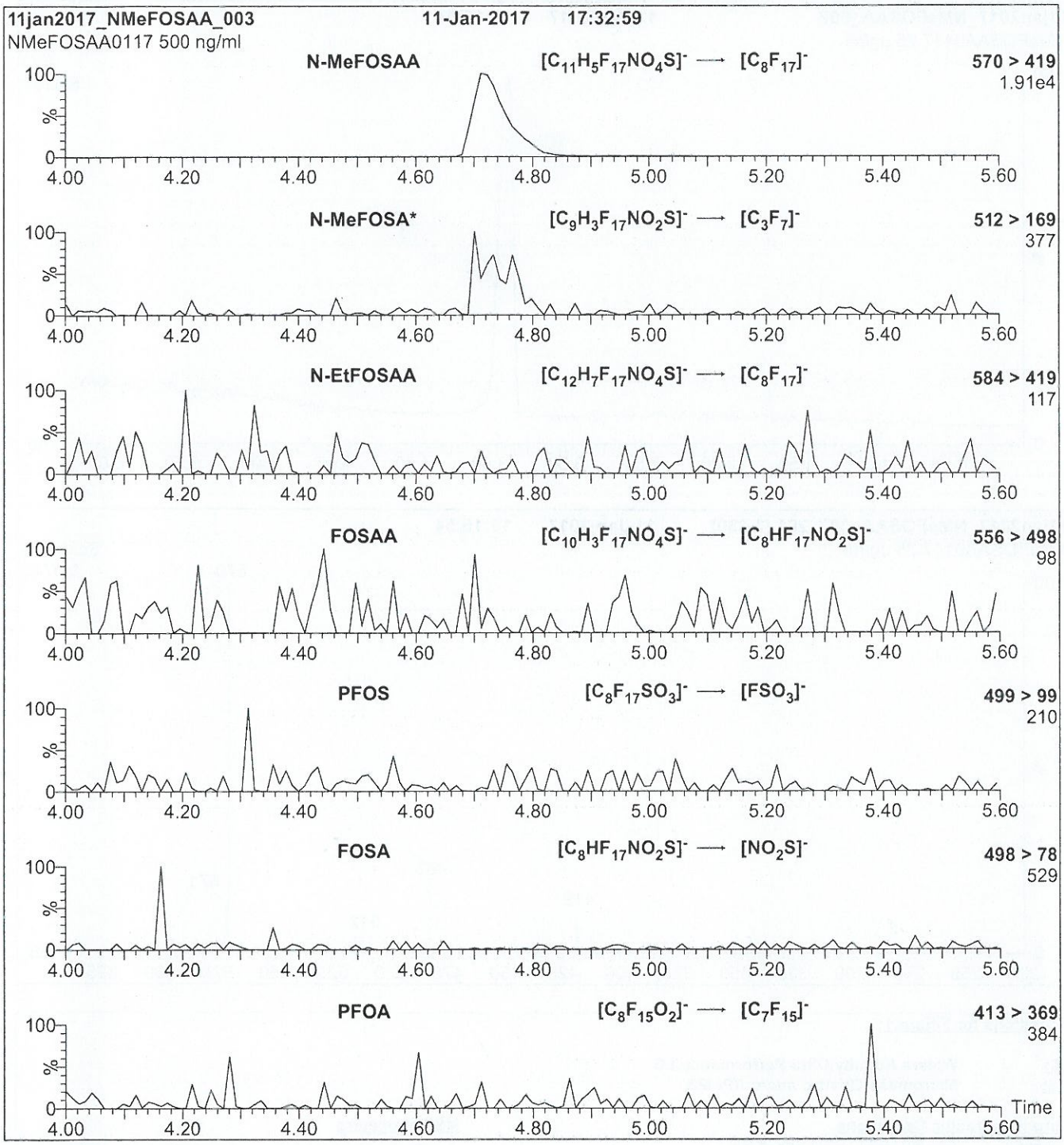
MS Parameters

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

17G1808

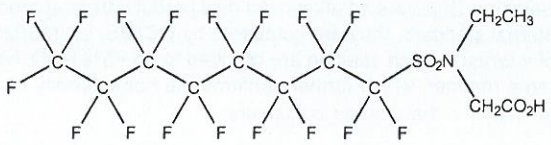
WELLINGTON LABORATORIES

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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Certified By: B.G. Chittim **Date:** 01/12/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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17G1808

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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. A 1226

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

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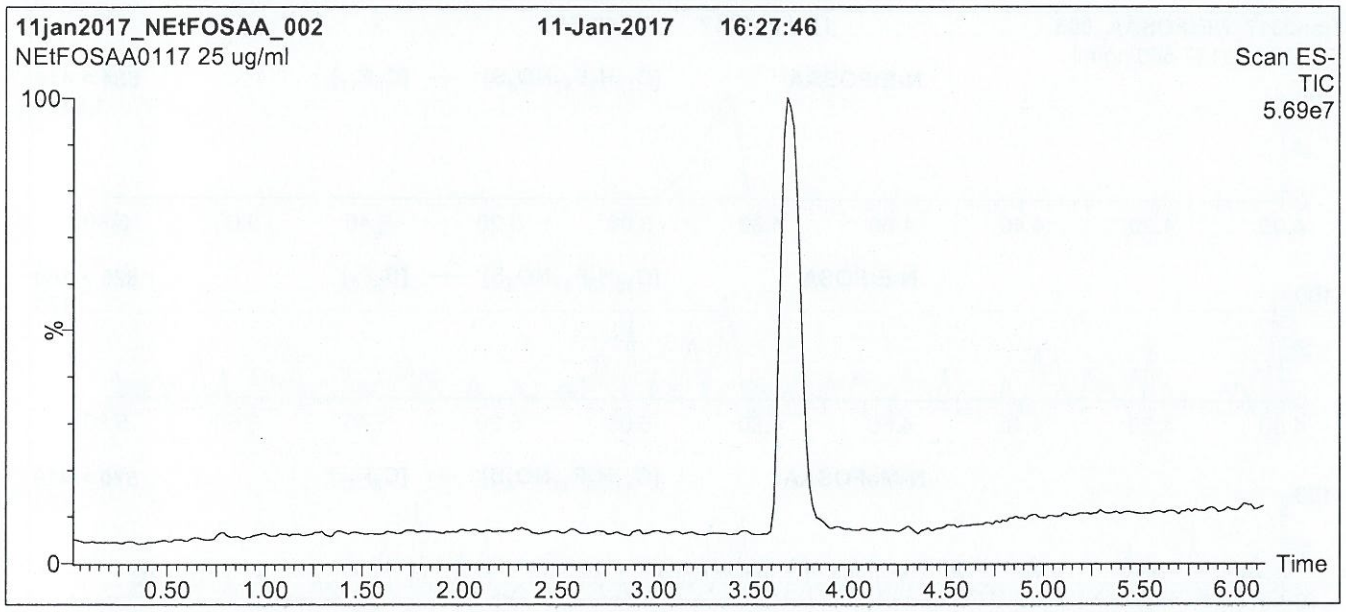
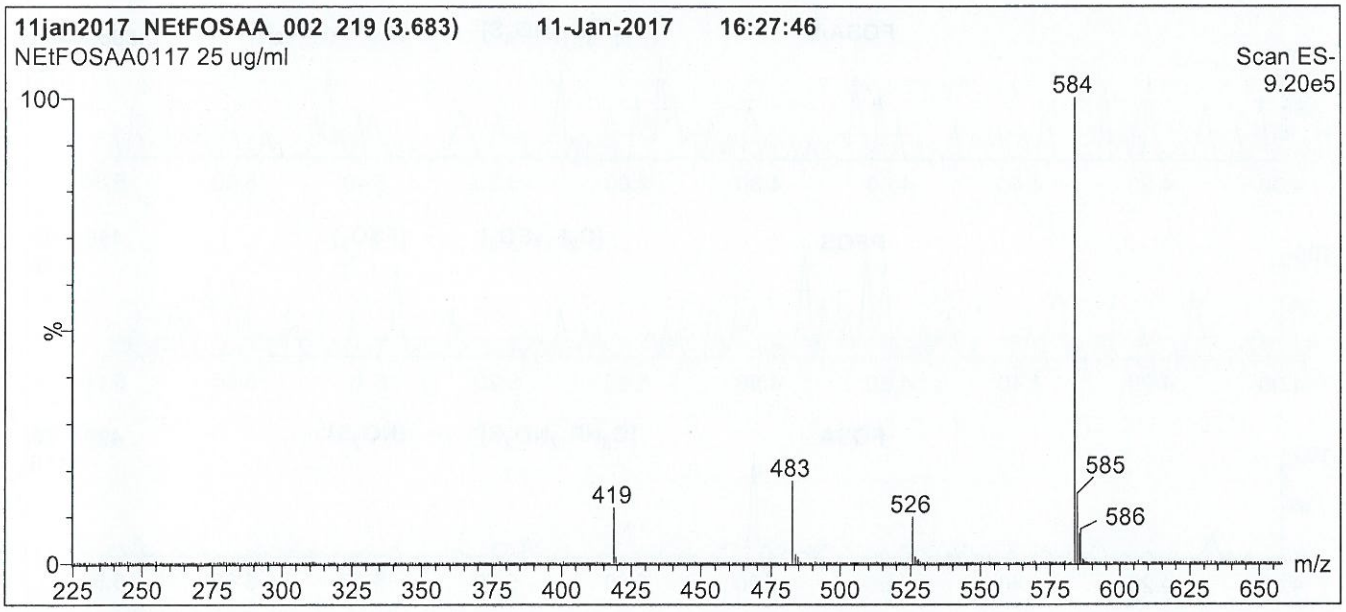
17G1808

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

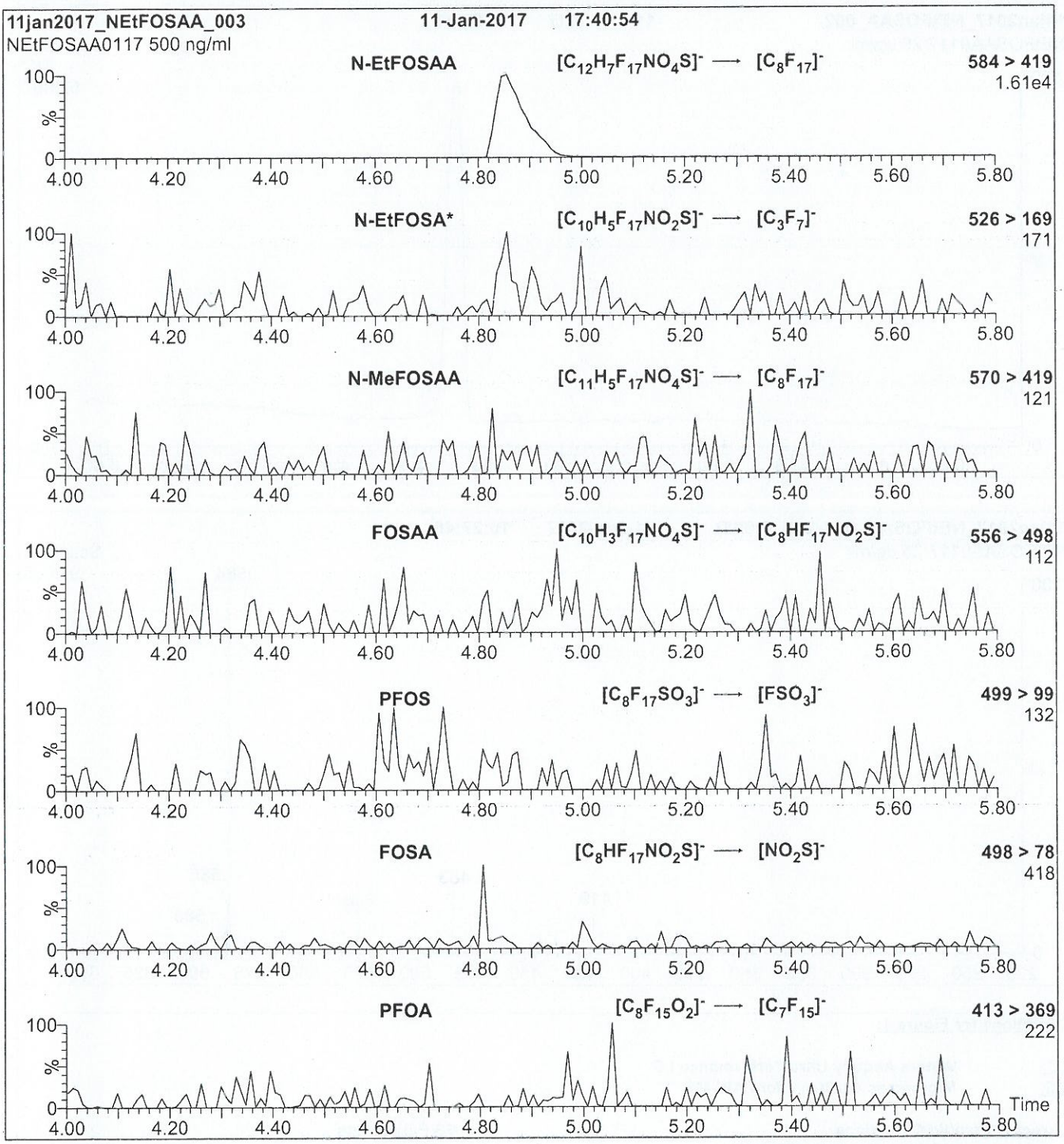
MS Parameters

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

17G1809

WELLINGTON LABORATORIES

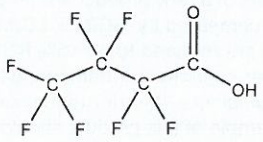
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
MOLECULAR WEIGHT: 214.04
CONCENTRATION: 50 ± 2.5 µg/ml
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
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1809

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.

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CALA Testing Accreditation No. A1226

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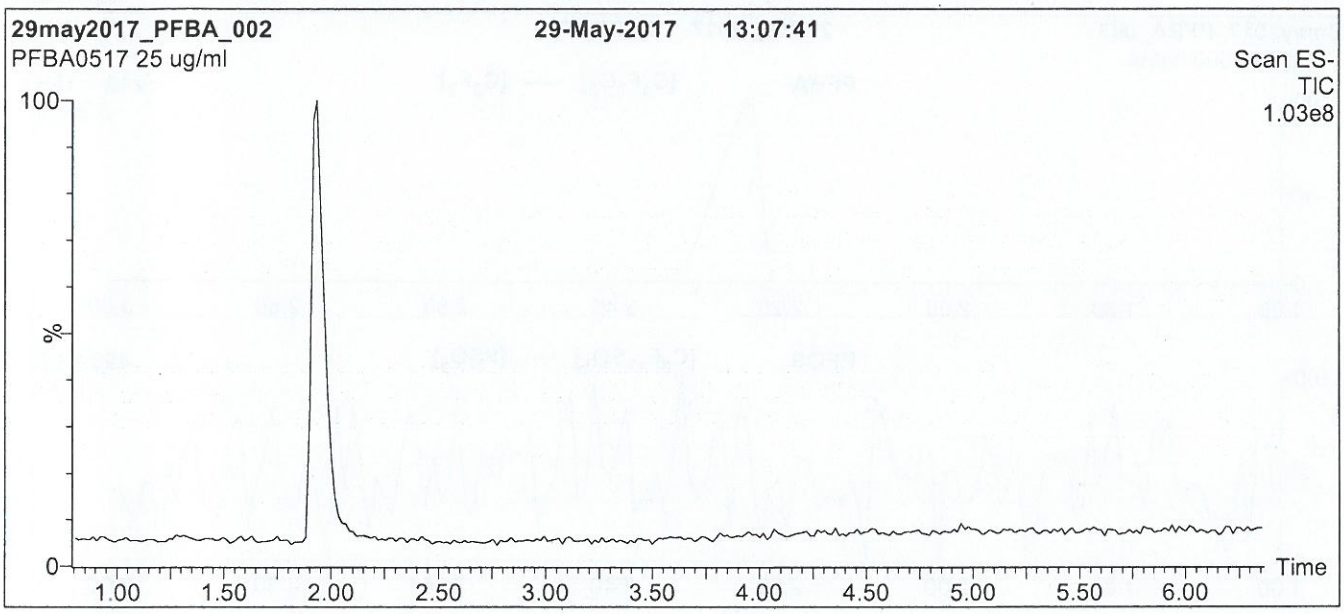
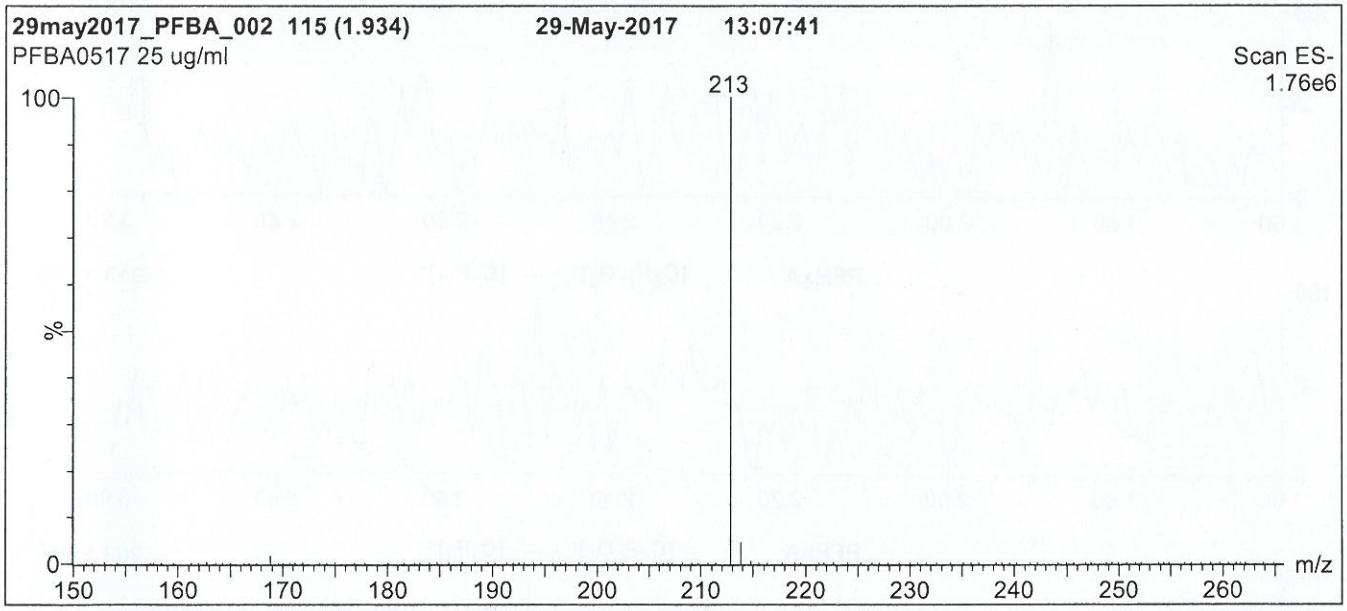
17G1809

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

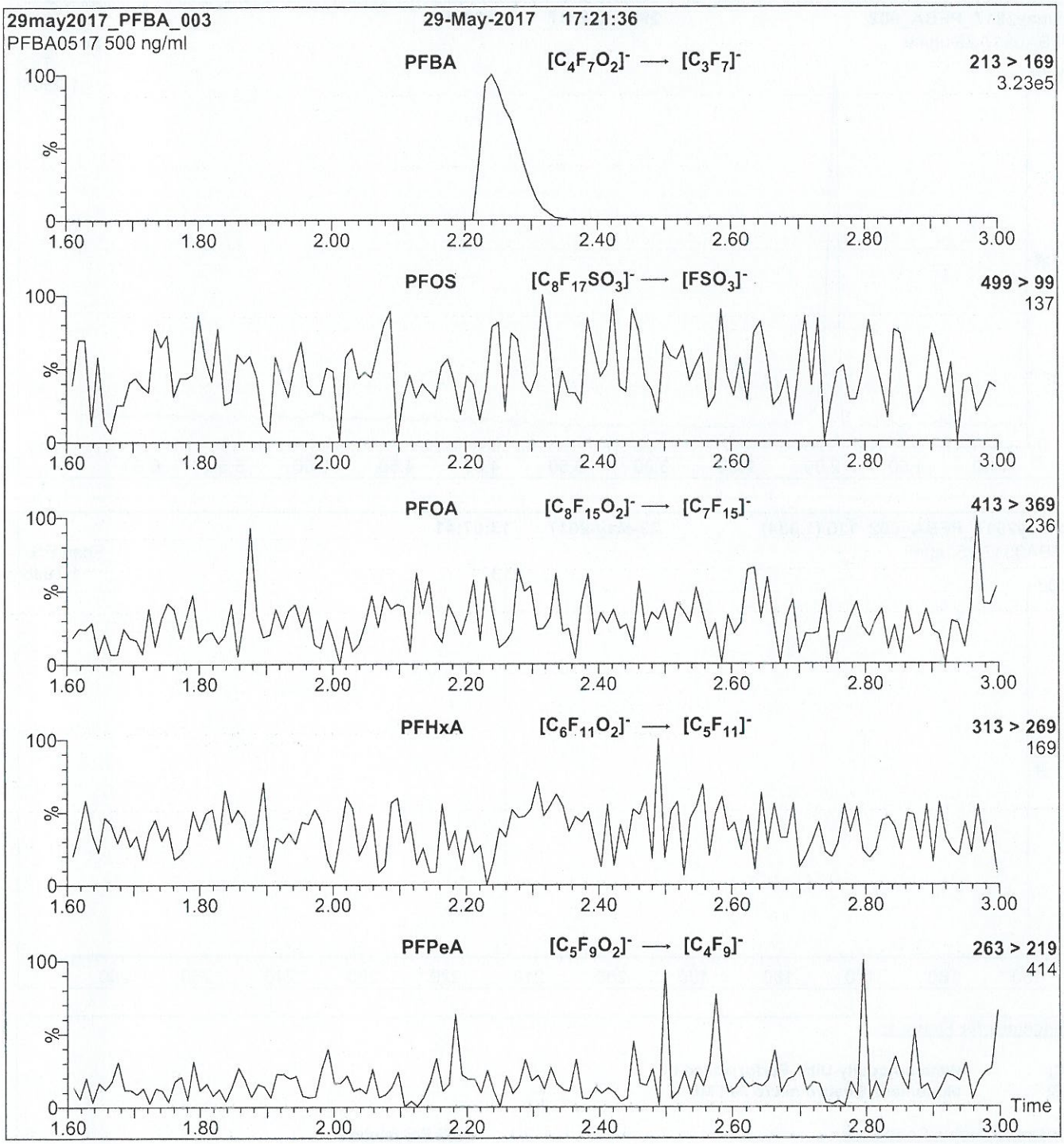
MS Parameters

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

17G1809

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

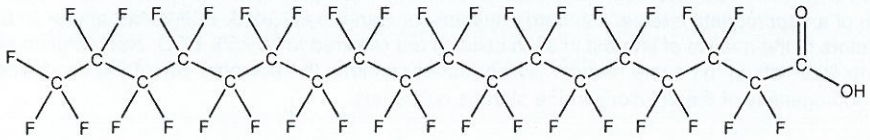
17G1810

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFODA
COMPOUND: Perfluoro-n-octadecanoic acid
LOT NUMBER: PFODA0416

STRUCTURE:
CAS #: 16517-11-6



MOLECULAR FORMULA: $C_{18}HF_{35}O_2$
MOLECULAR WEIGHT: 914.14
CONCENTRATION: 50 ± 2.5 µg/ml
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 05/20/2016 (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

17G1810

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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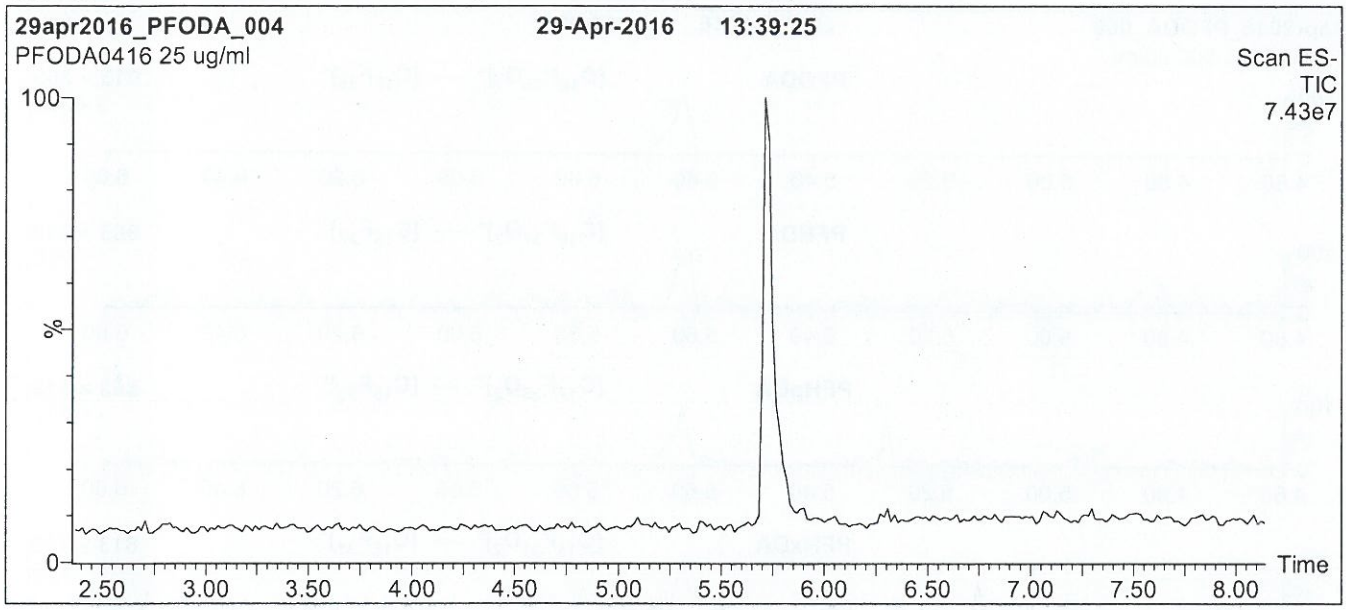
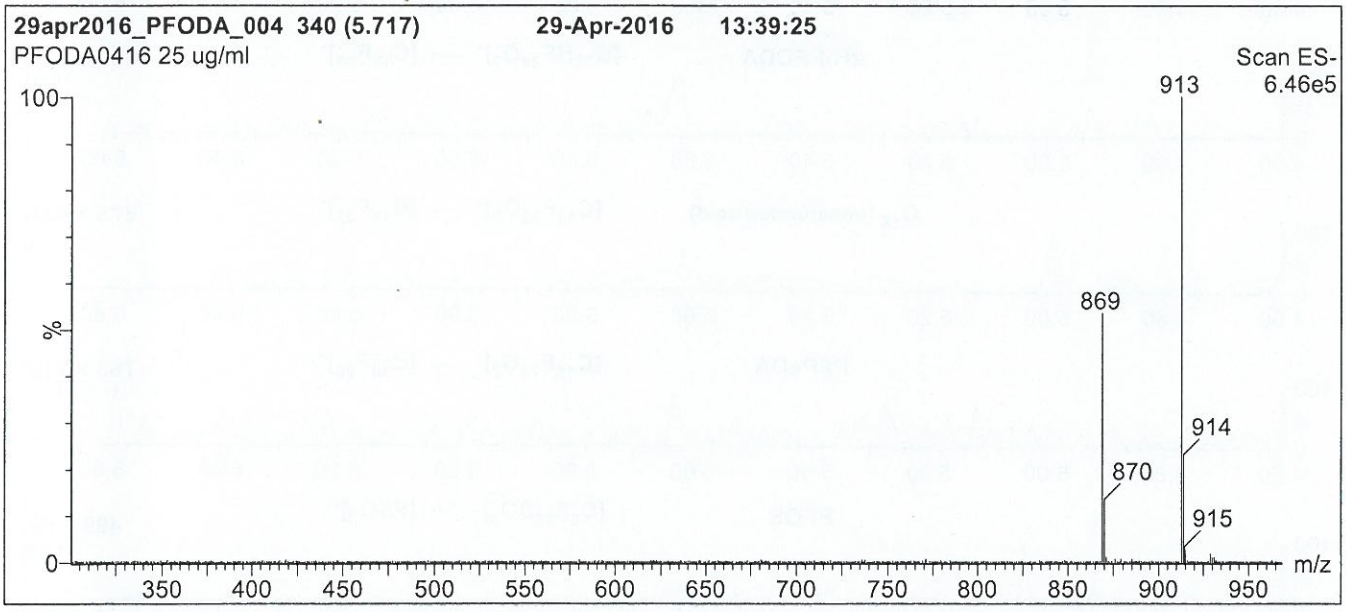
1701810

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

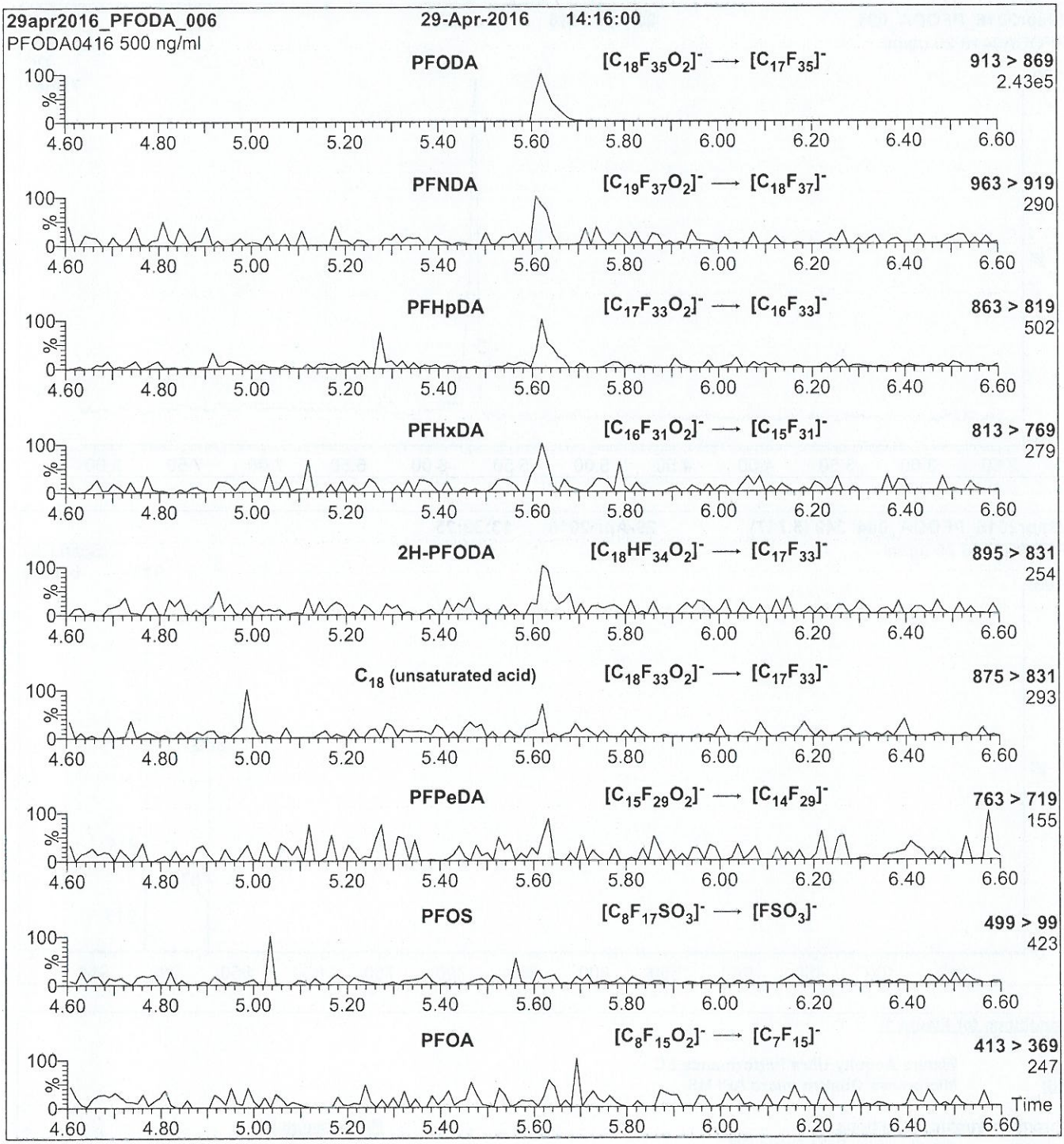
MS Parameters

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

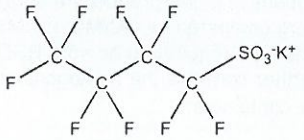
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

17G1811

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFBS	**LOT NUMBER:**	LPFBS1116
COMPOUND:	Potassium perfluoro-1-butanesulfonate		
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

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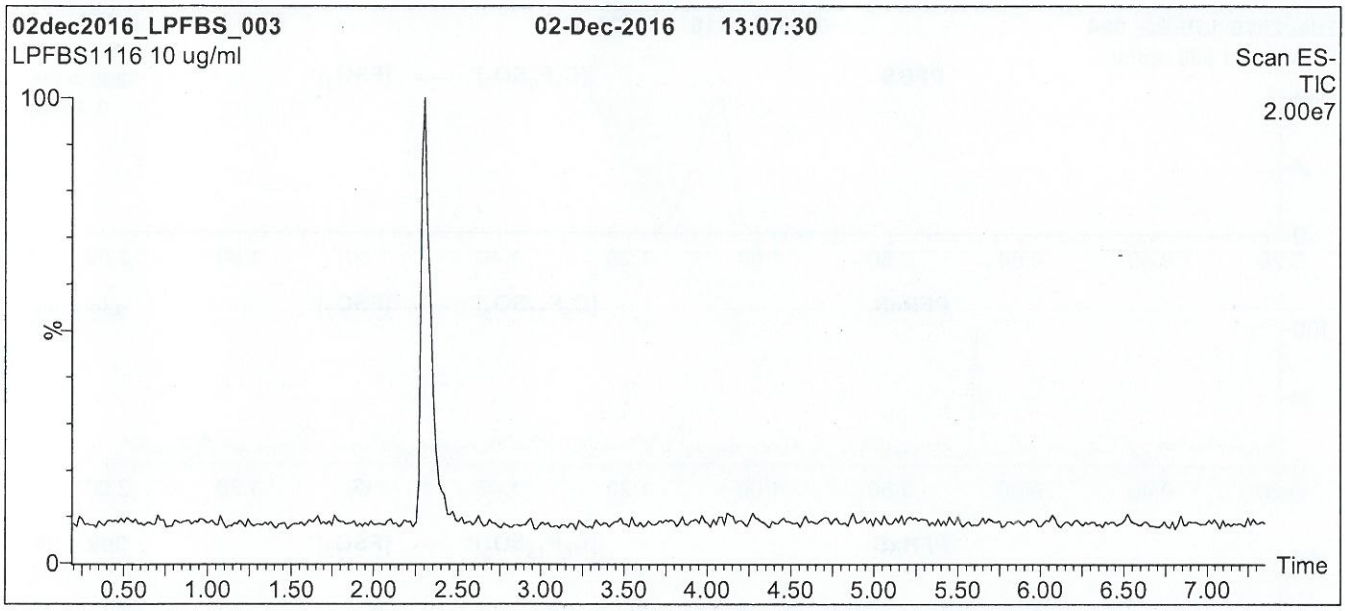
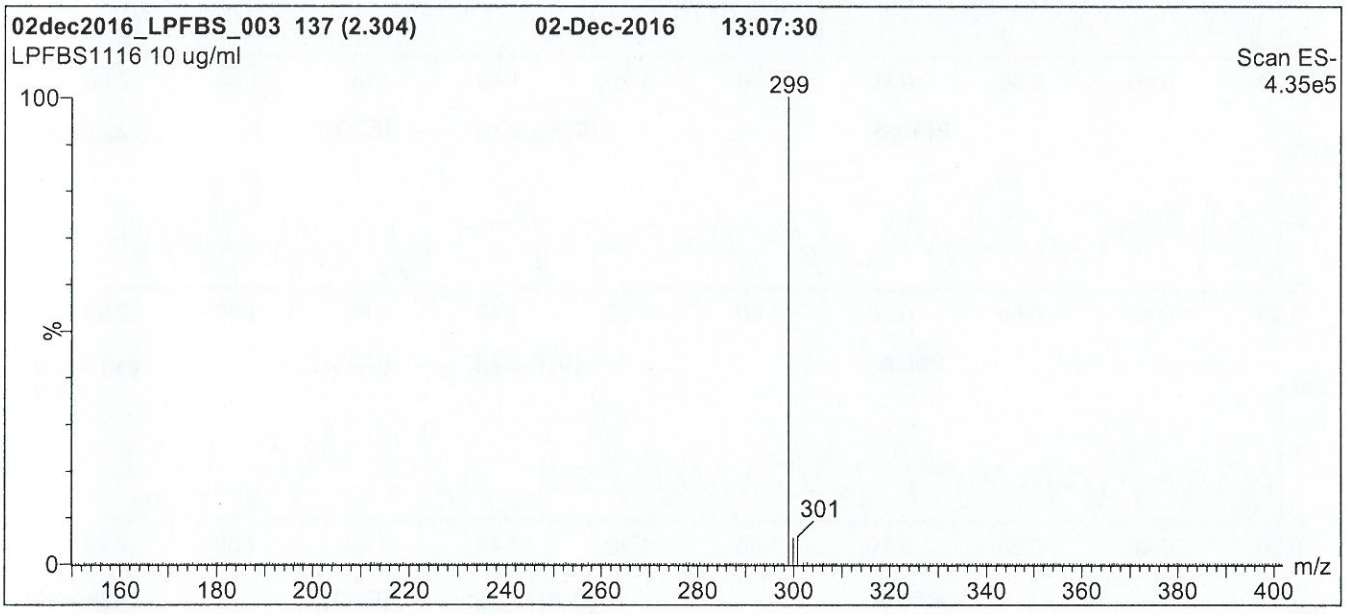
17G1811

Figure 1: **L-PFBS; LC/MS Data (TIC and Mass Spectrum)**





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LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

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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

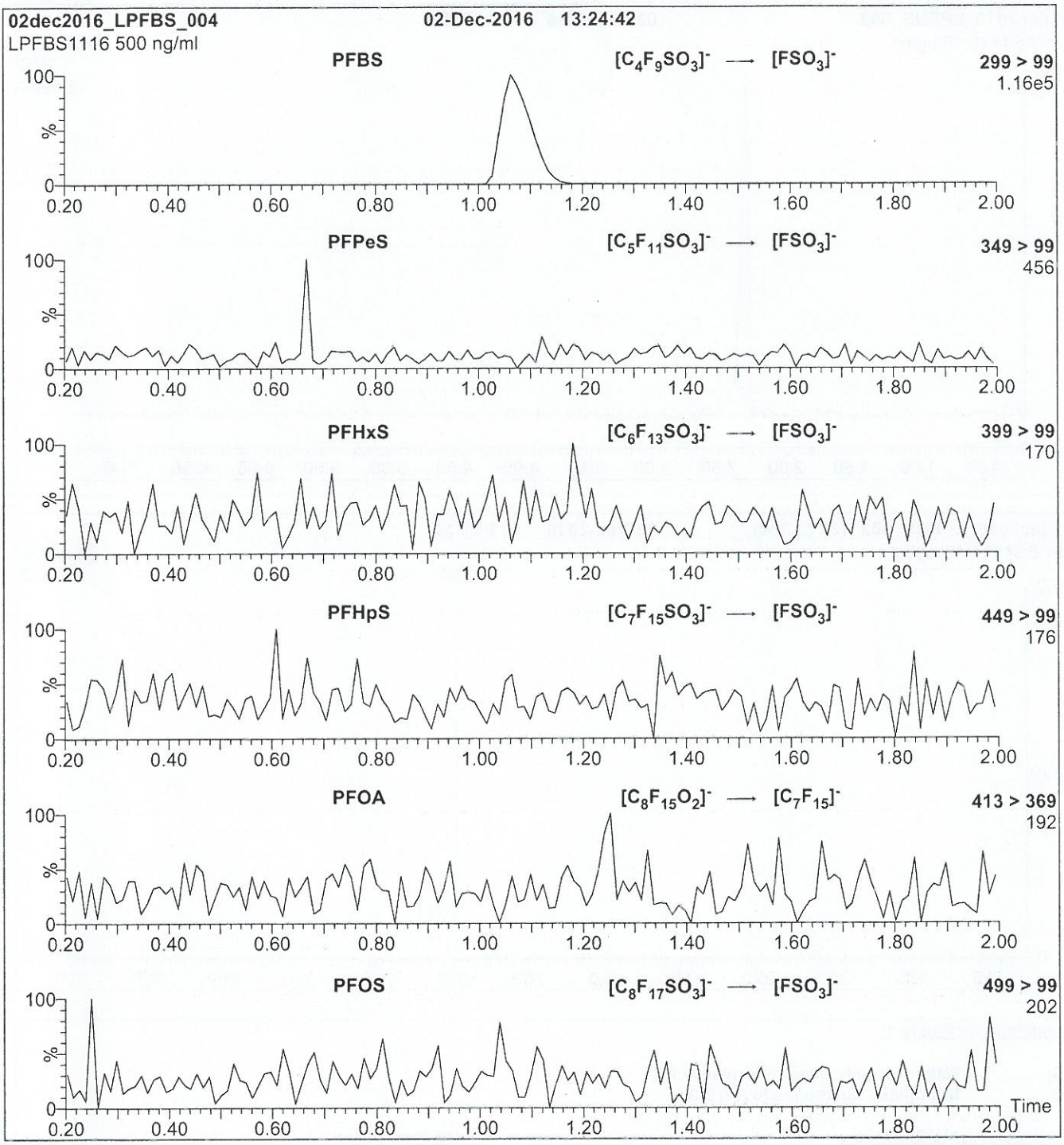
MS Parameters

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

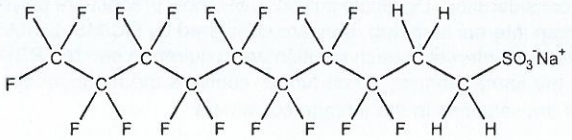
WELLINGTON LABORATORIES

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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

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).

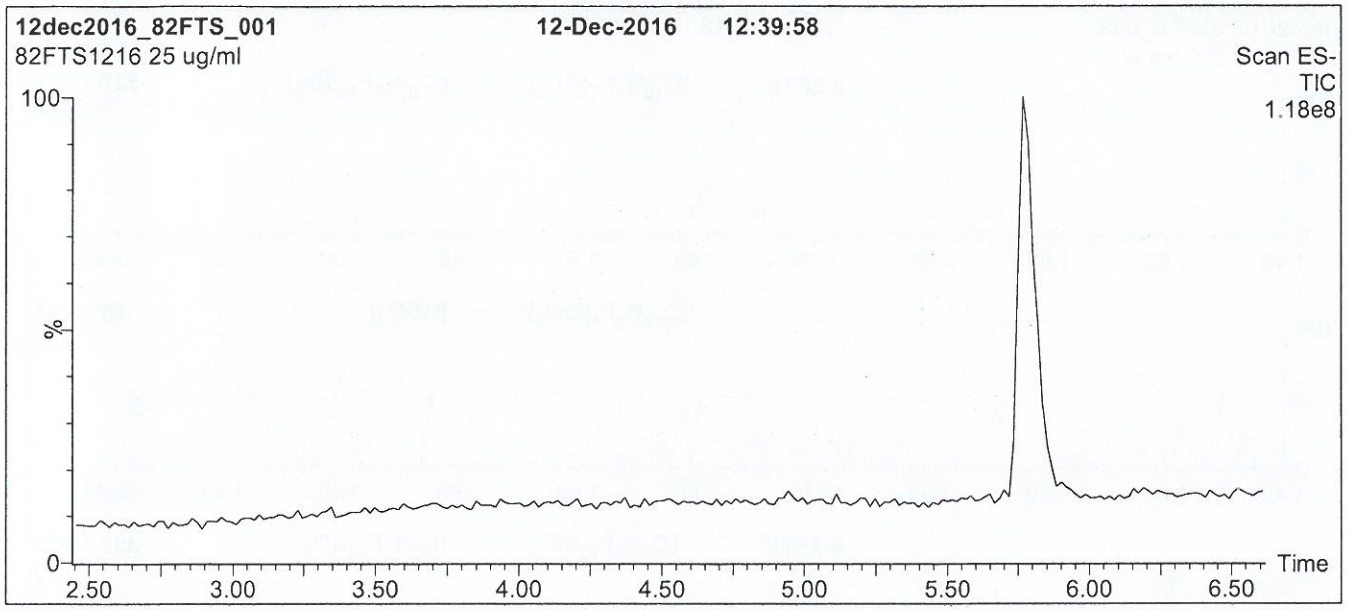
CALA Testing Accreditation No. A 1226

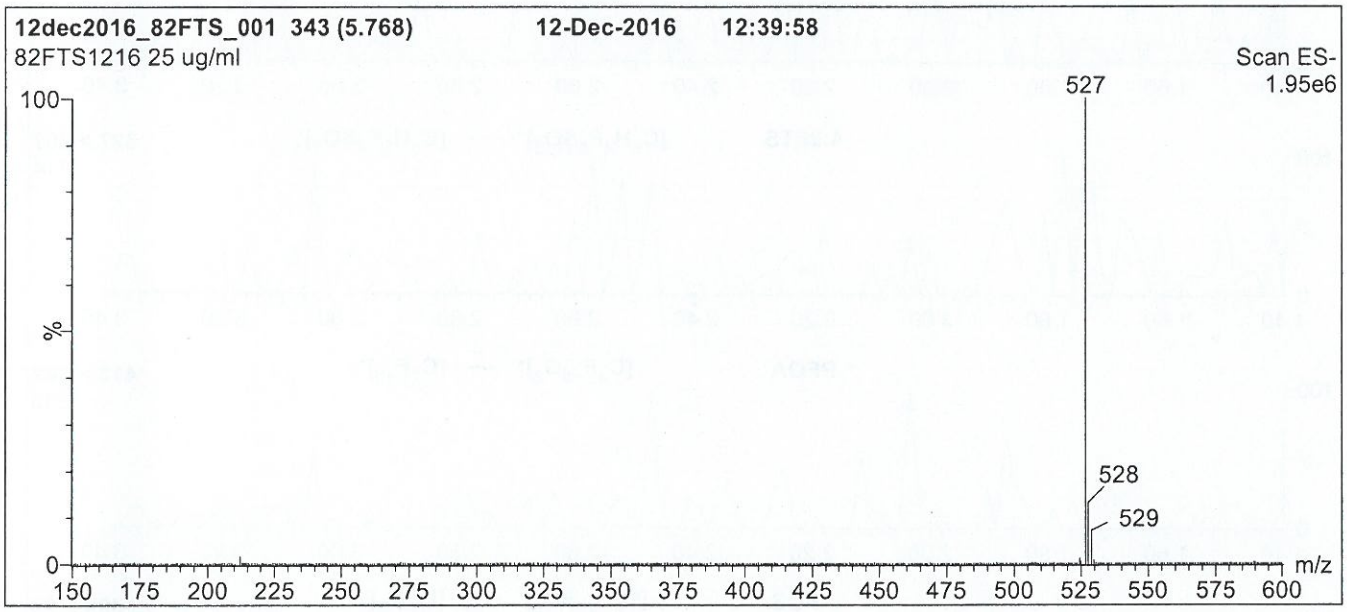
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

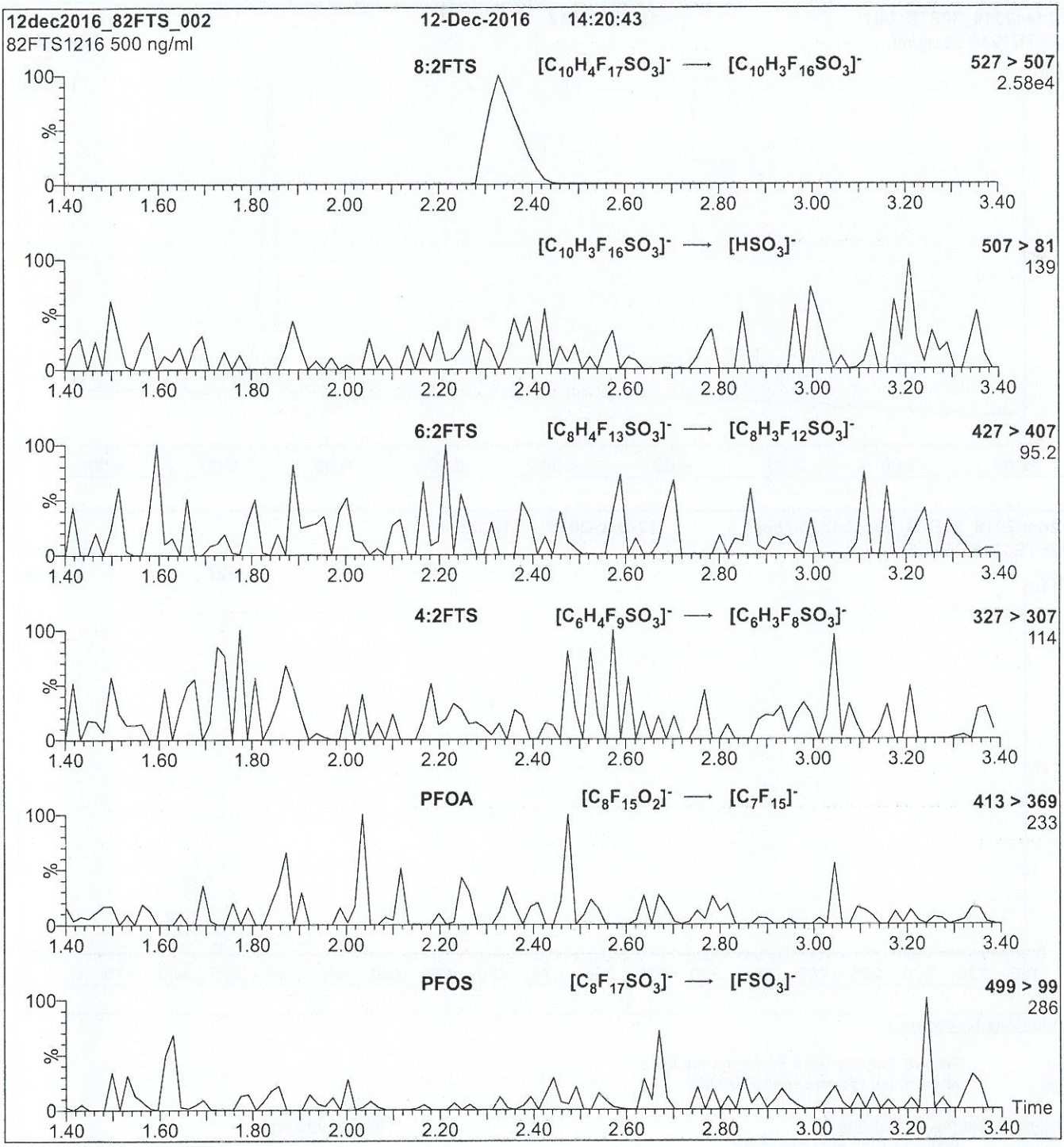
MS Parameters

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

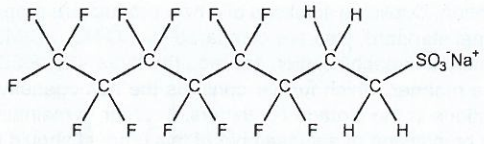
WELLINGTON LABORATORIES

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

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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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:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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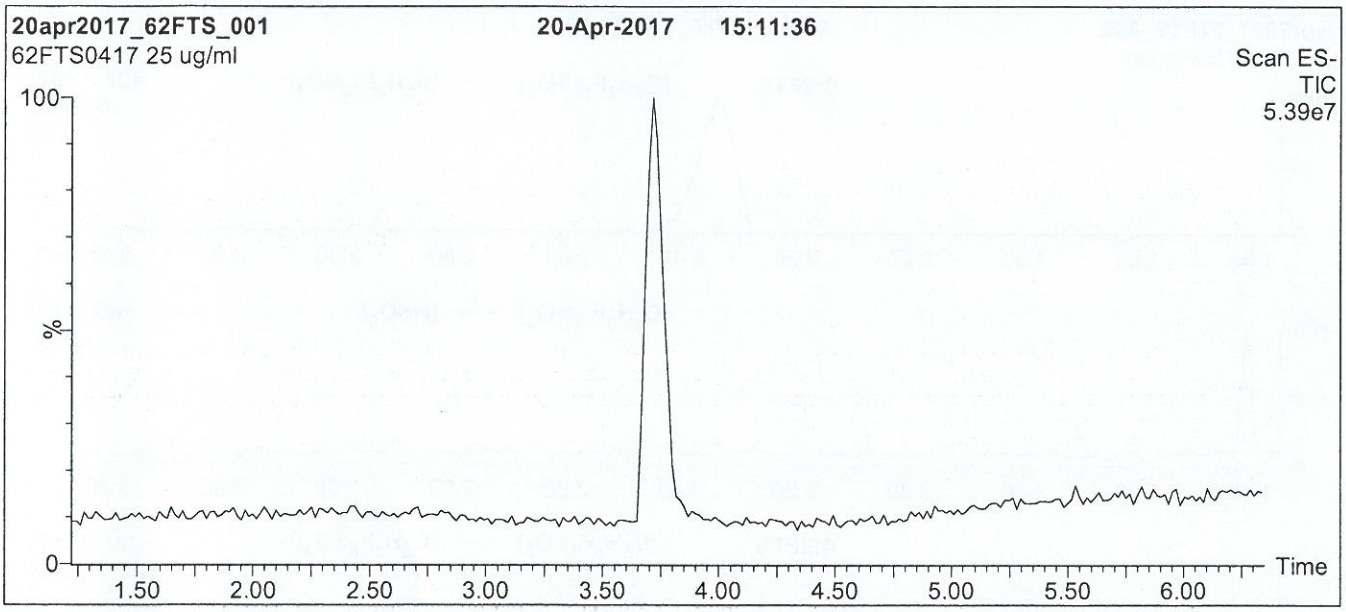
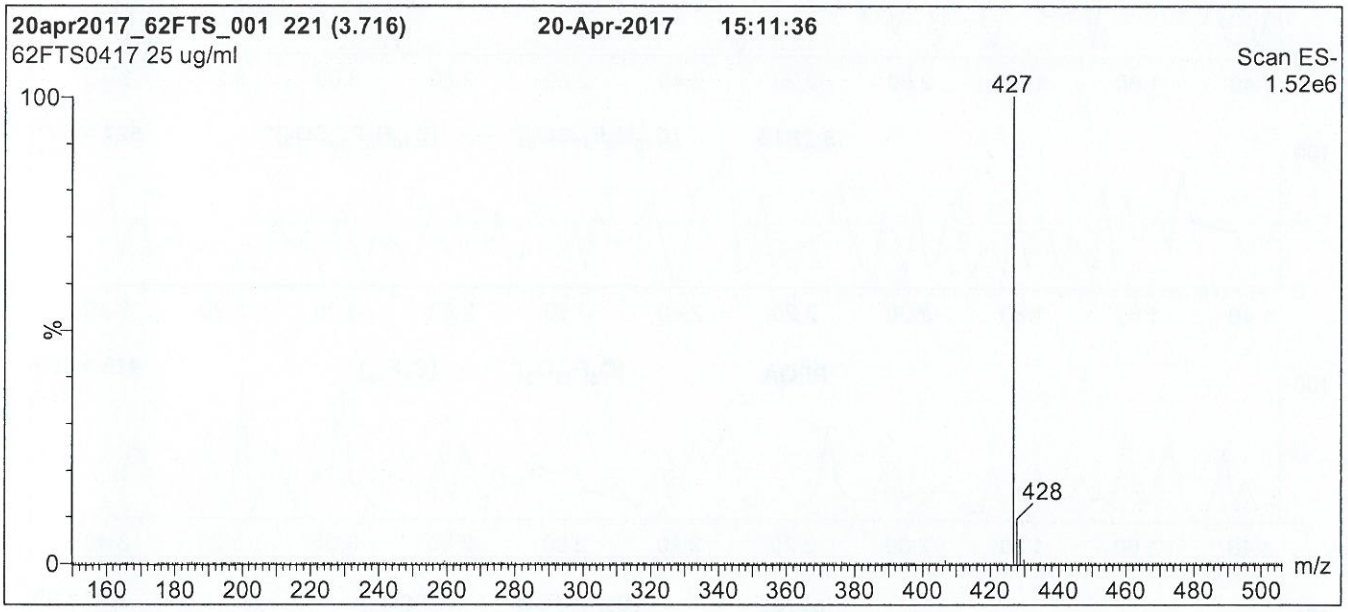
17G1813

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

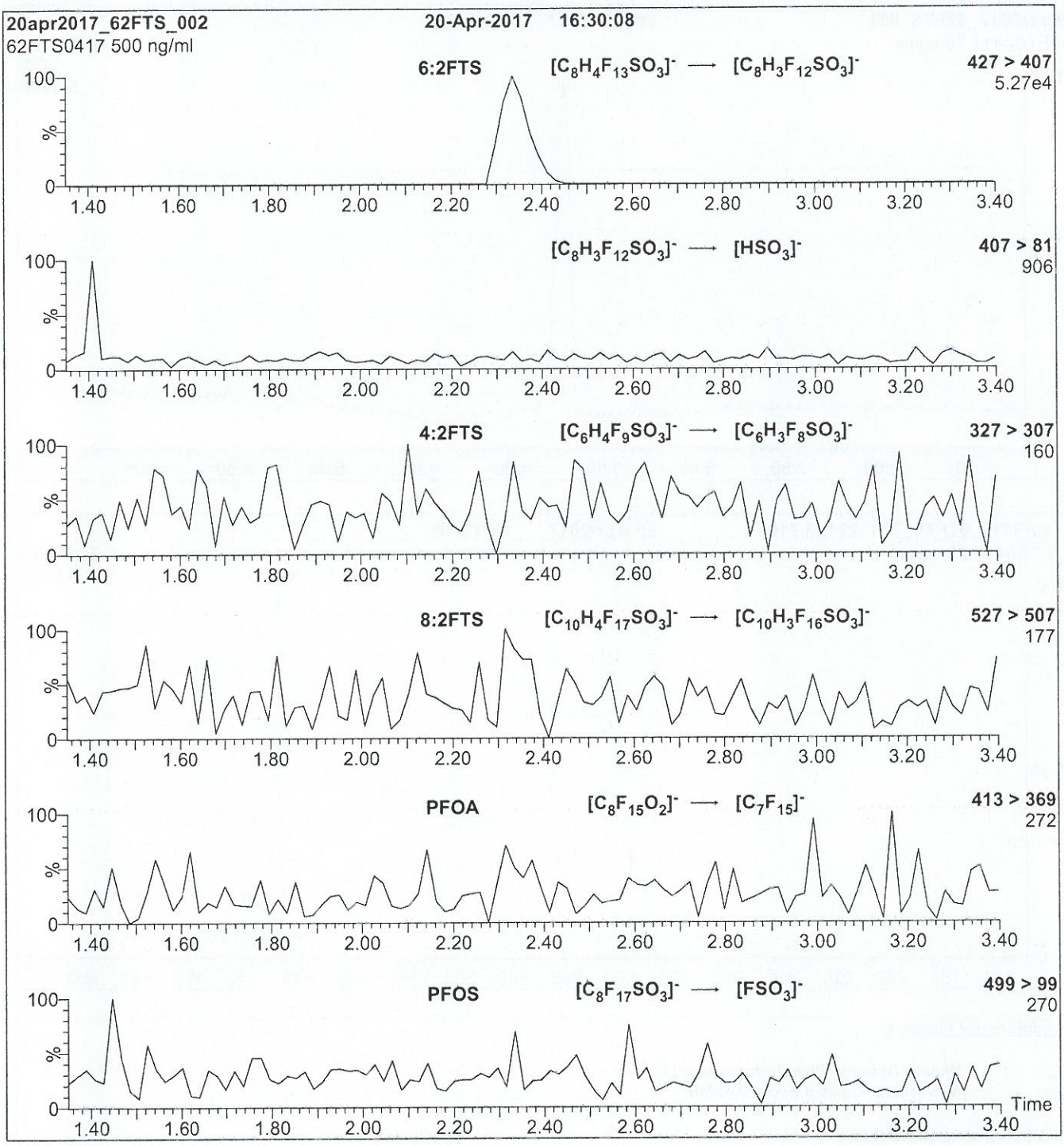
MS Parameters

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

1710820

WELLINGTON LABORATORIES

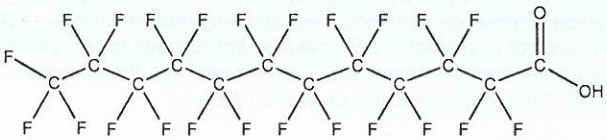
CERTIFICATE OF ANALYSIS DOCUMENTATION

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:

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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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$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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 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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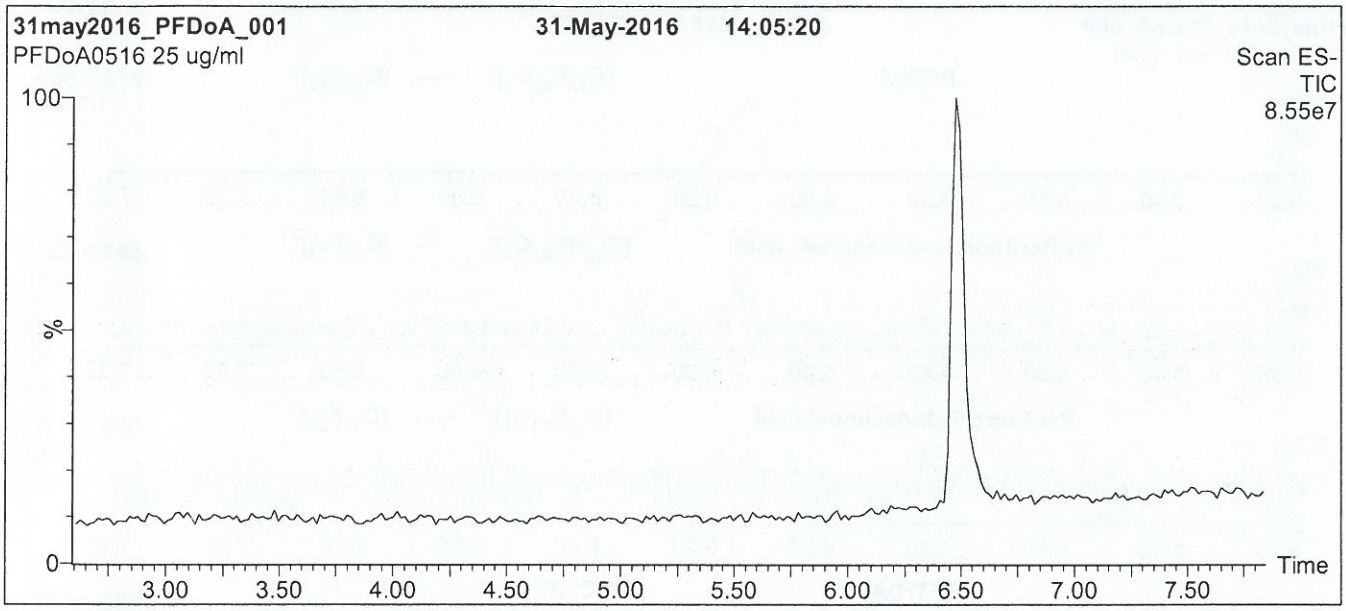
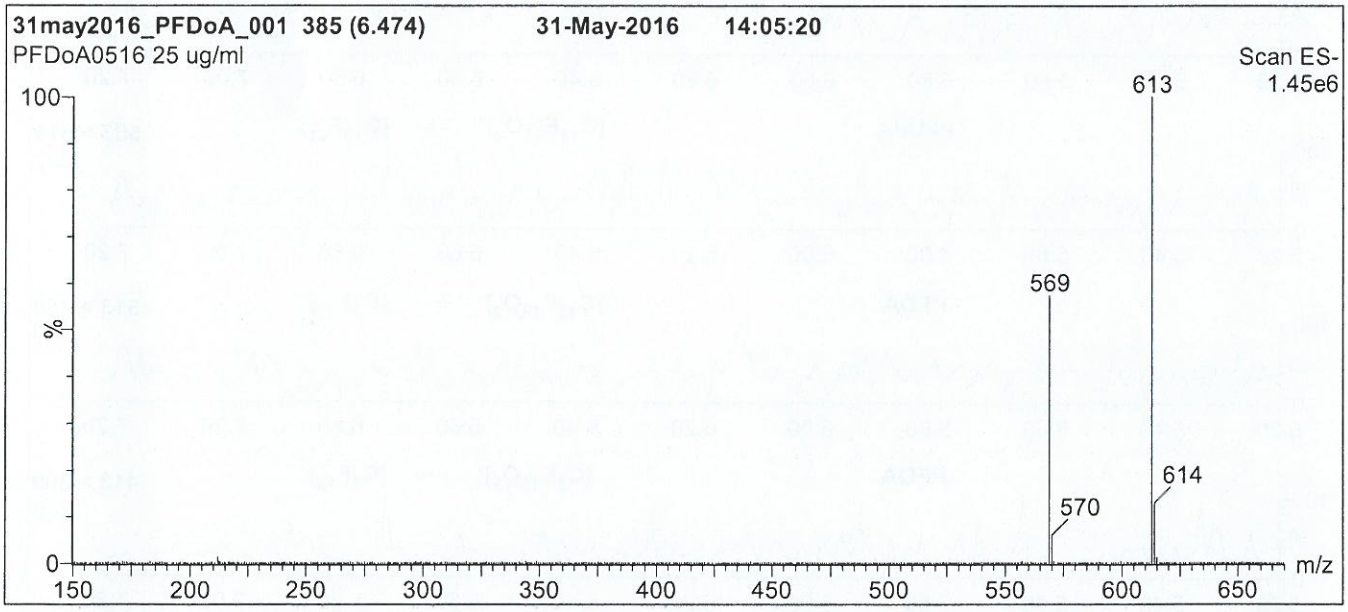
CALA Testing Accreditation No. A 1226

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: **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

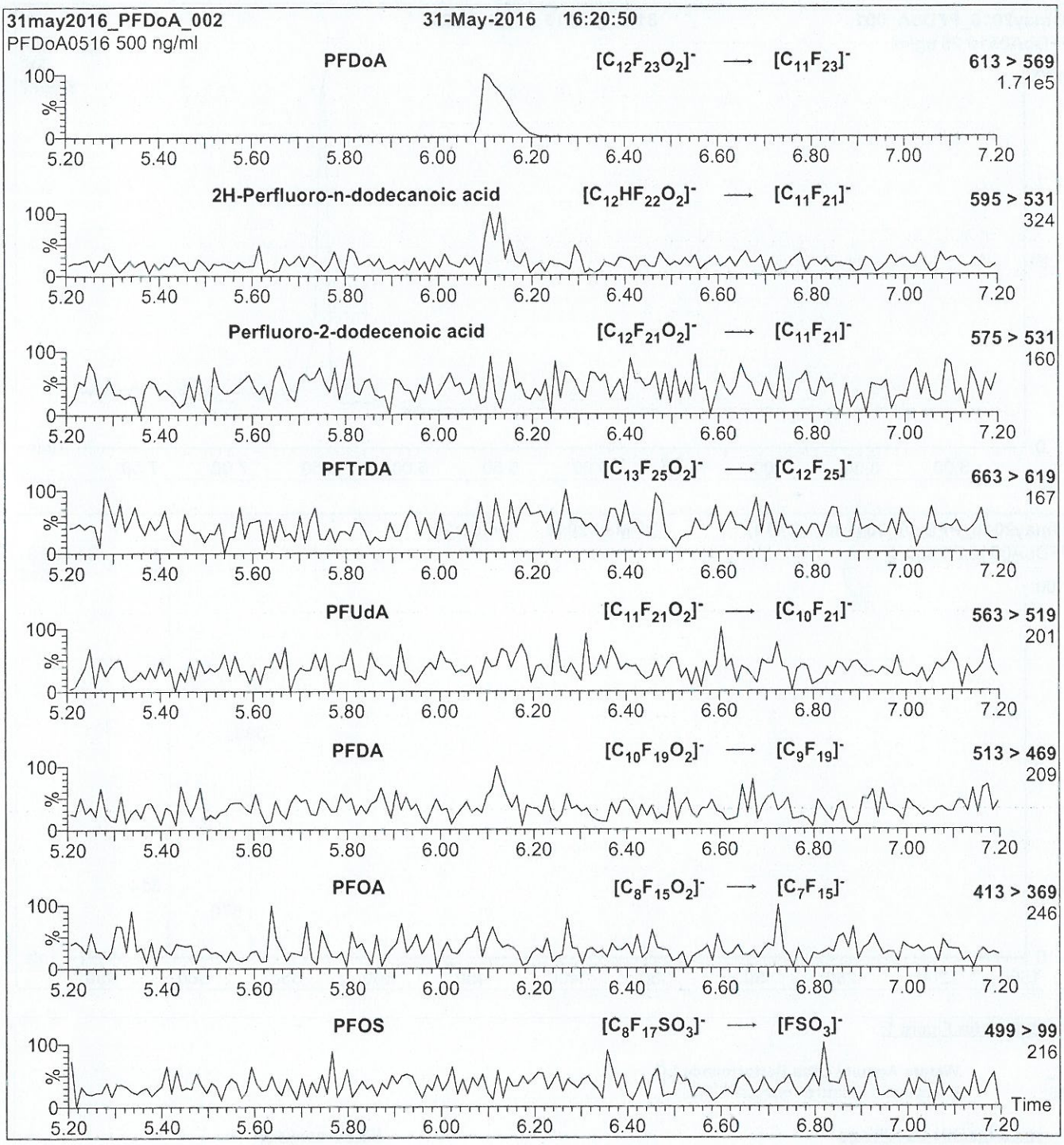
Flow: 300 µl/min

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)	**MS Parameters**	
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.39e-3 Collision Energy (eV) = 13	
Flow:	300 µl/min		

17H0821

WELLINGTON LABORATORIES

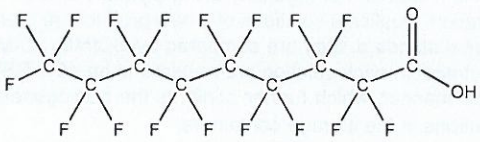
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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:

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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,...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:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17025 & ISO 17034 REFERENCE MATERIAL PRODUCER

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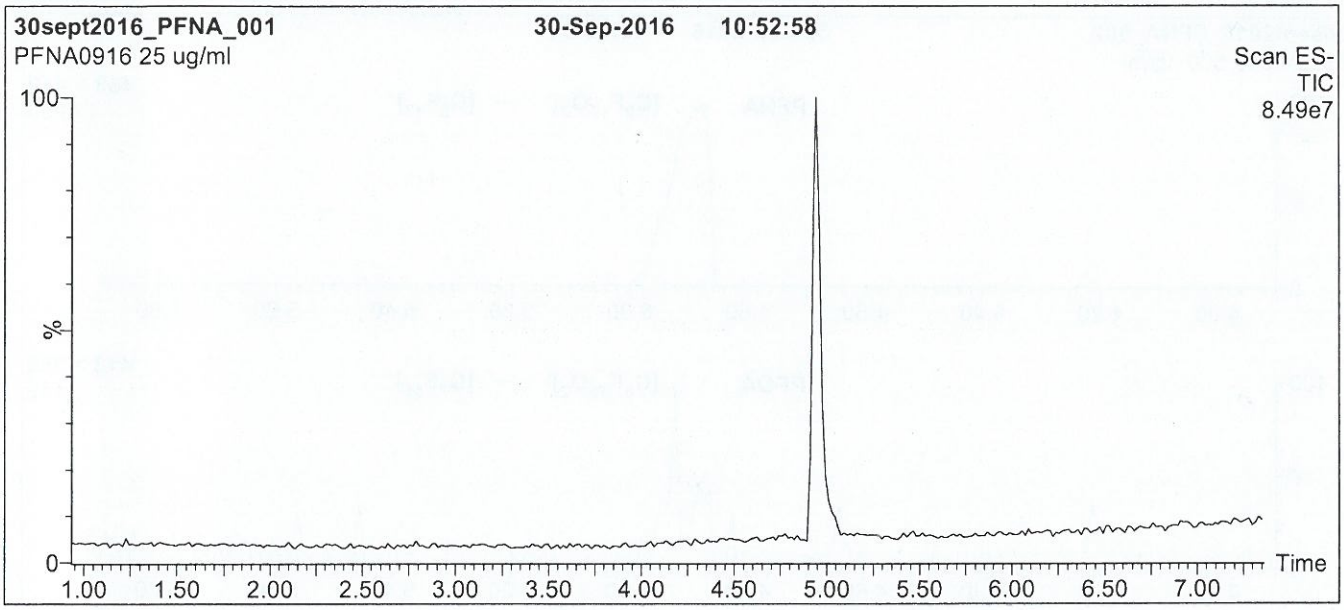
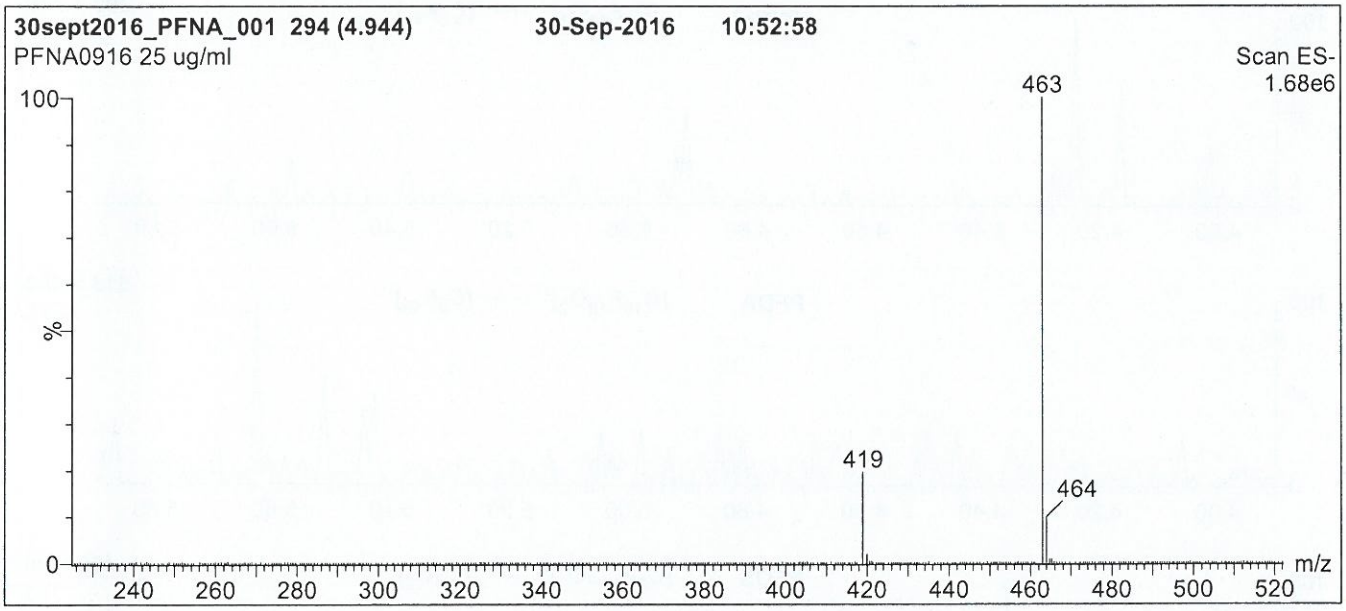
Figure 1: **PFNA; LC/MS Data (TIC and Mass Spectrum)**





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

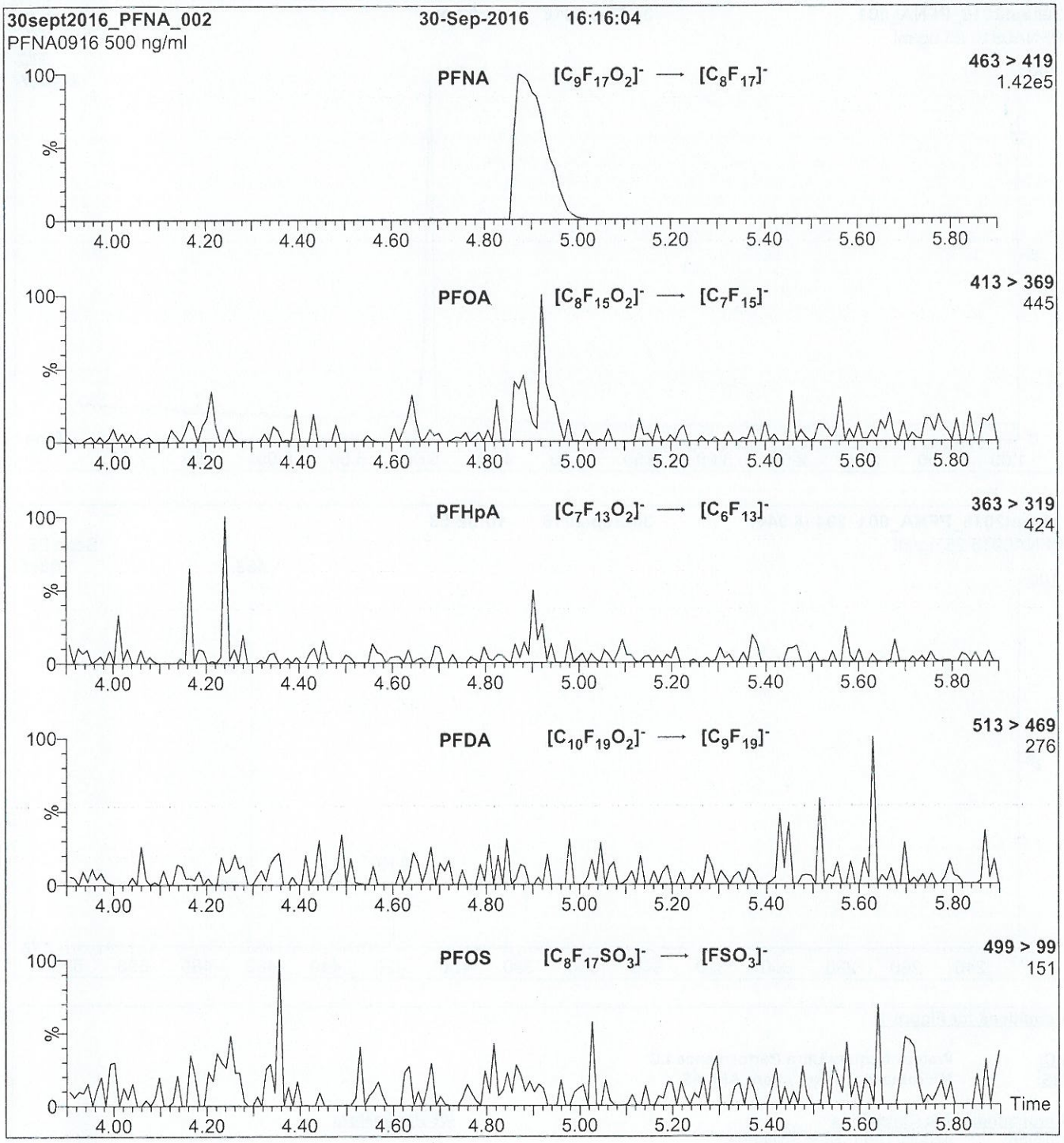
Flow: 300 µl/min

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

17H0822

WELLINGTON LABORATORIES

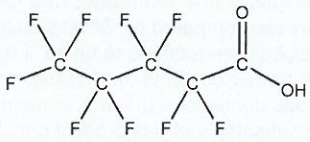
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFPeA
COMPOUND: Perfluoro-n-pentanoic acid

LOT NUMBER: PFPeA0617

STRUCTURE:

CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$
MOLECULAR WEIGHT: 264.05
CONCENTRATION: 50 ± 2.5 µg/ml
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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CALA Testing Accreditation No. A1226

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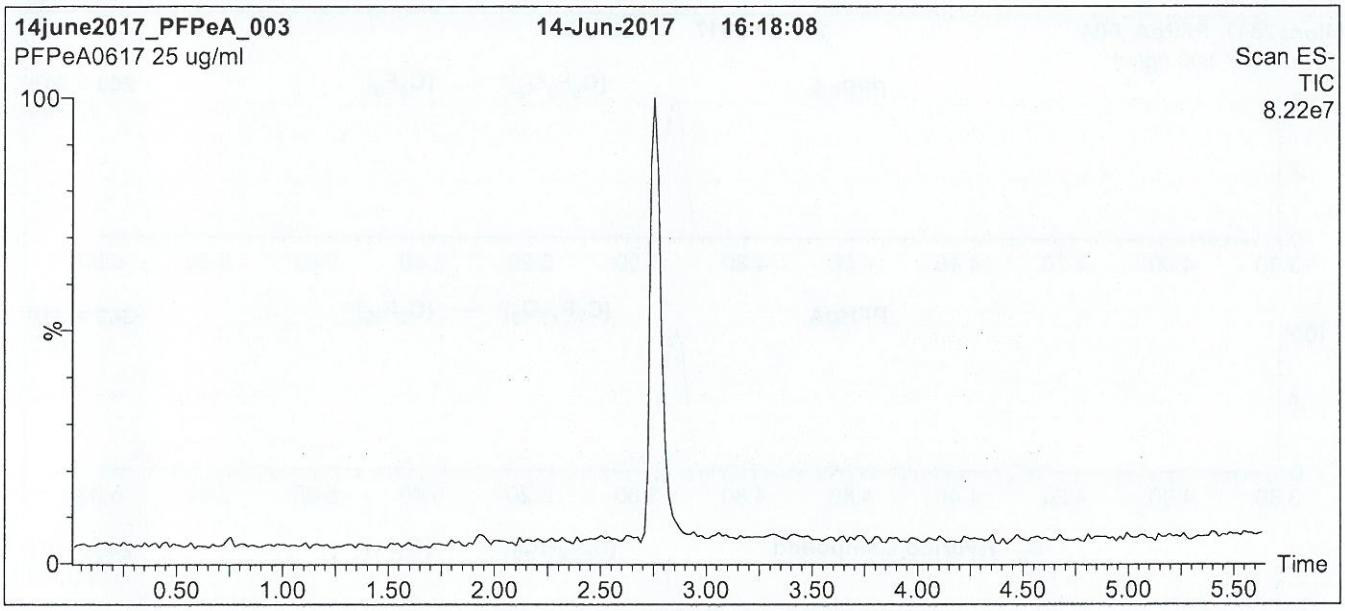
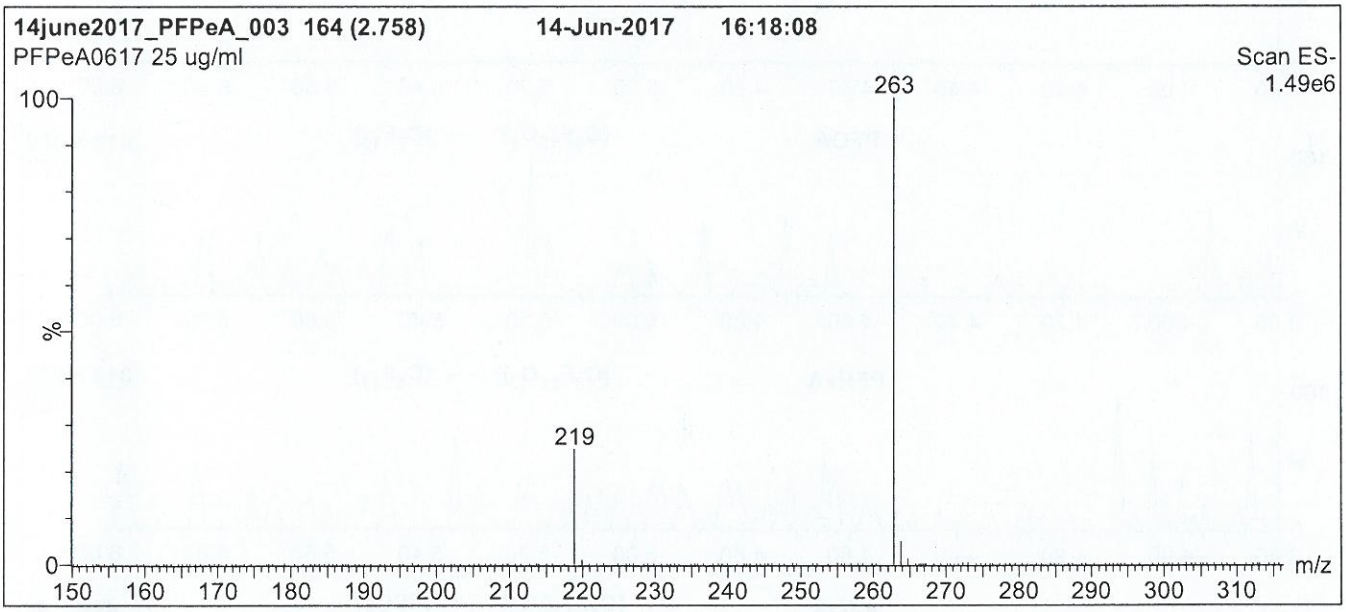




Conditions for Figure 1:

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

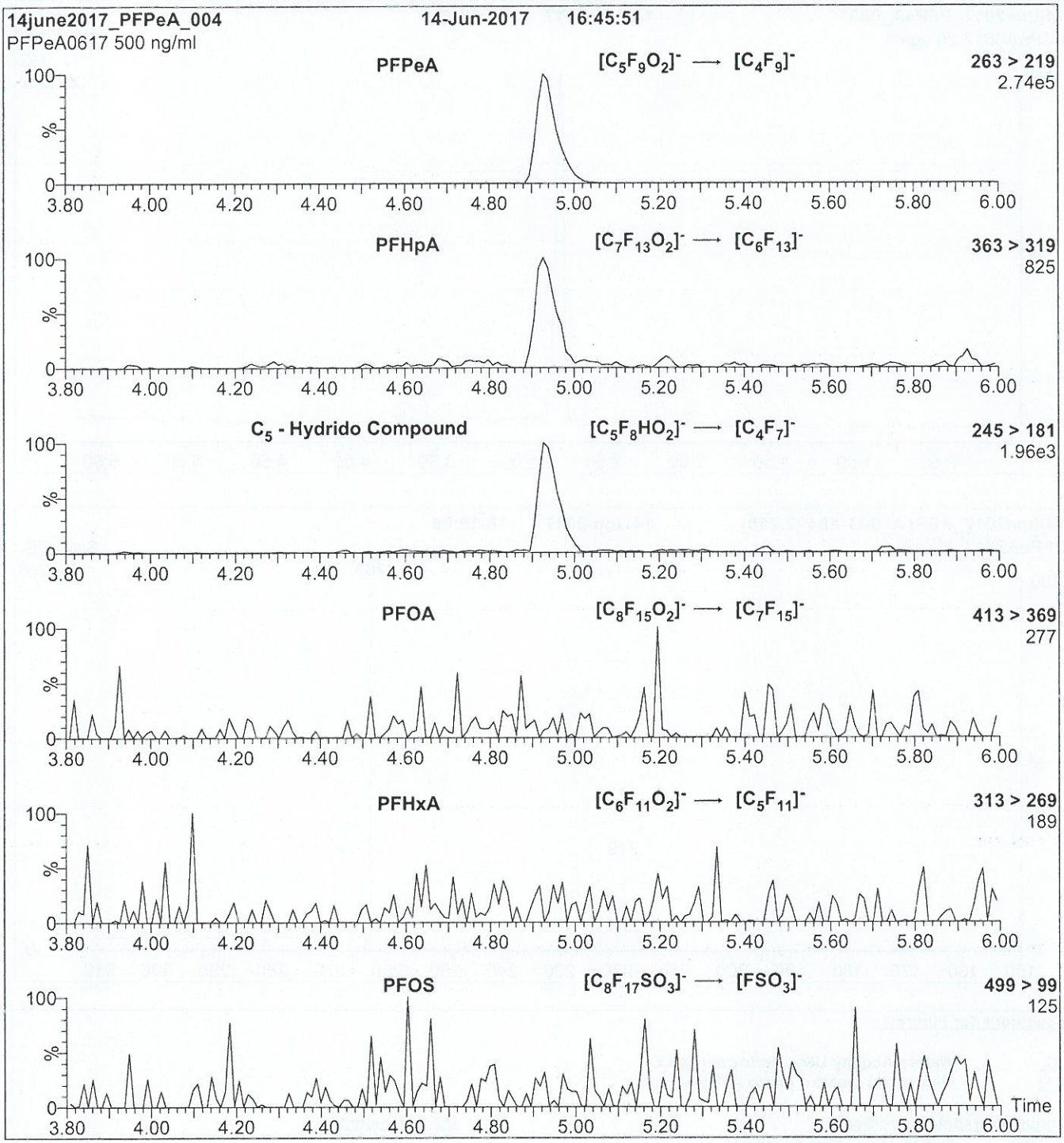
Flow: 300 µl/min

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

1710823

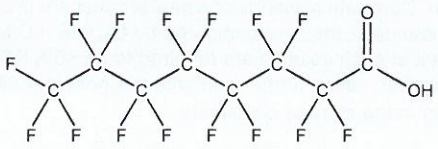
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFOA ✓ **LOT NUMBER:** PFOA0217

COMPOUND: Perfluoro-n-octanoic acid

STRUCTURE: **CAS #:** 335-67-1



MOLECULAR FORMULA: $C_8HF_{15}O_2$ **MOLECULAR WEIGHT:** 414.07

CONCENTRATION: 50 ± 2.5 µg/ml **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

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CALA Testing Accreditation No. A 1226

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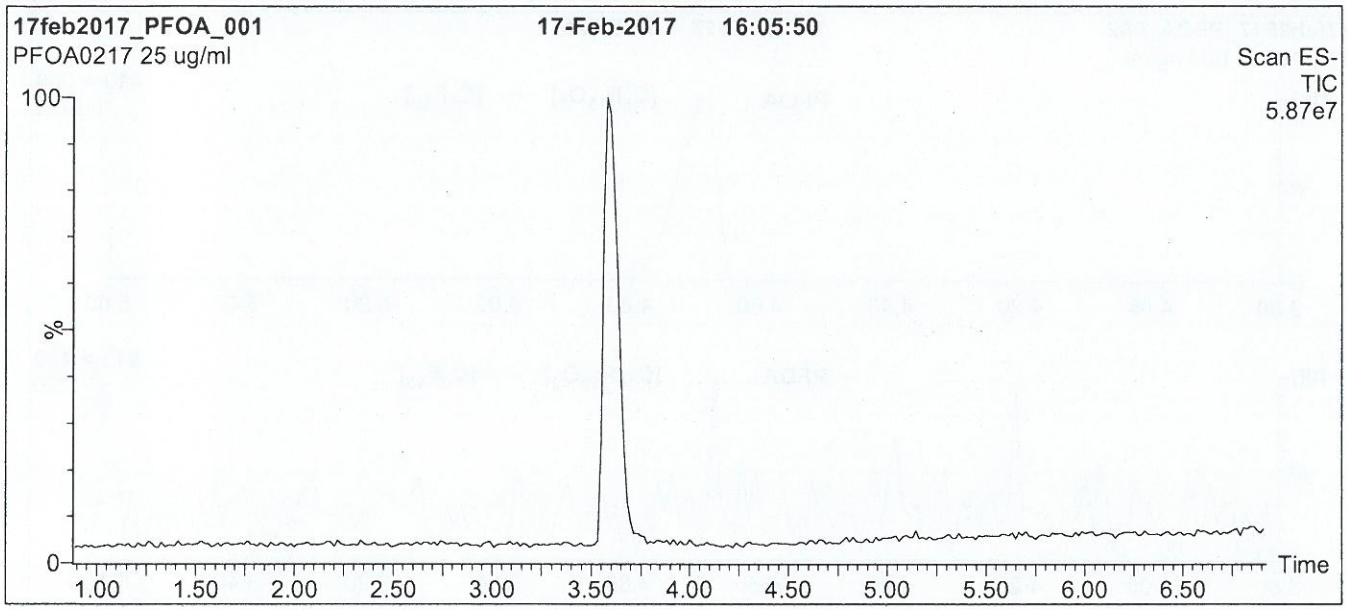

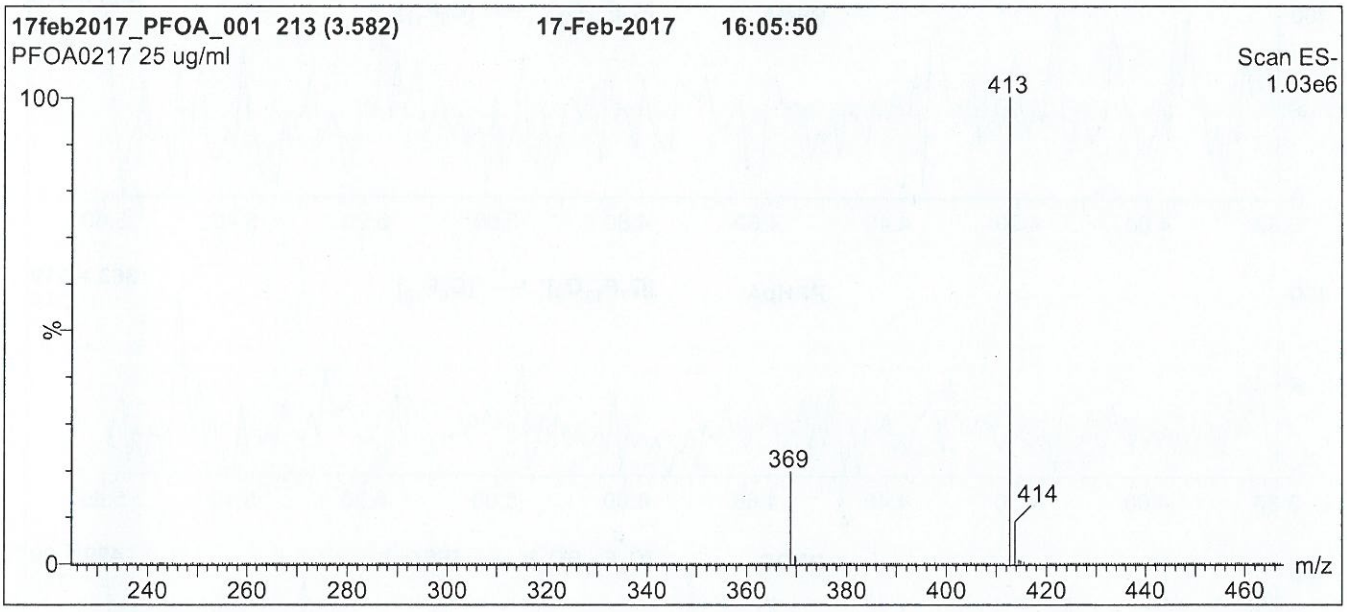

Conditions for Figure 1:

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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

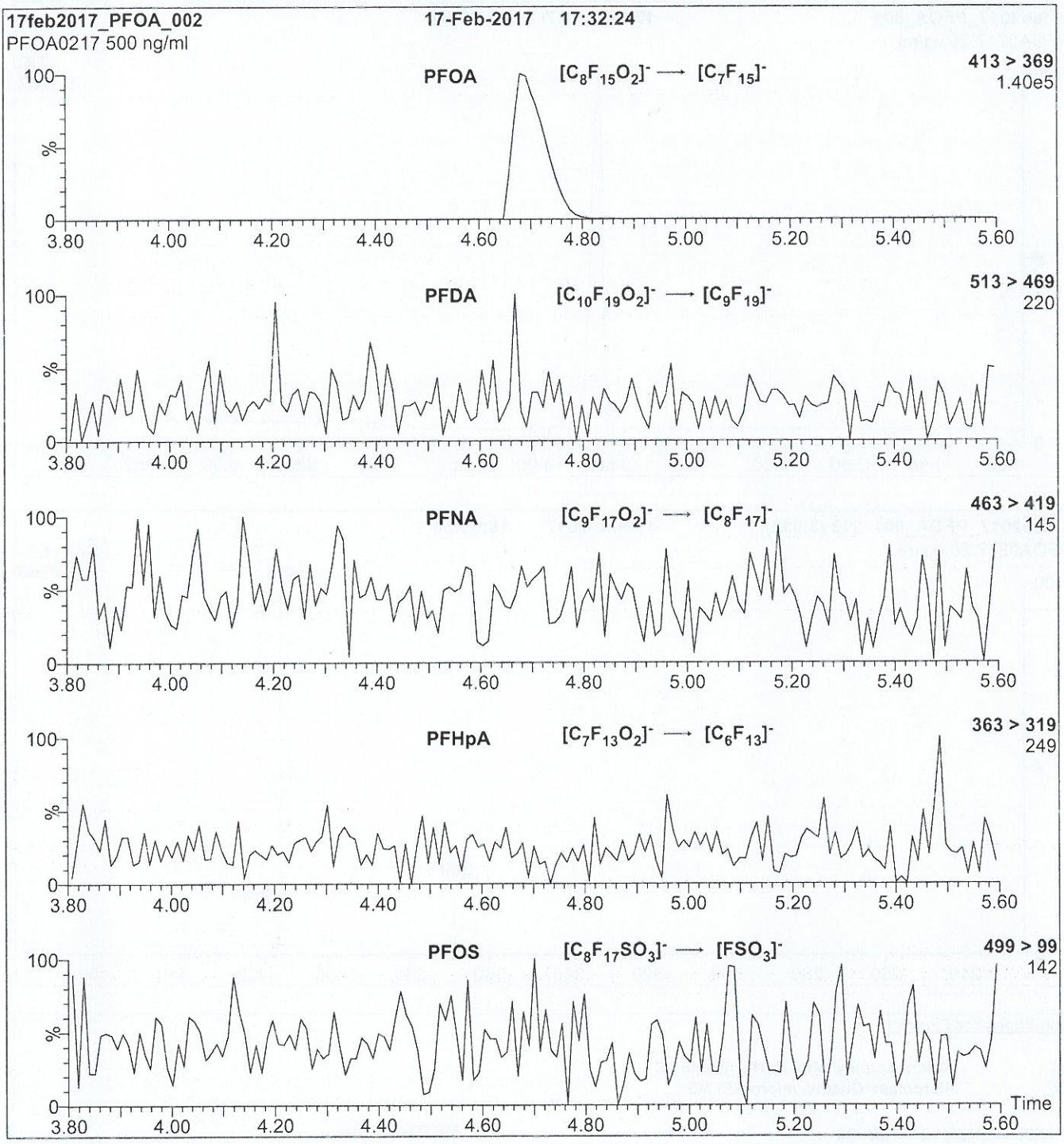
Flow: 300 µl/min

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

1710824

WELLINGTON LABORATORIES

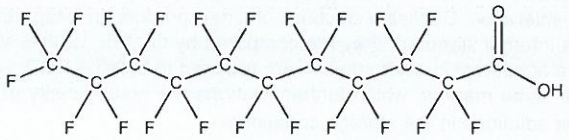
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA1016

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
MOLECULAR WEIGHT: 564.09
CONCENTRATION: 50 ± 2.5 µg/ml
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:

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Certified By: B.G. Chittim **Date:** 10/19/2016 (mm/dd/yyyy)

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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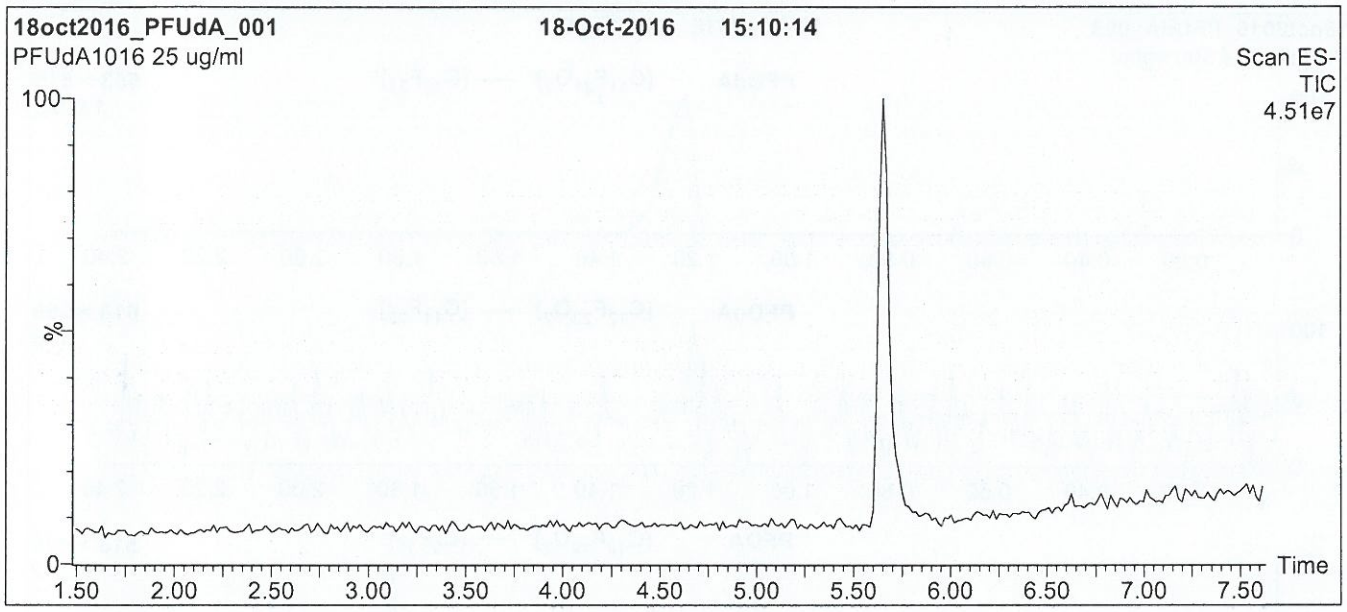
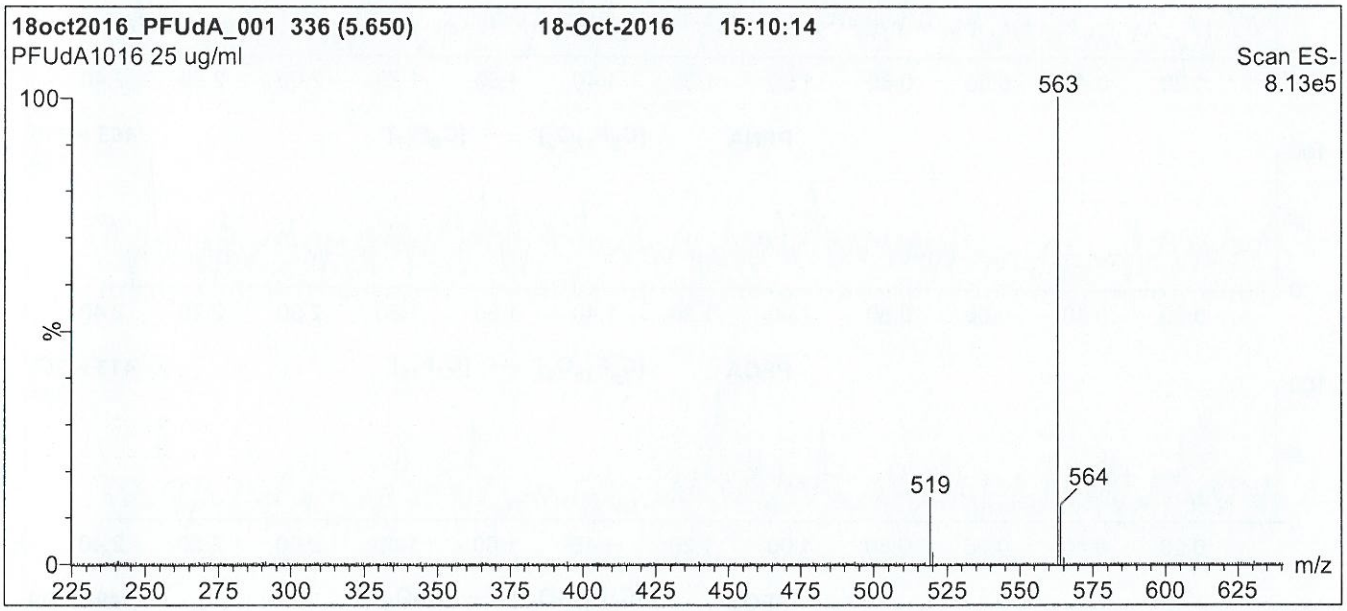
Figure 1: **PFUdA; LC/MS Data (TIC and Mass Spectrum)**





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

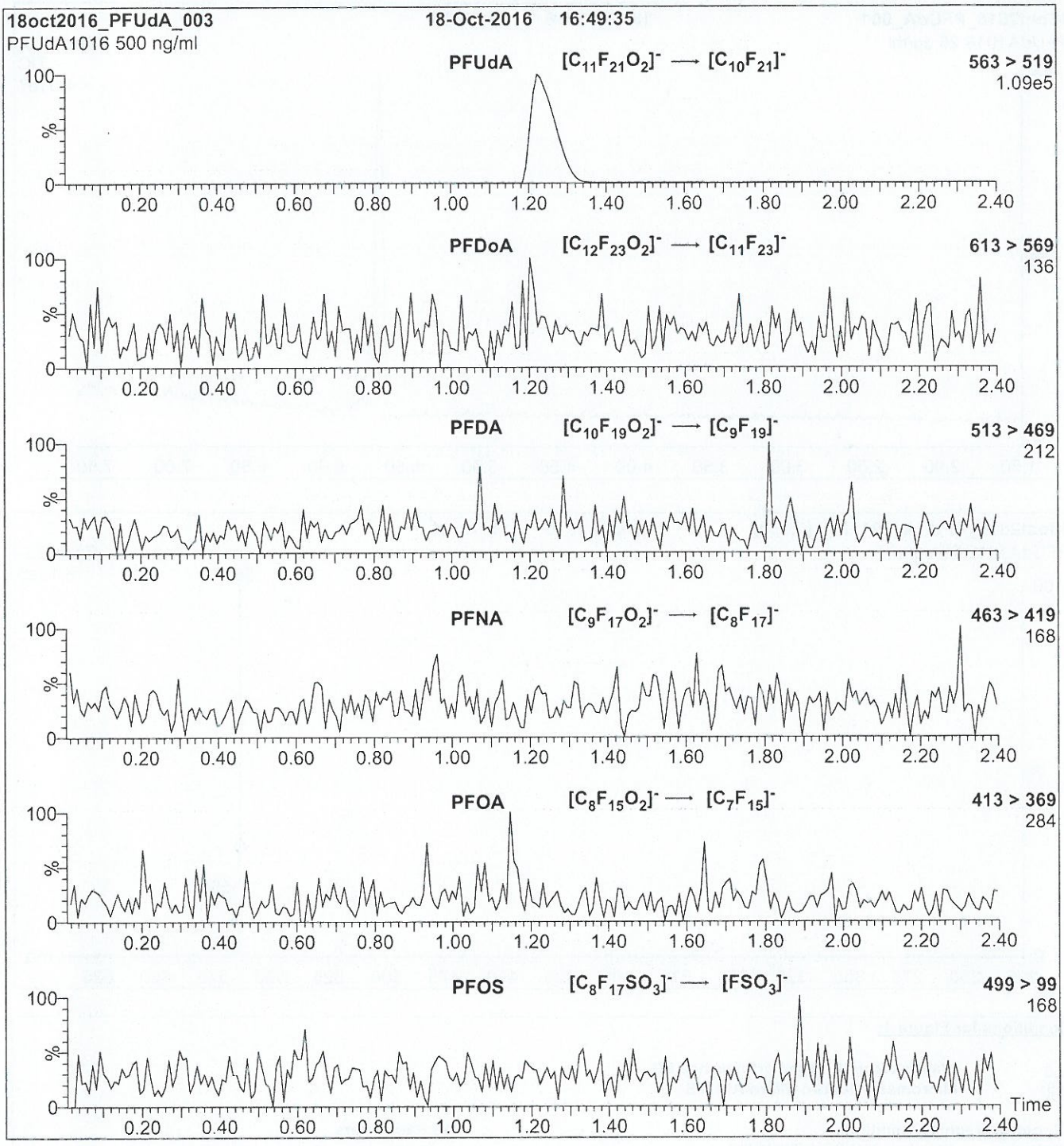
Flow: 300 µl/min

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

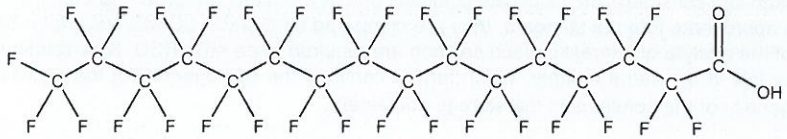
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHxDA ✓ **LOT NUMBER:** PFHxDA0516

COMPOUND: Perfluoro-n-hexadecanoic acid

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)

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,...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. A 1226

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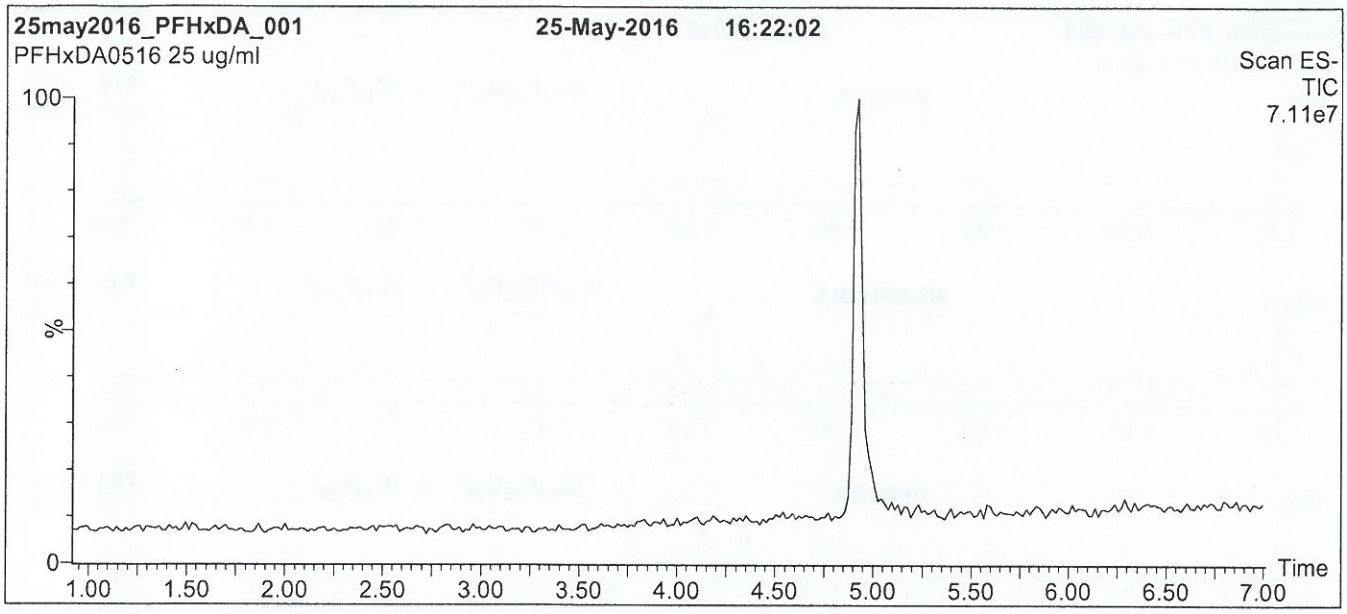
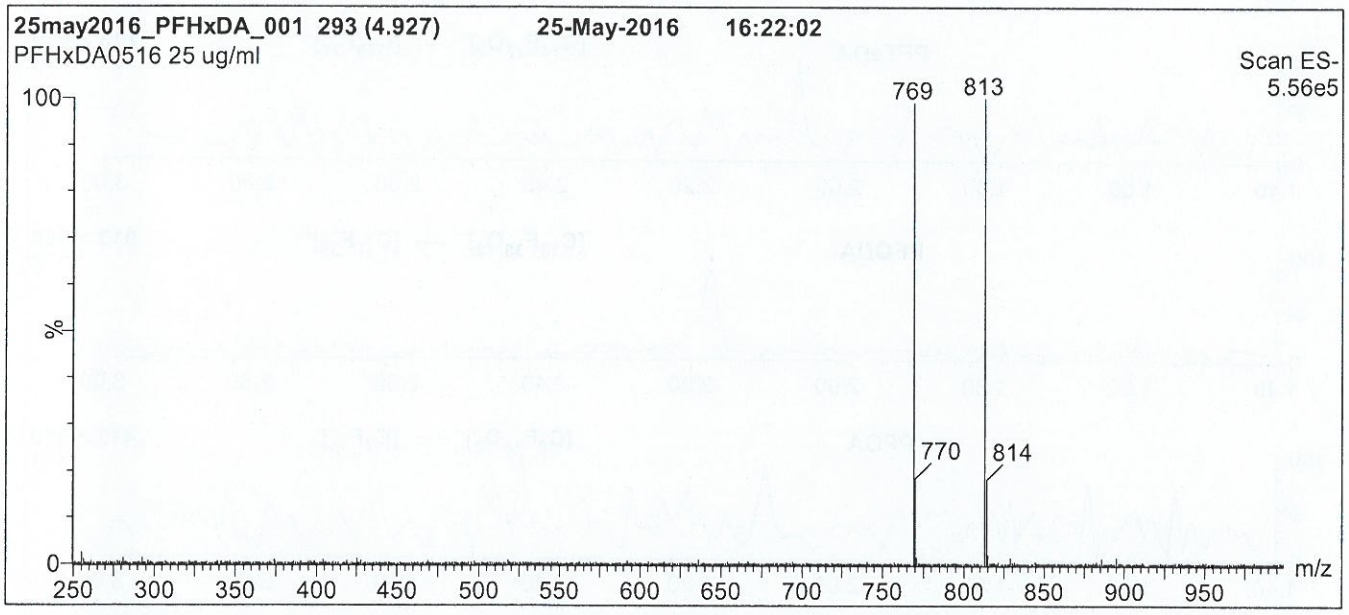
Figure 1: **PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





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

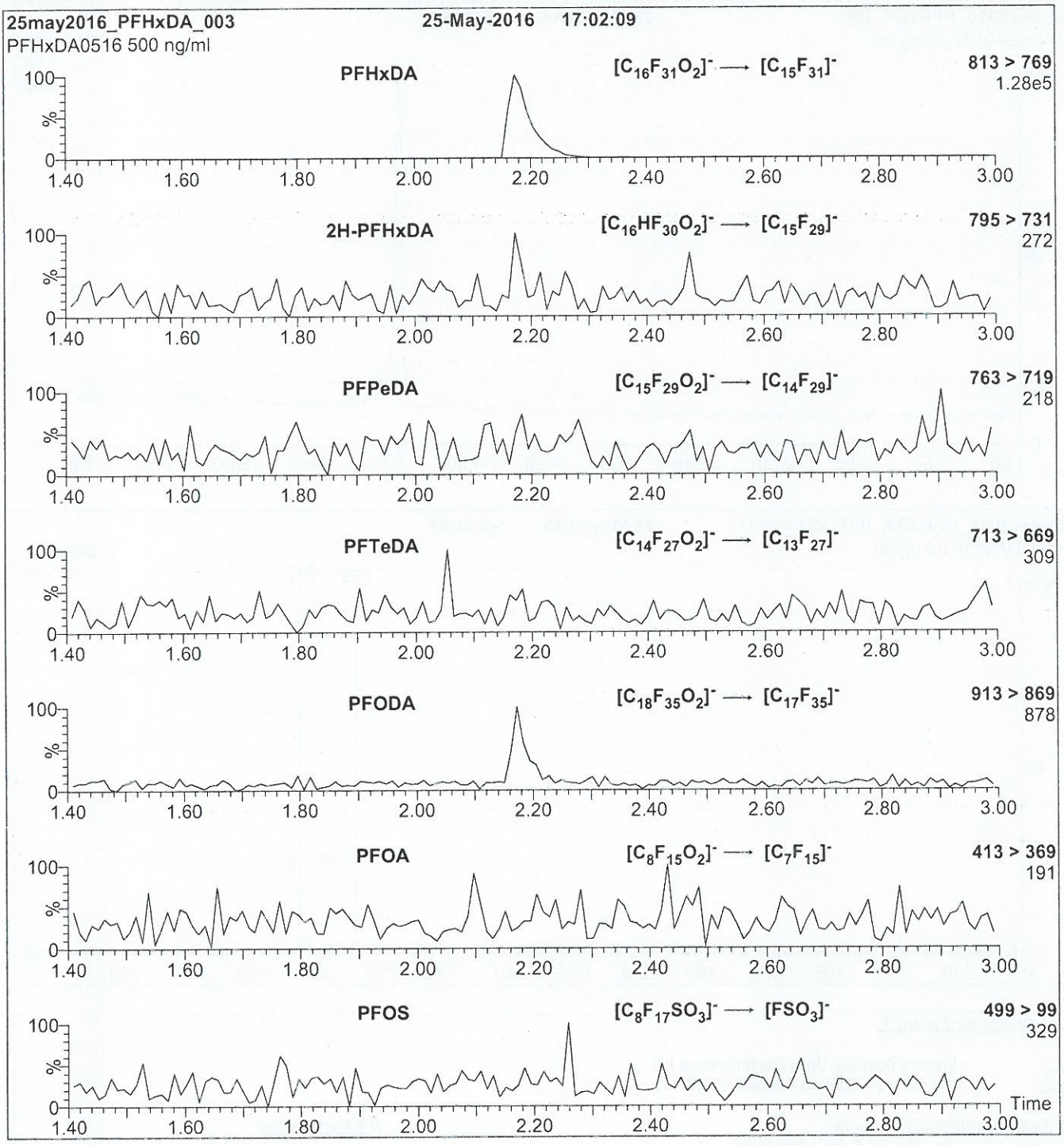
Flow: 300 µl/min

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

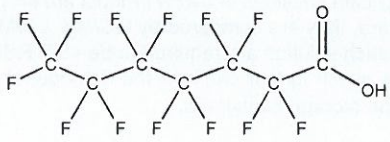
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHpA ✓ **LOT NUMBER:** PFHpA1216

COMPOUND: Perfluoro-n-heptanoic acid

STRUCTURE: **CAS #:** 375-85-9



MOLECULAR FORMULA: $C_7HF_{13}O_2$ **MOLECULAR WEIGHT:** 364.06

CONCENTRATION: 50 ± 2.5 µg/ml **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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/12/2016 (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

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

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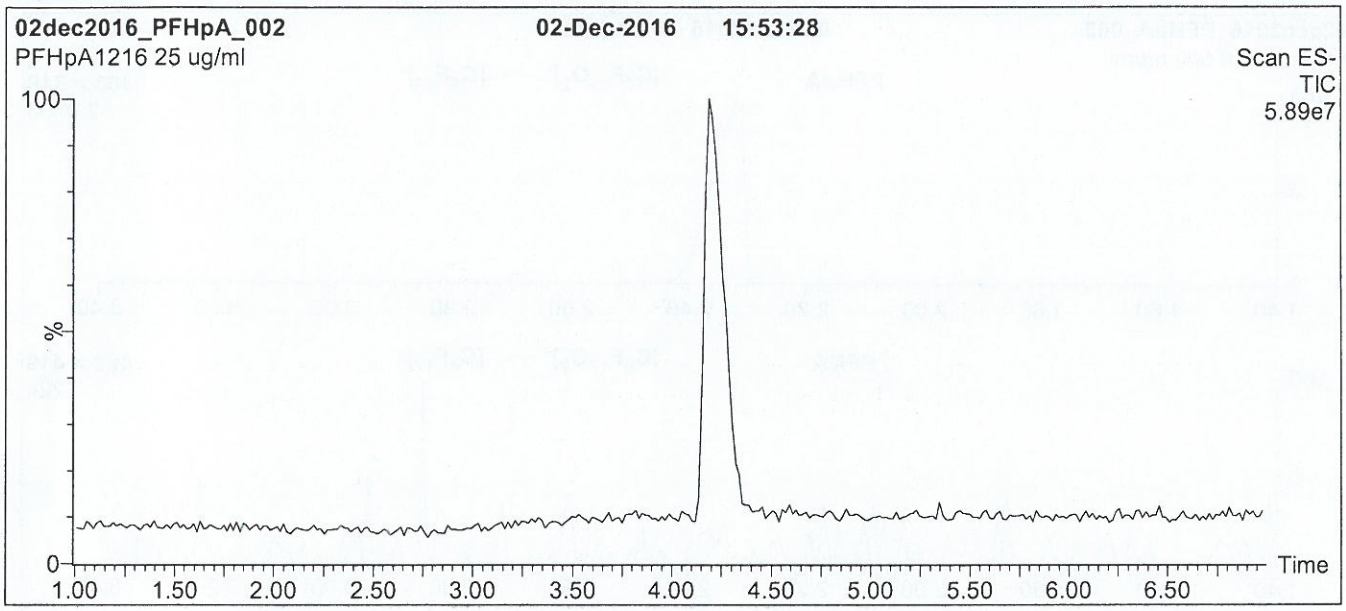
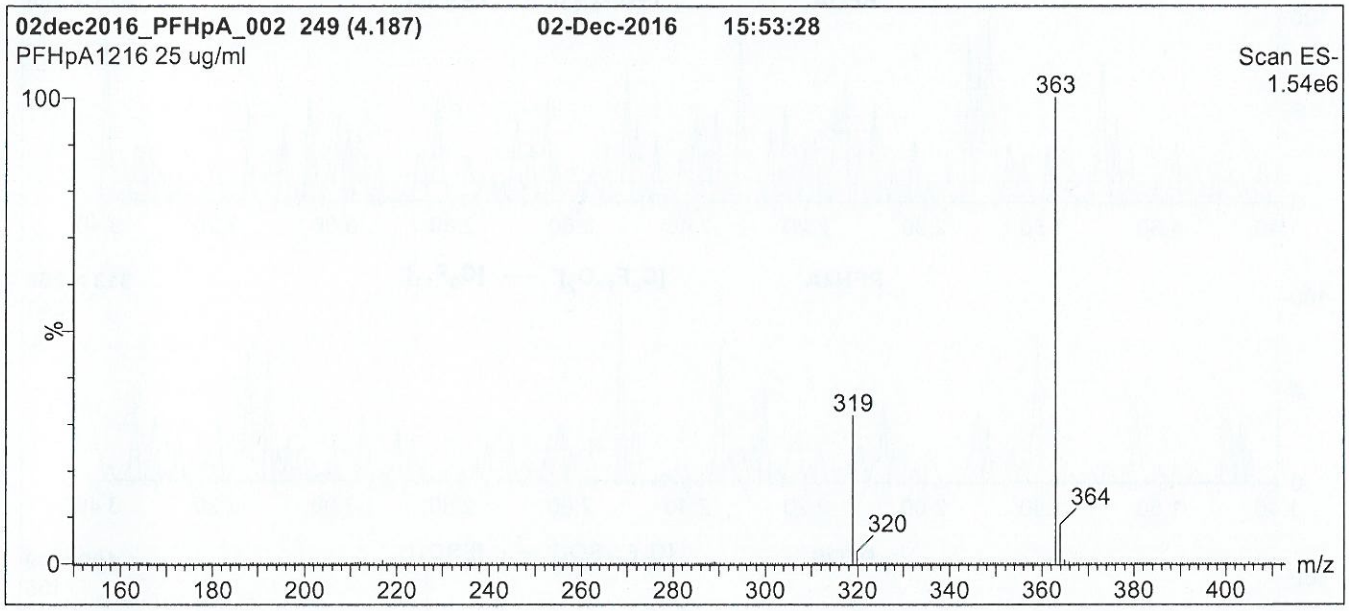
Figure 1: **PFHpA; LC/MS Data (TIC and Mass Spectrum)**





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

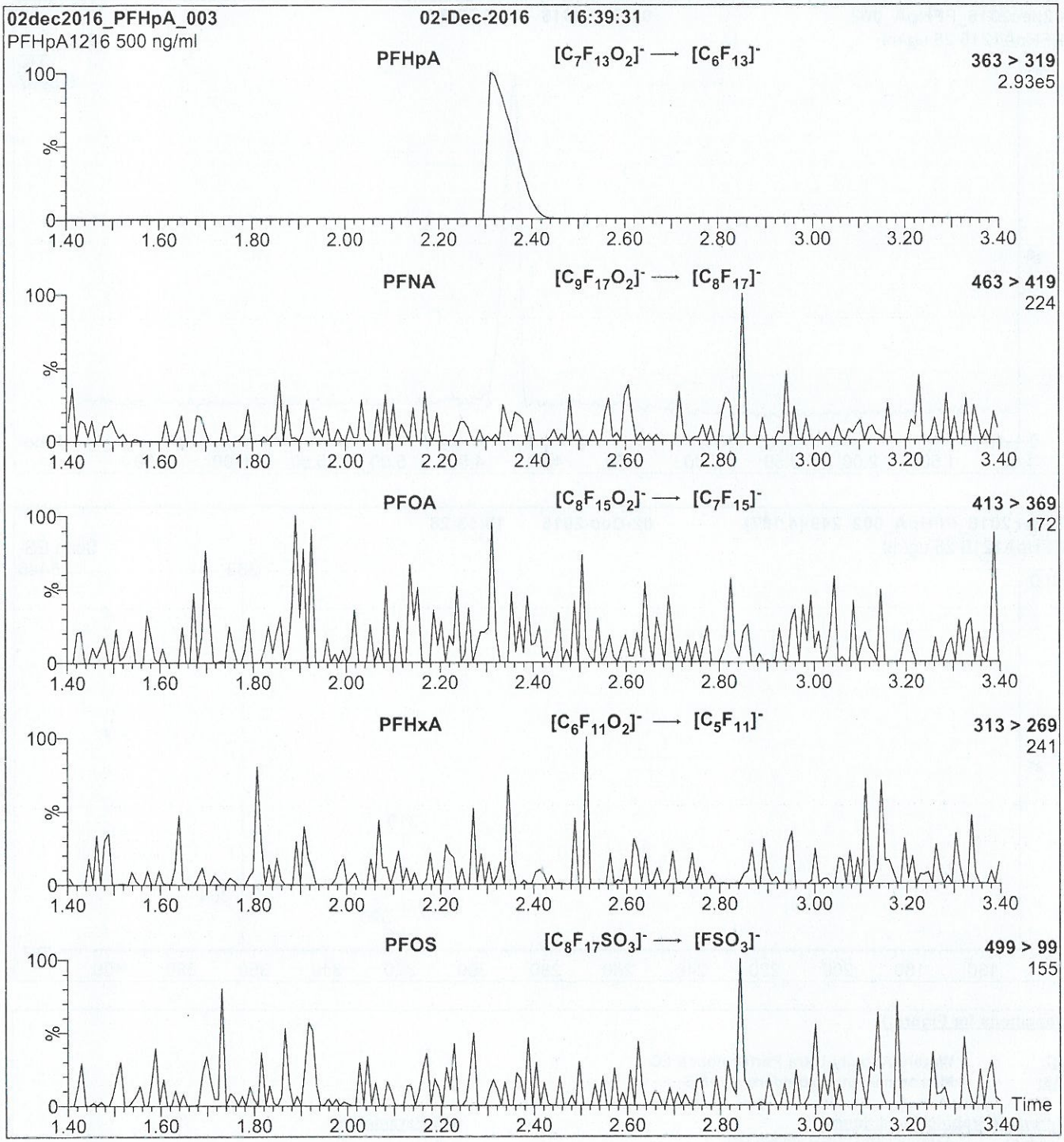
Flow: 300 µl/min

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

WELLINGTON LABORATORIES

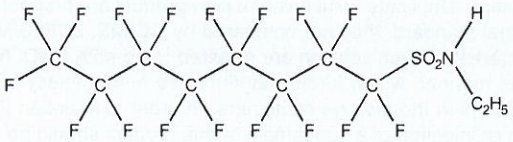
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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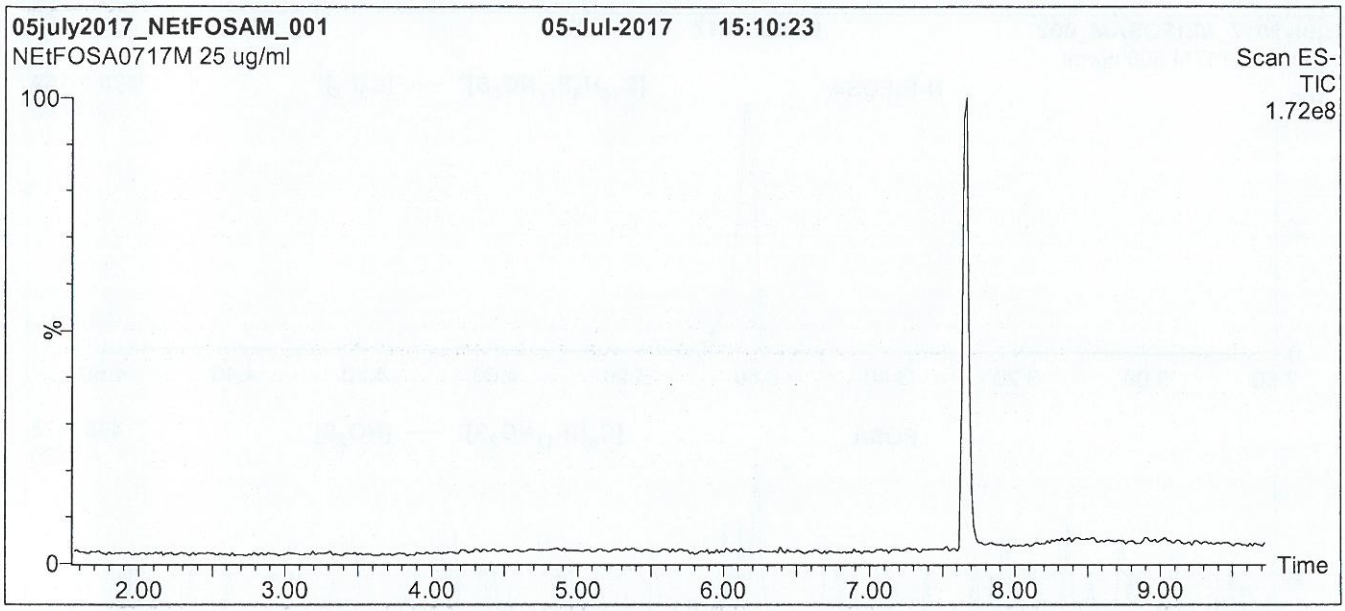
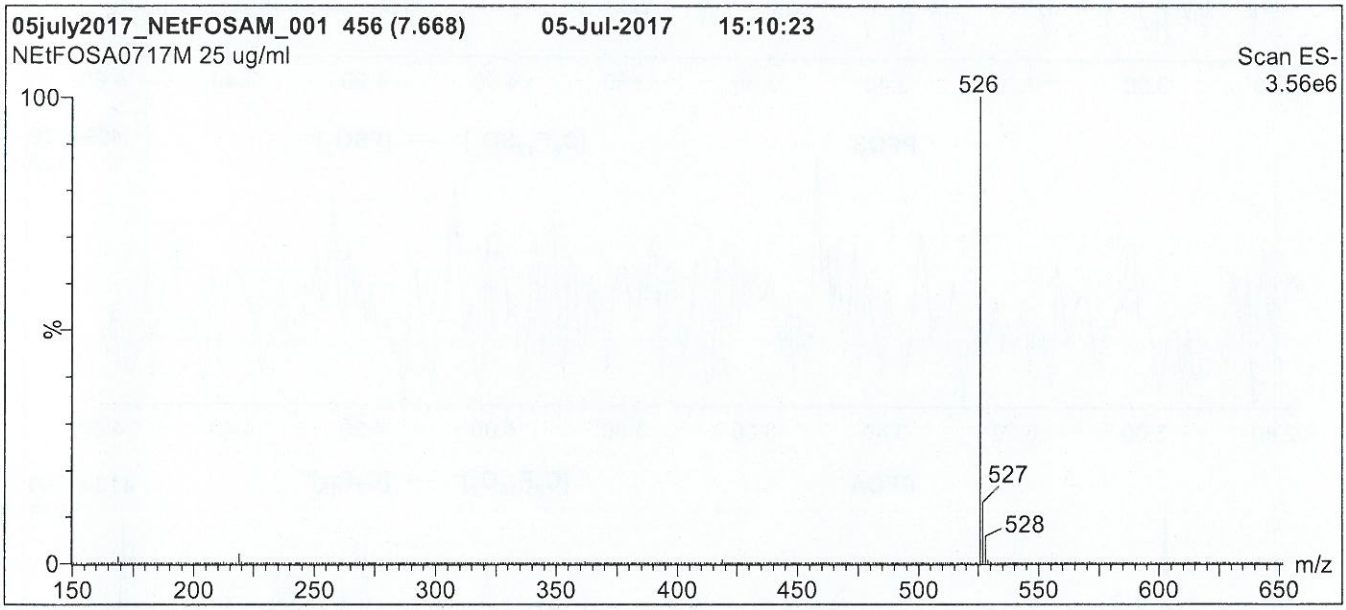
Figure 1: **N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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

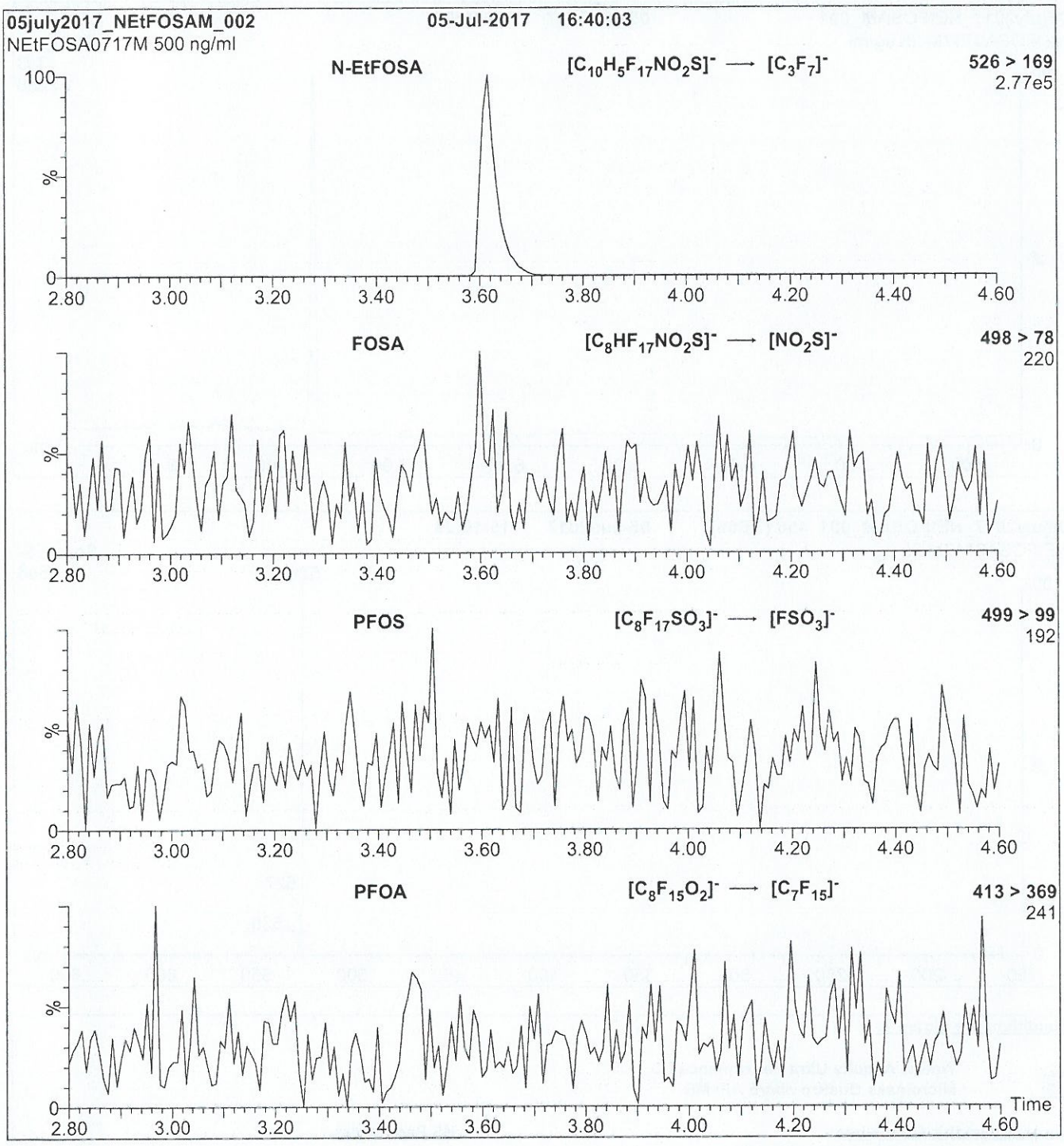
Flow: 300 µl/min

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

17H0828

WELLINGTON LABORATORIES

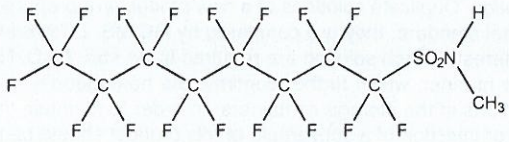
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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. 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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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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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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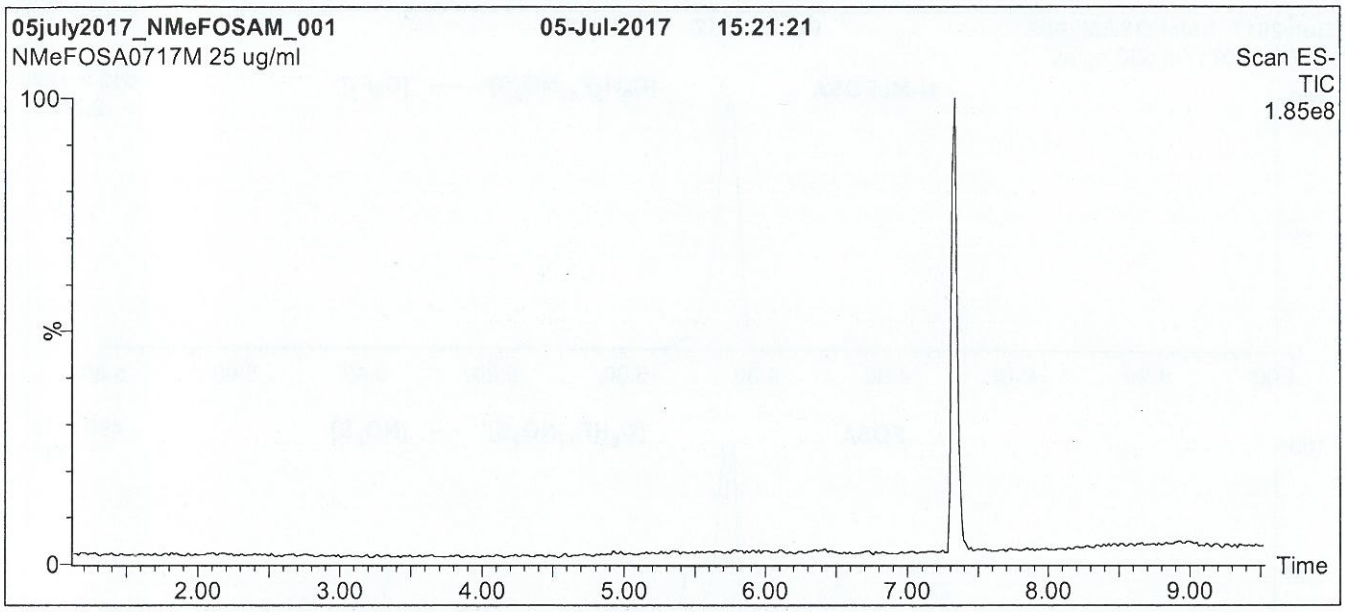
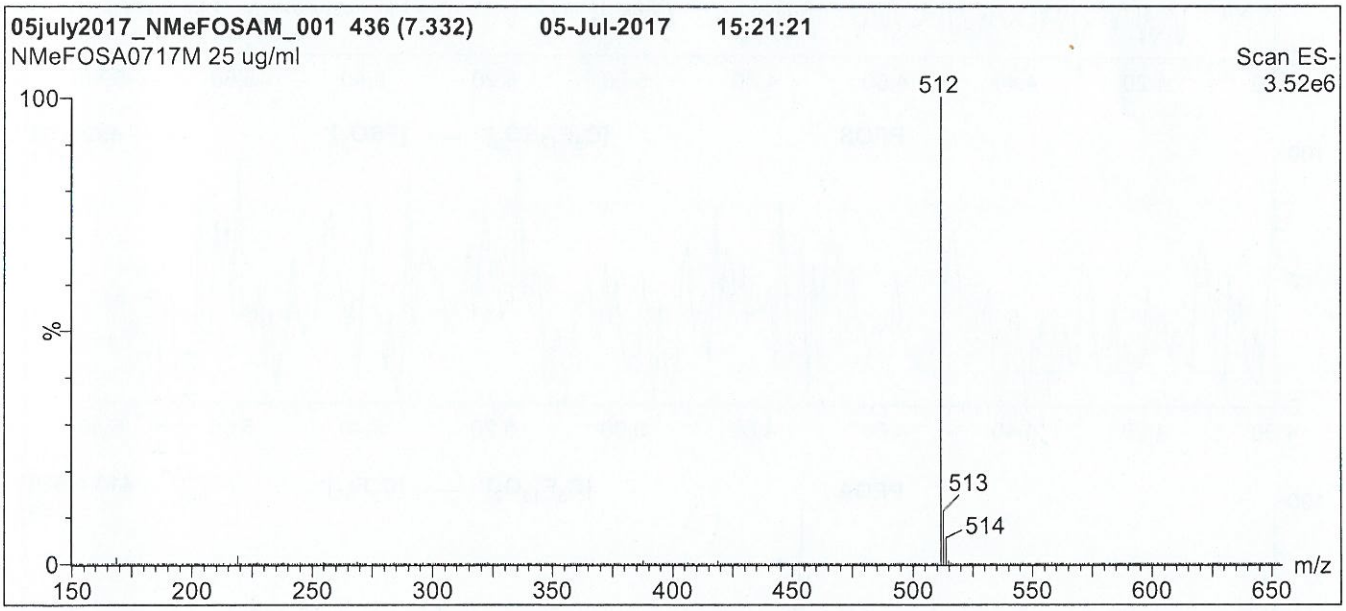
Figure 1: **N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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

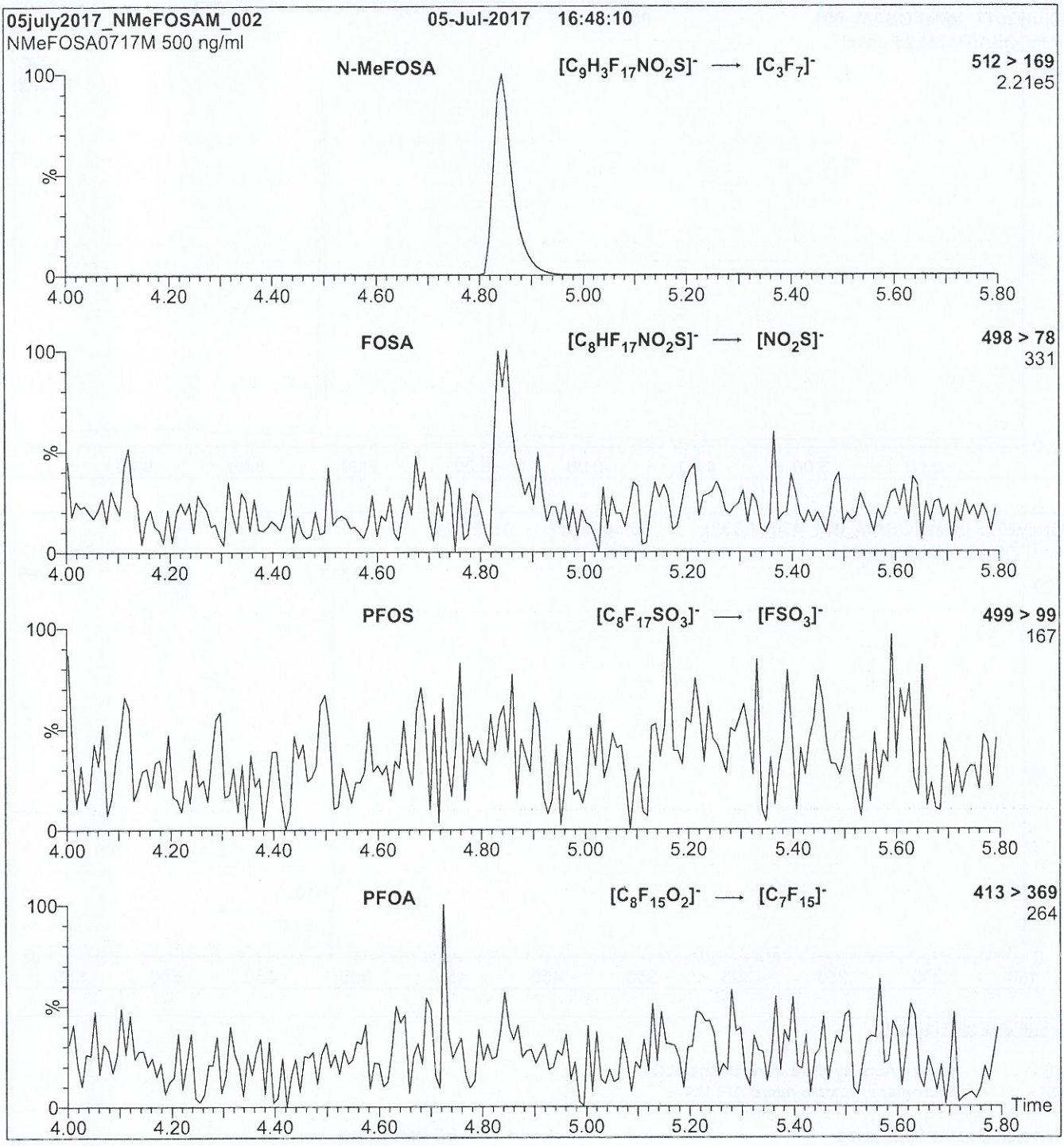
Flow: 300 µl/min

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

1710829

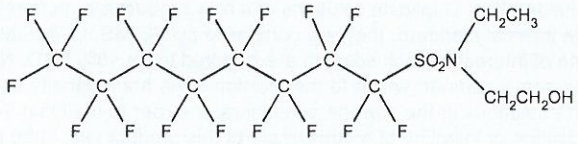
WELLINGTON LABORATORIES

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.

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Certified By: _____ **Date:** 04/26/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

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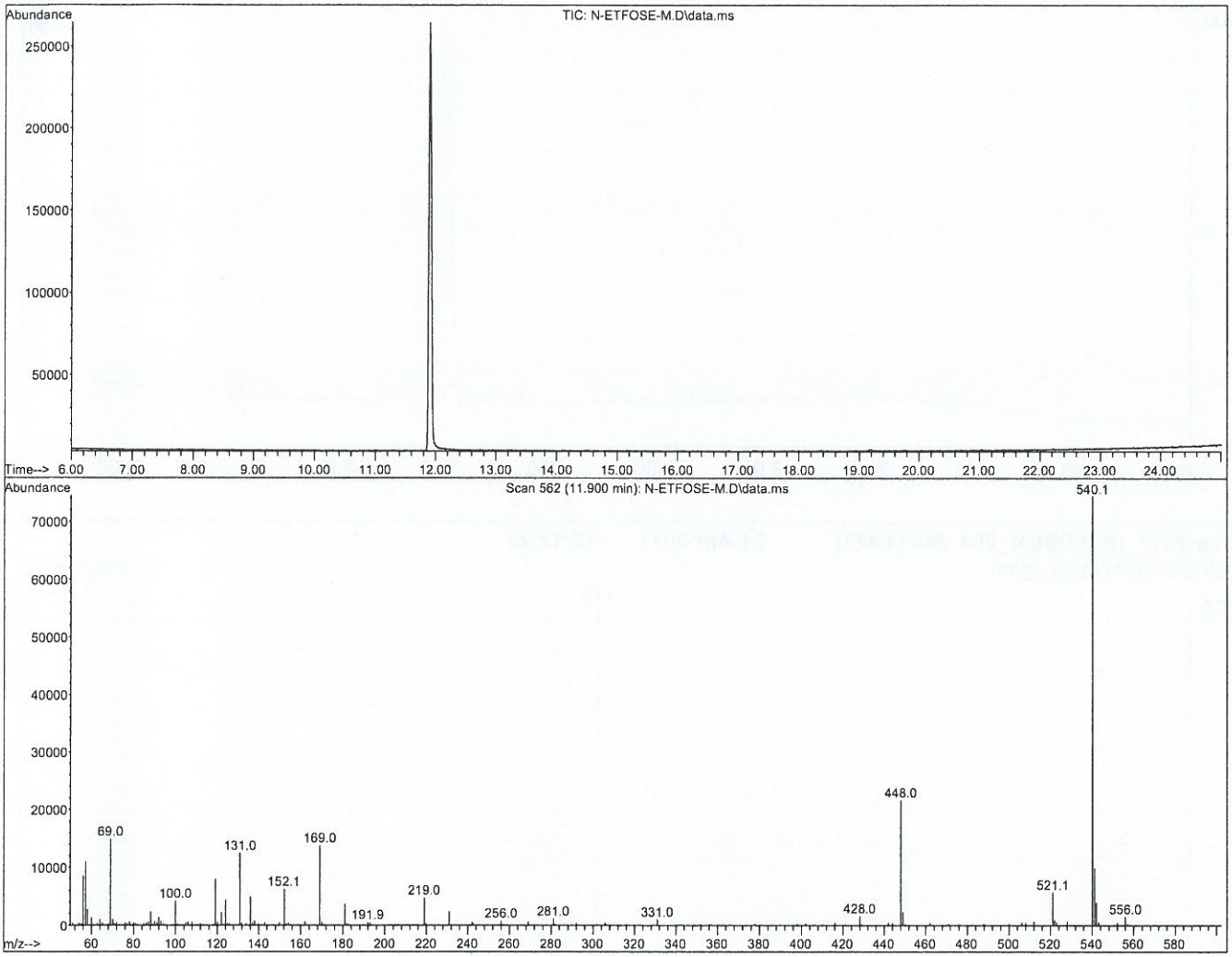
Figure 1: **N-EtFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



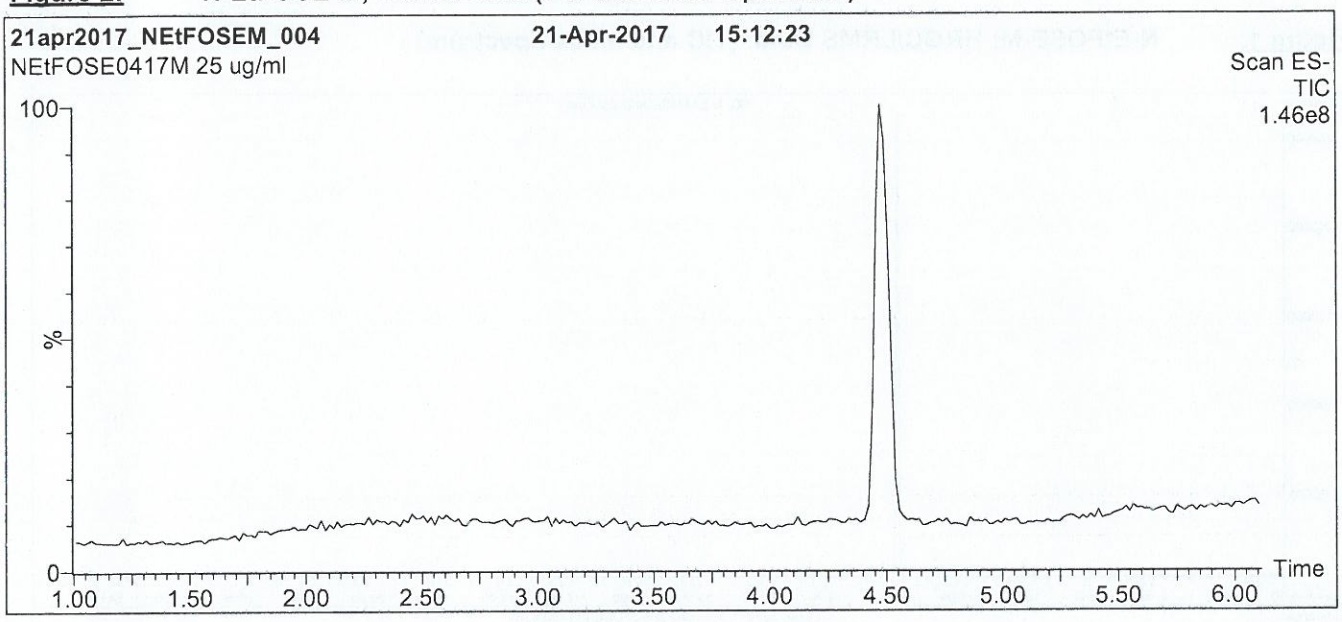
HRGC/LRMS:

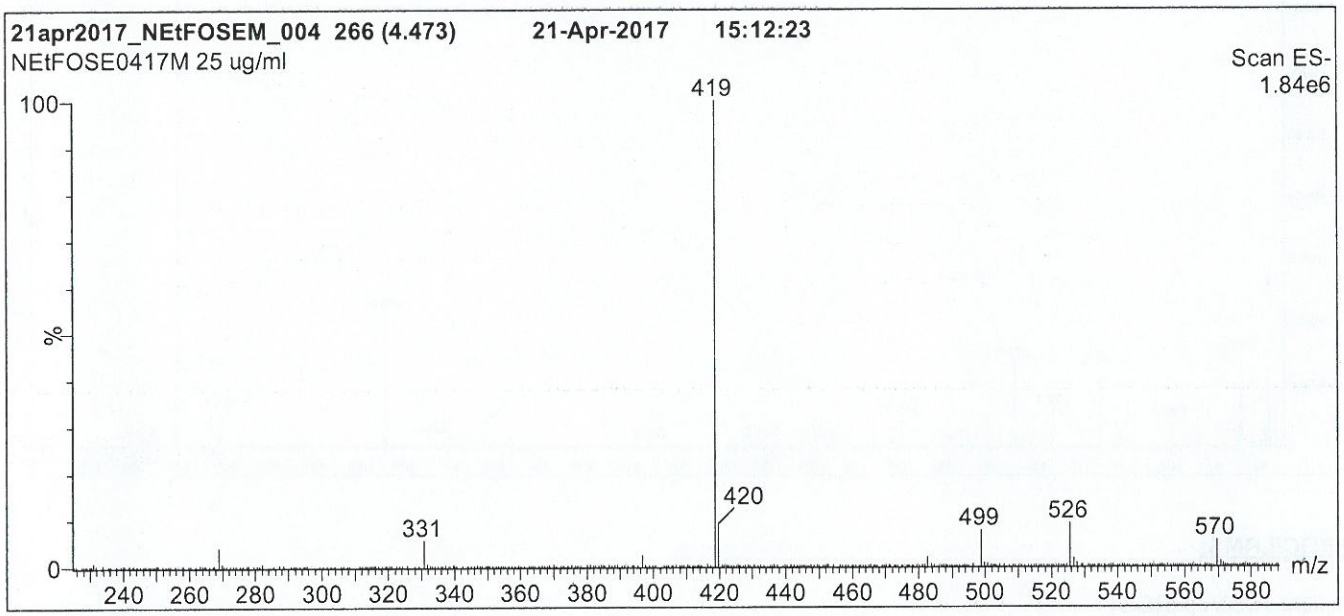
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

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

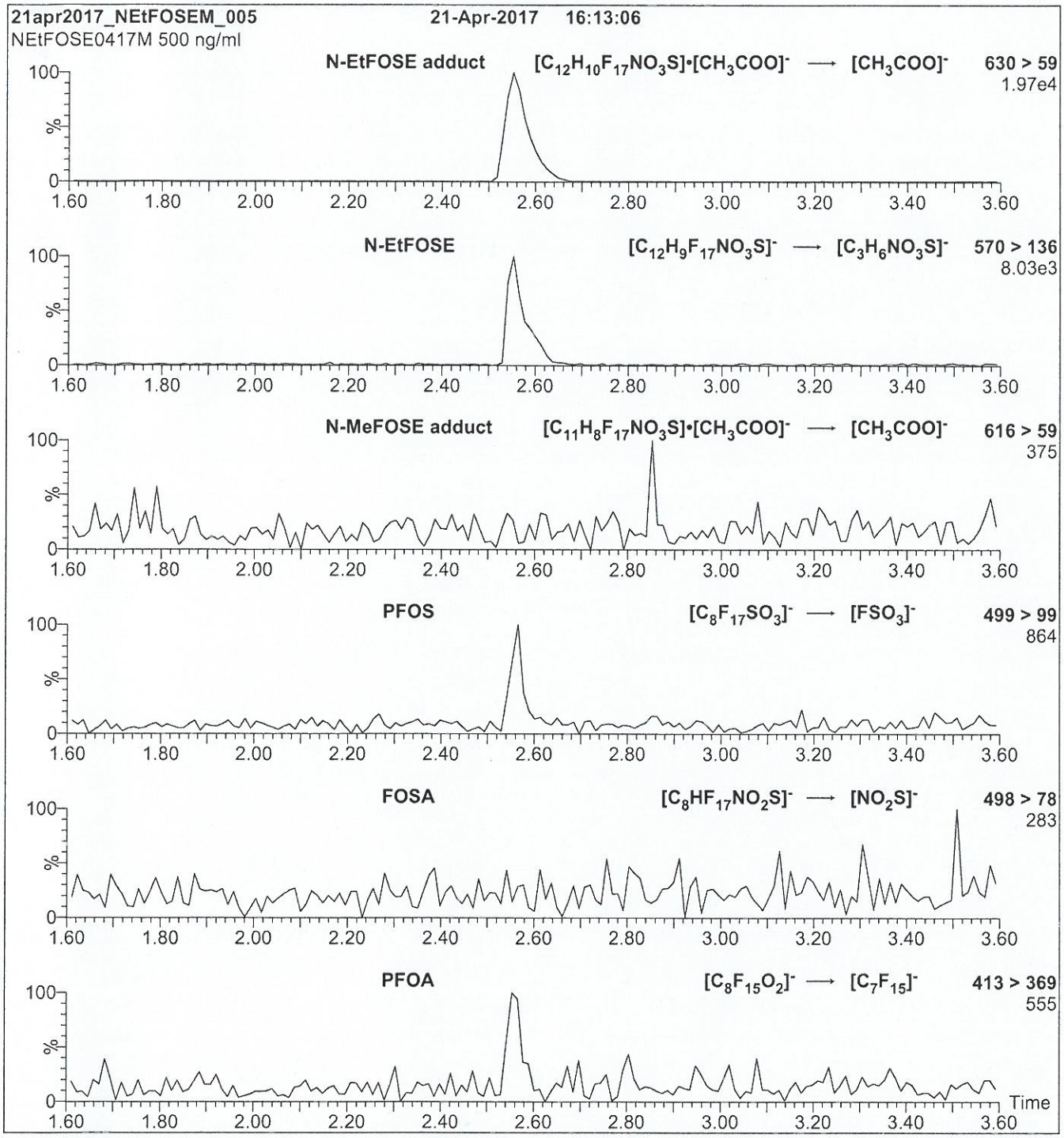
Flow: 300 µl/min

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

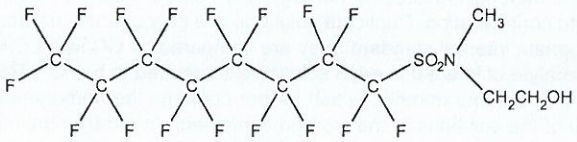
WELLINGTON LABORATORIES

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)		
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CALA Testing Accreditation No. A 1226

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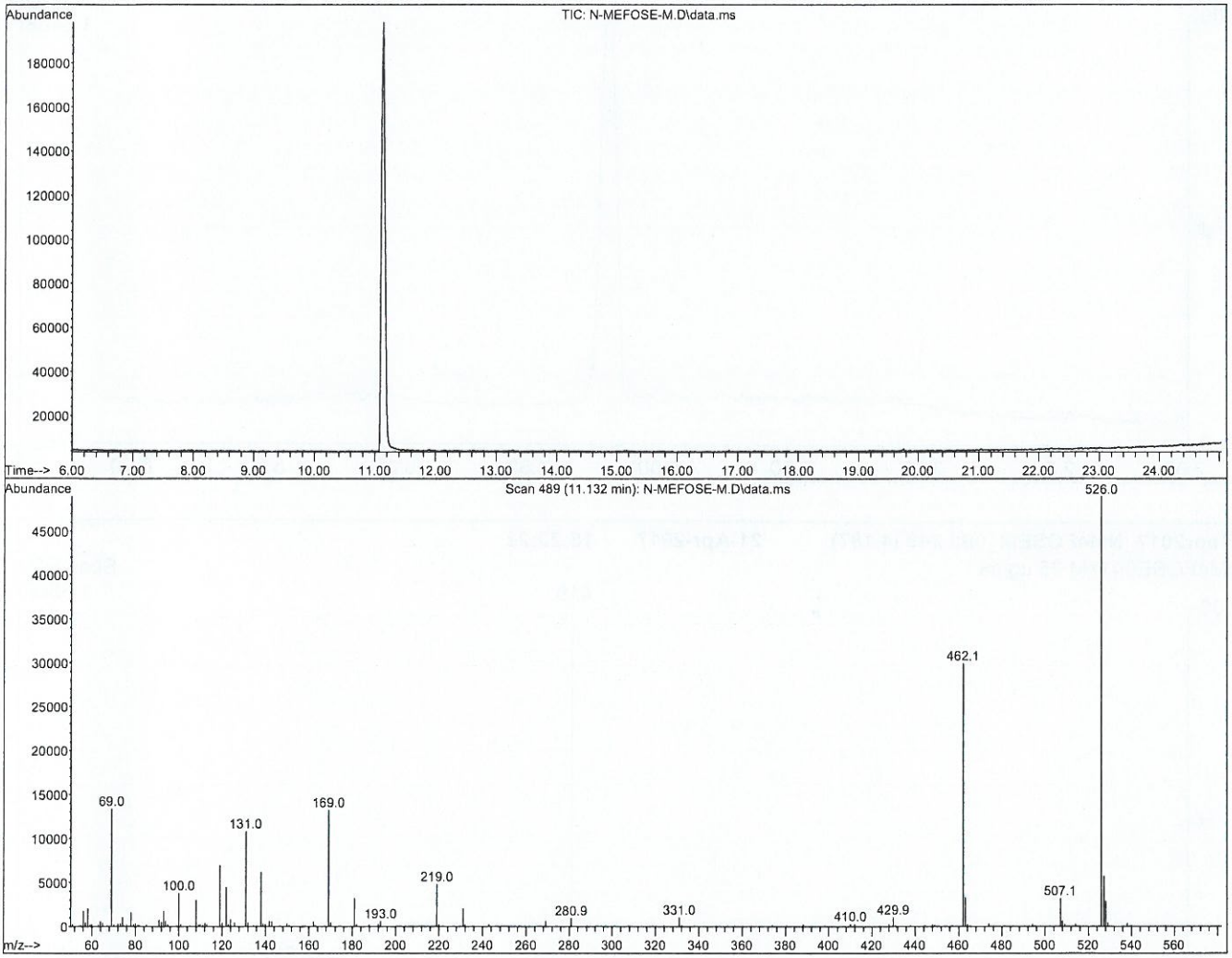


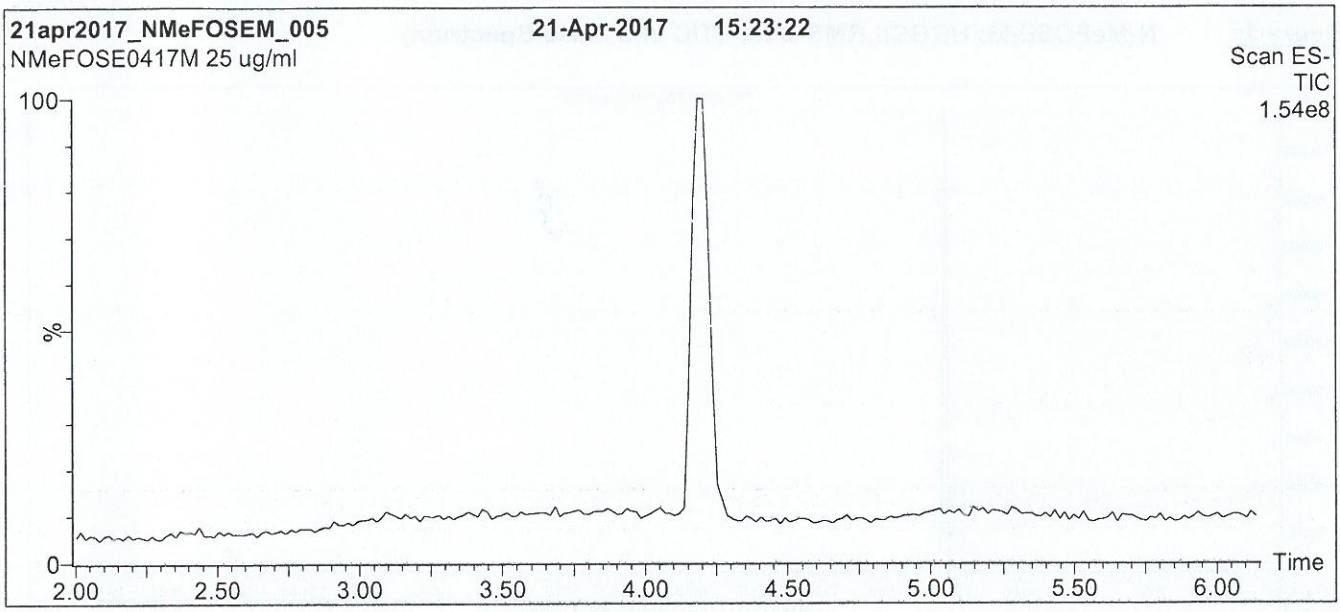
HRGC/LRMS:

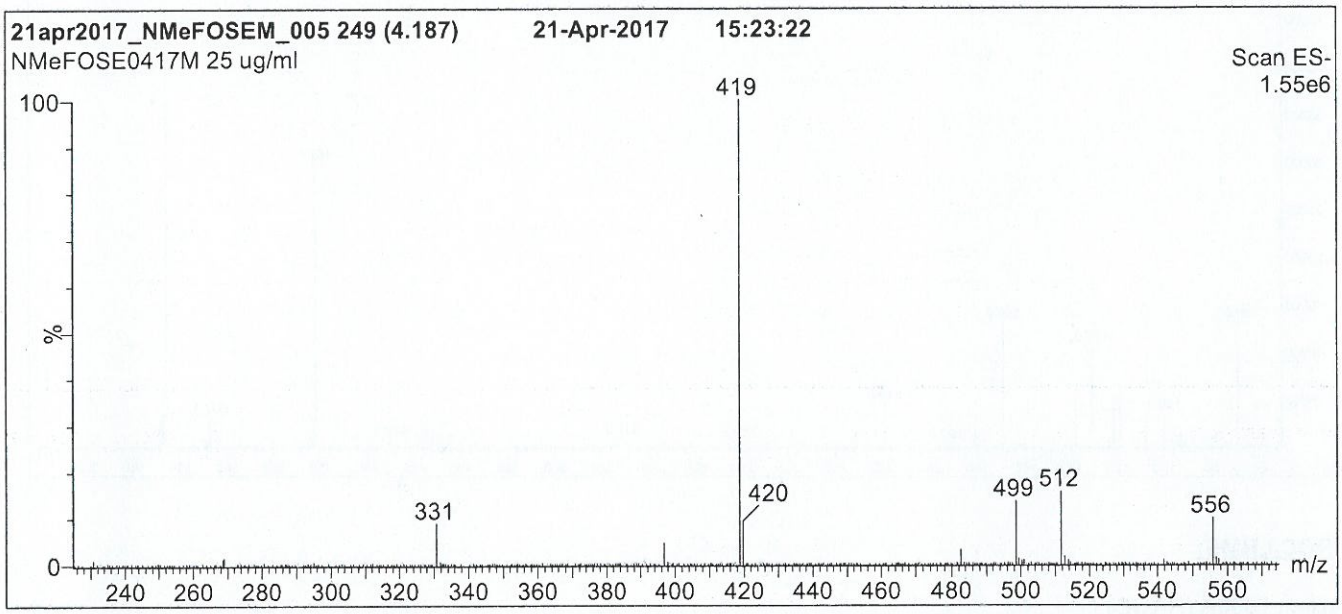
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

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)**





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1.7 µm, 2.1 x 100 mm

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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

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Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
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Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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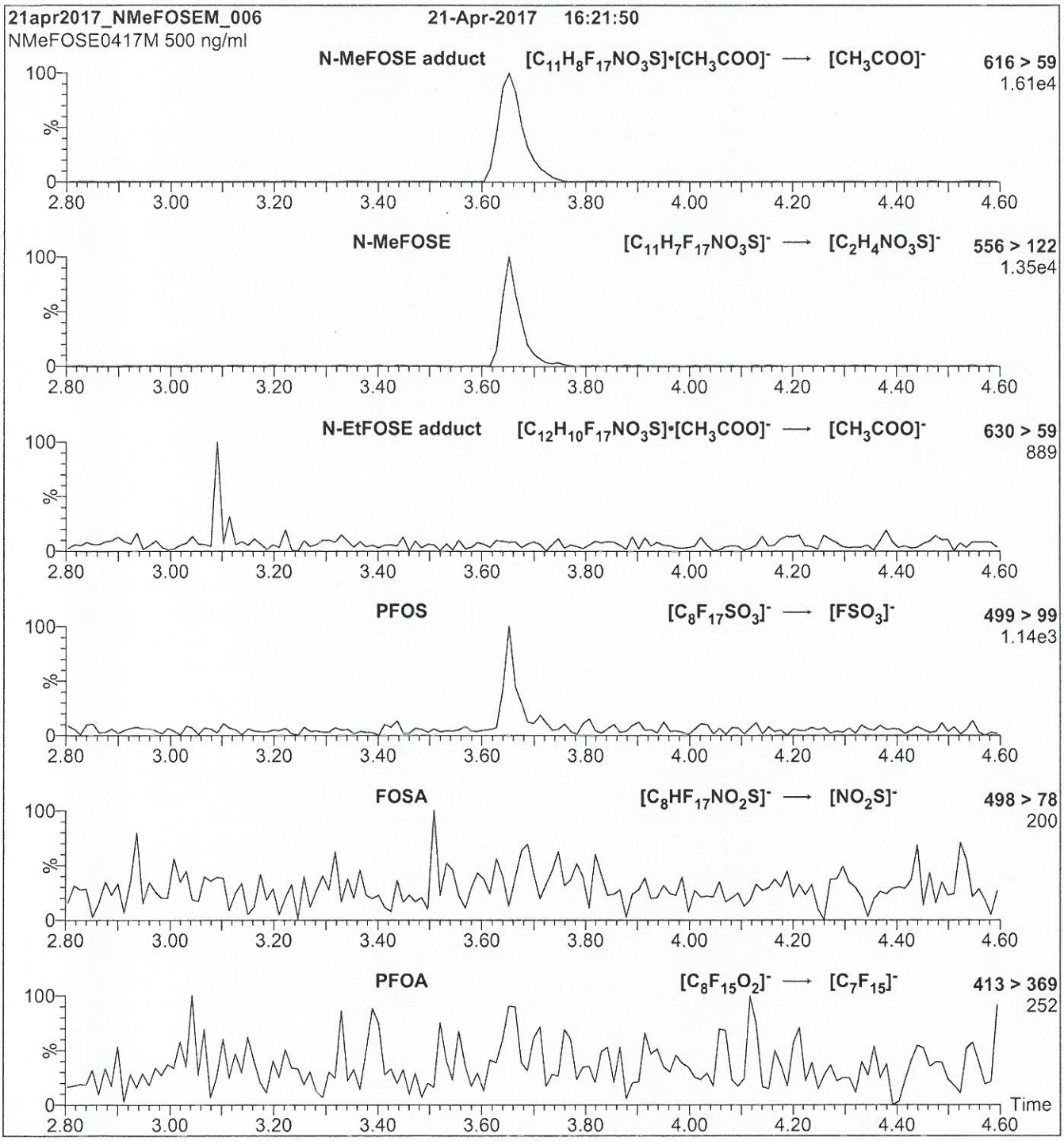


Conditions for Figure 3:

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

17K0822

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
17H2507	13C2-PFDA	25-Aug-17	** Vendor **	13-Jul-22	0.5
17H2508	13C8-FOSA-I	25-Aug-17	** Vendor **	20-Apr-22	0.5
17H2509	13C2-PFOA	25-Aug-17	** Vendor **	12-Feb-21	0.5
17H2510	13C3-PFPeA	25-Aug-17	** Vendor **	20-Apr-22	0.5
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

Description:	PFC - IS	Expires:	08-Nov-19
Standard Type:	Reagent	Prepared:	08-Nov-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
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

17K0822

Description:	PFC - IS	Expires:	08-Nov-19
Standard Type:	Reagent	Prepared:	08-Nov-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-Dec-17 09:51 by AEW

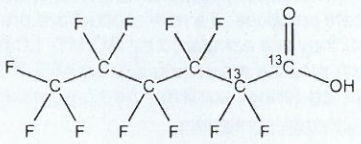
Analyte	CAS Number	Concentration	Units
13C8-PFOS		1.25	ug/mL
13C8-PFOSA		1.25	ug/mL
18O2-PFHxS		1.25	ug/mL
d3-MeFOSAA		1.25	ug/mL
13C2-PFUnA		1.25	ug/mL

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-$^{13}C_2$)
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: _____ **Date:** 12/13/2016 (mm/dd/yyyy)
B.G. Chittim

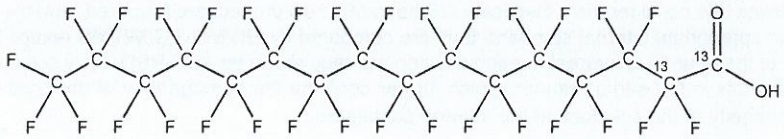
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1701080 1

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M2PFHxDA ✓	**LOT NUMBER:**	M2PFHxDA1112
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]hexadecanoic acid		
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: _____ **Date:** 01/11/2016 (mm/dd/yyyy)
B.G. Chittim

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:

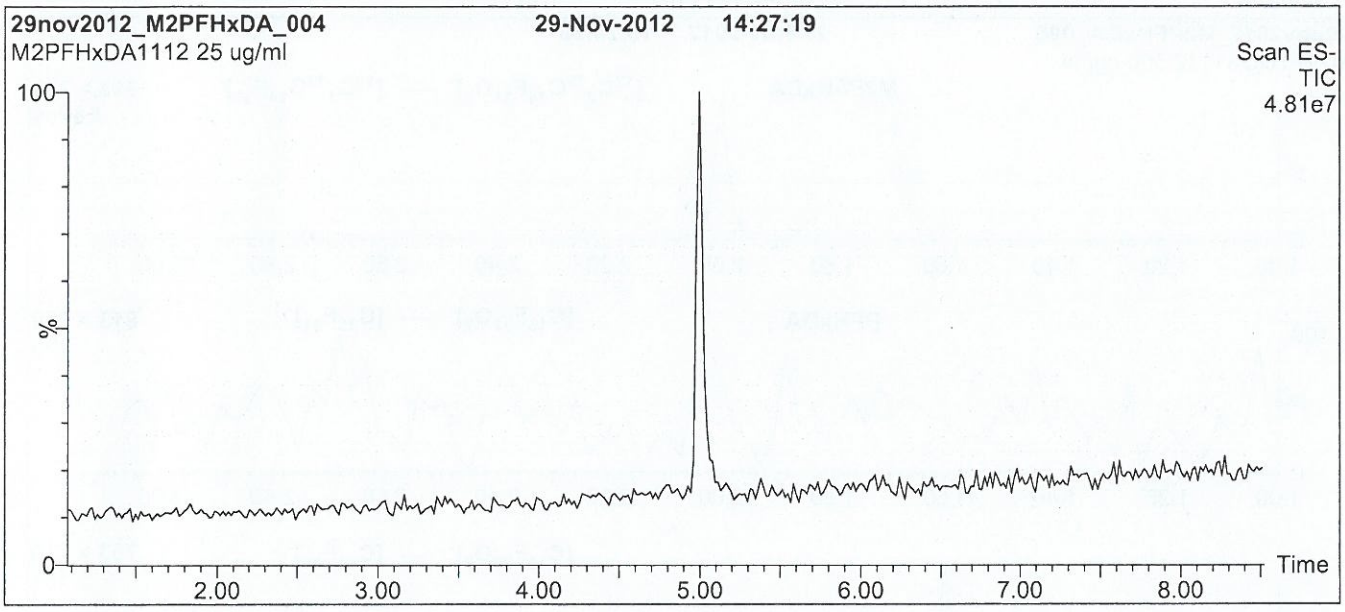
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

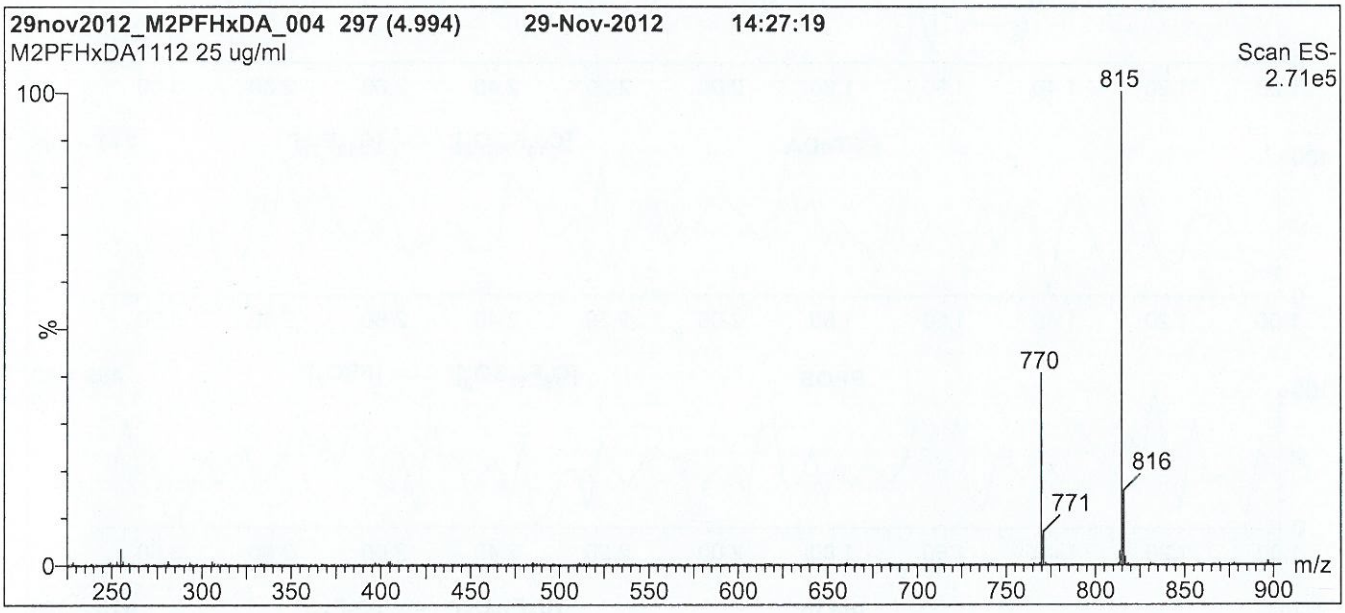
CALA Testing Accreditation No. A 1226

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

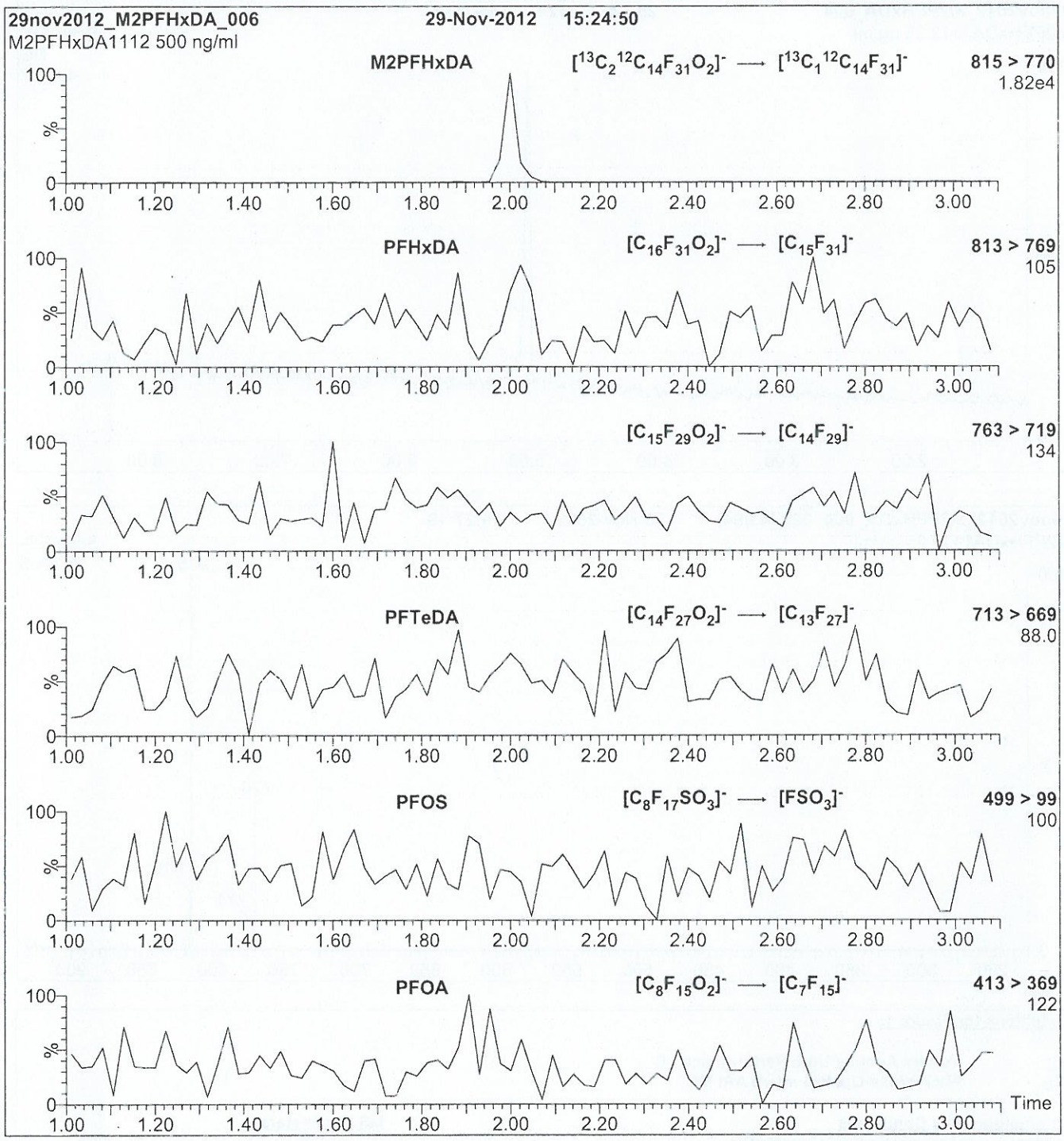
Flow: 300 µl/min

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

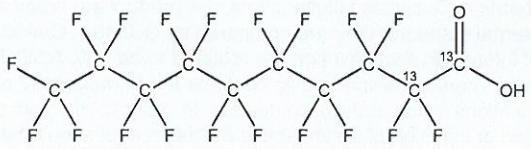
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

17H2507

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFDA	**LOT NUMBER:**	MPFDA0717
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid		
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

1TH2507

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:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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).

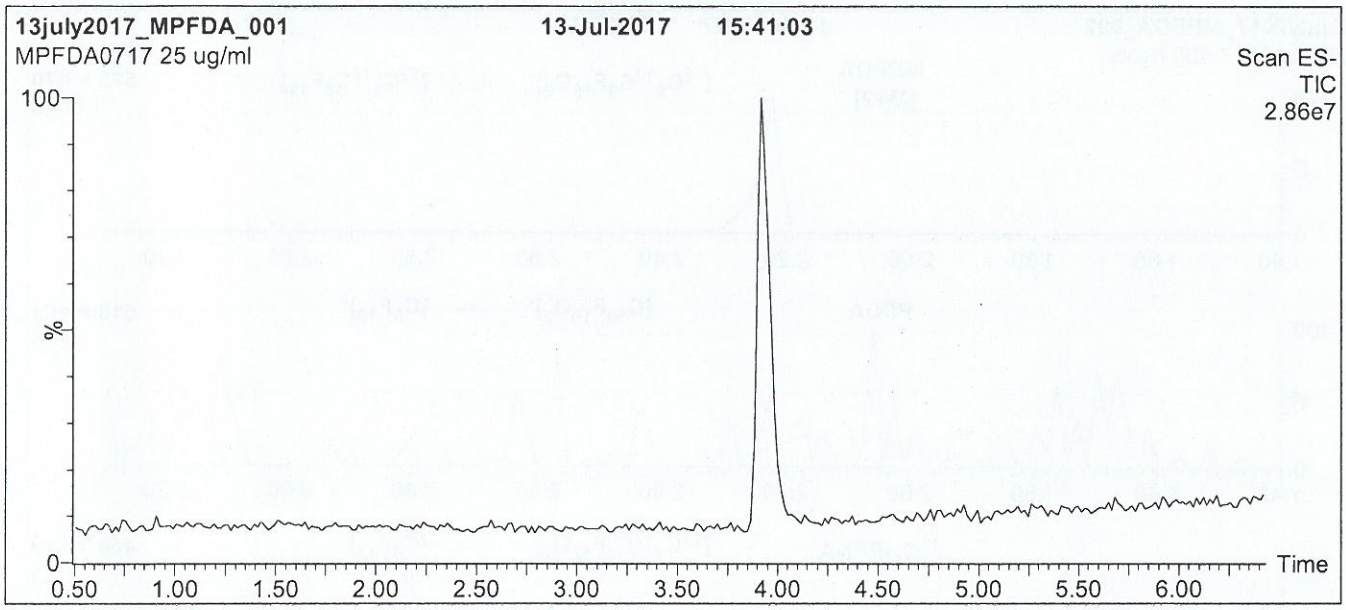
CALA Testing Accreditation No. A1226

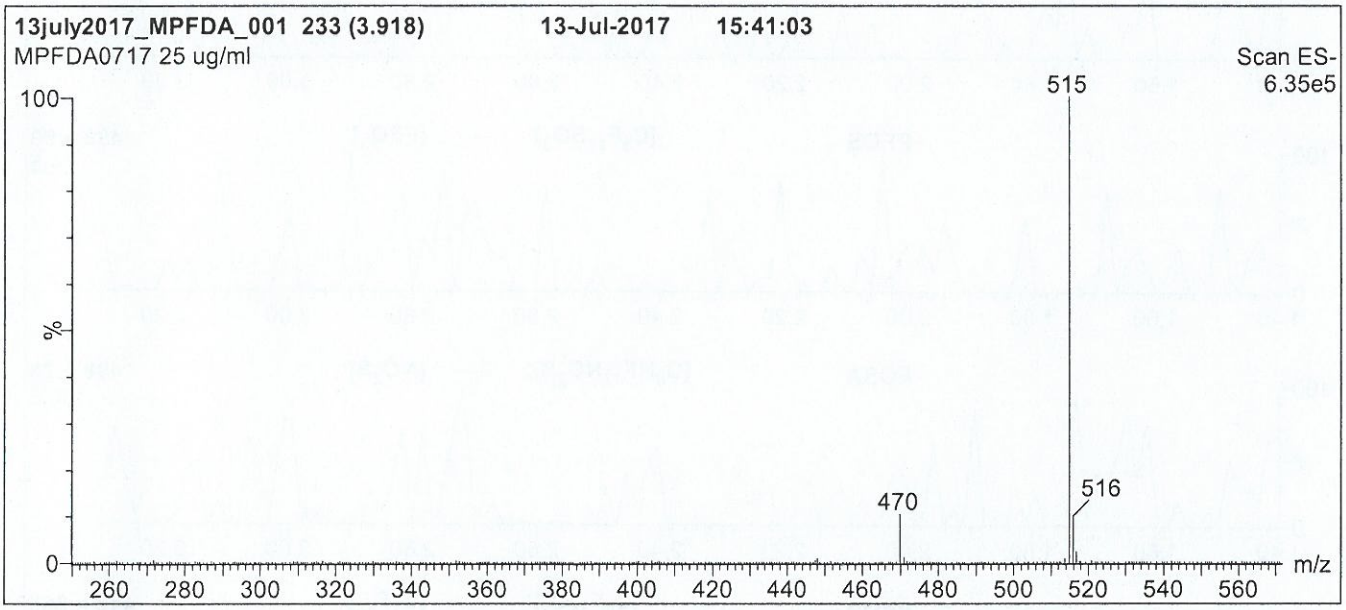
ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

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

17-H2507

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

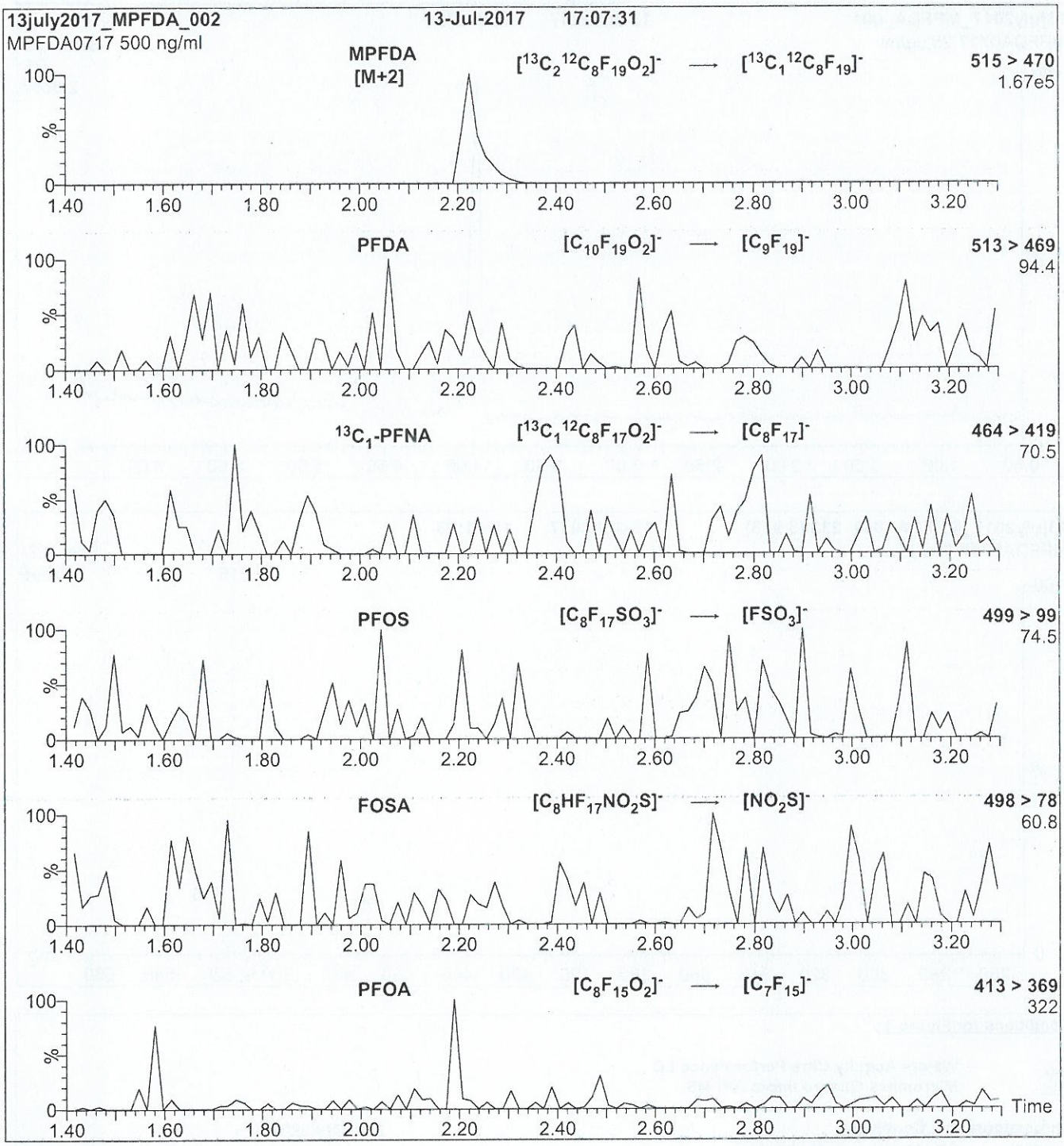
MS Parameters

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

17H2507

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

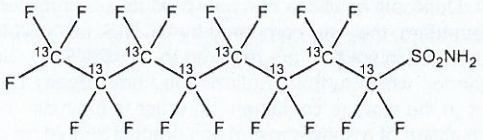
Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 13

1712508

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M8FOSA-I	**LOT NUMBER:**	M8FOSA0417I
COMPOUND:	Perfluoro-1-[$^{13}C_8$]octanesulfonamide		
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)	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.
- 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:** 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

17H2508

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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HOMOGENEITY:

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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 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).

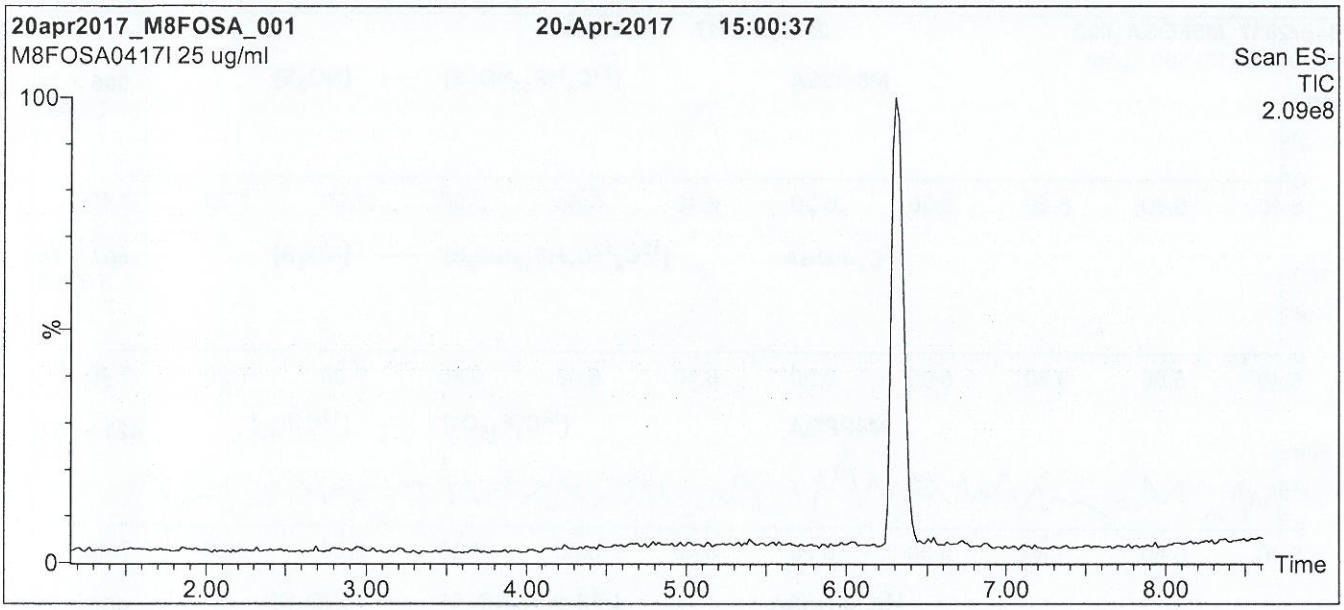
CALA Testing Accreditation No. A 1226

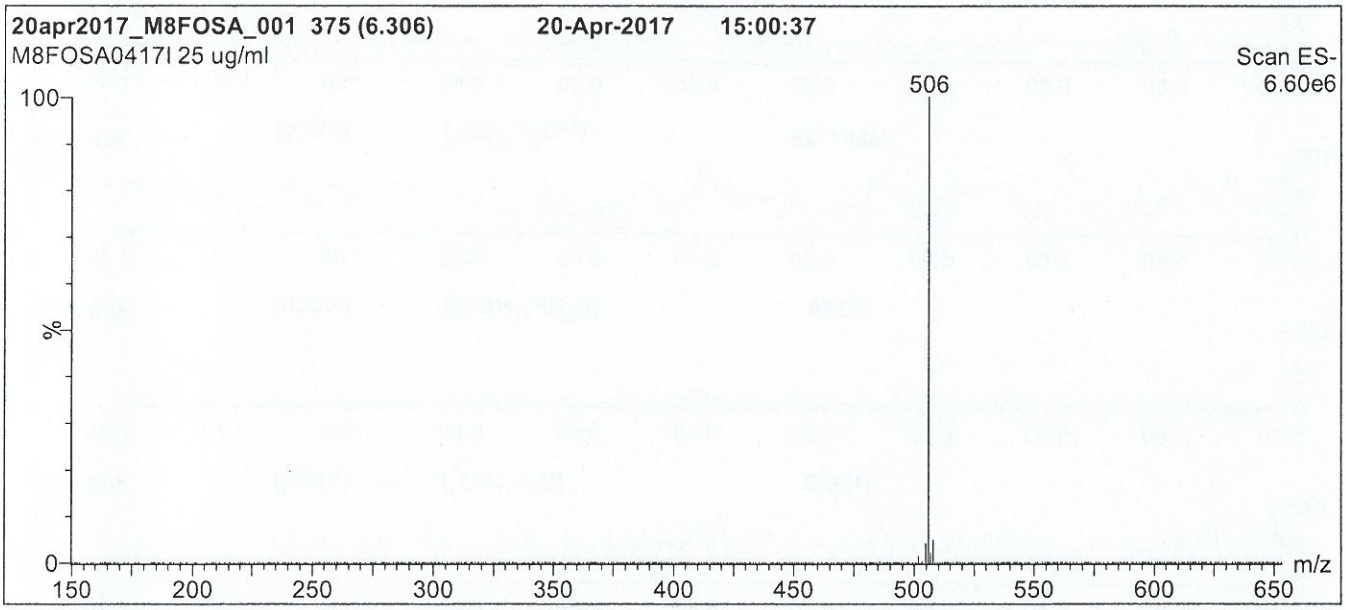
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

17H2508

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

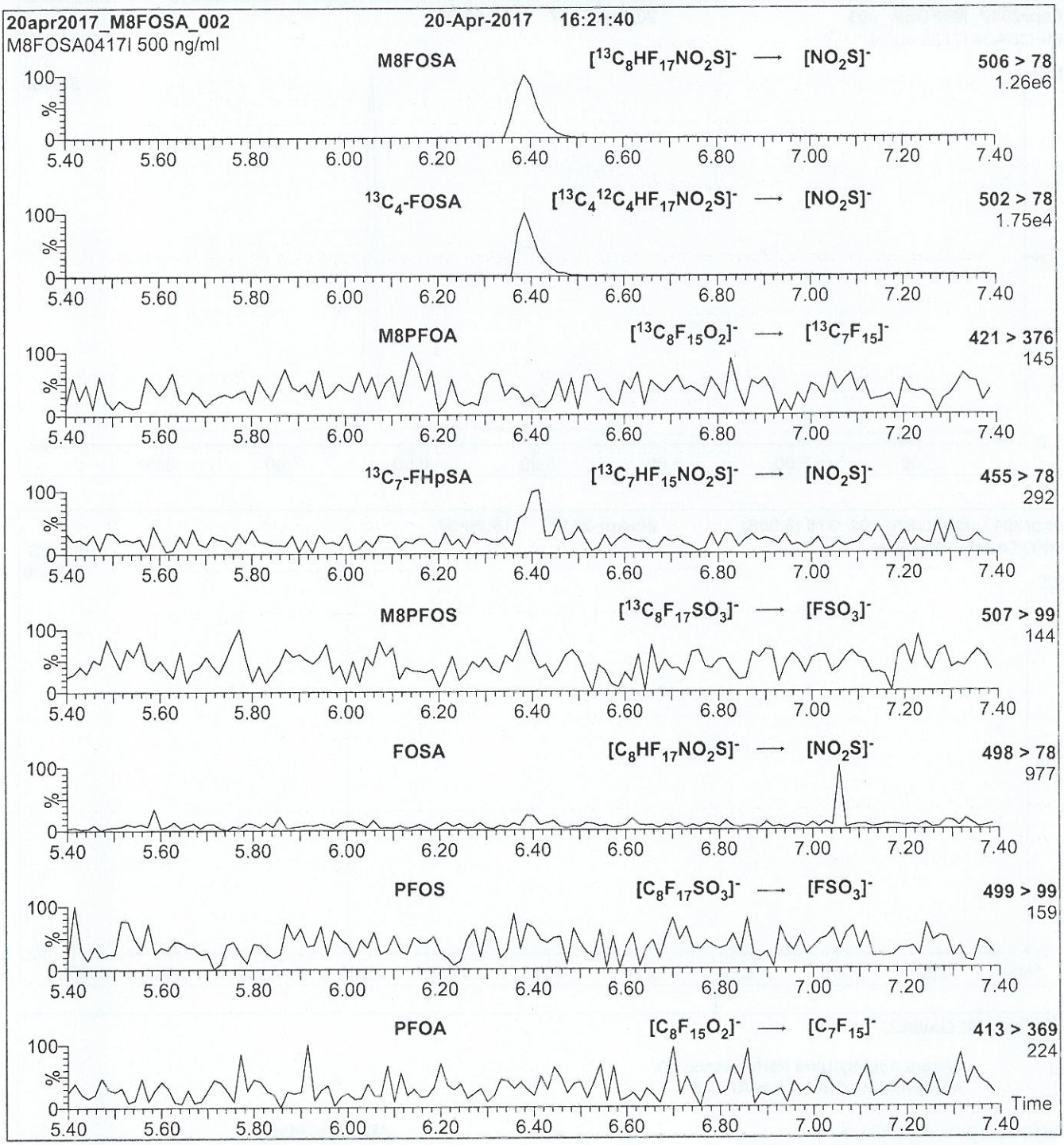
MS Parameters

Experiment: Full Scan (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

17H2508

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

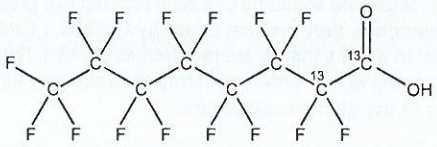
Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 30

17H2509

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M2PFOA	**LOT NUMBER:**	M2PFOA0216
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-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	02/12/2016		
EXPIRY DATE: (mm/dd/yyyy)	02/12/2021		
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:** 02/24/2016 (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

17H2509

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.

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

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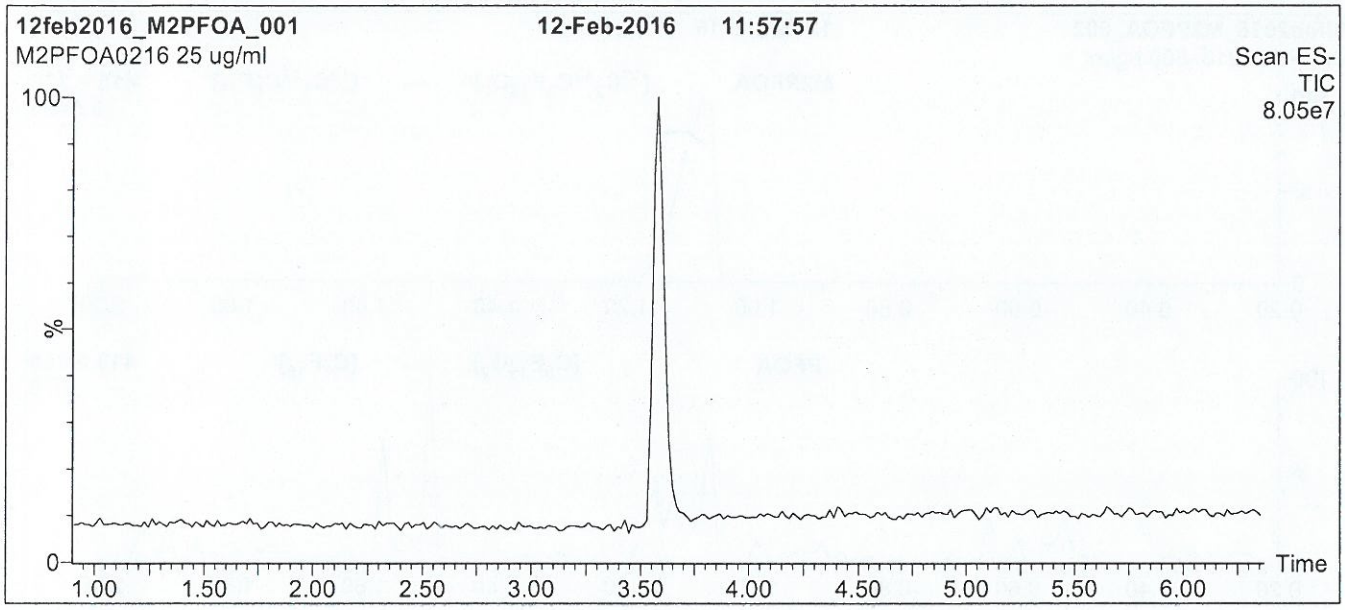
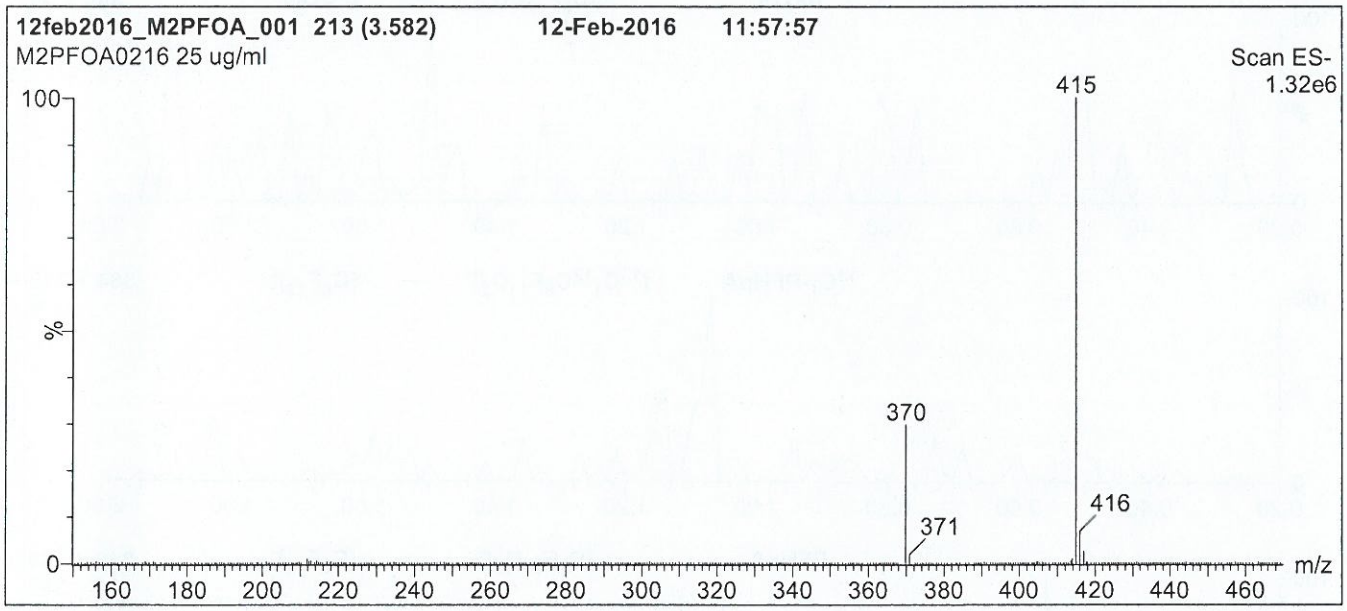
17H2509

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 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

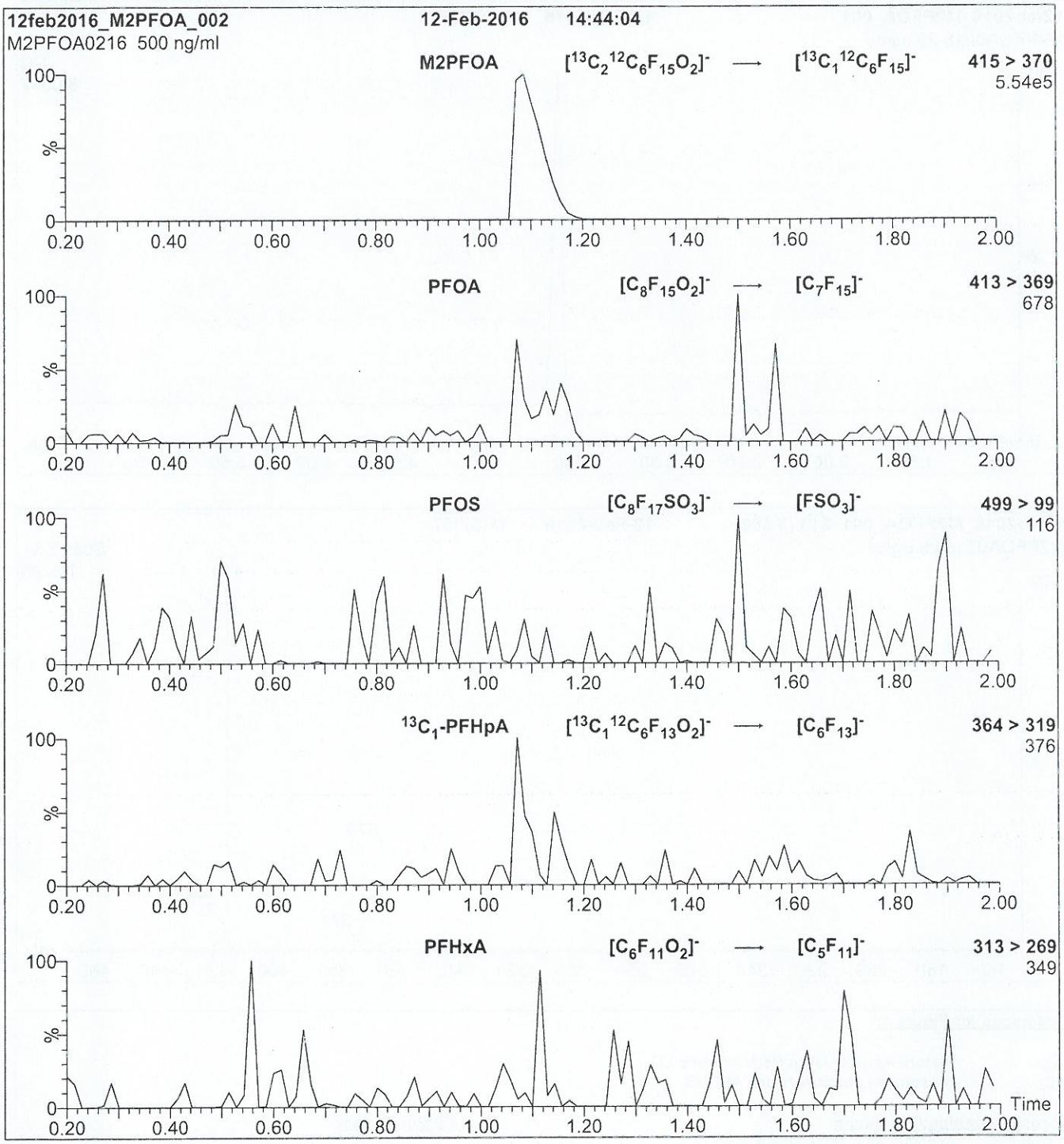
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17H2509

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% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

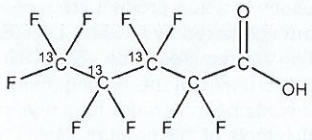
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

1701710

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 ($3,4,5$-$^{13}C_3$)
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

1717510

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:

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:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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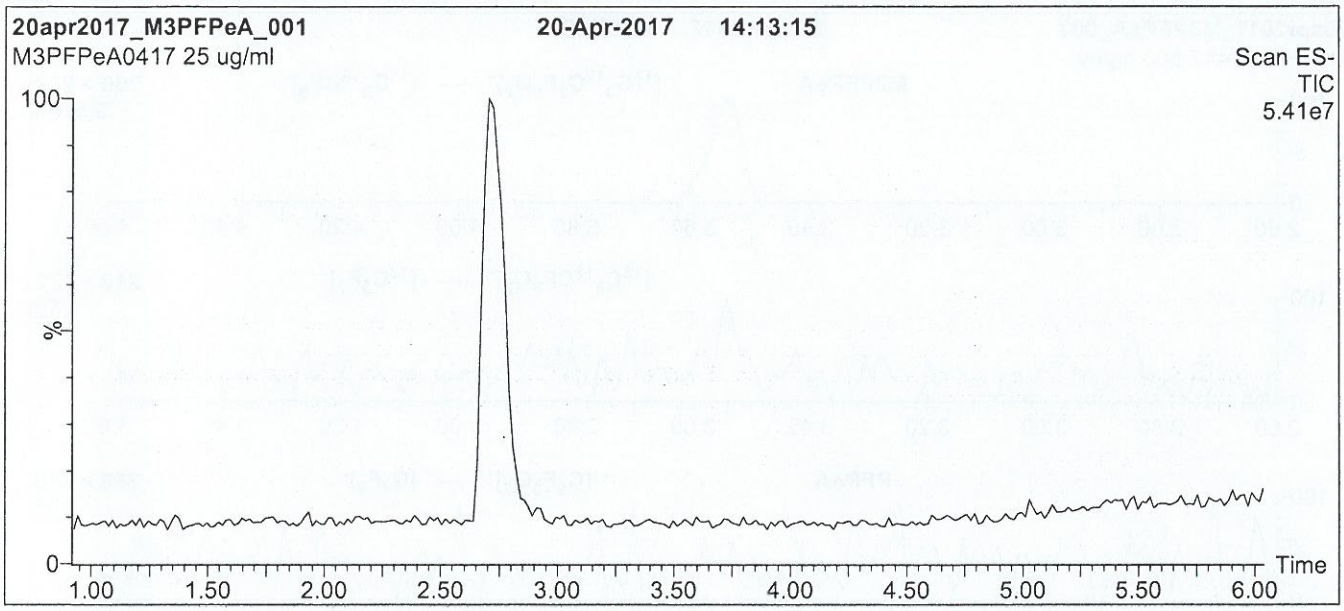
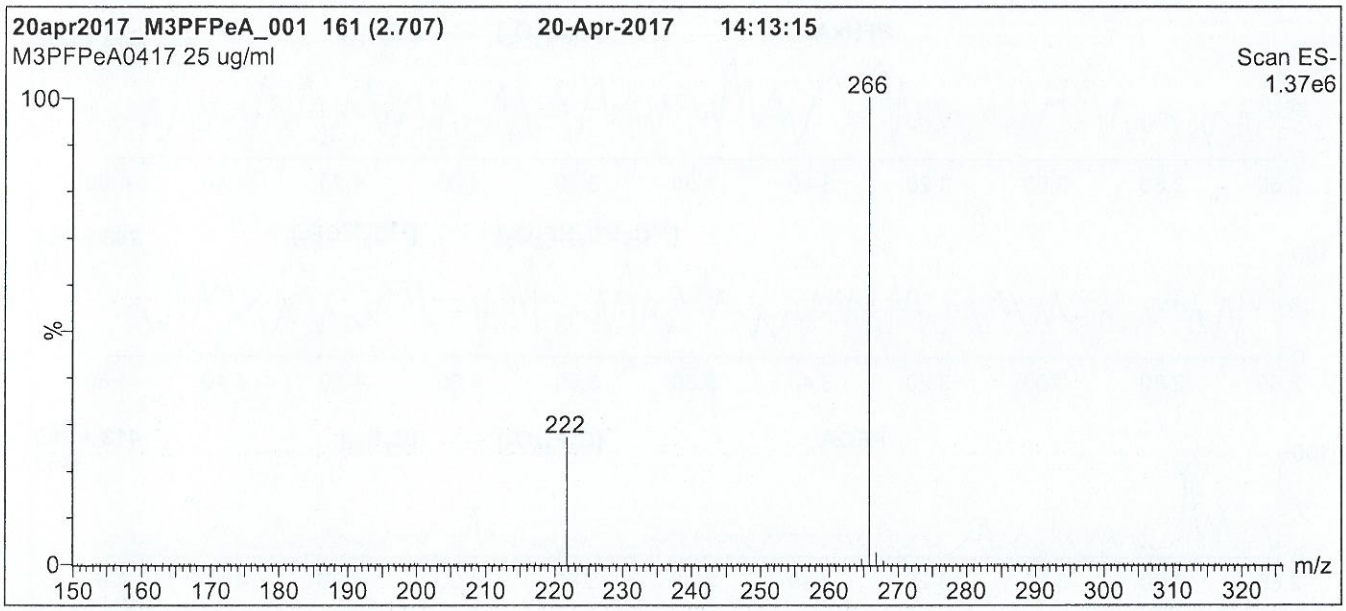
1712510

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

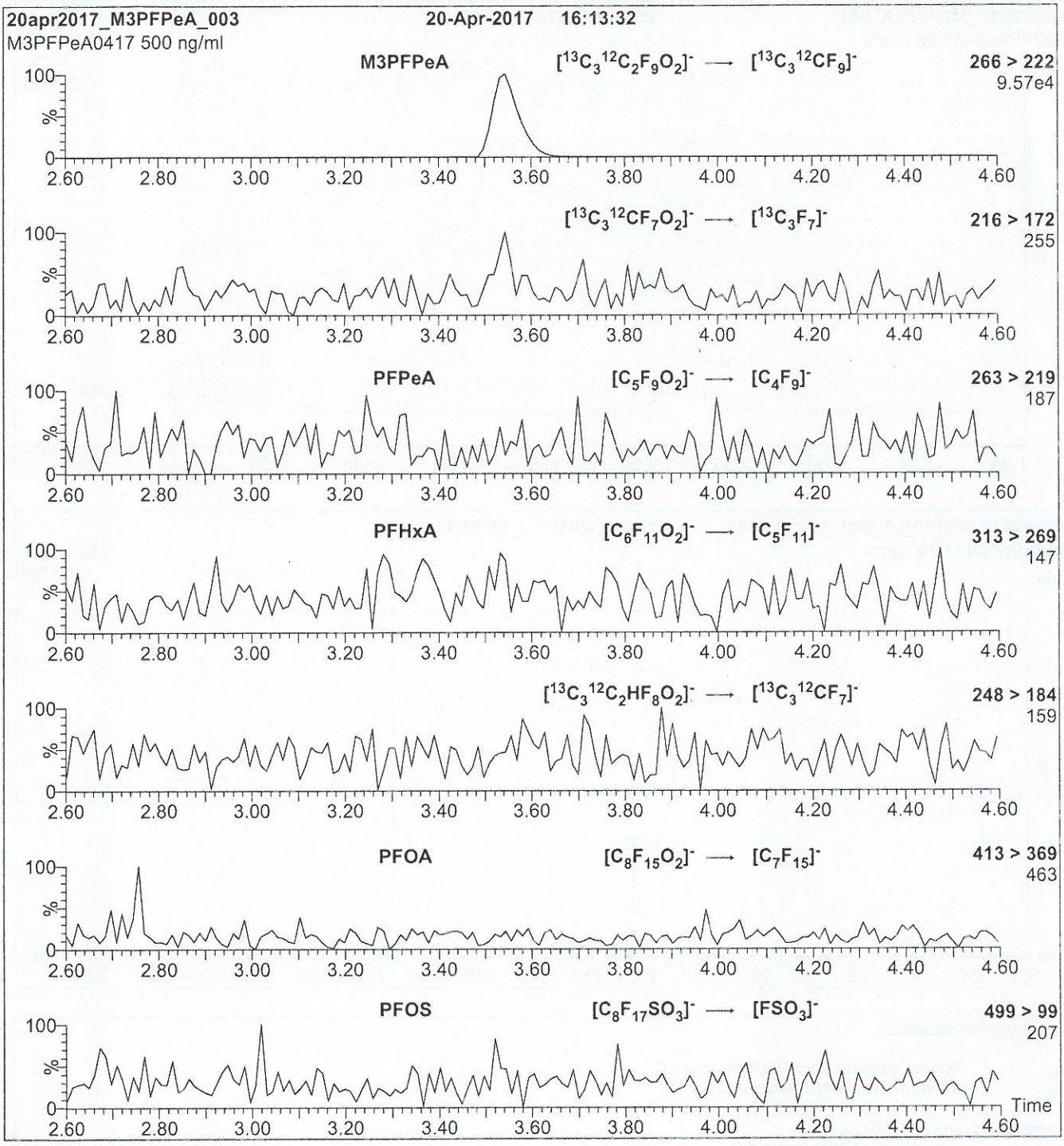
MS Parameters

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

17H2510

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

17K0802

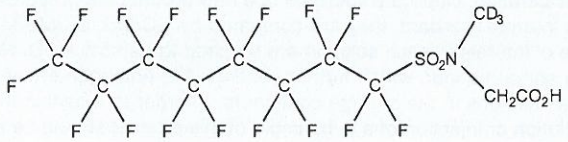
WELLINGTON LABORATORIES

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

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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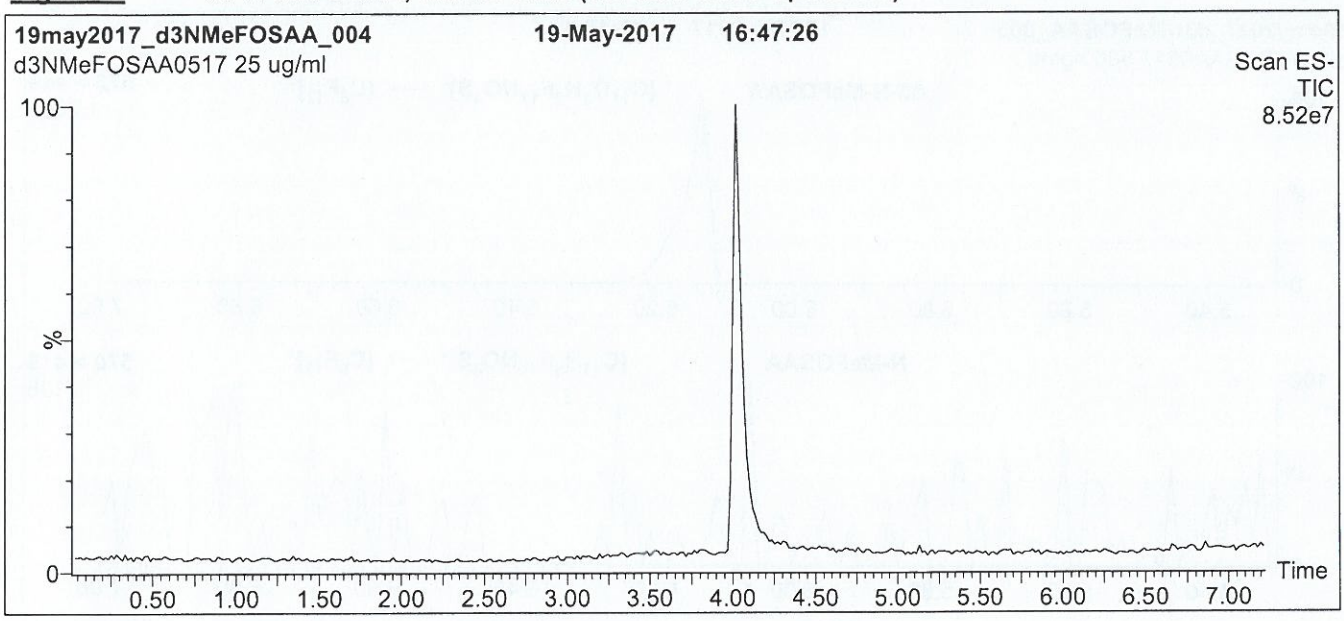
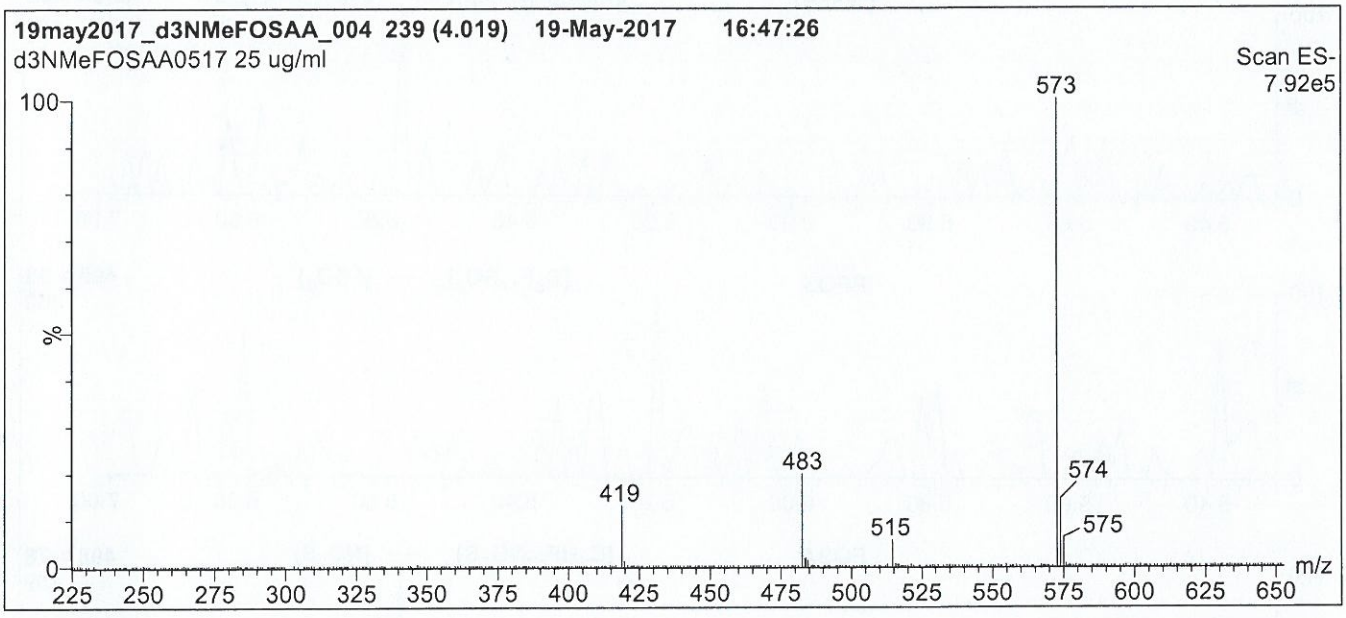
17K0802

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

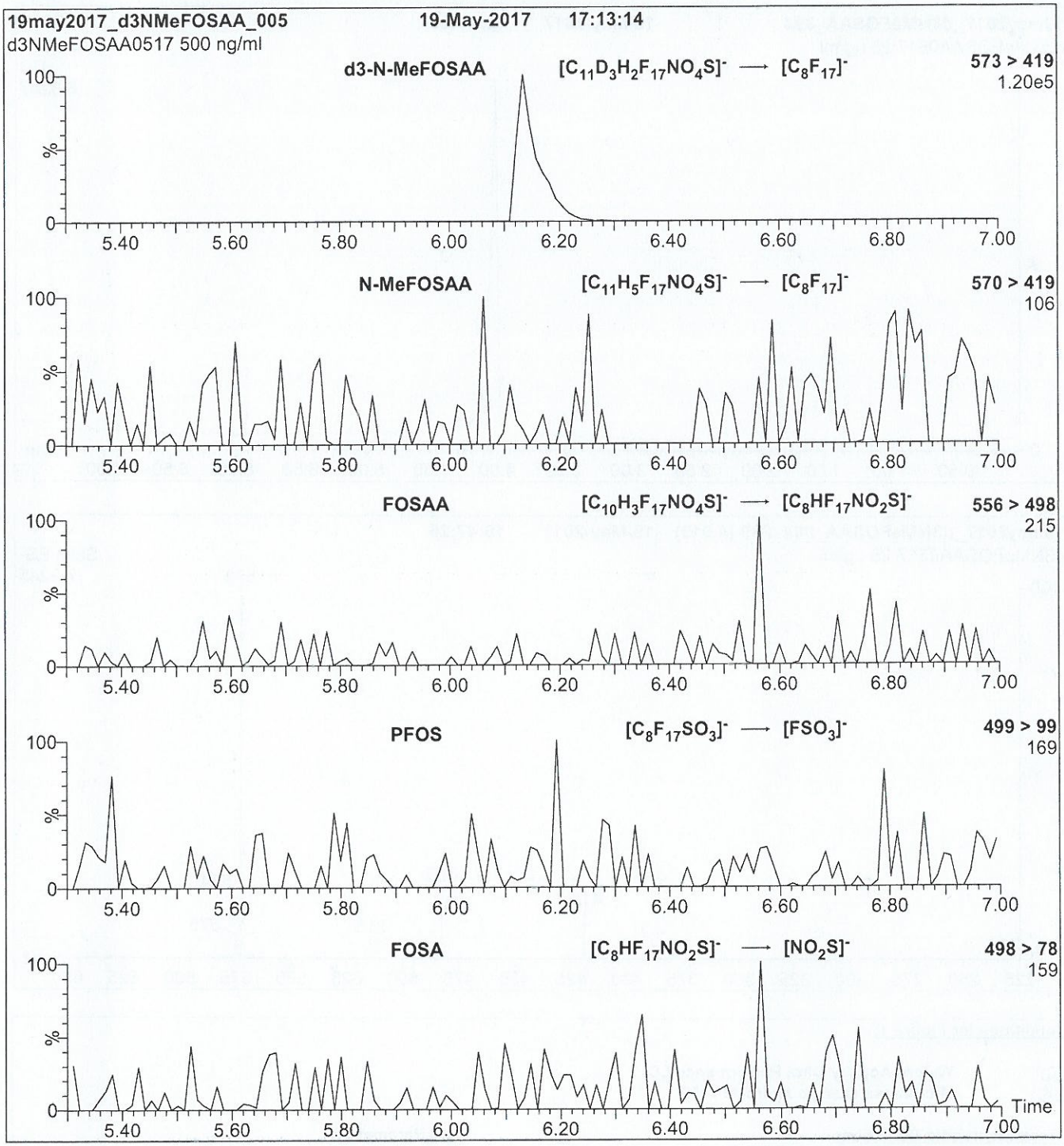
MS Parameters

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

17K0803

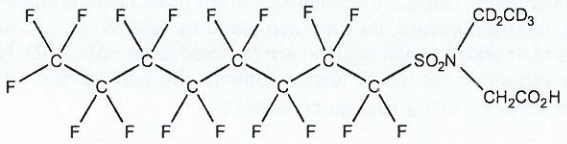
WELLINGTON LABORATORIES

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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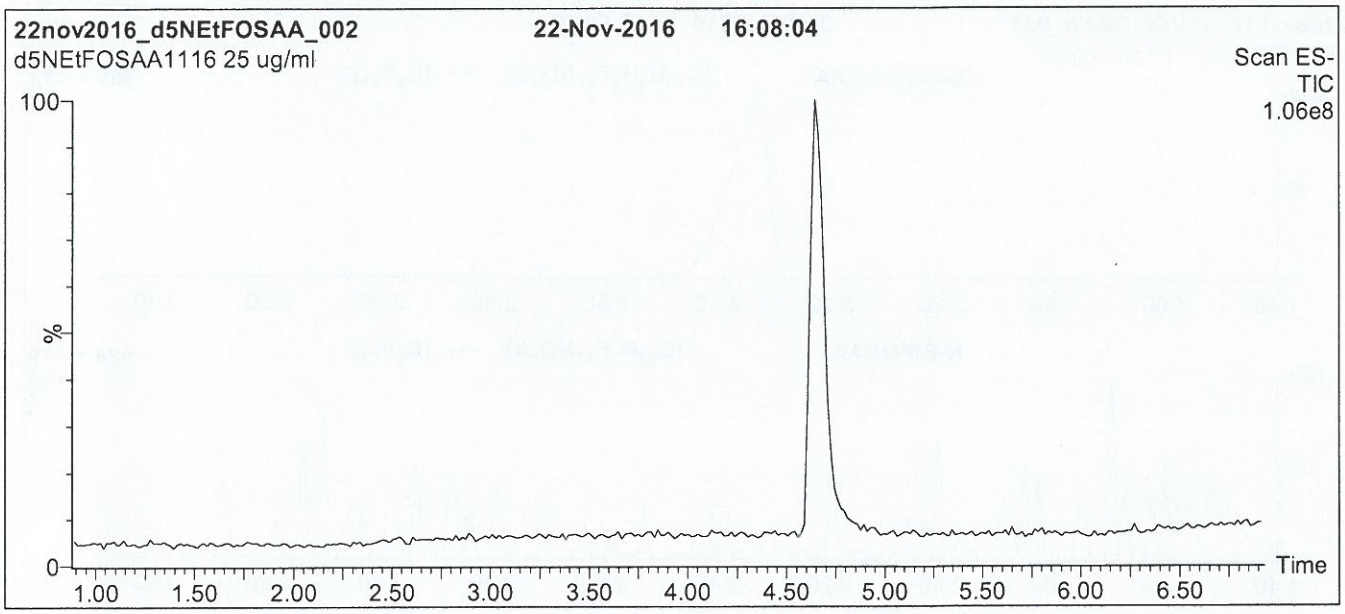
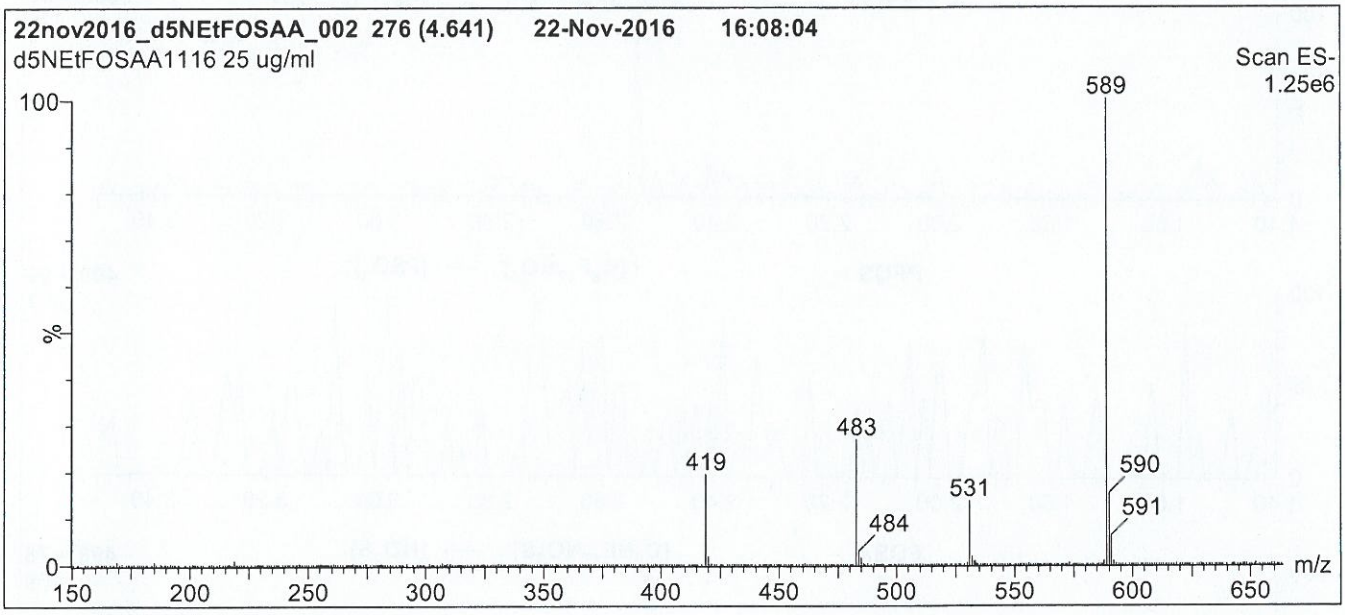
17K0803

Figure 1: **d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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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

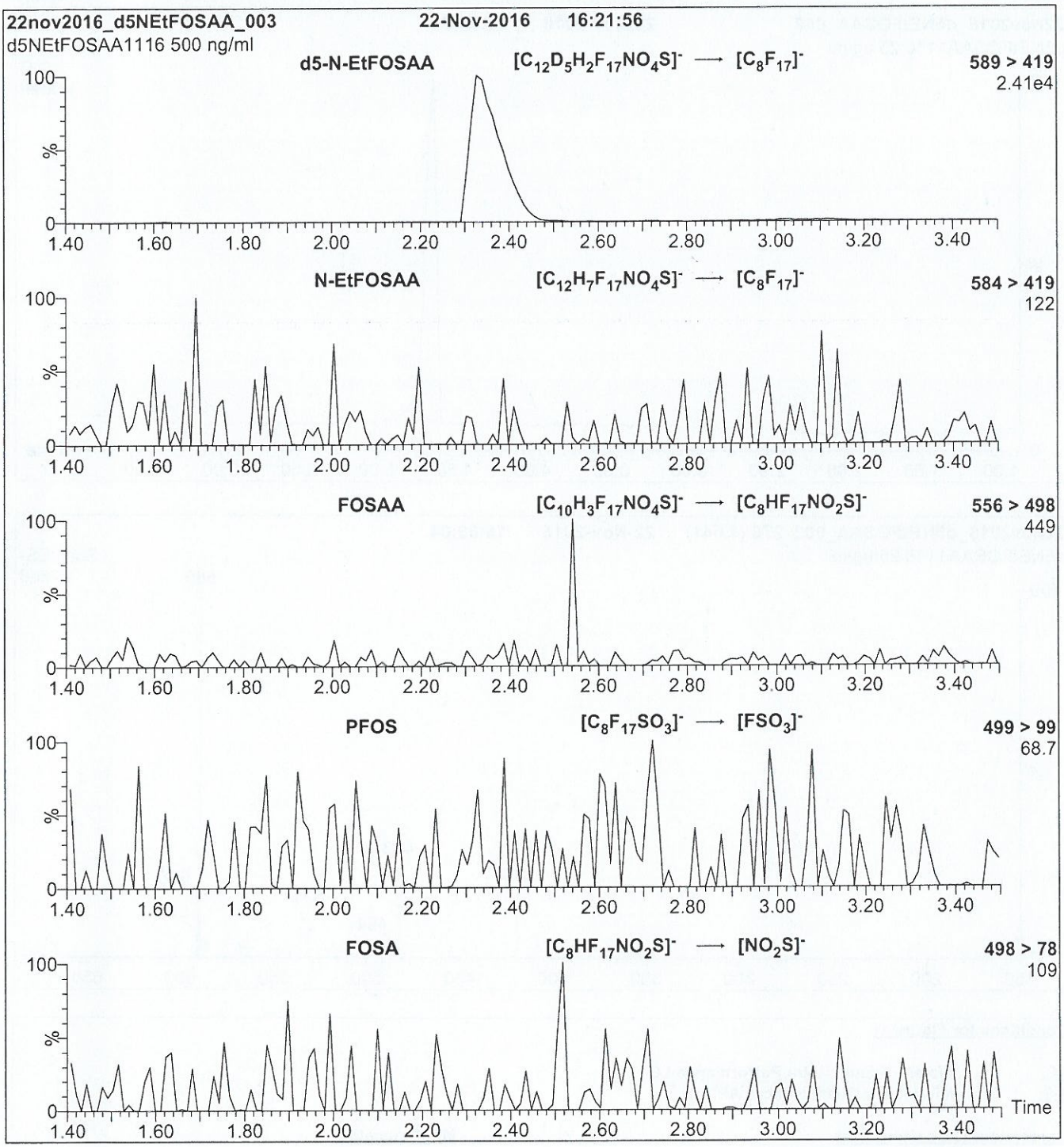
MS Parameters

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

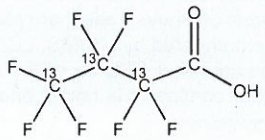
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 20

17K0804

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M3PFBA	**LOT NUMBER:**	M3PFBA0516
COMPOUND:	Perfluoro-n-[2,3,4-$^{13}C_3$]butanoic acid		
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: _____ **Date:** 07/08/2016 (mm/dd/yyyy)
B.G. Chittim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0804

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:

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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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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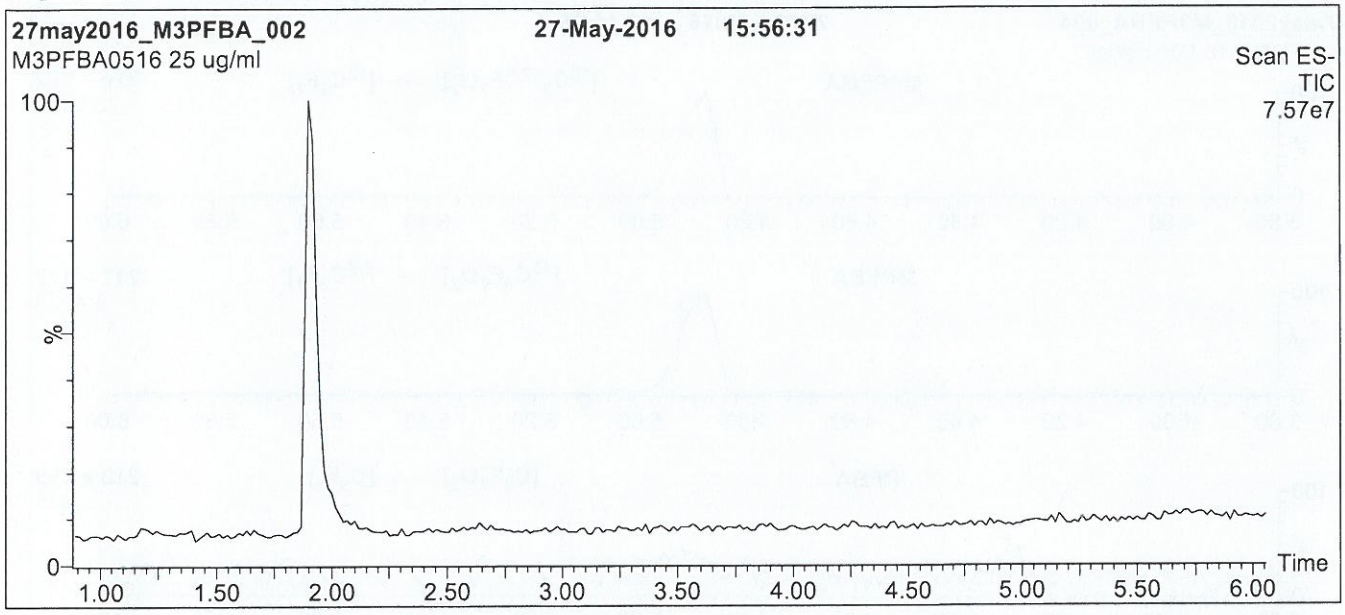
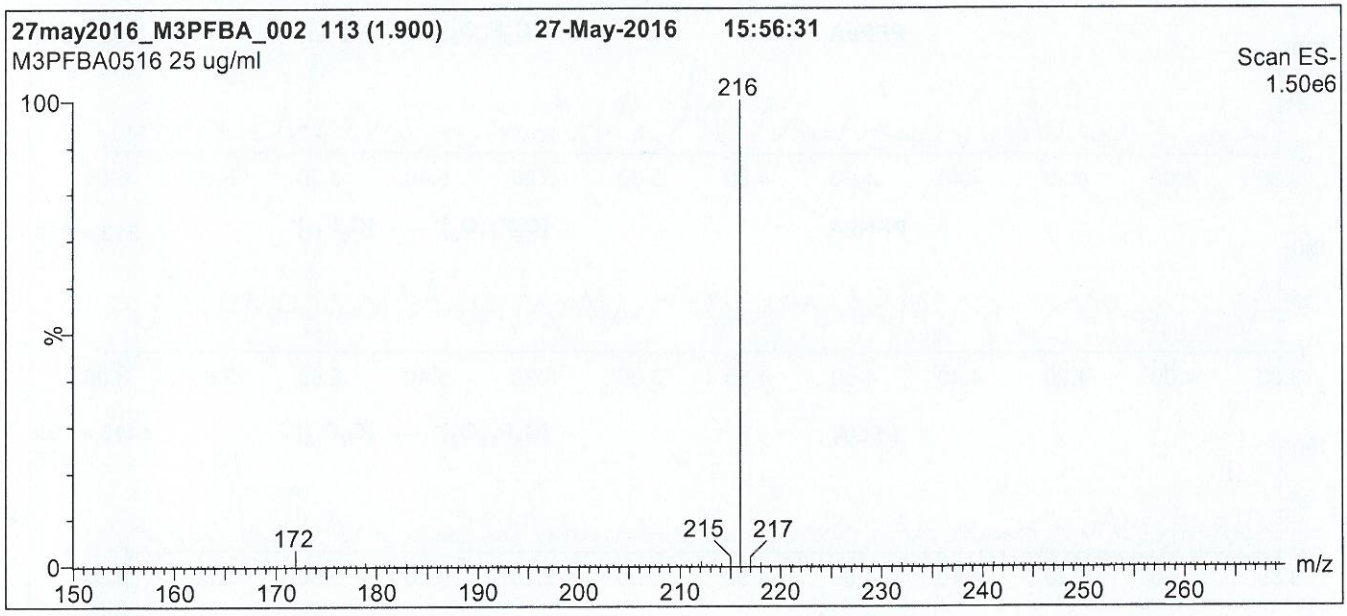
17K0804

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

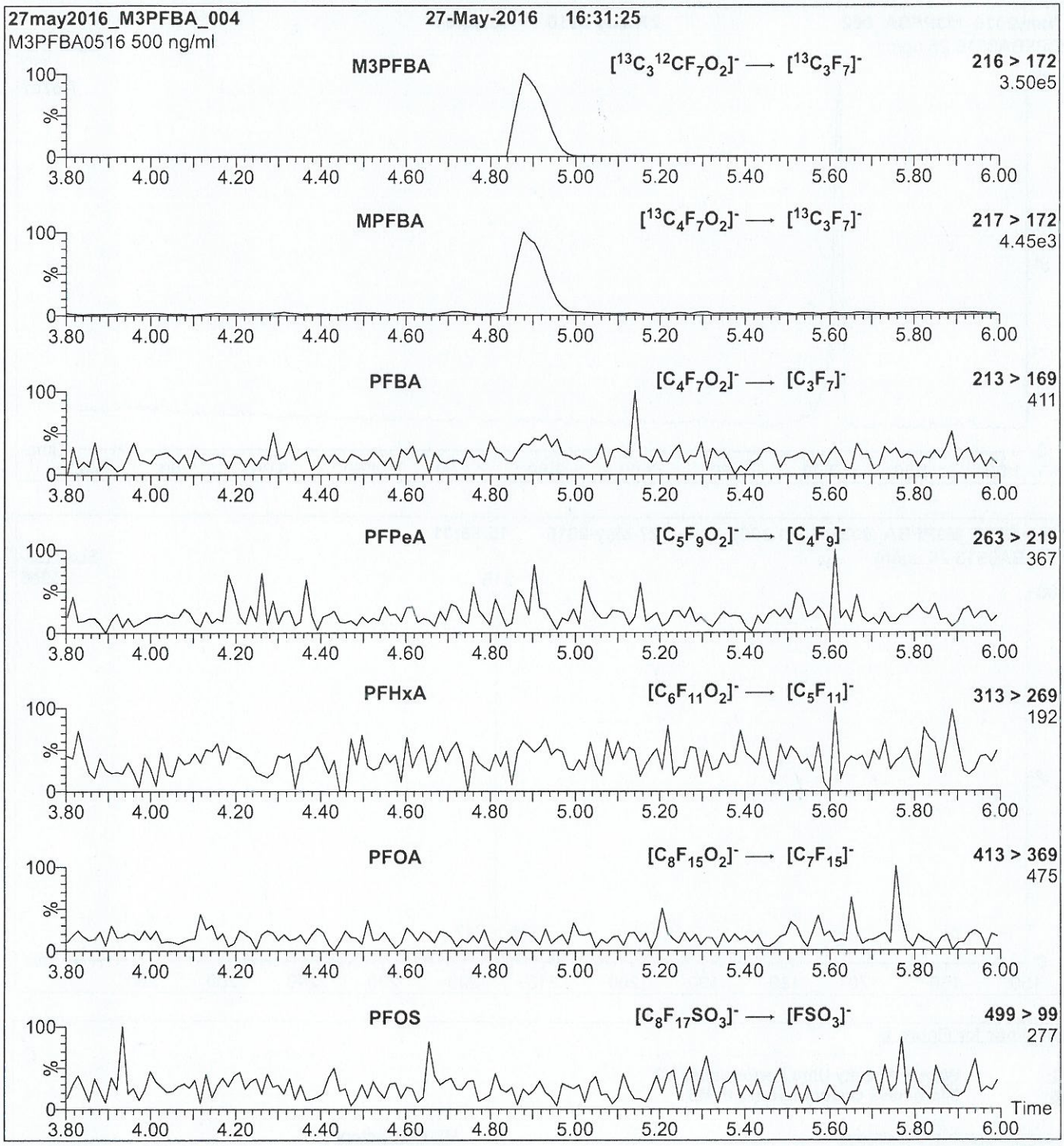
MS Parameters

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

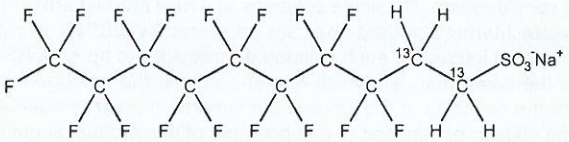
WELLINGTON LABORATORIES

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

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UNCERTAINTY:

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CALA Testing Accreditation No. A 1226

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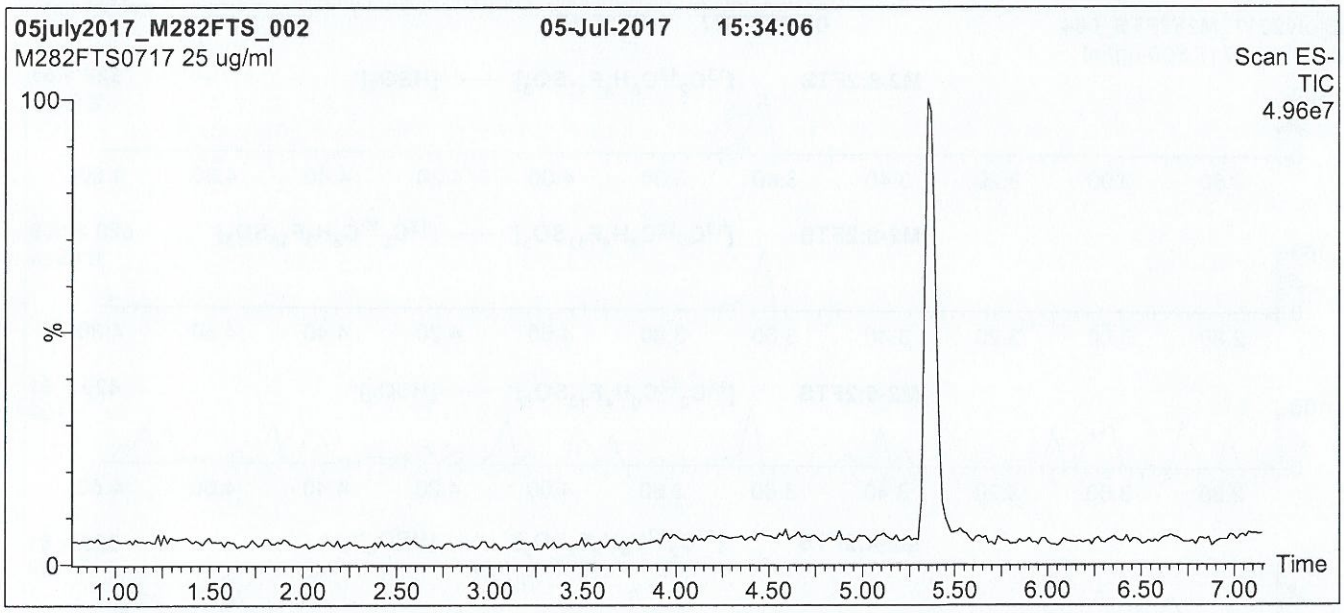
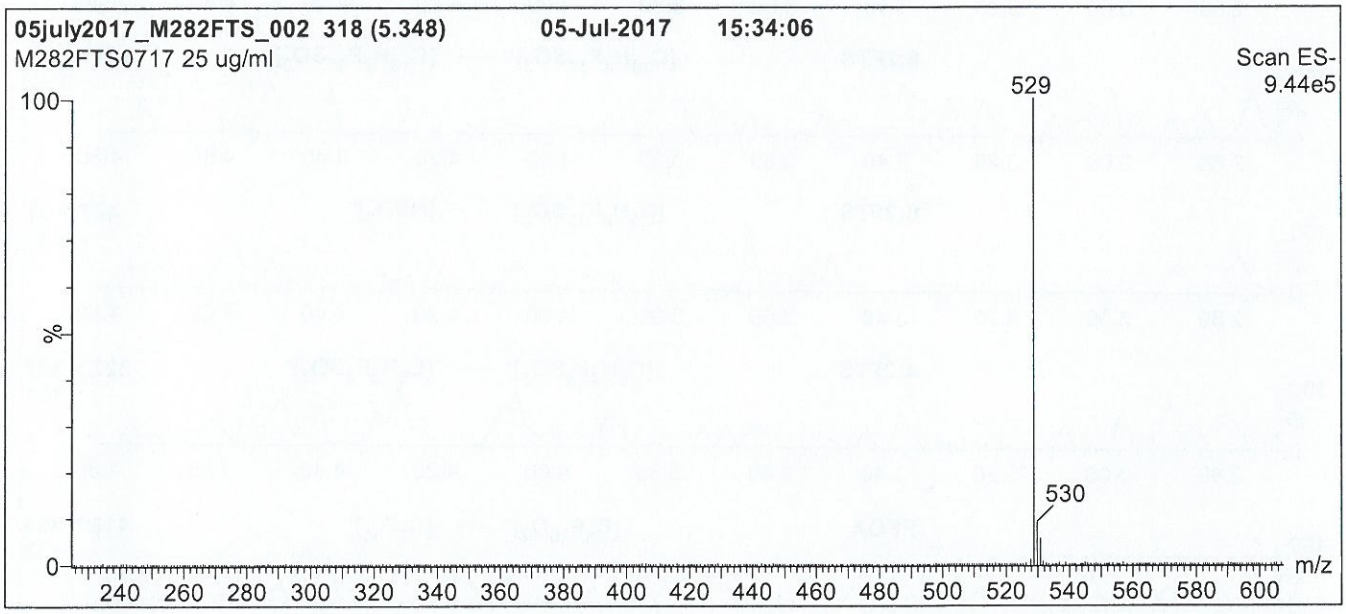
17K0805

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**

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1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
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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

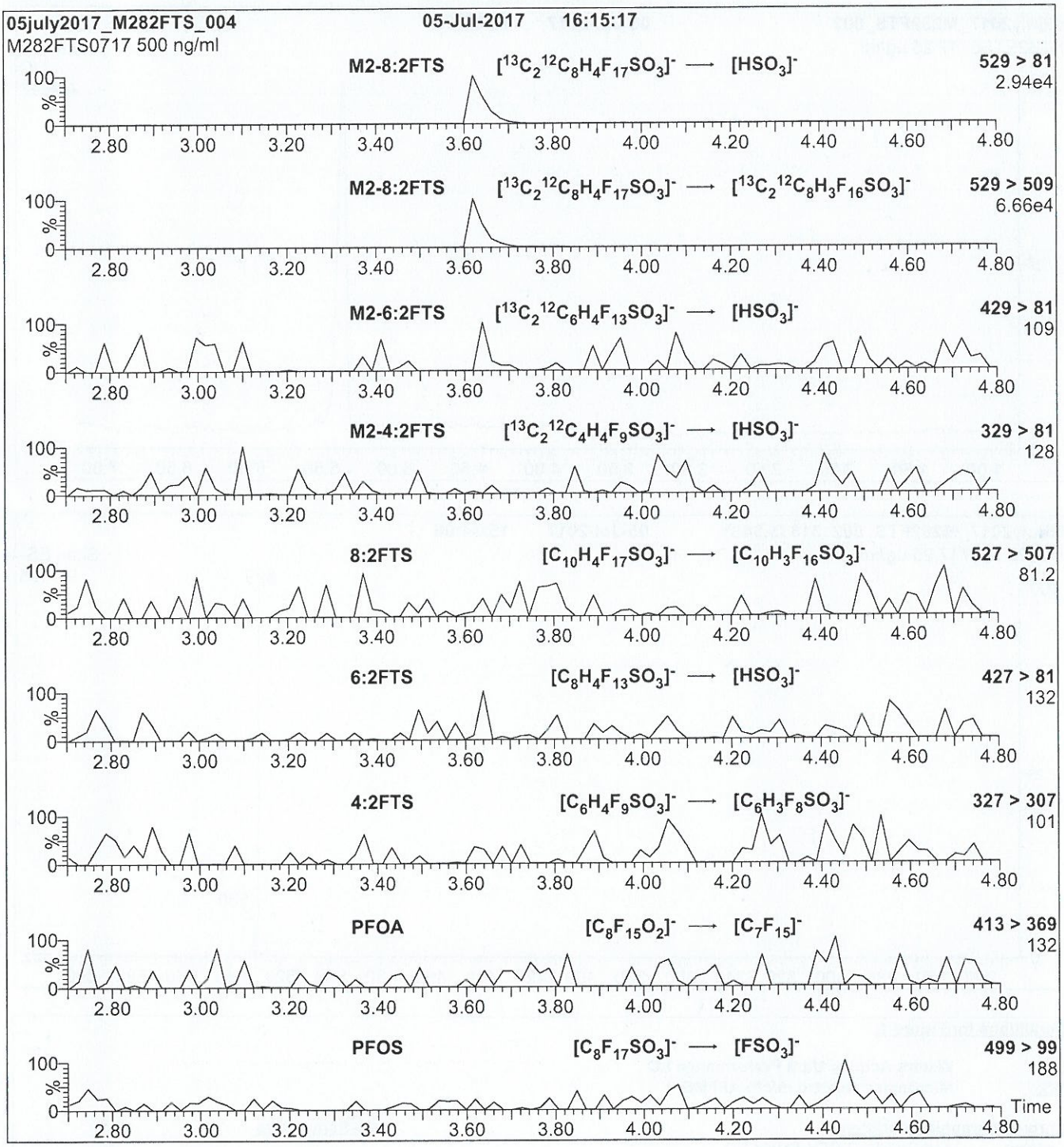
MS Parameters

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

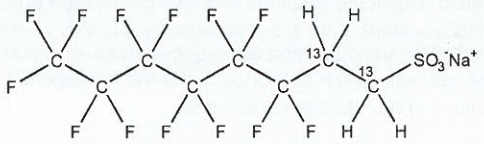
WELLINGTON LABORATORIES

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).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/24/2017 (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

17K0807

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).

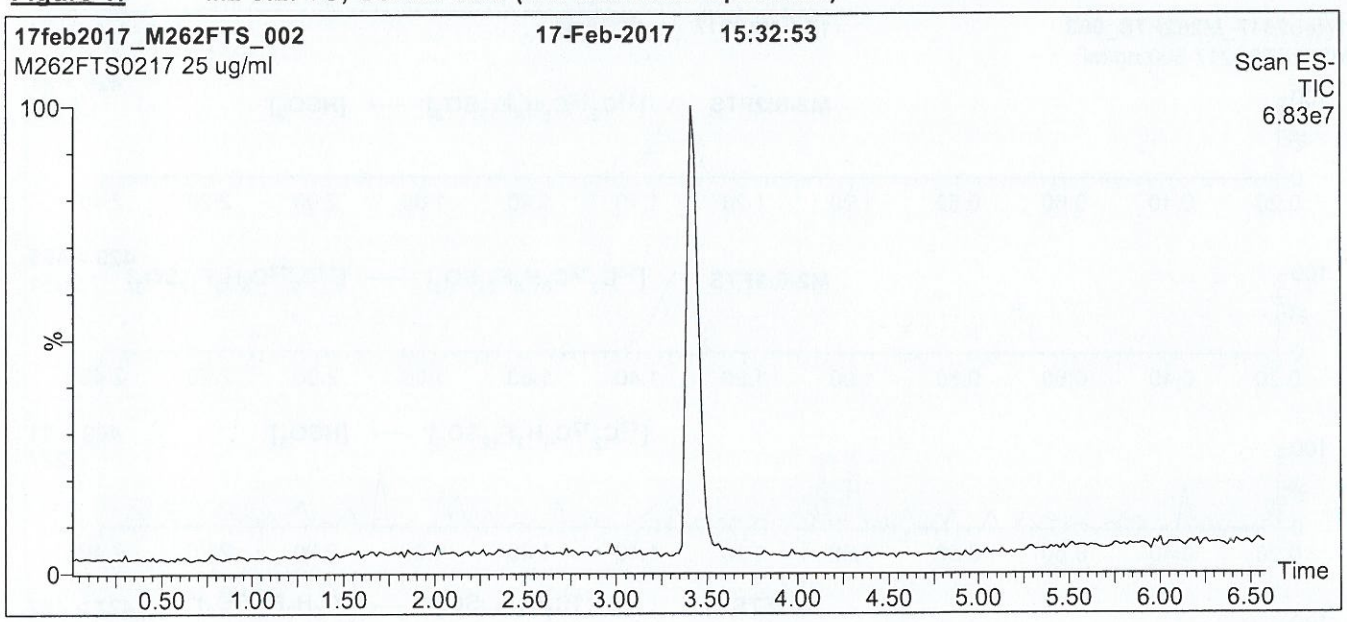
CALA Testing Accreditation No. A 1226

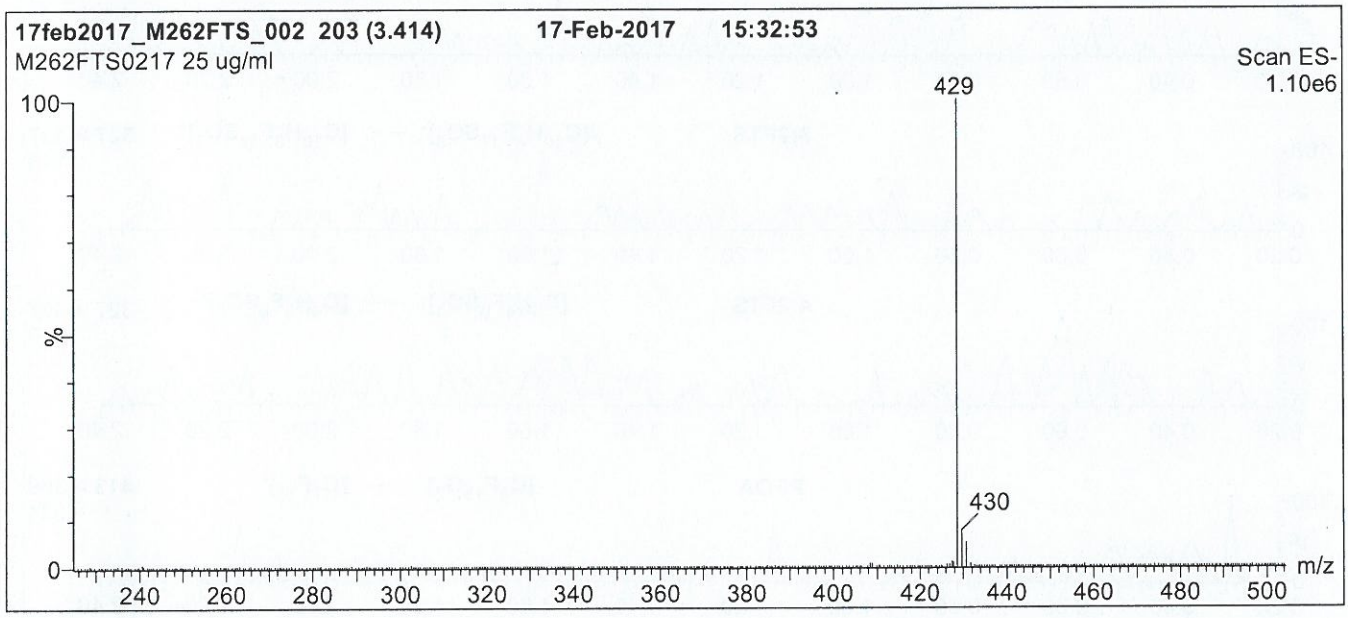
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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

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

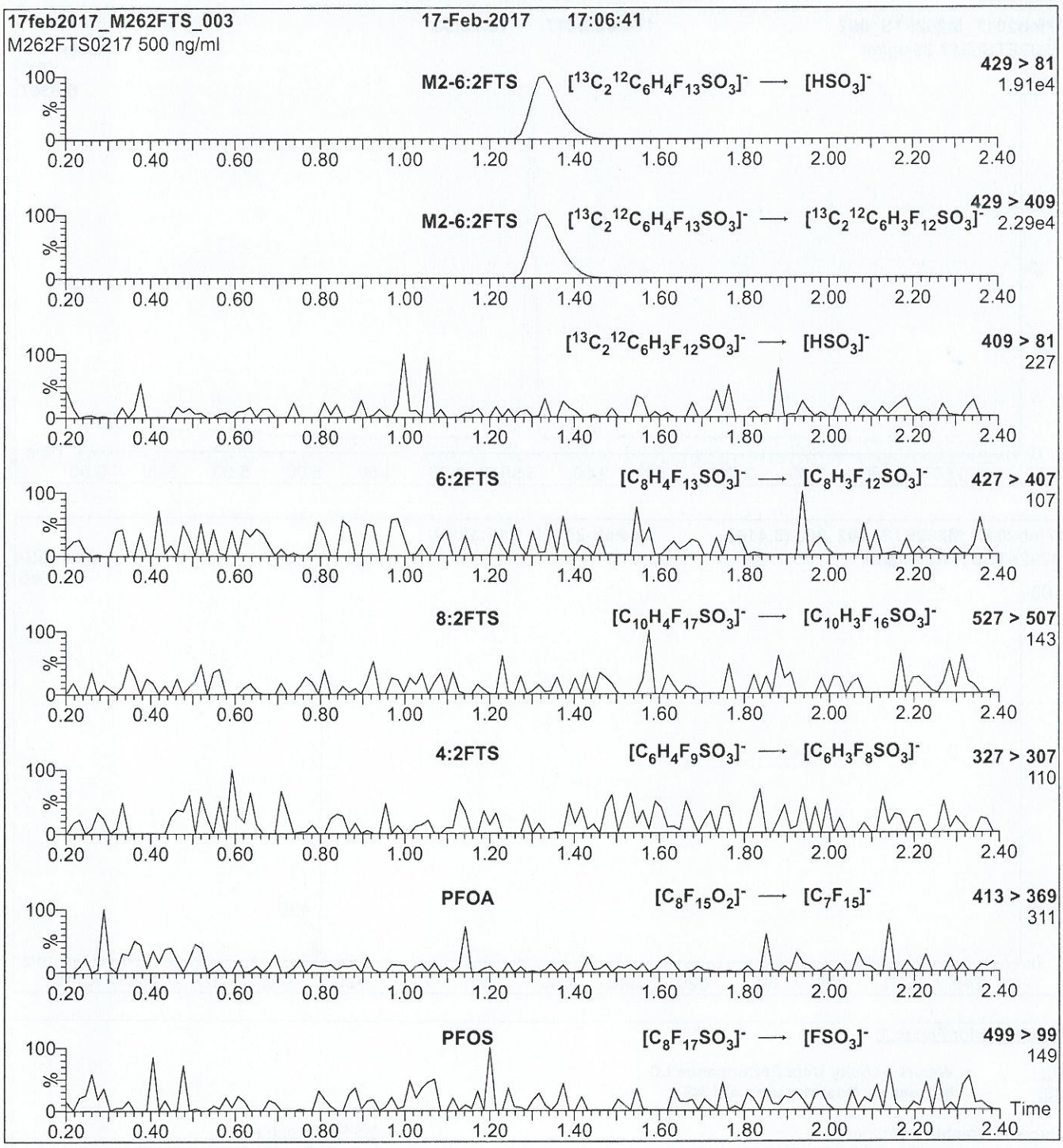
MS Parameters

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

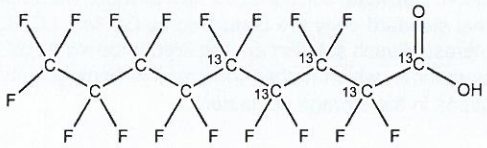
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 25

17K0810

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFNA	**LOT NUMBER:**	MPFNA0916
COMPOUND:	Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid		
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: 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

17K0810

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 Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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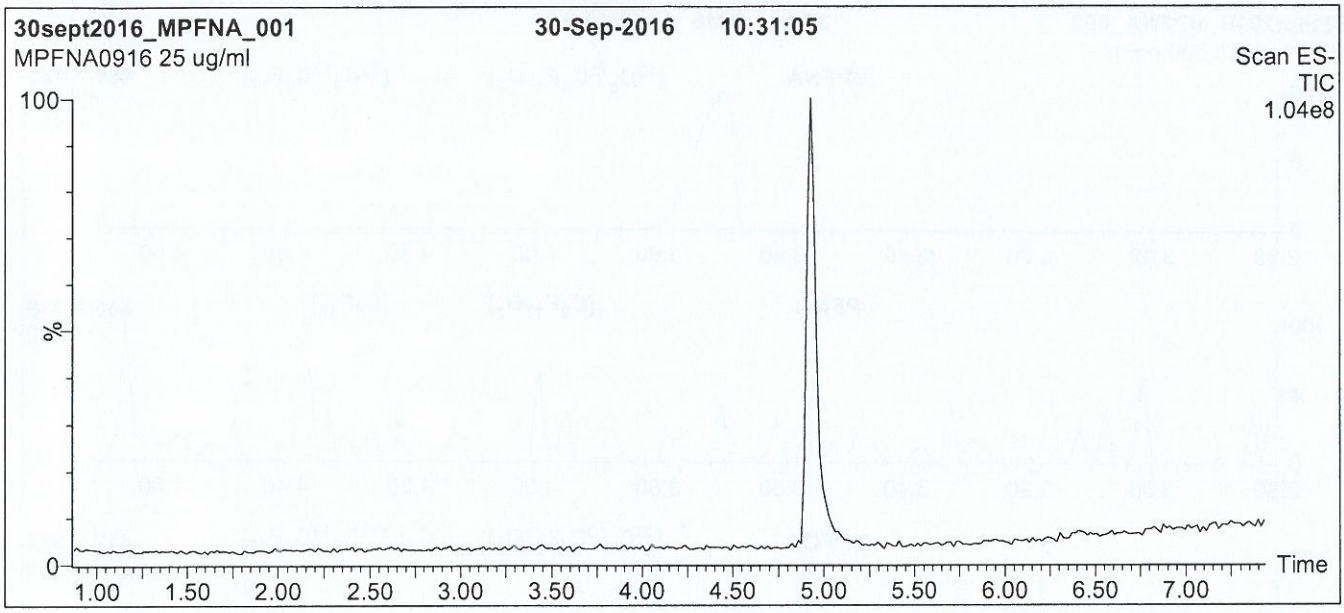
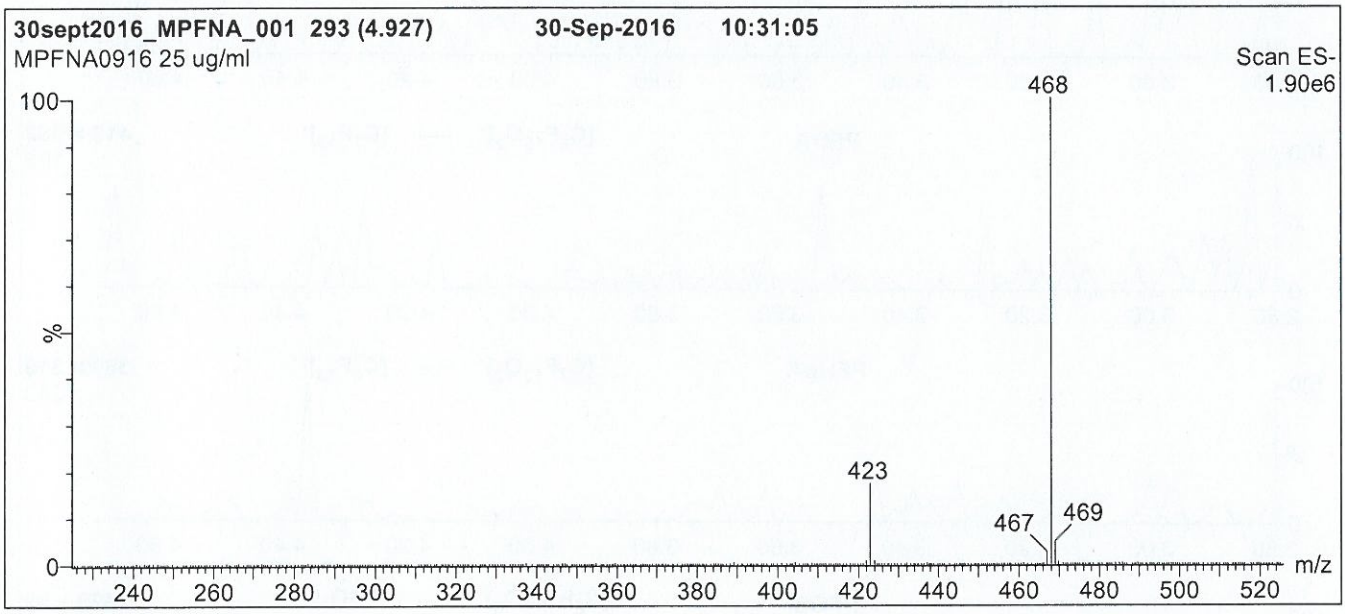
17K0810

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

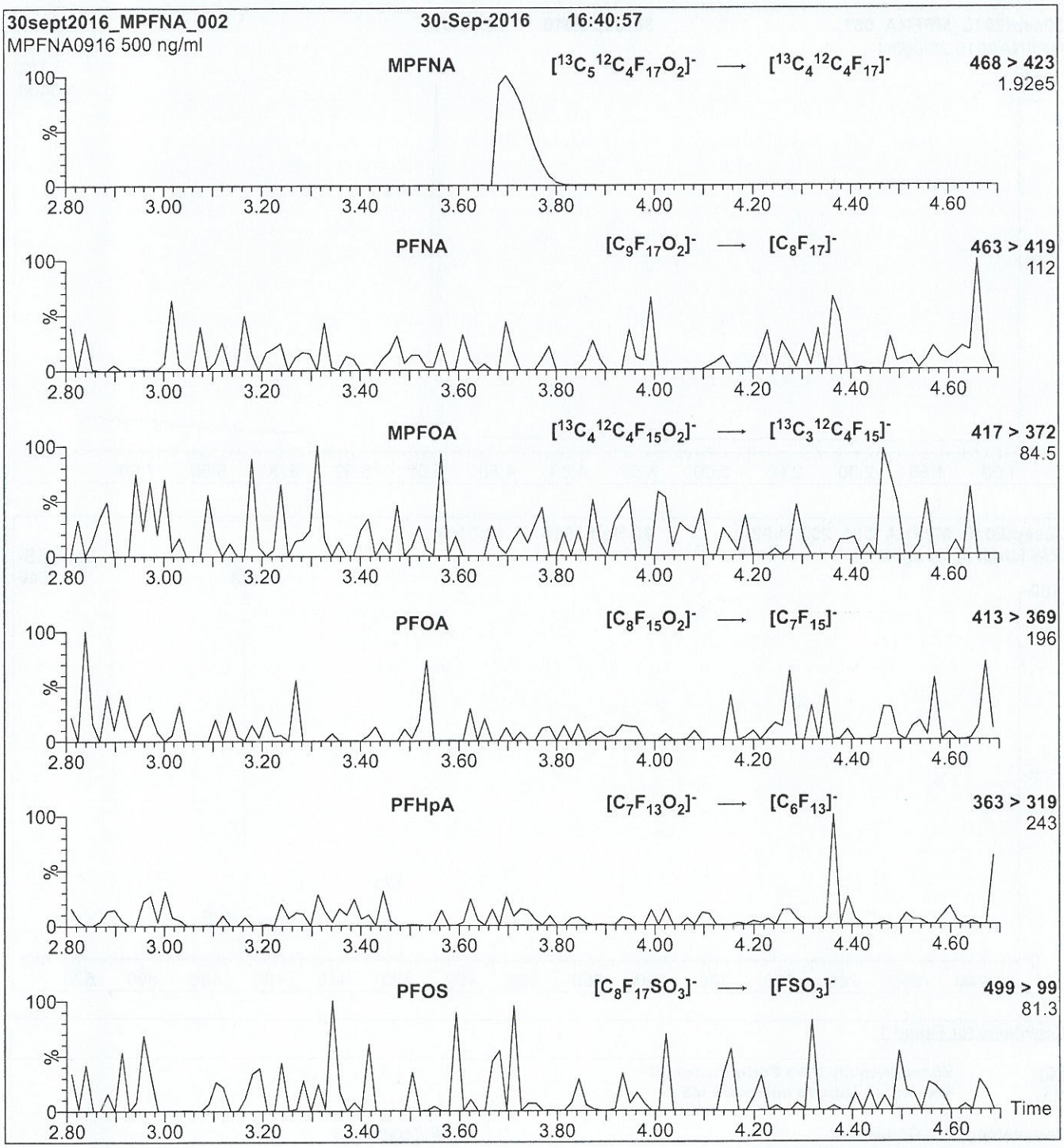
MS Parameters

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

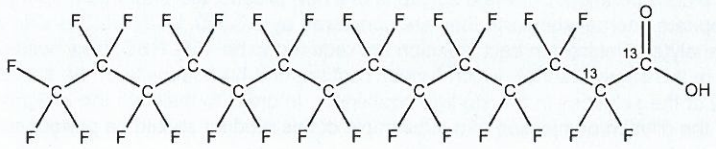
17K0812

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFTeDA
LOT NUMBER: M2PFTeDA0217
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

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

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:** 03/07/2017 (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

17K0812

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.

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.

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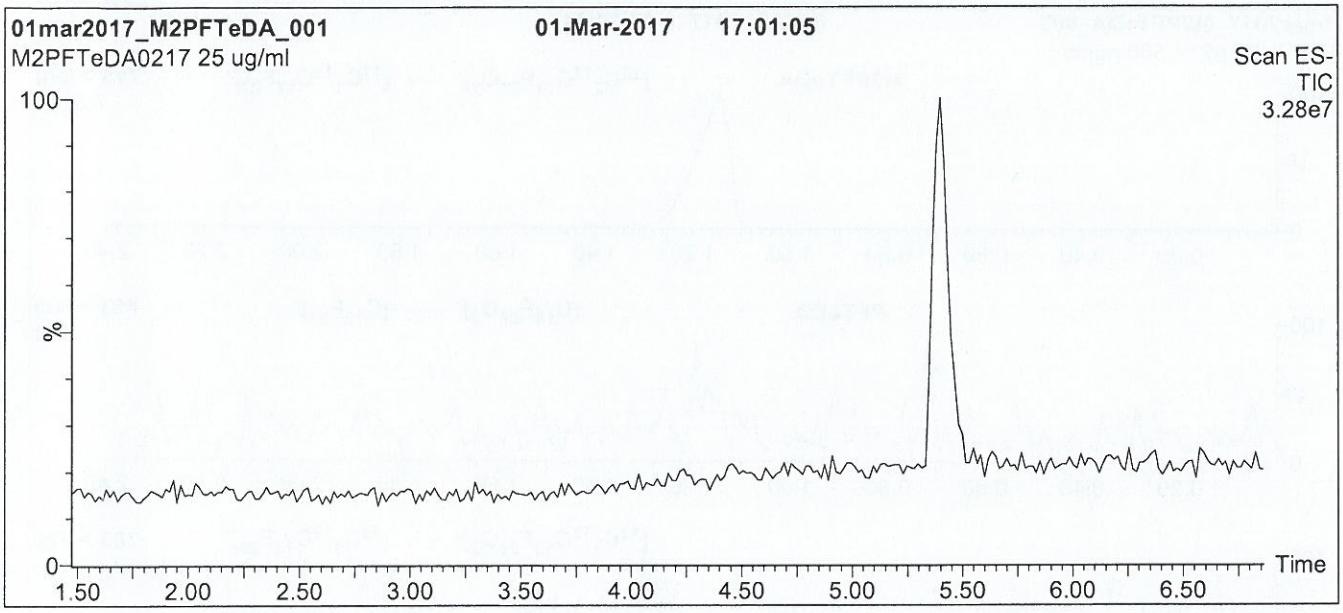
CALA Testing Accreditation No. A 1226

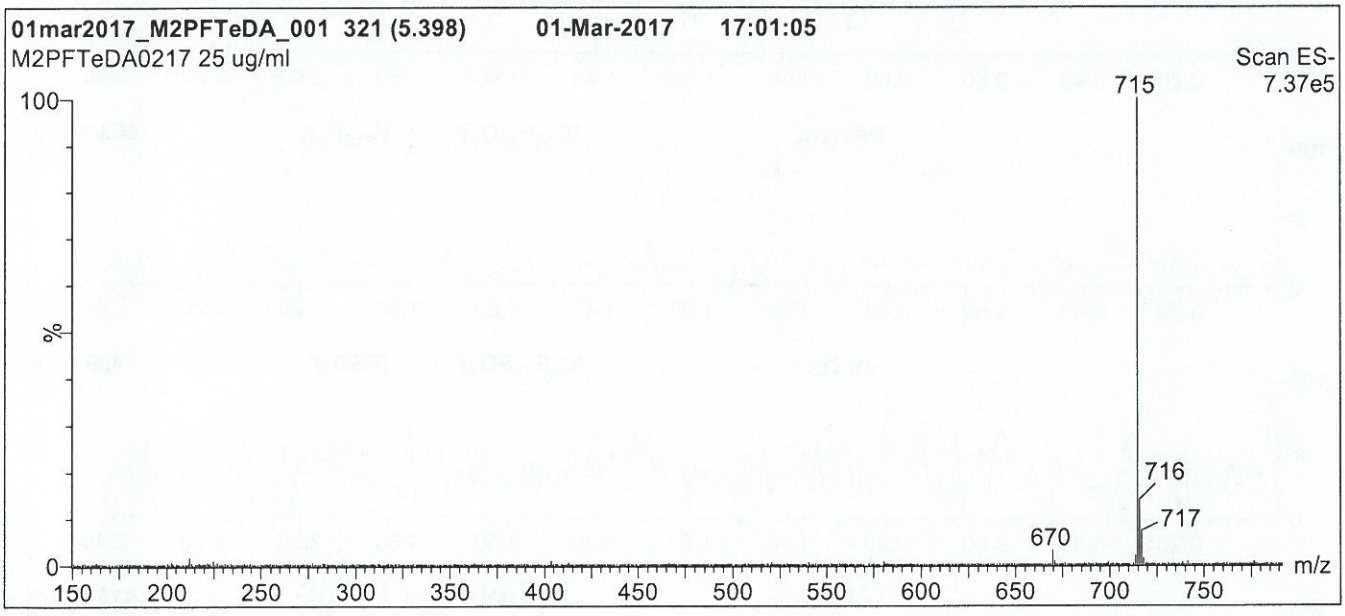
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

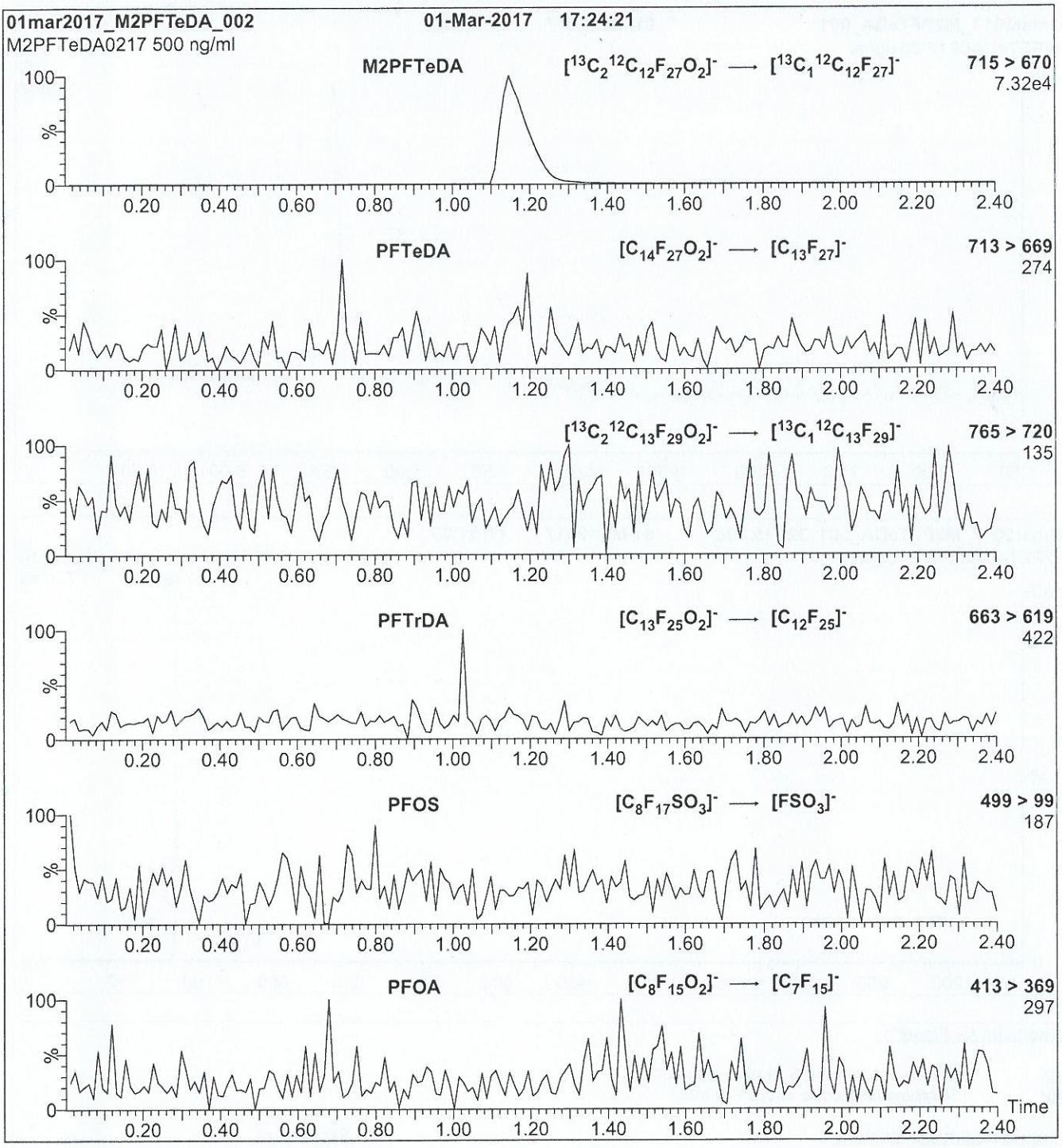
MS Parameters

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

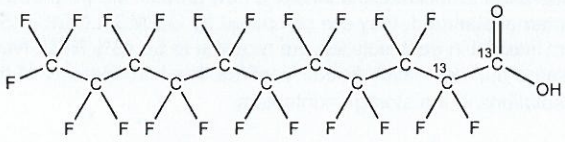
Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 14

17K0813

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFUdA	**LOT NUMBER:**	MPFUdA1116
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid		
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:

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).

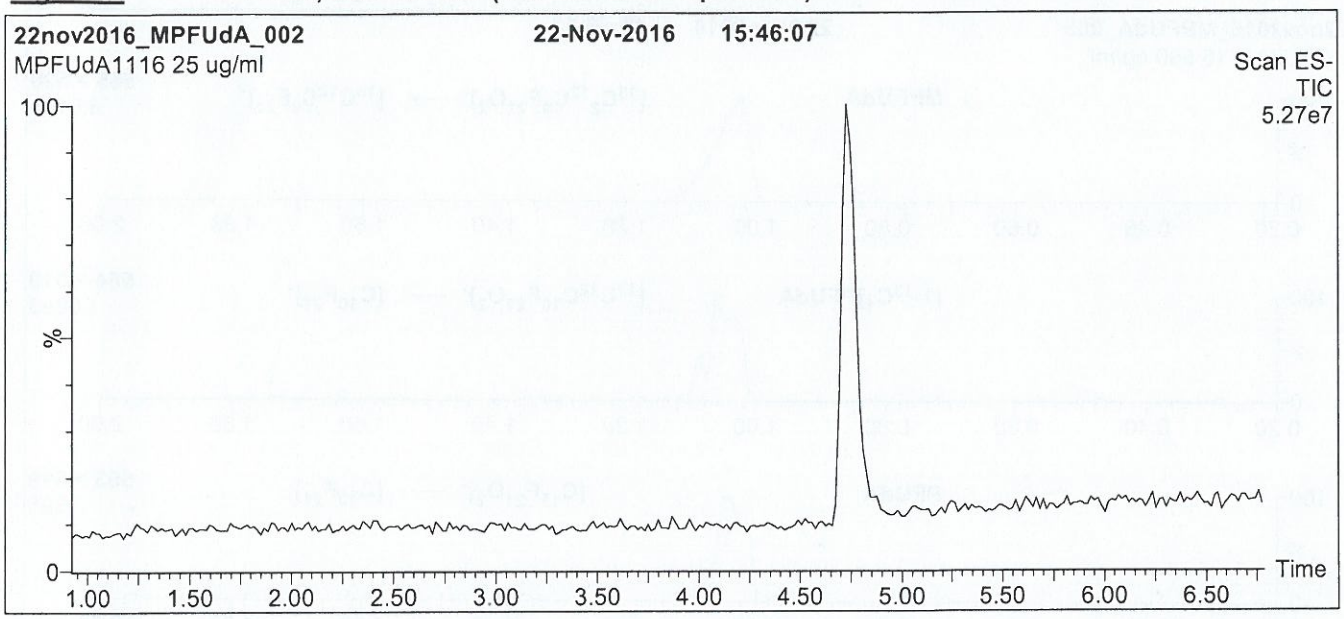
CALA Testing Accreditation No. A1226

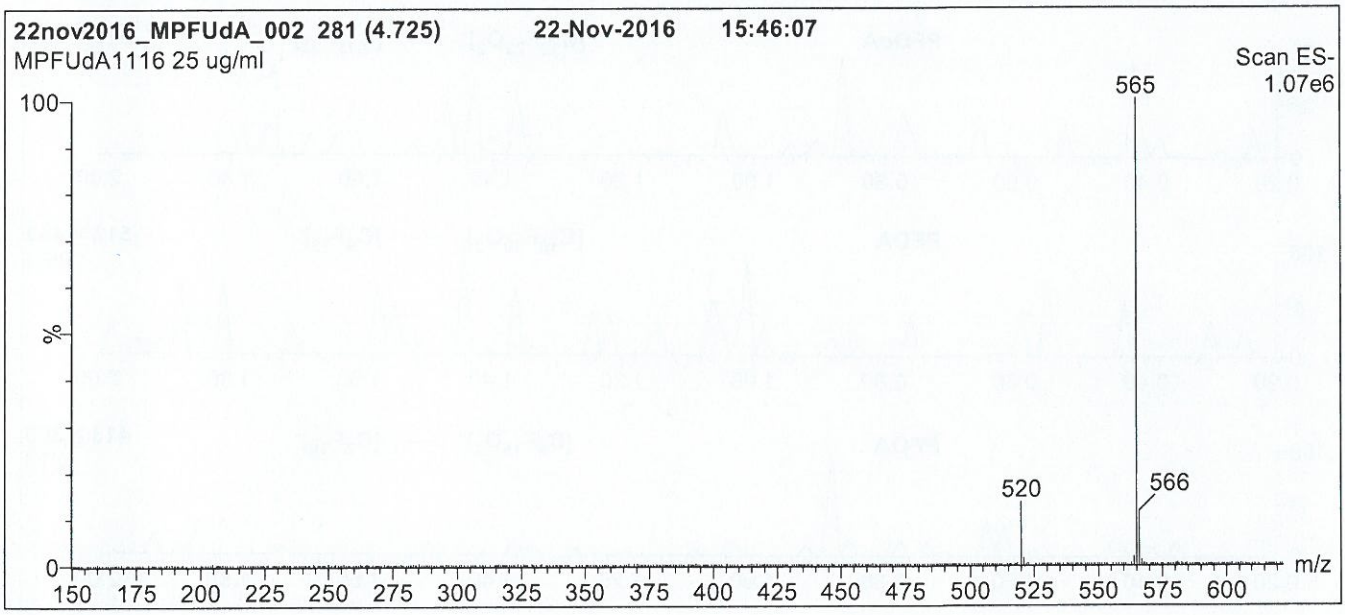
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

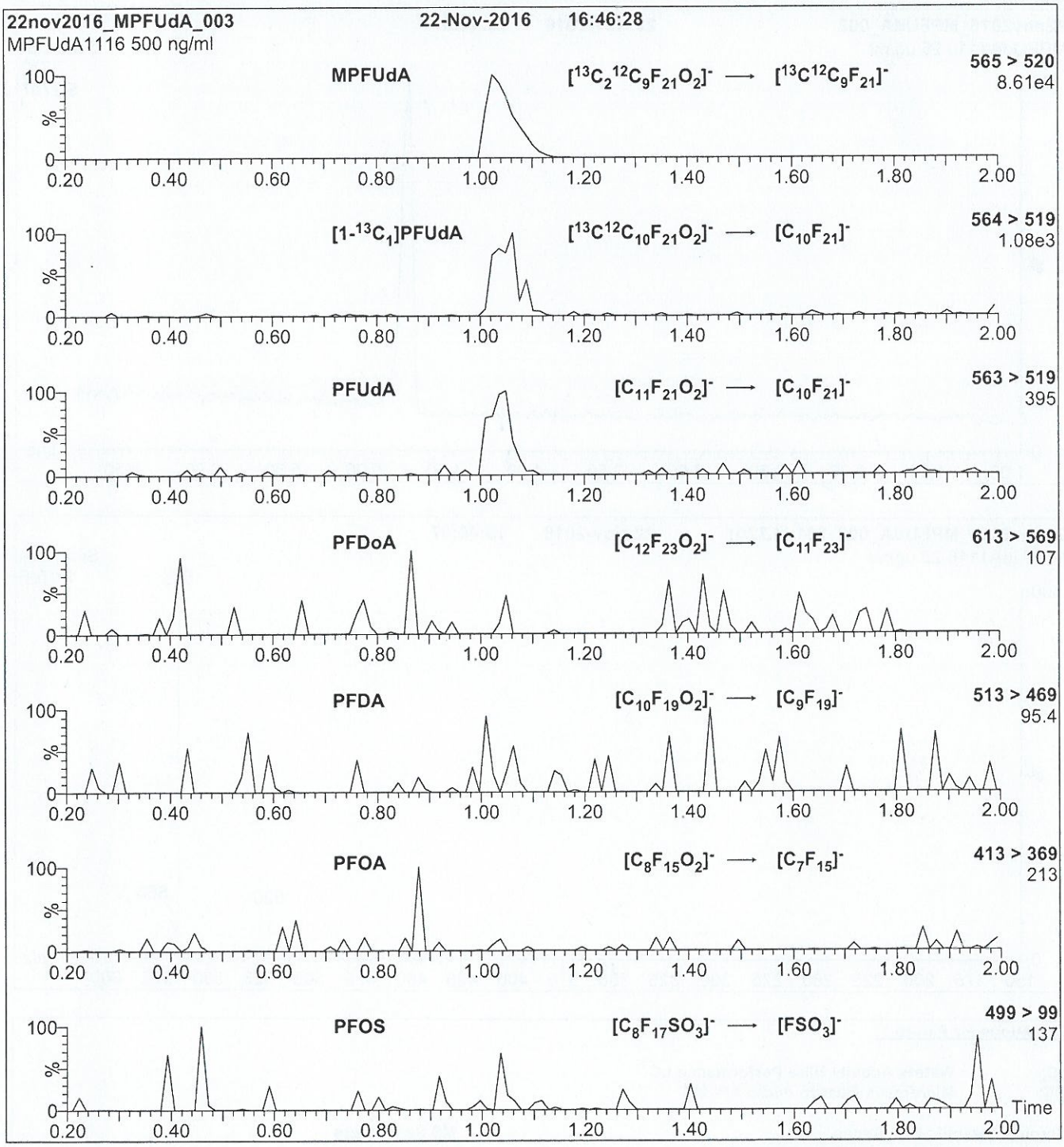
MS Parameters

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

WELLINGTON LABORATORIES

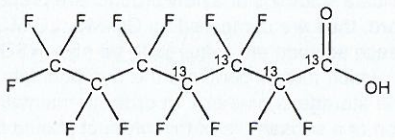
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4PFHpA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid

LOT NUMBER: M4PFHpA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_3HF_{13}O_2$	**MOLECULAR WEIGHT:**	368.03
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)	05/03/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/03/2022		
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:** 05/11/2017 (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.

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. 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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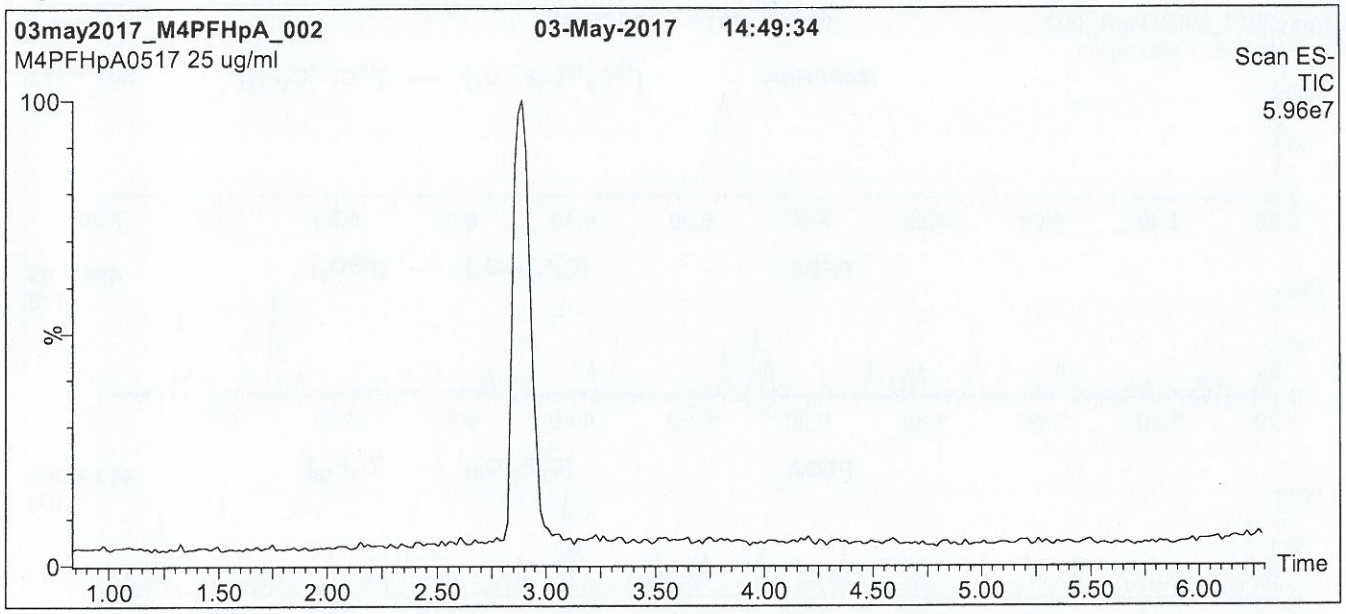
CALA Testing Accreditation No. A 1226

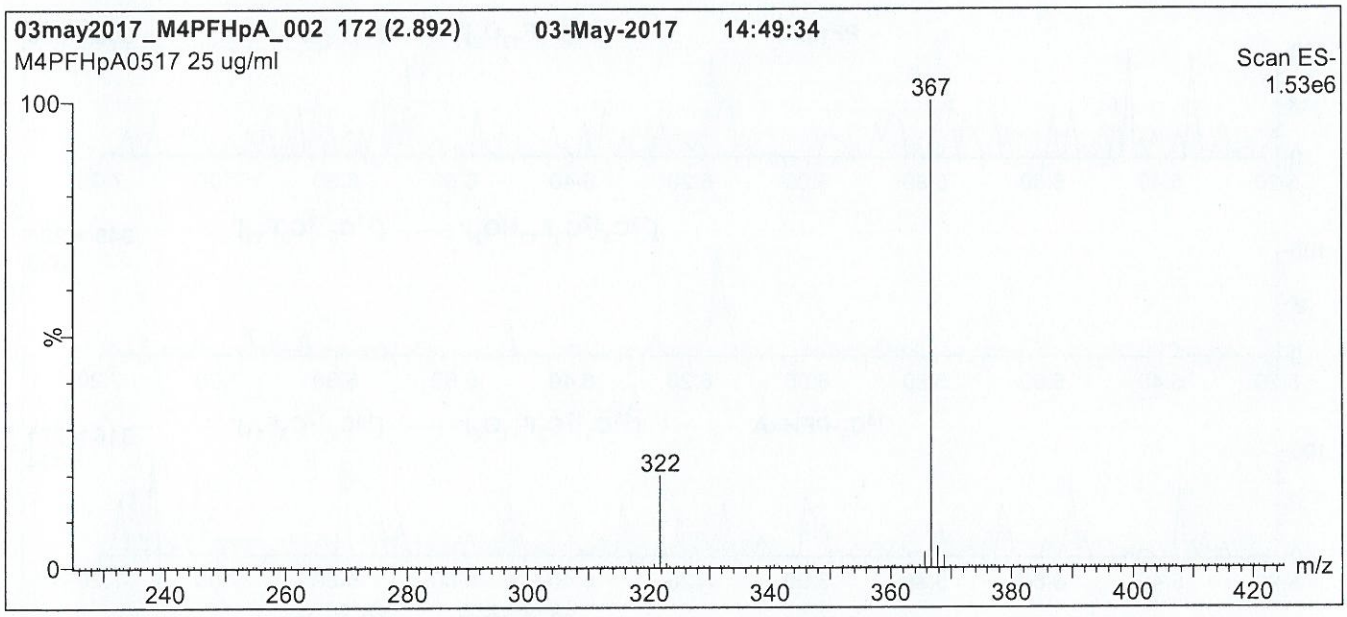
ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

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

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

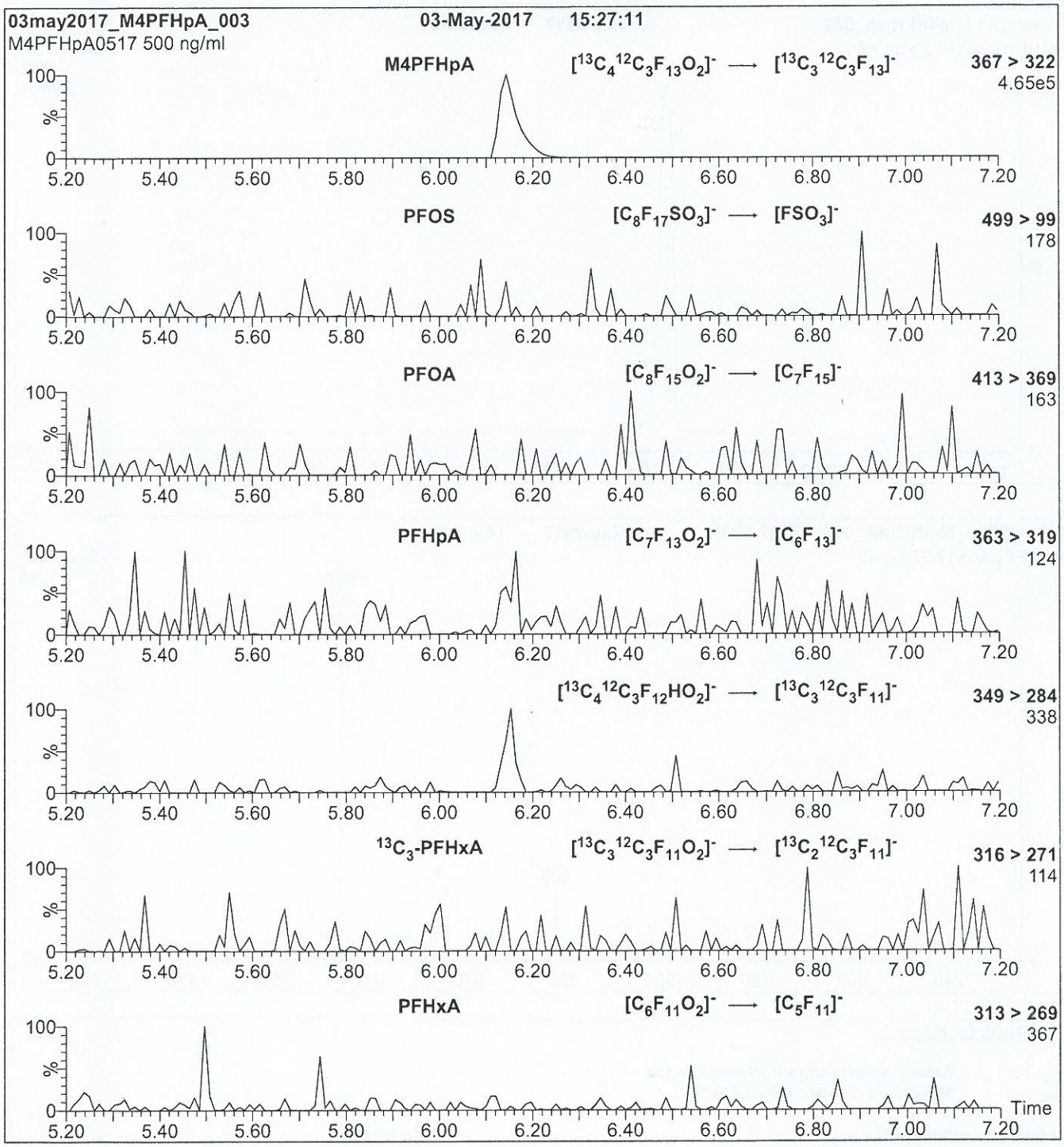
MS Parameters

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

1710816

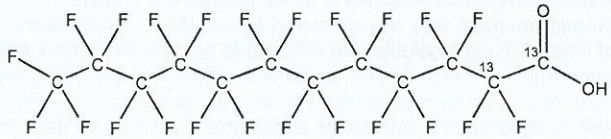
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDoA
LOT NUMBER: MPFDoA0517
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

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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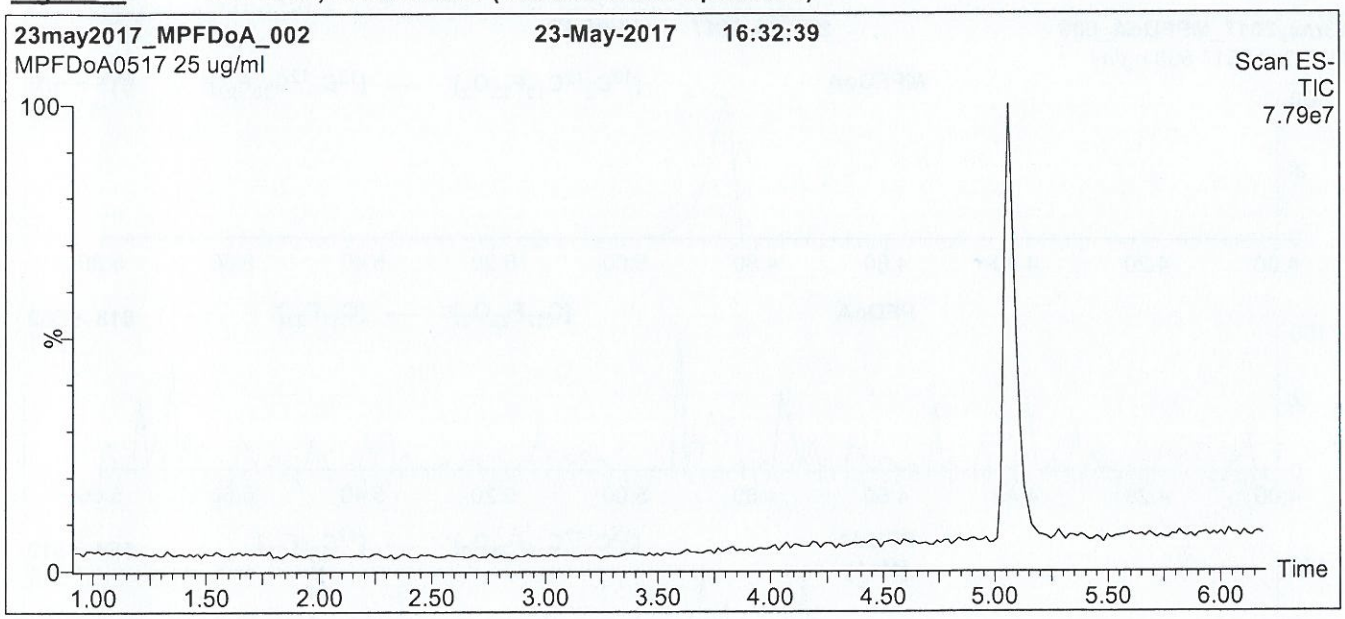
CALA Testing Accreditation No. A 1226

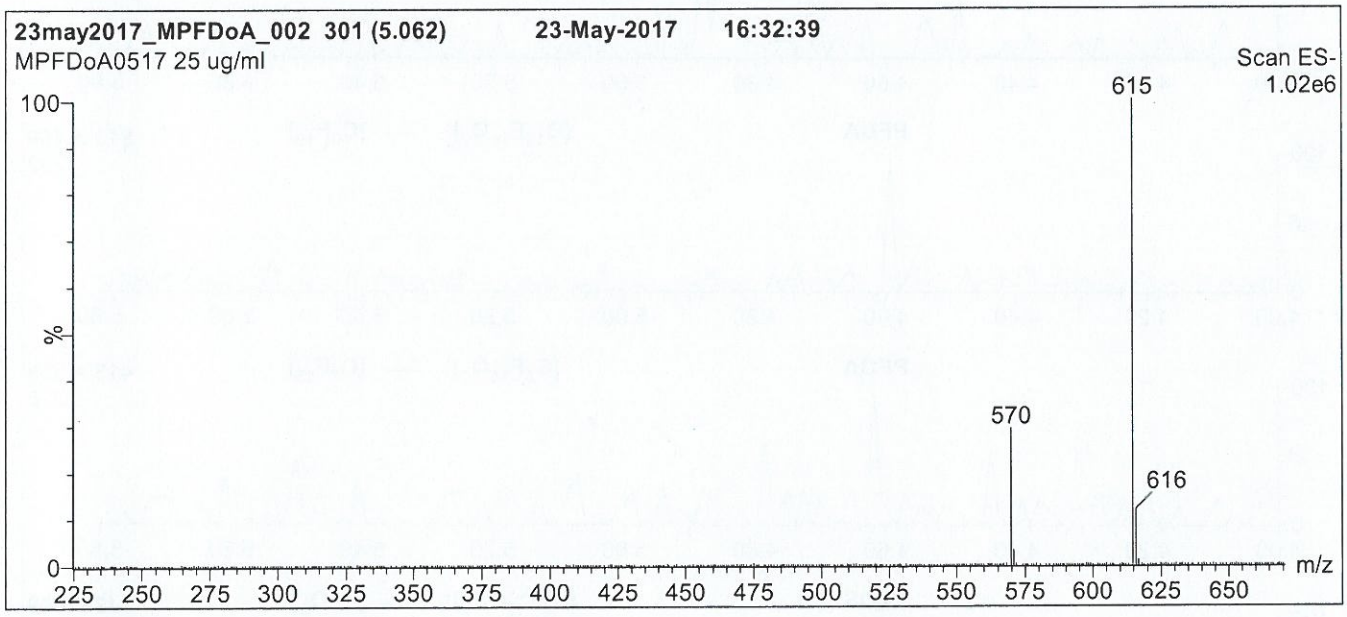
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

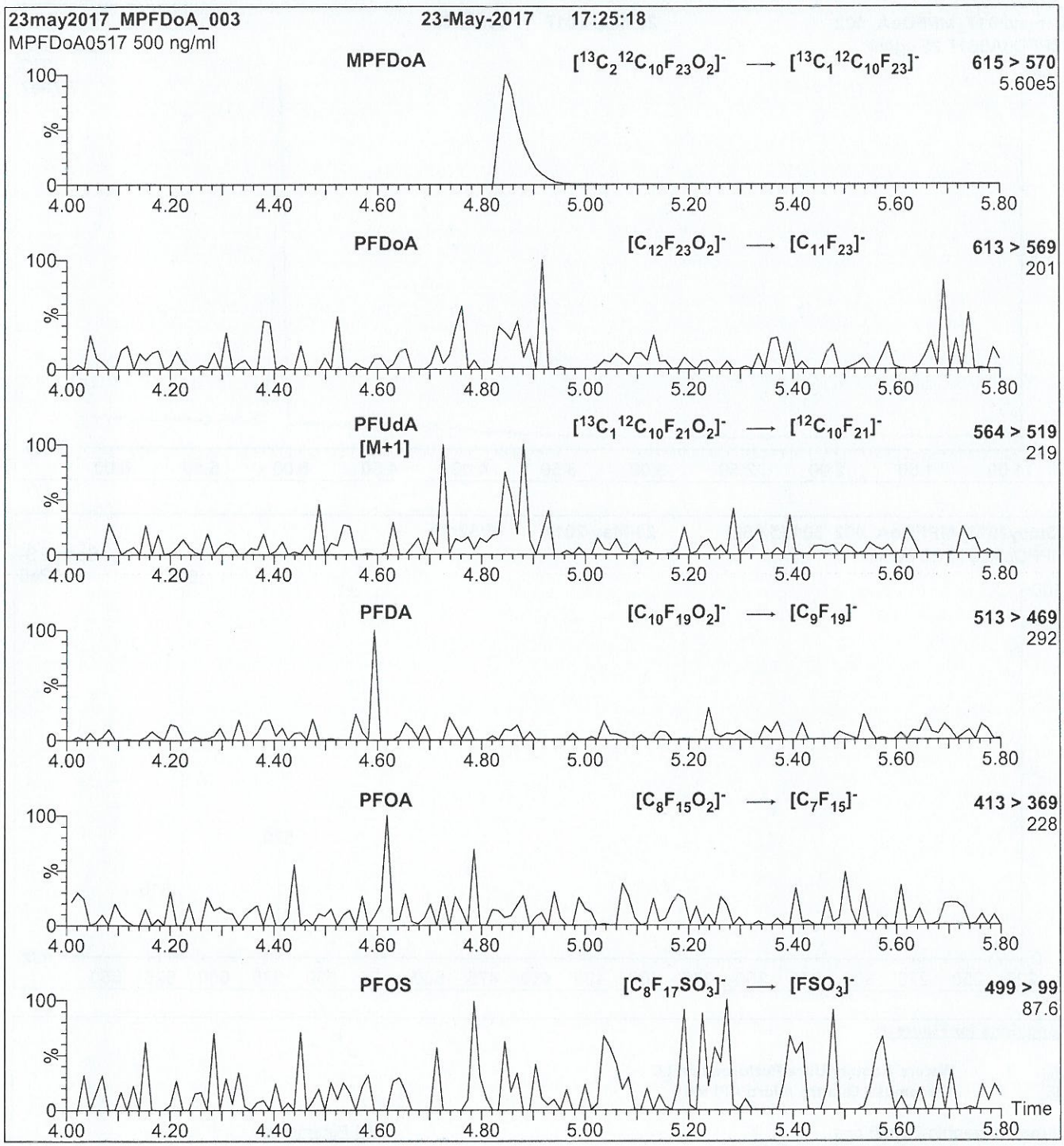
MS Parameters

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

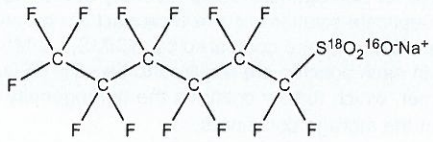
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17KO818

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFHxS	**LOT NUMBER:**	MPFHxS0217
COMPOUND:	Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate		
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: _____ **Date:** 03/02/2017 (mm/dd/yyyy)
B.G. Chittim

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:

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HAZARDS:

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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.

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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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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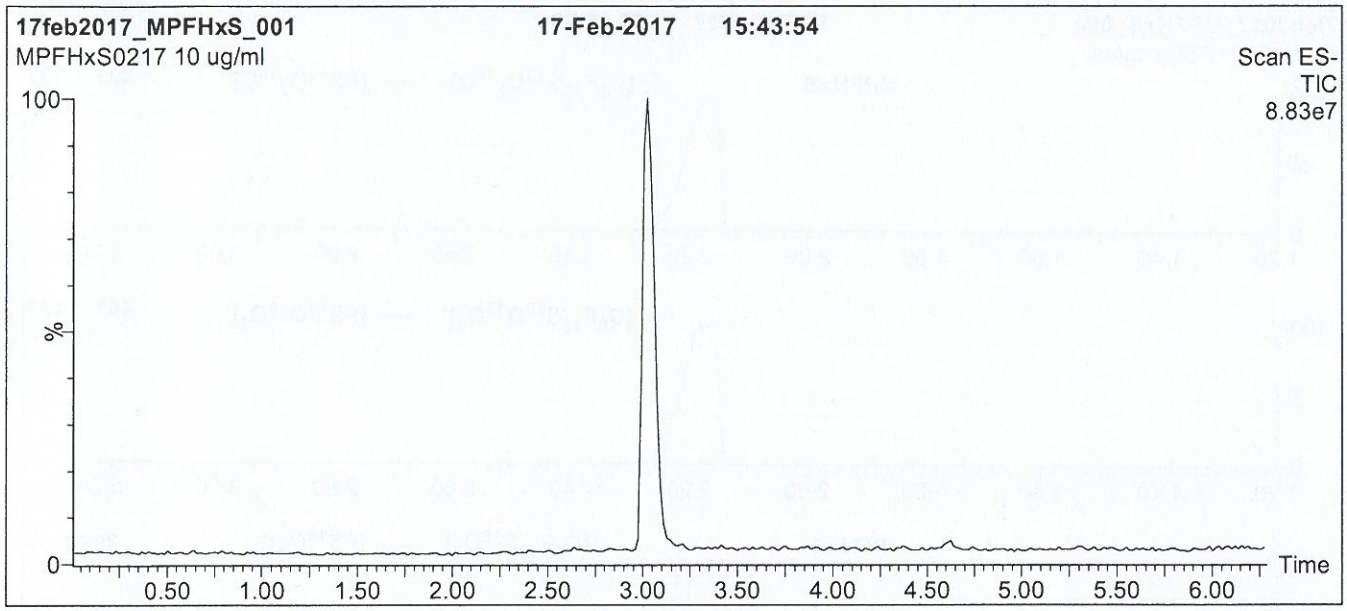
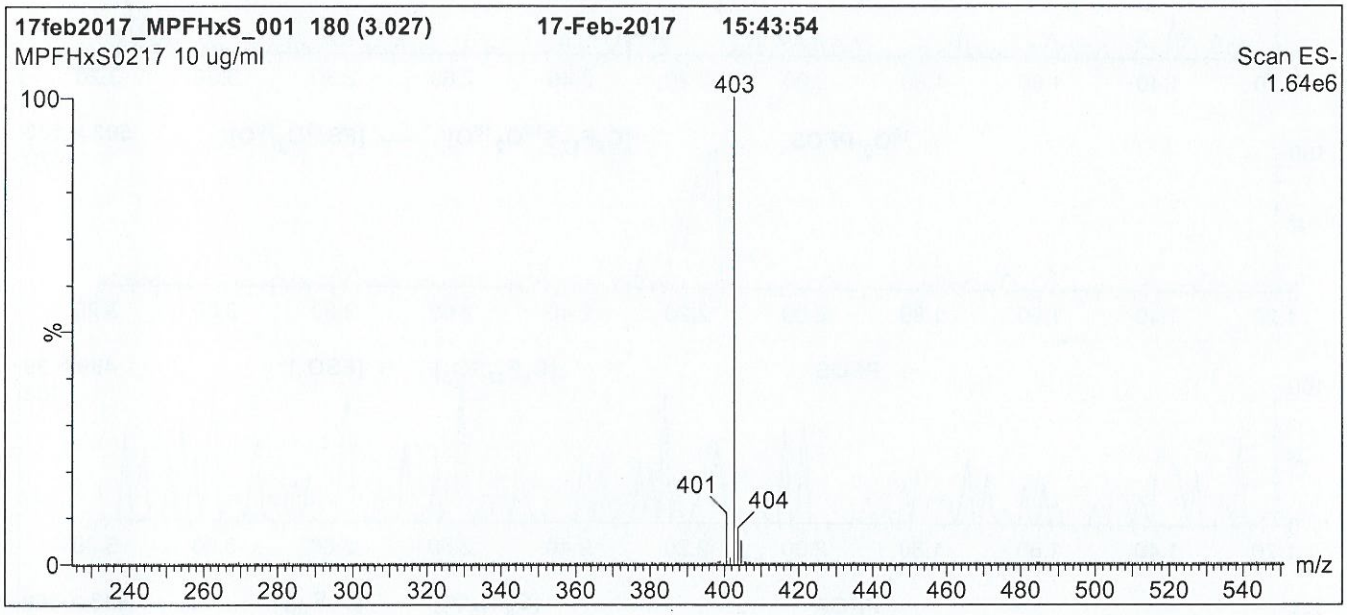
17K0818

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

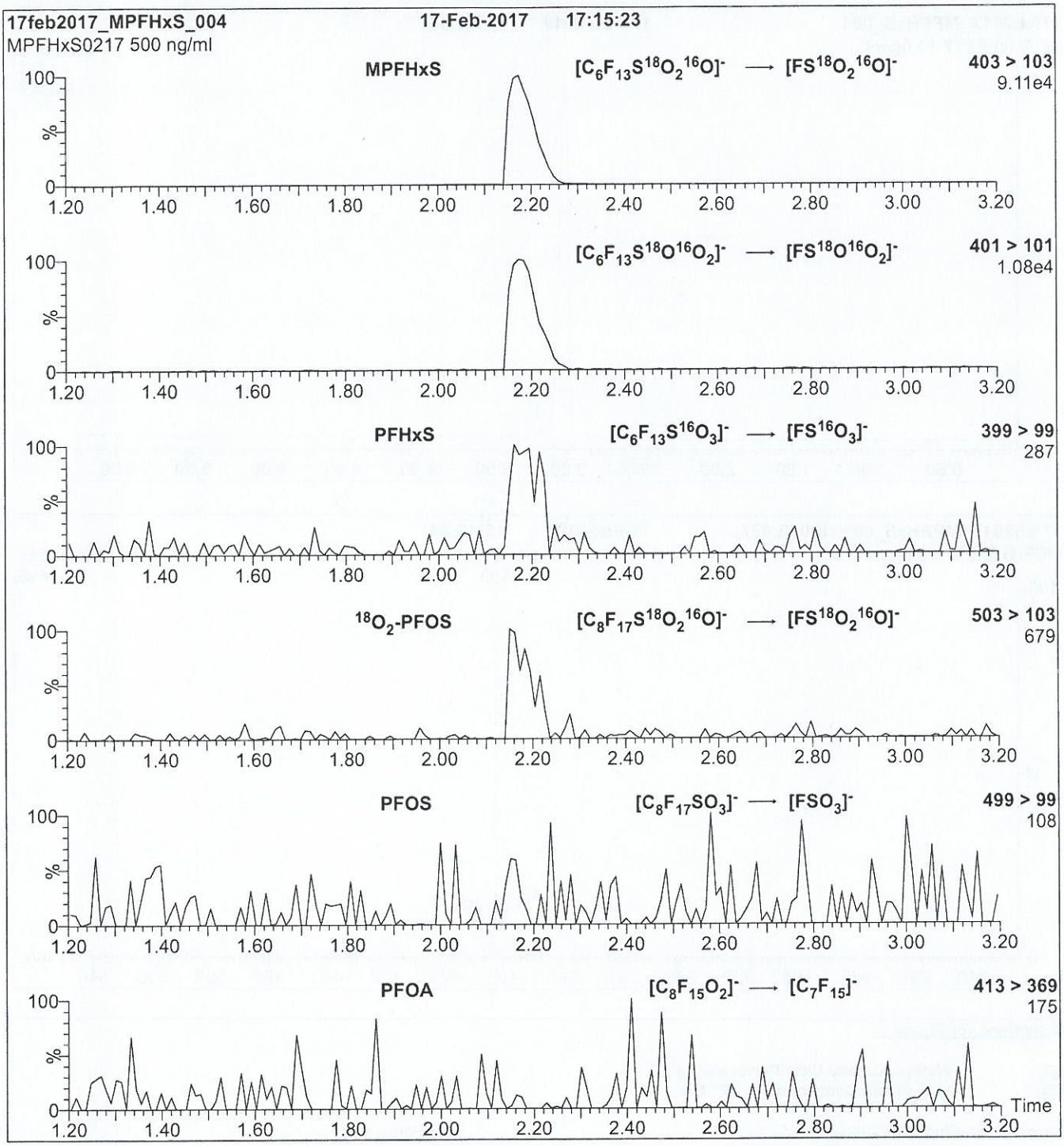
MS Parameters

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

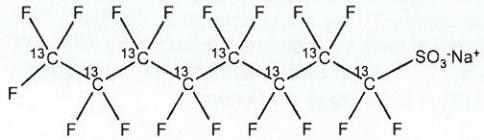
WELLINGTON LABORATORIES

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:

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HAZARDS:

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HOMOGENEITY:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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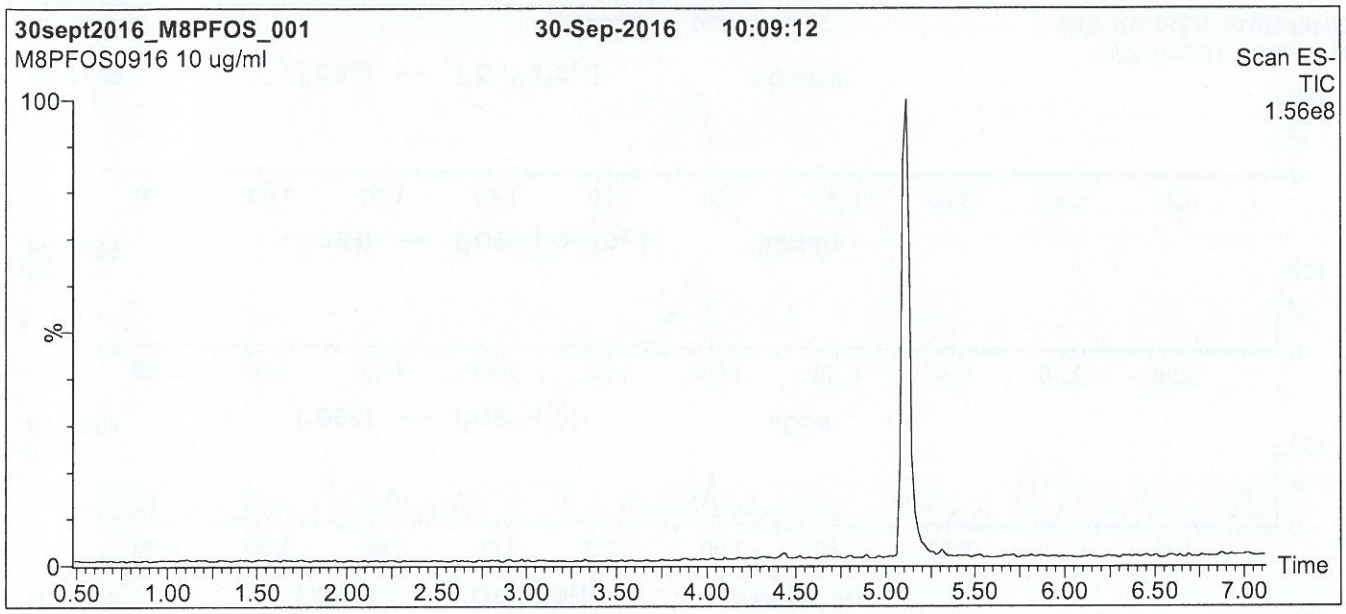
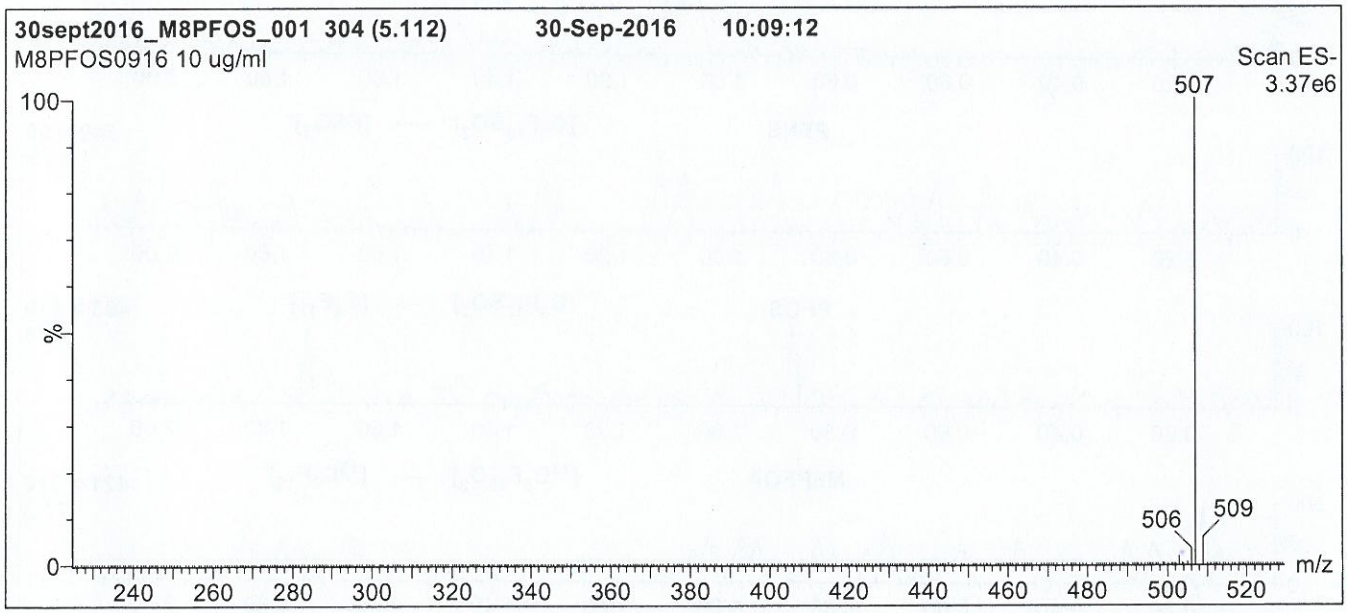
17K0819

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

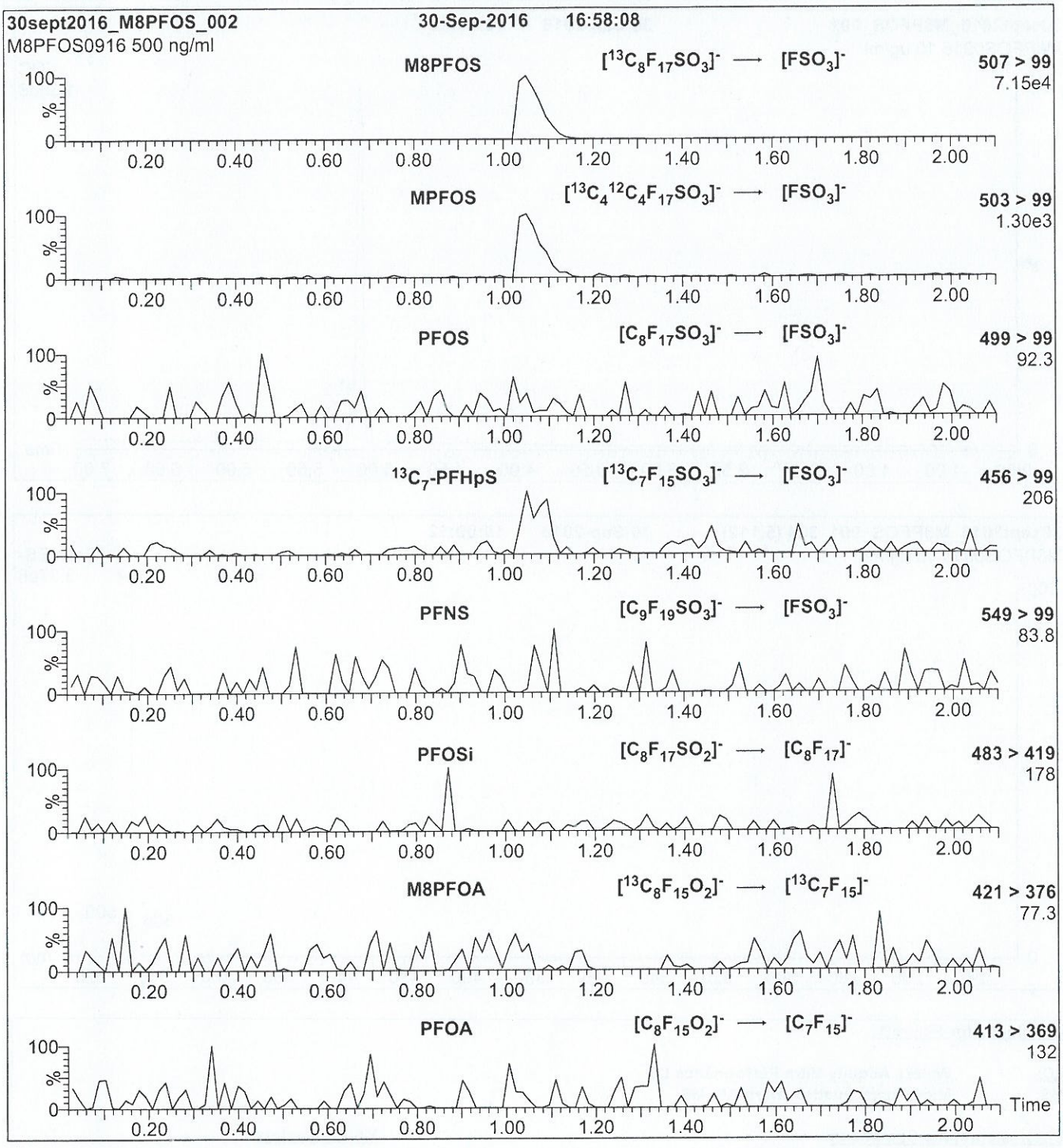
MS Parameters

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

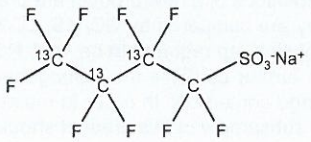
WELLINGTON LABORATORIES

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

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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 $x_1, x_2, \ldots x_n$ on which it depends is:

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CALA Testing Accreditation No. A1226

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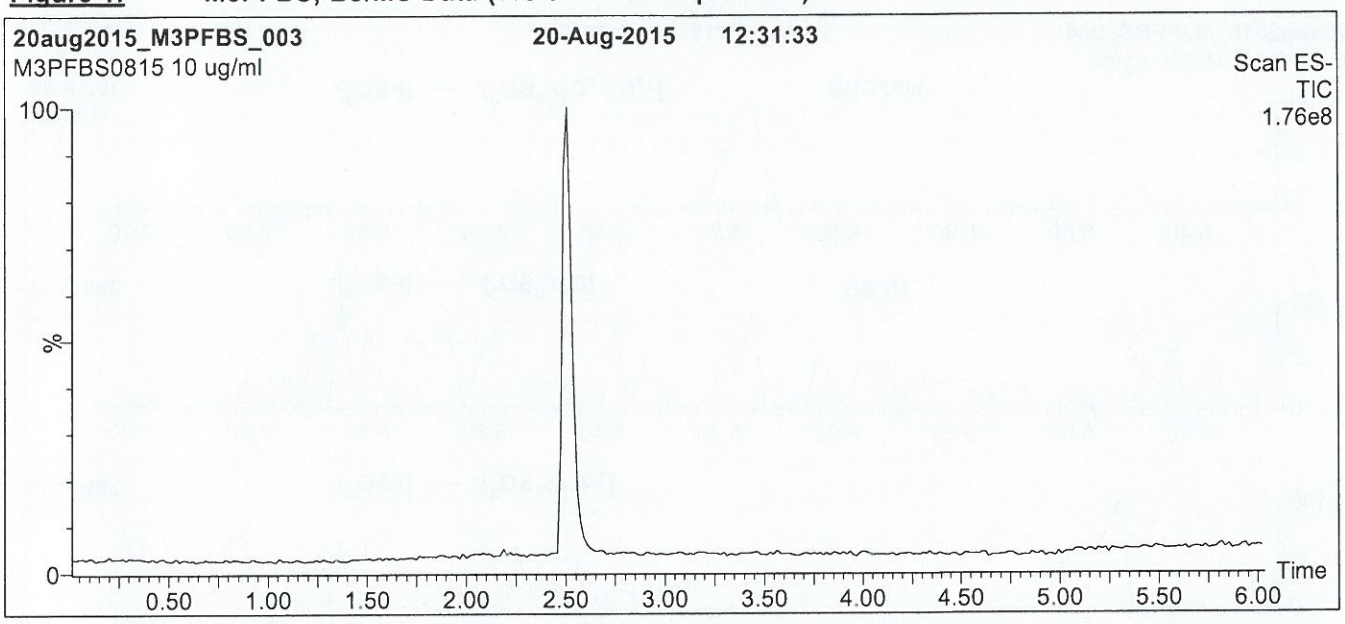
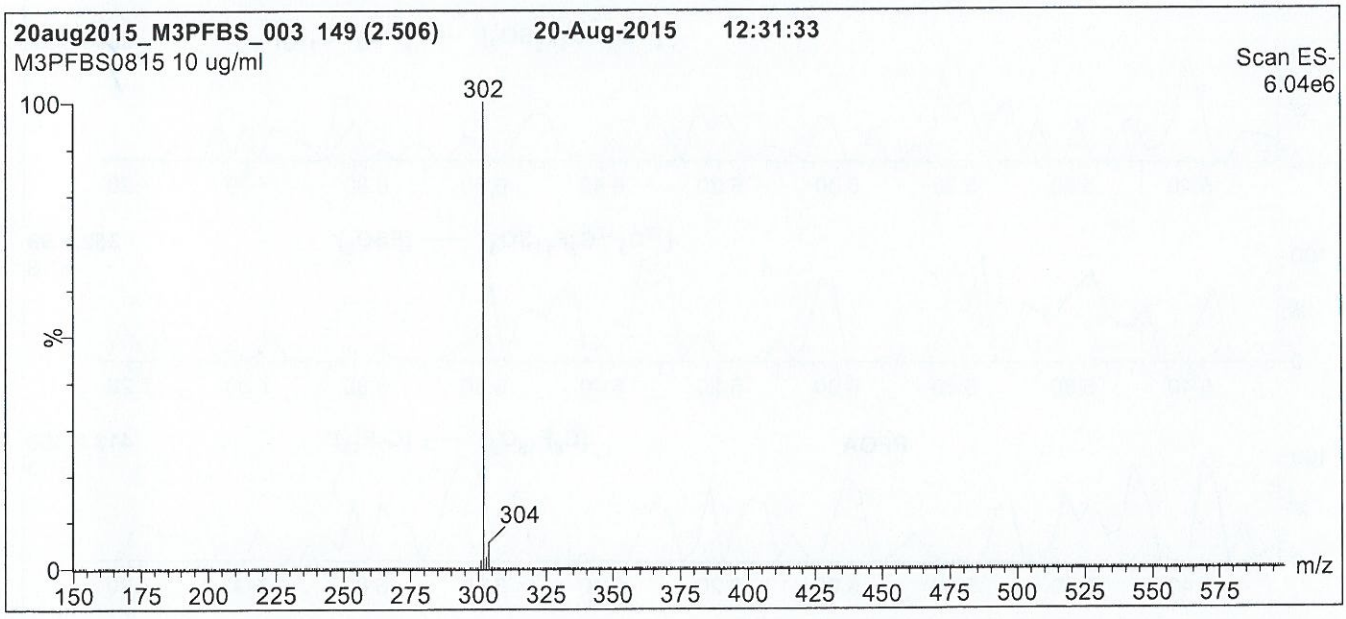
17K0821

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

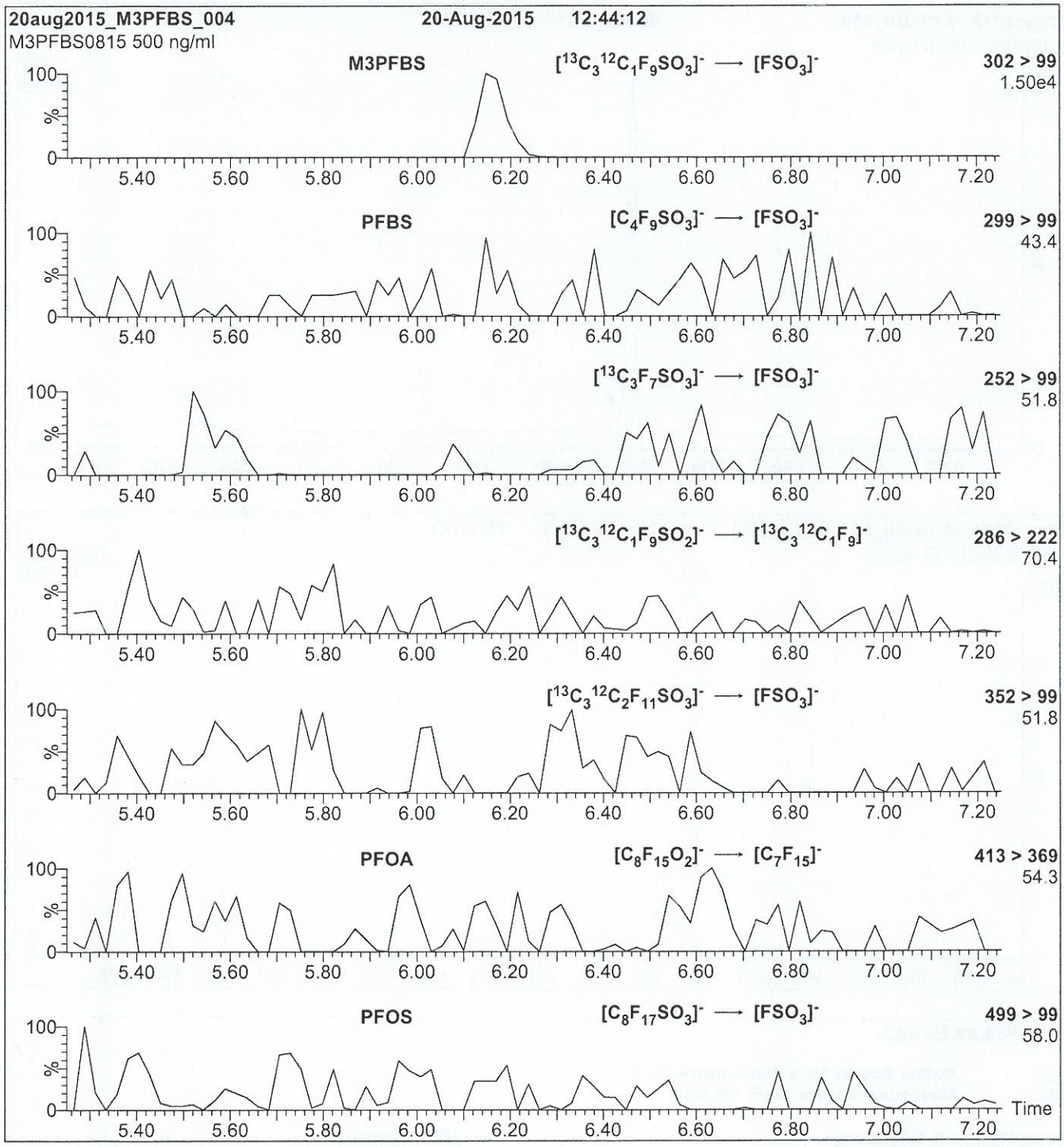
MS Parameters

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

Analytical Standard Record

Vista Analytical Laboratory

17J2604

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
17H2511	13C7-PFUdA	25-Aug-17	** Vendor **	13-Jul-22	25-Aug-17 10:57 by INJ	0.5
17H2512	13C4-PFBA	25-Aug-17	** Vendor **	12-Apr-22	25-Aug-17 11:01 by INJ	0.5
17H2513	13C9-PFNA	25-Aug-17	** Vendor **	27-Aug-19	25-Aug-17 11:03 by INJ	0.5
17J0526	13C6-PFDA	05-Oct-17	** Vendor **	31-May-21	05-Oct-17 10:43 by INJ	0.5
17J0527	13C8-PFOA	05-Oct-17	** Vendor **	05-Jul-22	05-Oct-17 10:46 by INJ	0.51
17J1019	13C5-PFHxA	10-Oct-17	** Vendor **	27-Aug-19	10-Oct-17 14:36 by INJ	0.5
17J1022	13C3-PFHxS	10-Oct-17	** Vendor **	05-Jul-22	10-Oct-17 15:07 by INJ	0.53
17J1023	13C4-PFOS	10-Oct-17	** Vendor **	19-May-22	10-Oct-17 15:12 by INJ	0.525
17J1024	13C2-FOUEA	10-Oct-17	** Vendor **	02-Aug-18	10-Oct-17 15:16 by INJ	0.5

Description:	PFC-RS	Expires:	26-Oct-19
Standard Type:	Reagent	Prepared:	26-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	26-Oct-17 09:29 by INJ

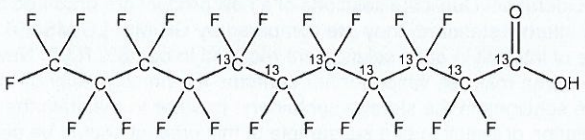
Analyte	CAS Number	Concentration	Units
13C9-PFNA		1.25	ug/mL
13C8-PFOA		1.25	ug/mL
13C7-PFUnA		1.25	ug/mL
13C6-PFDA		1.25	ug/mL
13C5-PFHxA		1.25	ug/mL
13C4-PFOS		1.25	ug/mL
13C4-PFBA		1.25	ug/mL
13C3-PFHxS		1.25	ug/mL
13C2-FOUEA		1.25	ug/mL

17H2511

WELLINGTON LABORATORIES

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 (1,2,3,4,5,6,7-$^{13}C_7$)
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.

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

17H2511

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).

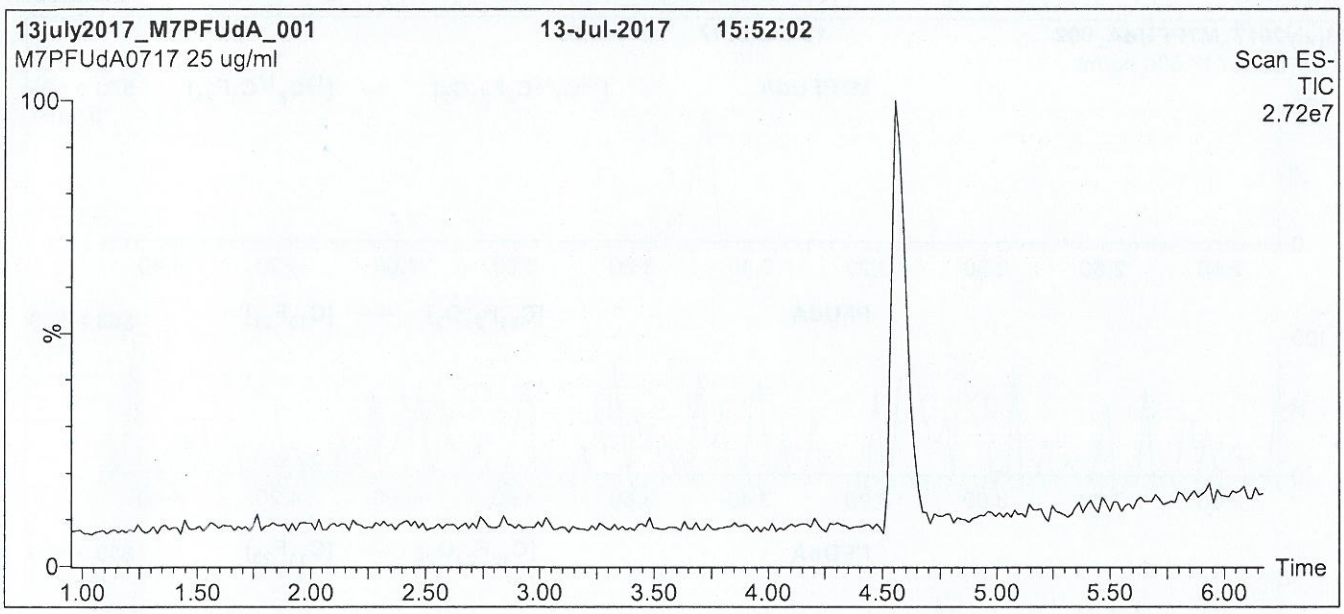
CALA Testing Accreditation No. A 1226

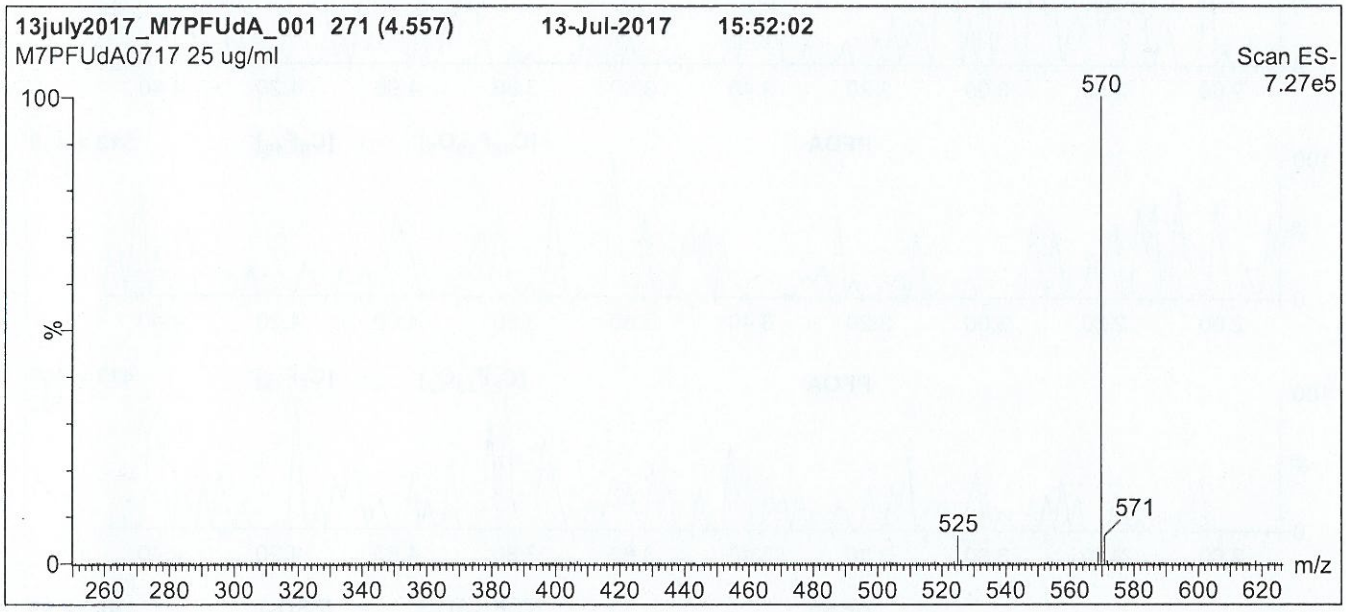
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

1712511

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

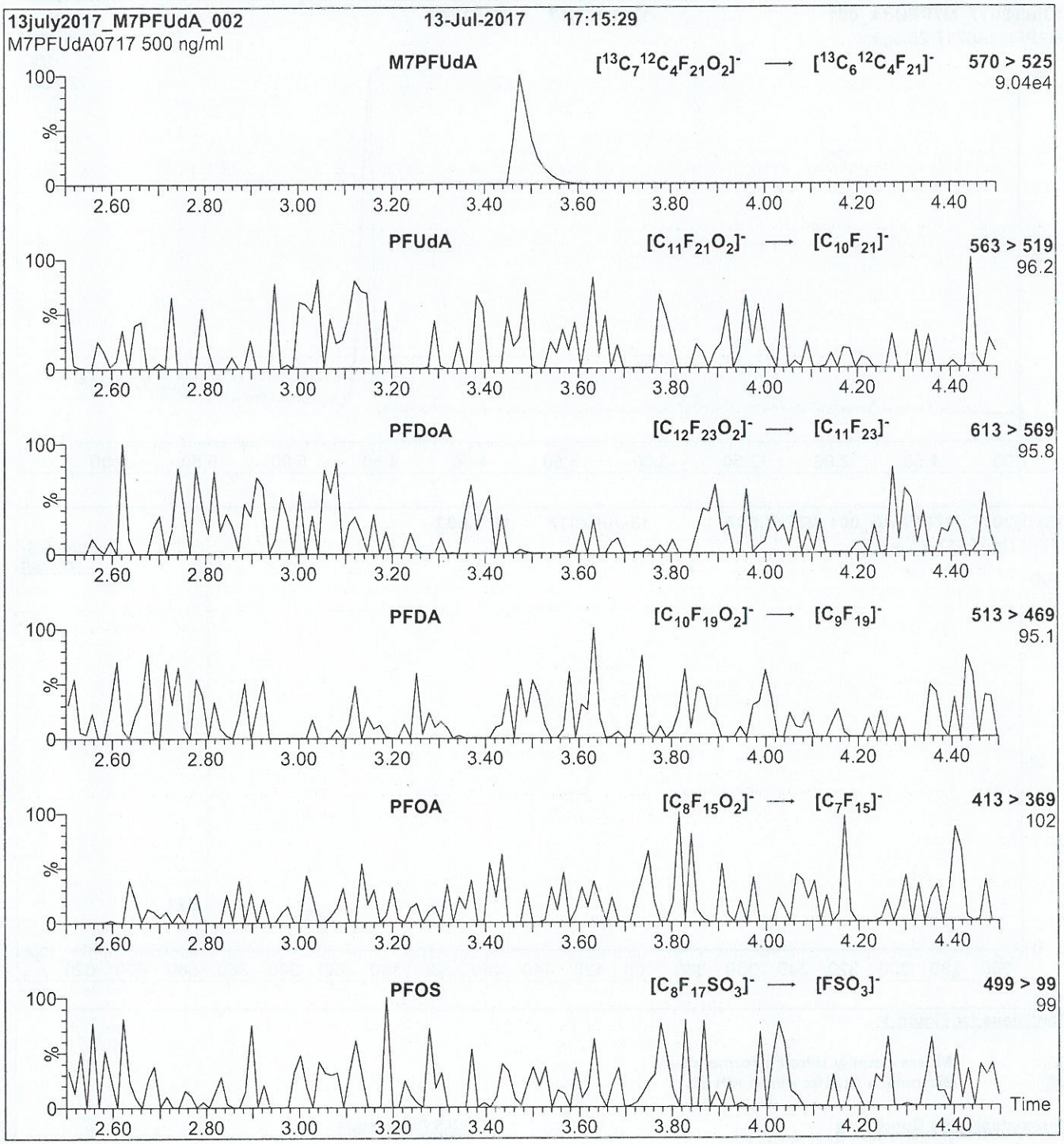
MS Parameters

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

17H2511

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

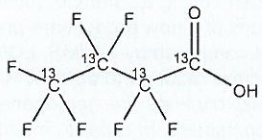
Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 11

1701710

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

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1701710

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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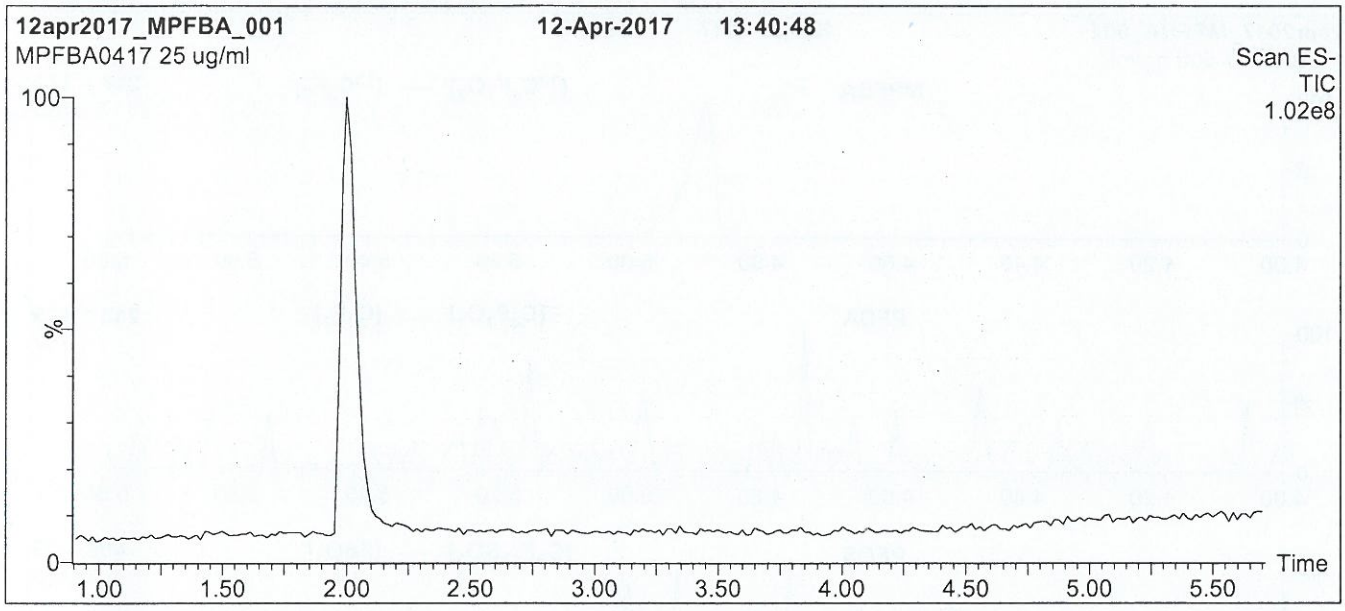
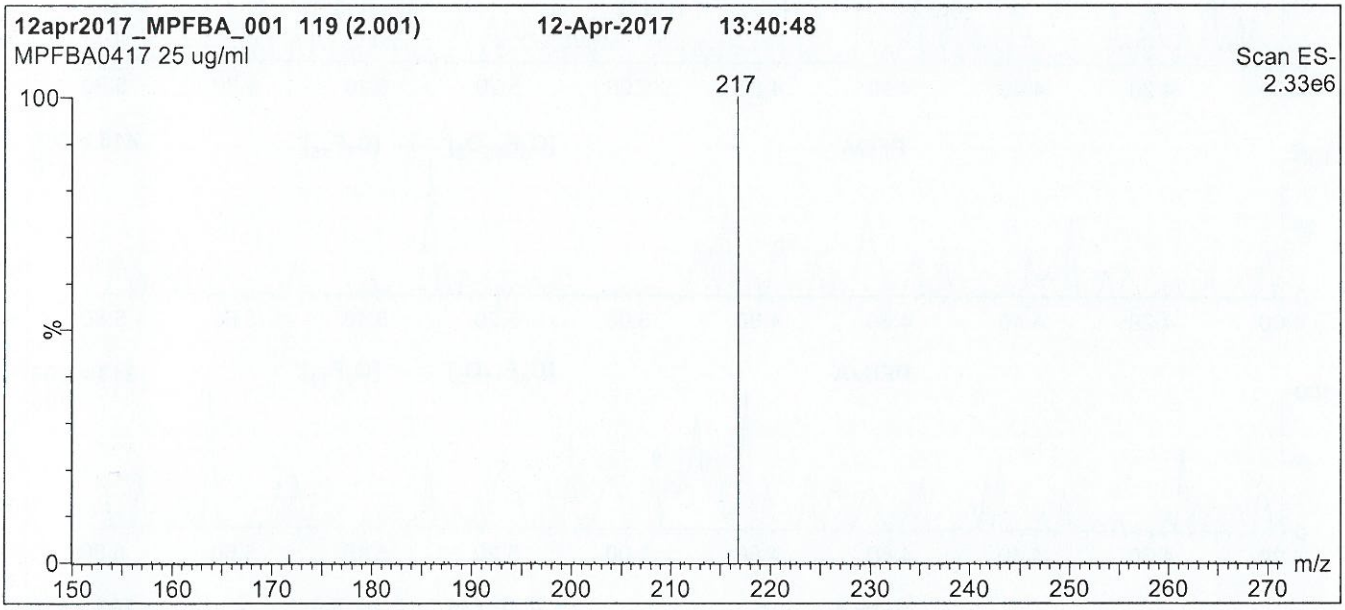
17H2512

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

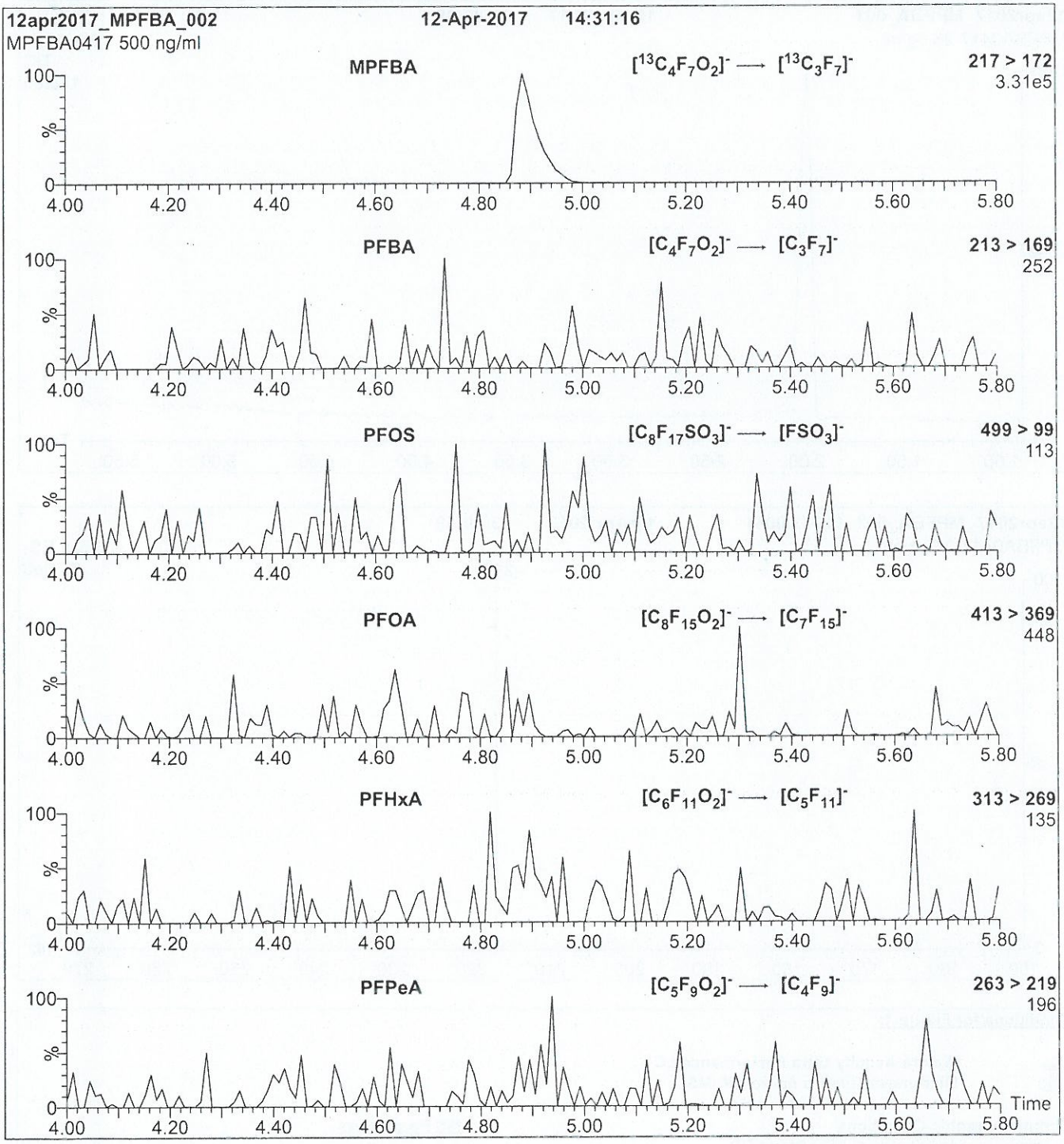
MS Parameters

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

17H2512

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

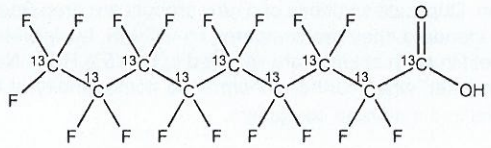
Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 10

17H2513

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M9PFNA
LOT NUMBER: M9PFNA0814
COMPOUND: Perfluoro-n-[$^{13}C_9$]nonanoic acid
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)	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.
- 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: B.G. Chittim **Date:** 04/01/2015 (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

1714513

INTENDED USE:

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HOMOGENEITY:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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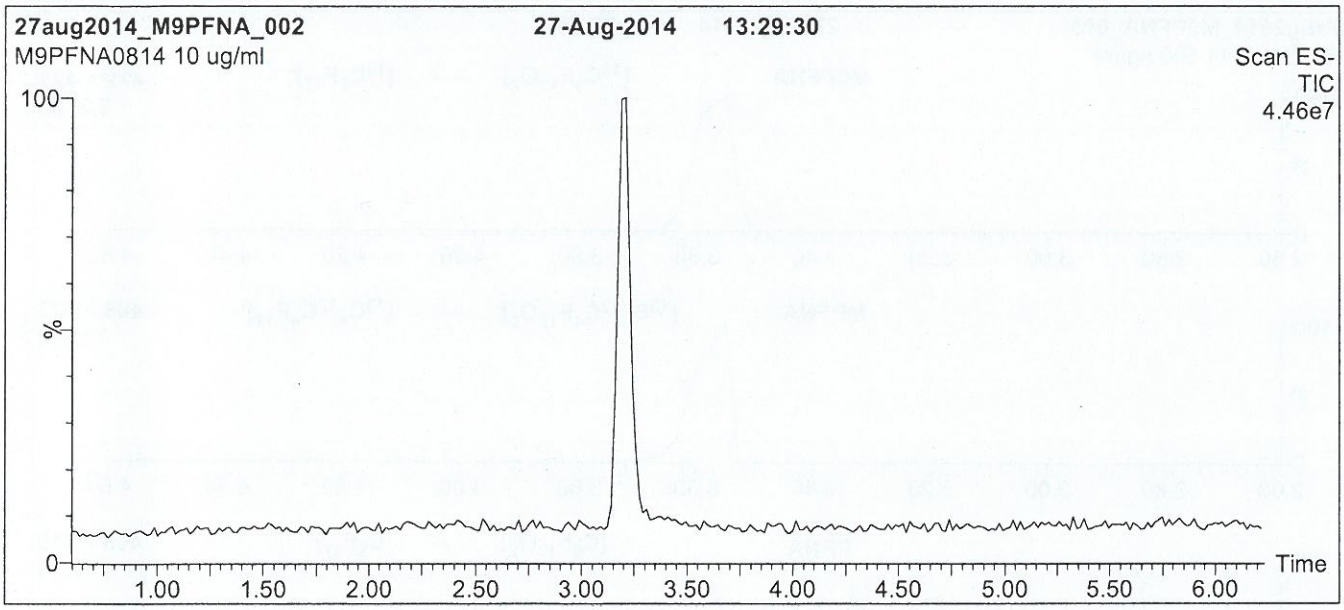
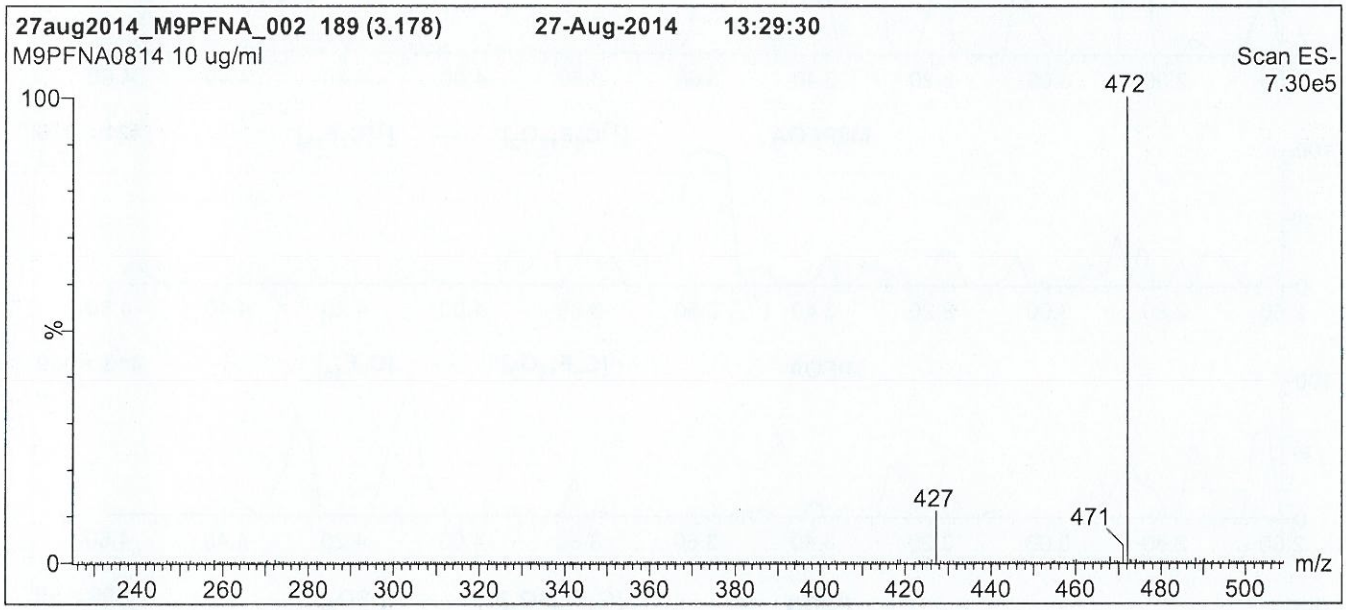
1701513

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: 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

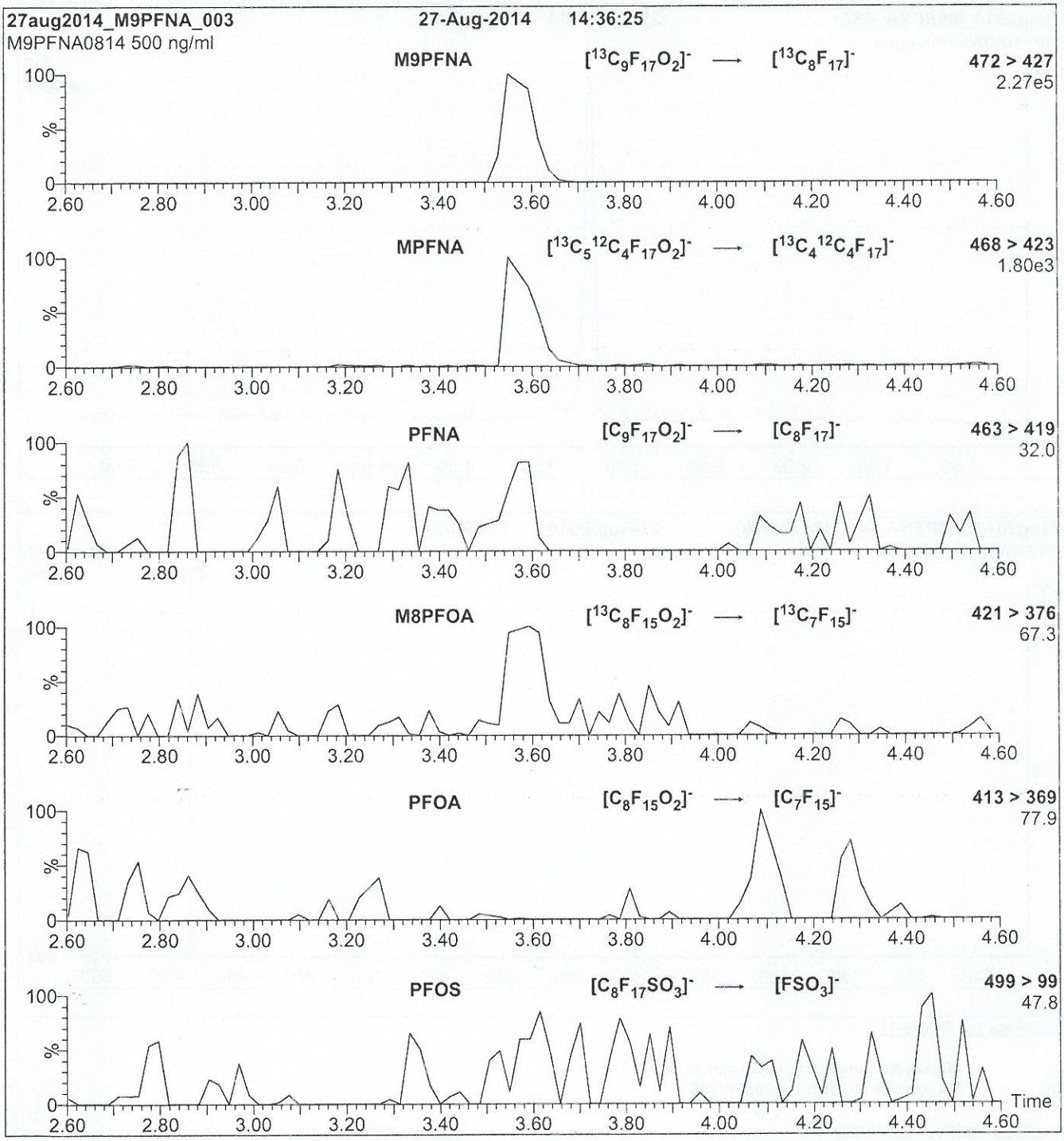
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17H2513

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

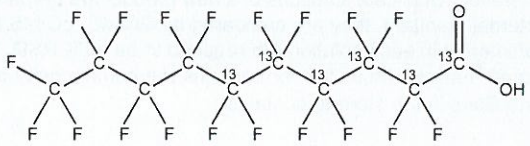
Collision Gas (mbar) = 3.74e-3
Collision Energy (eV) = 11

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.

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Certified By: _____ **Date:** 06/13/2016
B.G. Chittim (mm/dd/yyyy)

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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).

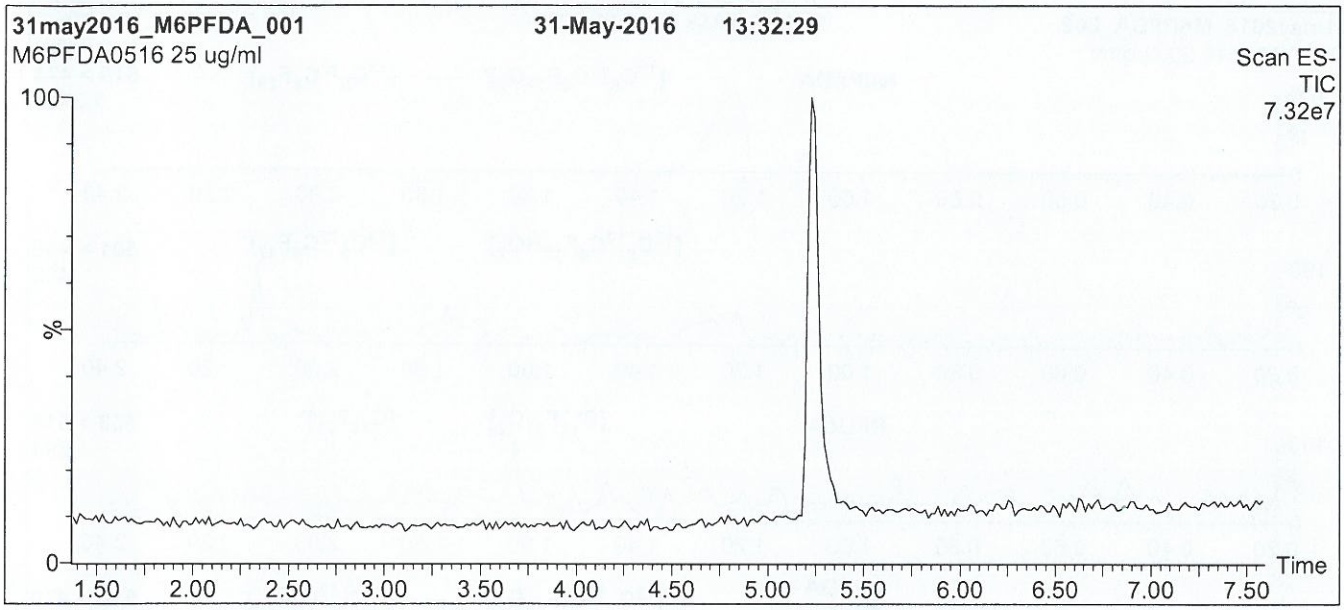
CALA Testing Accreditation No. A1226

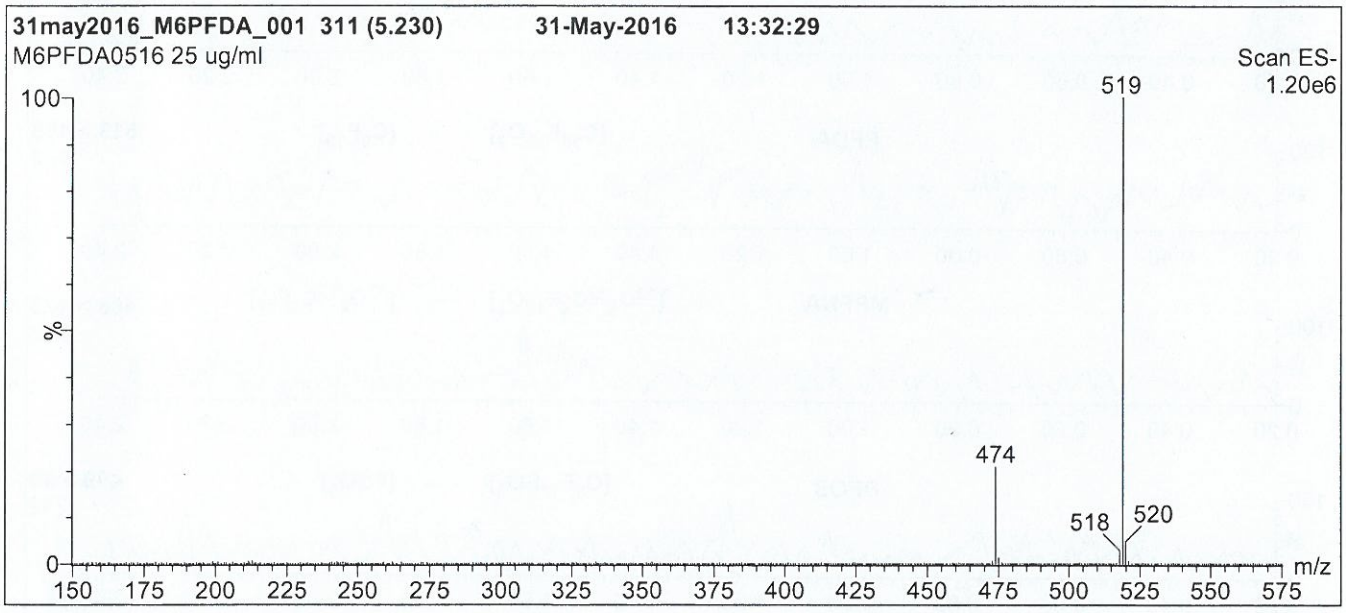
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

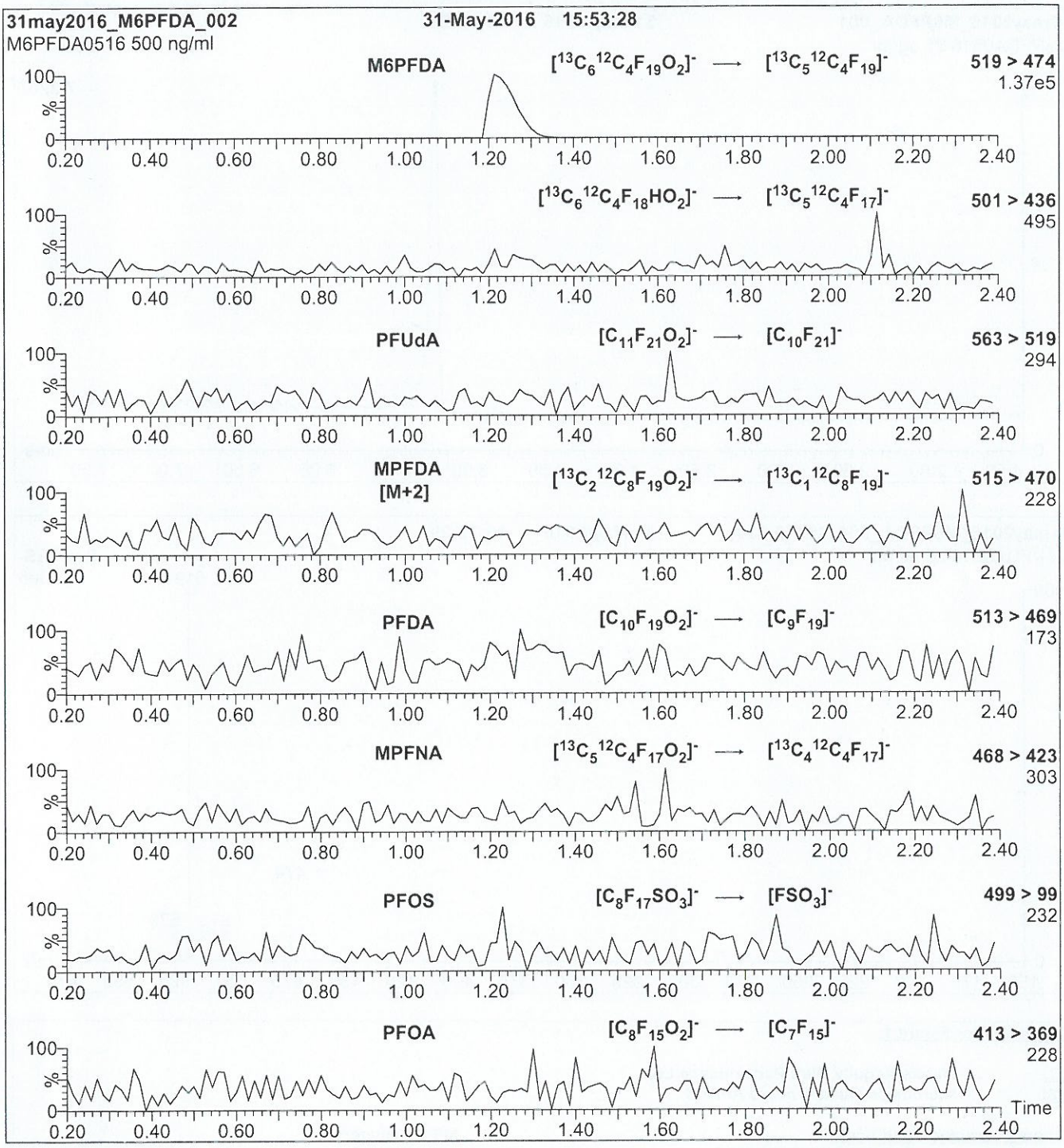
MS Parameters

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

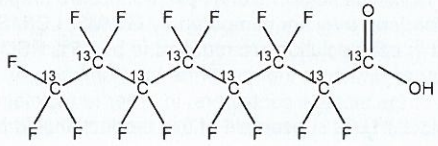
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 13

~~17G~~ 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

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.

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CALA Testing Accreditation No. A1226

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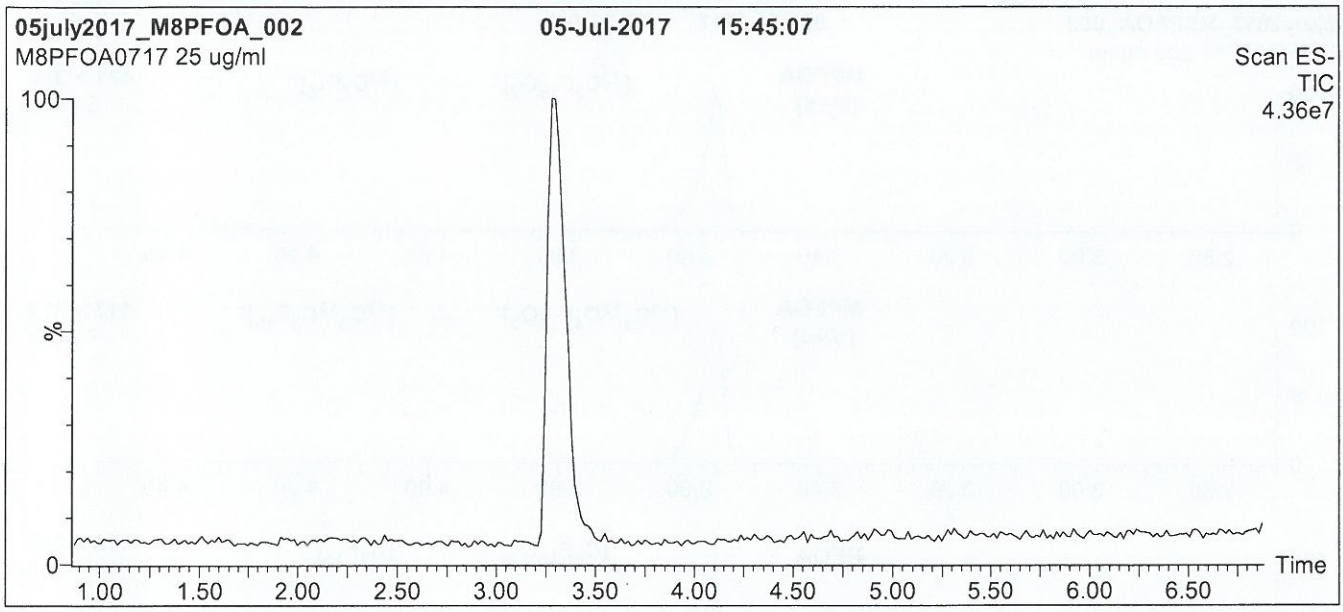
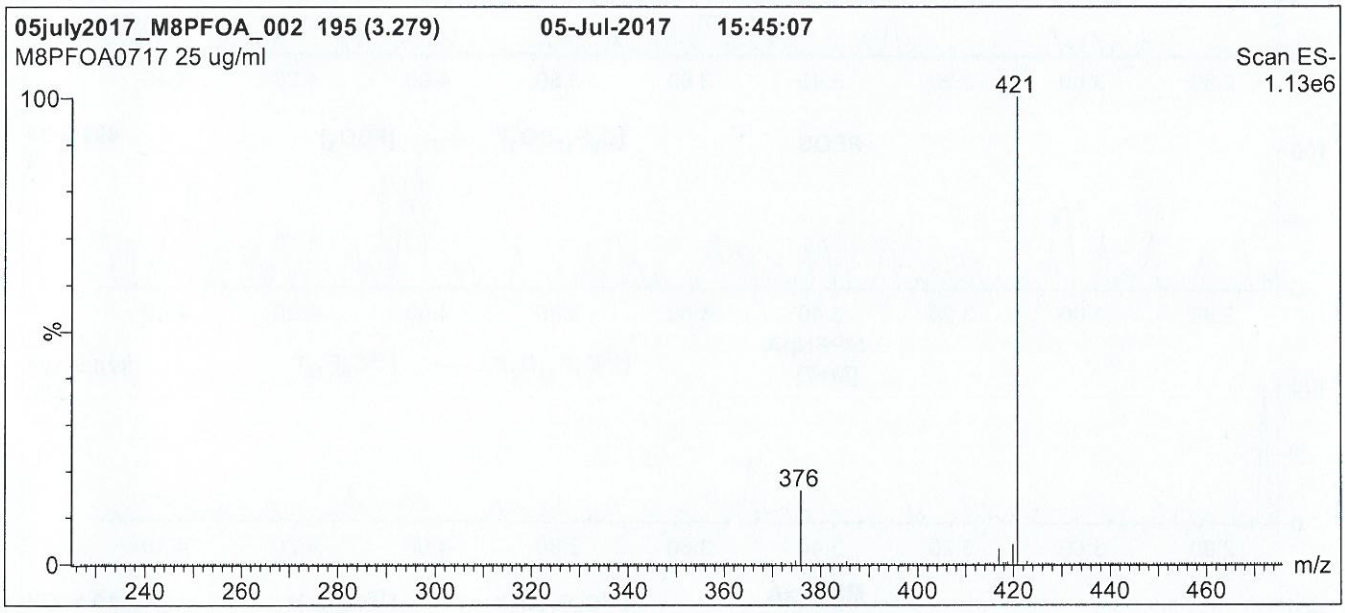
17J0527

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

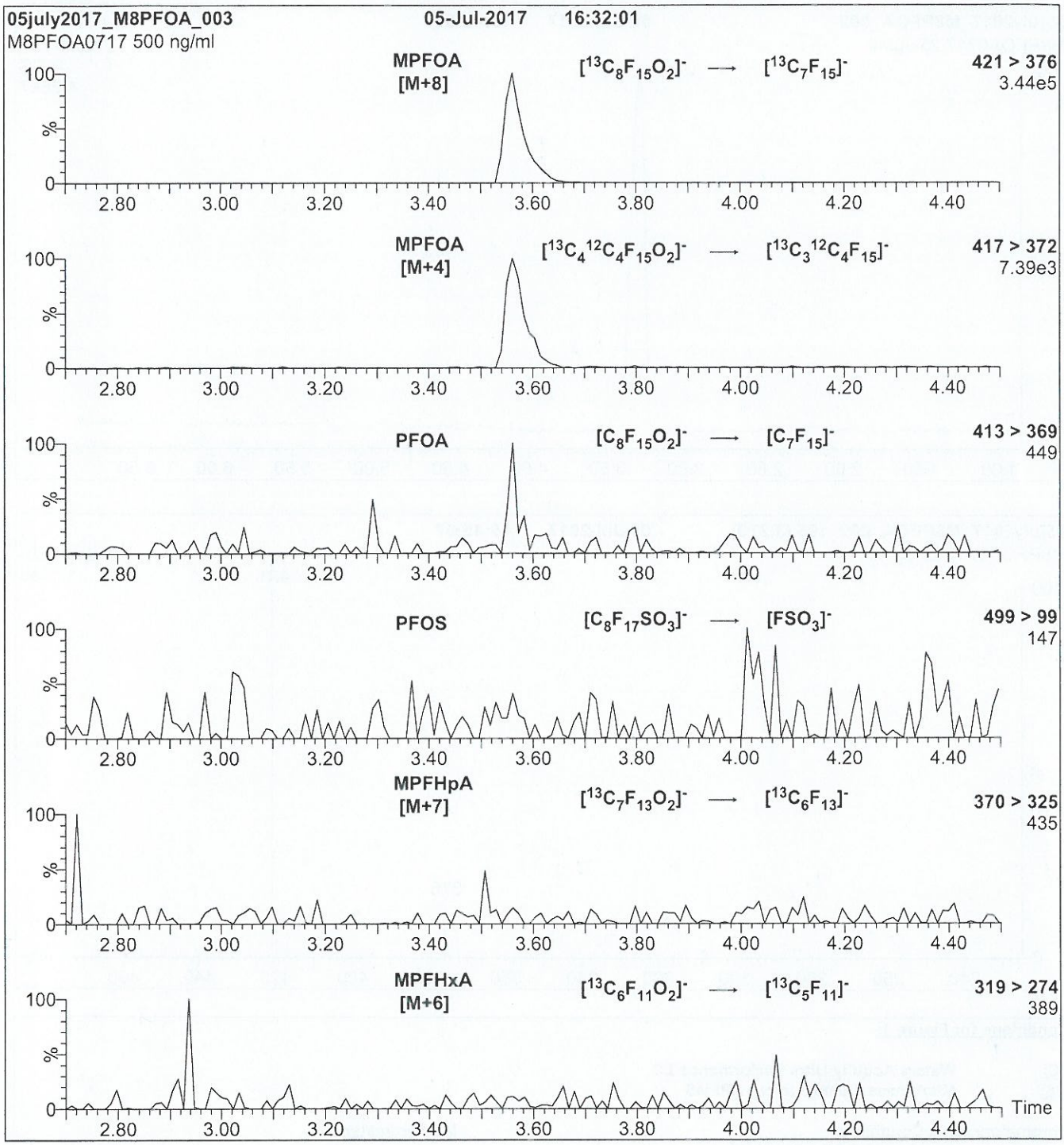
MS Parameters

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

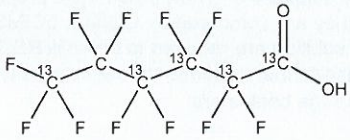
17J1019

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M5PFHxA
LOT NUMBER: M5PFHxA0814
COMPOUND: Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid

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-$^{13}C_5$)
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

Form#:27, Issued 2004-11-10
Revision#:3, Revised 2015-03-24

17J1019

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:

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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 Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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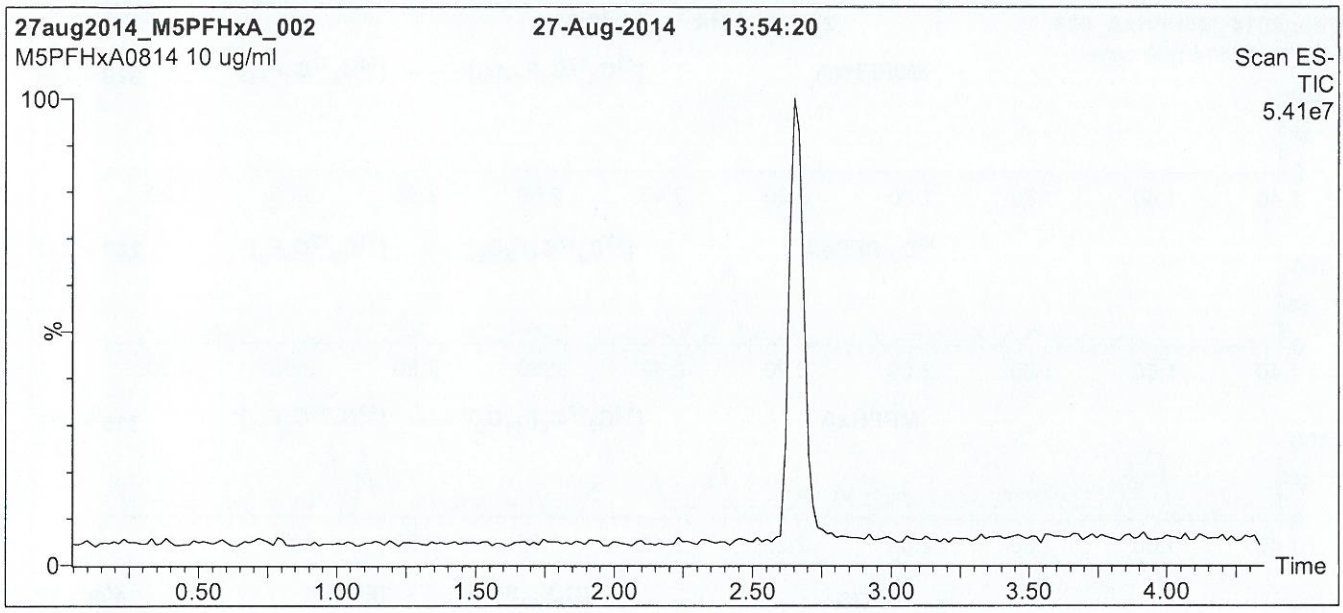
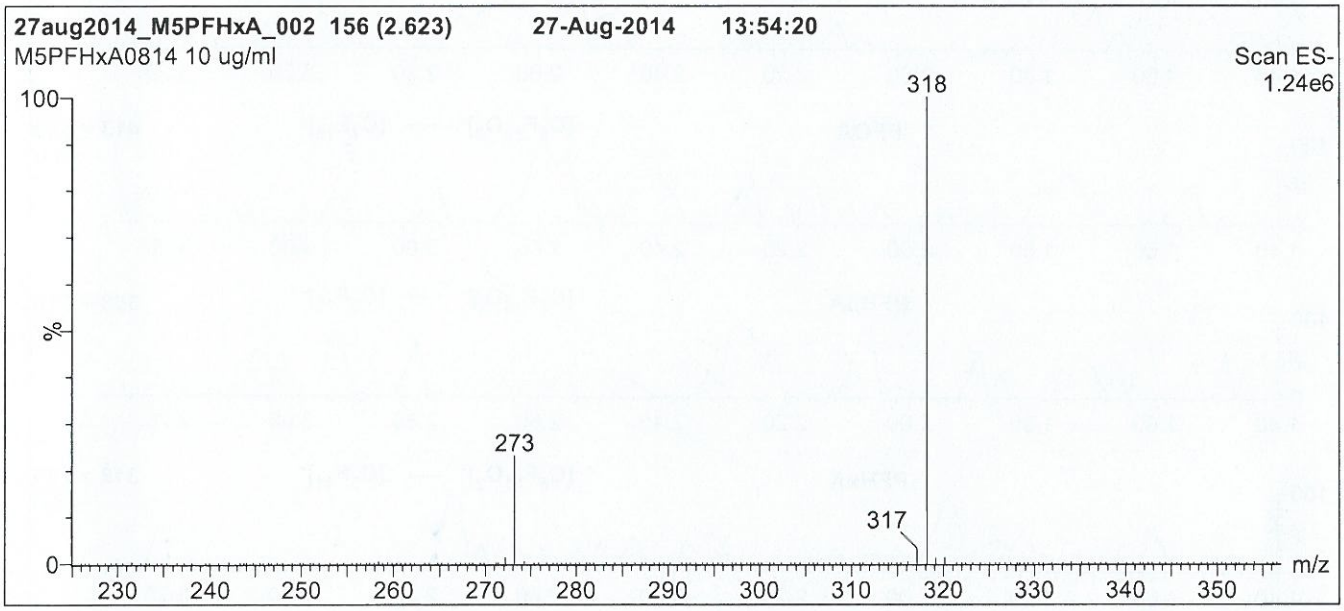
17J1019

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

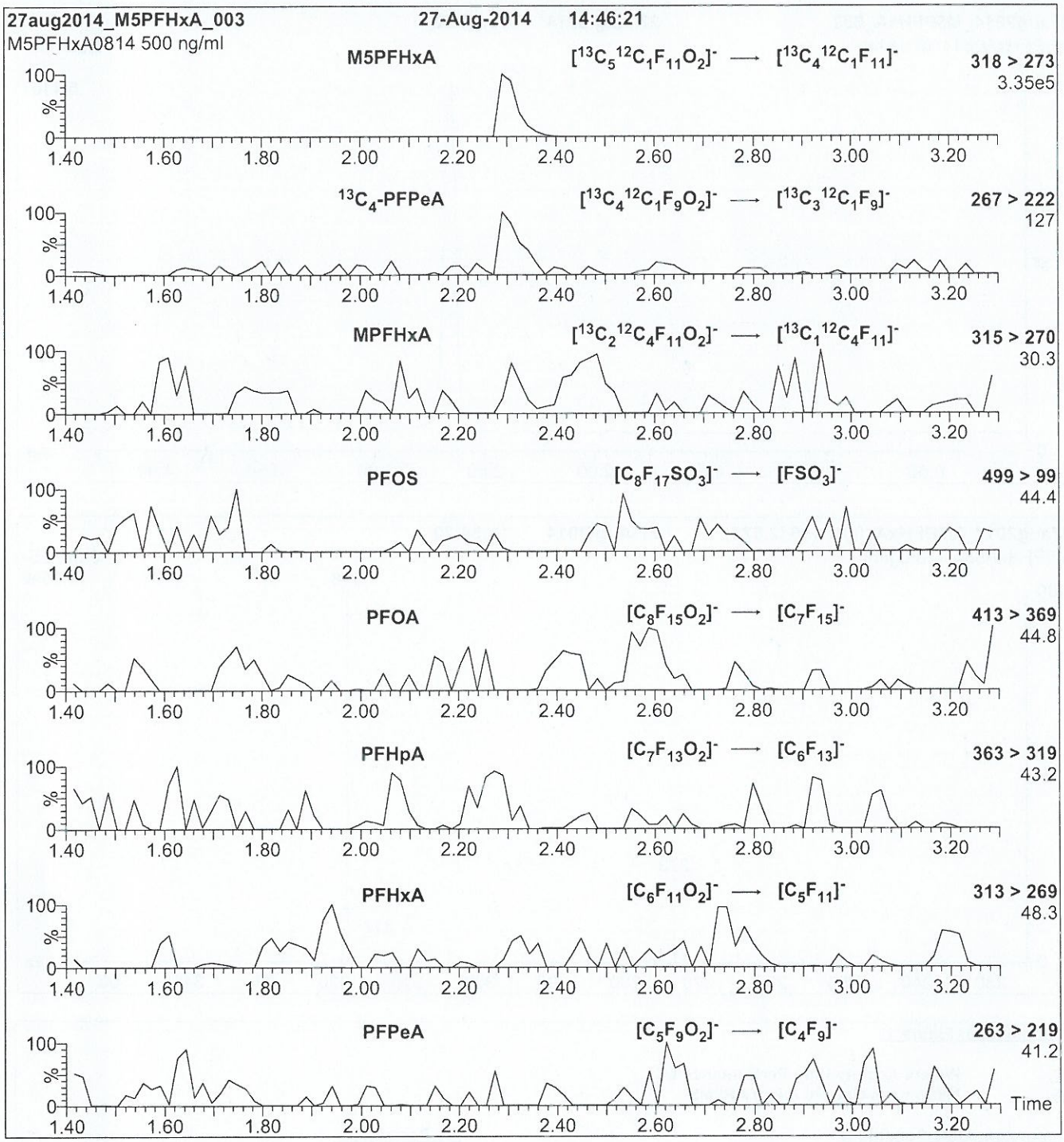
MS Parameters

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

17J1019

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

17J1022

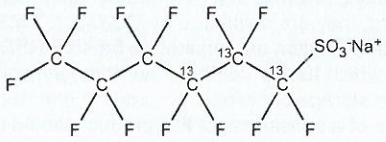
WELLINGTON LABORATORIES

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

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CALA Testing Accreditation No. A 1226

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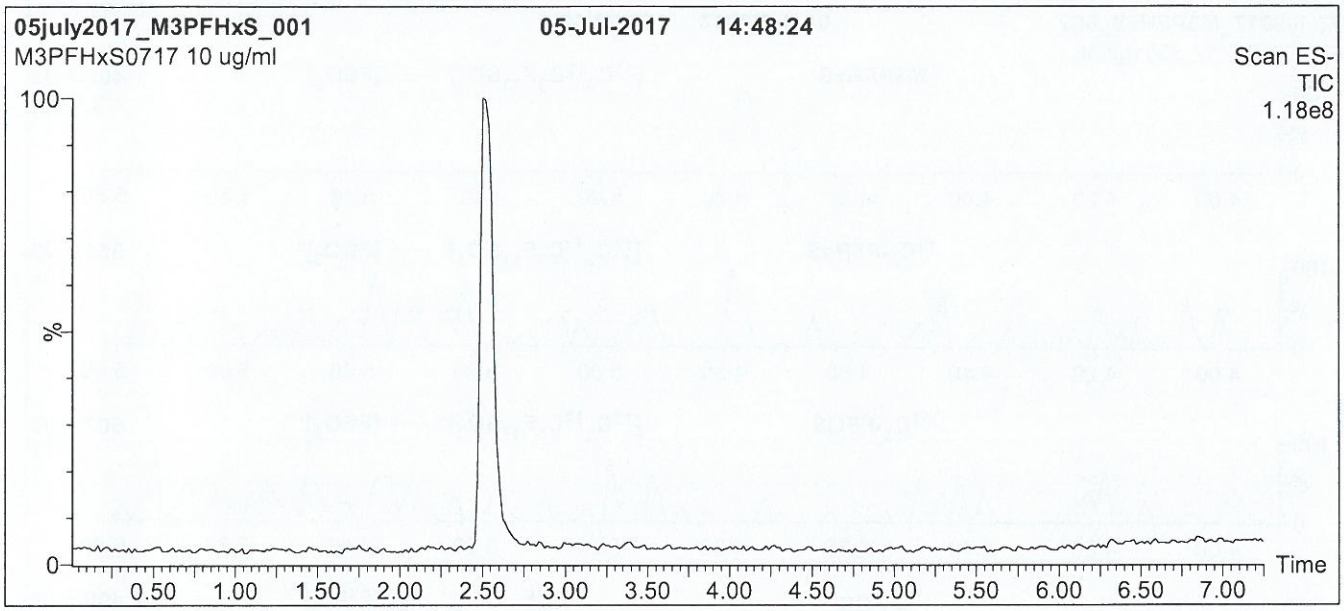
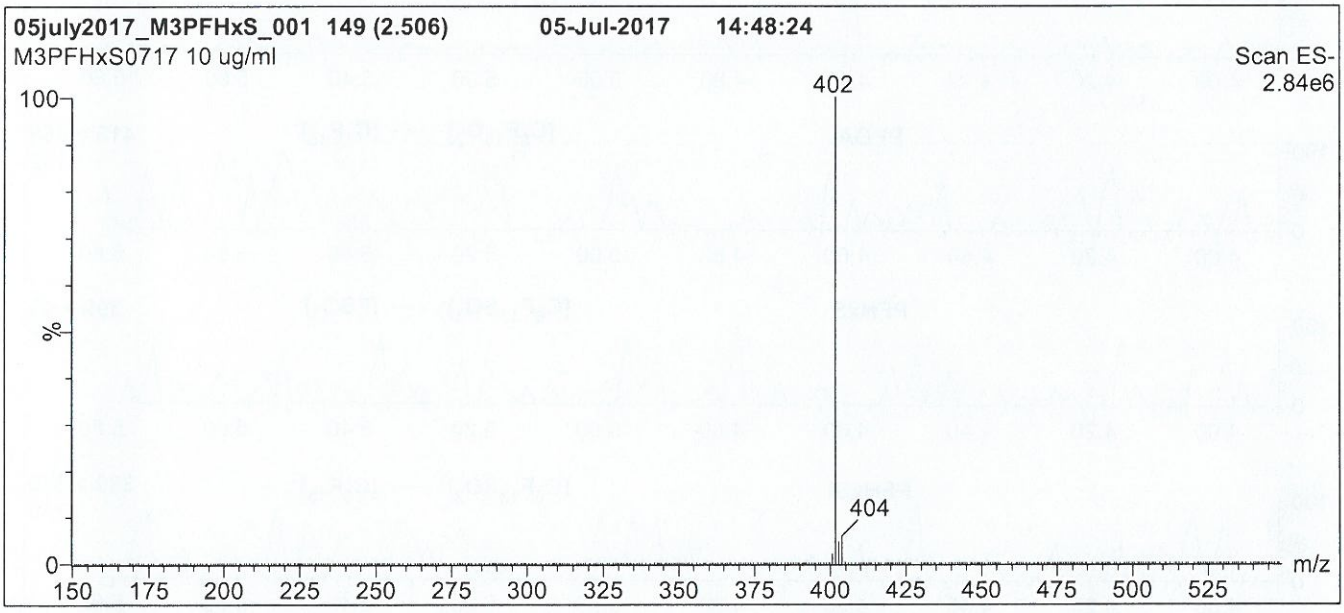
17J1022

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

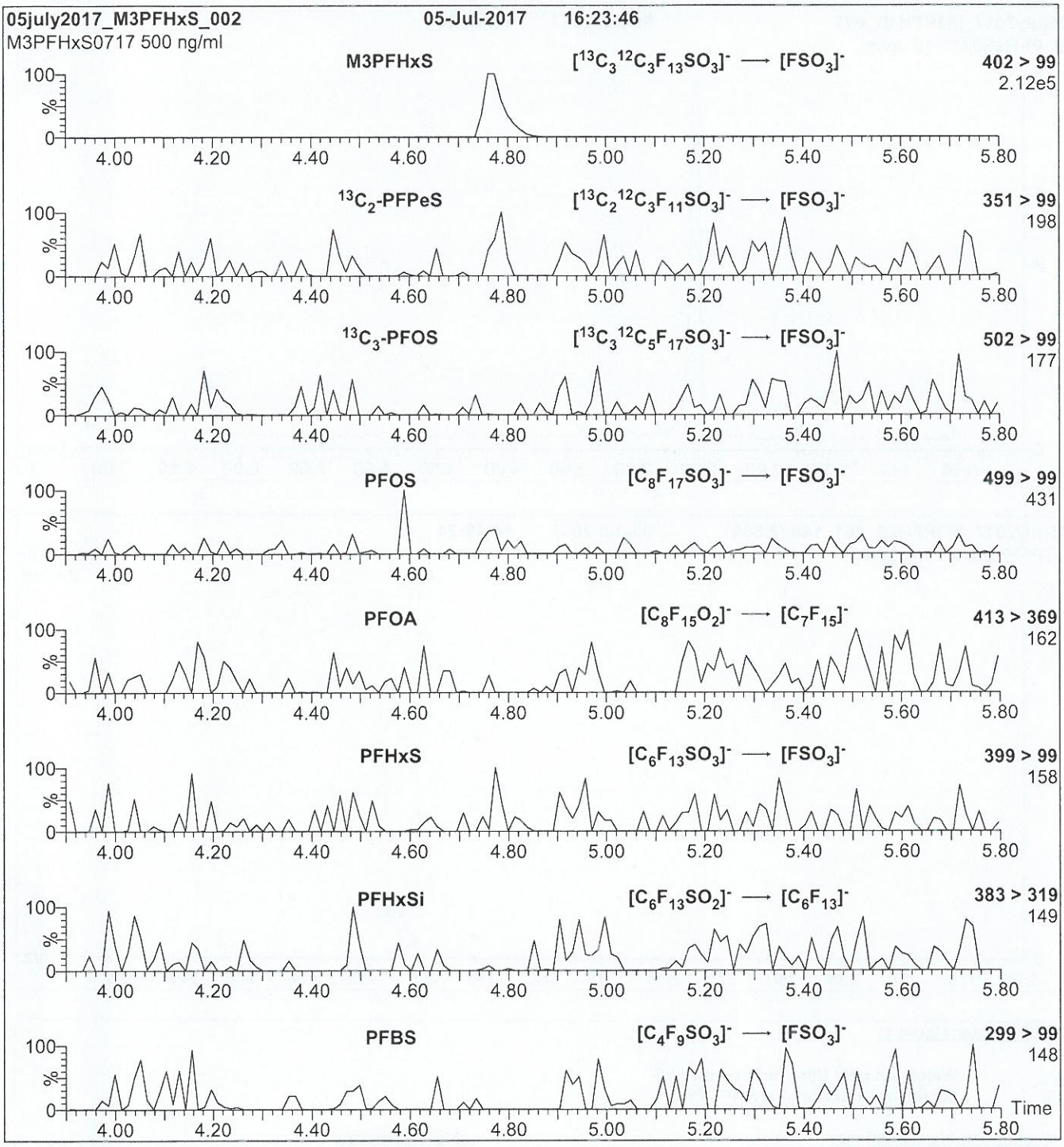
MS Parameters

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

1701023

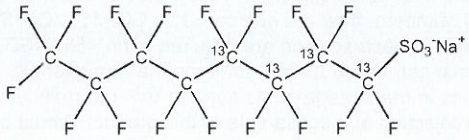
WELLINGTON LABORATORIES

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 ($1,2,3,4\text{-}^{13}C_4$)
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

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).

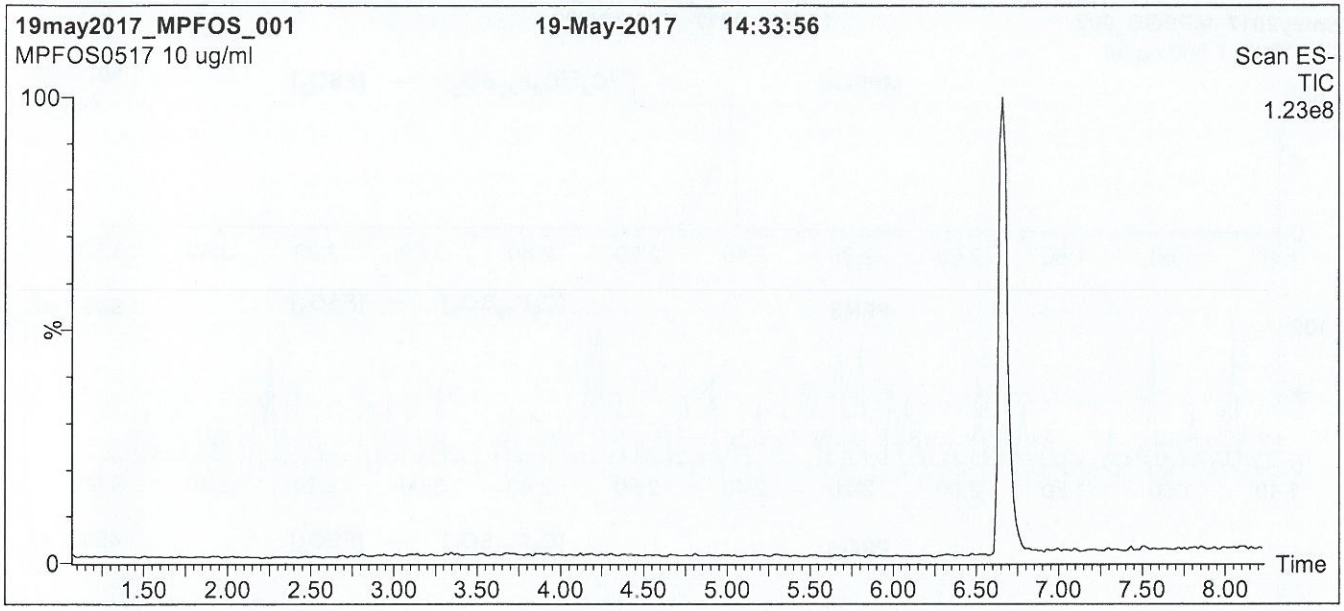
CALA Testing Accreditation No. A1226

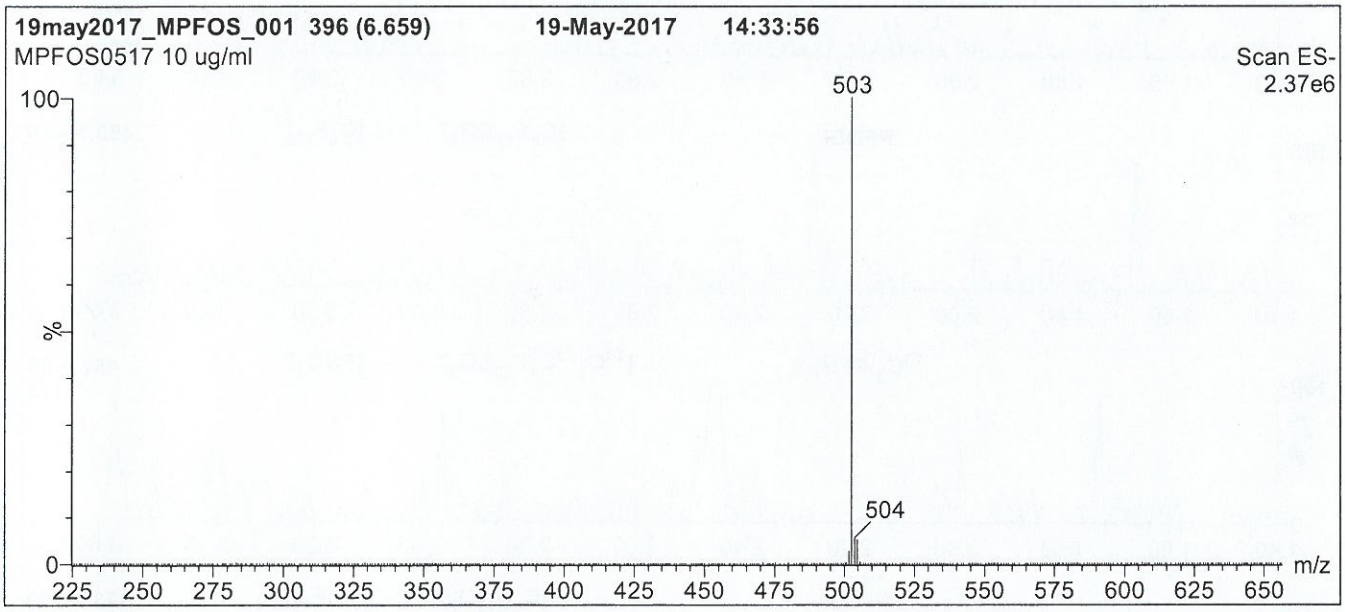
ANAB ACCREDITED ISO 17025 ISO 17034 REFERENCE MATERIAL PRODUCER

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

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

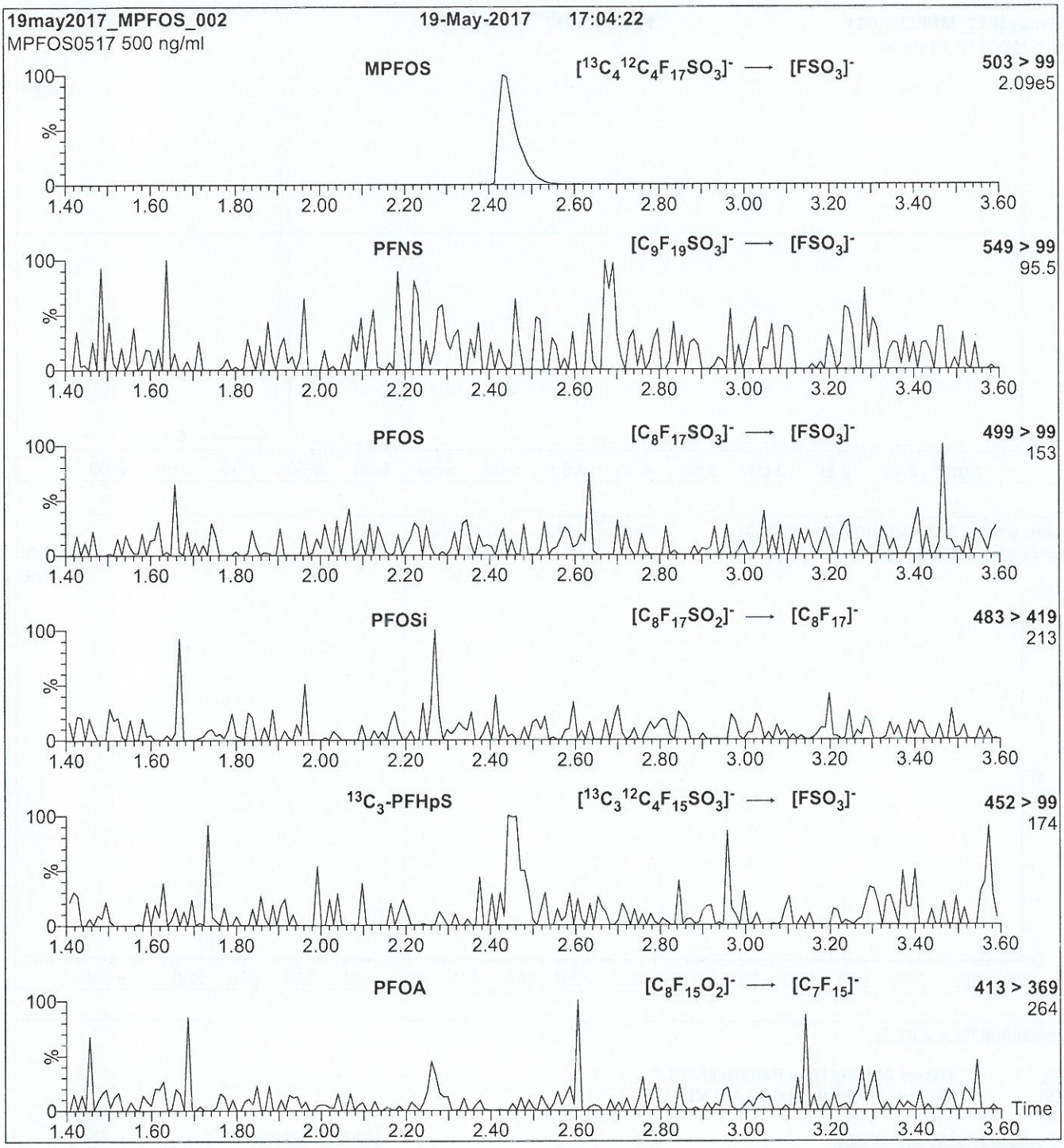
MS Parameters

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

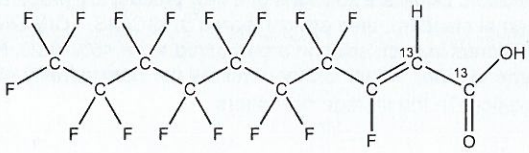
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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

INTENDED USE:

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SYNTHESIS / CHARACTERIZATION:

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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.

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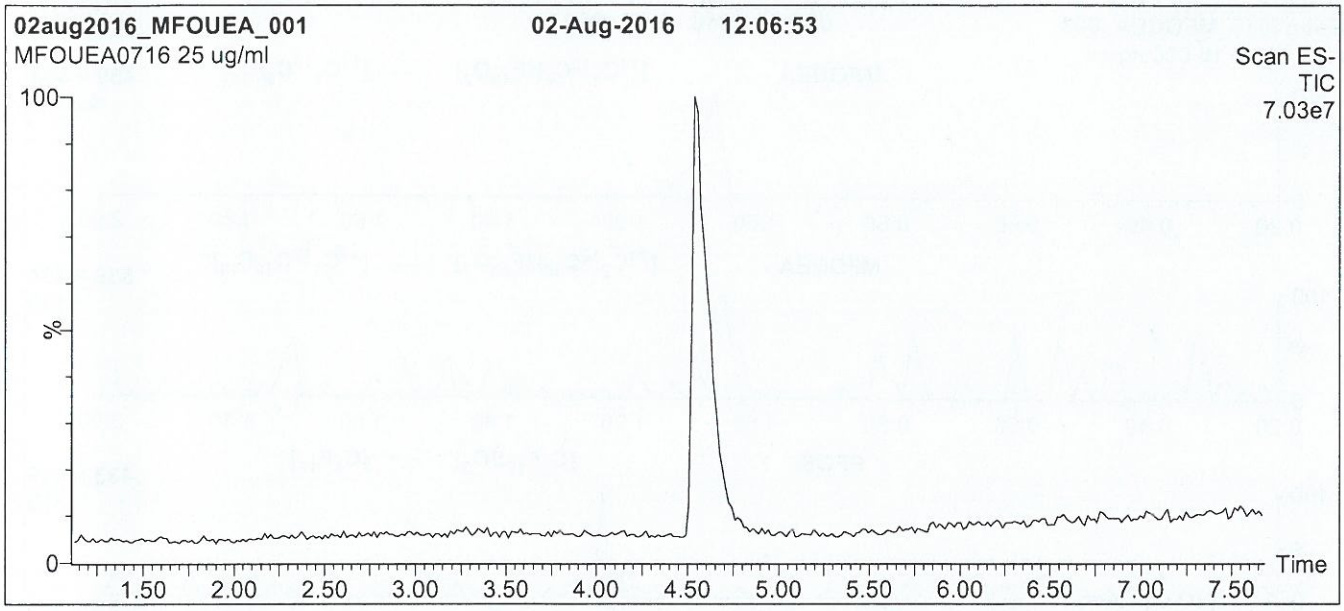
CALA Testing Accreditation No. A1226

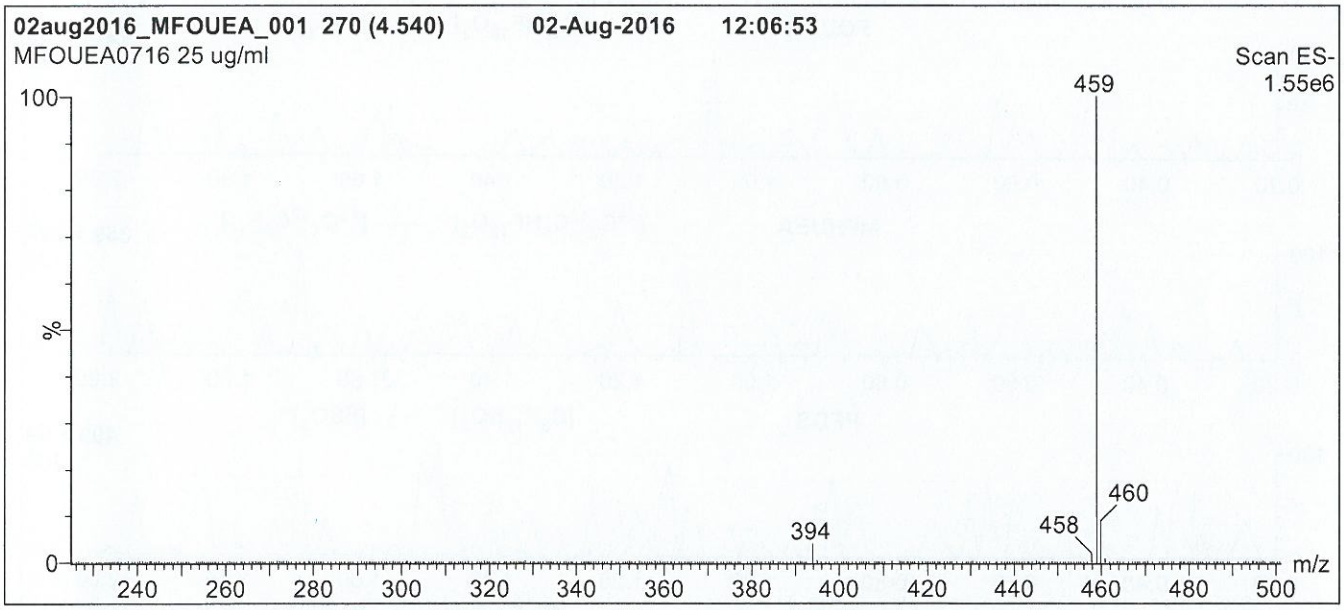
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

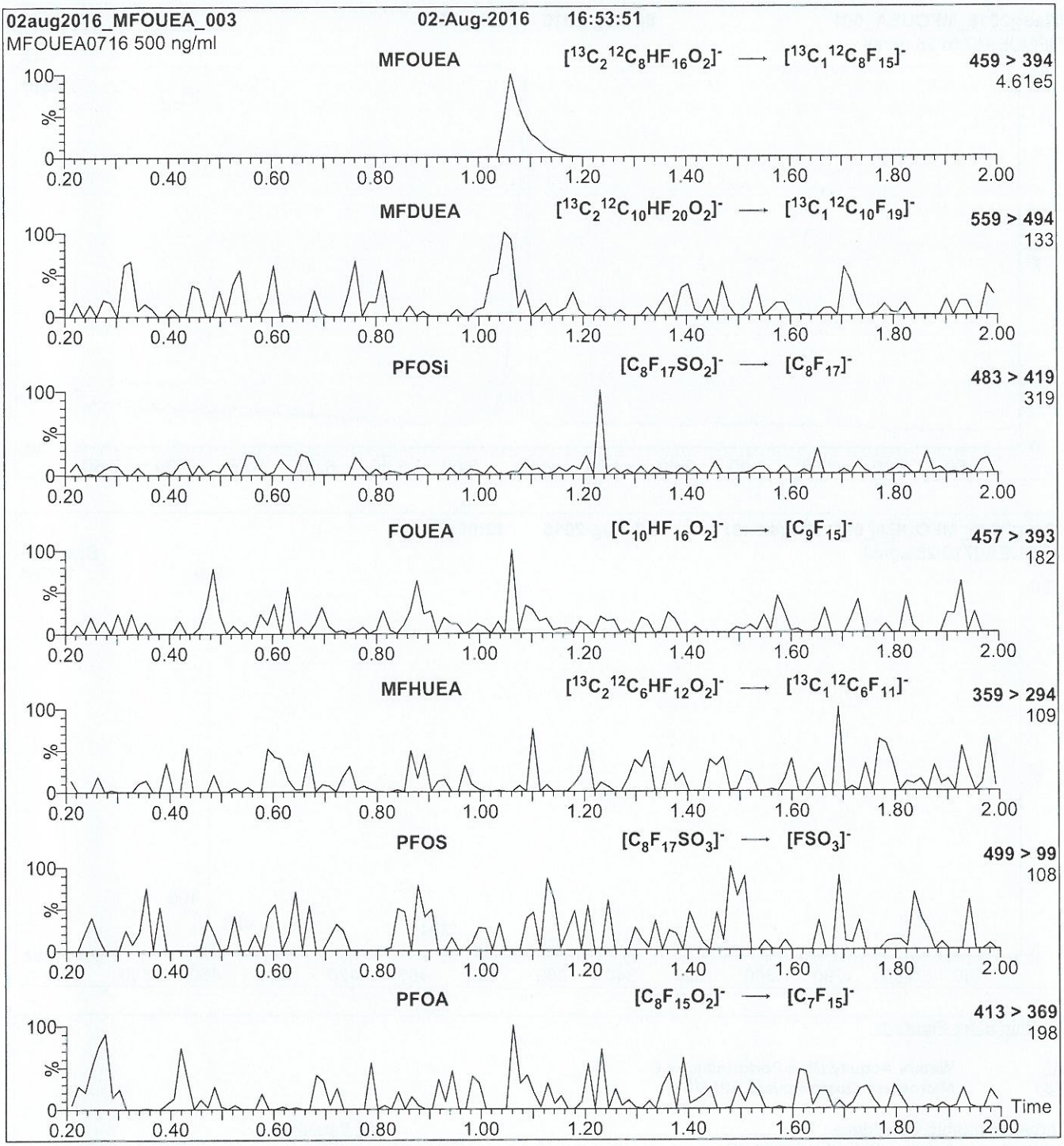
MS Parameters

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

17J1024

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-MW02I-NP-20171115","Modified EPA Method 537","Initial","1701710-01","Vista","13C2-PFUnA","13C2-PFUnA","73.4","%R","","-99","NA","","IS","73.4","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-MW02I-NP-20171115","Modified EPA Method 537","Initial","1701710-01","Vista","d5-EtFOSAA","d5-

EtFOSAA","77.2","%R","","-99","NA","","IS","77.2","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-MW02I-NP-20171115","Modified EPA Method 537","Initial","1701710-01","Vista","13C2-PFDoA","13C2-PFDoA","75.8","%R","","-99","NA","","IS","75.8","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-MW02I-NP-20171115","Modified EPA Method 537","Initial","1701710-01","Vista","13C2-PFTeDA","13C2-PFTeDA","77.6","%R","","-99","NA","","IS","77.6","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","375-73-5","PFBS","2.37","ng/L","U","0.848","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","307-24-4","PFHxA","2.37","ng/L","U","1.03","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","375-85-9","PFHpA","2.37","ng/L","U","0.280","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","355-46-4","PFHxS","2.37","ng/L","U","0.448","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","335-67-1","PFOA","2.37","ng/L","U","0.308","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","1763-23-1","PFOS","2.37","ng/L","U","0.382","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","375-95-1","PFNA","2.37","ng/L","U","0.384","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","335-76-2","PFDA","2.37","ng/L","U","0.705","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","2355-31-9","MeFOSAA","2.37","ng/L","U","0.781","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37","",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","2058-94-8","PFUnA","0.644","ng/L","J","0.497","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","2991-50-6","EtFOSAA","2.37","ng/L","U","0.649","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37","",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","307-55-1","PFDoA","2.37","ng/L","U","0.375","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","72629-94-8","PFTrDA","2.37","ng/L","U","0.234","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","376-06-7","PFTeDA","2.37","ng/L","U","0.357","LOD","","TRG","","","3.79","LOQ","YES","-99","","0.264","0.001","2.37",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C3-PFBS","13C3-PFBS","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C2-PFHxA","13C2-PFHxA","85.5","%R","","-99","NA","","IS","85.5","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C4-PFHpA","13C4-PFHpA","94.4","%R","","-99","NA","","IS","94.4","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","18O2-PFHxS","18O2-PFHxS","99.3","%R","","-99","NA","","IS","99.3","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C2-PFOA","13C2-PFOA","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C8-PFOS","13C8-PFOS","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C5-PFNA","13C5-PFNA","82.6","%R","","-99","NA","","IS","82.6","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C2-PFDA","13C2-PFDA","85.2","%R","","-99","NA","","IS","85.2","","-99","NA","YES","100","","0.264","0.001","-99",""

"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","d3-MeFOSAA","d3-MeFOSAA","89.0","%R","","-99","NA","","IS","89.0","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C2-PFUnA","13C2-PFUnA","94.8","%R","","-99","NA","","IS","94.8","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","d5-EtFOSAA","d5-EtFOSAA","78.9","%R","","-99","NA","","IS","78.9","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C2-PFDoA","13C2-PFDoA","125","%R","","-99","NA","","IS","125","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P1-20171115","Modified EPA Method 537","Initial","1701710-02","Vista","13C2-PFTeDA","13C2-PFTeDA","104","%R","","-99","NA","","IS","104","","-99","NA","YES","100","","0.264","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","375-73-5","PFBS","2.38","ng/L","U","0.849","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","307-24-4","PFHxA","2.38","ng/L","U","1.03","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","375-85-9","PFHpA","2.38","ng/L","U","0.280","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","355-46-4","PFHxS","2.38","ng/L","U","0.449","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","335-67-1","PFOA","2.38","ng/L","U","0.309","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","1763-23-1","PFOS","2.38","ng/L","U","0.383","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","375-95-1","PFNA","2.38","ng/L","U","0.384","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","335-76-2","PFDA","2.38","ng/L","U","0.707","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","2355-31-9","MeFOSAA","2.38","ng/L","U","0.783","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38","",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","2058-94-8","PFUnA","2.38","ng/L","U","0.498","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","2991-50-6","EtFOSAA","2.38","ng/L","U","0.650","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38","",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","307-55-1","PFDoA","2.38","ng/L","U","0.376","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","72629-94-8","PFTrDA","2.38","ng/L","U","0.234","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","376-06-7","PFTeDA","2.38","ng/L","U","0.358","LOD","","TRG","","","3.80","LOQ","YES","-99","","0.263","0.001","2.38",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C3-PFBS","13C3-PFBS","121","%R","","-99","NA","","IS","121","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C2-PFHxA","13C2-PFHxA","90.9","%R","","-99","NA","","IS","90.9","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C4-PFHpA","13C4-PFHpA","99.3","%R","","-99","NA","","IS","99.3","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","18O2-PFHxS","18O2-PFHxS","92.3","%R","","-99","NA","","IS","92.3","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C2-PFOA","13C2-PFOA","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C8-PFOS","13C8-PFOS","97.1","%R","","-99","NA","","IS","97.1","","-99","NA","YES","100","","0.263","0.001","-99",""

"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C5-PFNA","13C5-PFNA","98.5","%R","","-99","NA","","IS","98.5","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C2-PFDA","13C2-PFDA","72.8","%R","","-99","NA","","IS","72.8","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","d3-MeFOSAA","d3-MeFOSAA","72.6","%R","","-99","NA","","IS","72.6","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C2-PFUnA","13C2-PFUnA","73.0","%R","","-99","NA","","IS","73.0","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","d5-EtFOSAA","d5-EtFOSAA","75.9","%R","","-99","NA","","IS","75.9","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C2-PFDoA","13C2-PFDoA","88.1","%R","","-99","NA","","IS","88.1","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P2-20171115","Modified EPA Method 537","Initial","1701710-03","Vista","13C2-PFTeDA","13C2-PFTeDA","98.0","%R","","-99","NA","","IS","98.0","","-99","NA","YES","100","","0.263","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","375-73-5","PFBS","2.33","ng/L","U","0.836","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","307-24-4","PFHxA","2.33","ng/L","U","1.02","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","375-85-9","PFHpA","2.33","ng/L","U","0.276","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","355-46-4","PFHxS","2.33","ng/L","U","0.442","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","335-67-1","PFOA","2.33","ng/L","U","0.304","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","1763-23-1","PFOS","2.33","ng/L","U","0.377","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","375-95-1","PFNA","2.33","ng/L","U","0.378","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","335-76-2","PFDA","2.33","ng/L","U","0.696","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","2355-31-9","MeFOSAA","2.33","ng/L","U","0.771","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33","","
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","2058-94-8","PFUnA","2.33","ng/L","U","0.490","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","2991-50-6","EtFOSAA","2.33","ng/L","U","0.640","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33","","
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","307-55-1","PFDoA","2.33","ng/L","U","0.370","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","72629-94-8","PFTrDA","2.33","ng/L","U","0.231","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33","
"
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","376-06-7","PFTeDA","2.33","ng/L","U","0.353","LOD","","TRG","","","3.74","LOQ","YES","-99","","0.268","0.001","2.33","","
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C3-PFBS","13C3-PFBS","116","%R","","-99","NA","","IS","116","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C2-PFHxA","13C2-PFHxA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C4-PFHpA","13C4-PFHpA","97.2","%R","","-99","NA","","IS","97.2","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","18O2-PFHxS","18O2-PFHxS","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.268","0.001","-99",""

"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C2-PFOA","13C2-PFOA","92.4","%R","","-99","NA","","IS","92.4","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C8-PFOS","13C8-PFOS","92.7","%R","","-99","NA","","IS","92.7","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C5-PFNA","13C5-PFNA","90.1","%R","","-99","NA","","IS","90.1","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C2-PFDA","13C2-PFDA","84.1","%R","","-99","NA","","IS","84.1","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","d3-MeFOSAA","d3-MeFOSAA","87.8","%R","","-99","NA","","IS","87.8","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C2-PFUnA","13C2-PFUnA","83.0","%R","","-99","NA","","IS","83.0","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","d5-EtFOSAA","d5-EtFOSAA","85.3","%R","","-99","NA","","IS","85.3","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C2-PFDoA","13C2-PFDoA","104","%R","","-99","NA","","IS","104","","-99","NA","YES","100","","0.268","0.001","-99",""
"FT-MW02I-P3-20171115","Modified EPA Method 537","Initial","1701710-04","Vista","13C2-PFTeDA","13C2-PFTeDA","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.268","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","375-73-5","PFBS","2.54","ng/L","U","0.910","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","307-24-4","PFHxA","2.54","ng/L","U","1.11","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","375-85-9","PFHpA","2.54","ng/L","U","0.301","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","355-46-4","PFHxS","2.54","ng/L","U","0.482","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","335-67-1","PFOA","2.54","ng/L","U","0.331","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","1763-23-1","PFOS","2.54","ng/L","U","0.410","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","375-95-1","PFNA","2.54","ng/L","U","0.412","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","335-76-2","PFDA","2.54","ng/L","U","0.758","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","2355-31-9","MeFOSAA","2.54","ng/L","U","0.839","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54","",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","2058-94-8","PFUnA","2.54","ng/L","U","0.534","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","2991-50-6","EtFOSAA","2.54","ng/L","U","0.697","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54","",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","307-55-1","PFDoA","2.54","ng/L","U","0.403","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","72629-94-8","PFTrDA","2.54","ng/L","U","0.251","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54","",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","376-06-7","PFTeDA","2.54","ng/L","U","0.384","LOD","","TRG","","","4.07","LOQ","YES","-99","","0.246","0.001","2.54","",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C3-PFBS","13C3-PFBS","92.7","%R","","-99","NA","","IS","92.7","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C2-PFHxA","13C2-PFHxA","82.8","%R","","-99","NA","","IS","82.8","","-99","NA","YES","100","","0.246","0.001","-99",""

"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C4-PFHpA","13C4-PFHpA","85.6","%R","","-99","NA","","IS","85.6","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","18O2-PFHxS","18O2-PFHxS","82.5","%R","","-99","NA","","IS","82.5","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C2-PFOA","13C2-PFOA","77.3","%R","","-99","NA","","IS","77.3","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C8-PFOS","13C8-PFOS","92.0","%R","","-99","NA","","IS","92.0","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C5-PFNA","13C5-PFNA","76.2","%R","","-99","NA","","IS","76.2","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C2-PFDA","13C2-PFDA","75.0","%R","","-99","NA","","IS","75.0","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","d3-MeFOSAA","d3-MeFOSAA","81.0","%R","","-99","NA","","IS","81.0","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C2-PFUnA","13C2-PFUnA","79.8","%R","","-99","NA","","IS","79.8","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","d5-EtFOSAA","d5-EtFOSAA","77.6","%R","","-99","NA","","IS","77.6","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C2-PFDoA","13C2-PFDoA","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.246","0.001","-99",""
"DEET-20171115","Modified EPA Method 537","Initial","1701710-05","Vista","13C2-PFTeDA","13C2-PFTeDA","81.9","%R","","-99","NA","","IS","81.9","","-99","NA","YES","100","","0.246","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","375-73-5","PFBS","2.67","ng/L","U","0.957","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","307-24-4","PFHxA","2.67","ng/L","U","1.17","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","375-85-9","PFHpA","2.67","ng/L","U","0.316","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","355-46-4","PFHxS","2.67","ng/L","U","0.506","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","335-67-1","PFOA","2.67","ng/L","U","0.348","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","1763-23-1","PFOS","2.67","ng/L","U","0.431","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","375-95-1","PFNA","2.67","ng/L","U","0.433","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","335-76-2","PFDA","2.67","ng/L","U","0.796","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","2355-31-9","MeFOSAA","2.67","ng/L","U","0.882","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67","",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","2058-94-8","PFUnA","2.67","ng/L","U","0.561","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","2991-50-6","EtFOSAA","2.67","ng/L","U","0.732","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67","",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","307-55-1","PFDoA","2.67","ng/L","U","0.423","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","72629-94-8","PFTrDA","2.67","ng/L","U","0.264","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","376-06-7","PFTeDA","2.67","ng/L","U","0.404","LOD","","TRG","","","4.28","LOQ","YES","-99","","0.234","0.001","2.67",""

"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C3-PFBS","13C3-PFBS","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C2-PFHxA","13C2-PFHxA","88.6","%R","","-99","NA","","IS","88.6","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C4-PFHpA","13C4-PFHpA","94.0","%R","","-99","NA","","IS","94.0","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","18O2-PFHxS","18O2-PFHxS","89.2","%R","","-99","NA","","IS","89.2","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C2-PFOA","13C2-PFOA","87.7","%R","","-99","NA","","IS","87.7","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C8-PFOS","13C8-PFOS","89.8","%R","","-99","NA","","IS","89.8","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C5-PFNA","13C5-PFNA","89.9","%R","","-99","NA","","IS","89.9","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C2-PFDA","13C2-PFDA","64.9","%R","","-99","NA","","IS","64.9","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","d3-MeFOSAA","d3-MeFOSAA","75.3","%R","","-99","NA","","IS","75.3","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C2-PFUnA","13C2-PFUnA","72.7","%R","","-99","NA","","IS","72.7","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","d5-EtFOSAA","d5-EtFOSAA","65.0","%R","","-99","NA","","IS","65.0","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C2-PFDoA","13C2-PFDoA","80.2","%R","","-99","NA","","IS","80.2","","-99","NA","YES","100","","0.234","0.001","-99",""
"PERMETHRIN-20171115","Modified EPA Method 537","Initial","1701710-06","Vista","13C2-PFTeDA","13C2-PFTeDA","72.5","%R","","-99","NA","","IS","72.5","","-99","NA","YES","100","","0.234","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","375-73-5","PFBS","2.39","ng/L","U","0.858","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","307-24-4","PFHxA","2.39","ng/L","U","1.04","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","375-85-9","PFHpA","2.39","ng/L","U","0.283","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","355-46-4","PFHxS","2.39","ng/L","U","0.454","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","335-67-1","PFOA","2.39","ng/L","U","0.312","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","1763-23-1","PFOS","2.39","ng/L","U","0.387","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","375-95-1","PFNA","2.39","ng/L","U","0.388","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","335-76-2","PFDA","2.39","ng/L","U","0.714","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","2355-31-9","MeFOSAA","2.39","ng/L","U","0.791","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","2058-94-8","PFUnA","0.676","ng/L","J","0.503","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","2991-50-6","EtFOSAA","2.39","ng/L","U","0.657","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","307-55-1","PFDoA","2.39","ng/L","U","0.380","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","72629-94-

8","PFTrDA","2.39","ng/L","U","0.237","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39","
"
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","376-06-
7","PFTeDA","2.39","ng/L","U","0.362","LOD","","TRG","","","3.83","LOQ","YES","-99","","0.261","0.001","2.39",
""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C3-PFBS","13C3-
PFBS","93.7","%R","","-99","NA","","IS","93.7","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C2-PFHxA","13C2-
PFHxA","86.0","%R","","-99","NA","","IS","86.0","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C4-PFHpA","13C4-
PFHpA","82.7","%R","","-99","NA","","IS","82.7","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","18O2-PFHxS","18O2-
PFHxS","90.9","%R","","-99","NA","","IS","90.9","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C2-PFOA","13C2-
PFOA","84.8","%R","","-99","NA","","IS","84.8","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C8-PFOS","13C8-
PFOS","94.5","%R","","-99","NA","","IS","94.5","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C5-PFNA","13C5-
PFNA","68.1","%R","","-99","NA","","IS","68.1","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C2-PFDA","13C2-
PFDA","87.4","%R","","-99","NA","","IS","87.4","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","d3-MeFOSAA","d3-
MeFOSAA","80.8","%R","","-99","NA","","IS","80.8","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C2-PFUnA","13C2-
PFUnA","71.4","%R","","-99","NA","","IS","71.4","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","d5-EtFOSAA","d5-
EtFOSAA","76.6","%R","","-99","NA","","IS","76.6","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C2-PFDoA","13C2-
PFDoA","83.1","%R","","-99","NA","","IS","83.1","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-NP-20171115","Modified EPA Method 537","Initial","1701710-07","Vista","13C2-PFTeDA","13C2-
PFTeDA","91.6","%R","","-99","NA","","IS","91.6","","-99","NA","YES","100","","0.261","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","375-73-
5","PFBS","2.39","ng/L","U","0.853","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","307-24-
4","PFHxA","2.39","ng/L","U","1.04","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","375-85-
9","PFHpA","2.39","ng/L","U","0.282","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","355-46-
4","PFHxS","2.39","ng/L","U","0.451","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","335-67-
1","PFOA","2.39","ng/L","U","0.310","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","1763-23-
1","PFOS","2.39","ng/L","U","0.384","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","375-95-
1","PFNA","2.39","ng/L","U","0.386","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","335-76-
2","PFDA","2.39","ng/L","U","0.710","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","2355-31-
9","MeFOSAA","2.39","ng/L","U","0.786","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39
",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","2058-94-
8","PFUnA","2.39","ng/L","U","0.500","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","2991-50-
6","EtFOSAA","2.39","ng/L","U","0.653","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39"

,""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","307-55-1","PFDoA","2.39","ng/L","U","0.377","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","72629-94-8","PFTrDA","2.39","ng/L","U","0.235","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","376-06-7","PFTeDA","2.39","ng/L","U","0.360","LOD","","TRG","","","3.81","LOQ","YES","-99","","0.262","0.001","2.39",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C3-PFBS","13C3-PFBS","92.0","%R","","-99","NA","","IS","92.0","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C2-PFHxA","13C2-PFHxA","82.5","%R","","-99","NA","","IS","82.5","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C4-PFHpA","13C4-PFHpA","90.1","%R","","-99","NA","","IS","90.1","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","18O2-PFHxS","18O2-PFHxS","72.7","%R","","-99","NA","","IS","72.7","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C2-PFOA","13C2-PFOA","85.7","%R","","-99","NA","","IS","85.7","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C8-PFOS","13C8-PFOS","97.1","%R","","-99","NA","","IS","97.1","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C5-PFNA","13C5-PFNA","81.8","%R","","-99","NA","","IS","81.8","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C2-PFDA","13C2-PFDA","65.5","%R","","-99","NA","","IS","65.5","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","d3-MeFOSAA","d3-MeFOSAA","71.7","%R","","-99","NA","","IS","71.7","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C2-PFUnA","13C2-PFUnA","69.5","%R","","-99","NA","","IS","69.5","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","d5-EtFOSAA","d5-EtFOSAA","64.3","%R","","-99","NA","","IS","64.3","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C2-PFDoA","13C2-PFDoA","69.0","%R","","-99","NA","","IS","69.0","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P1-20171115","Modified EPA Method 537","Initial","1701710-08","Vista","13C2-PFTeDA","13C2-PFTeDA","68.4","%R","","-99","NA","","IS","68.4","","-99","NA","YES","100","","0.262","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","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",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","307-24-4","PFHxA","2.42","ng/L","U","1.06","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","375-85-9","PFHpA","2.42","ng/L","U","0.286","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","355-46-4","PFHxS","2.42","ng/L","U","0.458","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","335-67-1","PFOA","2.42","ng/L","U","0.315","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","1763-23-1","PFOS","2.42","ng/L","U","0.391","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","375-95-1","PFNA","2.42","ng/L","U","0.392","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","335-76-2","PFDA","2.42","ng/L","U","0.721","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","2355-31-9","MeFOSAA","2.42","ng/L","U","0.799","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42
",""

"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","2058-94-8","PFUnA","2.42","ng/L","U","0.508","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","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","",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","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",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","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","",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","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",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C3-PFBS","13C3-PFBS","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C2-PFHxA","13C2-PFHxA","92.6","%R","","-99","NA","","IS","92.6","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C4-PFHpA","13C4-PFHpA","96.5","%R","","-99","NA","","IS","96.5","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","18O2-PFHxS","18O2-PFHxS","87.5","%R","","-99","NA","","IS","87.5","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C2-PFOA","13C2-PFOA","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C8-PFOS","13C8-PFOS","91.7","%R","","-99","NA","","IS","91.7","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C5-PFNA","13C5-PFNA","77.0","%R","","-99","NA","","IS","77.0","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C2-PFDA","13C2-PFDA","87.8","%R","","-99","NA","","IS","87.8","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","d3-MeFOSAA","d3-MeFOSAA","97.2","%R","","-99","NA","","IS","97.2","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C2-PFUnA","13C2-PFUnA","83.7","%R","","-99","NA","","IS","83.7","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","d5-EtFOSAA","d5-EtFOSAA","86.3","%R","","-99","NA","","IS","86.3","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C2-PFDoA","13C2-PFDoA","94.3","%R","","-99","NA","","IS","94.3","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P2-20171115","Modified EPA Method 537","Initial","1701710-09","Vista","13C2-PFTeDA","13C2-PFTeDA","90.4","%R","","-99","NA","","IS","90.4","","-99","NA","YES","100","","0.258","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","375-73-5","PFBS","2.34","ng/L","U","0.839","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","307-24-4","PFHxA","2.34","ng/L","U","1.02","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","375-85-9","PFHpA","2.34","ng/L","U","0.277","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","355-46-4","PFHxS","2.34","ng/L","U","0.444","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","335-67-1","PFOA","2.34","ng/L","U","0.305","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","1763-23-1","PFOS","2.34","ng/L","U","0.378","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","375-95-1","PFNA","2.34","ng/L","U","0.380","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","335-76-

2","PFDA","2.34","ng/L","U","0.699","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","2355-31-9","MeFOSAA","2.34","ng/L","U","0.774","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","2058-94-8","PFUnA","2.34","ng/L","U","0.492","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","2991-50-6","EtFOSAA","2.34","ng/L","U","0.642","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","307-55-1","PFDoA","2.34","ng/L","U","0.371","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","72629-94-8","PFTrDA","2.34","ng/L","U","0.232","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","376-06-7","PFTeDA","2.34","ng/L","U","0.354","LOD","","TRG","","","3.75","LOQ","YES","-99","","0.267","0.001","2.34",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C3-PFBS","13C3-PFBS","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C2-PFHxA","13C2-PFHxA","93.2","%R","","-99","NA","","IS","93.2","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C4-PFHpA","13C4-PFHpA","96.6","%R","","-99","NA","","IS","96.6","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","18O2-PFHxS","18O2-PFHxS","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C2-PFOA","13C2-PFOA","89.0","%R","","-99","NA","","IS","89.0","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C8-PFOS","13C8-PFOS","117","%R","","-99","NA","","IS","117","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C5-PFNA","13C5-PFNA","86.7","%R","","-99","NA","","IS","86.7","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C2-PFDA","13C2-PFDA","91.0","%R","","-99","NA","","IS","91.0","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","d3-MeFOSAA","d3-MeFOSAA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C2-PFUnA","13C2-PFUnA","90.9","%R","","-99","NA","","IS","90.9","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","d5-EtFOSAA","d5-EtFOSAA","88.4","%R","","-99","NA","","IS","88.4","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C2-PFDoA","13C2-PFDoA","89.4","%R","","-99","NA","","IS","89.4","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456S-P3-20171115","Modified EPA Method 537","Initial","1701710-10","Vista","13C2-PFTeDA","13C2-PFTeDA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","0.267","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","375-73-5","PFBS","2.35","ng/L","U","0.843","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","307-24-4","PFHxA","2.35","ng/L","U","1.03","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","375-85-9","PFHpA","2.35","ng/L","U","0.278","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","355-46-4","PFHxS","2.35","ng/L","U","0.446","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","335-67-1","PFOA","2.35","ng/L","U","0.306","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","1763-23-

1","PFOS","2.35","ng/L","U","0.380","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","375-95-
1","PFNA","2.35","ng/L","U","0.381","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","335-76-
2","PFDA","2.35","ng/L","U","0.701","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","2355-31-
9","MeFOSAA","2.35","ng/L","U","0.777","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35
",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","2058-94-
8","PFUnA","2.35","ng/L","U","0.494","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","2991-50-
6","EtFOSAA","2.35","ng/L","U","0.645","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35"
,""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","307-55-
1","PFDoA","2.35","ng/L","U","0.373","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","72629-94-
8","PFTrDA","2.35","ng/L","U","0.233","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35","
"
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","376-06-
7","PFTeDA","2.35","ng/L","U","0.355","LOD","","TRG","","","3.77","LOQ","YES","-99","","0.266","0.001","2.35",
""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C3-PFBS","13C3-
PFBS","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C2-PFHxA","13C2-
PFHxA","98.2","%R","","-99","NA","","IS","98.2","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C4-PFHpA","13C4-
PFHpA","96.9","%R","","-99","NA","","IS","96.9","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","18O2-PFHxS","18O2-
PFHxS","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C2-PFOA","13C2-
PFOA","88.1","%R","","-99","NA","","IS","88.1","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C8-PFOS","13C8-
PFOS","98.5","%R","","-99","NA","","IS","98.5","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C5-PFNA","13C5-
PFNA","91.2","%R","","-99","NA","","IS","91.2","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C2-PFDA","13C2-
PFDA","82.0","%R","","-99","NA","","IS","82.0","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","d3-MeFOSAA","d3-
MeFOSAA","93.4","%R","","-99","NA","","IS","93.4","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C2-PFUnA","13C2-
PFUnA","81.3","%R","","-99","NA","","IS","81.3","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","d5-EtFOSAA","d5-
EtFOSAA","93.0","%R","","-99","NA","","IS","93.0","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C2-PFDoA","13C2-
PFDoA","76.5","%R","","-99","NA","","IS","76.5","","-99","NA","YES","100","","0.266","0.001","-99",""
"FT-PZ-456-FRB-20171115","Modified EPA Method 537","Initial","1701710-11","Vista","13C2-PFTeDA","13C2-
PFTeDA","79.9","%R","","-99","NA","","IS","79.9","","-99","NA","YES","100","","0.266","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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
",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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"
,""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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","
"
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-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",
""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C3-PFBS","13C3-
PFBS","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C2-PFHxA","13C2-
PFHxA","90.9","%R","","-99","NA","","IS","90.9","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C4-PFHpA","13C4-
PFHpA","96.7","%R","","-99","NA","","IS","96.7","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","18O2-PFHxS","18O2-
PFHxS","91.7","%R","","-99","NA","","IS","91.7","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C2-PFOA","13C2-
PFOA","92.5","%R","","-99","NA","","IS","92.5","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C8-PFOS","13C8-
PFOS","96.2","%R","","-99","NA","","IS","96.2","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C5-PFNA","13C5-
PFNA","91.4","%R","","-99","NA","","IS","91.4","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C2-PFDA","13C2-
PFDA","94.1","%R","","-99","NA","","IS","94.1","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","d3-MeFOSAA","d3-
MeFOSAA","84.3","%R","","-99","NA","","IS","84.3","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C2-PFUnA","13C2-
PFUnA","73.4","%R","","-99","NA","","IS","73.4","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","d5-EtFOSAA","d5-
EtFOSAA","64.6","%R","","-99","NA","","IS","64.6","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C2-PFDoA","13C2-
PFDoA","79.4","%R","","-99","NA","","IS","79.4","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BLK1","Modified EPA Method 537","Initial","B7K0176-BLK1","Vista","13C2-PFTeDA","13C2-
PFTeDA","67.3","%R","","-99","NA","","IS","67.3","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","375-73-
5","PFBS","47.0","ng/L","","0.895","LOD","","TRG","118","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","
"

"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","307-24-4","PFHxA","47.1","ng/L","","1.09","LOD","","TRG","118","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","375-85-9","PFHpA","41.1","ng/L","","0.296","LOD","","TRG","103","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","355-46-4","PFHxS","42.2","ng/L","","0.474","LOD","","TRG","106","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","335-67-1","PFOA","41.4","ng/L","","0.326","LOD","","TRG","103","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","1763-23-1","PFOS","47.3","ng/L","","0.404","LOD","","TRG","118","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","375-95-1","PFNA","49.6","ng/L","","0.405","LOD","","TRG","124","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","335-76-2","PFDA","45.3","ng/L","","0.745","LOD","","TRG","113","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","2355-31-9","MeFOSAA","37.3","ng/L","","0.825","LOD","","TRG","93.2","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","2058-94-8","PFUnA","41.8","ng/L","","0.525","LOD","","TRG","104","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","2991-50-6","EtFOSAA","47.2","ng/L","","0.685","LOD","","TRG","118","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","307-55-1","PFDoA","32.8","ng/L","","0.396","LOD","","TRG","81.9","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","72629-94-8","PFTrDA","32.9","ng/L","","0.247","LOD","","TRG","82.2","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","376-06-7","PFTeDA","51.7","ng/L","","0.378","LOD","","TRG","129","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C3-PFBS","13C3-PFBS","88.8","%R","","-99","NA","","IS","88.8","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C2-PFHxA","13C2-PFHxA","92.3","%R","","-99","NA","","IS","92.3","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C4-PFHpA","13C4-PFHpA","90.5","%R","","-99","NA","","IS","90.5","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","18O2-PFHxS","18O2-PFHxS","91.3","%R","","-99","NA","","IS","91.3","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C2-PFOA","13C2-PFOA","85.4","%R","","-99","NA","","IS","85.4","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C8-PFOS","13C8-PFOS","85.9","%R","","-99","NA","","IS","85.9","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C5-PFNA","13C5-PFNA","88.2","%R","","-99","NA","","IS","88.2","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C2-PFDA","13C2-

PFDA","75.6","%R","","-99","NA","","IS","75.6","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","d3-MeFOSAA","d3-
MeFOSAA","72.5","%R","","-99","NA","","IS","72.5","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C2-PFUnA","13C2-
PFUnA","67.1","%R","","-99","NA","","IS","67.1","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","d5-EtFOSAA","d5-
EtFOSAA","71.8","%R","","-99","NA","","IS","71.8","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C2-PFDoA","13C2-
PFDoA","85.5","%R","","-99","NA","","IS","85.5","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BS1","Modified EPA Method 537","Initial","B7K0176-BS1","Vista","13C2-PFTeDA","13C2-
PFTeDA","70.2","%R","","-99","NA","","IS","70.2","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","375-73-
5","PFBS","43.8","ng/L","","0.895","LOD","","TRG","110","7.07","4.00","LOQ","YES","40.0","","0.250","0.001","2.
50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","307-24-
4","PFHxA","42.7","ng/L","","1.09","LOD","","TRG","107","9.85","4.00","LOQ","YES","40.0","","0.250","0.001","2.
50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","375-85-
9","PFHpA","45.7","ng/L","","0.296","LOD","","TRG","114","10.6","4.00","LOQ","YES","40.0","","0.250","0.001","
2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","355-46-
4","PFHxS","35.9","ng/L","","0.474","LOD","","TRG","89.9","16.1","4.00","LOQ","YES","40.0","","0.250","0.001","
2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","335-67-
1","PFOA","42.3","ng/L","","0.326","LOD","","TRG","106","2.22","4.00","LOQ","YES","40.0","","0.250","0.001","2.
50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","1763-23-
1","PFOS","44.4","ng/L","","0.404","LOD","","TRG","111","6.35","4.00","LOQ","YES","40.0","","0.250","0.001","2.
50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","375-95-
1","PFNA","49.4","ng/L","","0.405","LOD","","TRG","123","0.504","4.00","LOQ","YES","40.0","","0.250","0.001","
2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","335-76-
2","PFDA","46.5","ng/L","","0.745","LOD","","TRG","116","2.55","4.00","LOQ","YES","40.0","","0.250","0.001","2.
50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","2355-31-
9","MeFOSAA","34.4","ng/L","","0.825","LOD","","TRG","85.9","8.05","4.00","LOQ","YES","40.0","","0.250","0.00
1","2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","2058-94-
8","PFUnA","36.9","ng/L","","0.525","LOD","","TRG","92.4","12.3","4.00","LOQ","YES","40.0","","0.250","0.001","
2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","2991-50-
6","EtFOSAA","48.0","ng/L","","0.685","LOD","","TRG","120","1.59","4.00","LOQ","YES","40.0","","0.250","0.001
","2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","307-55-
1","PFDoA","37.3","ng/L","","0.396","LOD","","TRG","93.2","12.9","4.00","LOQ","YES","40.0","","0.250","0.001","
2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","72629-94-
8","PFTrDA","38.8","ng/L","","0.247","LOD","","TRG","97.0","16.5","4.00","LOQ","YES","40.0","","0.250","0.001",
"2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","376-06-
7","PFTeDA","38.7","ng/L","","0.378","LOD","","TRG","96.7","28.7","4.00","LOQ","YES","40.0","","0.250","0.001",
"2.50",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C3-PFBS","13C3-

PFBS","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C2-PFHxA","13C2-
PFHxA","98.6","%R","","-99","NA","","IS","98.6","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C4-PFHpA","13C4-
PFHpA","91.9","%R","","-99","NA","","IS","91.9","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","18O2-PFHxS","18O2-
PFHxS","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C2-PFOA","13C2-
PFOA","83.0","%R","","-99","NA","","IS","83.0","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C8-PFOS","13C8-
PFOS","86.9","%R","","-99","NA","","IS","86.9","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C5-PFNA","13C5-
PFNA","88.8","%R","","-99","NA","","IS","88.8","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C2-PFDA","13C2-
PFDA","97.2","%R","","-99","NA","","IS","97.2","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","d3-MeFOSAA","d3-
MeFOSAA","73.6","%R","","-99","NA","","IS","73.6","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C2-PFUnA","13C2-
PFUnA","76.8","%R","","-99","NA","","IS","76.8","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","d5-EtFOSAA","d5-
EtFOSAA","65.9","%R","","-99","NA","","IS","65.9","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C2-PFDoA","13C2-
PFDoA","81.6","%R","","-99","NA","","IS","81.6","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7K0176-BSD1","Modified EPA Method 537","Initial","B7K0176-BSD1","Vista","13C2-PFTeDA","13C2-
PFTeDA","73.8","%R","","-99","NA","","IS","73.8","","-99","NA","YES","100","","0.250","0.001","-99",""
"112G08005-WE05","112G08005-WE05","FT-MW02I-NP-20171115","11/15/2017 09:05","AQ","1701710-
01","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
07:40","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-MW02I-P1-20171115","11/15/2017 09:55","AQ","1701710-
02","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
07:51","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-MW02I-P2-20171115","11/15/2017 10:36","AQ","1701710-
03","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
08:02","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-MW02I-P3-20171115","11/15/2017 11:25","AQ","1701710-
04","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
08:13","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","DEET-20171115","11/15/2017 10:15","AQ","1701710-
05","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
08:24","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","PERMETHRIN-20171115","11/15/2017 10:20","AQ","1701710-
06","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
08:36","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-PZ-456S-NP-20171115","11/15/2017 14:30","AQ","1701710-
07","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
08:47","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-PZ-456S-P1-20171115","11/15/2017 14:45","AQ","1701710-

08","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
08:58","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-PZ-456S-P2-20171115","11/15/2017 14:55","AQ","1701710-
09","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
09:09","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-PZ-456S-P3-20171115","11/15/2017 15:05","AQ","1701710-
10","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
09:20","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-PZ-456-FRB-20171115","11/15/2017 15:10","AQ","1701710-
11","NM","","0.60","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/09/2017
15:20","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","11/16/2017 09:47","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","B7K0176-BLK1","01/01/1900 00:00","AQ","B7K0176-
BLK1","MB","","-99","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
07:29","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","01/01/1900 00:00","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","B7K0176-BS1","01/01/1900 00:00","AQ","B7K0176-
BS1","LCS","","-99","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
07:06","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","01/01/1900 00:00","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","B7K0176-BSD1","01/01/1900 00:00","AQ","B7K0176-
BSD1","LCSD","","-99","Modified EPA Method 537","METHOD","Initial","11/29/2017 08:04","12/08/2017
07:17","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B7K0176","B7K0176","NA","S7L0025","1701710","01/01/1900 00:00","01/01/1900 00:00",""

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **K. FRANCISCO** **DATE:** **JANUARY 29, 2018**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – POLYFLUOROALKYL SUBSTANCES (PFAS)**
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), CALVERTON
SITE 00002, FORMER FIRE TRAINING AREA
SAMPLE DELIVERY GROUP (SDG) 1701710

SAMPLES: 11/Aqueous/PFAS

DEET-20171115	FT-MW02I-NP-20171115	FT-MW02I-P1-20171115
FT-MW02I-P2-20171115	FT-MW02I-P3-20171115	FT-PZ-456-FRB-20171115
FT-PZ-456S-NP-20171115	FT-PZ-456S-P1-20171115	FT-PZ-456S-P2-20171115
FT-PZ-456S-P3-20171115	PERMETHRIN-20171115	

Overview

The sample set for NWIRP Calverton, SDG 1701710 consisted of eight (8) aqueous environmental samples, two personal protection equipment samples (IDs contain DEET and Permethrin), and one (1) Field Reagent Blank (FRB). All eleven (11) samples were analyzed for polyfluoroalkyl substances (PFAS). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on November 15, 2017 and analyzed by Vista Analytical Laboratory. All analyses were conducted in accordance with EPA Method 537 Modified analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

* • Data completeness
* • Hold times/Sample Preservation
* • LC/MS/MS System Tuning and Performance
* • Initial/Continuing Calibrations
* • Laboratory Method Blank Results
* • Field Reagent Blank Results
* • Isotope Dilution Analyte Surrogate Recoveries
* • Laboratory Control Sample/Laboratory Control Sample Duplicate Results
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

PFAS

No issues were identified.

Additional Comments

PFAS compounds were not detected in the FRB contained in this SDG.

Detected results reported below the Limit of Quantitation (LOQ) but above the Method Detection Limit (MDL) were qualified as estimated, (J). Non-detected results were reported to the LOD.

Executive Summary

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the "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 5.1" (2017). The text of this report has been formulated to address only those areas affecting data quality.

Michelle L. Woeber

Tetra Tech, Inc.
Michelle L. Woeber
Chemist/Data Validator

Joseph A. Samchuck

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A - Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

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.

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

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	DEET-20171115			FT-MW02I-NP-20171115			FT-MW02I-P1-20171115			FT-MW02I-P2-20171115		
SDG: 1701710	LAB_ID	1701710-05			1701710-01			1701710-02			1701710-03		
FRACTION: PFAS	SAMP_DATE	11/15/2017			11/15/2017			11/15/2017			11/15/2017		
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		2.54	U		2.39	U		2.37	U		2.38	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PENTADECAFLUOROOCTANOIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUOROBUTANESULFONIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUORODECANOIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUORODODECANOIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUOROHEPTANOIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUOROHEXANESULFONIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUOROHEXANOIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUORONONANOIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUOROOCTANE SULFONIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUOROTETRADECANOIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUOROTRIDECANOIC ACID		2.54	U		2.39	U		2.37	U		2.38	U	
PERFLUOROUNDECANOIC ACID		2.54	U		2.39	U		0.644	J	P	2.38	U	

PROJ_NO: 08005-WE05	NSAMPLE	FT-MW02I-P3-20171115			FT-PZ-456-FRB-20171115			FT-PZ-456S-NP-20171115			FT-PZ-456S-P1-20171115		
SDG: 1701710	LAB_ID	1701710-04			1701710-11			1701710-07			1701710-08		
FRACTION: PFAS	SAMP_DATE	11/15/2017			11/15/2017			11/15/2017			11/15/2017		
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		2.33	U		2.35	U		2.39	U		2.39	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PENTADECAFLUOROOCTANOIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUOROBUTANESULFONIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUORODECANOIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUORODODECANOIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUOROHEPTANOIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUOROHEXANESULFONIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUOROHEXANOIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUORONONANOIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUOROOCTANE SULFONIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUOROTETRADECANOIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUOROTRIDECANOIC ACID		2.33	U		2.35	U		2.39	U		2.39	U	
PERFLUOROUNDECANOIC ACID		2.33	U		2.35	U		0.676	J	P	2.39	U	

PROJ_NO: 08005-WE05	NSAMPLE	FT-PZ-456S-P2-20171115			FT-PZ-456S-P3-20171115			PERMETHRIN-20171115		
SDG: 1701710	LAB_ID	1701710-09			1701710-10			1701710-06		
FRACTION: PFAS	SAMP_DATE	11/15/2017			11/15/2017			11/15/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.42	U		2.34	U		2.67	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.42	U		2.34	U		2.67	U	
PENTADECAFLUOROOCTANOIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUOROBUTANESULFONIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUORODECANOIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUORODODECANOIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUOROHEPTANOIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUOROHEXANESULFONIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUOROHEXANOIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUORONONANOIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUOROOCTANE SULFONIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUOROTETRADECANOIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUOROTRIDECANOIC ACID		2.42	U		2.34	U		2.67	U	
PERFLUOROUNDECANOIC ACID		2.42	U		2.34	U		2.67	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Vista Analytical Laboratory

Sample ID: FT-MW02I-NP-20171115

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: Groundwater
Date Collected: 15-Nov-17 09:05

Laboratory Data

Lab Sample: 1701710-01
Date Received: 16-Nov-17 09:47
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.857	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFHxA	ND	1.04	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFHpA	ND	0.283	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFHxS	ND	0.453	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFOA	ND	0.312	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFOS	ND	0.386	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFNA	ND	0.388	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFDA	ND	0.713	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
MeFOSAA	ND	0.790	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFUnA	ND	0.503	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
EtFOSAA	ND	0.656	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFDoA	ND	0.379	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFTrDA	ND	0.236	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
PFTeDA	ND	0.361	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	107	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFHxA	IS	92.3	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C4-PFHpA	IS	88.4	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
18O2-PFHxS	IS	102	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFOA	IS	87.7	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C8-PFOS	IS	84.8	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C5-PFNA	IS	98.3	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFDA	IS	81.1	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
d3-MeFOSAA	IS	63.7	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFUnA	IS	73.4	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
d5-EtFOSAA	IS	77.2	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFDoA	IS	75.8	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	1
13C2-PFTeDA	IS	77.6	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 07:40	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-MW02I-P1-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 09:55

Laboratory Data

Lab Sample: 1701710-02
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.848	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFHxA	ND	1.03	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFHpA	ND	0.280	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFHxS	ND	0.448	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFOA	ND	0.308	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFOS	ND	0.382	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFNA	ND	0.384	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFDA	ND	0.705	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
MeFOSAA	ND	0.781	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFUnA	0.644	0.497	2.37	3.79	J	B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
EtFOSAA	ND	0.649	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFDoA	ND	0.375	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFTrDA	ND	0.234	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
PFTeDA	ND	0.357	2.37	3.79		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	112	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFHxA	IS	85.5	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C4-PFHpA	IS	94.4	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
18O2-PFHxS	IS	99.3	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFOA	IS	107	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C8-PFOS	IS	108	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C5-PFNA	IS	82.6	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFDA	IS	85.2	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
d3-MeFOSAA	IS	89.0	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFUnA	IS	94.8	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
d5-EtFOSAA	IS	78.9	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFDoA	IS	125	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	1
13C2-PFTeDA	IS	104	50 - 150		B7K0176	29-Nov-17	0.264 L	08-Dec-17 07:51	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-MW02I-P2-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 10:36

Laboratory Data

Lab Sample: 1701710-03
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.849	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFHxA	ND	1.03	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFHpA	ND	0.280	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFHxS	ND	0.449	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFOA	ND	0.309	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFOS	ND	0.383	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFNA	ND	0.384	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFDA	ND	0.707	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
MeFOSAA	ND	0.783	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFUnA	ND	0.498	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
EtFOSAA	ND	0.650	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFDoA	ND	0.376	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFTrDA	ND	0.234	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
PFTeDA	ND	0.358	2.38	3.80		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	121	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFHxA	IS	90.9	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C4-PFHpA	IS	99.3	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
18O2-PFHxS	IS	92.3	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFOA	IS	102	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C8-PFOS	IS	97.1	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C5-PFNA	IS	98.5	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFDA	IS	72.8	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
d3-MeFOSAA	IS	72.6	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFUnA	IS	73.0	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
d5-EtFOSAA	IS	75.9	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFDoA	IS	88.1	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	1
13C2-PFTeDA	IS	98.0	50 - 150		B7K0176	29-Nov-17	0.263 L	08-Dec-17 08:02	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-MW02I-P3-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 11:25

Laboratory Data

Lab Sample: 1701710-04
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.836	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFHxA	ND	1.02	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFHpA	ND	0.276	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFHxS	ND	0.442	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFOA	ND	0.304	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFOS	ND	0.377	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFNA	ND	0.378	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFDA	ND	0.696	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
MeFOSAA	ND	0.771	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFUnA	ND	0.490	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
EtFOSAA	ND	0.640	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFDoA	ND	0.370	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFTrDA	ND	0.231	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
PFTeDA	ND	0.353	2.33	3.74		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	116	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFHxA	IS	103	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C4-PFHpA	IS	97.2	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
18O2-PFHxS	IS	101	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFOA	IS	92.4	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C8-PFOS	IS	92.7	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C5-PFNA	IS	90.1	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFDA	IS	84.1	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
d3-MeFOSAA	IS	87.8	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFUnA	IS	83.0	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
d5-EtFOSAA	IS	85.3	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFDoA	IS	104	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	1
13C2-PFTeDA	IS	112	50 - 150		B7K0176	29-Nov-17	0.268 L	08-Dec-17 08:13	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: DEET-20171115 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: QC Water
Date Collected: 15-Nov-17 10:15

Laboratory Data

Lab Sample: 1701710-05
Date Received: 16-Nov-17 09:47
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.910	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFHxA	ND	1.11	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFHpA	ND	0.301	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFHxS	ND	0.482	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFOA	ND	0.331	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFOS	ND	0.410	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFNA	ND	0.412	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFDA	ND	0.758	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
MeFOSAA	ND	0.839	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFUnA	ND	0.534	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
EtFOSAA	ND	0.697	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFDoA	ND	0.403	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFTrDA	ND	0.251	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
PFTeDA	ND	0.384	2.54	4.07		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	92.7	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFHxA	IS	82.8	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C4-PFHpA	IS	85.6	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
18O2-PFHxS	IS	82.5	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFOA	IS	77.3	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C8-PFOS	IS	92.0	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C5-PFNA	IS	76.2	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFDA	IS	75.0	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
d3-MeFOSAA	IS	81.0	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFUnA	IS	79.8	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
d5-EtFOSAA	IS	77.6	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFDoA	IS	102	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	1
13C2-PFTeDA	IS	81.9	50 - 150		B7K0176	29-Nov-17	0.246 L	08-Dec-17 08:24	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: PERMETHRIN-20171115 **Modified EPA Method 537**

Client Data

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

Matrix: QC Water
Date Collected: 15-Nov-17 10:20

Laboratory Data

Lab Sample: 1701710-06
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.957	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFHxA	ND	1.17	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFHpA	ND	0.316	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFHxS	ND	0.506	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFOA	ND	0.348	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFOS	ND	0.431	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFNA	ND	0.433	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFDA	ND	0.796	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
MeFOSAA	ND	0.882	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFUnA	ND	0.561	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
EtFOSAA	ND	0.732	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFDoA	ND	0.423	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFTrDA	ND	0.264	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
PFTeDA	ND	0.404	2.67	4.28		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFHxA	IS	88.6	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C4-PFHpA	IS	94.0	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
18O2-PFHxS	IS	89.2	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFOA	IS	87.7	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C8-PFOS	IS	89.8	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C5-PFNA	IS	89.9	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFDA	IS	64.9	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
d3-MeFOSAA	IS	75.3	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFUnA	IS	72.7	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
d5-EtFOSAA	IS	65.0	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFDoA	IS	80.2	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1
13C2-PFTeDA	IS	72.5	50 - 150		B7K0176	29-Nov-17	0.234 L	08-Dec-17 08:36	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: FT-PZ-456S-NP-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 14:30

Laboratory Data

Lab Sample: 1701710-07
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.858	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFHxA	ND	1.04	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFHpA	ND	0.283	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFHxS	ND	0.454	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFOA	ND	0.312	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFOS	ND	0.387	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFNA	ND	0.388	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFDA	ND	0.714	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
MeFOSAA	ND	0.791	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFUnA	0.676	0.503	2.39	3.83	J	B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
EtFOSAA	ND	0.657	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFDoA	ND	0.380	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFTrDA	ND	0.237	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
PFTeDA	ND	0.362	2.39	3.83		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	93.7	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFHxA	IS	86.0	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C4-PFHpA	IS	82.7	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
18O2-PFHxS	IS	90.9	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFOA	IS	84.8	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C8-PFOS	IS	94.5	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C5-PFNA	IS	68.1	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFDA	IS	87.4	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
d3-MeFOSAA	IS	80.8	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFUnA	IS	71.4	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
d5-EtFOSAA	IS	76.6	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFDoA	IS	83.1	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	1
13C2-PFTeDA	IS	91.6	50 - 150		B7K0176	29-Nov-17	0.261 L	08-Dec-17 08:47	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: FT-PZ-456S-P1-20171115 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 14:45

Laboratory Data

Lab Sample: 1701710-08
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.853	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFHxA	ND	1.04	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFHpA	ND	0.282	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFHxS	ND	0.451	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFOA	ND	0.310	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFOS	ND	0.384	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFNA	ND	0.386	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFDA	ND	0.710	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
MeFOSAA	ND	0.786	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFUnA	ND	0.500	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
EtFOSAA	ND	0.653	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFDoA	ND	0.377	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFTrDA	ND	0.235	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
PFTeDA	ND	0.360	2.39	3.81		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	92.0	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFHxA	IS	82.5	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C4-PFHpA	IS	90.1	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
18O2-PFHxS	IS	72.7	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFOA	IS	85.7	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C8-PFOS	IS	97.1	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C5-PFNA	IS	81.8	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFDA	IS	65.5	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
d3-MeFOSAA	IS	71.7	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFUnA	IS	69.5	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
d5-EtFOSAA	IS	64.3	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFDoA	IS	69.0	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	1
13C2-PFTeDA	IS	68.4	50 - 150		B7K0176	29-Nov-17	0.262 L	08-Dec-17 08:58	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-PZ-456S-P2-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 14:55

Laboratory Data

Lab Sample: 1701710-09
Date Received: 16-Nov-17 09:47

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		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFHxA	ND	1.06	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFHpA	ND	0.286	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFHxS	ND	0.458	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFOA	ND	0.315	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFOS	ND	0.391	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFNA	ND	0.392	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFDA	ND	0.721	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
MeFOSAA	ND	0.799	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFUnA	ND	0.508	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
EtFOSAA	ND	0.663	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFDoA	ND	0.383	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFTrDA	ND	0.239	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
PFTeDA	ND	0.365	2.42	3.87		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	102	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFHxA	IS	92.6	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C4-PFHpA	IS	96.5	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
18O2-PFHxS	IS	87.5	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFOA	IS	107	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C8-PFOS	IS	91.7	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C5-PFNA	IS	77.0	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFDA	IS	87.8	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
d3-MeFOSAA	IS	97.2	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFUnA	IS	83.7	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
d5-EtFOSAA	IS	86.3	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFDoA	IS	94.3	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	1
13C2-PFTeDA	IS	90.4	50 - 150		B7K0176	29-Nov-17	0.258 L	08-Dec-17 09:09	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-PZ-456S-P3-20171115

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 15-Nov-17 15:05

Laboratory Data

Lab Sample: 1701710-10
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.839	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFHxA	ND	1.02	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFHpA	ND	0.277	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFHxS	ND	0.444	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFOA	ND	0.305	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFOS	ND	0.378	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFNA	ND	0.380	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFDA	ND	0.699	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
MeFOSAA	ND	0.774	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFUnA	ND	0.492	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
EtFOSAA	ND	0.642	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFDoA	ND	0.371	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFTrDA	ND	0.232	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
PFTeDA	ND	0.354	2.34	3.75		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFHxA	IS	93.2	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C4-PFHpA	IS	96.6	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
18O2-PFHxS	IS	101	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFOA	IS	89.0	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C8-PFOS	IS	117	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C5-PFNA	IS	86.7	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFDA	IS	91.0	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
d3-MeFOSAA	IS	101	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFUnA	IS	90.9	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
d5-EtFOSAA	IS	88.4	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFDoA	IS	89.4	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	1
13C2-PFTeDA	IS	106	50 - 150		B7K0176	29-Nov-17	0.267 L	08-Dec-17 09:20	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-PZ-456-FRB-20171115

Modified EPA Method 537

Client Data

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

Matrix: QC Water
Date Collected: 15-Nov-17 15:10

Laboratory Data

Lab Sample: 1701710-11
Date Received: 16-Nov-17 09:47

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.843	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFHxA	ND	1.03	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFHpA	ND	0.278	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFHxS	ND	0.446	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFOA	ND	0.306	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFOS	ND	0.380	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFNA	ND	0.381	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFDA	ND	0.701	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
MeFOSAA	ND	0.777	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFUnA	ND	0.494	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
EtFOSAA	ND	0.645	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFDoA	ND	0.373	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFTrDA	ND	0.233	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
PFTeDA	ND	0.355	2.35	3.77		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFHxA	IS	98.2	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C4-PFHpA	IS	96.9	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
18O2-PFHxS	IS	111	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFOA	IS	88.1	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C8-PFOS	IS	98.5	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C5-PFNA	IS	91.2	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFDA	IS	82.0	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
d3-MeFOSAA	IS	93.4	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFUnA	IS	81.3	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
d5-EtFOSAA	IS	93.0	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFDoA	IS	76.5	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	1
13C2-PFTeDA	IS	79.9	50 - 150		B7K0176	29-Nov-17	0.266 L	09-Dec-17 15:20	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

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:15:48 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.20e3	0.2640		2.52				
2	4	PFHxA	313.2 > 268.9		2.90e3	0.2640		3.04				
3	5	PFHpA	363.0 > 318.9		6.32e3	0.2640		3.66				
4	6	L-PFHxS	398.9 > 79.6		1.05e3	0.2640		3.80				
5	9	L-PFOA	413 > 368.7	1.18e2	9.15e3	0.2640		4.20	4.17	0.161		
6	12	PFNA	463.0 > 418.8		6.63e3	0.2640		4.61				
7	14	L-PFOS	499 > 79.9		2.76e3	0.2640		4.69				
8	16	PFDA	513 > 468.8		8.79e3	0.2640		5.00				
9	18	N-MeFOSAA	570.1 > 419		2.76e3	0.2640		5.15				
10	19	N-EtFOSAA	584.2 > 419		2.72e3	0.2640		5.30				
11	20	PFUdA	563.0 > 518.9	7.32e1	7.85e3	0.2640		5.31	5.30	0.117	0.644	
12	22	PFDoA	612.9 > 569.0		5.19e3	0.2640		5.58				

ANP 12/11/17

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Rev'd: MM 12/11/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-49.qld

Last Altered: Monday, December 11, 2017 09:14:54 Pacific Standard Time
Printed: Monday, December 11, 2017 09:16:00 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.19e3	0.2640		5.75				
2	25	PFTeDA	712.9 > 668.8		4.24e3	0.2640		6.10				
3	33	13C3-PFBS	302. > 98.8	1.20e3	1.11e4	0.2640	0.097	2.52	2.56	1.35	52.833	111.6
4	34	13C2-PFHxA	315 > 269.8	2.90e3	1.11e4	0.2640	0.767	3.04	3.04	3.28	16.197	85.5
5	35	13C4-PFHpA	367.2 > 321.8	6.32e3	1.11e4	0.2640	0.605	3.66	3.66	7.14	44.696	94.4
6	36	18O2-PFHxS	403.0 > 102.6	1.05e3	2.47e3	0.2640	0.427	3.80	3.81	5.30	46.997	99.3
7	37	13C2-6:2 FTS	429.1 > 408.9	1.88e3	7.69e3	0.2640	0.261	4.21	4.12	3.05	44.290	93.5
8	38	13C2-PFOA	414.9 > 369.7	9.15e3	7.69e3	0.2640	1.112	4.20	4.18	14.9	50.651	107.0
9	39	13C5-PFNA	468.2 > 422.9	6.63e3	8.55e3	0.2640	0.939	4.63	4.61	9.70	39.102	82.6
10	40	13C8-PFOSA	506.1 > 77.7	1.73e3	7.66e3	0.2640	0.349	4.67	4.67	2.82	30.617	64.7
11	41	13C8-PFOS	507.0 > 79.9	2.76e3	2.59e3	0.2640	0.991	4.69	4.69	13.4	51.033	107.8
12	42	13C2-PFDA	515.1 > 469.9	8.79e3	7.88e3	0.2640	1.309	5.00	4.98	13.9	40.355	85.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.27e3	1.11e4	0.2640	0.103	4.98	4.95	1.44	52.540	111.0
14	44	d3-N-MeFOSAA	573.3 > 419	2.76e3	7.66e3	0.2640	0.405	5.15	5.13	4.51	42.157	89.0
15	45	d5-N-EtFOSAA	589.3 > 419	2.72e3	7.66e3	0.2640	0.450	5.30	5.28	4.44	37.357	78.9
16	46	13C2-PFUdA	565 > 519.8	7.85e3	7.66e3	0.2640	1.082	5.31	5.30	12.8	44.890	94.8
17	47	13C2-PFDoA	615.0 > 569.7	5.19e3	7.66e3	0.2640	0.544	5.58	5.58	8.47	58.962	124.5
18	49	13C2-PFTeDA	714.8 > 669.6	4.24e3	7.66e3	0.2640	0.533	6.10	6.04	6.92	49.172	103.9
19	55	13C5-PFHxA	318 > 272.9	1.11e4	1.11e4	0.2640	1.000	3.04	3.04	12.5	47.348	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.47e3	2.47e3	0.2640	1.000	3.80	3.81	12.5	47.348	100.0
21	57	13C8-PFOA	421.3 > 376	7.69e3	7.69e3	0.2640	1.000	4.20	4.17	12.5	47.348	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.55e3	8.55e3	0.2640	1.000	4.63	4.61	12.5	47.348	100.0
23	59	13C4-PFOS	503 > 79.9	2.59e3	2.59e3	0.2640	1.000	4.69	4.69	12.5	47.348	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.88e3	7.88e3	0.2640	1.000	5.00	4.98	12.5	47.348	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.66e3	7.66e3	0.2640	1.000	5.31	5.31	12.5	47.348	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	1.05e3	0.2640		3.81		0.000		
27	63	Total PFOA	413 > 368.7	1.18e2	9.15e3	0.2640		4.20		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.76e3	0.2640		4.69		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.76e3	0.2640		5.15		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.72e3	0.2640		5.30		0.000		

ANP 12/11/17

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

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701710 Temp: 0.6 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: 112G08005-WEOS PO#: _____ Sampler: Jacob Birkett, Beau Benfield, Lauren Donston (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#
	TetraTech	See Contract for billing	5700 Lakewright Dr. Suite 102 Norfolk	VA		

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Jacob Birkett	11-15-17	1730	FedEx		
FedEx	11/16/17	0947	Marissa Sparks	11/16/17	1016

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

ATTN: _____

Method of Shipment: FedEx

Tracking No.: 810291870558

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	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	Comments
FT-MW02I-NP-20171115	11-15-17	0905	FT-MW02I	2	P	GW			X						
FT-MW02I-P1-20171115		0955	" "	2	P				X						
FT-MW02I-P2-20171115		1036	" "	2	P				X						
FT-MW02I-P3-20171115		1125	" "	2	P	↓			X						
DEET-20171115		1015	None	2	P	QA			X						
PERMETHRIN-20171115		1020	None	2	P	QA			X						
FT-PZ-4565'-NP-20171115		1430	FT-PZ-4565'	2	P	GW			X						
FT-PZ-4565'-P1-20171115		1445	" "	2	P				X						
FT-PZ-4565'-P2-20171115		1455	" "	2	P				X						
FT-PZ-4565'-P3-20171115	↓	1505	" "	2	P	↓			X						
FT-PZ-456-FRB-20171115	11-15-17	1510	" "	2	P	QA			X						

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: Kristi Francisco
Company: Tetra Tech
Address: _____
City: _____ State: ___ Zip: _____
Phone: _____ Fax: _____
Email: _____

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: _____
GW-Groundwater
QA- Quality Assurance

Page: 1 of 1

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701710 **TAT** Std

Samples Arrival:	**Date/Time** 11/16/17 0947	**Initials:** WS	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 11/17/17 0725	**Initials:** SR	**Location:** WR-2 **Shelf/Rack:** F4

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

Temp °C: 0.5 (uncorrected)	**Time:** 1014	**Thermometer ID:** IR-1
Temp °C: 0.6 (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 0558	✓		
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	

* Sample Container label ID:

Comments:

Ⓐ* FT-MW02I-NP-~~20117~~ 20171115

* Reid ink on label very smeared, difficult to read, Ⓐ reconciled using collection time

* PERMETHRIN - 20171115

FT-PZ-456-NP-20171115
FT-PZ456S-NP-20171115
FT-PZ456S-P1-20171115
FT-PZ456-P2-20171115
FT-PZ456S-P2-20171115
FT-PZ456S-P3-20171115
FT-PZ456S-FRB-20171115

COC ID:
FT-PZ-456S-NP-20171115

FT-PZ-456S-P1-20171115
FT-PZ-456S-P2-20171115

FT-PZ-456S-P3-20171115
FT-PZ-456-FRB-20171115

Chain of Custody Anomaly/Sample Acceptance Form

Vista Analytical Laboratory

Tetra Tech
Kristi Francisco
Kristi.Francisco@tetratech.com
(757) 466-4902

Workorder Number: 1701710
Date Received: 16-Nov-17 09:47
Documented by/date: S.Roughton 11/17/17

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

Thank you,

Martha Maier
mmaier@vista-analytical.com
916-673-1520

[X] Sample IDs on Chain of Custody do not match Sample Container Labels

Chain of Custody ID	Container Label ID
FT-PZ-456S-NP-20171115	FT-PZ-456-NP-20171115
FT-PZ-456S-P1-20171115	FT-PZ456S-P1-20171115
FT-PZ-456S-P2-20171115	FT-PZ-456-P2-20171115
FT-PZ-456S-P3-20171115	FT-PZ456S-P3-20171115
FT-PZ-456-FRB-20171115	FT-PZ-456S-FRB-20171115

Client Authorization

Proceed with Analysis: (YES) NO Signature and Date Kaneff Mata 12/12/17

Client Comments/Instructions per client email on 11/29/17, the sample IDs on the COC are correct.

SDG Number WE05
Vista Work Order No. 1701710
Case Narrative

Sample Condition on Receipt:

Eight groundwater samples and three QC water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The client confirmed that the sample IDs on the CoC are correct.

Analytical Notes:

Modified EPA Method 537

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

Holding Times

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

Quality Control

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

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 of the LOQ concentrations. The LCS/LCSD recoveries were within the method acceptance criteria.

The extract of sample "FT-PZ-456-FRB-20171115" was re-injected because one or more Injection Internal Standard Analyte response areas were outside of criteria in the original injection. The results from the second injection have been reported.

The labeled standard recoveries for all QC and field samples were within the 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: [signature] Title: QA Manager Date: 12/12/2012

Revision 9
ISG
08/18/16

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.

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1701710-01	FT-MW02I-NP-20171115	15-Nov-17 09:05	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-02	FT-MW02I-P1-20171115	15-Nov-17 09:55	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-03	FT-MW02I-P2-20171115	15-Nov-17 10:36	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-04	FT-MW02I-P3-20171115	15-Nov-17 11:25	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-05	DEET-20171115	15-Nov-17 10:15	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-06	PERMETHRIN-20171115	15-Nov-17 10:20	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-07	FT-PZ-456S-NP-20171115	15-Nov-17 14:30	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-08	FT-PZ-456S-P1-20171115	15-Nov-17 14:45	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-09	FT-PZ-456S-P2-20171115	15-Nov-17 14:55	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-10	FT-PZ-456S-P3-20171115	15-Nov-17 15:05	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701710-11	FT-PZ-456-FRB-20171115	15-Nov-17 15:10	16-Nov-17 09:47	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

Process Sheet

Workorder: 1701710

Prep Expiration: 2017-Nov-29
Client: Tetra Tech

Workorder Due: 11-Dec-17 00:00
TAT: 25

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

Prep Batch: B7K0176

Prep Data Entered: 11.30.17 HC
Date and Initials

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

Initial Sequence: STL0025

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1701710-01	A	☐	☑	FT-MW02I-NP-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-02		☑	☑	FT-MW02I-P1-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-03		☑	☑	FT-MW02I-P2-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-04		☑	☑	FT-MW02I-P3-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-05		☑	☑	DEET-20171115		WR-2 F-4	HDPE Bottle, 250 mL
1701710-06		☑	☑	PERMETHRIN-20171115	HN 11/29/17	WR-2 F-4	HDPE Bottle, 250 mL
1701710-07		☑	☐	FT-PZ-456S-NP-20171115	"FT-PZ456S-~~NP~~-NP-20171115	WR-2 F-4	HDPE Bottle, 250 mL
1701710-08		☐	☐	FT-PZ-456S-P1-20171115	"FT-PZ456S-P1-20171115"	WR-2 F-4	HDPE Bottle, 250 mL
1701710-09		☐	☐	FT-PZ-456S-P2-20171115	"FT-PZ456S-P2-20171115"	WR-2 F-4	HDPE Bottle, 250 mL
1701710-10		☐	☐	FT-PZ-456S-P3-20171115	"FT-PZ456S-P3-20171115"	WR-2 F-4	HDPE Bottle, 250 mL
1701710-11		☐	☐	FT-PZ-456-FRB-20171115	"FT-PZ456S-FRB-20171115"	WR-2 F-4	HDPE Bottle, 250 mL

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

Pre-Prep Check Out: HC 11.28.17
Pre-Prep Check In: HC 11-28-17

Prep Check Out: HN 11/29/17
Prep Check In: MB

Prep Reconciled Initals/Date: HC 11-28-17
Spike Reconciled Initals/Date: HN 11/28/17 HN 11/29/17

VialBoxID: Lana

WO#: 1701710 DoD QSM 5.1

Sample Checklist

Due Date: 07-Dec-17

LabNumber	VersionID	Matrix	120717M2	IIS	171209M2	IIS		IIS		IIS
1701710-01	537 (14 Analyte)	Aqueous	✓	✓	N/A					
1701710-02	537 (14 Analyte)	Aqueous								
1701710-03	537 (14 Analyte)	Aqueous								
1701710-04	537 (14 Analyte)	Aqueous								
1701710-05	537 (14 Analyte)	Aqueous								
1701710-06	537 (14 Analyte)	Aqueous								
1701710-07	537 (14 Analyte)	Aqueous								
1701710-08	537 (14 Analyte)	Aqueous								
1701710-09	537 (14 Analyte)	Aqueous								
1701710-10	537 (14 Analyte)	Aqueous								
1701710-11	537 (14 Analyte)	Aqueous			✓	✓				
-BLK1										
-BS1			✓							
-BSD1			✓							

ICAL Top of Curve*

pg/ul	125mL (ng/L)	250mL (ng/L)	1.00g (ng/g)	5.00mL (ng/mL
100	800	400	100	20
250	2000	1000	250	50
500	4000	2000	500	100

Checkmark run used

R = Run
CO = CCAL Out
E = Over Curve
D = Dilution Run
RT = Retention Time Shift
Cr = Chromotography Issue
A = Area Out
PC = Possible Carryover
Checkmark IIS field for IIS Area has been checked

High Point* ICAL(pg/uL)	100 (250) 500	100 (250) 500	100 250 500	100 250 500
Low Point (pg/uL)	0.25	0.25		
ICALS	Q4-12-6-17-FULL	Q4-12-9-17_FULLOLDRS		
CCALS	-4 -5	-11		
Analyte Info		✓		
ISC	✓	✓		
IIS Areas	✓	✓		
IB	✓	✓		
High Point PC (pg/uL)	100 250 (500)	100 250 (500)	100 250 500	100 250 500

- ✓ All BLKs/BS Included
- NA All MS/MSD Included
- NA All DUPS Included
- ✓ All Run Logs Included
- ✓ Analyte List Matches Process Sheet
- Target RLs achieved for all analytes
- All Initial Wt/Vol Verified
- Correct ICAL Used
- ✓ Associated CCALS processed with same ICAL
- Correct Raw Data Files Saved (Archive Not Used)
- Correct Inst Files Saved (Archive Not Used)
- All Files Named Correctly

Submitted for Review by _____ **on** 12/11/17.

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS
Method: 537M PFAS DOD (LOQ as mRL)
Method: 537M PFAS Static RL

B7K0176

Chemist: HC

Prep Date/Time: 28-Nov-17 08:04 / 11.29.17 HC

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 11.28.17 HC | BalanceID: H2MS-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
☐	B7K0176-BLK1	5	2	0	3	NA	NA	(0.250) ✓	HC HN 11.29.17	HN 11/29/17	VL HN 11/29/17
☐	B7K0176-BS1	5	2	0	3	↓	↓	(0.250) ✓	↓	↓	↓
☐	B7K0176-BSD1	5	2	0	3	↓	↓	(0.250) ✓	↓	↓	↓
☐	1701710-01	5	2	0	3	288.63	27.48	0.26115 ✓	↓	↓	↓
☐	1701710-02	5	2	0	3	291.01	27.01	0.26400 ✓	↓	↓	↓
☐	1701710-03	5	2	0	3	290.70	27.21	0.26349 ✓	↓	↓	↓
☐	1701710-04	5	2	0	3	294.59	26.93	0.26766 ✓	↓	↓	↓
☐	1701710-05	5	2	0	3	273.62	27.37	0.24575 ✓	↓	↓	↓
☐	1701710-06	5	2	0	3	261.14	27.29	0.23385 ✓	↓	↓	↓
☐	1701710-07	5	2	0	3	288.47	27.66	0.26081	↓	↓	↓
☐	1701710-08	5	2	0	3	289.34 (A)	26.96	0.26238 ✓	↓	↓	↓
☐	1701710-09	5	2	0	3	~~286.30~~ 286.30 (A)	28.02	0.25828 ✓	↓	↓	↓
☐	1701710-10	5	2	0	3	294.35	27.74	0.26661 ✓	↓	↓	↓
☐	1701710-11	5	2	0	3	292.61	27.09	0.26552 ✓	↓	↓	↓
☐	1701781-01	6	2	0	3	143.65	26.88	0.11677	↓	↓	↓
☐	1701781-02	6	2	0	4	141.46	26.81	0.11465	↓	↓	↓

IS: 17K0822, 10µL (V2)
IS SUP: NA
NS: 17J1820, 10µL (V4)
RS: 17J2604, 10µL (V1)

SPE Chem: Strata-X-AW 33µm 200mg 6mL
Ele SOLV: MeOH/.5% NH4OH in MeOH
Final Volume(s): 1mL

Notes: (A) actual mass 286.30 HC 11.28.17

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS
Method: 537M PFAS DOD (LOQ as mRL)
Method: 537M PFAS Static RL

B7K0176

Chemist: HC

Prep Date/Time: 28-Nov-17 08:04

11·29·17 HC

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 11.28.17 HC 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
☐	1701782-01	6	2	6	3	140.90	26.93	0.11397	HC HN 11-29-17	HN 11/29/17	KL HN 11/29/17
☐	1701782-02	6	2	0	3	146.13	26.65	0.11948			
☐	1701782-03	6	2	0	3	141.82	26.84	0.11498			
☐	1701782-04	6	2	6	3	139.40	26.84	0.11256			
☐	1701782-05	6	2	0	3	144.71	26.81	0.11790			
☐	1701782-06	6	2	0	3	142.44	26.97	0.11547			
☐	1701782-07	6	2	6	3	143.86	26.84	0.11702			

IS: 17K0822, 10µL (HC)
IS SUP: NA
NS: 17J1820, 10µL (VY)
RS: 17J2604, 10mL (V1)

SPE Chem: Strata-X-AW 33µm 200mg/6mL
Ele SOLV: MeOH/.5%NH4OH in MeOH
Final Volume(s): 1mL

Notes:

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

Batch: B7K0176

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701710-01	0.26115	NA	NA	1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-02	0.264			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-03	0.26349			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-04	0.26766			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-05	0.24575			1000	29-Nov-17 08:04	HAC			QC Water	537M PFAS DOD (LOQ as
1701710-06	0.23385			1000	29-Nov-17 08:04	HAC			QC Water	537M PFAS DOD (LOQ as
1701710-07	0.26081			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-08	0.26238			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-09	0.25828			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-10	0.26661			1000	29-Nov-17 08:04	HAC			Groundwater	537M PFAS DOD (LOQ as
1701710-11	0.26552			1000	29-Nov-17 08:04	HAC			QC Water	537M PFAS DOD (LOQ as
1701781-01	0.11677			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS Static RL
1701781-02	0.11465			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS Static RL
1701782-01	0.11397			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-02	0.11948			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-03	0.11498			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-04	0.11256			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-05	0.1179			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-06	0.11547			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
1701782-07	0.11702			1000	29-Nov-17 08:04	HAC			Aqueous	537M PFAS
B7K0176-BLK1	0.25			1000	29-Nov-17 08:04	HAC				QC
B7K0176-BS1	0.25			1000	29-Nov-17 08:04	HAC	17J1820	10		QC
B7K0176-BSD1	0.25			1000	29-Nov-17 08:04	HAC	17J1820	10		QC

HC 11.30.17

Internal Chain of Custody

1701710

Vista Analytical Laboratory

Client: Tetra Tech | Project Number: 112G08005-WE05 | Received: 16-Nov-17 09:47 | Received By: Marissa N. Sparks

		Sample				Extract	
Vista Sample ID	Bottle	Initials Date/Time New Location	Initials Date/Time New Location	Initials Date/Time New Location	Initials Date/Time New Location	Initials Date/Time New Location	Initials Date/Time New Location
1701710-01		SR 11/29/17 0951 Chemist	HC 11.29.17 0955 (A) WR-2 SR 11/29/17	AC 12/12/17 AC 12/7/17		HN 11/24/17 0957 Prep Lab	Prep Lab AC 12/7/17
1701710-02		SR 11/29/17 0951 Chemist	HC 11.29.17 (B) 0955 WR-2 SR 11/29/17			HN 11/29/17 0957 Prep Lab	
1701710-03							
1701710-04							
1701710-05							
1701710-06							
1701710-07							
1701710-08							
1701710-09							
1701710-10							
1701710-11							

(A) Samples were obtained on 11.28.17 @ 1400 HC 11.29.17 (B) Samples put back on 11.28.17 @ 1500 to WR-2 HC 11.29.17

Note invalid if sample volumes are depleted. See Login Checklist for initial location.

Sample ID: Method Blank

Modified EPA Method 537

Client Data

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

Laboratory Data

Lab Sample: B7K0176-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		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFHxA	ND	1.09	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFHpA	ND	0.296	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFHxS	ND	0.474	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFOA	ND	0.326	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFOS	ND	0.404	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFNA	ND	0.405	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFDA	ND	0.745	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
MeFOSAA	ND	0.825	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFUnA	ND	0.525	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
EtFOSAA	ND	0.685	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFDoA	ND	0.396	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFTrDA	ND	0.247	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
PFTeDA	ND	0.378	2.50	4.00		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFHxA	IS	90.9	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C4-PFHpA	IS	96.7	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
18O2-PFHxS	IS	91.7	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFOA	IS	92.5	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C8-PFOS	IS	96.2	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C5-PFNA	IS	91.4	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFDA	IS	94.1	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
d3-MeFOSAA	IS	84.3	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFUnA	IS	73.4	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
d5-EtFOSAA	IS	64.6	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFDoA	IS	79.4	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	1
13C2-PFTeDA	IS	67.3	50 - 150		B7K0176	29-Nov-17	0.250 L	08-Dec-17 07:29	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: LCS Dup

Modified EPA Method 537

Name:	Tetra Tech	Lab Sample:	B7K0176-BS1/B7K0176-BSD1	Date Extracted:	29-Nov-17
Project:	112G08005-WE05	QC Batch:	B7K0176	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	47.0	40.0	118		43.8	40.0	110	7.07		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFHxA	47.1	40.0	118		42.7	40.0	107	9.85		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFHpA	41.1	40.0	103		45.7	40.0	114	10.6		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFHxS	42.2	40.0	106		35.9	40.0	89.9	16.1		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFOA	41.4	40.0	103		42.3	40.0	106	2.22		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFOS	47.3	40.0	118		44.4	40.0	111	6.35		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFNA	49.6	40.0	124		49.4	40.0	123	0.504		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFDA	45.3	40.0	113		46.5	40.0	116	2.55		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
MeFOSAA	37.3	40.0	93.2		34.4	40.0	85.9	8.05		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFUnA	41.8	40.0	104		36.9	40.0	92.4	12.3		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
EtFOSAA	47.2	40.0	118		48.0	40.0	120	1.59		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFDoA	32.8	40.0	81.9		37.3	40.0	93.2	12.9		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFTrDA	32.9	40.0	82.2		38.8	40.0	97.0	16.5		60-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1
PFTeDA	51.7	40.0	129		38.7	40.0	96.7	28.7		70-130	30	08-Dec-17 07:06	1	08-Dec-17 07:17	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBS	IS	88.8		102		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFHxA	IS	92.3		98.6		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C4-PFHpA	IS	90.5		91.9		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
18O2-PFHxS	IS	91.3		107		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFOA	IS	85.4		83.0		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C8-PFOS	IS	85.9		86.9		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C5-PFNA	IS	88.2		88.8		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFDA	IS	75.6		97.2		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
d3-MeFOSAA	IS	72.5		73.6		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFUnA	IS	67.1		76.8		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
d5-EtFOSAA	IS	71.8		65.9		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFDoA	IS	85.5		81.6		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1
13C2-PFTeDA	IS	70.2		73.8		50-150	08-Dec-17 07:06	1	08-Dec-17 07:17	1

Dataset: U:\Q4.PRO\results\171207M2\171207M2-IIS AREAS.qld

Last Altered: Friday, December 08, 2017 15:43:37 Pacific Standard Time
Printed: Friday, December 08, 2017 15:44:25 Pacific Standard Time

Name: 171207M2_45, Date: 08-Dec-2017, Time: 07:06:43, ID: B7K0176-BS1 OPR 0.25, Description: OPR

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B7K0176-BS1 OPR 0.25	7.60e3	80.1	NO
2	2 13C5-PFHxA	B7K0176-BS1 OPR 0.25	1.15e4	58.8	NO
3	3 13C3-PFHxS	B7K0176-BS1 OPR 0.25	2.31e3	65.0	NO
4	4 13C8-PFOA	B7K0176-BS1 OPR 0.25	7.82e3	58.2	NO
5	5 13C9-PFNA	B7K0176-BS1 OPR 0.25	9.71e3	68.7	NO
6	6 13C4-PFOS	B7K0176-BS1 OPR 0.25	2.46e3	68.6	NO
7	7 13C6-PFDA	B7K0176-BS1 OPR 0.25	7.19e3	77.6	NO
8	8 13C7-PFUdA	B7K0176-BS1 OPR 0.25	8.89e3	65.8	NO

Name: 171207M2_46, Date: 08-Dec-2017, Time: 07:17:53, ID: B7K0176-BSD1 LCS Dup 0.25, Description: LCS Dup

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B7K0176-BSD1 LCS Dup 0.25	7.84e3	82.6	NO
2	2 13C5-PFHxA	B7K0176-BSD1 LCS Dup 0.25	1.11e4	56.5	NO
3	3 13C3-PFHxS	B7K0176-BSD1 LCS Dup 0.25	2.27e3	63.9	NO
4	4 13C8-PFOA	B7K0176-BSD1 LCS Dup 0.25	8.88e3	66.1	NO
5	5 13C9-PFNA	B7K0176-BSD1 LCS Dup 0.25	8.51e3	60.2	NO
6	6 13C4-PFOS	B7K0176-BSD1 LCS Dup 0.25	2.89e3	80.8	NO
7	7 13C6-PFDA	B7K0176-BSD1 LCS Dup 0.25	6.09e3	65.7	NO
8	8 13C7-PFUdA	B7K0176-BSD1 LCS Dup 0.25	1.04e4	76.9	NO

Name: 171207M2_47, Date: 08-Dec-2017, Time: 07:29:04, ID: B7K0176-BLK1 Method Blank 0.25, Description: Method Blank

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B7K0176-BLK1 Method Blank 0.25	7.21e3	76.0	NO
2	2 13C5-PFHxA	B7K0176-BLK1 Method Blank 0.25	1.07e4	54.9	NO
3	3 13C3-PFHxS	B7K0176-BLK1 Method Blank 0.25	2.29e3	64.4	NO
4	4 13C8-PFOA	B7K0176-BLK1 Method Blank 0.25	7.64e3	56.9	NO
5	5 13C9-PFNA	B7K0176-BLK1 Method Blank 0.25	1.03e4	72.7	NO
6	6 13C4-PFOS	B7K0176-BLK1 Method Blank 0.25	2.54e3	70.8	NO
7	7 13C6-PFDA	B7K0176-BLK1 Method Blank 0.25	7.01e3	75.6	NO
8	8 13C7-PFUdA	B7K0176-BLK1 Method Blank 0.25	8.00e3	59.2	NO

Name: 171207M2_48, Date: 08-Dec-2017, Time: 07:40:15, ID: 1701710-01 FT-MW02I-NP-20171115 0.26115, Description: FT-MW02I-NP-20171115

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701710-01 FT-MW02I-NP-20171115 0...	6.70e3	70.6	NO
2	2 13C5-PFHxA	1701710-01 FT-MW02I-NP-20171115 0...	1.06e4	54.1	NO
3	3 13C3-PFHxS	1701710-01 FT-MW02I-NP-20171115 0...	2.35e3	66.2	NO
4	4 13C8-PFOA	1701710-01 FT-MW02I-NP-20171115 0...	8.12e3	60.4	NO
5	5 13C9-PFNA	1701710-01 FT-MW02I-NP-20171115 0...	7.64e3	54.1	NO
6	6 13C4-PFOS	1701710-01 FT-MW02I-NP-20171115 0...	2.77e3	77.2	NO
7	7 13C6-PFDA	1701710-01 FT-MW02I-NP-20171115 0...	6.06e3	65.4	NO
8	8 13C7-PFUdA	1701710-01 FT-MW02I-NP-20171115 0...	8.79e3	65.1	NO

AC 12/8/17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-IIS AREAS.qld

Last Altered: Friday, December 08, 2017 15:43:37 Pacific Standard Time
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Name: 171207M2_49, Date: 08-Dec-2017, Time: 07:51:25, ID: 1701710-02 FT-MW02I-P1-20171115 0.264, Description: FT-MW02I-P1-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-02 FT-MW02I-P1-20171115 0....	7.33e3	77.3	NO
2	2	13C5-PFHxA	1701710-02 FT-MW02I-P1-20171115 0....	1.11e4	56.5	NO
3	3	13C3-PFHxS	1701710-02 FT-MW02I-P1-20171115 0....	2.47e3	69.4	NO
4	4	13C8-PFOA	1701710-02 FT-MW02I-P1-20171115 0....	7.69e3	57.3	NO
5	5	13C9-PFNA	1701710-02 FT-MW02I-P1-20171115 0....	8.55e3	60.6	NO
6	6	13C4-PFOS	1701710-02 FT-MW02I-P1-20171115 0....	2.59e3	72.2	NO
7	7	13C6-PFDA	1701710-02 FT-MW02I-P1-20171115 0....	7.88e3	85.0	NO
8	8	13C7-PFUdA	1701710-02 FT-MW02I-P1-20171115 0....	7.66e3	56.7	NO

Name: 171207M2_50, Date: 08-Dec-2017, Time: 08:02:36, ID: 1701710-03 FT-MW02I-P2-20171115 0.26349, Description: FT-MW02I-P2-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-03 FT-MW02I-P2-20171115 0....	6.44e3	67.8	NO
2	2	13C5-PFHxA	1701710-03 FT-MW02I-P2-20171115 0....	9.68e3	49.4	YES
3	3	13C3-PFHxS	1701710-03 FT-MW02I-P2-20171115 0....	2.07e3	58.3	NO
4	4	13C8-PFOA	1701710-03 FT-MW02I-P2-20171115 0....	6.99e3	52.1	NO
5	5	13C9-PFNA	1701710-03 FT-MW02I-P2-20171115 0....	7.59e3	53.8	NO
6	6	13C4-PFOS	1701710-03 FT-MW02I-P2-20171115 0....	2.33e3	64.9	NO
7	7	13C6-PFDA	1701710-03 FT-MW02I-P2-20171115 0....	7.68e3	82.9	NO
8	8	13C7-PFUdA	1701710-03 FT-MW02I-P2-20171115 0....	8.66e3	64.2	NO

Name: 171207M2_51, Date: 08-Dec-2017, Time: 08:13:47, ID: 1701710-04 FT-MW02I-P3-20171115 0.26766, Description: FT-MW02I-P3-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-04 FT-MW02I-P3-20171115 0....	7.31e3	77.1	NO
2	2	13C5-PFHxA	1701710-04 FT-MW02I-P3-20171115 0....	1.02e4	52.1	NO
3	3	13C3-PFHxS	1701710-04 FT-MW02I-P3-20171115 0....	2.15e3	60.6	NO
4	4	13C8-PFOA	1701710-04 FT-MW02I-P3-20171115 0....	7.87e3	58.6	NO
5	5	13C9-PFNA	1701710-04 FT-MW02I-P3-20171115 0....	9.02e3	63.9	NO
6	6	13C4-PFOS	1701710-04 FT-MW02I-P3-20171115 0....	2.75e3	76.8	NO
7	7	13C6-PFDA	1701710-04 FT-MW02I-P3-20171115 0....	7.21e3	77.7	NO
8	8	13C7-PFUdA	1701710-04 FT-MW02I-P3-20171115 0....	7.56e3	56.0	NO

Name: 171207M2_52, Date: 08-Dec-2017, Time: 08:24:58, ID: 1701710-05 DEET-20171115 0.24575, Description: DEET-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-05 DEET-20171115 0.24575	7.74e3	81.6	NO
2	2	13C5-PFHxA	1701710-05 DEET-20171115 0.24575	1.12e4	57.1	NO
3	3	13C3-PFHxS	1701710-05 DEET-20171115 0.24575	2.25e3	63.3	NO
4	4	13C8-PFOA	1701710-05 DEET-20171115 0.24575	9.89e3	73.6	NO
5	5	13C9-PFNA	1701710-05 DEET-20171115 0.24575	9.56e3	67.7	NO
6	6	13C4-PFOS	1701710-05 DEET-20171115 0.24575	2.41e3	67.3	NO
7	7	13C6-PFDA	1701710-05 DEET-20171115 0.24575	7.34e3	79.2	NO
8	8	13C7-PFUdA	1701710-05 DEET-20171115 0.24575	8.13e3	60.2	NO

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Name: 171207M2_53, Date: 08-Dec-2017, Time: 08:36:08, ID: 1701710-06 PERMETHRIN-20171115 0.23385, Description: PERMETHRIN-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-06 PERMETHRIN-20171115 0...	7.49e3	79.0	NO
2	2	13C5-PFHxA	1701710-06 PERMETHRIN-20171115 0...	1.12e4	57.4	NO
3	3	13C3-PFHxS	1701710-06 PERMETHRIN-20171115 0...	2.24e3	63.1	NO
4	4	13C8-PFOA	1701710-06 PERMETHRIN-20171115 0...	8.18e3	60.9	NO
5	5	13C9-PFNA	1701710-06 PERMETHRIN-20171115 0...	8.42e3	59.6	NO
6	6	13C4-PFOS	1701710-06 PERMETHRIN-20171115 0...	2.49e3	69.5	NO
7	7	13C6-PFDA	1701710-06 PERMETHRIN-20171115 0...	7.16e3	77.2	NO
8	8	13C7-PFUdA	1701710-06 PERMETHRIN-20171115 0...	9.36e3	69.3	NO

Name: 171207M2_54, Date: 08-Dec-2017, Time: 08:47:19, ID: 1701710-07 FT-PZ-456S-NP-20171115 0.26081, Description: FT-PZ-456S-NP-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-07 FT-PZ-456S-NP-20171115 ...	8.47e3	89.3	NO
2	2	13C5-PFHxA	1701710-07 FT-PZ-456S-NP-20171115 ...	1.27e4	64.6	NO
3	3	13C3-PFHxS	1701710-07 FT-PZ-456S-NP-20171115 ...	2.61e3	73.4	NO
4	4	13C8-PFOA	1701710-07 FT-PZ-456S-NP-20171115 ...	9.16e3	68.2	NO
5	5	13C9-PFNA	1701710-07 FT-PZ-456S-NP-20171115 ...	1.08e4	76.8	NO
6	6	13C4-PFOS	1701710-07 FT-PZ-456S-NP-20171115 ...	2.64e3	73.8	NO
7	7	13C6-PFDA	1701710-07 FT-PZ-456S-NP-20171115 ...	7.22e3	77.9	NO
8	8	13C7-PFUdA	1701710-07 FT-PZ-456S-NP-20171115 ...	9.32e3	69.0	NO

Name: 171207M2_55, Date: 08-Dec-2017, Time: 08:58:30, ID: 1701710-08 FT-PZ-456S-P1-20171115 0.26238, Description: FT-PZ-456S-P1-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-08 FT-PZ-456S-P1-20171115 ...	7.43e3	78.3	NO
2	2	13C5-PFHxA	1701710-08 FT-PZ-456S-P1-20171115 ...	1.08e4	54.9	NO
3	3	13C3-PFHxS	1701710-08 FT-PZ-456S-P1-20171115 ...	2.10e3	59.2	NO
4	4	13C8-PFOA	1701710-08 FT-PZ-456S-P1-20171115 ...	7.09e3	52.8	NO
5	5	13C9-PFNA	1701710-08 FT-PZ-456S-P1-20171115 ...	8.72e3	61.8	NO
6	6	13C4-PFOS	1701710-08 FT-PZ-456S-P1-20171115 ...	2.28e3	63.7	NO
7	7	13C6-PFDA	1701710-08 FT-PZ-456S-P1-20171115 ...	6.31e3	68.1	NO
8	8	13C7-PFUdA	1701710-08 FT-PZ-456S-P1-20171115 ...	8.60e3	63.7	NO

Name: 171207M2_56, Date: 08-Dec-2017, Time: 09:09:40, ID: 1701710-09 FT-PZ-456S-P2-20171115 0.25828, Description: FT-PZ-456S-P2-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-09 FT-PZ-456S-P2-20171115 ...	7.68e3	80.9	NO
2	2	13C5-PFHxA	1701710-09 FT-PZ-456S-P2-20171115 ...	1.08e4	55.3	NO
3	3	13C3-PFHxS	1701710-09 FT-PZ-456S-P2-20171115 ...	2.22e3	62.5	NO
4	4	13C8-PFOA	1701710-09 FT-PZ-456S-P2-20171115 ...	6.77e3	50.4	NO
5	5	13C9-PFNA	1701710-09 FT-PZ-456S-P2-20171115 ...	1.06e4	75.4	NO
6	6	13C4-PFOS	1701710-09 FT-PZ-456S-P2-20171115 ...	2.40e3	67.1	NO
7	7	13C6-PFDA	1701710-09 FT-PZ-456S-P2-20171115 ...	5.89e3	63.5	NO
8	8	13C7-PFUdA	1701710-09 FT-PZ-456S-P2-20171115 ...	7.39e3	54.7	NO

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Name: 171207M2_57, Date: 08-Dec-2017, Time: 09:20:51, ID: 1701710-10 FT-PZ-456S-P3-20171115 0.26661, Description: FT-PZ-456S-P3-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-10 FT-PZ-456S-P3-20171115 ...	7.90e3	83.2	NO
2	2	13C5-PFHxA	1701710-10 FT-PZ-456S-P3-20171115 ...	1.14e4	58.0	NO
3	3	13C3-PFHxS	1701710-10 FT-PZ-456S-P3-20171115 ...	2.31e3	65.1	NO
4	4	13C8-PFOA	1701710-10 FT-PZ-456S-P3-20171115 ...	8.15e3	60.7	NO
5	5	13C9-PFNA	1701710-10 FT-PZ-456S-P3-20171115 ...	8.92e3	63.2	NO
6	6	13C4-PFOS	1701710-10 FT-PZ-456S-P3-20171115 ...	2.04e3	57.0	NO
7	7	13C6-PFDA	1701710-10 FT-PZ-456S-P3-20171115 ...	6.10e3	65.8	NO
8	8	13C7-PFUdA	1701710-10 FT-PZ-456S-P3-20171115 ...	7.41e3	54.8	NO

Name: 171207M2_58, Date: 08-Dec-2017, Time: 09:32:02, 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	5.62e0	0.0	YES
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171207M2-5 PFC CS0 17K2808	1.05e4	111.2	NO
2	2	13C5-PFHxA	ST171207M2-5 PFC CS0 17K2808	2.00e4	102.1	NO
3	3	13C3-PFHxS	ST171207M2-5 PFC CS0 17K2808	4.06e3	114.2	NO
4	4	13C8-PFOA	ST171207M2-5 PFC CS0 17K2808	1.49e4	110.8	NO
5	5	13C9-PFNA	ST171207M2-5 PFC CS0 17K2808	1.62e4	114.8	NO
6	6	13C4-PFOS	ST171207M2-5 PFC CS0 17K2808	4.17e3	116.3	NO
7	7	13C6-PFDA	ST171207M2-5 PFC CS0 17K2808	9.80e3	105.7	NO
8	8	13C7-PFUdA	ST171207M2-5 PFC CS0 17K2808	1.46e4	107.8	NO

Name: 171207M2_60, Date: 08-Dec-2017, Time: 09:54:23, 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

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Name: 171207M2_61, Date: 08-Dec-2017, Time: 10:05:34, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701710-11 FT-PZ-456-FRB-20171115 ...	7.23e3	76.2	NO
2	2	13C5-PFHxA	1701710-11 FT-PZ-456-FRB-20171115 ...	1.04e4	53.2	NO
3	3	13C3-PFHxS	1701710-11 FT-PZ-456-FRB-20171115 ...	2.10e3	59.1	NO
4	4	13C8-PFOA	1701710-11 FT-PZ-456-FRB-20171115 ...	8.82e3	65.7	NO
5	5	13C9-PFNA	1701710-11 FT-PZ-456-FRB-20171115 ...	8.34e3	59.1	NO
6	6	13C4-PFOS	1701710-11 FT-PZ-456-FRB-20171115 ...	2.57e3	71.6	NO
7	7	13C6-PFDA	1701710-11 FT-PZ-456-FRB-20171115 ...	5.75e3	62.1	NO
8	8	13C7-PFUdA	1701710-11 FT-PZ-456-FRB-20171115 ...	6.35e3	47.0	YES

Name: 171207M2_62, Date: 08-Dec-2017, Time: 10:16:45, ID: 1701781-01 MW-6 0.11677, Description: MW-6

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701781-01 MW-6 0.11677	7.39e3	77.9	NO
2	2	13C5-PFHxA	1701781-01 MW-6 0.11677	1.06e4	53.9	NO
3	3	13C3-PFHxS	1701781-01 MW-6 0.11677	2.09e3	58.9	NO
4	4	13C8-PFOA	1701781-01 MW-6 0.11677	7.71e3	57.4	NO
5	5	13C9-PFNA	1701781-01 MW-6 0.11677	9.81e3	69.5	NO
6	6	13C4-PFOS	1701781-01 MW-6 0.11677	2.54e3	70.8	NO
7	7	13C6-PFDA	1701781-01 MW-6 0.11677	6.76e3	72.9	NO
8	8	13C7-PFUdA	1701781-01 MW-6 0.11677	8.44e3	62.5	NO

Name: 171207M2_63, Date: 08-Dec-2017, Time: 10:27:55, ID: 1701781-02 MW-5 0.11465, Description: MW-5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701781-02 MW-5 0.11465	8.62e3	90.8	NO
2	2	13C5-PFHxA	1701781-02 MW-5 0.11465	1.18e4	60.4	NO
3	3	13C3-PFHxS	1701781-02 MW-5 0.11465	2.48e3	69.7	NO
4	4	13C8-PFOA	1701781-02 MW-5 0.11465	9.19e3	68.5	NO
5	5	13C9-PFNA	1701781-02 MW-5 0.11465	9.75e3	69.1	NO
6	6	13C4-PFOS	1701781-02 MW-5 0.11465	2.44e3	68.2	NO
7	7	13C6-PFDA	1701781-02 MW-5 0.11465	7.69e3	83.0	NO
8	8	13C7-PFUdA	1701781-02 MW-5 0.11465	9.50e3	70.3	NO

Name: 171207M2_64, Date: 08-Dec-2017, Time: 10:39:06, ID: 1701782-01 DPH-MW8-17 0.11397, Description: DPH-MW8-17

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701782-01 DPH-MW8-17 0.11397	8.32e3	87.7	NO
2	2	13C5-PFHxA	1701782-01 DPH-MW8-17 0.11397	1.21e4	61.7	NO
3	3	13C3-PFHxS	1701782-01 DPH-MW8-17 0.11397	2.46e3	69.1	NO
4	4	13C8-PFOA	1701782-01 DPH-MW8-17 0.11397	9.12e3	67.9	NO
5	5	13C9-PFNA	1701782-01 DPH-MW8-17 0.11397	1.04e4	73.8	NO
6	6	13C4-PFOS	1701782-01 DPH-MW8-17 0.11397	2.49e3	69.6	NO
7	7	13C6-PFDA	1701782-01 DPH-MW8-17 0.11397	6.88e3	74.2	NO
8	8	13C7-PFUdA	1701782-01 DPH-MW8-17 0.11397	8.70e3	64.5	NO

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Vista Analytical Laboratory

INITIAL CALIBRATION

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

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vJA 12/07/2017

Compound name: PFBA
Correlation coefficient: r = 0.998686, r^2 = 0.997373
Calibration curve: 1.10832 * x + 0.0143405
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	171206M2_2	Standard	0.250	1.36	278.069	13642.555	0.255	0.2	-13.2	NO	0.997	NO	MM
2	2	171206M2_3	Standard	0.500	1.36	590.474	14175.057	0.521	0.5	-8.6	NO	0.997	NO	MM
3	3	171206M2_4	Standard	1.000	1.36	1514.746	15030.140	1.260	1.1	12.4	NO	0.997	NO	MM
4	4	171206M2_5	Standard	2.000	1.36	2364.106	14054.637	2.103	1.9	-5.8	NO	0.997	NO	MM
5	5	171206M2_6	Standard	5.000	1.36	6895.399	14549.646	5.924	5.3	6.6	NO	0.997	NO	bb
6	6	171206M2_7	Standard	10.000	1.36	17401.836	18687.148	11.640	10.5	4.9	NO	0.997	NO	bb
7	7	171206M2_8	Standard	50.000	1.36	67509.086	14210.227	59.384	53.6	7.1	NO	0.997	NO	bb
8	8	171206M2_9	Standard	100.000	1.36	123111.867	13117.413	117.317	105.8	5.8	NO	0.997	NO	bb
9	9	171206M2_10	Standard	250.000	1.36	288008.031	13542.587	265.836	239.8	-4.1	NO	0.997	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.998614, r^2 = 0.997229
Calibration curve: 0.972109 * x + 0.0774544
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	171206M2_2	Standard	0.250	2.29	371.440	17502.943	0.265	0.2	-22.7	NO	0.997	NO	bb
2	2	171206M2_3	Standard	0.500	2.30	732.118	17995.742	0.509	0.4	-11.3	NO	0.997	NO	bb
3	3	171206M2_4	Standard	1.000	2.29	1808.976	18796.715	1.203	1.2	15.8	NO	0.997	NO	bb
4	4	171206M2_5	Standard	2.000	2.29	2897.999	17676.820	2.049	2.0	1.4	NO	0.997	NO	bb
5	5	171206M2_6	Standard	5.000	2.29	7511.828	17861.232	5.257	5.3	6.6	NO	0.997	NO	bb
6	6	171206M2_7	Standard	10.000	2.29	18602.855	23353.338	9.957	10.2	1.6	NO	0.997	NO	bb
7	7	171206M2_8	Standard	50.000	2.29	73752.766	17869.930	51.590	53.0	6.0	NO	0.997	NO	bb
8	8	171206M2_9	Standard	100.000	2.29	136016.703	16366.999	103.880	106.8	6.8	NO	0.997	NO	bb
9	9	171206M2_10	Standard	250.000	2.30	304516.406	16332.728	233.057	239.7	-4.1	NO	0.997	NO	bb

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Compound name: PFBS
Correlation coefficient: r = 0.999893, r^2 = 0.999786
Calibration curve: 2.15397 * x + 0.0874629
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	171206M2_2	Standard	0.250	2.57	94.923	2043.776	0.581	0.2	-8.4	NO	1.000	NO	bb
2	2	171206M2_3	Standard	0.500	2.57	180.751	2210.807	1.022	0.4	-13.2	NO	1.000	NO	bb
3	3	171206M2_4	Standard	1.000	2.57	449.186	2360.267	2.379	1.1	6.4	NO	1.000	NO	bb
4	4	171206M2_5	Standard	2.000	2.57	848.680	2235.553	4.745	2.2	8.1	NO	1.000	NO	bb
5	5	171206M2_6	Standard	5.000	2.57	2167.449	2403.644	11.272	5.2	3.8	NO	1.000	NO	bb
6	6	171206M2_7	Standard	10.000	2.57	4950.508	2762.616	22.400	10.4	3.6	NO	1.000	NO	bb
7	7	171206M2_8	Standard	50.000	2.57	19081.570	2238.062	106.574	49.4	-1.1	NO	1.000	NO	bb
8	8	171206M2_9	Standard	100.000	2.57	34286.617	1959.632	218.706	101.5	1.5	NO	1.000	NO	bb
9	9	171206M2_10	Standard	250.000	2.57	79906.148	1866.668	535.085	248.4	-0.6	NO	1.000	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.998723, r^2 = 0.997447
Calibration curve: 1.37447 * x + 0.214037
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	171206M2_2	Standard	0.250	3.06	606.931	6342.722	0.478	0.2	-23.1	NO	0.997	NO	bb
2	2	171206M2_3	Standard	0.500	3.06	1167.017	6802.323	0.858	0.5	-6.3	NO	0.997	NO	bb
3	3	171206M2_4	Standard	1.000	3.06	2402.817	7871.776	1.526	1.0	-4.5	NO	0.997	NO	bb
4	4	171206M2_5	Standard	2.000	3.06	4214.344	6758.872	3.118	2.1	5.6	NO	0.997	NO	bb
5	5	171206M2_6	Standard	5.000	3.06	11232.972	6987.527	8.038	5.7	13.8	NO	0.997	NO	bb
6	6	171206M2_7	Standard	10.000	3.06	28189.170	9283.116	15.183	10.9	8.9	NO	0.997	NO	bb
7	7	171206M2_8	Standard	50.000	3.06	101960.648	7201.673	70.790	51.3	2.7	NO	0.997	NO	bb
8	8	171206M2_9	Standard	100.000	3.06	186837.516	6362.954	146.817	106.7	6.7	NO	0.997	NO	bb
9	9	171206M2_10	Standard	250.000	3.06	405556.625	6132.189	330.679	240.4	-3.8	NO	0.997	NO	bb

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Compound name: PFHpA
Correlation coefficient: r = 0.999104, r^2 = 0.998209
Calibration curve: 1.35687 * x + 0.104387
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 171206M2_2	Standard	0.250	3.68	400.357	13149.318	0.381	0.2	-18.6	NO	0.998	NO	bb
2	2 171206M2_3	Standard	0.500	3.68	804.803	13628.666	0.738	0.5	-6.6	NO	0.998	NO	bb
3	3 171206M2_4	Standard	1.000	3.68	1783.151	14290.385	1.560	1.1	7.3	NO	0.998	NO	bb
4	4 171206M2_5	Standard	2.000	3.68	3174.270	13966.378	2.841	2.0	0.8	NO	0.998	NO	bb
5	5 171206M2_6	Standard	5.000	3.68	8120.016	13849.902	7.329	5.3	6.5	NO	0.998	NO	bb
6	6 171206M2_7	Standard	10.000	3.68	20318.814	18195.492	13.959	10.2	2.1	NO	0.998	NO	bb
7	7 171206M2_8	Standard	50.000	3.68	81408.898	13623.886	74.693	55.0	9.9	NO	0.998	NO	bb
8	8 171206M2_9	Standard	100.000	3.68	139703.688	12704.108	137.459	101.2	1.2	NO	0.998	NO	bb
9	9 171206M2_10	Standard	250.000	3.68	321451.875	12169.899	330.171	243.3	-2.7	NO	0.998	NO	bb

Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.998301
Calibration curve: -0.00174528 * x^2 + 2.29889 * x + -0.197003
Response type: Internal Std (Ref 36), 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 171206M2_2	Standard	0.250	3.83	47.791	1769.582	0.338	0.2	-7.0	NO	0.998	NO	MM
2	2 171206M2_3	Standard	0.500	3.83	151.227	1775.385	1.065	0.5	9.8	NO	0.998	NO	MM
3	3 171206M2_4	Standard	1.000	3.83	335.876	1943.010	2.161	1.0	2.6	NO	0.998	NO	MM
4	4 171206M2_5	Standard	2.000	3.83	676.466	1945.118	4.347	2.0	-1.0	NO	0.998	NO	MM
5	5 171206M2_6	Standard	5.000	3.83	1706.711	1838.649	11.603	5.2	3.1	NO	0.998	NO	MM
6	6 171206M2_7	Standard	10.000	3.83	4463.724	2607.239	21.401	9.5	-5.4	NO	0.998	NO	MM
7	7 171206M2_8	Standard	50.000	3.83	15857.422	1929.995	102.704	46.4	-7.2	NO	0.998	NO	MM
8	8 171206M2_9	Standard	100.000	3.83	30522.965	1705.488	223.711	105.9	5.9	NO	0.998	NO	MM
9	9 171206M2_10	Standard	250.000	3.83	65607.539	1773.431	462.434	247.9	-0.8	NO	0.998	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997347
Calibration curve: -0.00413586 * x^2 + 1.19768 * x + -0.00437074
Response type: Internal Std (Ref 37), 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	171206M2_2	Standard	0.250	4.14	93.126	3665.118	0.318	0.3	7.6	NO	0.997	NO	bb
2	2	171206M2_3	Standard	0.500	4.15	178.526	3501.219	0.637	0.5	7.4	NO	0.997	NO	bb
3	3	171206M2_4	Standard	1.000	4.14	396.325	4542.518	1.091	0.9	-8.3	NO	0.997	NO	bb
4	4	171206M2_5	Standard	2.000	4.15	703.674	4269.098	2.060	1.7	-13.3	NO	0.997	NO	bb
5	5	171206M2_6	Standard	5.000	4.14	2035.207	4497.431	5.657	4.8	-3.9	NO	0.997	NO	bb
6	6	171206M2_7	Standard	10.000	4.14	5554.770	5336.609	13.011	11.3	13.1	NO	0.997	NO	bb
7	7	171206M2_8	Standard	50.000	4.14	18625.594	4847.406	48.030	48.1	-3.8	NO	0.997	NO	bb
8	8	171206M2_9	Standard	100.000	4.15	29877.078	4725.387	79.033	101.7	1.7	NO	0.997	NO	bb
9	9	171206M2_10	Standard	250.000	4.14	71609.242	6193.788	144.518			NO	0.997	NO	bbXI

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998986
Calibration curve: -0.000747737 * x^2 + 1.01531 * x + 0.398815
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	171206M2_2	Standard	0.250	4.21	647.783	17122.166	0.473	0.1	-70.8	NO	0.999	NO	bbX
2	2	171206M2_3	Standard	0.500	4.20	1126.228	16414.160	0.858	0.5	-9.6	NO	0.999	NO	bb
3	3	171206M2_4	Standard	1.000	4.20	2103.637	21394.035	1.229	0.8	-18.2	NO	0.999	NO	bb
4	4	171206M2_5	Standard	2.000	4.20	3521.139	16178.457	2.721	2.3	14.5	NO	0.999	NO	bb
5	5	171206M2_6	Standard	5.000	4.20	8737.844	19425.684	5.623	5.2	3.3	NO	0.999	NO	bb
6	6	171206M2_7	Standard	10.000	4.20	21202.217	22418.568	11.822	11.3	13.5	NO	0.999	NO	bb
7	7	171206M2_8	Standard	50.000	4.20	75427.469	19713.932	47.826	48.4	-3.1	NO	0.999	NO	bb
8	8	171206M2_9	Standard	100.000	4.20	135476.563	18036.664	93.890	99.3	-0.7	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	4.21	273196.563	16421.664	207.954	250.7	0.3	NO	0.999	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999607
Calibration curve: -0.000220402 * x^2 + 0.262137 * x + -0.002666
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	171206M2_2	Standard	0.250	4.31	80.879	17122.166	0.059	0.2	-5.8	NO	1.000	NO	bb
2	2	171206M2_3	Standard	0.500	4.31	187.732	16414.160	0.143	0.6	11.2	NO	1.000	NO	bb
3	3	171206M2_4	Standard	1.000	4.31	405.139	21394.035	0.237	0.9	-8.6	NO	1.000	NO	bb
4	4	171206M2_5	Standard	2.000	4.31	748.713	16178.457	0.578	2.2	11.1	NO	1.000	NO	bb
5	5	171206M2_6	Standard	5.000	4.31	1926.657	19425.684	1.240	4.8	-4.8	NO	1.000	NO	bb
6	6	171206M2_7	Standard	10.000	4.31	4536.028	22418.568	2.529	9.7	-2.6	NO	1.000	NO	bb
7	7	171206M2_8	Standard	50.000	4.31	19367.303	19713.932	12.280	48.9	-2.3	NO	1.000	NO	bb
8	8	171206M2_9	Standard	100.000	4.31	35359.609	18036.664	24.505	102.3	2.3	NO	1.000	NO	bb
9	9	171206M2_10	Standard	250.000	4.31	67808.625	16421.664	51.615	249.1	-0.4	NO	1.000	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.995271
Calibration curve: -0.000705277 * x^2 + 1.32916 * x + 0.0337343
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	171206M2_2	Standard	0.250	4.63	498.592	17438.344	0.357	0.2	-2.6	NO	0.995	NO	bb
2	2	171206M2_3	Standard	0.500	4.63	1006.370	19717.799	0.638	0.5	-9.1	NO	0.995	NO	bb
3	3	171206M2_4	Standard	1.000	4.63	1805.408	19882.078	1.135	0.8	-17.1	NO	0.995	NO	bb
4	4	171206M2_5	Standard	2.000	4.63	3828.463	15728.210	3.043	2.3	13.3	NO	0.995	NO	bb
5	5	171206M2_6	Standard	5.000	4.64	10193.963	17987.682	7.084	5.3	6.4	NO	0.995	NO	bb
6	6	171206M2_7	Standard	10.000	4.63	25414.416	22630.730	14.038	10.6	6.0	NO	0.995	NO	bb
7	7	171206M2_8	Standard	50.000	4.63	89228.008	15452.905	72.177	55.9	11.9	NO	0.995	NO	bb
8	8	171206M2_9	Standard	100.000	4.64	144479.313	15851.788	113.930	90.0	-10.0	NO	0.995	NO	bb
9	9	171206M2_10	Standard	250.000	4.64	388637.531	16665.496	291.499	253.3	1.3	NO	0.995	NO	bb

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Compound name: PFOSA
Coefficient of Determination: R^2 = 0.997491
Calibration curve: -0.00130735 * x^2 + 1.22283 * x + -0.291621
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 171206M2_2	Standard	0.250	4.69	133.343	5725.768	0.291	0.5	90.7	NO	0.997	NO	bbX
2	2 171206M2_3	Standard	0.500	4.69	232.718	6034.938	0.482	0.6	26.6	NO	0.997	NO	bb
3	3 171206M2_4	Standard	1.000	4.69	585.061	6748.446	1.084	1.1	12.6	NO	0.997	NO	bb
4	4 171206M2_5	Standard	2.000	4.70	816.066	6082.819	1.677	1.6	-19.4	NO	0.997	NO	bb
5	5 171206M2_6	Standard	5.000	4.69	2590.106	5986.910	5.408	4.7	-6.3	NO	0.997	NO	bb
6	6 171206M2_7	Standard	10.000	4.69	6185.101	7780.234	9.937	8.4	-15.6	NO	0.997	NO	bb
7	7 171206M2_8	Standard	50.000	4.69	23165.102	5169.390	56.015	48.6	-2.9	NO	0.997	NO	bb
8	8 171206M2_9	Standard	100.000	4.70	45509.461	4952.032	114.876	106.2	6.2	NO	0.997	NO	bb
9	9 171206M2_10	Standard	250.000	4.69	86185.813	4858.857	221.723	246.5	-1.4	NO	0.997	NO	bb

Compound name: L-PFOS
Correlation coefficient: r = 0.999019, r^2 = 0.998039
Calibration curve: 1.00074 * x + 0.0551833
Response type: Internal Std (Ref 41), 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 171206M2_2	Standard	0.250	4.72	97.652	4537.465	0.269	0.2	-14.5	NO	0.998	NO	MM
2	2 171206M2_3	Standard	0.500	4.72	238.872	4274.405	0.699	0.6	28.6	NO	0.998	NO	MM
3	3 171206M2_4	Standard	1.000	4.72	504.057	5381.812	1.171	1.1	11.5	NO	0.998	NO	MM
4	4 171206M2_5	Standard	2.000	4.72	681.744	4283.492	1.989	1.9	-3.4	NO	0.998	NO	MM
5	5 171206M2_6	Standard	5.000	4.72	1938.161	5121.273	4.731	4.7	-6.6	NO	0.998	NO	MM
6	6 171206M2_7	Standard	10.000	4.72	5007.447	6178.778	10.130	10.1	0.7	NO	0.998	NO	MM
7	7 171206M2_8	Standard	50.000	4.72	18783.852	4590.528	51.148	51.1	2.1	NO	0.998	NO	MM
8	8 171206M2_9	Standard	100.000	4.72	36561.551	4276.068	106.878	106.7	6.7	NO	0.998	NO	MM
9	9 171206M2_10	Standard	250.000	4.72	75561.922	3894.268	242.542	242.3	-3.1	NO	0.998	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.997726
Calibration curve: 0.000199106 * x^2 + 1.14347 * x + 0.120063
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	171206M2_2	Standard	0.250	5.01	551.700	17170.455	0.402	0.2	-1.5	NO	0.998	NO	bb
2	2	171206M2_3	Standard	0.500	5.01	997.297	18189.254	0.685	0.5	-1.1	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	5.01	1662.349	17262.611	1.204	0.9	-5.2	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	5.01	3678.794	19594.611	2.347	1.9	-2.7	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	5.01	9410.146	21431.703	5.488	4.7	-6.2	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	5.01	22745.607	20064.494	14.170	12.3	22.6	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	5.01	79901.898	18895.734	52.857	45.8	-8.5	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	5.01	157450.750	16444.840	119.681	102.7	2.7	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	5.01	355725.250	14919.661	298.034	249.7	-0.1	NO	0.998	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997649
Calibration curve: -0.00720884 * x^2 + 1.97849 * x + -0.0393974
Response type: Internal Std (Ref 43), 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	171206M2_2	Standard	0.250	4.98	70.824	2154.095	0.411	0.2	-8.9	NO	0.998	NO	bb
2	2	171206M2_3	Standard	0.500	4.98	129.887	1949.660	0.833	0.4	-11.7	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	4.98	427.285	2535.809	2.106	1.1	8.9	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	4.98	704.999	1911.800	4.610	2.4	18.5	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	4.98	1627.256	2408.334	8.446	4.4	-12.8	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	4.98	4523.945	3096.835	18.260	9.6	-4.2	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	4.98	16453.121	2474.042	83.129	51.8	3.6	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	4.98	28282.805	2834.836	124.711	98.2	-1.8	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	4.98	66187.156	3701.011	223.544			NO	0.998	NO	bbXI

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999781
Calibration curve: -0.00160688 * x^2 + 1.78392 * x + -0.308334
Response type: Internal Std (Ref 44), 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	171206M2_2	Standard	0.250	5.16	235.733	6211.603	0.474	0.4	75.6	NO	1.000	NO	bbX
2	2	171206M2_3	Standard	0.500	5.16	313.628	7012.357	0.559	0.5	-2.7	NO	1.000	NO	bb
3	3	171206M2_4	Standard	1.000	5.16	837.980	7401.974	1.415	1.0	-3.3	NO	1.000	NO	bb
4	4	171206M2_5	Standard	2.000	5.16	1854.289	6449.995	3.594	2.2	9.6	NO	1.000	NO	bb
5	5	171206M2_6	Standard	5.000	5.16	5116.839	7307.971	8.752	5.1	2.0	NO	1.000	NO	bb
6	6	171206M2_7	Standard	10.000	5.16	10402.152	7984.079	16.286	9.4	-6.2	NO	1.000	NO	bb
7	7	171206M2_8	Standard	50.000	5.16	44679.746	6575.747	84.933	50.0	0.1	NO	1.000	NO	bb
8	8	171206M2_9	Standard	100.000	5.16	84239.992	6462.234	162.947	100.6	0.6	NO	1.000	NO	bb
9	9	171206M2_10	Standard	250.000	5.16	168550.344	6108.760	344.895	249.6	-0.1	NO	1.000	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999138
Calibration curve: -0.000300813 * x^2 + 1.05519 * x + -0.0165132
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	171206M2_2	Standard	0.250	5.32	157.980	7188.430	0.275	0.3	10.4	NO	0.999	NO	bb
2	2	171206M2_3	Standard	0.500	5.32	298.094	7063.249	0.528	0.5	3.1	NO	0.999	NO	bb
3	3	171206M2_4	Standard	1.000	5.32	601.245	7812.819	0.962	0.9	-7.2	NO	0.999	NO	bb
4	4	171206M2_5	Standard	2.000	5.32	1149.387	7973.424	1.802	1.7	-13.8	NO	0.999	NO	bb
5	5	171206M2_6	Standard	5.000	5.32	3648.373	8668.059	5.261	5.0	0.2	NO	0.999	NO	bb
6	6	171206M2_7	Standard	10.000	5.32	8571.696	9885.477	10.839	10.3	3.2	NO	0.999	NO	bb
7	7	171206M2_8	Standard	50.000	5.32	30438.664	7730.146	49.221	47.3	-5.4	NO	0.999	NO	bb
8	8	171206M2_9	Standard	100.000	5.32	54792.504	6450.826	106.173	103.7	3.7	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	5.32	118039.625	6045.842	244.051	249.0	-0.4	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.998629
Calibration curve: -0.00128299 * x^2 + 1.22518 * x + -0.0916436
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	171206M2_2	Standard	0.250	5.33	408.544	21064.824	0.242	0.3	9.1	NO	0.999	NO	bb
2	2	171206M2_3	Standard	0.500	5.33	621.318	18564.963	0.418	0.4	-16.7	NO	0.999	NO	bb
3	3	171206M2_4	Standard	1.000	5.33	1790.872	19031.639	1.176	1.0	3.6	NO	0.999	NO	bb
4	4	171206M2_5	Standard	2.000	5.33	3463.489	15749.710	2.749	2.3	16.2	NO	0.999	NO	bb
5	5	171206M2_6	Standard	5.000	5.33	7202.138	16523.117	5.449	4.5	-9.1	NO	0.999	NO	bb
6	6	171206M2_7	Standard	10.000	5.33	20056.920	21177.686	11.838	9.8	-1.6	NO	0.999	NO	bb
7	7	171206M2_8	Standard	50.000	5.33	88176.250	20038.816	55.003	47.3	-5.4	NO	0.999	NO	bb
8	8	171206M2_9	Standard	100.000	5.33	148348.719	16245.133	114.149	104.7	4.7	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	5.34	281626.063	15659.711	224.801	247.9	-0.8	NO	0.999	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.997842
Calibration curve: -7.41747e-005 * x^2 + 0.294349 * x + 0.0371918
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	171206M2_2	Standard	0.250	5.38	90.757	21064.824	0.054	0.1	-77.4	NO	0.998	NO	bbX
2	2	171206M2_3	Standard	0.500	5.38	224.869	18564.963	0.151	0.4	-22.4	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	5.38	479.375	19031.639	0.315	0.9	-5.6	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	5.37	882.441	15749.710	0.700	2.3	12.7	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	5.38	2235.298	16523.117	1.691	5.6	12.5	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	5.38	5473.275	21177.686	3.231	10.9	8.8	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	5.37	21146.756	20038.816	13.191	45.2	-9.6	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	5.37	38747.156	16245.133	29.814	103.9	3.9	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	5.38	86211.258	15659.711	68.816	249.3	-0.3	NO	0.998	NO	bb

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999373
Calibration curve: -0.0021955 * x^2 + 2.73148 * x + -0.0111516
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	171206M2_2	Standard	0.250	5.61	557.808	9197.374	0.758	0.3	12.7	NO	0.999	NO	bd
2	2	171206M2_3	Standard	0.500	5.61	1075.769	9515.929	1.413	0.5	4.3	NO	0.999	NO	bd
3	3	171206M2_4	Standard	1.000	5.61	1857.768	10283.695	2.258	0.8	-16.9	NO	0.999	NO	bd
4	4	171206M2_5	Standard	2.000	5.61	3639.711	7265.262	6.262	2.3	15.0	NO	0.999	NO	bd
5	5	171206M2_6	Standard	5.000	5.61	9798.510	10414.291	11.761	4.3	-13.5	NO	0.999	NO	bd
6	6	171206M2_7	Standard	10.000	5.61	23206.732	11056.056	26.238	9.7	-3.1	NO	0.999	NO	bd
7	7	171206M2_8	Standard	50.000	5.61	97257.531	9212.243	131.968	50.4	0.7	NO	0.999	NO	bd
8	8	171206M2_9	Standard	100.000	5.61	143257.563	7063.934	253.502	101.0	1.0	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	5.61	375772.625	8624.977	544.599	249.4	-0.3	NO	0.999	NO	bb

Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999757
Calibration curve: -0.000191452 * x^2 + 1.20181 * x + -0.0200371
Response type: Internal Std (Ref 48), 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	171206M2_2	Standard	1.250	5.69	173.572	22033.928	1.182	1.0	-20.0	NO	1.000	NO	bb
2	2	171206M2_3	Standard	2.500	5.69	465.425	21322.523	3.274	2.7	9.7	NO	1.000	NO	bb
3	3	171206M2_4	Standard	5.000	5.69	1052.844	23682.623	6.668	5.6	11.4	NO	1.000	NO	bb
4	4	171206M2_5	Standard	10.000	5.69	1574.165	21847.973	10.808	9.0	-9.8	NO	1.000	NO	bb
5	5	171206M2_6	Standard	25.000	5.69	4713.285	22101.295	31.989	26.7	7.0	NO	1.000	NO	bb
6	6	171206M2_7	Standard	50.000	5.69	11279.521	28095.451	60.221	50.5	1.1	NO	1.000	NO	bb
7	7	171206M2_8	Standard	250.000	5.69	42249.969	22049.119	287.426	249.1	-0.4	NO	1.000	NO	bb
8	8	171206M2_9	Standard	500.000	5.69	76737.609	20897.273	550.820	497.8	-0.4	NO	1.000	NO	bb
9	9	171206M2_10	Standard	1250.000	5.69	170723.359	21267.193	1204.132	1251.4	0.1	NO	1.000	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.997598
Calibration curve: -0.00259552 * x^2 + 2.54506 * x + -0.107534
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	171206M2_2	Standard	0.250	5.86	513.330	9197.374	0.698	0.3	26.6	NO	0.998	NO	bb
2	2	171206M2_3	Standard	0.500	5.86	781.086	9515.929	1.026	0.4	-10.9	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	5.86	1953.802	10283.695	2.375	1.0	-2.4	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	5.86	3344.990	7265.262	5.755	2.3	15.4	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	5.86	8490.749	10414.291	10.191	4.1	-18.7	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	5.86	19617.340	11056.056	22.179	8.8	-11.6	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	5.85	86163.336	9212.243	116.914	48.4	-3.3	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	5.86	136018.609	7063.934	240.692	106.1	6.1	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	5.86	324261.563	8624.977	469.946	246.8	-1.3	NO	0.998	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.992826
Calibration curve: -0.00193714 * x^2 + 1.81348 * x + -0.136996
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	171206M2_2	Standard	0.250	6.07	272.987	8593.454	0.397	0.3	17.8	NO	0.993	NO	MM
2	2	171206M2_3	Standard	0.500	6.08	610.004	9632.420	0.792	0.5	2.5	NO	0.993	NO	bb
3	3	171206M2_4	Standard	1.000	6.07	1389.429	8815.953	1.970	1.2	16.3	NO	0.993	NO	bb
4	4	171206M2_5	Standard	2.000	6.07	2249.206	9915.026	2.836	1.6	-17.9	NO	0.993	NO	bb
5	5	171206M2_6	Standard	5.000	6.08	6481.811	8723.810	9.288	5.2	4.5	NO	0.993	NO	bb
6	6	171206M2_7	Standard	10.000	6.07	11740.160	10710.985	13.701	7.7	-23.1	NO	0.993	NO	bb
7	7	171206M2_8	Standard	50.000	6.07	49227.453	7928.628	77.610	45.0	-9.9	NO	0.993	NO	bb
8	8	171206M2_9	Standard	100.000	6.07	111140.859	7764.407	178.927	112.2	12.2	NO	0.993	NO	bb
9	9	171206M2_10	Standard	250.000	6.08	229852.438	8783.651	327.103	244.1	-2.4	NO	0.993	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999893
Calibration curve: -0.000107824 * x^2 + 0.954175 * x + 0.127347
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	171206M2_2	Standard	1.250	6.09	279.861	34321.457	1.223	1.1	-8.1	NO	1.000	NO	bb
2	2	171206M2_3	Standard	2.500	6.09	562.938	35035.242	2.410	2.4	-4.3	NO	1.000	NO	bb
3	3	171206M2_4	Standard	5.000	6.09	1275.132	37623.980	5.084	5.2	3.9	NO	1.000	NO	bb
4	4	171206M2_5	Standard	10.000	6.09	2281.998	34991.770	9.782	10.1	1.3	NO	1.000	NO	bb
5	5	171206M2_6	Standard	25.000	6.09	5983.166	35960.977	24.957	26.1	4.4	NO	1.000	NO	bb
6	6	171206M2_7	Standard	50.000	6.09	14794.262	44977.496	49.339	51.9	3.8	NO	1.000	NO	bb
7	7	171206M2_8	Standard	250.000	6.09	55329.336	35877.816	231.324	249.3	-0.3	NO	1.000	NO	bb
8	8	171206M2_9	Standard	500.000	6.09	96229.555	32339.246	446.344	495.4	-0.9	NO	1.000	NO	bb
9	9	171206M2_10	Standard	1250.000	6.10	208857.703	30535.777	1025.966	1252.3	0.2	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998494
Calibration curve: -0.000368339 * x^2 + 0.622101 * x + 0.0560203
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	171206M2_2	Standard	0.250	6.40	171.186	4769.621	0.179	0.2	-20.6	NO	0.998	NO	MM
2	2	171206M2_3	Standard	0.500	6.40	390.231	5032.743	0.388	0.5	6.7	NO	0.998	NO	bb
3	3	171206M2_4	Standard	1.000	6.40	806.255	5443.975	0.741	1.1	10.1	NO	0.998	NO	bb
4	4	171206M2_5	Standard	2.000	6.41	1281.610	4700.701	1.363	2.1	5.2	NO	0.998	NO	bb
5	5	171206M2_6	Standard	5.000	6.40	3603.299	5447.780	3.307	5.2	4.8	NO	0.998	NO	bb
6	6	171206M2_7	Standard	10.000	6.41	7037.387	6229.217	5.649	9.0	-9.6	NO	0.998	NO	bb
7	7	171206M2_8	Standard	50.000	6.40	32207.855	4981.660	32.326	53.6	7.1	NO	0.998	NO	bb
8	8	171206M2_9	Standard	100.000	6.41	51045.684	4532.478	56.311	95.9	-4.1	NO	0.998	NO	bb
9	9	171206M2_10	Standard	250.000	6.41	121356.055	4559.811	133.071	251.2	0.5	NO	0.998	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.998652
Calibration curve: -0.00102948 * x^2 + 0.841165 * x + -0.0270457
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	171206M2_2	Standard	0.250	6.64	205.838	4769.621	0.216	0.3	15.5	NO	0.999	NO	bb
2	2	171206M2_3	Standard	0.500	6.64	360.521	5032.743	0.358	0.5	-8.4	NO	0.999	NO	bb
3	3	171206M2_4	Standard	1.000	6.64	932.583	5443.975	0.857	1.1	5.2	NO	0.999	NO	bb
4	4	171206M2_5	Standard	2.000	6.64	1459.047	4700.701	1.552	1.9	-5.9	NO	0.999	NO	bb
5	5	171206M2_6	Standard	5.000	6.64	3861.675	5447.780	3.544	4.3	-14.6	NO	0.999	NO	bb
6	6	171206M2_7	Standard	10.000	6.64	9719.288	6229.217	7.801	9.4	-5.8	NO	0.999	NO	bb
7	7	171206M2_8	Standard	50.000	6.63	38297.055	4981.660	38.438	48.6	-2.8	NO	0.999	NO	bb
8	8	171206M2_9	Standard	100.000	6.63	69811.828	4532.478	77.013	105.1	5.1	NO	0.999	NO	bb
9	9	171206M2_10	Standard	250.000	6.64	132116.578	4559.811	144.871	246.8	-1.3	NO	0.999	NO	bb

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997042
Calibration curve: -6.41595e-005 * x^2 + 0.981257 * x + 0.0648122
Response type: Internal Std (Ref 52), 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	171206M2_2	Standard	1.250	6.26	162.631	25807.748	0.945	0.9	-28.2	NO	0.997	NO	bb
2	2	171206M2_3	Standard	2.500	6.26	582.580	30817.412	2.836	2.8	13.0	NO	0.997	NO	bb
3	3	171206M2_4	Standard	5.000	6.27	1021.064	27464.326	5.577	5.6	12.4	NO	0.997	NO	bb
4	4	171206M2_5	Standard	10.000	6.26	1678.457	32317.695	7.790	7.9	-21.2	NO	0.997	NO	bb
5	5	171206M2_6	Standard	25.000	6.26	4981.546	29205.326	25.585	26.1	4.2	NO	0.997	NO	bb
6	6	171206M2_7	Standard	50.000	6.26	15531.390	37718.203	61.766	63.1	26.3	NO	0.997	NO	bb
7	7	171206M2_8	Standard	250.000	6.26	52713.656	35266.438	224.209	231.9	-7.2	NO	0.997	NO	bb
8	8	171206M2_9	Standard	500.000	6.26	85598.297	26869.625	477.854	503.5	0.7	NO	0.997	NO	bb
9	9	171206M2_10	Standard	1250.000	6.26	206989.688	27524.721	1128.021	1252.0	0.2	NO	0.997	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999598, r^2 = 0.999196
Calibration curve: 1.09203 * x + 0.298787
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	171206M2_2	Standard	1.250	6.41	289.969	27836.420	1.563	1.2	-7.4	NO	0.999	NO	bb
2	2	171206M2_3	Standard	2.500	6.41	540.351	31725.553	2.555	2.1	-17.4	NO	0.999	NO	bb
3	3	171206M2_4	Standard	5.000	6.42	1253.205	29700.195	6.329	5.5	10.4	NO	0.999	NO	bb
4	4	171206M2_5	Standard	10.000	6.41	2611.262	31791.846	12.320	11.0	10.1	NO	0.999	NO	bb
5	5	171206M2_6	Standard	25.000	6.41	6353.529	31203.311	30.543	27.7	10.8	NO	0.999	NO	bb
6	6	171206M2_7	Standard	50.000	6.41	14336.732	42279.156	50.865	46.3	-7.4	NO	0.999	NO	bb
7	7	171206M2_8	Standard	250.000	6.41	55759.457	31090.572	269.018	246.1	-1.6	NO	0.999	NO	bb
8	8	171206M2_9	Standard	500.000	6.41	106647.883	28281.070	565.650	517.7	3.5	NO	0.999	NO	bb
9	9	171206M2_10	Standard	1250.000	6.42	228727.328	25408.611	1350.294	1236.2	-1.1	NO	0.999	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.872841
RRF SD: 0.0160859, Relative SD: 1.84294
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	171206M2_2	Standard	12.500	1.36	13642.555	15438.185	11.046	12.7	1.2	NO		NO	bb
2	2	171206M2_3	Standard	12.500	1.36	14175.057	16299.472	10.871	12.5	-0.4	NO		NO	bb
3	3	171206M2_4	Standard	12.500	1.36	15030.140	17308.971	10.854	12.4	-0.5	NO		NO	bb
4	4	171206M2_5	Standard	12.500	1.36	14054.637	16109.149	10.906	12.5	-0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	1.36	14549.646	16614.520	10.946	12.5	0.3	NO		NO	MM
6	6	171206M2_7	Standard	12.500	1.36	18687.148	20956.395	11.146	12.8	2.2	NO		NO	bb
7	7	171206M2_8	Standard	12.500	1.36	14210.227	16443.830	10.802	12.4	-1.0	NO		NO	MM
8	8	171206M2_9	Standard	12.500	1.36	13117.413	15637.119	10.486	12.0	-3.9	NO		NO	MM
9	9	171206M2_10	Standard	12.500	1.36	13542.587	15200.275	11.137	12.8	2.1	NO		NO	MM

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Compound name: 13C3-PFPeA
Response Factor: 0.789339
RRF SD: 0.0400127, Relative SD: 5.06914
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	171206M2_2	Standard	12.500	2.29	17502.943	23033.324	9.499	12.0	-3.7	NO		NO	bb
2	2	171206M2_3	Standard	12.500	2.29	17995.742	24436.158	9.205	11.7	-6.7	NO		NO	bb
3	3	171206M2_4	Standard	12.500	2.29	18796.715	25681.328	9.149	11.6	-7.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	2.29	17676.820	21616.131	10.222	13.0	3.6	NO		NO	bb
5	5	171206M2_6	Standard	12.500	2.29	17861.232	21900.307	10.195	12.9	3.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	2.29	23353.338	30349.830	9.618	12.2	-2.5	NO		NO	bb
7	7	171206M2_8	Standard	12.500	2.29	17869.930	21999.684	10.154	12.9	2.9	NO		NO	bb
8	8	171206M2_9	Standard	12.500	2.29	16366.999	19846.414	10.309	13.1	4.5	NO		NO	bb
9	9	171206M2_10	Standard	12.500	2.29	16332.728	19536.061	10.450	13.2	5.9	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.0968146
RRF SD: 0.0071038, Relative SD: 7.33753
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	171206M2_2	Standard	12.500	2.57	2043.776	23033.324	1.109	11.5	-8.3	NO		NO	bb
2	2	171206M2_3	Standard	12.500	2.57	2210.807	24436.158	1.131	11.7	-6.6	NO		NO	bb
3	3	171206M2_4	Standard	12.500	2.57	2360.267	25681.328	1.149	11.9	-5.1	NO		NO	bb
4	4	171206M2_5	Standard	12.500	2.57	2235.553	21616.131	1.293	13.4	6.8	NO		NO	bb
5	5	171206M2_6	Standard	12.500	2.57	2403.644	21900.307	1.372	14.2	13.4	NO		NO	bb
6	6	171206M2_7	Standard	12.500	2.57	2762.616	30349.830	1.138	11.8	-6.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	2.57	2238.062	21999.684	1.272	13.1	5.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	2.57	1959.632	19846.414	1.234	12.7	2.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	2.57	1866.668	19536.061	1.194	12.3	-1.3	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.76659
RRF SD: 0.0454573, Relative SD: 5.9298
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	171206M2_2	Standard	5.000	3.06	6342.722	23033.324	3.442	4.5	-10.2	NO		NO	bb
2	2	171206M2_3	Standard	5.000	3.06	6802.323	24436.158	3.480	4.5	-9.2	NO		NO	bb
3	3	171206M2_4	Standard	5.000	3.06	7871.776	25681.328	3.831	5.0	-0.0	NO		NO	bb
4	4	171206M2_5	Standard	5.000	3.06	6758.872	21616.131	3.908	5.1	2.0	NO		NO	bb
5	5	171206M2_6	Standard	5.000	3.06	6987.527	21900.307	3.988	5.2	4.1	NO		NO	bb
6	6	171206M2_7	Standard	5.000	3.06	9283.116	30349.830	3.823	5.0	-0.2	NO		NO	bb
7	7	171206M2_8	Standard	5.000	3.06	7201.673	21999.684	4.092	5.3	6.8	NO		NO	bb
8	8	171206M2_9	Standard	5.000	3.06	6362.954	19846.414	4.008	5.2	4.6	NO		NO	bb
9	9	171206M2_10	Standard	5.000	3.06	6132.189	19536.061	3.924	5.1	2.4	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.605049
RRF SD: 0.0353312, Relative SD: 5.83939
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	171206M2_2	Standard	12.500	3.68	13149.318	23033.324	7.136	11.8	-5.6	NO		NO	bb
2	2	171206M2_3	Standard	12.500	3.68	13628.666	24436.158	6.972	11.5	-7.8	NO		NO	bb
3	3	171206M2_4	Standard	12.500	3.68	14290.385	25681.328	6.956	11.5	-8.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	3.68	13966.378	21616.131	8.076	13.3	6.8	NO		NO	bb
5	5	171206M2_6	Standard	12.500	3.68	13849.902	21900.307	7.905	13.1	4.5	NO		NO	bb
6	6	171206M2_7	Standard	12.500	3.68	18195.492	30349.830	7.494	12.4	-0.9	NO		NO	bb
7	7	171206M2_8	Standard	12.500	3.68	13623.886	21999.684	7.741	12.8	2.4	NO		NO	bb
8	8	171206M2_9	Standard	12.500	3.68	12704.108	19846.414	8.002	13.2	5.8	NO		NO	bb
9	9	171206M2_10	Standard	12.500	3.68	12169.899	19536.061	7.787	12.9	3.0	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.427135
RRF SD: 0.0240414, Relative SD: 5.62852
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	171206M2_2	Standard	12.500	3.83	1769.582	4232.144	5.227	12.2	-2.1	NO		NO	bb
2	2	171206M2_3	Standard	12.500	3.83	1775.385	4001.034	5.547	13.0	3.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	3.83	1943.010	4831.356	5.027	11.8	-5.8	NO		NO	bb
4	4	171206M2_5	Standard	12.500	3.83	1945.118	4435.184	5.482	12.8	2.7	NO		NO	bb
5	5	171206M2_6	Standard	12.500	3.83	1838.649	4796.819	4.791	11.2	-10.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	3.83	2607.239	6271.609	5.197	12.2	-2.7	NO		NO	bb
7	7	171206M2_8	Standard	12.500	3.83	1929.995	4324.366	5.579	13.1	4.5	NO		NO	bb
8	8	171206M2_9	Standard	12.500	3.83	1705.488	3895.123	5.473	12.8	2.5	NO		NO	bb
9	9	171206M2_10	Standard	12.500	3.83	1773.431	3868.461	5.730	13.4	7.3	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.261149
RRF SD: 0.0338392, Relative SD: 12.9578
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	171206M2_2	Standard	12.500	4.15	3665.118	15513.361	2.953	11.3	-9.5	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.14	3501.219	17503.723	2.500	9.6	-23.4	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.14	4542.518	18623.473	3.049	11.7	-6.6	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.14	4269.098	14470.287	3.688	14.1	13.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.14	4497.431	16835.771	3.339	12.8	2.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.14	5336.609	20627.631	3.234	12.4	-0.9	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.14	4847.406	16592.500	3.652	14.0	11.9	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.15	4725.387	15965.438	3.700	14.2	13.3	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.14	6193.788	14442.451	5.361	20.5	64.2	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 1.11154
RRF SD: 0.0715347, Relative SD: 6.43566
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	171206M2_2	Standard	12.500	4.20	17122.166	15513.361	13.796	12.4	-0.7	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.20	16414.160	17503.723	11.722	10.5	-15.6	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.20	21394.035	18623.473	14.360	12.9	3.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.20	16178.457	14470.287	13.976	12.6	0.6	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.20	19425.684	16835.771	14.423	13.0	3.8	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.20	22418.568	20627.631	13.585	12.2	-2.2	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.20	19713.932	16592.500	14.852	13.4	6.9	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.20	18036.664	15965.438	14.122	12.7	1.6	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.20	16421.664	14442.451	14.213	12.8	2.3	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.939284
RRF SD: 0.0754611, Relative SD: 8.03389
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	171206M2_2	Standard	12.500	4.63	17438.344	17869.152	12.199	13.0	3.9	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.63	19717.799	19030.527	12.951	13.8	10.3	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.63	19882.078	20333.480	12.223	13.0	4.1	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.63	15728.210	15284.488	12.863	13.7	9.6	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.63	17987.682	20583.793	10.923	11.6	-7.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.63	22630.730	26370.496	10.727	11.4	-8.6	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.63	15452.905	18845.158	10.250	10.9	-12.7	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.63	15851.788	17023.561	11.640	12.4	-0.9	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.64	16665.496	17514.926	11.894	12.7	1.3	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.348764
RRF SD: 0.0272251, Relative SD: 7.80617
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	171206M2_2	Standard	12.500	4.69	5725.768	16935.457	4.226	12.1	-3.1	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.69	6034.938	17625.223	4.280	12.3	-1.8	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.69	6748.446	16401.250	5.143	14.7	18.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.69	6082.819	17861.988	4.257	12.2	-2.4	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.69	5986.910	17862.496	4.190	12.0	-3.9	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.69	7780.234	22085.531	4.403	12.6	1.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.69	5169.390	16193.741	3.990	11.4	-8.5	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.69	4952.032	14957.051	4.139	11.9	-5.1	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.69	4858.857	13180.983	4.608	13.2	5.7	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.991168
RRF SD: 0.105131, Relative SD: 10.6068
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	171206M2_2	Standard	12.500	4.72	4537.465	4754.042	11.931	12.0	-3.7	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.72	4274.405	4806.436	11.116	11.2	-10.3	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.72	5381.812	4776.394	14.084	14.2	13.7	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.72	4283.492	4530.459	11.819	11.9	-4.6	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.72	5121.273	4366.089	14.662	14.8	18.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.72	6178.778	6519.866	11.846	12.0	-4.4	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.72	4590.528	5391.422	10.643	10.7	-14.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.72	4276.068	4275.093	12.503	12.6	0.9	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.72	3894.268	3772.829	12.902	13.0	4.1	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.30888
RRF SD: 0.133668, Relative SD: 10.2124
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	171206M2_2	Standard	12.500	5.01	17170.455	14050.067	15.276	11.7	-6.6	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.01	18189.254	12761.368	17.817	13.6	8.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.01	17262.611	14675.523	14.704	11.2	-10.1	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.01	19594.611	13390.154	18.292	14.0	11.8	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.01	21431.703	14659.663	18.274	14.0	11.7	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.01	20064.494	18725.191	13.394	10.2	-18.1	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.01	18895.734	14417.440	16.383	12.5	0.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.01	16444.840	12337.602	16.661	12.7	1.8	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.01	14919.661	11338.477	16.448	12.6	0.5	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.103474
RRF SD: 0.0192095, Relative SD: 18.5646
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	171206M2_2	Standard	12.500	4.98	2154.095	23033.324	1.169	11.3	-9.6	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.98	1949.660	24436.158	0.997	9.6	-22.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.98	2535.809	25681.328	1.234	11.9	-4.6	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.98	1911.800	21616.131	1.106	10.7	-14.5	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.98	2408.334	21900.307	1.375	13.3	6.3	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.98	3096.835	30349.830	1.275	12.3	-1.4	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.98	2474.042	21999.684	1.406	13.6	8.7	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.98	2834.836	19846.414	1.785	17.3	38.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.98	3701.011	19536.061	2.368	22.9	83.1	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.405472
RRF SD: 0.0381432, Relative SD: 9.40711
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	171206M2_2	Standard	12.500	5.16	6211.603	16935.457	4.585	11.3	-9.5	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.16	7012.357	17625.223	4.973	12.3	-1.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.16	7401.974	16401.250	5.641	13.9	11.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.16	6449.995	17861.988	4.514	11.1	-10.9	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.16	7307.971	17862.496	5.114	12.6	0.9	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.16	7984.079	22085.531	4.519	11.1	-10.8	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.16	6575.747	16193.741	5.076	12.5	0.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.16	6462.234	14957.051	5.401	13.3	6.6	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.16	6108.760	13180.983	5.793	14.3	14.3	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.449793
RRF SD: 0.0278578, Relative SD: 6.19347
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	171206M2_2	Standard	12.500	5.31	7188.430	16935.457	5.306	11.8	-5.6	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.31	7063.249	17625.223	5.009	11.1	-10.9	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.31	7812.819	16401.250	5.954	13.2	5.9	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.31	7973.424	17861.988	5.580	12.4	-0.8	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.31	8668.059	17862.496	6.066	13.5	7.9	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.31	9885.477	22085.531	5.595	12.4	-0.5	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.31	7730.146	16193.741	5.967	13.3	6.1	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.31	6450.826	14957.051	5.391	12.0	-4.1	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.31	6045.842	13180.983	5.733	12.7	2.0	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 1.08164
RRF SD: 0.136235, Relative SD: 12.5952
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	171206M2_2	Standard	12.500	5.33	21064.824	16935.457	15.548	14.4	15.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.33	18564.963	17625.223	13.166	12.2	-2.6	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.33	19031.639	16401.250	14.505	13.4	7.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.33	15749.710	17861.988	11.022	10.2	-18.5	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.33	16523.117	17862.496	11.563	10.7	-14.5	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.33	21177.686	22085.531	11.986	11.1	-11.3	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.33	20038.816	16193.741	15.468	14.3	14.4	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.33	16245.133	14957.051	13.576	12.6	0.4	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.33	15659.711	13180.983	14.851	13.7	9.8	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.543986
RRF SD: 0.0767242, Relative SD: 14.1041
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	171206M2_2	Standard	12.500	5.61	9197.374	16935.457	6.789	12.5	-0.2	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.62	9515.929	17625.223	6.749	12.4	-0.8	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.61	10283.695	16401.250	7.838	14.4	15.3	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.61	7265.262	17861.988	5.084	9.3	-25.2	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.61	10414.291	17862.496	7.288	13.4	7.2	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.62	11056.056	22085.531	6.258	11.5	-8.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.61	9212.243	16193.741	7.111	13.1	4.6	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.61	7063.934	14957.051	5.904	10.9	-13.2	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.61	8624.977	13180.983	8.179	15.0	20.3	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.111663
RRF SD: 0.0108897, Relative SD: 9.75232
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 171206M2_2	Standard	150.000	5.71	22033.928	16935.457	16.263	145.6	-2.9	NO		NO	bd
2	2 171206M2_3	Standard	150.000	5.72	21322.523	17625.223	15.122	135.4	-9.7	NO		NO	bb
3	3 171206M2_4	Standard	150.000	5.71	23682.623	16401.250	18.049	161.6	7.8	NO		NO	bb
4	4 171206M2_5	Standard	150.000	5.71	21847.973	17861.988	15.289	136.9	-8.7	NO		NO	bb
5	5 171206M2_6	Standard	150.000	5.71	22101.295	17862.496	15.466	138.5	-7.7	NO		NO	bb
6	6 171206M2_7	Standard	150.000	5.71	28095.451	22085.531	15.902	142.4	-5.1	NO		NO	bb
7	7 171206M2_8	Standard	150.000	5.71	22049.119	16193.741	17.020	152.4	1.6	NO		NO	bb
8	8 171206M2_9	Standard	150.000	5.72	20897.273	14957.051	17.464	156.4	4.3	NO		NO	bb
9	9 171206M2_10	Standard	150.000	5.71	21267.193	13180.983	20.168	180.6	20.4	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.53278
RRF SD: 0.056468, Relative SD: 10.5987
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 171206M2_2	Standard	12.500	6.07	8593.454	16935.457	6.343	11.9	-4.8	NO		NO	bb
2	2 171206M2_3	Standard	12.500	6.08	9632.420	17625.223	6.831	12.8	2.6	NO		NO	bb
3	3 171206M2_4	Standard	12.500	6.07	8815.953	16401.250	6.719	12.6	0.9	NO		NO	bb
4	4 171206M2_5	Standard	12.500	6.07	9915.026	17861.988	6.939	13.0	4.2	NO		NO	bb
5	5 171206M2_6	Standard	12.500	6.08	8723.810	17862.496	6.105	11.5	-8.3	NO		NO	bb
6	6 171206M2_7	Standard	12.500	6.07	10710.985	22085.531	6.062	11.4	-9.0	NO		NO	bb
7	7 171206M2_8	Standard	12.500	6.07	7928.628	16193.741	6.120	11.5	-8.1	NO		NO	bb
8	8 171206M2_9	Standard	12.500	6.07	7764.407	14957.051	6.489	12.2	-2.6	NO		NO	bb
9	9 171206M2_10	Standard	12.500	6.08	8783.651	13180.983	8.330	15.6	25.1	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.176032
RRF SD: 0.0114038, Relative SD: 6.47826
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	171206M2_2	Standard	150.000	6.11	34321.457	16935.457	25.333	143.9	-4.1	NO		NO	bb
2	2	171206M2_3	Standard	150.000	6.11	35035.242	17625.223	24.847	141.2	-5.9	NO		NO	bb
3	3	171206M2_4	Standard	150.000	6.11	37623.980	16401.250	28.675	162.9	8.6	NO		NO	bb
4	4	171206M2_5	Standard	150.000	6.11	34991.770	17861.988	24.488	139.1	-7.3	NO		NO	bb
5	5	171206M2_6	Standard	150.000	6.11	35960.977	17862.496	25.165	143.0	-4.7	NO		NO	bb
6	6	171206M2_7	Standard	150.000	6.11	44977.496	22085.531	25.456	144.6	-3.6	NO		NO	bb
7	7	171206M2_8	Standard	150.000	6.11	35877.816	16193.741	27.694	157.3	4.9	NO		NO	bb
8	8	171206M2_9	Standard	150.000	6.11	32339.246	14957.051	27.027	153.5	2.4	NO		NO	bb
9	9	171206M2_10	Standard	150.000	6.11	30535.777	13180.983	28.958	164.5	9.7	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.75164
RRF SD: 0.06521, Relative SD: 8.6757
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	171206M2_2	Standard	5.000	6.40	4769.621	16935.457	3.520	4.7	-6.3	NO		NO	bb
2	2	171206M2_3	Standard	5.000	6.40	5032.743	17625.223	3.569	4.7	-5.0	NO		NO	bb
3	3	171206M2_4	Standard	5.000	6.40	5443.975	16401.250	4.149	5.5	10.4	NO		NO	bb
4	4	171206M2_5	Standard	5.000	6.41	4700.701	17861.988	3.290	4.4	-12.5	NO		NO	bb
5	5	171206M2_6	Standard	5.000	6.40	5447.780	17862.496	3.812	5.1	1.4	NO		NO	bb
6	6	171206M2_7	Standard	5.000	6.41	6229.217	22085.531	3.526	4.7	-6.2	NO		NO	bb
7	7	171206M2_8	Standard	5.000	6.41	4981.660	16193.741	3.845	5.1	2.3	NO		NO	bb
8	8	171206M2_9	Standard	5.000	6.41	4532.478	14957.051	3.788	5.0	0.8	NO		NO	bb
9	9	171206M2_10	Standard	5.000	6.41	4559.811	13180.983	4.324	5.8	15.1	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.149643
RRF SD: 0.017581, Relative SD: 11.7486
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	171206M2_2	Standard	150.000	6.25	25807.748	16935.457	19.049	127.3	-15.1	NO		NO	bb
2	2	171206M2_3	Standard	150.000	6.25	30817.412	17625.223	21.856	146.1	-2.6	NO		NO	bb
3	3	171206M2_4	Standard	150.000	6.25	27464.326	16401.250	20.932	139.9	-6.7	NO		NO	bd
4	4	171206M2_5	Standard	150.000	6.25	32317.695	17861.988	22.616	151.1	0.8	NO		NO	bb
5	5	171206M2_6	Standard	150.000	6.26	29205.326	17862.496	20.438	136.6	-8.9	NO		NO	bb
6	6	171206M2_7	Standard	150.000	6.25	37718.203	22085.531	21.348	142.7	-4.9	NO		NO	bb
7	7	171206M2_8	Standard	150.000	6.25	35266.438	16193.741	27.222	181.9	21.3	NO		NO	bb
8	8	171206M2_9	Standard	150.000	6.25	26869.625	14957.051	22.456	150.1	0.0	NO		NO	bb
9	9	171206M2_10	Standard	150.000	6.26	27524.721	13180.983	26.103	174.4	16.3	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.152167
RRF SD: 0.00799849, Relative SD: 5.2564
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	171206M2_2	Standard	150.000	6.40	27836.420	16935.457	20.546	135.0	-10.0	NO		NO	bb
2	2	171206M2_3	Standard	150.000	6.40	31725.553	17625.223	22.500	147.9	-1.4	NO		NO	bd
3	3	171206M2_4	Standard	150.000	6.40	29700.195	16401.250	22.636	148.8	-0.8	NO		NO	bb
4	4	171206M2_5	Standard	150.000	6.40	31791.846	17861.988	22.248	146.2	-2.5	NO		NO	bb
5	5	171206M2_6	Standard	150.000	6.40	31203.311	17862.496	21.836	143.5	-4.3	NO		NO	bb
6	6	171206M2_7	Standard	150.000	6.40	42279.156	22085.531	23.929	157.3	4.8	NO		NO	bd
7	7	171206M2_8	Standard	150.000	6.40	31090.572	16193.741	23.999	157.7	5.1	NO		NO	bb
8	8	171206M2_9	Standard	150.000	6.40	28281.070	14957.051	23.635	155.3	3.5	NO		NO	bb
9	9	171206M2_10	Standard	150.000	6.41	25408.611	13180.983	24.096	158.4	5.6	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	171206M2_2	Standard	12.500	1.36	15438.185	15438.185	12.500	12.5	0.0	NO		NO	MM
2	2	171206M2_3	Standard	12.500	1.36	16299.472	16299.472	12.500	12.5	0.0	NO		NO	MM
3	3	171206M2_4	Standard	12.500	1.37	17308.971	17308.971	12.500	12.5	0.0	NO		NO	MM
4	4	171206M2_5	Standard	12.500	1.36	16109.149	16109.149	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	1.36	16614.520	16614.520	12.500	12.5	0.0	NO		NO	MM
6	6	171206M2_7	Standard	12.500	1.36	20956.395	20956.395	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	1.36	16443.830	16443.830	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	1.36	15637.119	15637.119	12.500	12.5	0.0	NO		NO	MM
9	9	171206M2_10	Standard	12.500	1.36	15200.275	15200.275	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	171206M2_2	Standard	12.500	3.06	23033.324	23033.324	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	3.06	24436.158	24436.158	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	3.06	25681.328	25681.328	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	3.06	21616.131	21616.131	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	3.06	21900.307	21900.307	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	3.06	30349.830	30349.830	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	3.06	21999.684	21999.684	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	3.06	19846.414	19846.414	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	3.06	19536.061	19536.061	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	171206M2_2	Standard	12.500	3.83	4232.144	4232.144	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	3.83	4001.034	4001.034	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	3.83	4831.356	4831.356	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	3.83	4435.184	4435.184	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	3.83	4796.819	4796.819	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	3.83	6271.609	6271.609	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	3.83	4324.366	4324.366	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	3.83	3895.123	3895.123	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	3.83	3868.461	3868.461	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
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	171206M2_2	Standard	12.500	4.20	15513.361	15513.361	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.20	17503.723	17503.723	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.20	18623.473	18623.473	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.20	14470.287	14470.287	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.20	16835.771	16835.771	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.20	20627.631	20627.631	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.20	16592.500	16592.500	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.20	15965.438	15965.438	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.20	14442.451	14442.451	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 1.11022e-016, Relative SD: 1.11022e-014
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	171206M2_2	Standard	12.500	4.63	17869.152	17869.152	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.63	19030.527	19030.527	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.63	20333.480	20333.480	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.64	15284.488	15284.488	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.63	20583.793	20583.793	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.63	26370.496	26370.496	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.63	18845.158	18845.158	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.64	17023.561	17023.561	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.64	17514.926	17514.926	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	171206M2_2	Standard	12.500	4.72	4754.042	4754.042	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	4.72	4806.436	4806.436	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	4.72	4776.394	4776.394	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	4.72	4530.459	4530.459	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	4.72	4366.089	4366.089	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	4.72	6519.866	6519.866	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	4.72	5391.422	5391.422	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	4.72	4275.093	4275.093	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	4.72	3772.829	3772.829	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\171206M2\171206M2-CRV.qld

Last Altered: Thursday, December 07, 2017 13:48:35 Pacific Standard Time
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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	171206M2_2	Standard	12.500	5.01	14050.067	14050.067	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.01	12761.368	12761.368	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.01	14675.523	14675.523	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.01	13390.154	13390.154	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.01	14659.663	14659.663	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.01	18725.191	18725.191	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.01	14417.440	14417.440	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.01	12337.602	12337.602	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.01	11338.477	11338.477	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	171206M2_2	Standard	12.500	5.33	16935.457	16935.457	12.500	12.5	0.0	NO		NO	bb
2	2	171206M2_3	Standard	12.500	5.33	17625.223	17625.223	12.500	12.5	0.0	NO		NO	bb
3	3	171206M2_4	Standard	12.500	5.33	16401.250	16401.250	12.500	12.5	0.0	NO		NO	bb
4	4	171206M2_5	Standard	12.500	5.33	17861.988	17861.988	12.500	12.5	0.0	NO		NO	bb
5	5	171206M2_6	Standard	12.500	5.33	17862.496	17862.496	12.500	12.5	0.0	NO		NO	bb
6	6	171206M2_7	Standard	12.500	5.33	22085.531	22085.531	12.500	12.5	0.0	NO		NO	bb
7	7	171206M2_8	Standard	12.500	5.33	16193.741	16193.741	12.500	12.5	0.0	NO		NO	bb
8	8	171206M2_9	Standard	12.500	5.33	14957.051	14957.051	12.500	12.5	0.0	NO		NO	bb
9	9	171206M2_10	Standard	12.500	5.33	13180.983	13180.983	12.500	12.5	0.0	NO		NO	bb

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**

ICV

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Dataset: U:\Q4.PRO\results\171206M2\171206M2-13.qld

Last Altered: Thursday, December 07, 2017 14:24:57 Pacific Standard Time
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(A) No second source available.
AC 12/7/17
KJA 12/07/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.34e4	1.46e4	1.0000		1.41	1.36	11.5	10.378	103.8
2	2	PFPeA	263.1 > 218.9	1.46e4	1.74e4	1.0000		2.63	2.29	10.5	10.708	107.1
3	3	PFBS	299.0 > 79.7	3.74e3	2.23e3	1.0000		2.90	2.57	20.9	9.678	96.8
4	4	PFHxA	313.2 > 268.9	2.10e4	6.37e3	1.0000		3.40	3.06	16.5	11.860	118.6
5	5	PFHpA	363.0 > 318.9	1.62e4	1.49e4	1.0000		4.03	3.68	13.6	9.949	99.5
6	6	L-PFHxS	398.9 > 79.6	2.94e3	1.94e3	1.0000		3.90	3.83	18.9	8.378	83.8
7	8	6:2 FTS	427.1 > 407	3.81e3	4.34e3	1.0000		4.21	4.15	11.0	9.472	94.7
8	9	L-PFOA	413 > 368.7	1.65e4	1.76e4	1.0000		4.26	4.20	11.8	11.301	113.0
9	11	PFHpS	449 > 80.0	3.62e3	1.76e4	1.0000		4.38	4.31	2.58	9.927	99.3
10	12	PFNA	463.0 > 418.8	1.82e4	1.81e4	1.0000		4.63	4.64	12.5	9.440	94.4
11	13	PFOSA	498.1 > 77.8	4.96e3	6.22e3	1.0000		5.02	4.70	9.96	8.462	84.6
12	14	L-PFOS	499 > 79.9	3.55e3	5.23e3	1.0000		4.80	4.72	8.47	8.412	84.1
13	16	PFDA	513 > 468.8	1.76e4	1.90e4	1.0000		5.34	5.01	11.5	9.969	99.7
14	17	8:2 FTS	527 > 506.9	3.22e3	2.41e3	1.0000		4.98	4.98	16.7	8.763	87.6
15	18	N-MeFOSAA	570.1 > 419	7.82e3	7.17e3	1.0000		5.49	5.16	13.6	7.863	78.6
16	19	N-EtFOSAA	584.2 > 419	7.13e3	8.06e3	1.0000		5.64	5.32	11.1	10.534	105.3
17	20	PFUdA	563.0 > 518.9	1.66e4	1.78e4	1.0000		5.66	5.33	11.7	9.699	97.0
18	21	PFDS	598.8 > 80	4.13e3	1.78e4	1.0000		5.73	5.38	2.91	9.771	97.7
19	22	PFDoA	612.9 > 569.0	1.95e4	9.81e3	1.0000		5.94	5.61	24.8	9.165	91.7
20	23	N-MeFOSA	512.1 > 168.9		2.31e4	1.0000		5.85				(A)
21	24	PFTrDA	662.9 > 618.9	1.52e4	9.81e3	1.0000		6.18	5.86	19.4	7.721	77.2
22	25	PFTeDA	712.9 > 668.8	9.40e3	7.22e3	1.0000		6.37	6.07	16.3	9.144	91.4
23	26	N-EtFOSA	526.1 > 168.9		3.59e4	1.0000		6.21				(A)
24	27	PFHxDA	813.1 > 768.6		5.68e3	1.0000		6.66				
25	28	PFODA	913.1 > 868.8		5.68e3	1.0000		6.87				
26	29	N-MeFOSE	616.1 > 58.9		3.13e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		3.54e4	1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	1.46e4	1.80e4	1.0000	0.873	1.41	1.36	10.1	11.585	92.7
29	32	13C3-PFPeA	266. > 221.8	1.74e4	2.81e4	1.0000	0.789	2.63	2.29	7.74	9.803	78.4
30	33	13C3-PFBS	302. > 98.8	2.23e3	2.81e4	1.0000	0.097	2.90	2.57	0.994	10.268	82.1
31	34	13C2-PFHxA	315 > 269.8	6.37e3	2.81e4	1.0000	0.767	3.40	3.06	2.84	3.699	74.0

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Dataset: U:\Q4.PRO\results\171206M2\171206M2-13.qld

Last Altered: Thursday, December 07, 2017 14:24:57 Pacific Standard Time
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Name: 171206M2_13, Date: 07-Dec-2017, Time: 03:55:39, ID: ICV171206M2-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.49e4	2.81e4	1.0000	0.605	4.03	3.68	6.63	10.957	87.7
33	36	18O2-PFHxS	403.0 > 102.6	1.94e3	4.71e3	1.0000	0.427	4.17	3.83	5.15	12.051	96.4
34	37	13C2-6:2 FTS	429.1 > 408.9	4.34e3	1.76e4	1.0000	0.261	4.21	4.14	3.08	11.801	94.4
35	38	13C2-PFOA	414.9 > 369.7	1.76e4	1.76e4	1.0000	1.112	4.54	4.21	12.5	11.218	89.7
36	39	13C5-PFNA	468.2 > 422.9	1.81e4	1.96e4	1.0000	0.939	4.63	4.64	11.5	12.289	98.3
37	40	13C8-PFOSA	506.1 > 77.7	6.22e3	1.56e4	1.0000	0.349	5.02	4.69	4.99	14.318	114.5
38	41	13C8-PFOS	507.0 > 79.9	5.23e3	5.17e3	1.0000	0.991	5.05	4.72	12.6	12.758	102.1
39	42	13C2-PFDA	515.1 > 469.9	1.90e4	1.48e4	1.0000	1.309	5.34	5.01	16.1	12.287	98.3
40	43	13C2-8:2 FTS	529.1 > 508.7	2.41e3	2.81e4	1.0000	0.103	4.98	4.98	1.07	10.347	82.8
41	44	d3-N-MeFOSAA	573.3 > 419	7.17e3	1.56e4	1.0000	0.405	5.49	5.16	5.76	14.206	113.7
42	45	d5-N-EtFOSAA	589.3 > 419	8.06e3	1.56e4	1.0000	0.450	5.64	5.31	6.47	14.382	115.1
43	46	13C2-PFUdA	565 > 519.8	1.78e4	1.56e4	1.0000	1.082	5.66	5.33	14.3	13.199	105.6
44	47	13C2-PFDoA	615.0 > 569.7	9.81e3	1.56e4	1.0000	0.544	5.94	5.61	7.88	14.478	115.8
45	48	d3-N-MeFOSA	515.2 > 168.9	2.31e4	1.56e4	1.0000	0.112	5.85	5.72	18.5	165.789	110.5
46	49	13C2-PFTeDA	714.8 > 669.6	7.22e3	1.56e4	1.0000	0.533	6.37	6.08	5.80	10.877	87.0
47	50	d5-N-ETFOSA	531.1 > 168.9	3.59e4	1.56e4	1.0000	0.176	6.21	6.11	28.9	163.958	109.3
48	51	13C2-PFHxDA	815 > 769.7	5.68e3	1.56e4	1.0000	0.752	6.66	6.40	4.56	6.068	121.4
49	52	d7-N-MeFOSE	623.1 > 58.9	3.13e4	1.56e4	1.0000	0.150	6.30	6.25	25.2	168.189	112.1
50	53	d9-N-EtFOSE	639.2 > 58.8	3.54e4	1.56e4	1.0000	0.152	6.42	6.40	28.4	186.824	124.5
51	54	13C4-PFBA	217. > 171.8	1.80e4	1.80e4	1.0000	1.000	1.41	1.36	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	2.81e4	2.81e4	1.0000	1.000	3.40	3.06	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.71e3	4.71e3	1.0000	1.000	4.17	3.83	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.76e4	1.76e4	1.0000	1.000	4.54	4.20	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.96e4	1.96e4	1.0000	1.000	4.63	4.64	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	5.17e3	5.17e3	1.0000	1.000	5.05	4.72	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.48e4	1.48e4	1.0000	1.000	5.34	5.01	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.56e4	1.56e4	1.0000	1.000	5.66	5.33	12.5	12.500	100.0

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CCVs

Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171207M2_1	ST171207M2-1 PFC CS0 17K2808	07-Dec-17	22:54:49
2	171207M2_2	IPA	07-Dec-17	23:05:58
3	171207M2_3	1701675-11@5X RICHM-GW-TW02-110717 0...	07-Dec-17	23:17:09
4	171207M2_4	IPA	07-Dec-17	23:28:20
5	171207M2_5	1701725-12 GENBM-GW-DUP1-111517 0.123..	07-Dec-17	23:39:31
6	171207M2_6	1701725-13 GENBM-08-TW08-111617 0.11519	07-Dec-17	23:50:41
7	171207M2_7	1701725-14 GENBM-02-MW102-111517 0.11...	08-Dec-17	00:01:52
8	171207M2_8	1701725-15 GENBM-04-TW04-111517 0.1187	08-Dec-17	00:13:04
9	171207M2_9	B7K0167-BS1 OPR 1	08-Dec-17	00:24:14
10	171207M2_10	IPA	08-Dec-17	00:35:25
11	171207M2_11	B7K0167-BLK1 Method Blank 1	08-Dec-17	00:46:36
12	171207M2_12	1701689-01 B1 2.13	08-Dec-17	00:57:46
13	171207M2_13	1701689-02 R1 6.51	08-Dec-17	01:08:57
14	171207M2_14	1701689-03 R2 7.01	08-Dec-17	01:20:08
15	171207M2_15	1701689-04 R3 4.39	08-Dec-17	01:31:19
16	171207M2_16	1701705-01 Soil-Treater 4/5 Stockpile #1 1.18	08-Dec-17	01:42:29
17	171207M2_17	1701705-02 Soil-Treater 4/5 Stockpile #2 1.22	08-Dec-17	01:53:40
18	171207M2_18	IPA	08-Dec-17	02:04:51
19	171207M2_19	ST171207M2-2 PFC CS3 17K2810	08-Dec-17	02:16:02
20	171207M2_20	B7K0135-BS1 OPR 0.25	08-Dec-17	02:27:14
21	171207M2_21	IPA	08-Dec-17	02:38:26
22	171207M2_22	B7K0135-BLK1 Method Blank 0.25	08-Dec-17	02:49:36
23	171207M2_23	1701702-01 WWP-TAP 0.21648	08-Dec-17	03:00:47
24	171207M2_24	1701702-02 BI-RAW 0.23454	08-Dec-17	03:11:58
25	171207M2_25	1701702-03 SPW-TAP 0.2459	08-Dec-17	03:23:09
26	171207M2_26	1701702-04 SW-TAP 0.22821	08-Dec-17	03:34:19
27	171207M2_27	1701702-05 SW-RAW 0.22154	08-Dec-17	03:45:30
28	171207M2_28	1701702-06 NE-TAP 0.20544	08-Dec-17	03:56:40
29	171207M2_29	1701720-01 WR1711161015JLB 0.2219	08-Dec-17	04:07:51
30	171207M2_30	IPA	08-Dec-17	04:19:02
31	171207M2_31	ST171207M2-3 PFC CS3 17K2810	08-Dec-17	04:30:13

Dataset: Untitled

Last Altered: Friday, December 08, 2017 12:22:49 Pacific Standard Time
Printed: Friday, December 08, 2017 12:24:54 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171207M2_32	IPA	08-Dec-17	04:41:24
33	171207M2_33	1701720-02 WR1711161030JLB 0.22026	08-Dec-17	04:52:34
34	171207M2_34	1701720-03 WR1711161055JLB 0.23524	08-Dec-17	05:03:45
35	171207M2_35	1701720-04 FB1711161100JLB 0.22785	08-Dec-17	05:14:56
36	171207M2_36	1701720-05 WR1711161115JLB 0.21921	08-Dec-17	05:26:06
37	171207M2_37	1701720-06 WR1711161520MK 0.22651	08-Dec-17	05:37:17
38	171207M2_38	1701720-07 WR1711161605MK 0.21306	08-Dec-17	05:48:28
39	171207M2_39	1701744-01 MTBE_7234 0.17908	08-Dec-17	05:59:38
40	171207M2_40	1701745-01 MTBE_8293 0.23182	08-Dec-17	06:10:49
41	171207M2_41	1701746-01 MTBE_14101 0.18953	08-Dec-17	06:22:00
42	171207M2_42	IPA	08-Dec-17	06:33:11
43	171207M2_43	ST171207M2-4 PFC CS3 17K2810	08-Dec-17	06:44:21
44	171207M2_44	IPA	08-Dec-17	06:55:32
45	171207M2_45	B7K0176-BS1 OPR 0.25	08-Dec-17	07:06:43
46	171207M2_46	B7K0176-BSD1 LCS Dup 0.25	08-Dec-17	07:17:53
47	171207M2_47	B7K0176-BLK1 Method Blank 0.25	08-Dec-17	07:29:04
48	171207M2_48	1701710-01 FT-MW02I-NP-20171115 0.26115	08-Dec-17	07:40:15
49	171207M2_49	1701710-02 FT-MW02I-P1-20171115 0.264	08-Dec-17	07:51:25
50	171207M2_50	1701710-03 FT-MW02I-P2-20171115 0.26349	08-Dec-17	08:02:36
51	171207M2_51	1701710-04 FT-MW02I-P3-20171115 0.26766	08-Dec-17	08:13:47
52	171207M2_52	1701710-05 DEET-20171115 0.24575	08-Dec-17	08:24:58
53	171207M2_53	1701710-06 PERMETHRIN-20171115 0.23385	08-Dec-17	08:36:08
54	171207M2_54	1701710-07 FT-PZ-456S-NP-20171115 0.26081	08-Dec-17	08:47:19
55	171207M2_55	1701710-08 FT-PZ-456S-P1-20171115 0.26238	08-Dec-17	08:58:30
56	171207M2_56	1701710-09 FT-PZ-456S-P2-20171115 0.25828	08-Dec-17	09:09:40
57	171207M2_57	1701710-10 FT-PZ-456S-P3-20171115 0.26661	08-Dec-17	09:20:51
58	171207M2_58	IPA	08-Dec-17	09:32:02
59	171207M2_59	ST171207M2-5 PFC CS0 17K2808	08-Dec-17	09:43:13
60	171207M2_60	IPA	08-Dec-17	09:54:23
61	171207M2_61	1701710-11 FT-PZ-456-FRB-20171115 0.26552	08-Dec-17	10:05:34
62	171207M2_62	1701781-01 MW-6 0.11677	08-Dec-17	10:16:45
63	171207M2_63	1701781-02 MW-5 0.11465	08-Dec-17	10:27:55
64	171207M2_64	1701782-01 DPH-MW8-17 0.11397	08-Dec-17	10:39:06
65	171207M2_65	1701782-02 DPH-MW5-17 0.11948	08-Dec-17	10:50:17

Dataset: U:\Q4.PRO\results\171207M2\171207M2-1.qld

Last Altered: Friday, December 08, 2017 11:49:58 Pacific Standard Time
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(A) Below limit criterion.

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 07 Dec 2017 13:21:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	8.72e2	9.36e3		1.41	1.34	1.17	1.04	103.8
2	2	PFPeA	263.1 > 218.9	9.62e2	1.41e4		2.63	2.27	0.854	0.799	79.9
3	3	PFBS	299.0 > 79.7	3.16e2	1.85e3		2.90	2.55	2.13	0.950	95.0
4	4	PFHxA	313.2 > 268.9	1.60e3	6.24e3		3.40	3.04	1.28	0.778	77.8
5	5	PFHpA	363.0 > 318.9	1.15e3	1.15e4		4.03	3.66	1.25	0.845	84.5
6	6	L-PFHxS	398.9 > 79.6	2.59e2	1.47e3		3.90	3.81	2.20	1.04	104.3
7	8	6:2 FTS	427.1 > 407	3.16e2	3.87e3		4.21	4.12	1.02	0.859	85.9
8	9	L-PFOA	413 > 368.7	1.50e3	1.44e4		4.26	4.17	1.31	0.897	89.7
9	11	PFHpS	449 > 80.0	2.82e2	1.44e4		4.38	4.29	0.245	0.946	94.6
10	12	PFNA	463.0 > 418.8	1.35e3	1.59e4		4.63	4.61	1.06	0.776	77.6
11	13	PFOSA	498.1 > 77.8	4.58e2	5.90e3		5.02	4.67	0.971	1.03	103.4
12	14	L-PFOS	499 > 79.9	3.42e2	4.00e3		4.69	4.69	1.07	1.01	101.4
13	16	PFDA	513 > 468.8	1.54e3	1.29e4		5.34	4.98	1.49	1.20	120.1
14	17	8:2 FTS	527 > 506.9	2.82e2	1.64e3		4.98	4.95	2.15	1.11	111.2
15	18	N-MeFOSAA	570.1 > 419	6.93e2	6.28e3		5.49	5.13	1.38	0.946	94.6
16	19	N-EtFOSAA	584.2 > 419	5.66e2	6.23e3		5.64	5.29	1.14	1.09	109.3
17	20	PFUdA	563.0 > 518.9	1.42e3	1.82e4		5.66	5.30	0.974	0.870	87.0
18	21	PFDS	598.8 > 80	3.08e2	1.82e4		5.73	5.35	0.211	0.591	(A) 59.1
19	22	PFDoA	612.9 > 569.0	1.72e3	1.03e4		5.94	5.58	2.08	0.765	76.5
20	23	N-MeFOSA	512.1 > 168.9	7.24e2	1.83e4		5.85	5.66	5.95	4.97	99.4
21	24	PFTrDA	662.9 > 618.9	1.69e3	1.03e4		6.18	5.83	2.05	0.848	84.8
22	25	PFTeDA	712.9 > 668.8	1.10e3	7.13e3		6.37	6.04	1.92	1.14	113.7
23	26	N-EtFOSA	526.1 > 168.9	9.49e2	2.79e4		6.21	6.07	5.10	5.22	104.4
24	27	PFHxDA	813.1 > 768.6	5.19e2	3.69e3		6.66	6.38	0.702	1.04	103.9
25	28	PFODA	913.1 > 868.8	6.86e2	3.69e3		6.87	6.61	0.928	1.14	113.7
26	29	N-MeFOSE	616.1 > 58.9	8.75e2	2.62e4		6.30	6.25	5.01	5.04	100.7
27	30	N-EtFOSE	630.1 > 58.9	9.86e2	2.42e4		6.42	6.40	6.12	5.33	106.5
28	31	13C3-PFBA	216.1 > 171.8	9.36e3	1.01e4	0.873	1.41	1.34	11.6	13.3	106.3
29	32	13C3-PFPeA	266. > 221.8	1.41e4	1.95e4	0.789	2.63	2.27	9.02	11.4	91.5
30	33	13C3-PFBS	302. > 98.8	1.85e3	1.95e4	0.097	2.90	2.55	1.19	12.2	98.0
31	34	13C2-PFHxA	315 > 269.8	6.24e3	1.95e4	0.767	3.40	3.04	4.00	5.21	104.3

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dm 12/9/17

vjh. 12/08/2017

Dataset: U:\Q4.PRO\results\171207M2\171207M2-1.qld

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Printed: Friday, December 08, 2017 11:51:26 Pacific Standard Time

Name: 171207M2_1, Date: 07-Dec-2017, Time: 22:54:49, ID: ST171207M2-1 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.15e4	1.95e4	0.605	4.03	3.66	7.36	12.2	97.3
33	36	18O2-PFHxS	403.0 > 102.6	1.47e3	3.54e3	0.427	4.17	3.80	5.20	12.2	97.4
34	37	13C2-6:2 FTS	429.1 > 408.9	3.87e3	1.34e4	0.261	4.21	4.12	3.61	13.8	110.6
35	38	13C2-PFOA	414.9 > 369.7	1.44e4	1.34e4	1.112	4.54	4.17	13.4	12.1	96.6
36	39	13C5-PFNA	468.2 > 422.9	1.59e4	1.41e4	0.939	4.63	4.61	14.0	14.9	119.6
37	40	13C8-PFOSA	506.1 > 77.7	5.90e3	1.37e4	0.349	5.02	4.66	5.40	15.5	123.8
38	41	13C8-PFOS	507.0 > 79.9	4.00e3	3.61e3	0.991	5.05	4.69	13.9	14.0	111.9
39	42	13C2-PFDA	515.1 > 469.9	1.29e4	9.18e3	1.309	5.34	4.98	17.6	13.4	107.4
40	43	13C2-8:2 FTS	529.1 > 508.7	1.64e3	1.95e4	0.103	4.98	4.95	1.05	10.2	81.3
41	44	d3-N-MeFOSAA	573.3 > 419	6.28e3	1.37e4	0.405	5.49	5.13	5.75	14.2	113.4
42	45	d5-N-EtFOSAA	589.3 > 419	6.23e3	1.37e4	0.450	5.64	5.28	5.70	12.7	101.3
43	46	13C2-PFUdA	565 > 519.8	1.82e4	1.37e4	1.082	5.66	5.30	16.7	15.4	123.4
44	47	13C2-PFDoA	615.0 > 569.7	1.03e4	1.37e4	0.544	5.94	5.58	9.46	17.4	139.1
45	48	d3-N-MeFOSA	515.2 > 168.9	1.83e4	1.37e4	0.112	5.85	5.68	16.7	150	99.7
46	49	13C2-PFTeDA	714.8 > 669.6	7.13e3	1.37e4	0.533	6.37	6.04	6.53	12.3	98.0
47	50	d5-N-ETFOSA	531.1 > 168.9	2.79e4	1.37e4	0.176	6.21	6.08	25.5	145	96.6
48	51	13C2-PFHxDA	815 > 769.7	3.69e3	1.37e4	0.752	6.66	6.38	3.38	4.50	89.9
49	52	d7-N-MeFOSE	623.1 > 58.9	2.62e4	1.37e4	0.150	6.30	6.24	24.0	160	106.8
50	53	d9-N-EtFOSE	639.2 > 58.8	2.42e4	1.37e4	0.152	6.42	6.39	22.1	145	97.0
51	54	13C4-PFBA	217. > 171.8	1.01e4	1.01e4	1.000	1.41	1.33	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	1.95e4	1.95e4	1.000	3.40	3.04	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.54e3	3.54e3	1.000	4.17	3.80	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.34e4	1.34e4	1.000	4.54	4.17	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.41e4	1.41e4	1.000	4.63	4.61	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	3.61e3	3.61e3	1.000	5.05	4.69	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	9.18e3	9.18e3	1.000	5.34	4.98	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.37e4	1.37e4	1.000	5.66	5.30	12.5	12.5	100.0

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Dataset: U:\Q4.PRO\results\171207M2\171207M2-43.qld

Last Altered: Friday, December 08, 2017 11:59:15 Pacific Standard Time
Printed: Friday, December 08, 2017 11:59:27 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.89e3	1.04e4		1.34	1.34	11.9	10.7	107.5
2	2	PFPeA	263.1 > 218.9	1.10e4	1.30e4		2.25	2.28	10.6	10.8	107.9
3	3	PFBS	299.0 > 79.7	3.03e3	1.55e3		2.52	2.56	24.5	11.3	113.3
4	4	PFHxA	313.2 > 268.9	1.57e4	5.19e3		3.04	3.04	15.1	10.8	108.3
5	5	PFHpA	363.0 > 318.9	1.16e4	1.04e4		3.66	3.66	13.9	10.2	101.7
6	6	L-PFHxS	398.9 > 79.6	2.34e3	1.29e3		3.80	3.81	22.7	10.0	100.5
7	8	6:2 FTS	427.1 > 407	2.74e3	3.38e3		4.20	4.12	10.1	8.74	87.4
8	9	L-PFOA	413 > 368.7	1.06e4	1.47e4		4.20	4.18	8.98	8.51	85.1
9	11	PFHpS	449 > 80.0	2.68e3	1.47e4		4.29	4.29	2.28	8.77	87.7
10	12	PFNA	463.0 > 418.8	1.51e4	1.38e4		4.61	4.61	13.7	10.3	103.3
11	13	PFOSA	498.1 > 77.8	3.30e3	4.55e3		4.67	4.67	9.07	7.72	77.2
12	14	L-PFOS	499 > 79.9	3.04e3	3.71e3		4.69	4.69	10.2	10.2	101.7
13	16	PFDA	513 > 468.8	1.52e4	1.32e4		5.00	4.98	14.4	12.5	124.8
14	17	8:2 FTS	527 > 506.9	2.71e3	1.74e3		4.98	4.95	19.5	10.3	102.5
15	18	N-MeFOSAA	570.1 > 419	7.11e3	4.83e3		5.15	5.13	18.4	10.6	105.8
16	19	N-EtFOSAA	584.2 > 419	4.47e3	5.92e3		5.30	5.29	9.45	8.99	89.9
17	20	PFUdA	563.0 > 518.9	1.07e4	1.30e4		5.31	5.30	10.3	8.52	85.2
18	21	PFDS	598.8 > 80	3.20e3	1.30e4		5.35	5.34	3.08	10.4	103.6
19	22	PFDoA	612.9 > 569.0	1.53e4	8.63e3		5.58	5.58	22.1	8.16	81.6
20	23	N-MeFOSA	512.1 > 168.9	6.62e3	1.71e4		5.60	5.66	58.0	48.7	97.3
21	24	PFTrDA	662.9 > 618.9	1.32e4	8.63e3		5.75	5.83	19.1	7.61	76.1
22	25	PFTeDA	712.9 > 668.8	9.25e3	6.46e3		6.10	6.04	17.9	10.0	100.5
23	26	N-EtFOSA	526.1 > 168.9	8.96e3	2.59e4		6.21	6.06	52.0	54.7	109.3
24	27	PFHxDA	813.1 > 768.6	5.19e3	3.74e3		6.35	6.38	6.95	11.1	111.5
25	28	PFODA	913.1 > 868.8	5.40e3	3.74e3		6.65	6.61	7.23	8.72	87.2
26	29	N-MeFOSE	616.1 > 58.9	8.00e3	2.25e4		6.30	6.24	53.3	54.4	108.8
27	30	N-EtFOSE	630.1 > 58.9	9.44e3	2.27e4		6.42	6.40	62.5	56.9	113.9
28	31	13C3-PFBA	216.1 > 171.8	1.04e4	1.19e4	0.873	1.34	1.34	10.9	12.5	99.9
29	32	13C3-PFPeA	266. > 221.8	1.30e4	1.61e4	0.789	2.25	2.28	10.2	12.9	102.9
30	33	13C3-PFBS	302. > 98.8	1.55e3	1.61e4	0.097	2.52	2.56	1.20	12.4	99.6
31	34	13C2-PFHxA	315 > 269.8	5.19e3	1.61e4	0.767	3.04	3.04	4.04	5.27	105.4

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dm 12/9/17

rjh 12/08/2017

Dataset: U:\Q4.PRO\results\171207M2\171207M2-43.qld

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Name: 171207M2_43, Date: 08-Dec-2017, Time: 06:44:21, ID: ST171207M2-4 PFC CS3 17K2810, Description: PFC CS3 17K2810

(A) Acceptance criteria

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.04e4	1.61e4	0.605	3.66	3.66	8.10	13.4	107.1
33	36	18O2-PFHxS	403.0 > 102.6	1.29e3	3.23e3	0.427	3.80	3.81	4.99	11.7	93.5
34	37	13C2-6:2 FTS	429.1 > 408.9	3.38e3	1.23e4	0.261	4.21	4.12	3.42	13.1	104.9
35	38	13C2-PFOA	414.9 > 369.7	1.47e4	1.23e4	1.112	4.20	4.17	14.9	13.4	107.2
36	39	13C5-PFNA	468.2 > 422.9	1.38e4	1.30e4	0.939	4.63	4.61	13.3	14.1	113.0
37	40	13C8-PFOSA	506.1 > 77.7	4.55e3	1.02e4	0.349	4.67	4.66	5.58	16.0	127.9
38	41	13C8-PFOS	507.0 > 79.9	3.71e3	3.39e3	0.991	4.69	4.69	13.7	13.8	110.5
39	42	13C2-PFDA	515.1 > 469.9	1.32e4	1.04e4	1.309	5.00	4.98	15.8	12.1	96.7
40	43	13C2-8:2 FTS	529.1 > 508.7	1.74e3	1.61e4	0.103	4.98	4.95	1.35	13.1	104.7
41	44	d3-N-MeFOSAA	573.3 > 419	4.83e3	1.02e4	0.405	5.15	5.13	5.92	14.6	116.8
42	45	d5-N-EtFOSAA	589.3 > 419	5.92e3	1.02e4	0.450	5.30	5.28	7.25	16.1	129.0
43	46	13C2-PFUdA	565 > 519.8	1.30e4	1.02e4	1.082	5.31	5.30	15.9	14.7	117.7
44	47	13C2-PFDoA	615.0 > 569.7	8.63e3	1.02e4	0.544	5.58	5.58	10.6	19.4	155.5
45	48	d3-N-MeFOSA	515.2 > 168.9	1.71e4	1.02e4	0.112	5.60	5.68	21.0	188	125.3
46	49	13C2-PFTeDA	714.8 > 669.6	6.46e3	1.02e4	0.533	6.10	6.04	7.92	14.9	119.0
47	50	d5-N-ETFOSA	531.1 > 168.9	2.59e4	1.02e4	0.176	6.21	6.08	31.7	180	120.1
48	51	13C2-PFHxDA	815 > 769.7	3.74e3	1.02e4	0.752	6.35	6.38	4.58	6.09	121.9
49	52	d7-N-MeFOSE	623.1 > 58.9	2.25e4	1.02e4	0.150	6.30	6.24	27.6	184	123.0
50	53	d9-N-EtFOSE	639.2 > 58.8	2.27e4	1.02e4	0.152	6.42	6.39	27.8	182	121.6
51	54	13C4-PFBA	217. > 171.8	1.19e4	1.19e4	1.000	1.34	1.34	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	1.61e4	1.61e4	1.000	3.04	3.04	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.23e3	3.23e3	1.000	3.80	3.81	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.23e4	1.23e4	1.000	4.20	4.17	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.30e4	1.30e4	1.000	4.63	4.61	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	3.39e3	3.39e3	1.000	4.69	4.69	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.04e4	1.04e4	1.000	5.00	4.98	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.02e4	1.02e4	1.000	5.31	5.30	12.5	12.5	100.0

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(A)

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171207M2\171207M2-59.qld

Last Altered: Friday, December 08, 2017 12:11:50 Pacific Standard Time
Printed: Friday, December 08, 2017 12:13:36 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 08 Dec 2017 11:51:12
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-6-17_FULL_OLD.cdb 07 Dec 2017 14:15:50

(A) Above limit criteria

Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	1	PFBA	213.0 > 168.8	9.10e2	1.23e4		1.34	1.34	0.927	0.823	82.3	70-130
2	2	PFPeA	263.1 > 218.9	1.37e3	1.59e4		2.25	2.28	1.08	1.03	103.0	
3	3	PFBS	299.0 > 79.7	3.44e2	1.94e3		2.52	2.56	2.22	0.992	99.2	
4	4	PFHxA	313.2 > 268.9	1.83e3	6.35e3		3.04	3.04	1.44	0.895	89.5	
5	5	PFHpA	363.0 > 318.9	1.43e3	1.24e4		3.66	3.66	1.45	0.989	98.9	
6	6	L-PFHxS	398.9 > 79.6	3.22e2	1.66e3		3.80	3.81	2.43	1.15	114.5	
7	8	6:2 FTS	427.1 > 407	3.72e2	3.62e3		4.20	4.12	1.28	1.08	108.0	
8	9	L-PFOA	413 > 368.7	1.58e3	1.76e4		4.20	4.17	1.12	0.708	70.8	
9	11	PFHpS	449 > 80.0	3.25e2	1.76e4		4.29	4.29	0.230	0.888	88.8	
10	12	PFNA	463.0 > 418.8	1.78e3	1.53e4		4.61	4.61	1.46	1.07	107.2	
11	13	PFOSA	498.1 > 77.8	4.48e2	5.04e3		4.67	4.67	1.11	1.15	114.8	
12	14	L-PFOS	499 > 79.9	3.52e2	4.36e3		4.69	4.69	1.01	0.952	95.2	
13	16	PFDA	513 > 468.8	1.86e3	1.69e4		5.00	4.98	1.38	1.10	110.2	
14	17	8:2 FTS	527 > 506.9	2.94e2	1.42e3		4.98	4.95	2.58	1.33	(A) 133.2	
15	18	N-MeFOSAA	570.1 > 419	6.18e2	6.08e3		5.15	5.13	1.27	0.886	88.6	
16	19	N-EtFOSAA	584.2 > 419	4.02e2	6.88e3		5.30	5.28	0.731	0.708	70.8	
17	20	PFUdA	563.0 > 518.9	1.77e3	1.65e4		5.31	5.30	1.34	1.17	117.2	
18	21	PFDS	598.8 > 80	3.77e2	1.65e4		5.35	5.35	0.286	0.846	84.6	
19	22	PFDoA	612.9 > 569.0	1.63e3	8.79e3		5.58	5.58	2.32	0.854	85.4	
20	23	N-MeFOSA	512.1 > 168.9	8.43e2	1.94e4		5.60	5.66	6.53	5.46	109.1	
21	24	PFTrDA	662.9 > 618.9	1.77e3	8.79e3		5.75	5.83	2.52	1.03	103.2	
22	25	PFTeDA	712.9 > 668.8	1.23e3	8.83e3		6.10	6.04	1.74	1.04	103.8	
23	26	N-EtFOSA	526.1 > 168.9	1.00e3	3.08e4		6.21	6.07	4.88	4.98	99.6	
24	27	PFHxDA	813.1 > 768.6	5.36e2	4.64e3		6.35	6.38	0.577	0.838	83.8	
25	28	PFODA	913.1 > 868.8	6.68e2	4.64e3		6.65	6.61	0.719	0.888	88.8	
26	29	N-MeFOSE	616.1 > 58.9	8.69e2	2.81e4		6.30	6.24	4.64	4.66	93.2	
27	30	N-EtFOSE	630.1 > 58.9	9.66e2	2.34e4		6.42	6.40	6.18	5.39	107.7	
28	31	13C3-PFBA	216.1 > 171.8	1.23e4	1.40e4	0.873	1.34	1.34	10.9	12.5	100.3	50-150
29	32	13C3-PFPeA	266. > 221.8	1.59e4	2.00e4	0.789	2.25	2.28	9.92	12.6	100.5	
30	33	13C3-PFBS	302. > 98.8	1.94e3	2.00e4	0.097	2.52	2.56	1.21	12.5	100.0	
31	34	13C2-PFHxA	315 > 269.8	6.35e3	2.00e4	0.767	3.04	3.04	3.97	5.18	103.6	

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Dataset: U:\Q4.PRO\results\171207M2\171207M2-59.qld

Last Altered: Friday, December 08, 2017 12:11:50 Pacific Standard Time
Printed: Friday, December 08, 2017 12:13:36 Pacific Standard Time

Name: 171207M2_59, Date: 08-Dec-2017, Time: 09:43:13, ID: ST171207M2-5 PFC CS0 17K2808, Description: PFC CS0 17K2808

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.24e4	2.00e4	0.605	3.66	3.66	7.73	12.8	102.2
33	36	18O2-PFHxS	403.0 > 102.6	1.66e3	4.06e3	0.427	3.80	3.81	5.10	11.9	95.6
34	37	13C2-6:2 FTS	429.1 > 408.9	3.62e3	1.49e4	0.261	4.21	4.12	3.05	11.7	93.3
35	38	13C2-PFOA	414.9 > 369.7	1.76e4	1.49e4	1.112	4.20	4.17	14.8	13.3	106.8
36	39	13C5-PFNA	468.2 > 422.9	1.53e4	1.62e4	0.939	4.63	4.61	11.8	12.5	100.3
37	40	13C8-PFOSA	506.1 > 77.7	5.04e3	1.46e4	0.349	4.67	4.67	4.32	12.4	99.2
38	41	13C8-PFOS	507.0 > 79.9	4.36e3	4.17e3	0.991	4.69	4.69	13.1	13.2	105.6
39	42	13C2-PFDA	515.1 > 469.9	1.69e4	9.80e3	1.309	5.00	4.98	21.5	16.4	131.5
40	43	13C2-8:2 FTS	529.1 > 508.7	1.42e3	2.00e4	0.103	4.98	4.95	0.889	8.59	68.7
41	44	d3-N-MeFOSAA	573.3 > 419	6.08e3	1.46e4	0.405	5.15	5.13	5.21	12.9	102.9
42	45	d5-N-EtFOSAA	589.3 > 419	6.88e3	1.46e4	0.450	5.30	5.28	5.91	13.1	105.0
43	46	13C2-PFUdA	565 > 519.8	1.65e4	1.46e4	1.082	5.31	5.30	14.1	13.1	104.4
44	47	13C2-PFDoA	615.0 > 569.7	8.79e3	1.46e4	0.544	5.58	5.58	7.54	13.9	110.9
45	48	d3-N-MeFOSA	515.2 > 168.9	1.94e4	1.46e4	0.112	5.60	5.69	16.6	149	99.2
46	49	13C2-PFTeDA	714.8 > 669.6	8.83e3	1.46e4	0.533	6.10	6.04	7.58	14.2	113.8
47	50	d5-N-ETFOSA	531.1 > 168.9	3.08e4	1.46e4	0.176	6.21	6.09	26.4	150	100.1
48	51	13C2-PFHxDA	815 > 769.7	4.64e3	1.46e4	0.752	6.35	6.38	3.99	5.30	106.1
49	52	d7-N-MeFOSE	623.1 > 58.9	2.81e4	1.46e4	0.150	6.30	6.24	24.1	161	107.5
50	53	d9-N-EtFOSE	639.2 > 58.8	2.34e4	1.46e4	0.152	6.42	6.39	20.1	132	88.1
51	54	13C4-PFBA	217. > 171.8	1.40e4	1.40e4	1.000	1.34	1.34	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	2.00e4	2.00e4	1.000	3.04	3.04	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.06e3	4.06e3	1.000	3.80	3.81	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.49e4	1.49e4	1.000	4.20	4.17	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.62e4	1.62e4	1.000	4.63	4.61	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	4.17e3	4.17e3	1.000	4.69	4.69	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	9.80e3	9.80e3	1.000	5.00	4.98	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.46e4	1.46e4	1.000	5.31	5.30	12.5	12.5	100.0

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-IIS AREAS.qld

Last Altered: Monday, December 11, 2017 11:10:38 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_RS-12-4-17.mdb 05 Dec 2017 11:24:50
Calibration: 11 Dec 2017 11:10:38

Name: 171209M2_7, Date: 09-Dec-2017, Time: 13:50:56, ID: ST171209M1-6 PFC CS3 17K2810, Description: PFC CS3 17K2810

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	ST171209M1-6 PFC CS3 17K2810	7.89e3	100.0	NO
2	2 13C5-PFHxA	ST171209M1-6 PFC CS3 17K2810	1.51e4	100.0	NO
3	3 13C3-PFHxS	ST171209M1-6 PFC CS3 17K2810	3.31e3	100.0	NO
4	4 13C8-PFOA	ST171209M1-6 PFC CS3 17K2810	1.25e4	100.0	NO
5	5 13C9-PFNA	ST171209M1-6 PFC CS3 17K2810	1.22e4	100.0	NO
6	6 13C4-PFOS	ST171209M1-6 PFC CS3 17K2810	3.53e3	100.0	NO
7	7 13C6-PFDA	ST171209M1-6 PFC CS3 17K2810	8.18e3	100.0	NO
8	8 13C7-PFUdA	ST171209M1-6 PFC CS3 17K2810	1.12e4	100.0	NO

Name: 171209M2_15, Date: 09-Dec-2017, Time: 15:20:21, ID: 1701710-11 FT-PZ-456-FRB-20171115 0.26552, Description: FT-PZ-456-FRB-20171115

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701710-11 FT-PZ-456-FRB-20171115 ...	7.11e3	90.1	NO
2	2 13C5-PFHxA	1701710-11 FT-PZ-456-FRB-20171115 ...	1.03e4	68.0	NO
3	3 13C3-PFHxS	1701710-11 FT-PZ-456-FRB-20171115 ...	2.04e3	61.7	NO
4	4 13C8-PFOA	1701710-11 FT-PZ-456-FRB-20171115 ...	8.66e3	69.2	NO
5	5 13C9-PFNA	1701710-11 FT-PZ-456-FRB-20171115 ...	8.66e3	71.1	NO
6	6 13C4-PFOS	1701710-11 FT-PZ-456-FRB-20171115 ...	2.30e3	65.0	NO
7	7 13C6-PFDA	1701710-11 FT-PZ-456-FRB-20171115 ...	7.04e3	86.0	NO
8	8 13C7-PFUdA	1701710-11 FT-PZ-456-FRB-20171115 ...	7.83e3	69.7	NO

Name: 171209M2_16, Date: 09-Dec-2017, Time: 15:31:32, ID: 1701725-12 GENBM-GW-DUP1-111517 0.12313, Description: GENBM-GW-DUP1-111517

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701725-12 GENBM-GW-DUP1-11151...	1.00e4	127.1	NO
2	2 13C5-PFHxA	1701725-12 GENBM-GW-DUP1-11151...	1.33e4	87.9	NO
3	3 13C3-PFHxS	1701725-12 GENBM-GW-DUP1-11151...	2.63e3	79.5	NO
4	4 13C8-PFOA	1701725-12 GENBM-GW-DUP1-11151...	1.07e4	85.5	NO
5	5 13C9-PFNA	1701725-12 GENBM-GW-DUP1-11151...	1.07e4	87.6	NO
6	6 13C4-PFOS	1701725-12 GENBM-GW-DUP1-11151...	2.06e3	58.3	NO
7	7 13C6-PFDA	1701725-12 GENBM-GW-DUP1-11151...	4.80e3	58.6	NO
8	8 13C7-PFUdA	1701725-12 GENBM-GW-DUP1-11151...	2.29e3	20.4	YES

Name: 171209M2_17, Date: 09-Dec-2017, Time: 15:42:43, ID: 1701725-13 GENBM-08-TW08-111617 0.11519, Description: GENBM-08-TW08-111617

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1701725-13 GENBM-08-TW08-111617 ...	9.74e3	123.5	NO
2	2 13C5-PFHxA	1701725-13 GENBM-08-TW08-111617 ...	1.36e4	89.8	NO
3	3 13C3-PFHxS	1701725-13 GENBM-08-TW08-111617 ...	1.94e3	58.5	NO
4	4 13C8-PFOA	1701725-13 GENBM-08-TW08-111617 ...	1.14e4	90.8	NO
5	5 13C9-PFNA	1701725-13 GENBM-08-TW08-111617 ...	1.10e4	90.3	NO
6	6 13C4-PFOS	1701725-13 GENBM-08-TW08-111617 ...	1.68e3	47.6	YES

AC 12/11/17

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Second source std <70% for 6:2 FTS; not used.

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
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INITIAL CALIBRATION

AC 12/11/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Compound name: PFBA
Correlation coefficient: r = 0.999263, r^2 = 0.998527
Calibration curve: 1.08182 * x + 0.0176598
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

vjla 12/11/2017

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171209M2_2	Standard	0.250	1.35	79.007	7194.714	0.137	0.1	-55.8	NO	0.999	NO	bbX
2	2	171209M2_3	Standard	0.500	1.34	220.503	6640.622	0.415	0.4	-26.5	NO	0.999	NO	MM
3	3	171209M2_4	Standard	1.000	1.34	722.126	8089.782	1.116	1.0	1.5	NO	0.999	NO	db
4	4	171209M2_5	Standard	2.000	1.34	1205.506	6749.064	2.233	2.0	2.4	NO	0.999	NO	db
5	5	171209M2_6	Standard	5.000	1.34	3257.255	6976.839	5.836	5.4	7.6	NO	0.999	NO	db
6	6	171209M2_7	Standard	10.000	1.34	6335.401	6136.306	12.906	11.9	19.1	NO	0.999	NO	db
7	7	171209M2_8	Standard	50.000	1.34	32260.043	7606.514	53.014	49.0	-2.0	NO	0.999	NO	db
8	8	171209M2_9	Standard	100.000	1.34	68014.906	7638.538	111.302	102.9	2.9	NO	0.999	NO	db
9	9	171209M2_10	Standard	250.000	1.34	159589.063	7497.786	266.060	245.9	-1.6	NO	0.999	NO	db

Compound name: PFPeA
Correlation coefficient: r = 0.999843, r^2 = 0.999686
Calibration curve: 0.97915 * x + 0.0424461
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	171209M2_2	Standard	0.250	2.28	298.733	13272.832	0.281	0.2	-2.4	NO	1.000	NO	MM
2	2	171209M2_3	Standard	0.500	2.27	448.371	13261.604	0.423	0.4	-22.3	NO	1.000	NO	db
3	3	171209M2_4	Standard	1.000	2.28	1277.676	14793.755	1.080	1.1	5.9	NO	1.000	NO	bb
4	4	171209M2_5	Standard	2.000	2.28	2078.773	12518.253	2.076	2.1	3.8	NO	1.000	NO	bb
5	5	171209M2_6	Standard	5.000	2.29	5358.080	12625.518	5.305	5.4	7.5	NO	1.000	NO	bb
6	6	171209M2_7	Standard	10.000	2.28	10364.964	12280.884	10.550	10.7	7.3	NO	1.000	NO	bb
7	7	171209M2_8	Standard	50.000	2.28	48755.719	12369.729	49.269	50.3	0.5	NO	1.000	NO	bb
8	8	171209M2_9	Standard	100.000	2.29	94330.008	11994.732	98.304	100.4	0.4	NO	1.000	NO	bb
9	9	171209M2_10	Standard	250.000	2.28	229668.844	11808.688	243.114	248.2	-0.7	NO	1.000	NO	bb

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
Printed: Monday, December 11, 2017 10:56:12 Pacific Standard Time

Compound name: PFBS
Correlation coefficient: r = 0.999669, r^2 = 0.999338
Calibration curve: 2.12803 * x + 0.0745164
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	171209M2_2	Standard	0.250	2.55	69.775	1672.039	0.522	0.2	-16.0	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	2.55	158.016	1608.684	1.228	0.5	8.4	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	2.56	329.956	1920.615	2.147	1.0	-2.6	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	2.57	557.626	1567.305	4.447	2.1	2.7	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	2.57	1453.337	1662.107	10.930	5.1	2.0	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	2.57	2873.959	1525.102	23.555	11.0	10.3	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	2.57	13496.618	1666.859	101.213	47.5	-4.9	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	2.57	25449.775	1507.769	210.989	99.1	-0.9	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	2.57	60723.602	1414.148	536.751	252.2	0.9	NO	0.999	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998437
Calibration curve: 0.000133423 * x^2 + 1.29902 * x + 0.19425
Response type: Internal Std (Ref 34), 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	171209M2_2	Standard	0.250	3.04	332.791	4830.886	0.344	0.1	-53.8	NO	0.998	NO	bbX
2	2	171209M2_3	Standard	0.500	3.04	757.400	5252.126	0.721	0.4	-18.9	NO	0.998	NO	bb
3	3	171209M2_4	Standard	1.000	3.05	1828.379	5817.276	1.572	1.1	6.0	NO	0.998	NO	bb
4	4	171209M2_5	Standard	2.000	3.05	3282.608	5163.659	3.179	2.3	14.8	NO	0.998	NO	bb
5	5	171209M2_6	Standard	5.000	3.05	7938.672	4771.276	8.319	6.3	25.0	NO	0.998	NO	bb
6	6	171209M2_7	Standard	10.000	3.05	13398.591	4836.588	13.851	10.5	5.0	NO	0.998	NO	bb
7	7	171209M2_8	Standard	50.000	3.05	66715.633	5013.819	66.532	50.8	1.6	NO	0.998	NO	bb
8	8	171209M2_9	Standard	100.000	3.06	124858.625	4964.156	125.760	95.7	-4.3	NO	0.998	NO	bb
9	9	171209M2_10	Standard	250.000	3.06	324579.438	4840.386	335.283	251.5	0.6	NO	0.998	NO	bb

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Compound name: PFHpA
Correlation coefficient: r = 0.998660, r^2 = 0.997321
Calibration curve: 1.32378 * x + 0.0946486
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 171209M2_2	Standard	0.250	3.65	305.248	10568.426	0.361	0.2	-19.5	NO	0.997	NO	bb
2	2 171209M2_3	Standard	0.500	3.66	564.405	11017.162	0.640	0.4	-17.6	NO	0.997	NO	bb
3	3 171209M2_4	Standard	1.000	3.67	1371.908	11542.928	1.486	1.1	5.1	NO	0.997	NO	bb
4	4 171209M2_5	Standard	2.000	3.67	2217.943	10123.013	2.739	2.0	-0.1	NO	0.997	NO	bb
5	5 171209M2_6	Standard	5.000	3.67	5688.696	9271.844	7.669	5.7	14.4	NO	0.997	NO	bb
6	6 171209M2_7	Standard	10.000	3.67	11517.970	9791.908	14.703	11.0	10.4	NO	0.997	NO	bb
7	7 171209M2_8	Standard	50.000	3.67	55155.297	9812.723	70.260	53.0	6.0	NO	0.997	NO	bb
8	8 171209M2_9	Standard	100.000	3.67	98996.383	8871.913	139.480	105.3	5.3	NO	0.997	NO	bb
9	9 171209M2_10	Standard	250.000	3.67	233816.328	9195.322	317.847	240.0	-4.0	NO	0.997	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999212, r^2 = 0.998424
Calibration curve: 1.98166 * x + 0.429333
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 171209M2_2	Standard	0.250	3.80	52.740	1435.493	0.459	0.0	-94.0	NO	0.998	NO	MMX
2	2 171209M2_3	Standard	0.500	3.81	135.711	1234.737	1.374	0.5	-4.7	NO	0.998	NO	MM
3	3 171209M2_4	Standard	1.000	3.82	255.465	1590.471	2.008	0.8	-20.3	NO	0.998	NO	MM
4	4 171209M2_5	Standard	2.000	3.82	493.271	1462.096	4.217	1.9	-4.4	NO	0.998	NO	MM
5	5 171209M2_6	Standard	5.000	3.82	1210.931	1364.796	11.091	5.4	7.6	NO	0.998	NO	MM
6	6 171209M2_7	Standard	10.000	3.82	2371.571	1207.039	24.560	12.2	21.8	NO	0.998	NO	MM
7	7 171209M2_8	Standard	50.000	3.82	10576.032	1328.286	99.527	50.0	0.0	NO	0.998	NO	MM
8	8 171209M2_9	Standard	100.000	3.82	19590.338	1213.639	201.773	101.6	1.6	NO	0.998	NO	MM
9	9 171209M2_10	Standard	250.000	3.83	49342.180	1263.339	488.212	246.1	-1.5	NO	0.998	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997458
Calibration curve: -0.0107898 * x^2 + 1.4815 * x + -0.49576
Response type: Internal Std (Ref 37), 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	171209M2_2	Standard	0.250	4.11	97.858	3539.680	0.346	0.6	128.1	NO	0.997	NO	MMX
2	2	171209M2_3	Standard	0.500	4.12	94.230	3510.388	0.336	0.6	12.7	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	4.13	350.222	4408.585	0.993	1.0	1.2	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	4.13	530.417	3407.743	1.946	1.7	-16.6	NO	0.997	NO	bb
5	5	171209M2_6	Standard	5.000	4.13	1552.576	2959.530	6.558	4.9	-1.2	NO	0.997	NO	bb
6	6	171209M2_7	Standard	10.000	4.14	3387.996	3075.096	13.772	10.4	4.2	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	4.13	14096.171	3787.280	46.525	49.8	-0.4	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	4.14	25294.453	4311.516	73.334			NO	0.997	NO	bbXI
9	9	171209M2_10	Standard	250.000	4.14	63888.504	6069.366	131.580			NO	0.997	NO	bbXI

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.996374
Calibration curve: -0.000315002 * x^2 + 0.914272 * x + 0.318187
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	171209M2_2	Standard	0.250	4.17	543.170	12735.109	0.533	0.2	-5.9	NO	0.996	NO	MM
2	2	171209M2_3	Standard	0.500	4.17	729.751	14081.530	0.648	0.4	-27.9	NO	0.996	NO	bb
3	3	171209M2_4	Standard	1.000	4.19	1633.723	16083.188	1.270	1.0	4.1	NO	0.996	NO	bb
4	4	171209M2_5	Standard	2.000	4.19	2126.570	13732.789	1.936	1.8	-11.5	NO	0.996	NO	bb
5	5	171209M2_6	Standard	5.000	4.19	5824.764	12694.002	5.736	5.9	18.8	NO	0.996	NO	bb
6	6	171209M2_7	Standard	10.000	4.19	12151.242	12527.078	12.125	13.0	29.7	NO	0.996	NO	bb
7	7	171209M2_8	Standard	50.000	4.19	44207.191	12916.910	42.780	47.2	-5.6	NO	0.996	NO	bb
8	8	171209M2_9	Standard	100.000	4.19	89411.867	12892.190	86.692	97.8	-2.2	NO	0.996	NO	bb
9	9	171209M2_10	Standard	250.000	4.19	220018.406	13075.800	210.330	251.5	0.6	NO	0.996	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.998891
Calibration curve: -0.000257769 * x^2 + 0.253775 * x + -0.0025961
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	171209M2_2	Standard	0.250	4.27	68.374	12735.109	0.067	0.3	9.9	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	4.28	118.479	14081.530	0.105	0.4	-15.0	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	4.30	363.456	16083.188	0.282	1.1	12.5	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	4.30	442.229	13732.789	0.403	1.6	-20.1	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	4.30	1317.253	12694.002	1.297	5.1	3.0	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	4.30	2826.837	12527.078	2.821	11.3	12.5	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	4.30	12072.780	12916.910	11.683	48.4	-3.1	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	4.31	23569.773	12892.190	22.853	100.3	0.3	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	4.31	49549.504	13075.800	47.368	250.3	0.1	NO	0.999	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.999165
Calibration curve: 0.000123298 * x^2 + 1.25512 * x + 0.0931614
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	171209M2_2	Standard	0.250	4.60	421.000	13859.624	0.380	0.2	-8.7	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	4.60	641.881	14678.116	0.547	0.4	-27.7	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	4.62	1897.431	14563.864	1.629	1.2	22.3	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	4.63	3211.067	14729.793	2.725	2.1	4.8	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	4.63	7279.533	14685.603	6.196	4.9	-2.8	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	4.63	12901.297	11195.371	14.405	11.4	13.9	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	4.63	55892.301	11040.015	63.284	50.1	0.2	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	4.63	107413.445	10842.911	123.829	97.6	-2.4	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	4.63	296278.031	11476.924	322.689	250.8	0.3	NO	0.999	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.998811, r^2 = 0.997624
Calibration curve: 0.961254 * x + 0.0498215
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	171209M2_2	Standard	0.250	4.66	82.307	4364.232	0.236	0.2	-22.6	NO	0.998	NO	bb
2	2	171209M2_3	Standard	0.500	4.66	232.771	5135.240	0.567	0.5	7.5	NO	0.998	NO	bb
3	3	171209M2_4	Standard	1.000	4.68	414.044	5429.919	0.953	0.9	-6.0	NO	0.998	NO	bb
4	4	171209M2_5	Standard	2.000	4.68	851.184	5352.142	1.988	2.0	0.8	NO	0.998	NO	bb
5	5	171209M2_6	Standard	5.000	4.68	2221.620	5189.228	5.352	5.5	10.3	NO	0.998	NO	bb
6	6	171209M2_7	Standard	10.000	4.69	4408.886	4850.200	11.363	11.8	17.7	NO	0.998	NO	bb
7	7	171209M2_8	Standard	50.000	4.68	17861.439	5171.684	43.171	44.9	-10.3	NO	0.998	NO	bb
8	8	171209M2_9	Standard	100.000	4.69	34936.266	4434.214	98.485	102.4	2.4	NO	0.998	NO	bb
9	9	171209M2_10	Standard	250.000	4.69	82685.266	4291.153	240.860	250.5	0.2	NO	0.998	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.998032
Calibration curve: -0.000484698 * x^2 + 1.07964 * x + -0.0234359
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	171209M2_2	Standard	0.250	4.68	58.904	3842.410	0.192	0.2	-20.3	NO	0.998	NO	MM
2	2	171209M2_3	Standard	0.500	4.69	160.744	3625.137	0.554	0.5	7.0	NO	0.998	NO	MM
3	3	171209M2_4	Standard	1.000	4.71	317.127	3931.757	1.008	1.0	-4.4	NO	0.998	NO	MM
4	4	171209M2_5	Standard	2.000	4.71	576.980	3610.229	1.998	1.9	-6.3	NO	0.998	NO	MM
5	5	171209M2_6	Standard	5.000	4.71	1588.293	3536.073	5.615	5.2	4.7	NO	0.998	NO	MM
6	6	171209M2_7	Standard	10.000	4.71	3314.124	3529.114	11.739	10.9	9.5	NO	0.998	NO	MM
7	7	171209M2_8	Standard	50.000	4.71	14632.392	3253.235	56.222	53.4	6.8	NO	0.998	NO	MM
8	8	171209M2_9	Standard	100.000	4.71	24517.822	3167.414	96.758	93.6	-6.4	NO	0.998	NO	MM
9	9	171209M2_10	Standard	250.000	4.71	63526.230	3289.625	241.389	252.1	0.9	NO	0.998	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999050
Calibration curve: -0.000341594 * x^2 + 1.17662 * x + 0.0313114
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	171209M2_2	Standard	0.250	4.97	386.885	14142.096	0.342	0.3	5.6	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	4.98	639.211	11821.728	0.676	0.5	9.6	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	5.00	1429.898	16603.191	1.077	0.9	-11.1	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	5.00	2216.131	13710.460	2.020	1.7	-15.4	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	5.00	7503.499	14222.091	6.595	5.6	11.7	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	5.00	12130.844	12594.671	12.040	10.2	2.4	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	5.00	58148.574	13225.231	54.960	47.3	-5.3	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	5.00	121161.664	12892.802	117.470	102.9	2.9	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	5.00	288467.594	13249.602	272.147	249.3	-0.3	NO	0.999	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998285
Calibration curve: -0.00628407 * x^2 + 1.91156 * x + 0.0298837
Response type: Internal Std (Ref 43), 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	171209M2_2	Standard	0.250	4.95	63.466	1797.115	0.441	0.2	-13.8	NO	0.998	NO	bb
2	2	171209M2_3	Standard	0.500	4.95	142.254	1924.636	0.924	0.5	-6.3	NO	0.998	NO	bb
3	3	171209M2_4	Standard	1.000	4.97	415.674	2126.555	2.443	1.3	26.8	NO	0.998	NO	bb
4	4	171209M2_5	Standard	2.000	4.97	589.316	1760.973	4.183	2.2	9.4	NO	0.998	NO	bb
5	5	171209M2_6	Standard	5.000	4.97	1392.504	2080.485	8.366	4.4	-11.5	NO	0.998	NO	bb
6	6	171209M2_7	Standard	10.000	4.97	2795.046	1856.638	18.818	10.2	1.7	NO	0.998	NO	bb
7	7	171209M2_8	Standard	50.000	4.97	14698.220	2298.707	79.927	50.0	0.0	NO	0.998	NO	bb
8	8	171209M2_9	Standard	100.000	4.97	25355.684	2469.544	128.342	100.0	-0.0	NO	0.998	NO	bb
9	9	171209M2_10	Standard	250.000	4.97	56622.855	3327.465	212.710			NO	0.998	NO	bbXI

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Compound name: N-MeFOSAA
Correlation coefficient: r = 0.999360, r^2 = 0.998720
Calibration curve: 1.44429 * x + 0.117056
Response type: Internal Std (Ref 44), 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	171209M2_2	Standard	0.250	5.12	164.550	4892.210	0.420	0.2	-16.0	NO	0.999	NO	bb
2	2	171209M2_3	Standard	0.500	5.13	322.378	5350.064	0.753	0.4	-11.9	NO	0.999	NO	bb
3	3	171209M2_4	Standard	1.000	5.15	740.463	6363.212	1.455	0.9	-7.4	NO	0.999	NO	bb
4	4	171209M2_5	Standard	2.000	5.15	1314.765	5187.545	3.168	2.1	5.6	NO	0.999	NO	bb
5	5	171209M2_6	Standard	5.000	5.15	3651.190	5493.045	8.309	5.7	13.4	NO	0.999	NO	bb
6	6	171209M2_7	Standard	10.000	5.15	7468.266	5419.712	17.225	11.8	18.5	NO	0.999	NO	bb
7	7	171209M2_8	Standard	50.000	5.15	32332.678	5566.527	72.605	50.2	0.4	NO	0.999	NO	bb
8	8	171209M2_9	Standard	100.000	5.15	55221.668	4901.958	140.815	97.4	-2.6	NO	0.999	NO	bb
9	9	171209M2_10	Standard	250.000	5.15	146297.375	5064.275	361.101	249.9	-0.0	NO	0.999	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997027
Calibration curve: -0.00188762 * x^2 + 1.12222 * x + -0.0692818
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	171209M2_2	Standard	0.250	5.28	85.296	5691.060	0.187	0.2	-8.5	NO	0.997	NO	bb
2	2	171209M2_3	Standard	0.500	5.29	184.712	6382.940	0.362	0.4	-23.1	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	5.31	588.874	7095.972	1.037	1.0	-1.2	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	5.31	873.290	5834.416	1.871	1.7	-13.3	NO	0.997	NO	bb
5	5	171209M2_6	Standard	5.000	5.31	2682.530	5054.267	6.634	6.0	20.7	NO	0.997	NO	bb
6	6	171209M2_7	Standard	10.000	5.31	4935.506	5416.267	11.390	10.4	3.9	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	5.31	23365.777	5923.965	49.304	47.8	-4.3	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	5.31	38276.023	5079.483	94.193	101.2	1.2	NO	0.997	NO	bb
9	9	171209M2_10	Standard	250.000	5.31	90769.570	4506.369	251.781			NO	0.997	NO	bbXI

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.994620
Calibration curve: 0.000105937 * x^2 + 1.01487 * x + 0.187332
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	171209M2_2	Standard	0.250	5.29	368.833	10917.813	0.422	0.2	-7.4	NO	0.995	NO	bb
2	2	171209M2_3	Standard	0.500	5.30	642.057	11474.210	0.699	0.5	0.9	NO	0.995	NO	bb
3	3	171209M2_4	Standard	1.000	5.32	1744.148	16925.512	1.288	1.1	8.5	NO	0.995	NO	bb
4	4	171209M2_5	Standard	2.000	5.33	2269.165	14561.603	1.948	1.7	-13.3	NO	0.995	NO	bb
5	5	171209M2_6	Standard	5.000	5.33	5648.338	11903.784	5.931	5.7	13.1	NO	0.995	NO	bb
6	6	171209M2_7	Standard	10.000	5.32	11377.188	12972.512	10.963	10.6	6.1	NO	0.995	NO	bb
7	7	171209M2_8	Standard	50.000	5.32	52370.773	15216.763	43.021	42.0	-16.0	NO	0.995	NO	bb
8	8	171209M2_9	Standard	100.000	5.33	103940.656	11612.390	111.886	108.8	8.8	NO	0.995	NO	bb
9	9	171209M2_10	Standard	250.000	5.33	275517.969	13324.768	258.464	248.1	-0.8	NO	0.995	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.992447
Calibration curve: -0.00247411 * x^2 + 0.350454 * x + -0.0138862
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	171209M2_2	Standard	0.250	5.33	72.882	10917.813	0.083	0.3	11.3	NO	0.992	NO	bb
2	2	171209M2_3	Standard	0.500	5.35	159.546	11474.210	0.174	0.5	7.5	NO	0.992	NO	bb
3	3	171209M2_4	Standard	1.000	5.37	402.249	16925.512	0.297	0.9	-10.7	NO	0.992	NO	bb
4	4	171209M2_5	Standard	2.000	5.38	619.589	14561.603	0.532	1.6	-21.3	NO	0.992	NO	bb
5	5	171209M2_6	Standard	5.000	5.38	1866.480	11903.784	1.960	5.9	17.5	NO	0.992	NO	bb
6	6	171209M2_7	Standard	10.000	5.37	3233.340	12972.512	3.116	9.6	-4.2	NO	0.992	NO	bb
7	7	171209M2_8	Standard	50.000	5.38	13788.953	15216.763	11.327	50.0	0.1	NO	0.992	NO	bb
8	8	171209M2_9	Standard	100.000	5.38	28493.371	11612.390	30.671			NO	0.992	NO	bbXI
9	9	171209M2_10	Standard	250.000	5.38	62734.105	13324.768	58.851			NO	0.992	NO	bbXI

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.996727
Calibration curve: -0.00099772 * x^2 + 2.29275 * x + 0.20549
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	171209M2_2	Standard	0.250	5.57	431.707	8577.511	0.629	0.2	-26.1	NO	0.997	NO	bd
2	2	171209M2_3	Standard	0.500	5.58	734.236	6490.883	1.414	0.5	5.4	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	5.61	1793.868	9923.930	2.260	0.9	-10.4	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	5.61	2504.261	6822.258	4.588	1.9	-4.3	NO	0.997	NO	bd
5	5	171209M2_6	Standard	5.000	5.61	8041.234	6691.379	15.022	6.5	29.6	NO	0.997	NO	bd
6	6	171209M2_7	Standard	10.000	5.61	13522.503	6487.578	26.055	11.3	13.3	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	5.61	62585.387	7709.370	101.476	45.1	-9.9	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	5.61	134504.688	7488.561	224.517	102.4	2.4	NO	0.997	NO	bb
9	9	171209M2_10	Standard	250.000	5.61	291475.938	7129.791	511.018	250.0	-0.0	NO	0.997	NO	bd

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999484, r^2 = 0.998969
Calibration curve: 1.08161 * x + 0.286547
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	171209M2_2	Standard	1.250	5.66	172.524	17501.615	1.479	1.1	-11.8	NO	0.999	NO	bb
2	2	171209M2_3	Standard	2.500	5.67	314.379	17659.174	2.670	2.2	-11.8	NO	0.999	NO	bb
3	3	171209M2_4	Standard	5.000	5.69	750.401	18543.326	6.070	5.3	6.9	NO	0.999	NO	bb
4	4	171209M2_5	Standard	10.000	5.69	1315.716	16188.531	12.191	11.0	10.1	NO	0.999	NO	bb
5	5	171209M2_6	Standard	25.000	5.69	3347.783	16395.305	30.629	28.1	12.2	NO	0.999	NO	bb
6	6	171209M2_7	Standard	50.000	5.69	6372.616	15376.892	62.164	57.2	14.4	NO	0.999	NO	bb
7	7	171209M2_8	Standard	250.000	5.69	29245.027	15699.413	279.422	258.1	3.2	NO	0.999	NO	bb
8	8	171209M2_9	Standard	500.000	5.70	54728.074	15289.952	536.902	496.1	-0.8	NO	0.999	NO	bb
9	9	171209M2_10	Standard	1250.000	5.70	132475.203	14877.414	1335.668	1234.6	-1.2	NO	0.999	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999543
Calibration curve: -0.000584956 * x^2 + 2.0682 * x + 0.168629
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	171209M2_2	Standard	0.250	5.81	366.904	8577.511	0.535	0.2	-29.2	NO	1.000	NO	bb
2	2	171209M2_3	Standard	0.500	5.83	728.974	6490.883	1.404	0.6	19.5	NO	1.000	NO	bb
3	3	171209M2_4	Standard	1.000	5.86	1589.762	9923.930	2.002	0.9	-11.3	NO	1.000	NO	bb
4	4	171209M2_5	Standard	2.000	5.86	2707.831	6822.258	4.961	2.3	15.9	NO	1.000	NO	bb
5	5	171209M2_6	Standard	5.000	5.86	5769.761	6691.379	10.778	5.1	2.7	NO	1.000	NO	bb
6	6	171209M2_7	Standard	10.000	5.86	11075.319	6487.578	21.339	10.3	2.7	NO	1.000	NO	bb
7	7	171209M2_8	Standard	50.000	5.86	63927.211	7709.370	103.652	50.8	1.5	NO	1.000	NO	bb
8	8	171209M2_9	Standard	100.000	5.86	118000.500	7488.561	196.968	97.9	-2.1	NO	1.000	NO	bb
9	9	171209M2_10	Standard	250.000	5.86	274917.219	7129.791	481.987	250.7	0.3	NO	1.000	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997496
Calibration curve: -0.00214058 * x^2 + 1.82561 * x + -0.292017
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	171209M2_2	Standard	0.250	6.03	297.877	7906.575	0.471	0.4	67.2	NO	0.997	NO	bbX
2	2	171209M2_3	Standard	0.500	6.05	509.327	8449.690	0.753	0.6	14.6	NO	0.997	NO	bb
3	3	171209M2_4	Standard	1.000	6.07	1067.381	9264.609	1.440	0.9	-5.0	NO	0.997	NO	bb
4	4	171209M2_5	Standard	2.000	6.07	1967.640	6677.964	3.683	2.2	9.1	NO	0.997	NO	bb
5	5	171209M2_6	Standard	5.000	6.07	4143.733	6879.414	7.529	4.3	-13.9	NO	0.997	NO	bb
6	6	171209M2_7	Standard	10.000	6.07	8615.093	6306.218	17.077	9.6	-3.8	NO	0.997	NO	bb
7	7	171209M2_8	Standard	50.000	6.07	40058.082	6253.770	80.068	46.6	-6.9	NO	0.997	NO	bb
8	8	171209M2_9	Standard	100.000	6.07	83944.781	6143.704	170.794	107.2	7.2	NO	0.997	NO	bb
9	9	171209M2_10	Standard	250.000	6.07	166752.344	6523.629	319.516	246.3	-1.5	NO	0.997	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999921
Calibration curve: -5.48088e-005 * x^2 + 0.95351 * x + -0.0378792
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	171209M2_2	Standard	1.250	6.07	216.197	27138.092	1.195	1.3	3.4	NO	1.000	NO	bb
2	2	171209M2_3	Standard	2.500	6.09	421.082	28264.578	2.235	2.4	-4.7	NO	1.000	NO	bb
3	3	171209M2_4	Standard	5.000	6.12	974.858	30807.682	4.747	5.0	0.4	NO	1.000	NO	bb
4	4	171209M2_5	Standard	10.000	6.12	1643.966	26720.947	9.229	9.7	-2.8	NO	1.000	NO	bb
5	5	171209M2_6	Standard	25.000	6.12	4276.811	26474.705	24.231	25.5	2.0	NO	1.000	NO	bb
6	6	171209M2_7	Standard	50.000	6.12	8093.004	24884.027	48.784	51.4	2.7	NO	1.000	NO	bb
7	7	171209M2_8	Standard	250.000	6.12	37408.328	24288.953	231.021	245.8	-1.7	NO	1.000	NO	bb
8	8	171209M2_9	Standard	500.000	6.12	71723.430	23091.309	465.912	503.2	0.6	NO	1.000	NO	bb
9	9	171209M2_10	Standard	1250.000	6.12	166938.359	22645.502	1105.772	1249.5	-0.0	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.996489
Calibration curve: -5.21712e-005 * x^2 + 0.569394 * x + 0.0885019
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	171209M2_2	Standard	0.250	6.37	149.235	3807.137	0.196	0.2	-24.5	NO	0.996	NO	bb
2	2	171209M2_3	Standard	0.500	6.39	257.993	3815.536	0.338	0.4	-12.3	NO	0.996	NO	bb
3	3	171209M2_4	Standard	1.000	6.41	556.777	4350.777	0.640	1.0	-3.2	NO	0.996	NO	bb
4	4	171209M2_5	Standard	2.000	6.41	957.569	3767.952	1.271	2.1	3.8	NO	0.996	NO	bb
5	5	171209M2_6	Standard	5.000	6.41	2336.417	3605.912	3.240	5.5	10.7	NO	0.996	NO	bb
6	6	171209M2_7	Standard	10.000	6.41	4530.156	3037.115	7.458	13.0	29.6	NO	0.996	NO	bb
7	7	171209M2_8	Standard	50.000	6.41	21596.824	3747.816	28.813	50.7	1.4	NO	0.996	NO	bb
8	8	171209M2_9	Standard	100.000	6.41	38008.875	3593.938	52.879	93.5	-6.5	NO	0.996	NO	bb
9	9	171209M2_10	Standard	250.000	6.41	99354.422	3536.330	140.477	252.4	1.0	NO	0.996	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.997921
Calibration curve: -0.000294559 * x^2 + 0.724527 * x + 0.0302394
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	171209M2_2	Standard	0.250	6.59	161.253	3807.137	0.212	0.3	0.2	NO	0.998	NO	bb
2	2	171209M2_3	Standard	0.500	6.62	249.168	3815.536	0.327	0.4	-18.2	NO	0.998	NO	bb
3	3	171209M2_4	Standard	1.000	6.64	697.938	4350.777	0.802	1.1	6.6	NO	0.998	NO	bb
4	4	171209M2_5	Standard	2.000	6.64	1094.793	3767.952	1.453	2.0	-1.8	NO	0.998	NO	bb
5	5	171209M2_6	Standard	5.000	6.64	2937.637	3605.912	4.073	5.6	11.9	NO	0.998	NO	bb
6	6	171209M2_7	Standard	10.000	6.64	5394.610	3037.115	8.881	12.3	22.8	NO	0.998	NO	bb
7	7	171209M2_8	Standard	50.000	6.64	26118.656	3747.816	34.845	49.0	-1.9	NO	0.998	NO	bb
8	8	171209M2_9	Standard	100.000	6.64	48298.313	3593.938	67.194	96.5	-3.5	NO	0.998	NO	bb
9	9	171209M2_10	Standard	250.000	6.64	115815.094	3536.330	163.750	251.7	0.7	NO	0.998	NO	bb

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997837
Calibration curve: -0.000204768 * x^2 + 1.15269 * x + -0.639979
Response type: Internal Std (Ref 52), 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	171209M2_2	Standard	1.250	6.25	164.547	25107.529	0.983	1.4	12.7	NO	0.998	NO	bb
2	2	171209M2_3	Standard	2.500	6.27	373.564	23688.844	2.365	2.6	4.3	NO	0.998	NO	bb
3	3	171209M2_4	Standard	5.000	6.30	951.747	26169.707	5.455	5.3	5.9	NO	0.998	NO	bb
4	4	171209M2_5	Standard	10.000	6.30	1444.482	24596.740	8.809	8.2	-17.9	NO	0.998	NO	bb
5	5	171209M2_6	Standard	25.000	6.30	4787.895	26474.201	27.128	24.2	-3.2	NO	0.998	NO	bb
6	6	171209M2_7	Standard	50.000	6.30	7773.122	20522.459	56.814	50.3	0.6	NO	0.998	NO	bb
7	7	171209M2_8	Standard	250.000	6.30	38151.855	22519.309	254.128	230.5	-7.8	NO	0.998	NO	bb
8	8	171209M2_9	Standard	500.000	6.30	68266.672	18440.770	555.291	532.7	6.5	NO	0.998	NO	bb
9	9	171209M2_10	Standard	1250.000	6.30	174568.750	23545.859	1112.098	1237.3	-1.0	NO	0.998	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.996509, r^2 = 0.993029
Calibration curve: 1.09377 * x + 0.220458
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	171209M2_2	Standard	1.250	6.40	234.905	23326.148	1.511	1.2	-5.6	NO	0.993	NO	bb
2	2	171209M2_3	Standard	2.500	6.42	441.486	26346.238	2.514	2.1	-16.1	NO	0.993	NO	bb
3	3	171209M2_4	Standard	5.000	6.45	1157.336	27351.148	6.347	5.6	12.0	NO	0.993	NO	bb
4	4	171209M2_5	Standard	10.000	6.45	1702.073	22146.760	11.528	10.3	3.4	NO	0.993	NO	bb
5	5	171209M2_6	Standard	25.000	6.45	4566.440	23734.525	28.859	26.2	4.7	NO	0.993	NO	bb
6	6	171209M2_7	Standard	50.000	6.45	10806.551	25903.035	62.579	57.0	14.0	NO	0.993	NO	bb
7	7	171209M2_8	Standard	250.000	6.45	40618.281	23360.105	260.818	238.3	-4.7	NO	0.993	NO	bd
8	8	171209M2_9	Standard	500.000	6.45	77168.992	24382.434	474.741	433.8	-13.2	NO	0.993	NO	bb
9	9	171209M2_10	Standard	1250.000	6.45	211876.688	22021.973	1443.172	1319.2	5.5	NO	0.993	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.828629
RRF SD: 0.0681988, Relative SD: 8.23032
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	171209M2_2	Standard	12.500	1.34	7194.714	8260.546	10.887	13.1	5.1	NO		NO	db
2	2	171209M2_3	Standard	12.500	1.33	6640.622	7716.212	10.758	13.0	3.9	NO		NO	db
3	3	171209M2_4	Standard	12.500	1.33	8089.782	8675.444	11.656	14.1	12.5	NO		NO	db
4	4	171209M2_5	Standard	12.500	1.34	6749.064	7773.321	10.853	13.1	4.8	NO		NO	db
5	5	171209M2_6	Standard	12.500	1.34	6976.839	8126.659	10.731	13.0	3.6	NO		NO	db
6	6	171209M2_7	Standard	12.500	1.34	6136.306	8522.572	9.000	10.9	-13.1	NO		NO	db
7	7	171209M2_8	Standard	12.500	1.34	7606.514	10254.229	9.272	11.2	-10.5	NO		NO	MM
8	8	171209M2_9	Standard	12.500	1.34	7638.538	9697.683	9.846	11.9	-4.9	NO		NO	db
9	9	171209M2_10	Standard	12.500	1.34	7497.786	9172.973	10.217	12.3	-1.4	NO		NO	db

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Compound name: 13C3-PFPeA
Response Factor: 0.742635
RRF SD: 0.0556369, Relative SD: 7.49183
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	171209M2_2	Standard	12.500	2.27	13272.832	16649.502	9.965	13.4	7.3	NO		NO	bb
2	2	171209M2_3	Standard	12.500	2.27	13261.604	16031.110	10.341	13.9	11.4	NO		NO	MM
3	3	171209M2_4	Standard	12.500	2.28	14793.755	20184.537	9.162	12.3	-1.3	NO		NO	bb
4	4	171209M2_5	Standard	12.500	2.29	12518.253	17856.613	8.763	11.8	-5.6	NO		NO	bb
5	5	171209M2_6	Standard	12.500	2.28	12625.518	17688.961	8.922	12.0	-3.9	NO		NO	bb
6	6	171209M2_7	Standard	12.500	2.29	12280.884	15125.810	10.149	13.7	9.3	NO		NO	bb
7	7	171209M2_8	Standard	12.500	2.29	12369.729	18151.398	8.518	11.5	-8.2	NO		NO	bb
8	8	171209M2_9	Standard	12.500	2.29	11994.732	16355.733	9.167	12.3	-1.2	NO		NO	bb
9	9	171209M2_10	Standard	12.500	2.29	11808.688	17243.887	8.560	11.5	-7.8	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.0938349
RRF SD: 0.00632324, Relative SD: 6.73868
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	171209M2_2	Standard	12.500	2.55	1672.039	16649.502	1.255	13.4	7.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	2.55	1608.684	16031.110	1.254	13.4	6.9	NO		NO	bb
3	3	171209M2_4	Standard	12.500	2.56	1920.615	20184.537	1.189	12.7	1.4	NO		NO	bb
4	4	171209M2_5	Standard	12.500	2.57	1567.305	17856.613	1.097	11.7	-6.5	NO		NO	bb
5	5	171209M2_6	Standard	12.500	2.57	1662.107	17688.961	1.175	12.5	0.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	2.57	1525.102	15125.810	1.260	13.4	7.5	NO		NO	bb
7	7	171209M2_8	Standard	12.500	2.57	1666.859	18151.398	1.148	12.2	-2.1	NO		NO	bb
8	8	171209M2_9	Standard	12.500	2.57	1507.769	16355.733	1.152	12.3	-1.8	NO		NO	bb
9	9	171209M2_10	Standard	12.500	2.57	1414.148	17243.887	1.025	10.9	-12.6	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.734743
RRF SD: 0.0487156, Relative SD: 6.63029
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	171209M2_2	Standard	5.000	3.04	4830.886	16649.502	3.627	4.9	-1.3	NO		NO	bb
2	2	171209M2_3	Standard	5.000	3.04	5252.126	16031.110	4.095	5.6	11.5	NO		NO	bb
3	3	171209M2_4	Standard	5.000	3.05	5817.276	20184.537	3.603	4.9	-1.9	NO		NO	bb
4	4	171209M2_5	Standard	5.000	3.05	5163.659	17856.613	3.615	4.9	-1.6	NO		NO	bb
5	5	171209M2_6	Standard	5.000	3.05	4771.276	17688.961	3.372	4.6	-8.2	NO		NO	bb
6	6	171209M2_7	Standard	5.000	3.05	4836.588	15125.810	3.997	5.4	8.8	NO		NO	bb
7	7	171209M2_8	Standard	5.000	3.05	5013.819	18151.398	3.453	4.7	-6.0	NO		NO	bb
8	8	171209M2_9	Standard	5.000	3.06	4964.156	16355.733	3.794	5.2	3.3	NO		NO	bb
9	9	171209M2_10	Standard	5.000	3.05	4840.386	17243.887	3.509	4.8	-4.5	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.583176
RRF SD: 0.0585766, Relative SD: 10.0444
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	171209M2_2	Standard	12.500	3.65	10568.426	16649.502	7.934	13.6	8.8	NO		NO	bb
2	2	171209M2_3	Standard	12.500	3.65	11017.162	16031.110	8.590	14.7	17.8	NO		NO	bb
3	3	171209M2_4	Standard	12.500	3.67	11542.928	20184.537	7.148	12.3	-1.9	NO		NO	bb
4	4	171209M2_5	Standard	12.500	3.67	10123.013	17856.613	7.086	12.2	-2.8	NO		NO	bb
5	5	171209M2_6	Standard	12.500	3.67	9271.844	17688.961	6.552	11.2	-10.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	3.67	9791.908	15125.810	8.092	13.9	11.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	3.67	9812.723	18151.398	6.758	11.6	-7.3	NO		NO	bb
8	8	171209M2_9	Standard	12.500	3.67	8871.913	16355.733	6.780	11.6	-7.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	3.67	9195.322	17243.887	6.666	11.4	-8.6	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.405881
RRF SD: 0.0381409, Relative SD: 9.39707
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	171209M2_2	Standard	12.500	3.80	1435.493	3249.111	5.523	13.6	8.9	NO		NO	bb
2	2	171209M2_3	Standard	12.500	3.80	1234.737	3320.056	4.649	11.5	-8.4	NO		NO	bb
3	3	171209M2_4	Standard	12.500	3.82	1590.471	3637.098	5.466	13.5	7.7	NO		NO	bb
4	4	171209M2_5	Standard	12.500	3.82	1462.096	3138.457	5.823	14.3	14.8	NO		NO	bb
5	5	171209M2_6	Standard	12.500	3.83	1364.796	3176.375	5.371	13.2	5.9	NO		NO	bb
6	6	171209M2_7	Standard	12.500	3.82	1207.039	3316.540	4.549	11.2	-10.3	NO		NO	bb
7	7	171209M2_8	Standard	12.500	3.82	1328.286	3377.537	4.916	12.1	-3.1	NO		NO	bb
8	8	171209M2_9	Standard	12.500	3.83	1213.639	3163.103	4.796	11.8	-5.5	NO		NO	bb
9	9	171209M2_10	Standard	12.500	3.82	1263.339	3456.571	4.569	11.3	-10.0	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.282882
RRF SD: 0.0304598, Relative SD: 10.7677
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	171209M2_2	Standard	12.500	4.11	3539.680	12836.077	3.447	12.2	-2.5	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.12	3510.388	11774.358	3.727	13.2	5.4	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.13	4408.585	13809.176	3.991	14.1	12.9	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.13	3407.743	12526.476	3.401	12.0	-3.8	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.14	2959.530	12470.496	2.967	10.5	-16.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.13	3075.096	12508.866	3.073	10.9	-13.1	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.13	3787.280	12647.543	3.743	13.2	5.9	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.14	4311.516	13676.085	3.941	13.9	11.4	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.14	6069.366	13022.429	5.826	20.6	64.8	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 1.0485
RRF SD: 0.0849682, Relative SD: 8.10378
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	171209M2_2	Standard	12.500	4.16	12735.109	12836.077	12.402	11.8	-5.4	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.17	14081.530	11774.358	14.949	14.3	14.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.19	16083.188	13809.176	14.558	13.9	11.1	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.19	13732.789	12526.476	13.704	13.1	4.6	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.19	12694.002	12470.496	12.724	12.1	-2.9	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.19	12527.078	12508.866	12.518	11.9	-4.5	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.19	12916.910	12647.543	12.766	12.2	-2.6	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.19	12892.190	13676.085	11.784	11.2	-10.1	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.19	13075.800	13022.429	12.551	12.0	-4.2	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.913202
RRF SD: 0.0954167, Relative SD: 10.4486
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	171209M2_2	Standard	12.500	4.60	13859.624	15055.019	11.507	12.6	0.8	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.60	14678.116	16474.178	11.137	12.2	-2.4	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.63	14563.864	13201.420	13.790	15.1	20.8	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.63	14729.793	14707.504	12.519	13.7	9.7	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.63	14685.603	16051.853	11.436	12.5	0.2	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.63	11195.371	12179.379	11.490	12.6	0.7	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.63	11040.015	13054.377	10.571	11.6	-7.4	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.63	10842.911	12750.059	10.630	11.6	-6.9	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.63	11476.924	14860.361	9.654	10.6	-15.4	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.357466
RRF SD: 0.0381819, Relative SD: 10.6812
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	171209M2_2	Standard	12.500	4.66	4364.232	12370.228	4.410	12.3	-1.3	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.66	5135.240	12440.443	5.160	14.4	15.5	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.68	5429.919	17018.324	3.988	11.2	-10.7	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.68	5352.142	15776.181	4.241	11.9	-5.1	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.68	5189.228	15153.919	4.280	12.0	-4.2	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.68	4850.200	11233.194	5.397	15.1	20.8	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.68	5171.684	15532.576	4.162	11.6	-6.9	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.69	4434.214	12836.940	4.318	12.1	-3.4	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.69	4291.153	12595.108	4.259	11.9	-4.7	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 1.00624
RRF SD: 0.124671, Relative SD: 12.3899
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	171209M2_2	Standard	12.500	4.68	3842.410	3285.559	14.619	14.5	16.2	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.69	3625.137	3076.150	14.731	14.6	17.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.71	3931.757	3923.509	12.526	12.4	-0.4	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.71	3610.229	3561.627	12.671	12.6	0.7	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.71	3536.073	3336.423	13.248	13.2	5.3	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.71	3529.114	3534.801	12.480	12.4	-0.8	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.71	3253.235	4143.241	9.815	9.8	-22.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.71	3167.414	3570.649	11.088	11.0	-11.8	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.71	3289.625	3419.787	12.024	11.9	-4.4	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.45225
RRF SD: 0.251795, Relative SD: 17.3383
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	171209M2_2	Standard	12.500	4.97	14142.096	9955.654	17.756	12.2	-2.2	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.98	11821.728	9288.953	15.908	11.0	-12.4	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.00	16603.191	8697.105	23.863	16.4	31.5	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.00	13710.460	10501.184	16.320	11.2	-10.1	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.00	14222.091	7907.077	22.483	15.5	23.9	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.00	12594.671	8183.759	19.237	13.2	6.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.00	13225.231	10453.241	15.815	10.9	-12.9	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.00	12892.802	9314.625	17.302	11.9	-4.7	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.00	13249.602	11272.105	14.693	10.1	-19.1	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.118745
RRF SD: 0.0161344, Relative SD: 13.5875
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	171209M2_2	Standard	12.500	4.94	1797.115	16649.502	1.349	11.4	-9.1	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.95	1924.636	16031.110	1.501	12.6	1.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.97	2126.555	20184.537	1.317	11.1	-11.3	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.97	1760.973	17856.613	1.233	10.4	-17.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.97	2080.485	17688.961	1.470	12.4	-1.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.97	1856.638	15125.810	1.534	12.9	3.4	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.97	2298.707	18151.398	1.583	13.3	6.6	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.97	2469.544	16355.733	1.887	15.9	27.2	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.97	3327.465	17243.887	2.412	20.3	62.5	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.390616
RRF SD: 0.0449353, Relative SD: 11.5037
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 171209M2_2	Standard	12.500	5.11	4892.210	12370.228	4.944	12.7	1.2	NO		NO	bb
2	2 171209M2_3	Standard	12.500	5.13	5350.064	12440.443	5.376	13.8	10.1	NO		NO	bb
3	3 171209M2_4	Standard	12.500	5.15	6363.212	17018.324	4.674	12.0	-4.3	NO		NO	bb
4	4 171209M2_5	Standard	12.500	5.15	5187.545	15776.181	4.110	10.5	-15.8	NO		NO	bb
5	5 171209M2_6	Standard	12.500	5.15	5493.045	15153.919	4.531	11.6	-7.2	NO		NO	bb
6	6 171209M2_7	Standard	12.500	5.15	5419.712	11233.194	6.031	15.4	23.5	NO		NO	bb
7	7 171209M2_8	Standard	12.500	5.15	5566.527	15532.576	4.480	11.5	-8.3	NO		NO	bb
8	8 171209M2_9	Standard	12.500	5.15	4901.958	12836.940	4.773	12.2	-2.2	NO		NO	bb
9	9 171209M2_10	Standard	12.500	5.15	5064.275	12595.108	5.026	12.9	2.9	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.412277
RRF SD: 0.060779, Relative SD: 14.7423
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 171209M2_2	Standard	12.500	5.27	5691.060	12370.228	5.751	13.9	11.6	NO		NO	bb
2	2 171209M2_3	Standard	12.500	5.28	6382.940	12440.443	6.413	15.6	24.5	NO		NO	bb
3	3 171209M2_4	Standard	12.500	5.30	7095.972	17018.324	5.212	12.6	1.1	NO		NO	bb
4	4 171209M2_5	Standard	12.500	5.30	5834.416	15776.181	4.623	11.2	-10.3	NO		NO	bb
5	5 171209M2_6	Standard	12.500	5.30	5054.267	15153.919	4.169	10.1	-19.1	NO		NO	bb
6	6 171209M2_7	Standard	12.500	5.30	5416.267	11233.194	6.027	14.6	17.0	NO		NO	bb
7	7 171209M2_8	Standard	12.500	5.30	5923.965	15532.576	4.767	11.6	-7.5	NO		NO	bb
8	8 171209M2_9	Standard	12.500	5.31	5079.483	12836.940	4.946	12.0	-4.0	NO		NO	bb
9	9 171209M2_10	Standard	12.500	5.31	4506.369	12595.108	4.472	10.8	-13.2	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.956116
RRF SD: 0.106821, Relative SD: 11.1724
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	171209M2_2	Standard	12.500	5.29	10917.813	12370.228	11.032	11.5	-7.7	NO		NO	bb
2	2	171209M2_3	Standard	12.500	5.30	11474.210	12440.443	11.529	12.1	-3.5	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.32	16925.512	17018.324	12.432	13.0	4.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.32	14561.603	15776.181	11.538	12.1	-3.5	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.32	11903.784	15153.919	9.819	10.3	-17.8	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.32	12972.512	11233.194	14.435	15.1	20.8	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.32	15216.763	15532.576	12.246	12.8	2.5	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.33	11612.390	12836.940	11.308	11.8	-5.4	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.32	13324.768	12595.108	13.224	13.8	10.6	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.543955
RRF SD: 0.0811779, Relative SD: 14.9236
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	171209M2_2	Standard	12.500	5.57	8577.511	12370.228	8.667	15.9	27.5	NO		NO	bb
2	2	171209M2_3	Standard	12.500	5.58	6490.883	12440.443	6.522	12.0	-4.1	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.61	9923.930	17018.324	7.289	13.4	7.2	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.61	6822.258	15776.181	5.406	9.9	-20.5	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.61	6691.379	15153.919	5.520	10.1	-18.8	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.61	6487.578	11233.194	7.219	13.3	6.2	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.61	7709.370	15532.576	6.204	11.4	-8.8	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.61	7488.561	12836.940	7.292	13.4	7.2	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.61	7129.791	12595.108	7.076	13.0	4.1	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0998509
RRF SD: 0.0136749, Relative SD: 13.6953
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	171209M2_2	Standard	150.000	5.68	17501.615	12370.228	17.685	177.1	18.1	NO		NO	bb
2	2	171209M2_3	Standard	150.000	5.69	17659.174	12440.443	17.744	177.7	18.5	NO		NO	bb
3	3	171209M2_4	Standard	150.000	5.72	18543.326	17018.324	13.620	136.4	-9.1	NO		NO	bb
4	4	171209M2_5	Standard	150.000	5.72	16188.531	15776.181	12.827	128.5	-14.4	NO		NO	bb
5	5	171209M2_6	Standard	150.000	5.72	16395.305	15153.919	13.524	135.4	-9.7	NO		NO	bb
6	6	171209M2_7	Standard	150.000	5.72	15376.892	11233.194	17.111	171.4	14.2	NO		NO	bb
7	7	171209M2_8	Standard	150.000	5.72	15699.413	15532.576	12.634	126.5	-15.6	NO		NO	bb
8	8	171209M2_9	Standard	150.000	5.72	15289.952	12836.940	14.889	149.1	-0.6	NO		NO	bb
9	9	171209M2_10	Standard	150.000	5.72	14877.414	12595.108	14.765	147.9	-1.4	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.522287
RRF SD: 0.0942184, Relative SD: 18.0396
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	171209M2_2	Standard	12.500	6.03	7906.575	12370.228	7.990	15.3	22.4	NO		NO	MM
2	2	171209M2_3	Standard	12.500	6.05	8449.690	12440.443	8.490	16.3	30.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	6.07	9264.609	17018.324	6.805	13.0	4.2	NO		NO	bb
4	4	171209M2_5	Standard	12.500	6.07	6677.964	15776.181	5.291	10.1	-19.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	6.07	6879.414	15153.919	5.675	10.9	-13.1	NO		NO	bb
6	6	171209M2_7	Standard	12.500	6.07	6306.218	11233.194	7.017	13.4	7.5	NO		NO	bb
7	7	171209M2_8	Standard	12.500	6.07	6253.770	15532.576	5.033	9.6	-22.9	NO		NO	bb
8	8	171209M2_9	Standard	12.500	6.08	6143.704	12836.940	5.982	11.5	-8.4	NO		NO	bb
9	9	171209M2_10	Standard	12.500	6.07	6523.629	12595.108	6.474	12.4	-0.8	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.158265
RRF SD: 0.021485, Relative SD: 13.5753
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	171209M2_2	Standard	150.000	6.08	27138.092	12370.228	27.423	173.3	15.5	NO		NO	bb
2	2	171209M2_3	Standard	150.000	6.11	28264.578	12440.443	28.400	179.4	19.6	NO		NO	bb
3	3	171209M2_4	Standard	150.000	6.13	30807.682	17018.324	22.628	143.0	-4.7	NO		NO	bd
4	4	171209M2_5	Standard	150.000	6.13	26720.947	15776.181	21.172	133.8	-10.8	NO		NO	bb
5	5	171209M2_6	Standard	150.000	6.13	26474.705	15153.919	21.838	138.0	-8.0	NO		NO	bb
6	6	171209M2_7	Standard	150.000	6.13	24884.027	11233.194	27.690	175.0	16.6	NO		NO	bb
7	7	171209M2_8	Standard	150.000	6.13	24288.953	15532.576	19.547	123.5	-17.7	NO		NO	bb
8	8	171209M2_9	Standard	150.000	6.13	23091.309	12836.940	22.485	142.1	-5.3	NO		NO	bb
9	9	171209M2_10	Standard	150.000	6.13	22645.502	12595.108	22.475	142.0	-5.3	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.67203
RRF SD: 0.0684919, Relative SD: 10.1918
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	171209M2_2	Standard	5.000	6.37	3807.137	12370.228	3.847	5.7	14.5	NO		NO	bb
2	2	171209M2_3	Standard	5.000	6.39	3815.536	12440.443	3.834	5.7	14.1	NO		NO	bb
3	3	171209M2_4	Standard	5.000	6.41	4350.777	17018.324	3.196	4.8	-4.9	NO		NO	bb
4	4	171209M2_5	Standard	5.000	6.41	3767.952	15776.181	2.985	4.4	-11.2	NO		NO	bb
5	5	171209M2_6	Standard	5.000	6.41	3605.912	15153.919	2.974	4.4	-11.5	NO		NO	bb
6	6	171209M2_7	Standard	5.000	6.41	3037.115	11233.194	3.380	5.0	0.6	NO		NO	bb
7	7	171209M2_8	Standard	5.000	6.41	3747.816	15532.576	3.016	4.5	-10.2	NO		NO	bb
8	8	171209M2_9	Standard	5.000	6.41	3593.938	12836.940	3.500	5.2	4.2	NO		NO	bb
9	9	171209M2_10	Standard	5.000	6.41	3536.330	12595.108	3.510	5.2	4.4	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.142226
RRF SD: 0.0180468, Relative SD: 12.6888
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	171209M2_2	Standard	150.000	6.24	25107.529	12370.228	25.371	178.4	18.9	NO		NO	bb
2	2	171209M2_3	Standard	150.000	6.26	23688.844	12440.443	23.802	167.4	11.6	NO		NO	bb
3	3	171209M2_4	Standard	150.000	6.29	26169.707	17018.324	19.222	135.1	-9.9	NO		NO	bb
4	4	171209M2_5	Standard	150.000	6.29	24596.740	15776.181	19.489	137.0	-8.6	NO		NO	bb
5	5	171209M2_6	Standard	150.000	6.29	26474.201	15153.919	21.838	153.5	2.4	NO		NO	bb
6	6	171209M2_7	Standard	150.000	6.29	20522.459	11233.194	22.837	160.6	7.0	NO		NO	bb
7	7	171209M2_8	Standard	150.000	6.29	22519.309	15532.576	18.123	127.4	-15.1	NO		NO	bb
8	8	171209M2_9	Standard	150.000	6.29	18440.770	12836.940	17.957	126.3	-15.8	NO		NO	bb
9	9	171209M2_10	Standard	150.000	6.29	23545.859	12595.108	23.368	164.3	9.5	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.148504
RRF SD: 0.0248326, Relative SD: 16.7219
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	171209M2_2	Standard	150.000	6.39	23326.148	12370.228	23.571	158.7	5.8	NO		NO	bb
2	2	171209M2_3	Standard	150.000	6.41	26346.238	12440.443	26.472	178.3	18.8	NO		NO	bb
3	3	171209M2_4	Standard	150.000	6.43	27351.148	17018.324	20.089	135.3	-9.8	NO		NO	bb
4	4	171209M2_5	Standard	150.000	6.43	22146.760	15776.181	17.548	118.2	-21.2	NO		NO	bb
5	5	171209M2_6	Standard	150.000	6.44	23734.525	15153.919	19.578	131.8	-12.1	NO		NO	bb
6	6	171209M2_7	Standard	150.000	6.43	25903.035	11233.194	28.824	194.1	29.4	NO		NO	bb
7	7	171209M2_8	Standard	150.000	6.43	23360.105	15532.576	18.799	126.6	-15.6	NO		NO	bb
8	8	171209M2_9	Standard	150.000	6.44	24382.434	12836.940	23.742	159.9	6.6	NO		NO	bb
9	9	171209M2_10	Standard	150.000	6.43	22021.973	12595.108	21.856	147.2	-1.9	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	171209M2_2	Standard	12.500	1.34	8260.546	8260.546	12.500	12.5	0.0	NO		NO	db
2	2	171209M2_3	Standard	12.500	1.33	7716.212	7716.212	12.500	12.5	0.0	NO		NO	db
3	3	171209M2_4	Standard	12.500	1.34	8675.444	8675.444	12.500	12.5	0.0	NO		NO	db
4	4	171209M2_5	Standard	12.500	1.34	7773.321	7773.321	12.500	12.5	0.0	NO		NO	db
5	5	171209M2_6	Standard	12.500	1.34	8126.659	8126.659	12.500	12.5	0.0	NO		NO	db
6	6	171209M2_7	Standard	12.500	1.34	8522.572	8522.572	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	1.34	10254.229	10254.229	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	1.34	9697.683	9697.683	12.500	12.5	0.0	NO		NO	db
9	9	171209M2_10	Standard	12.500	1.34	9172.973	9172.973	12.500	12.5	0.0	NO		NO	db

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	171209M2_2	Standard	12.500	3.03	16649.502	16649.502	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	3.04	16031.110	16031.110	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	3.05	20184.537	20184.537	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	3.05	17856.613	17856.613	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	3.05	17688.961	17688.961	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	3.05	15125.810	15125.810	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	3.05	18151.398	18151.398	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	3.05	16355.733	16355.733	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	3.05	17243.887	17243.887	12.500	12.5	0.0	NO		NO	bb

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-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	171209M2_2	Standard	12.500	3.80	3249.111	3249.111	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	3.80	3320.056	3320.056	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	3.82	3637.098	3637.098	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	3.82	3138.457	3138.457	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	3.83	3176.375	3176.375	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	3.82	3316.540	3316.540	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	3.82	3377.537	3377.537	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	3.83	3163.103	3163.103	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	3.83	3456.571	3456.571	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	171209M2_2	Standard	12.500	4.16	12836.077	12836.077	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.17	11774.358	11774.358	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.19	13809.176	13809.176	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.19	12526.476	12526.476	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.19	12470.496	12470.496	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.19	12508.866	12508.866	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.19	12647.543	12647.543	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.19	13676.085	13676.085	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.19	13022.429	13022.429	12.500	12.5	0.0	NO		NO	bb

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

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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	171209M2_2	Standard	12.500	4.60	15055.019	15055.019	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.60	16474.178	16474.178	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.62	13201.420	13201.420	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.63	14707.504	14707.504	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.62	16051.853	16051.853	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.63	12179.379	12179.379	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.63	13054.377	13054.377	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.63	12750.059	12750.059	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.63	14860.361	14860.361	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	171209M2_2	Standard	12.500	4.68	3285.559	3285.559	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.69	3076.150	3076.150	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	4.71	3923.509	3923.509	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	4.71	3561.627	3561.627	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	4.71	3336.423	3336.423	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	4.71	3534.801	3534.801	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	4.71	4143.241	4143.241	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	4.71	3570.649	3570.649	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	4.71	3419.787	3419.787	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\171209M2\171209M2-CRV.qld

Last Altered: Monday, December 11, 2017 10:55:34 Pacific Standard Time
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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	171209M2_2	Standard	12.500	4.97	9955.654	9955.654	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	4.98	9288.953	9288.953	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.00	8697.105	8697.105	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.00	10501.184	10501.184	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.00	7907.077	7907.077	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.00	8183.759	8183.759	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.00	10453.241	10453.241	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.00	9314.625	9314.625	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.00	11272.105	11272.105	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	171209M2_2	Standard	12.500	5.29	12370.228	12370.228	12.500	12.5	0.0	NO		NO	bb
2	2	171209M2_3	Standard	12.500	5.30	12440.443	12440.443	12.500	12.5	0.0	NO		NO	bb
3	3	171209M2_4	Standard	12.500	5.32	17018.324	17018.324	12.500	12.5	0.0	NO		NO	bb
4	4	171209M2_5	Standard	12.500	5.32	15776.181	15776.181	12.500	12.5	0.0	NO		NO	bb
5	5	171209M2_6	Standard	12.500	5.32	15153.919	15153.919	12.500	12.5	0.0	NO		NO	bb
6	6	171209M2_7	Standard	12.500	5.32	11233.194	11233.194	12.500	12.5	0.0	NO		NO	bb
7	7	171209M2_8	Standard	12.500	5.32	15532.576	15532.576	12.500	12.5	0.0	NO		NO	bb
8	8	171209M2_9	Standard	12.500	5.33	12836.940	12836.940	12.500	12.5	0.0	NO		NO	bb
9	9	171209M2_10	Standard	12.500	5.32	12595.108	12595.108	12.500	12.5	0.0	NO		NO	bb

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Ⓐ 6:2 FTS < 70%; not used

Dataset: U:\Q4.PRO\results\171209M2\171209M2-13.qld

Last Altered: Monday, December 11, 2017 11:04:30 Pacific Standard Time
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ICV

AC 12/11/17

VJA 12/11/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.71e3	1.05e4	1.0000		1.34	1.34	11.6	10.702	107.0
2	2	PFPeA	263.1 > 218.9	1.43e4	1.71e4	1.0000		2.25	2.29	10.4	10.593	105.9
3	3	PFBS	299.0 > 79.7	3.56e3	2.11e3	1.0000		2.52	2.56	21.1	9.860	98.6
4	4	PFHxA	313.2 > 268.9	2.09e4	6.45e3	1.0000		3.04	3.05	16.2	12.302	123.0
5	5	PFHpA	363.0 > 318.9	1.52e4	1.29e4	1.0000		3.66	3.67	14.6	10.981	109.8
6	6	L-PFHxS	398.9 > 79.6	3.03e3	2.02e3	1.0000		3.80	3.83	18.7	9.235	92.3
7	8	6:2 FTS	427.1 > 407	3.87e3	5.50e3	1.0000		4.20	4.13	8.80	6.593	Ⓐ 65.9
8	9	L-PFOA	413 > 368.7	1.60e4	1.92e4	1.0000		4.20	4.20	10.4	11.053	110.5
9	11	PFHpS	449 > 80.0	3.57e3	1.92e4	1.0000		4.29	4.30	2.32	9.245	92.5
10	12	PFNA	463.0 > 418.8	1.85e4	1.81e4	1.0000		4.61	4.63	12.8	10.108	101.1
11	13	PFOSA	498.1 > 77.8	5.50e3	7.16e3	1.0000		4.67	4.69	9.60	9.930	99.3
12	14	L-PFOS	499 > 79.9	3.75e3	4.69e3	1.0000		4.69	4.71	9.97	9.300	93.0
13	16	PFDA	513 > 468.8	2.03e4	1.91e4	1.0000		5.00	5.00	13.2	11.271	112.7
14	17	8:2 FTS	527 > 506.9	3.54e3	1.88e3	1.0000		4.98	4.97	23.5	12.810	128.1
15	18	N-MeFOSAA	570.1 > 419	9.55e3	7.69e3	1.0000		5.15	5.15	15.5	10.666	106.7
16	19	N-EtFOSAA	584.2 > 419	6.46e3	7.78e3	1.0000		5.30	5.31	10.4	9.462	94.6
17	20	PFUdA	563.0 > 518.9	1.58e4	1.55e4	1.0000		5.31	5.32	12.8	12.370	123.7
18	21	PFDS	598.8 > 80	4.00e3	1.55e4	1.0000		5.35	5.37	3.23	9.959	99.6
19	22	PFDoA	612.9 > 569.0	1.92e4	9.04e3	1.0000		5.58	5.61	26.5	11.532	115.3
20	23	N-MeFOSA	512.1 > 168.9		2.24e4	1.0000		5.60				
21	24	PFTrDA	662.9 > 618.9	1.93e4	9.04e3	1.0000		5.75	5.86	26.7	12.885	128.8
22	25	PFTeDA	712.9 > 668.8	1.12e4	9.15e3	1.0000		6.10	6.07	15.4	8.662	86.6
23	26	N-EtFOSA	526.1 > 168.9		3.59e4	1.0000		6.21				
24	27	PFHxDA	813.1 > 768.6		4.37e3	1.0000		6.35				
25	28	PFODA	913.1 > 868.8		4.37e3	1.0000		6.65				
26	29	N-MeFOSE	616.1 > 58.9		2.98e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		3.15e4	1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	1.05e4	1.31e4	1.0000	0.829	1.34	1.34	9.98	12.042	96.3
29	32	13C3-PFPeA	266. > 221.8	1.71e4	2.39e4	1.0000	0.743	2.25	2.29	8.96	12.065	96.5
30	33	13C3-PFBS	302. > 98.8	2.11e3	2.39e4	1.0000	0.094	2.52	2.57	1.10	11.772	94.2
31	34	13C2-PFHxA	315 > 269.8	6.45e3	2.39e4	1.0000	0.735	3.04	3.05	3.37	4.593	91.9

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-13.qld

Last Altered: Monday, December 11, 2017 11:04:30 Pacific Standard Time
Printed: Monday, December 11, 2017 11:04:52 Pacific Standard Time

Name: 171209M2_13, Date: 09-Dec-2017, Time: 14:58:00, ID: ICV171209M1-1 PFC ICV 17K3001, Description: PFC ICV 17K3001

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.29e4	2.39e4	1.0000	0.583	3.66	3.67	6.77	11.607	92.9
33	36	18O2-PFHxS	403.0 > 102.6	2.02e3	5.08e3	1.0000	0.406	3.80	3.83	4.97	12.251	98.0
34	37	13C2-6:2 FTS	429.1 > 408.9	5.50e3	1.92e4	1.0000	0.283	4.21	4.13	3.57	12.629	101.0
35	38	13C2-PFOA	414.9 > 369.7	1.92e4	1.92e4	1.0000	1.049	4.20	4.19	12.5	11.902	95.2
36	39	13C5-PFNA	468.2 > 422.9	1.81e4	1.84e4	1.0000	0.913	4.63	4.63	12.3	13.436	107.5
37	40	13C8-PFOSA	506.1 > 77.7	7.16e3	1.93e4	1.0000	0.357	4.67	4.69	4.65	12.996	104.0
38	41	13C8-PFOS	507.0 > 79.9	4.69e3	5.08e3	1.0000	1.006	4.69	4.71	11.6	11.486	91.9
39	42	13C2-PFDA	515.1 > 469.9	1.91e4	1.58e4	1.0000	1.452	5.00	5.00	15.1	10.418	83.3
40	43	13C2-8:2 FTS	529.1 > 508.7	1.88e3	2.39e4	1.0000	0.119	4.98	4.97	0.984	8.285	66.3
41	44	d3-N-MeFOSAA	573.3 > 419	7.69e3	1.93e4	1.0000	0.391	5.15	5.15	4.99	12.774	102.2
42	45	d5-N-EtFOSAA	589.3 > 419	7.78e3	1.93e4	1.0000	0.412	5.30	5.31	5.05	12.251	98.0
43	46	13C2-PFUdA	565 > 519.8	1.55e4	1.93e4	1.0000	0.956	5.31	5.33	10.0	10.510	84.1
44	47	13C2-PFDoA	615.0 > 569.7	9.04e3	1.93e4	1.0000	0.544	5.58	5.61	5.87	10.783	86.3
45	48	d3-N-MeFOSA	515.2 > 168.9	2.24e4	1.93e4	1.0000	0.100	5.60	5.72	14.5	145.487	97.0
46	49	13C2-PFTeDA	714.8 > 669.6	9.15e3	1.93e4	1.0000	0.522	6.10	6.07	5.93	11.361	90.9
47	50	d5-N-ETFOSA	531.1 > 168.9	3.59e4	1.93e4	1.0000	0.158	6.21	6.13	23.3	147.053	98.0
48	51	13C2-PFHxDA	815 > 769.7	4.37e3	1.93e4	1.0000	0.672	6.35	6.41	2.84	4.222	84.4
49	52	d7-N-MeFOSE	623.1 > 58.9	2.98e4	1.93e4	1.0000	0.142	6.30	6.29	19.4	136.081	90.7
50	53	d9-N-EtFOSE	639.2 > 58.8	3.15e4	1.93e4	1.0000	0.149	6.42	6.43	20.5	137.820	91.9
51	54	13C4-PFBA	217. > 171.8	1.31e4	1.31e4	1.0000	1.000	1.34	1.34	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	2.39e4	2.39e4	1.0000	1.000	3.04	3.05	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	5.08e3	5.08e3	1.0000	1.000	3.80	3.83	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.92e4	1.92e4	1.0000	1.000	4.20	4.19	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.84e4	1.84e4	1.0000	1.000	4.63	4.63	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	5.08e3	5.08e3	1.0000	1.000	4.69	4.71	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.58e4	1.58e4	1.0000	1.000	5.00	5.00	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.93e4	1.93e4	1.0000	1.000	5.31	5.32	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Monday, December 11, 2017 12:21:26 Pacific Standard Time
Printed: Monday, December 11, 2017 12:24:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171209M2_1	IPA	09-Dec-17	12:43:52
2	171209M2_2	ST171209M1-1 PFC CS-2 17K2806	09-Dec-17	12:55:02
3	171209M2_3	ST171209M1-2 PFC CS-1 17K2807	09-Dec-17	13:06:13
4	171209M2_4	ST171209M1-3 PFC CS0 17K2808	09-Dec-17	13:17:24
5	171209M2_5	ST171209M1-4 PFC CS1 17K2814	09-Dec-17	13:28:34
6	171209M2_6	ST171209M1-5 PFC CS2 17K2809	09-Dec-17	13:39:45
7	171209M2_7	ST171209M1-6 PFC CS3 17K2810	09-Dec-17	13:50:56
8	171209M2_8	ST171209M1-7 PFC CS4 17K2811	09-Dec-17	14:02:06
9	171209M2_9	ST171209M1-8 PFC CS5 17K2812	09-Dec-17	14:13:17
10	171209M2_10	ST171209M1-9 PFC CS6 17K2817	09-Dec-17	14:24:28
11	171209M2_11	ST171209M1-10 PFC CS7 17K2818	09-Dec-17	14:35:39
12	171209M2_12	IPA	09-Dec-17	14:46:49
13	171209M2_13	ICV171209M1-1 PFC ICV 17K3001	09-Dec-17	14:58:00
14	171209M2_14	IPA	09-Dec-17	15:09:11
15	171209M2_15	1701710-11 FT-PZ-456-FRB-20171115 0.26552	09-Dec-17	15:20:21
16	171209M2_16	1701725-12 GENBM-GW-DUP1-111517 0.123...	09-Dec-17	15:31:32
17	171209M2_17	1701725-13 GENBM-08-TW08-111617 0.11519	09-Dec-17	15:42:43
18	171209M2_18	1701725-14 GENBM-02-MW102-111517 0.11...	09-Dec-17	15:53:54
19	171209M2_19	1701725-15 GENBM-04-TW04-111517 0.1187	09-Dec-17	16:05:04
20	171209M2_20	IPA	09-Dec-17	16:16:15
21	171209M2_21	B7K0141-BS1 OPR 0.125	09-Dec-17	16:27:26
22	171209M2_22	B7K0141-BSD1 LCS Dup 0.125	09-Dec-17	16:38:36
23	171209M2_23	B7K0142-BS1 OPR 0.125	09-Dec-17	16:49:47
24	171209M2_24	IPA	09-Dec-17	17:00:58
25	171209M2_25	B7K0141-BLK1 Method Blank 0.125	09-Dec-17	17:12:08
26	171209M2_26	B7K0142-BLK1 Method Blank 0.125	09-Dec-17	17:23:20
27	171209M2_27	1701732-01 918 0.11878	09-Dec-17	17:34:30
28	171209M2_28	1701732-02 914 0.11332	09-Dec-17	17:45:41
29	171209M2_29	1701732-03 912 0.11498	09-Dec-17	17:56:52
30	171209M2_30	1701732-04 913 0.11277	09-Dec-17	18:08:02
31	171209M2_31	1701732-05 731 0.11572	09-Dec-17	18:19:13

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-33.qld

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(A) 8:2 FTS > 130%

CCV

AC 12/11/17

JA 12/11/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_120617.mdb 09 Dec 2017 13:02:23
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-9-17_FULL_OLDRS.cdb 11 Dec 2017 10:55:34

Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	6.97e3	7.04e3	1.0000		1.34	1.35	12.4	11.427	114.3
2	2	PFPeA	263.1 > 218.9	1.11e4	1.30e4	1.0000		2.25	2.29	10.7	10.915	109.2
3	3	PFBS	299.0 > 79.7	3.11e3	1.74e3	1.0000		2.52	2.57	22.4	10.480	104.8
4	4	PFHxA	313.2 > 268.9	1.50e4	5.28e3	1.0000		3.04	3.06	14.2	10.790	107.9
5	5	PFHpA	363.0 > 318.9	1.25e4	1.00e4	1.0000		3.66	3.67	15.6	11.691	116.9
6	6	L-PFHxS	398.9 > 79.6	2.62e3	1.56e3	1.0000		3.80	3.82	21.0	10.368	103.7
7	8	6:2 FTS	427.1 > 407	3.01e3	3.77e3	1.0000		4.20	4.14	9.97	7.475	74.7
8	9	L-PFOA	413 > 368.7	1.26e4	1.45e4	1.0000		4.20	4.20	10.9	11.588	115.9
9	11	PFHpS	449 > 80.0	2.58e3	1.45e4	1.0000		4.29	4.31	2.23	8.880	88.8
10	12	PFNA	463.0 > 418.8	1.48e4	1.29e4	1.0000		4.61	4.63	14.4	11.393	113.9
11	13	PFOSA	498.1 > 77.8	4.06e3	5.25e3	1.0000		4.67	4.69	9.67	10.007	100.1
12	14	L-PFOS	499 > 79.9	3.66e3	3.68e3	1.0000		4.69	4.71	12.4	11.596	116.0
13	16	PFDA	513 > 468.8	1.38e4	1.55e4	1.0000		5.00	5.00	11.1	9.414	94.1
14	17	8:2 FTS	527 > 506.9	3.28e3	1.56e3	1.0000		4.98	4.97	26.3	14.404	144.0 (A)
15	18	N-MeFOSAA	570.1 > 419	7.33e3	5.21e3	1.0000		5.15	5.15	17.6	12.090	120.9
16	19	N-EtFOSAA	584.2 > 419	4.34e3	5.02e3	1.0000		5.30	5.31	10.8	9.866	98.7
17	20	PFUdA	563.0 > 518.9	1.33e4	1.44e4	1.0000		5.31	5.33	11.6	11.189	111.9
18	21	PFDS	598.8 > 80	3.66e3	1.44e4	1.0000		5.35	5.38	3.18	9.784	97.8
19	22	PFDoA	612.9 > 569.0	1.54e4	6.49e3	1.0000		5.58	5.61	29.7	12.938	129.4
20	23	N-MeFOSA	512.1 > 168.9	6.78e3	1.65e4	1.0000		5.60	5.70	61.4	56.530	113.1
21	24	PFTrDA	662.9 > 618.9	1.24e4	6.49e3	1.0000		5.75	5.86	23.9	11.499	115.0
22	25	PFTeDA	712.9 > 668.8	7.55e3	6.40e3	1.0000		6.10	6.07	14.7	8.315	83.1
23	26	N-EtFOSA	526.1 > 168.9	8.67e3	2.69e4	1.0000		6.21	6.12	48.3	50.806	101.6
24	27	PFHxDA	813.1 > 768.6	4.98e3	3.40e3	1.0000		6.35	6.41	7.31	12.703	127.0
25	28	PFODA	913.1 > 868.8	6.34e3	3.40e3	1.0000		6.65	6.64	9.31	12.876	128.8
26	29	N-MeFOSE	616.1 > 58.9	7.32e3	2.24e4	1.0000		6.30	6.30	49.0	43.402	86.8
27	30	N-EtFOSE	630.1 > 58.9	9.27e3	2.29e4	1.0000		6.42	6.45	60.8	55.399	110.8
28	31	13C3-PFBA	216.1 > 171.8	7.04e3	7.45e3	1.0000	0.829	1.34	1.34	11.8	14.255	114.0
29	32	13C3-PFPeA	266. > 221.8	1.30e4	1.73e4	1.0000	0.743	2.25	2.29	9.37	12.616	100.9
30	33	13C3-PFBS	302. > 98.8	1.74e3	1.73e4	1.0000	0.094	2.52	2.57	1.26	13.400	107.2
31	34	13C2-PFHxA	315 > 269.8	5.28e3	1.73e4	1.0000	0.735	3.04	3.05	3.82	5.195	103.9

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Dataset: U:\Q4.PRO\results\171209M2\171209M2-33.qld

Last Altered: Monday, December 11, 2017 14:05:01 Pacific Standard Time
Printed: Monday, December 11, 2017 14:05:13 Pacific Standard Time

Name: 171209M2_33, Date: 09-Dec-2017, Time: 18:41:34, ID: ST171209M1-11 PFC CS3 17K2810, Description: PFC CS3 17K2810

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.00e4	1.73e4	1.0000	0.583	3.66	3.68	7.25	12.439	99.5
33	36	18O2-PFHxS	403.0 > 102.6	1.56e3	3.31e3	1.0000	0.406	3.80	3.83	5.89	14.518	116.1
34	37	13C2-6:2 FTS	429.1 > 408.9	3.77e3	1.30e4	1.0000	0.283	4.21	4.13	3.61	12.769	102.2
35	38	13C2-PFOA	414.9 > 369.7	1.45e4	1.30e4	1.0000	1.049	4.20	4.19	13.9	13.241	105.9
36	39	13C5-PFNA	468.2 > 422.9	1.29e4	1.45e4	1.0000	0.913	4.63	4.63	11.1	12.118	96.9
37	40	13C8-PFOSA	506.1 > 77.7	5.25e3	1.55e4	1.0000	0.357	4.67	4.69	4.24	11.852	94.8
38	41	13C8-PFOS	507.0 > 79.9	3.68e3	3.86e3	1.0000	1.006	4.69	4.71	11.9	11.826	94.6
39	42	13C2-PFDA	515.1 > 469.9	1.55e4	1.05e4	1.0000	1.452	5.00	5.00	18.6	12.775	102.2
40	43	13C2-8:2 FTS	529.1 > 508.7	1.56e3	1.73e4	1.0000	0.119	4.98	4.97	1.13	9.498	76.0
41	44	d3-N-MeFOSAA	573.3 > 419	5.21e3	1.55e4	1.0000	0.391	5.15	5.15	4.21	10.776	86.2
42	45	d5-N-EtFOSAA	589.3 > 419	5.02e3	1.55e4	1.0000	0.412	5.30	5.31	4.05	9.825	78.6
43	46	13C2-PFUdA	565 > 519.8	1.44e4	1.55e4	1.0000	0.956	5.31	5.33	11.6	12.170	97.4
44	47	13C2-PFDoA	615.0 > 569.7	6.49e3	1.55e4	1.0000	0.544	5.58	5.61	5.24	9.638	77.1
45	48	d3-N-MeFOSA	515.2 > 168.9	1.65e4	1.55e4	1.0000	0.100	5.60	5.73	13.4	133.811	89.2
46	49	13C2-PFTeDA	714.8 > 669.6	6.40e3	1.55e4	1.0000	0.522	6.10	6.07	5.17	9.900	79.2
47	50	d5-N-ETFOSA	531.1 > 168.9	2.69e4	1.55e4	1.0000	0.158	6.21	6.13	21.8	137.481	91.7
48	51	13C2-PFHxDA	815 > 769.7	3.40e3	1.55e4	1.0000	0.672	6.35	6.41	2.75	4.090	81.8
49	52	d7-N-MeFOSE	623.1 > 58.9	2.24e4	1.55e4	1.0000	0.142	6.30	6.29	18.1	127.228	84.8
50	53	d9-N-EtFOSE	639.2 > 58.8	2.29e4	1.55e4	1.0000	0.149	6.42	6.43	18.5	124.325	82.9
51	54	13C4-PFBA	217. > 171.8	7.45e3	7.45e3	1.0000	1.000	1.34	1.35	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.73e4	1.73e4	1.0000	1.000	3.04	3.05	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.31e3	3.31e3	1.0000	1.000	3.80	3.83	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.30e4	1.30e4	1.0000	1.000	4.20	4.19	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.45e4	1.45e4	1.0000	1.000	4.63	4.63	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.86e3	3.86e3	1.0000	1.000	4.69	4.71	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.05e4	1.05e4	1.0000	1.000	5.00	5.00	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.55e4	1.55e4	1.0000	1.000	5.31	5.33	12.5	12.500	100.0

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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	1701710	SITE 00002	SITE 00002	FTPZ456S	Piezometer	1318124.808	269071.797	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ456S-P3-20171115	Ground water	Normal (Regular)	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710	SITE 00002	SITE 00002	FTMW02I	Monitoring well	1315647.815	271972.229	N6247016D9008	WE05	TETRA TECH, INC.	FT-MW02I-P2-20171115	Ground water	Normal (Regular)	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710	SITE 00002	SITE 00002	FTPZ456S	Piezometer	1318124.808	269071.797	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ456S-NP-20171115	Ground water	Normal (Regular)	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710							N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ-456-FRB-20171115	Water for QC samples	Field Reagent Blank	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710	SITE 00002	SITE 00002	FTMW02I	Monitoring well	1315647.815	271972.229	N6247016D9008	WE05	TETRA TECH, INC.	FT-MW02I-P3-20171115	Ground water	Normal (Regular)	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710	SITE 00002	SITE 00002	FTPZ456S	Piezometer	1318124.808	269071.797	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ456S-P1-20171115	Ground water	Normal (Regular)	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710	SITE 00002	SITE 00002	FTPZ456S	Piezometer	1318124.808	269071.797	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ456S-P2-20171115	Ground water	Normal (Regular)	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710							N6247016D9008	WE05	TETRA TECH, INC.	DEET-20171115	Water for QC samples	Standard reference material	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710	SITE 00002	SITE 00002	FTMW02I	Monitoring well	1315647.815	271972.229	N6247016D9008	WE05	TETRA TECH, INC.	FT-MW02I-P1-20171115	Ground water	Normal (Regular)	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710	SITE 00002	SITE 00002	FTMW02I	Monitoring well	1315647.815	271972.229	N6247016D9008	WE05	TETRA TECH, INC.	FT-MW02I-NP-20171115	Ground water	Normal (Regular)	15-Nov-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701710							N6247016D9008	WE05	TETRA TECH, INC.	PERMETHRIN-20171115	Water for QC samples	Standard reference material	15-Nov-17	537	Perfluoroalkyl Compounds