



**Groundwater Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
Sample Location Report, SDG 2001315**

MCAS
El Toro, CA
April 2021



July 10, 2020

Vista Work Order No. 2001315

Ms. Kimberly Shiroodi
KMEA
2423 Hoover Avenue
National City, CA 91950

Dear Ms. Shiroodi,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on June 19, 2020 under your Project Name 'MCAS El Toro and Tustin, PFAS'.

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

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

Sincerely,

Martha Maier
Laboratory Director



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

Vista Work Order No. 2001315

Case Narrative

Sample Condition on Receipt:

Seven groundwater samples and two blank 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.

Analytical Notes:

PFAS Isotope Dilution/LC-MSMS Method Compliant with Table B-15 of QSM 5.3 (Aqueous)

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

<u>Laboratory ID</u>	<u>Sample Name</u>
2001315-03	24-GW-15DBMW51-20200618
2001315-04	24-GW-24NEW8-20200618
2001315-05	24-GW-09DGMW75R-20200618
2001315-06	24-GW-24NEW4-20200618
2001315-07	24-GW-18PS8-20200618
2001315-08	24-GW-08DGMW73-20200618
2001315-09	24-GW-18PS3A-20200618

The samples were extracted and analyzed for a selected list of PFAS using Isotope Dilution and LC-MS/MS compliant with Table B-15 of QSM 5.3. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

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 acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2001315-01	SB01-20200618	18-Jun-20 08:00	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2001315-02	EB01-20200618	18-Jun-20 07:00	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2001315-03	24-GW-15DBMW51-20200618	18-Jun-20 08:30	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2001315-04	24-GW-24NEW8-20200618	18-Jun-20 10:30	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2001315-05	24-GW-09DGMW75R-20200618	18-Jun-20 11:30	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2001315-06	24-GW-24NEW4-20200618	18-Jun-20 13:20	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2001315-07	24-GW-18PS8-20200618	18-Jun-20 14:00	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2001315-08	24-GW-08DGMW73-20200618	18-Jun-20 14:45	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2001315-09	24-GW-18PS3A-20200618	18-Jun-20 15:50	19-Jun-20 09:23	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank
PFAS Isotope Dilution Table B-15

Client Data				Laboratory Data			
Name:	KMEA	Matrix:	Aqueous	Lab Sample:	B0F0205-BLK1	Column:	BEH C18
Project:	MCAS El Toro and Tustin, PFAS						

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFHxA	307-24-4	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
HFPO-DA	13252-13-6	ND	0.00241	0.00300	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFHpA	375-85-9	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
ADONA	919005-14-4	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFHxS	355-46-4	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFOA	335-67-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFNA	375-95-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFOS	1763-23-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
9Cl-PF3ONS	756426-58-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFDA	335-76-2	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
MeFOSAA	2355-31-9	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
EtFOSAA	2991-50-6	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFUnA	2058-94-8	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
11Cl-PF3OUdS	763051-92-9	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFDaA	307-55-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFTDA	72629-94-8	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFTeDA	376-06-7	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	69.3	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C3-HFPO-DA	IS	66.5	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFHxA	IS	64.6	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C4-PFHpA	IS	70.6	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C3-PFHxS	IS	67.5	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C5-PFNA	IS	68.3	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFOA	IS	69.6	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C8-PFOS	IS	74.5	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFDA	IS	61.5	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
d3-MeFOSAA	IS	51.7	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFUnA	IS	50.1	50 - 150		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
d5-EtFOSAA	IS	49.0	50 - 150	H	B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFDaA	IS	46.4	50 - 150	H	B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFTeDA	IS	39.0	50 - 150	H	B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: LCSD

PFAS Isotope Dilution Table B-15

Name:	KMEA	Lab Sample:	B0F0205-BS1/B0F0205-BSD1	Date Extracted:	30-Jun-20
Project:	MCAS El Toro and Tustin, PFAS	QC Batch:	B0F0205	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Analyte	CAS Number	LCS (ug/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ug/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	375-73-5	0.0484	0.0400	121		0.0465	0.0400	116	4.08		72-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFHxA	307-24-4	0.0504	0.0400	126		0.0486	0.0400	122	3.66		72-129	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
HFPO-DA	13252-13-6	0.0481	0.0400	120		0.0491	0.0400	123	2.00		70-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFHpA	375-85-9	0.0442	0.0400	110		0.0455	0.0400	114	3.01		72-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
ADONA	919005-14-4	0.0416	0.0400	104		0.0478	0.0400	119	13.7		70-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFHxS	355-46-4	0.0467	0.0400	117		0.0437	0.0400	109	6.69		68-131	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFOA	335-67-1	0.0477	0.0400	119		0.0487	0.0400	122	2.15		71-133	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFNA	375-95-1	0.0459	0.0400	115		0.0427	0.0400	107	7.30		69-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFOS	1763-23-1	0.0451	0.0400	113		0.0445	0.0400	111	1.34		65-140	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
9CI-PF3ONS	756426-58-1	0.0429	0.0400	107		0.0464	0.0400	116	7.87		70-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFDA	335-76-2	0.0475	0.0400	119		0.0514	0.0400	129	7.83		71-129	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
MeFOSAA	2355-31-9	0.0455	0.0400	114		0.0421	0.0400	105	7.86		65-136	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
EtFOSAA	2991-50-6	0.0450	0.0400	112		0.0467	0.0400	117	3.66		61-135	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFUnA	2058-94-8	0.0452	0.0400	113		0.0431	0.0400	108	4.84		69-133	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
11CI-PF3OUdS	763051-92-9	0.0469	0.0400	117		0.0410	0.0400	102	13.5		70-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFDoA	307-55-1	0.0487	0.0400	122		0.0442	0.0400	110	9.63		72-134	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFTTrDA	72629-94-8	0.0426	0.0400	107		0.0410	0.0400	102	4.01		65-144	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFTeDA	376-06-7	0.0518	0.0400	130		0.0465	0.0400	116	10.8		71-132	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBS	IS	63.8		66.1		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C3-HFPO-DA	IS	55.5		57.3		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFHxA	IS	58.2		60.6		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C4-PFHpA	IS	63.8		66.2		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C3-PFHxS	IS	59.6		66.4		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C5-PFNA	IS	59.2		67.8		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFOA	IS	61.1		61.5		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C8-PFOS	IS	63.0		64.0		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFDA	IS	57.3		56.0		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
d3-MeFOSAA	IS	48.2	H	48.3	H	50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFUnA	IS	46.2	H	51.3		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
d5-EtFOSAA	IS	45.4	H	41.7	H	50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFDoA	IS	45.5	H	50.3		50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1

Sample ID: LCSD						PFAS Isotope Dilution Table B-15				
Name:	KMEA	Lab Sample:	B0F0205-BS1/B0F0205-BSD1				Date Extracted:	30-Jun-20		
Project:	MCAS El Toro and Tustin, PFAS	QC Batch:	B0F0205				Column:	BEH C18		
Matrix:	Aqueous	Samp Size:	0.250/0.250 L							
Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C2-PFTeDA	IS	44.7	H	48.8	H	50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1

Sample ID: SB01-20200618
PFAS Isotope Dilution Table B-15

Client Data					Laboratory Data				
Name:	KMEA	Matrix:	Blank Water		Lab Sample:	2001315-01	Column:	BEH C18	
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 08:00		Date Received:	19-Jun-20 09:23			

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFHxA	307-24-4	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
HFPO-DA	13252-13-6	ND	0.00244	0.00304	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFHpA	375-85-9	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
ADONA	919005-14-4	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFHxS	355-46-4	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFOA	335-67-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFNA	375-95-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFOS	1763-23-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
9Cl-PF3ONS	756426-58-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFDA	335-76-2	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
MeFOSAA	2355-31-9	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
EtFOSAA	2991-50-6	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFUnA	2058-94-8	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
11Cl-PF3OUdS	763051-92-9	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFDaA	307-55-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFTTrDA	72629-94-8	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFTeDA	376-06-7	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	75.8	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C3-HFPO-DA	IS	62.2	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFHxA	IS	65.2	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C4-PFHpA	IS	71.2	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C3-PFHxS	IS	71.3	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C5-PFNA	IS	69.5	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFOA	IS	68.8	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C8-PFOS	IS	76.1	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFDA	IS	68.2	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
d3-MeFOSAA	IS	68.2	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFUnA	IS	62.0	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
d5-EtFOSAA	IS	61.4	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFDaA	IS	63.2	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFTeDA	IS	57.7	50 - 150		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: EB01-20200618
PFAS Isotope Dilution Table B-15

Client Data				Laboratory Data			
Name:	KMEA	Matrix:	Blank Water	Lab Sample:	2001315-02	Column:	BEH C18
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 07:00	Date Received:	19-Jun-20 09:23		

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFHxA	307-24-4	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
HFPO-DA	13252-13-6	ND	0.00236	0.00294	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFHpA	375-85-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
ADONA	919005-14-4	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFHxS	355-46-4	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFOA	335-67-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFNA	375-95-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFOS	1763-23-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
9Cl-PF3ONS	756426-58-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFDA	335-76-2	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
MeFOSAA	2355-31-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
EtFOSAA	2991-50-6	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFUnA	2058-94-8	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
11Cl-PF3OUdS	763051-92-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFDaA	307-55-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFTrDA	72629-94-8	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFTeDA	376-06-7	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	74.7	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C3-HFPO-DA	IS	66.9	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFHxA	IS	69.6	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C4-PFHpA	IS	75.8	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C3-PFHxS	IS	74.3	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C5-PFNA	IS	72.1	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFOA	IS	69.5	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C8-PFOS	IS	83.0	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFDA	IS	67.9	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
d3-MeFOSAA	IS	62.4	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFUnA	IS	62.9	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
d5-EtFOSAA	IS	57.1	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFDaA	IS	65.4	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFTeDA	IS	53.6	50 - 150		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: 24-GW-15DBMW51-20200618
PFAS Isotope Dilution Table B-15

Client Data					Laboratory Data				
Name:	KMEA	Matrix:	Groundwater		Lab Sample:	2001315-03	Column:	BEH C18	
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 08:30		Date Received:	19-Jun-20 09:23			

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.00458	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFHxA	307-24-4	0.0139	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
HFPO-DA	13252-13-6	ND	0.00234	0.00291	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFHpA	375-85-9	0.00290	0.00133	0.00194	0.00388	J, Q	B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
ADONA	919005-14-4	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFHxS	355-46-4	0.0248	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFOA	335-67-1	0.0126	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFNA	375-95-1	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFOS	1763-23-1	0.0119	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
9Cl-PF3ONS	756426-58-1	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFDA	335-76-2	0.00134	0.00133	0.00194	0.00388	J, Q	B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
MeFOSAA	2355-31-9	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
EtFOSAA	2991-50-6	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFUnA	2058-94-8	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
11Cl-PF3OUdS	763051-92-9	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFDaA	307-55-1	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFTrDA	72629-94-8	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFTeDA	376-06-7	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	72.8	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C3-HFPO-DA	IS	66.0	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFHxA	IS	67.0	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C4-PFHpA	IS	72.5	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C3-PFHxS	IS	67.2	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C5-PFNA	IS	68.0	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFOA	IS	70.8	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C8-PFOS	IS	76.2	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFDA	IS	66.2	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
d3-MeFOSAA	IS	54.9	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFUnA	IS	61.0	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
d5-EtFOSAA	IS	61.4	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFDaA	IS	58.3	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFTeDA	IS	55.7	50 - 150		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: 24-GW-24NEW8-20200618
PFAS Isotope Dilution Table B-15

Client Data					Laboratory Data				
Name:	KMEA	Matrix:	Groundwater		Lab Sample:	2001315-04	Column:	BEH C18	
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 10:30		Date Received:	19-Jun-20 09:23			

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0738	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFHxA	307-24-4	0.232	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
HFPO-DA	13252-13-6	ND	0.00227	0.00283	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFHpA	375-85-9	0.0176	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
ADONA	919005-14-4	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFHxS	355-46-4	0.0208	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFOA	335-67-1	0.0397	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFNA	375-95-1	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFOS	1763-23-1	0.0180	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
9CI-PF3ONS	756426-58-1	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFDA	335-76-2	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
MeFOSAA	2355-31-9	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
EtFOSAA	2991-50-6	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFUnA	2058-94-8	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
11CI-PF3OUdS	763051-92-9	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFDaA	307-55-1	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFTrDA	72629-94-8	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFTeDA	376-06-7	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	75.2	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C3-HFPO-DA	IS	62.5	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C2-PFHxA	IS	63.4	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C4-PFHpA	IS	68.7	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C3-PFHxS	IS	70.2	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C5-PFNA	IS	69.2	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C2-PFOA	IS	69.7	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C8-PFOS	IS	81.4	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C2-PFDA	IS	66.8	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
d3-MeFOSAA	IS	68.0	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C2-PFUnA	IS	56.5	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
d5-EtFOSAA	IS	61.3	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C2-PFDaA	IS	55.6	50 - 150		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
13C2-PFTeDA	IS	44.3	50 - 150	H	B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: 24-GW-09DGMW75R-20200618
PFAS Isotope Dilution Table B-15

Client Data					Laboratory Data				
Name:	KMEA	Matrix:	Groundwater	Lab Sample:	2001315-05	Column:	BEH C18		
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 11:30	Date Received:	19-Jun-20 09:23				

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0401	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFHxA	307-24-4	0.0914	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
HFPO-DA	13252-13-6	ND	0.00225	0.00280	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFHpA	375-85-9	0.0100	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
ADONA	919005-14-4	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFHxS	355-46-4	0.0302	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFOA	335-67-1	0.0142	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFNA	375-95-1	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFOS	1763-23-1	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
9Cl-PF3ONS	756426-58-1	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFDA	335-76-2	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
MeFOSAA	2355-31-9	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
EtFOSAA	2991-50-6	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFUnA	2058-94-8	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
11Cl-PF3OUdS	763051-92-9	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFDaA	307-55-1	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFTrDA	72629-94-8	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFTeDA	376-06-7	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	68.1	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C3-HFPO-DA	IS	63.1	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C2-PFHxA	IS	63.6	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C4-PFHpA	IS	67.3	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C3-PFHxS	IS	69.7	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C5-PFNA	IS	69.1	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C2-PFOA	IS	69.8	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C8-PFOS	IS	70.1	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C2-PFDA	IS	63.4	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
d3-MeFOSAA	IS	59.9	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C2-PFUnA	IS	54.2	50 - 150		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
d5-EtFOSAA	IS	48.3	50 - 150	H	B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C2-PFDaA	IS	48.1	50 - 150	H	B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
13C2-PFTeDA	IS	40.7	50 - 150	H	B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: 24-GW-24NEW4-20200618

PFAS Isotope Dilution Table B-15

Client Data					Laboratory Data				
Name:	KMEA	Matrix:	Groundwater		Lab Sample:	2001315-06	Column:	BEH C18	
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 13:20		Date Received:	19-Jun-20 09:23			

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.00979	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFHxA	307-24-4	0.0793	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
HFPO-DA	13252-13-6	ND	0.00232	0.00290	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFHpA	375-85-9	0.0172	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
ADONA	919005-14-4	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFHxS	355-46-4	0.0441	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFOA	335-67-1	0.167	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFNA	375-95-1	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFOS	1763-23-1	0.00312	0.00132	0.00193	0.00385	J	B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
9Cl-PF3ONS	756426-58-1	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFDA	335-76-2	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
MeFOSAA	2355-31-9	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
EtFOSAA	2991-50-6	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFUnA	2058-94-8	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
11Cl-PF3OUdS	763051-92-9	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFDaA	307-55-1	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFTTrDA	72629-94-8	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFTeDA	376-06-7	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	74.5	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C3-HFPO-DA	IS	64.2	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C2-PFHxA	IS	68.5	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C4-PFHpA	IS	66.8	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C3-PFHxS	IS	66.8	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C5-PFNA	IS	68.1	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C2-PFOA	IS	64.4	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C8-PFOS	IS	66.7	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C2-PFDA	IS	64.3	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
d3-MeFOSAA	IS	49.6	50 - 150	H	B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C2-PFUnA	IS	54.7	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
d5-EtFOSAA	IS	56.1	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C2-PFDaA	IS	53.9	50 - 150		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
13C2-PFTeDA	IS	49.1	50 - 150	H	B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: 24-GW-18PS8-20200618
PFAS Isotope Dilution Table B-15

Client Data					Laboratory Data				
Name:	KMEA	Matrix:	Groundwater		Lab Sample:	2001315-07	Column:	BEH C18	
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 14:00		Date Received:	19-Jun-20 09:23			

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0110	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFHxA	307-24-4	0.0211	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
HFPO-DA	13252-13-6	ND	0.00243	0.00302	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFHpA	375-85-9	0.00465	0.00138	0.00202	0.00403	Q	B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
ADONA	919005-14-4	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFHxS	355-46-4	0.0291	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFOA	335-67-1	0.0121	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFNA	375-95-1	0.00192	0.00138	0.00202	0.00403	J	B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFOS	1763-23-1	0.177	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
9CI-PF3ONS	756426-58-1	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFDA	335-76-2	0.00155	0.00138	0.00202	0.00403	J	B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
MeFOSAA	2355-31-9	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
EtFOSAA	2991-50-6	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFUnA	2058-94-8	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
11CI-PF3OUdS	763051-92-9	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFDaA	307-55-1	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFTrDA	72629-94-8	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFTeDA	376-06-7	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	70.8	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C3-HFPO-DA	IS	67.6	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C2-PFHxA	IS	67.1	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C4-PFHpA	IS	69.9	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C3-PFHxS	IS	68.7	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C5-PFNA	IS	71.5	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C2-PFOA	IS	71.1	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C8-PFOS	IS	76.0	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C2-PFDA	IS	66.1	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
d3-MeFOSAA	IS	69.2	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C2-PFUnA	IS	61.9	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
d5-EtFOSAA	IS	62.7	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C2-PFDaA	IS	60.9	50 - 150		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
13C2-PFTeDA	IS	44.7	50 - 150	H	B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: 24-GW-08DGMW73-20200618
PFAS Isotope Dilution Table B-15

Client Data					Laboratory Data				
Name:	KMEA	Matrix:	Groundwater		Lab Sample:	2001315-08	Column:	BEH C18	
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 14:45		Date Received:	19-Jun-20 09:23			

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0145	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFHxA	307-24-4	0.0699	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
HFPO-DA	13252-13-6	ND	0.00236	0.00294	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFHpA	375-85-9	0.0144	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
ADONA	919005-14-4	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFHxS	355-46-4	0.356	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFOA	335-67-1	0.153	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFNA	375-95-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFOS	1763-23-1	0.0553	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
9Cl-PF3ONS	756426-58-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFDA	335-76-2	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
MeFOSAA	2355-31-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
EtFOSAA	2991-50-6	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFUnA	2058-94-8	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
11Cl-PF3OUdS	763051-92-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFDaA	307-55-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFTTrDA	72629-94-8	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFTeDA	376-06-7	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	70.7	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C3-HFPO-DA	IS	57.0	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C2-PFHxA	IS	58.2	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C4-PFHpA	IS	59.5	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C3-PFHxS	IS	69.1	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C5-PFNA	IS	59.7	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C2-PFOA	IS	59.2	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C8-PFOS	IS	68.0	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C2-PFDA	IS	59.7	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
d3-MeFOSAA	IS	59.7	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C2-PFUnA	IS	52.6	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
d5-EtFOSAA	IS	53.5	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C2-PFDaA	IS	54.0	50 - 150		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
13C2-PFTeDA	IS	49.6	50 - 150	H	B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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

Sample ID: 24-GW-18PS3A-20200618
PFAS Isotope Dilution Table B-15

Client Data					Laboratory Data				
Name:	KMEA	Matrix:	Groundwater		Lab Sample:	2001315-09	Column:	BEH C18	
Project:	MCAS El Toro and Tustin, PFAS	Date Collected:	18-Jun-20 15:50		Date Received:	19-Jun-20 09:23			

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.107	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFHxA	307-24-4	0.522	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
HFPO-DA	13252-13-6	ND	0.00212	0.00264	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFHpA	375-85-9	0.0703	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
ADONA	919005-14-4	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFHxS	355-46-4	1.16	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFOA	335-67-1	0.243	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFNA	375-95-1	0.00131	0.00121	0.00176	0.00352	J, Q	B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFOS	1763-23-1	0.483	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
9Cl-PF3ONS	756426-58-1	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFDA	335-76-2	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
MeFOSAA	2355-31-9	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
EtFOSAA	2991-50-6	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFUnA	2058-94-8	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
11Cl-PF3OUdS	763051-92-9	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFDaA	307-55-1	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFTrDA	72629-94-8	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFTeDA	376-06-7	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	69.6	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C3-HFPO-DA	IS	60.9	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFHxA	IS	64.9	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C4-PFHpA	IS	68.8	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C3-PFHxS	IS	65.4	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C5-PFNA	IS	73.8	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFOA	IS	70.4	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C8-PFOS	IS	73.2	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFDA	IS	67.1	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
d3-MeFOSAA	IS	58.2	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFUnA	IS	53.4	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
d5-EtFOSAA	IS	50.6	50 - 150		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFDaA	IS	49.3	50 - 150	H	B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFTeDA	IS	41.1	50 - 150	H	B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA 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
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
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
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

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

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
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
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

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 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

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 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

1104 Windfield Way
El Dorado Hills, CA 95762
TEL: 916-673-1520

Vista PM: Jade White-Dobbs 0.9°C

DATE: 6/18/2020

PAGE: 1 OF 1

LABORATORY CLIENT: KMEA ADDRESS: 9210 Sky Park Court, Suite 220 CITY: San Diego, CA 92123					CLIENT PROJECT NAME / NUMBER: MCAS El Toro and Tustin, PFAS					P.O. NO.: TO 008 Mod 6														
TEL: (619) 399-5900					E-Mail kimberly.shiroodi@woodplc.com					E-MAIL brian.johnson@woodplc.com														
TURNAROUND TIME ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 10 DAYS ☒ Standard					PROJECT CONTACT: Kimberly Shirootdi / Brian Johnson					CONTRACT NO.: N62473-16-D-2405														
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) ☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____					SAMPLER(S): (SIGNATURE) <i>[Signature]</i>					LAB USE ONLY ☐ ☐ ☐														
SPECIAL INSTRUCTIONS <i>GW samples potentially contain elevated levels of PFAS</i> <i>09 DG...</i>					REQUESTED ANALYSIS																			
LAB USE ONLY	SAMPLE ID	SAMPLING		Matrix	#Cont	QC Level	PFAS by LC/MS-MS																	
		DATE	TIME																					
	SBOI - 20200618	6/18/20	8:00	BW	2		X																	
	EBOI - 20200618		7:00	"			X																	
	24-GW-15DBMW51-20200618		8:30	GW		IV	X																	
	24-GW-24NEW8-20200618		10:30			IV	X																	
	24-GW-09DG MW75R-20200618		11:30			IV	X																	
	24-GW-24NEW4-20200618		13:20			IV	X																	
	24-GW-18PS8-20200618		14:00			IV	X																	
	24-GW-08DG MW73-20200618		14:45			IV	X																	
	24-GW-18PS3A-20200618		15:50			IV	X																	
Relinquished by: (Signature)					<i>[Signature]</i>					Received by: (Signature) / Carrier Tracking Number					Date:					Time:				
Relinquished by: (Signature)					FedEx					Received by: (Signature)					Date:					Time:				
Relinquished by: (Signature)										Received by: (Signature)					Date:					Time:				

Sample Log-In Checklist

 Page # 1 of 1

 Vista Work Order #: 2001315

 TAT Std

Samples Arrival:	Date/Time		Initials:		Location:		
	06/19/2020 09:23		HDC		WR-2		
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Dry Ice		None
Temp °C: 0.9 (uncorrected)	Probe used: Y <u>IN</u>				Thermometer ID: <u>IR-4</u>		
Temp °C: 0.9 (corrected)							

	YES	NO	NA		
Shipping Container(s) Intact?	☒	☐	☐		
Shipping Custody Seals Intact?	☒	☐	☐		
Airbill <u>—</u> Trk # <u>8142 4183 5169</u>	☒	☐	☐		
Shipping Documentation Present?	☒	☐	☐		
Shipping Container	Vista	<u>Client</u>	Retain	<u>Return</u>	Dispose
Chain of Custody / Sample Documentation Present?	☒	☐	☐		
Chain of Custody / Sample Documentation Complete?	☒	☐	☐		
Holding Time Acceptable?	☒	☐	☐		
Logged In:	Date/Time		Initials:	Location:	
	06/19/20 1252		KS	P-13 WR-2	
				Shelf/Rack: <u>A-4</u> <u>E-5</u>	
COC Anomaly/Sample Acceptance Form completed?				☐	☒

Comments:

CoC/Label Reconciliation Report WO# 2001315

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2001315-01	A SB01-20200618		18-Jun-20 08:00	HDPE Bottle, 250 mL	Aqueous	
2001315-01	B SB01-20200618		18-Jun-20 08:00	HDPE Bottle, 250 mL	Aqueous	
2001315-02	A EB01-20200618		18-Jun-20 07:00	HDPE Bottle, 250 mL	Aqueous	
2001315-02	B EB01-20200618		18-Jun-20 07:00	HDPE Bottle, 250 mL	Aqueous	
2001315-03	A 24-GW-15DBMW51-20200618		18-Jun-20 08:30	HDPE Bottle, 250 mL	Aqueous	
2001315-03	B 24-GW-15DBMW51-20200618		18-Jun-20 08:30	HDPE Bottle, 250 mL	Aqueous	
2001315-04	A 24-GW-24NFW8-20200618		18-Jun-20 10:30	HDPE Bottle, 250 mL	Aqueous	
2001315-04	B 24-GW-24NFW8-20200618		18-Jun-20 10:30	HDPE Bottle, 250 mL	Aqueous	
2001315-05	A 24-GW-09DGMW75R-20200618		18-Jun-20 11:30	HDPE Bottle, 250 mL	Aqueous	
2001315-05	B 24-GW-09DGMW75R-20200618		18-Jun-20 11:30	HDPE Bottle, 250 mL	Aqueous	
2001315-06	A 24-GW-24NEW4-20200618		18-Jun-20 13:20	HDPE Bottle, 250 mL	Aqueous	
2001315-06	B 24-GW-24NEW4-20200618		18-Jun-20 13:20	HDPE Bottle, 250 mL	Aqueous	
2001315-07	A 24-GW-18PS8-20200618		18-Jun-20 14:00	HDPE Bottle, 250 mL	Aqueous	
2001315-07	B 24-GW-18PS8-20200618		18-Jun-20 14:00	HDPE Bottle, 250 mL	Aqueous	
2001315-08	A 24-GW-08DGMW73-20200618		18-Jun-20 14:45	HDPE Bottle, 250 mL	Aqueous	
2001315-08	B 24-GW-08DGMW73-20200618		18-Jun-20 14:45	HDPE Bottle, 250 mL	Aqueous	
2001315-09	A 24-GW-18PS3A-20200618		18-Jun-20 15:50	HDPE Bottle, 250 mL	Aqueous	
2001315-09	B 24-GW-18PS3A-20200618		18-Jun-20 15:50	HDPE Bottle, 250 mL	Aqueous	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA	Comments:
Sample Container Intact?	☒	☐	☐	
Sample Custody Seals Intact?	☐	☐	☒	
Adequate Sample Volume?	☒	☐	☐	
Container Type Appropriate for Analysis(es)	☒	☐	☐	
Preservation Documented: Na2S2O3 Trizma <u>None</u> Other	☐	☒	☒	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	☐	☐	☒	

Verified by/Date: Ka 06/19/20



July 10, 2020

Vista Work Order No. 2001315

Ms. Kimberly Shiroodi
KMEA
2423 Hoover Avenue
National City, CA 91950

Dear Ms. Shiroodi,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on June 19, 2020 under your Project Name 'MCAS El Toro and Tustin, PFAS'.

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

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

Sincerely,

Martha Maier
Laboratory Director



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

Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 www.vista-analytical.com

Vista Work Order No. 2001315

Case Narrative

Sample Condition on Receipt:

Seven groundwater samples and two blank 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.

Analytical Notes:

PFAS Isotope Dilution/LC-MSMS Method Compliant with Table B-15 of QSM 5.3 (Aqueous)

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

<u>Laboratory ID</u>	<u>Sample Name</u>
2001315-03	24-GW-15DBMW51-20200618
2001315-04	24-GW-24NEW8-20200618
2001315-05	24-GW-09DGMW75R-20200618
2001315-06	24-GW-24NEW4-20200618
2001315-07	24-GW-18PS8-20200618
2001315-08	24-GW-08DGMW73-20200618
2001315-09	24-GW-18PS3A-20200618

The samples were extracted and analyzed for a selected list of PFAS using Isotope Dilution and LC-MS/MS compliant with Table B-15 of QSM 5.3. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

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 acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2001315-01	SB01-20200618	18-Jun-20 08:00	19-Jun-20 09:23	HDPE Bottle, 250 mL
2001315-02	EB01-20200618	18-Jun-20 07:00	19-Jun-20 09:23	HDPE Bottle, 250 mL
2001315-03	24-GW-15DBMW51-20200618	18-Jun-20 08:30	19-Jun-20 09:23	HDPE Bottle, 250 mL
2001315-04	24-GW-24NEW8-20200618	18-Jun-20 10:30	19-Jun-20 09:23	HDPE Bottle, 250 mL
2001315-05	24-GW-09DGMW75R-20200618	18-Jun-20 11:30	19-Jun-20 09:23	HDPE Bottle, 250 mL
2001315-06	24-GW-24NEW4-20200618	18-Jun-20 13:20	19-Jun-20 09:23	HDPE Bottle, 250 mL
2001315-07	24-GW-18PS8-20200618	18-Jun-20 14:00	19-Jun-20 09:23	HDPE Bottle, 250 mL
2001315-08	24-GW-08DGMW73-20200618	18-Jun-20 14:45	19-Jun-20 09:23	HDPE Bottle, 250 mL
2001315-09	24-GW-18PS3A-20200618	18-Jun-20 15:50	19-Jun-20 09:23	HDPE Bottle, 250 mL

Vista Project: 2001315

Client Project: MCAS El Toro and Tustin, PFAS

ANALYTICAL RESULTS



Sample ID: Method Blank						PFAS Isotope Dilution Table B-15					
Client Data Name: KMEA Matrix: Aqueous Project: MCAS El Toro and Tustin, PFAS						Laboratory Data Lab Sample: B0F0205-BLK1 Column: BEH C18					
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFHxA	307-24-4	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
HFPO-DA	13252-13-6	ND	0.00241	0.00300	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFHpA	375-85-9	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
ADONA	919005-14-4	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFHxS	355-46-4	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFOA	335-67-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFNA	375-95-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFOS	1763-23-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
9CI-PF3ONS	756426-58-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFDA	335-76-2	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
MeFOSAA	2355-31-9	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
EtFOSAA	2991-50-6	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFUnA	2058-94-8	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
11CI-PF3OUdS	763051-92-9	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFDaA	307-55-1	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFTTrDA	72629-94-8	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
PFTeDA	376-06-7	ND	0.00137	0.00200	0.00400		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	69.3	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C3-HFPO-DA	IS	66.5	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFHxA	IS	64.6	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C4-PFHpA	IS	70.6	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C3-PFHxS	IS	67.5	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C5-PFNA	IS	68.3	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFOA	IS	69.6	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C8-PFOS	IS	74.5	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFDA	IS	61.5	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
d3-MeFOSAA	IS	51.7	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFUnA	IS	50.1	50 - 150				B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
d5-EtFOSAA	IS	49.0	50 - 150		H		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFDaA	IS	46.4	50 - 150		H		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1
13C2-PFTeDA	IS	39.0	50 - 150		H		B0F0205	30-Jun-20	0.250 L	02-Jul-20 12:14	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: LCSD										PFAS Isotope Dilution Table B-15						
Name: KMEA Project: MCAS El Toro and Tustin, PFAS Matrix: Aqueous					Lab Sample: B0F0205-BS1/B0F0205-BSD1 QC Batch: B0F0205 Samp Size: 0.250/0.250 L					Date Extracted: 30-Jun-20 Column: BEH C18						
Analyte	CAS Number	LCS (ug/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ug/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	375-73-5	0.0484	0.0400	121		0.0465	0.0400	116	4.08		72-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFHxA	307-24-4	0.0504	0.0400	126		0.0486	0.0400	122	3.66		72-129	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
HFPO-DA	13252-13-6	0.0481	0.0400	120		0.0491	0.0400	123	2.00		70-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFHpA	375-85-9	0.0442	0.0400	110		0.0455	0.0400	114	3.01		72-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
ADONA	919005-14-4	0.0416	0.0400	104		0.0478	0.0400	119	13.7		70-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFHxS	355-46-4	0.0467	0.0400	117		0.0437	0.0400	109	6.69		68-131	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFOA	335-67-1	0.0477	0.0400	119		0.0487	0.0400	122	2.15		71-133	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFNA	375-95-1	0.0459	0.0400	115		0.0427	0.0400	107	7.30		69-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFOS	1763-23-1	0.0451	0.0400	113		0.0445	0.0400	111	1.34		65-140	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
9Cl-PF3ONS	756426-58-1	0.0429	0.0400	107		0.0464	0.0400	116	7.87		70-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFDA	335-76-2	0.0475	0.0400	119		0.0514	0.0400	129	7.83		71-129	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
MeFOSAA	2355-31-9	0.0455	0.0400	114		0.0421	0.0400	105	7.86		65-136	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
EtFOSAA	2991-50-6	0.0450	0.0400	112		0.0467	0.0400	117	3.66		61-135	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFUnA	2058-94-8	0.0452	0.0400	113		0.0431	0.0400	108	4.84		69-133	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
11Cl-PF3OUdS	763051-92-9	0.0469	0.0400	117		0.0410	0.0400	102	13.5		70-130	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFDoA	307-55-1	0.0487	0.0400	122		0.0442	0.0400	110	9.63		72-134	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFTriDA	72629-94-8	0.0426	0.0400	107		0.0410	0.0400	102	4.01		65-144	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
PFTeDA	376-06-7	0.0518	0.0400	130		0.0465	0.0400	116	10.8		71-132	30	02-Jul-20 12:24	1	02-Jul-20 12:35	1
Labeled Standards		Type		LCS % Rec	LCS Quals			LCSD % Rec		LCSD Quals	Limits		LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBS		IS		63.8				66.1			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C3-HFPO-DA		IS		55.5				57.3			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFHxA		IS		58.2				60.6			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C4-PFHpA		IS		63.8				66.2			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C3-PFHxS		IS		59.6				66.4			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C5-PFNA		IS		59.2				67.8			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFOA		IS		61.1				61.5			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C8-PFOS		IS		63.0				64.0			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFDA		IS		57.3				56.0			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
d3-MeFOSAA		IS		48.2	H			48.3		H	50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFUnA		IS		46.2	H			51.3			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
d5-EtFOSAA		IS		45.4	H			41.7		H	50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1
13C2-PFDoA		IS		45.5	H			50.3			50-150		02-Jul-20 12:24	1	02-Jul-20 12:35	1



Sample ID: LCSD				PFAS Isotope Dilution Table B-15						
Name: KMEA		Lab Sample: B0F0205-BS1/B0F0205-BSD1				Date Extracted: 30-Jun-20				
Project: MCAS El Toro and Tustin, PFAS		QC Batch: B0F0205				Column: BEH C18				
Matrix: Aqueous		Samp Size: 0.250/0.250 L								
Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C2-PFTeDA	IS	44.7	H	48.8	H	50-150	02-Jul-20 12:24	1	02-Jul-20 12:35	1



Sample ID: SB01-20200618						PFAS Isotope Dilution Table B-15					
Client Data Name: KMEA Project: MCAS El Toro and Tustin, PFAS Matrix: Blank Water Date Collected: 18-Jun-20 08:00						Laboratory Data Lab Sample: 2001315-01 Date Received: 19-Jun-20 09:23 Column: BEH C18					
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFHxA	307-24-4	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
HFPO-DA	13252-13-6	ND	0.00244	0.00304	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFHpA	375-85-9	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
ADONA	919005-14-4	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFHxS	355-46-4	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFOA	335-67-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFNA	375-95-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFOS	1763-23-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
9CI-PF3ONS	756426-58-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFDA	335-76-2	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
MeFOSAA	2355-31-9	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
EtFOSAA	2991-50-6	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFUnA	2058-94-8	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
11CI-PF3OUdS	763051-92-9	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFDaA	307-55-1	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFTTrDA	72629-94-8	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
PFTeDA	376-06-7	ND	0.00139	0.00202	0.00404		B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	75.8	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C3-HFPO-DA	IS	62.2	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFHxA	IS	65.2	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C4-PFHpA	IS	71.2	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C3-PFHxS	IS	71.3	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C5-PFNA	IS	69.5	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFOA	IS	68.8	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C8-PFOS	IS	76.1	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFDA	IS	68.2	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
d3-MeFOSAA	IS	68.2	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFUnA	IS	62.0	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
d5-EtFOSAA	IS	61.4	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFDaA	IS	63.2	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1
13C2-PFTeDA	IS	57.7	50 - 150				B0F0205	30-Jun-20	0.247 L	02-Jul-20 13:14	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: EB01-20200618						PFAS Isotope Dilution Table B-15					
Client Data Name: KMEA Project: MCAS El Toro and Tustin, PFAS Matrix: Blank Water Date Collected: 18-Jun-20 07:00						Laboratory Data Lab Sample: 2001315-02 Date Received: 19-Jun-20 09:23 Column: BEH C18					
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFHxA	307-24-4	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
HFPO-DA	13252-13-6	ND	0.00236	0.00294	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFHpA	375-85-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
ADONA	919005-14-4	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFHxS	355-46-4	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFOA	335-67-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFNA	375-95-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFOS	1763-23-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
9CI-PF3ONS	756426-58-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFDA	335-76-2	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
MeFOSAA	2355-31-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
EtFOSAA	2991-50-6	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFUnA	2058-94-8	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
11CI-PF3OUdS	763051-92-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFDaA	307-55-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFTTrDA	72629-94-8	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
PFTeDA	376-06-7	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	74.7	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C3-HFPO-DA	IS	66.9	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFHxA	IS	69.6	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C4-PFHpA	IS	75.8	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C3-PFHxS	IS	74.3	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C5-PFNA	IS	72.1	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFOA	IS	69.5	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C8-PFOS	IS	83.0	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFDA	IS	67.9	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
d3-MeFOSAA	IS	62.4	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFUnA	IS	62.9	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
d5-EtFOSAA	IS	57.1	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFDaA	IS	65.4	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1
13C2-PFTeDA	IS	53.6	50 - 150				B0F0205	30-Jun-20	0.255 L	02-Jul-20 13:24	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: 24-GW-15DBMW51-20200618						PFAS Isotope Dilution Table B-15					
Client Data						Laboratory Data					
Name: KMEA		Matrix: Groundwater		Lab Sample: 2001315-03		Column: BEH C18					
Project: MCAS El Toro and Tustin, PFAS		Date Collected: 18-Jun-20 08:30		Date Received: 19-Jun-20 09:23							
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.00458	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFHxA	307-24-4	0.0139	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
HFPO-DA	13252-13-6	ND	0.00234	0.00291	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFHpA	375-85-9	0.00290	0.00133	0.00194	0.00388	J, Q	B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
ADONA	919005-14-4	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFHxS	355-46-4	0.0248	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFOA	335-67-1	0.0126	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFNA	375-95-1	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFOS	1763-23-1	0.0119	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
9CI-PF3ONS	756426-58-1	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFDA	335-76-2	0.00134	0.00133	0.00194	0.00388	J, Q	B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
MeFOSAA	2355-31-9	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
EtFOSAA	2991-50-6	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFUnA	2058-94-8	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
11CI-PF3OUdS	763051-92-9	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFDaA	307-55-1	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFTTrDA	72629-94-8	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
PFTeDA	376-06-7	ND	0.00133	0.00194	0.00388		B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
Labeled Standards	Type	% Recovery	Limits			Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	72.8	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C3-HFPO-DA	IS	66.0	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFHxA	IS	67.0	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C4-PFHpA	IS	72.5	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C3-PFHxS	IS	67.2	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C5-PFNA	IS	68.0	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFOA	IS	70.8	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C8-PFOS	IS	76.2	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFDA	IS	66.2	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
d3-MeFOSAA	IS	54.9	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFUnA	IS	61.0	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
d5-EtFOSAA	IS	61.4	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFDaA	IS	58.3	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1
13C2-PFTeDA	IS	55.7	50 - 150				B0F0205	30-Jun-20	0.258 L	02-Jul-20 13:35	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: 24-GW-24NEW8-20200618						PFAS Isotope Dilution Table B-15					
Client Data					Laboratory Data						
Name: KMEA		Matrix: Groundwater		Lab Sample: 2001315-04		Column: BEH C18					
Project: MCAS El Toro and Tustin, PFAS		Date Collected: 18-Jun-20 10:30		Date Received: 19-Jun-20 09:23							
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0738	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFHxA	307-24-4	0.232	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
HFPO-DA	13252-13-6	ND	0.00227	0.00283	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFHpA	375-85-9	0.0176	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
ADONA	919005-14-4	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFHxS	355-46-4	0.0208	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFOA	335-67-1	0.0397	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFNA	375-95-1	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFOS	1763-23-1	0.0180	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
9CI-PF3ONS	756426-58-1	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFDA	335-76-2	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
MeFOSAA	2355-31-9	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
EtFOSAA	2991-50-6	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFUnA	2058-94-8	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
11CI-PF3OUdS	763051-92-9	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFDaA	307-55-1	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFTrDA	72629-94-8	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
PFTeDA	376-06-7	ND	0.00129	0.00189	0.00377		B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBS	IS	75.2	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C3-HFPO-DA	IS	62.5	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C2-PFHxA	IS	63.4	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C4-PFHpA	IS	68.7	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C3-PFHxS	IS	70.2	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C5-PFNA	IS	69.2	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C2-PFOA	IS	69.7	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C8-PFOS	IS	81.4	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C2-PFDA	IS	66.8	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
d3-MeFOSAA	IS	68.0	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C2-PFUnA	IS	56.5	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
d5-EtFOSAA	IS	61.3	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C2-PFDaA	IS	55.6	50 - 150			B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	
13C2-PFTeDA	IS	44.3	50 - 150		H	B0F0205	30-Jun-20	0.265 L	02-Jul-20 13:45	1	

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: 24-GW-09DGMW75R-20200618						PFAS Isotope Dilution Table B-15					
Client Data					Laboratory Data						
Name: KMEA		Matrix: Groundwater		Lab Sample: 2001315-05		Column: BEH C18					
Project: MCAS El Toro and Tustin, PFAS		Date Collected: 18-Jun-20 11:30		Date Received: 19-Jun-20 09:23							
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0401	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFHxA	307-24-4	0.0914	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
HFPO-DA	13252-13-6	ND	0.00225	0.00280	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFHpA	375-85-9	0.0100	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
ADONA	919005-14-4	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFHxS	355-46-4	0.0302	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFOA	335-67-1	0.0142	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFNA	375-95-1	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFOS	1763-23-1	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
9CI-PF3ONS	756426-58-1	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFDA	335-76-2	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
MeFOSAA	2355-31-9	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
EtFOSAA	2991-50-6	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFUnA	2058-94-8	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
11CI-PF3OUdS	763051-92-9	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFDaA	307-55-1	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFTTrDA	72629-94-8	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
PFTeDA	376-06-7	ND	0.00128	0.00187	0.00374		B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBS	IS	68.1	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C3-HFPO-DA	IS	63.1	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C2-PFHxA	IS	63.6	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C4-PFHpA	IS	67.3	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C3-PFHxS	IS	69.7	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C5-PFNA	IS	69.1	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C2-PFOA	IS	69.8	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C8-PFOS	IS	70.1	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C2-PFDA	IS	63.4	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
d3-MeFOSAA	IS	59.9	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C2-PFUnA	IS	54.2	50 - 150			B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
d5-EtFOSAA	IS	48.3	50 - 150		H	B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C2-PFDaA	IS	48.1	50 - 150		H	B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	
13C2-PFTeDA	IS	40.7	50 - 150		H	B0F0205	30-Jun-20	0.268 L	02-Jul-20 13:56	1	

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: 24-GW-24NEW4-20200618						PFAS Isotope Dilution Table B-15					
Client Data					Laboratory Data						
Name: KMEA		Matrix: Groundwater		Lab Sample: 2001315-06		Column: BEH C18					
Project: MCAS El Toro and Tustin, PFAS		Date Collected: 18-Jun-20 13:20		Date Received: 19-Jun-20 09:23							
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.00979	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFHxA	307-24-4	0.0793	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
HFPO-DA	13252-13-6	ND	0.00232	0.00290	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFHpA	375-85-9	0.0172	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
ADONA	919005-14-4	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFHxS	355-46-4	0.0441	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFOA	335-67-1	0.167	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFNA	375-95-1	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFOS	1763-23-1	0.00312	0.00132	0.00193	0.00385	J	B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
9CI-PF3ONS	756426-58-1	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFDA	335-76-2	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
MeFOSAA	2355-31-9	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
EtFOSAA	2991-50-6	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFUnA	2058-94-8	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
11CI-PF3OUdS	763051-92-9	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFDaA	307-55-1	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFTTrDA	72629-94-8	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
PFTeDA	376-06-7	ND	0.00132	0.00193	0.00385		B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBS	IS	74.5	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C3-HFPO-DA	IS	64.2	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C2-PFHxA	IS	68.5	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C4-PFHpA	IS	66.8	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C3-PFHxS	IS	66.8	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C5-PFNA	IS	68.1	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C2-PFOA	IS	64.4	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C8-PFOS	IS	66.7	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C2-PFDA	IS	64.3	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
d3-MeFOSAA	IS	49.6	50 - 150		H	B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C2-PFUnA	IS	54.7	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
d5-EtFOSAA	IS	56.1	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C2-PFDaA	IS	53.9	50 - 150			B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	
13C2-PFTeDA	IS	49.1	50 - 150		H	B0F0205	30-Jun-20	0.259 L	06-Jul-20 16:46	1	

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: 24-GW-18PS8-20200618						PFAS Isotope Dilution Table B-15					
Client Data					Laboratory Data						
Name:	KMEA	Matrix:	Groundwater		Lab Sample:	2001315-07		Column:	BEH C18		
Project:	MCAS El Toro and Tustin, PFAS		Date Collected:	18-Jun-20 14:00		Date Received:	19-Jun-20 09:23				
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0110	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFHxA	307-24-4	0.0211	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
HFPO-DA	13252-13-6	ND	0.00243	0.00302	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFHpA	375-85-9	0.00465	0.00138	0.00202	0.00403	Q	B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
ADONA	919005-14-4	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFHxS	355-46-4	0.0291	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFOA	335-67-1	0.0121	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFNA	375-95-1	0.00192	0.00138	0.00202	0.00403	J	B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFOS	1763-23-1	0.177	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
9CI-PF3ONS	756426-58-1	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFDA	335-76-2	0.00155	0.00138	0.00202	0.00403	J	B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
MeFOSAA	2355-31-9	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
EtFOSAA	2991-50-6	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFUnA	2058-94-8	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
11CI-PF3OUdS	763051-92-9	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFDaA	307-55-1	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFTTrDA	72629-94-8	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
PFTeDA	376-06-7	ND	0.00138	0.00202	0.00403		B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBS	IS	70.8	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C3-HFPO-DA	IS	67.6	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C2-PFHxA	IS	67.1	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C4-PFHpA	IS	69.9	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C3-PFHxS	IS	68.7	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C5-PFNA	IS	71.5	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C2-PFOA	IS	71.1	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C8-PFOS	IS	76.0	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C2-PFDA	IS	66.1	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
d3-MeFOSAA	IS	69.2	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C2-PFUnA	IS	61.9	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
d5-EtFOSAA	IS	62.7	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C2-PFDaA	IS	60.9	50 - 150			B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	
13C2-PFTeDA	IS	44.7	50 - 150		H	B0F0205	30-Jun-20	0.248 L	02-Jul-20 14:17	1	

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: 24-GW-08DGMW73-20200618						PFAS Isotope Dilution Table B-15					
Client Data					Laboratory Data						
Name: KMEA		Matrix: Groundwater		Lab Sample: 2001315-08		Column: BEH C18					
Project: MCAS El Toro and Tustin, PFAS		Date Collected: 18-Jun-20 14:45		Date Received: 19-Jun-20 09:23							
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0145	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFHxA	307-24-4	0.0699	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
HFPO-DA	13252-13-6	ND	0.00236	0.00294	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFHpA	375-85-9	0.0144	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
ADONA	919005-14-4	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFHxS	355-46-4	0.356	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFOA	335-67-1	0.153	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFNA	375-95-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFOS	1763-23-1	0.0553	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
9CI-PF3ONS	756426-58-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFDA	335-76-2	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
MeFOSAA	2355-31-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
EtFOSAA	2991-50-6	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFUnA	2058-94-8	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
11CI-PF3OUdS	763051-92-9	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFDoA	307-55-1	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFTTrDA	72629-94-8	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
PFTeDA	376-06-7	ND	0.00134	0.00196	0.00392		B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBS	IS	70.7	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C3-HFPO-DA	IS	57.0	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C2-PFHxA	IS	58.2	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C4-PFHpA	IS	59.5	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C3-PFHxS	IS	69.1	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C5-PFNA	IS	59.7	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C2-PFOA	IS	59.2	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C8-PFOS	IS	68.0	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C2-PFDA	IS	59.7	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
d3-MeFOSAA	IS	59.7	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C2-PFUnA	IS	52.6	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
d5-EtFOSAA	IS	53.5	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C2-PFDoA	IS	54.0	50 - 150			B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	
13C2-PFTeDA	IS	49.6	50 - 150		H	B0F0205	30-Jun-20	0.255 L	06-Jul-20 16:57	1	

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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



Sample ID: 24-GW-18PS3A-20200618						PFAS Isotope Dilution Table B-15					
Client Data Name: KMEA Project: MCAS El Toro and Tustin, PFAS Matrix: Groundwater Date Collected: 18-Jun-20 15:50						Laboratory Data Lab Sample: 2001315-09 Date Received: 19-Jun-20 09:23 Column: BEH C18					
Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.107	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFHxA	307-24-4	0.522	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
HFPO-DA	13252-13-6	ND	0.00212	0.00264	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFHpA	375-85-9	0.0703	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
ADONA	919005-14-4	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFHxS	355-46-4	1.16	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFOA	335-67-1	0.243	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFNA	375-95-1	0.00131	0.00121	0.00176	0.00352	J, Q	B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFOS	1763-23-1	0.483	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
9CI-PF3ONS	756426-58-1	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFDA	335-76-2	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
MeFOSAA	2355-31-9	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
EtFOSAA	2991-50-6	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFUnA	2058-94-8	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
11CI-PF3OUdS	763051-92-9	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFDaA	307-55-1	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFTTrDA	72629-94-8	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
PFTeDA	376-06-7	ND	0.00121	0.00176	0.00352		B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	69.6	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C3-HFPO-DA	IS	60.9	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFHxA	IS	64.9	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C4-PFHpA	IS	68.8	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C3-PFHxS	IS	65.4	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C5-PFNA	IS	73.8	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFOA	IS	70.4	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C8-PFOS	IS	73.2	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFDA	IS	67.1	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
d3-MeFOSAA	IS	58.2	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFUnA	IS	53.4	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
d5-EtFOSAA	IS	50.6	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFDaA	IS	49.3	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1
13C2-PFTeDA	IS	41.1	50 - 150				B0F0205	30-Jun-20	0.284 L	02-Jul-20 14:38	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA 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
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
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
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

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

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
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
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

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 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

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 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

PAGE: 1 OF 1

MMEC-2405-0008-0085



Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2001315

TAT Std

Samples Arrival:	Date/Time <u>06/19/2020</u> <u>09:23</u>		Initials: <u>HOG</u>		Location: <u>WR-2</u>		
					Shelf/Rack: <u>NA</u>		
Delivered By:	☒ FedEx	☐ UPS	☐ On Trac	☐ GLS	☐ DHL	☐ Hand Delivered	☐ Other
Preservation:	☒ Ice		☐ Blue Ice		☐ Dry Ice		☐ None
Temp °C: <u>0.9</u> (uncorrected)	Probe used: Y ☒ N ☐		Thermometer ID: <u>IR-4</u>				
Temp °C: <u>0.9</u> (corrected)							

				YES	NO	NA
Shipping Container(s) Intact?				☒		
Shipping Custody Seals Intact?				☒		
Airbill <u>—</u>	Trk # <u>8142 4183 5169</u>			☒		
Shipping Documentation Present?				☒		
Shipping Container	Vista	☒ Client	Retain	☒ Return	Dispose	
Chain of Custody / Sample Documentation Present?				☒		
Chain of Custody / Sample Documentation Complete?				☒		
Holding Time Acceptable?				☒		
Logged In:	Date/Time <u>06/19/20</u> <u>1252</u>	Initials: <u>KS</u>	Location: <u>P-13</u> <u>WR-2</u>	Shelf/Rack: <u>A-4</u> <u>E-5</u>		
COC Anomaly/Sample Acceptance Form completed?					☒	☒

Comments:

CoC/Label Reconciliation Report WO# 2001315

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2001315-01	A SB01-20200618		18-Jun-20 08:00	HDPE Bottle, 250 mL	Aqueous	
2001315-01	B SB01-20200618		18-Jun-20 08:00	HDPE Bottle, 250 mL	Aqueous	
2001315-02	A EB01-20200618		18-Jun-20 07:00	HDPE Bottle, 250 mL	Aqueous	
2001315-02	B EB01-20200618		18-Jun-20 07:00	HDPE Bottle, 250 mL	Aqueous	
2001315-03	A 24-GW-15DBMW51-20200618		18-Jun-20 08:30	HDPE Bottle, 250 mL	Aqueous	
2001315-03	B 24-GW-15DBMW51-20200618		18-Jun-20 08:30	HDPE Bottle, 250 mL	Aqueous	
2001315-04	A 24-GW-24NFW8-20200618		18-Jun-20 10:30	HDPE Bottle, 250 mL	Aqueous	
2001315-04	B 24-GW-24NFW8-20200618		18-Jun-20 10:30	HDPE Bottle, 250 mL	Aqueous	
2001315-05	A 24-GW-09DGMW75R-20200618		18-Jun-20 11:30	HDPE Bottle, 250 mL	Aqueous	
2001315-05	B 24-GW-09DGMW75R-20200618		18-Jun-20 11:30	HDPE Bottle, 250 mL	Aqueous	
2001315-06	A 24-GW-24NEW4-20200618		18-Jun-20 13:20	HDPE Bottle, 250 mL	Aqueous	
2001315-06	B 24-GW-24NEW4-20200618		18-Jun-20 13:20	HDPE Bottle, 250 mL	Aqueous	
2001315-07	A 24-GW-18PS8-20200618		18-Jun-20 14:00	HDPE Bottle, 250 mL	Aqueous	
2001315-07	B 24-GW-18PS8-20200618		18-Jun-20 14:00	HDPE Bottle, 250 mL	Aqueous	
2001315-08	A 24-GW-08DGMW73-20200618		18-Jun-20 14:45	HDPE Bottle, 250 mL	Aqueous	
2001315-08	B 24-GW-08DGMW73-20200618		18-Jun-20 14:45	HDPE Bottle, 250 mL	Aqueous	
2001315-09	A 24-GW-18PS3A-20200618		18-Jun-20 15:50	HDPE Bottle, 250 mL	Aqueous	
2001315-09	B 24-GW-18PS3A-20200618		18-Jun-20 15:50	HDPE Bottle, 250 mL	Aqueous	

Checkmarks indicate that information on the CoC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA	Comments:
Sample Container Intact?	☒	☐	☐	
Sample Custody Seals Intact?	☐	☐	☒	
Adequate Sample Volume?	☒	☐	☐	
Container Type Appropriate for Analysis(es)	☒	☐	☐	
Preservation Documented: Na2S2O3 Trizma <u>None</u> Other	☐	☒	☒	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	☐	☐	☒	

Verified by/Date: Ka 06/19/20

EXTRACTION INFORMATION

Process Sheet

Workorder: **2001315**

Prep Expiration: 2020-07-02
Client: KMEA

Workorder Due: **10-Jul-20 00:00**

TAT: 21

Method: **537M PFAS DOD QSM 5.3 (LOQ as mRL)**
Matrix: **Aqueous**

Prep Batch: B0FC205

Version: 537.1 List of 18-EIS
DoD: DoD QSM 5.3

Prep Data Entered: TC 07/01/20
Date and Initials

Initial Sequence: 509005

LabSampleID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
2001315-01	↑	☒	☒	SB01-20200618		R-13 A-4	HDPE Bottle, 250 mL
2001315-02	A	☒	☒	EB01-20200618		R-13 A-4	HDPE Bottle, 250 mL
2001315-03	↑	☒	☒	24-GW-15DBMW51-20200618		R-13 A-4	HDPE Bottle, 250 mL
2001315-04	↓	☐	☐	24-GW-24NFW8-20200618	"24-GW-24NEW8-20200618"	R-13 A-4	HDPE Bottle, 250 mL
2001315-05		☒	☒	24-GW-09DGMW75R-20200618		R-13 A-4	HDPE Bottle, 250 mL
2001315-06		☒	☒	24-GW-24NEW4-20200618		R-13 A-4	HDPE Bottle, 250 mL
2001315-07		☒	☒	24-GW-18PS8-20200618		R-13 A-4	HDPE Bottle, 250 mL
2001315-08		☒	☒	24-GW-08DGMW73-20200618		R-13 A-4	HDPE Bottle, 250 mL
2001315-09	↓	☒	☒	24-GW-18PS3A-20200618		R-13 A-4	HDPE Bottle, 250 mL

WO Comments: **May have elevated PFAS levels - isolate samples.**
Instrument - begin w/ dils.
Report to DL

Pre-Prep Check Out: AM 06/24/20

Prep Check Out: TC 06/30/20

Prep Reconciled Initials/Date: AM 06/24/20

Pre-Prep Check In: AM 06/24/20

Prep Check In: N/A

Spike Reconciled Initials/Date: TC 06/24/20

VialBoxID: no!

Matrix: Aqueous

Method: 537M PFAS DOD QSM 5.3 (LOQ as mRL)

Vista Internal Chain-of-Custody

B0F0205



Location	L2	R-13	L2	R12	L2	R12	L4		
Reason	Prep	*R9	R4	R2	R4	R9	R8		
Initials	AM	AM	TC	HR	HR	TC	OP		
Date/Time	06/24/20 09:25	06/24/20 09:57	06/24/20 7:25	06/30/20 16:01	07/01/20 06:04	07/01/20 11:18	07/02/20 09:14		
Initial Storage	LabNumber	Cont							
R-13 A-4	2001315-01	A	O	O	O	E	E	E	E
R-13 A-4	2001315-02								
R-13 A-4	2001315-03								
R-13 A-4	2001315-04								
R-13 A-4	2001315-05								
R-13 A-4	2001315-06								
R-13 A-4	2001315-07								
R-13 A-4	2001315-08								
R-13 A-4	2001315-09								
R-13 A-3	2001326-01								

Location Key:
L1 = Prep Lab 1
L2 = Prep Lab 2
L3 = HRMS Diox
L4 = Instrument
Other = _____

Reason Key:
R1 = Percent Solids
R2 = Eluate Preservation
R3 = Sub-Sample
R4 = Extraction

R6 = Concentration
R7 = Filtering
R8 = Analysis
R9 = Storage
Other = _____

Type Key:
O = Original Sample
E = Extract of Sample

* AM 06/24/20
* 06/30/20 TC 06/30/20

Matrix: Aqueous

Method: 537M PFAS DOD QSM 5.3 (LOQ as mRL)

PREPARATION BENCH SHEET

B0F0205

Chemist: HR

Prep Date: 06/30/20

Prep Time: 0752

Hood#: 5

Prepared using: ☐ Sonication Shaker ☒ SPE Extraction ☒ Centrifuge ID: C3/C5

Rec Date/Initials: TL 07/01/20		Date/Initials: 06/24/20 AM		Balance ID: HRMS-9							
Cen	VISTA Sample ID	Rec Vial1	Rec Vial2	pH	Chlorine (Cl)	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE and Reconciliation	ENVI-Carb and Reconciliation
☒	B0F0205-BLK1	☒	☒	5	0	NA	NA	(0.250)	HR 06/30/20	HR 06/30/20	HR 06/30/20
☒	B0F0205-BS1	☒	☒	5	0			(0.250)			
☒	B0F0205-BSD1	☒	☒	5	0			(0.250)			
☐	2001315-01	☒	☒	5	0	273.32	26.05	0.24727			NA***
☐	2001315-02	☒	☒	5	0	280.99	26.00	0.25499			
☒	2001315-03	☒	☒	5	0	283.67	26.09	0.25758			
☒	2001315-04	☒	☒	6	0	291.65	26.50	0.26515			HR 06/30/20
☒	2001315-05	☒	☒	6	0	293.35	25.70	0.26765			NA***
☒	2001315-06	☒	☒	6	0	285.63	26.15	0.25948			
☒	2001315-07	☒	☒	6	0	274.30	25.95	0.24835			HR 06/30/20
☒	2001315-08	☒	☒	6	0	280.97	25.96	0.25501			
☒	2001315-09	☒	☒	6	0	310.138*	25.95	0.28418			
☐	2001326-01	☒	☒	7	0	130.12	18.00	0.11212			NA***

IS: 20E1201, 10mL, V14	SPE Chem: Strata XL-AW 100um 200mg 6mL	Notes: XAM 06/24/20
IS SUP: N/A	SPE Lot#: 518-006863	② HR 06/30/20
NS: 20E1202, 10mL, V12	ENVI-Carb Lot#: B03074	③ HR 06/30/20
NS SUP: N/A	Ele SOLV: MeOH/0.5%NH4OH in MeOH	*** all samples put through ENVI-Carb and reconciliation. HR 06/30/20
	Final Volume(s) 1 mL	

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Rec = Reconcile final vial transfer

- 1 = Sample centrifuged twice
- 2 = Sample deeply colored after centrifuge
- 3 = Cartridge sorbent discolored after SPE
- 4 = Sample clogged cartridge, additional cartridge(s) used
- 5 = Sample recombined at final volume

- 6 = Sample took longer to SPE, required stronger vacuum
- 7 = Required Nitrogen line to finish SPE
- 8 = Required Nitrogen line to finish elution
- 9 = Sample arrived with low volume
- 10 = Trizma added to QC (5g/L)

Batch: B0F0205

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2001315-01	0.24727 ✓	N/A	N/A	1000	30-Jun-20 07:52	HNR ✓			Blank Water	537M PFAS DOD QSM 5.3
2001315-02	0.25499 ✓			1000	30-Jun-20 07:52	HNR			Blank Water	537M PFAS DOD QSM 5.3
2001315-03	0.25758 ✓			1000	30-Jun-20 07:52	HNR			Groundwater	537M PFAS DOD QSM 5.3
2001315-04	0.26515 ✓			1000	30-Jun-20 07:52	HNR			Groundwater	537M PFAS DOD QSM 5.3
2001315-05	0.26765 ✓			1000	30-Jun-20 07:52	HNR			Groundwater	537M PFAS DOD QSM 5.3
2001315-06	0.25948 ✓			1000	30-Jun-20 07:52	HNR			Groundwater	537M PFAS DOD QSM 5.3
2001315-07	0.24835 ✓			1000	30-Jun-20 07:52	HNR			Groundwater	537M PFAS DOD QSM 5.3
2001315-08	0.25501 ✓			1000	30-Jun-20 07:52	HNR			Groundwater	537M PFAS DOD QSM 5.3
2001315-09	0.28418 ✓			1000	30-Jun-20 07:52	HNR			Groundwater	537M PFAS DOD QSM 5.3
2001326-01	0.11212 ✓			1000	30-Jun-20 07:52	HNR			Potable Water	537M PFAS DOD QSM 5.3
B0F0205-BLK1	0.25 ✓			1000	30-Jun-20 07:52	HNR				QC
B0F0205-BS1	0.25 ✓			1000	30-Jun-20 07:52	HNR	20E1202 ✓	10 ✓		QC
B0F0205-BSD1	0.25 ✓			1000	30-Jun-20 07:52	HNR	20E1202 ✓	10 ✓		QC

All bolded data on report verified against written benchsheet by (initial/date)

TC  07/01/20
* TC 07/01/20

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Sample Data – PFAS Isotope Dilution Table B-15

Quantify Sample Report **MassLynx V4.2 SCN977**

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-18-20.qld

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Printed: Friday, July 10, 2020 10:58:41 Pacific Daylight Time

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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80		8.883e2	0.250		2.32						YES
2	7 PFHxA	313.0 > 269.0		8.732e3	0.250		2.84						YES
3	9 HFPO-DA	285.1 > 168.9		1.928e3	0.250		3.07						YES
4	11 PFHpA	363.0 > 319		8.031e3	0.250		3.46						YES
5	12 ADONA	376.8 > 250.9		8.031e3	0.250		3.55						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	8.883e2		0.250	102.513	2.32	2.32	888	34.663	69.3		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	8.732e3		0.250	1081.420	2.84	2.84	8730	32.298	64.6		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.928e3		0.250	231.766	3.31	3.07	1930	33.267	66.5		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	8.031e3		0.250	909.870	3.46	3.46	8030	35.307	70.6		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	8.031e3		0.250	909.870	3.46	3.46	8030	35.307	70.6		
11	-1												
12	13 L-PFHxS	399 > 79.9		1.799e3	0.250		3.61						YES
13	1... Total PFHxS	399 > 79.9	0.000e0	1.799e3	0.250		3.93		0.000				
14	16 L-PFOA	413 > 369		9.161e3	0.250		3.97						YES
15	1... Total PFOA	413 > 369	0.000e0	9.161e3	0.250		4.60		0.000				
16	21 PFNA	463.0 > 418.8		9.200e3	0.250		4.42						YES
17	61 13C3-PFHxS-EIS	402 > 80	1.799e3		0.250	213.280	3.77	3.61	1800	33.739	67.5		
18	61 13C3-PFHxS-EIS	402 > 80	1.799e3		0.250	213.280	3.77	3.61	1800	33.739	67.5		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.161e3		0.250	1053.156	4.06	3.97	9160	34.795	69.6		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.161e3		0.250	1053.156	4.06	3.97	9160	34.795	69.6		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.200e3		0.250	1077.196	4.50	4.42	9200	34.162	68.3		
22	-1												
23	23 L-PFOS	499 > 80		1.808e3	0.250		4.51						YES
24	1... Total PFOS	499 > 80	0.000e0	1.808e3	0.250		4.60		0.000				
25	25 9CI-PF3ONS	531 > 351		1.808e3	0.250		4.71						YES
26	26 PFDA	513 > 469		9.993e3	0.250		4.81						YES
27	33 PFUdA	563.0 > 519		8.336e3	0.250		5.15						YES
28	71 13C8-PFOS-EIS	507.1 > 80	1.808e3		0.250	194.116	4.52	4.51	1810	37.263	74.5		
29	71 13C8-PFOS-EIS	507.1 > 80	1.808e3		0.250	194.116	4.52	4.51	1810	37.263	74.5		
30	71 13C8-PFOS-EIS	507.1 > 80	1.808e3		0.250	194.116	4.52	4.51	1810	37.263	74.5		
31	73 13C2-PFDA-EIS	515.1 > 469.9	9.993e3		0.250	1300.443	4.81	4.81	9990	30.739	61.5		
32	79 13C2-PFUdA-EIS	565 > 519.8	8.336e3		0.250	1330.460	5.15	5.15	8340	25.063	50.1		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.014e3	0.250		4.97						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.014e3	0.250		5.19		0.000				AMR for OPV 7/10/2020
36	31 L-EtFOSAA	583.9 > 419		1.985e3	0.250		5.13						YES

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-18-20.qld

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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	1.985e3	0.250		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		8.252e3	0.250		5.38						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.014e3		0.250	311.775	5.05	4.97	2010	25.844	51.7		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.014e3		0.250	311.775	5.05	4.97	2010	25.844	51.7		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	1.985e3		0.250	324.344	5.40	5.13	1980	24.479	49.0		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	1.985e3		0.250	324.344	5.40	5.13	1980	24.479	49.0		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	8.252e3		0.250	1423.871	5.58	5.44	8250	23.182	46.4		
44	-1												
45	37 PFDoA	612.9 > 569.0		8.252e3	0.250		5.44						YES
46	39 PFTrDA	662.9 > 618.9		8.252e3	0.250		5.69						YES
47	41 PFTeDA	713.0 > 669.0		7.327e3	0.250		5.92						YES
48	1... TDCA	498.3>106.9			0.250		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.808e3		0.250	194.116	4.52	4.51	1810	37.263	74.5		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	8.252e3		0.250	1423.871	5.58	5.44	8250	23.182	46.4		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	8.252e3		0.250	1423.871	5.58	5.44	8250	23.182	46.4		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	7.327e3		0.250	1503.225	5.92	5.92	7330	19.496	39.0		

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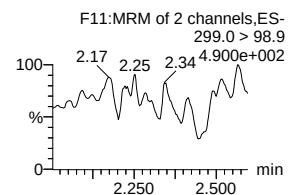
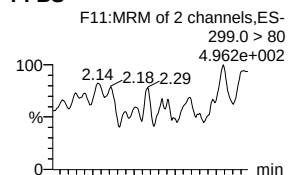
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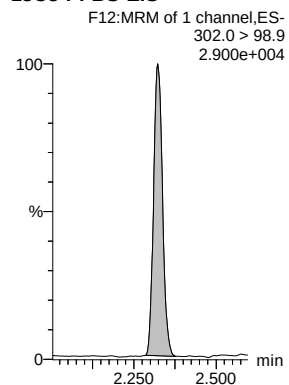
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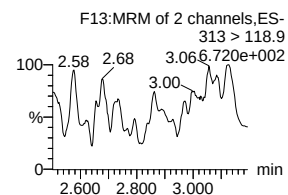
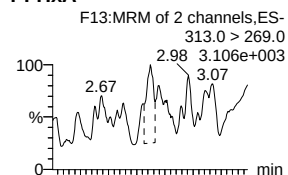
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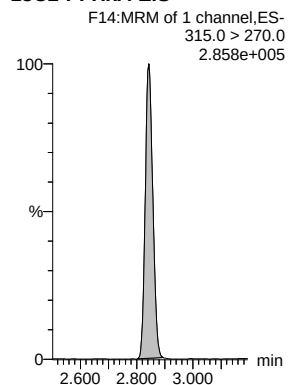
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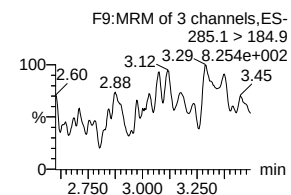
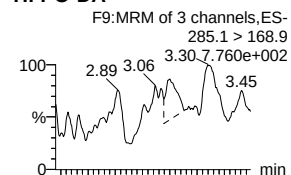
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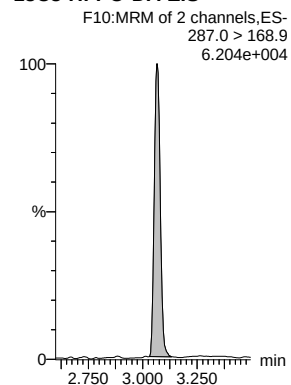
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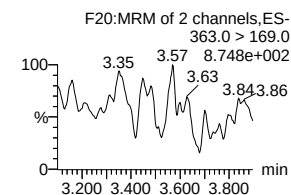
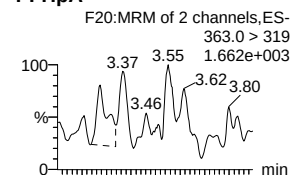
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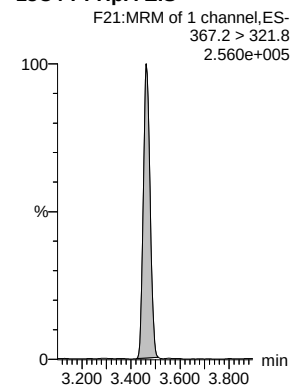
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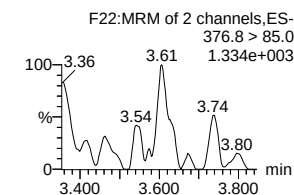
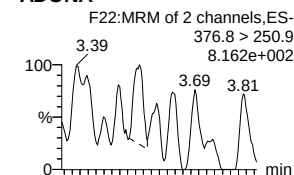
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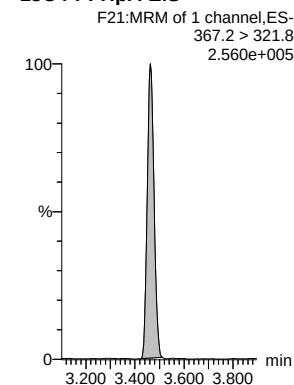
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ADONA



13C4-PFHpA-EIS



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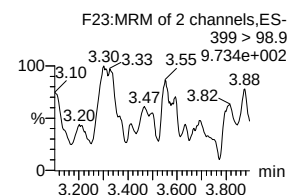
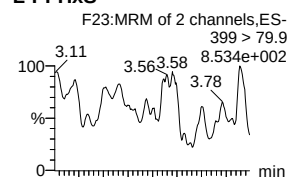
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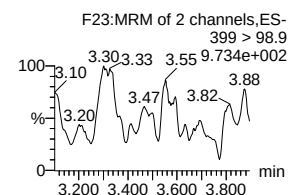
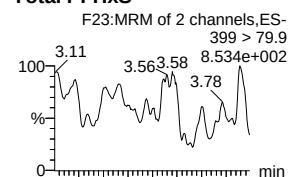
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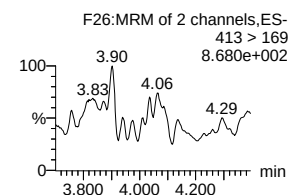
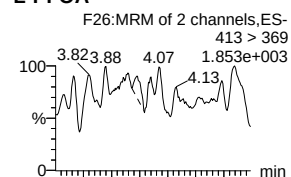
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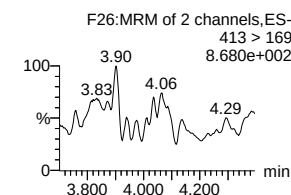
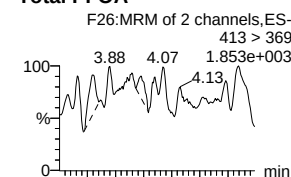
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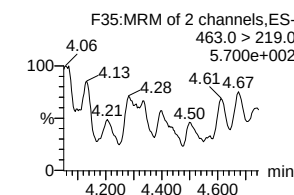
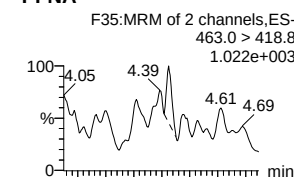
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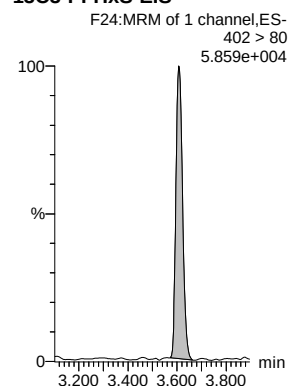
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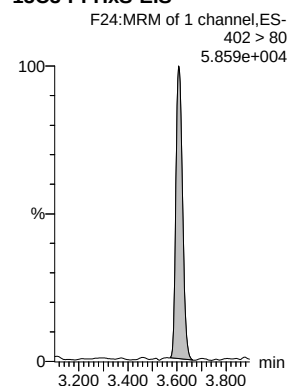
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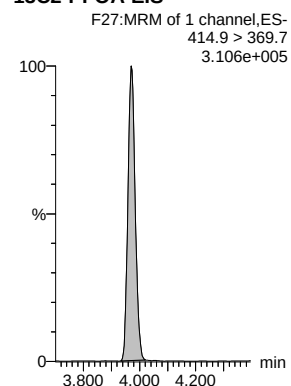
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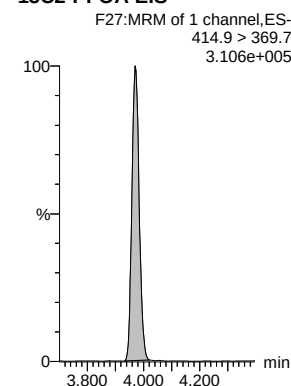
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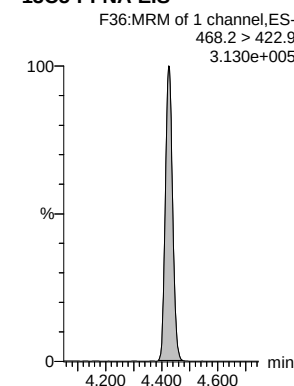
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13C2-PFOA-EIS



13C5-PFNA-EIS



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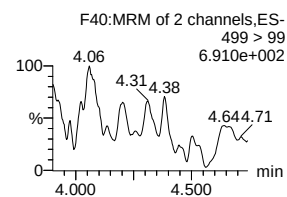
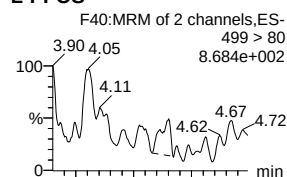
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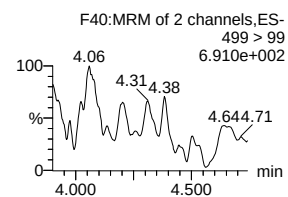
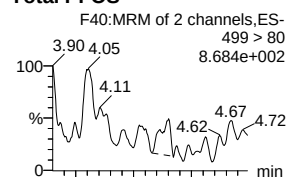
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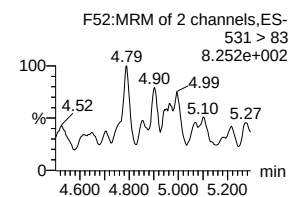
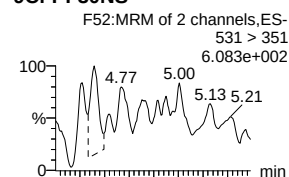
L-PFOS



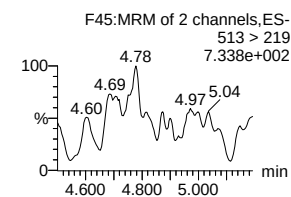
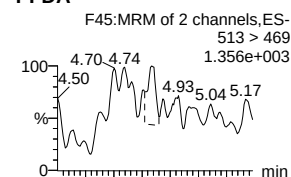
Total PFOS



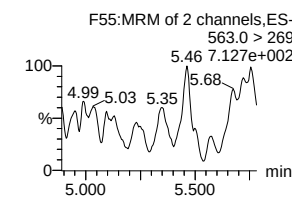
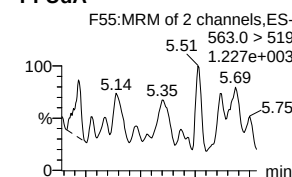
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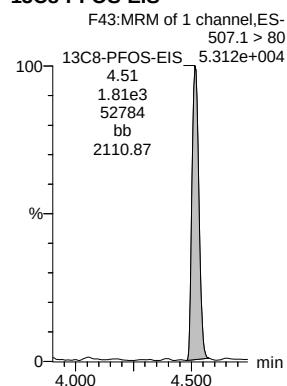
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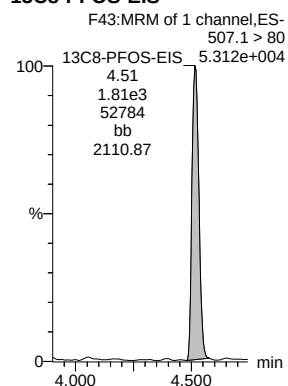
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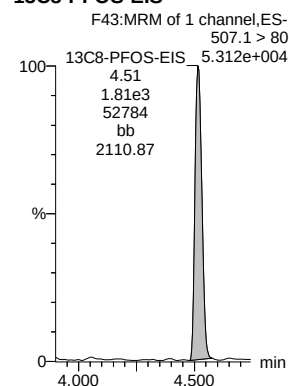
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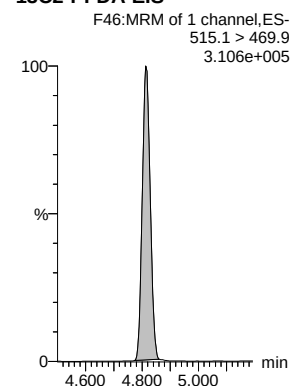
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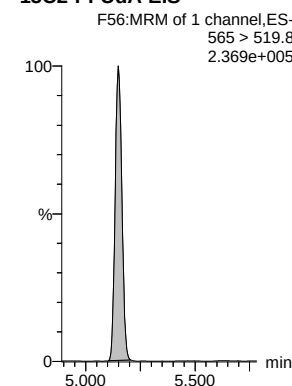
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13C2-PFDA-EIS



13C2-PFUdA-EIS



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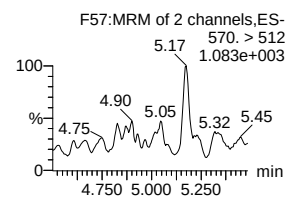
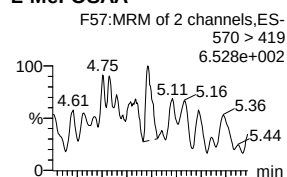
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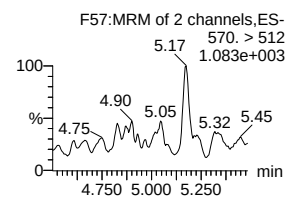
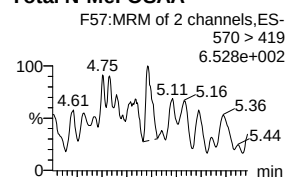
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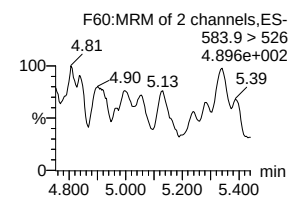
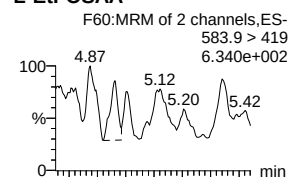
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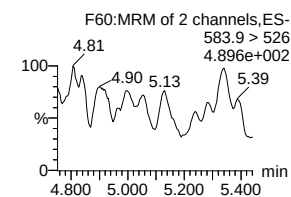
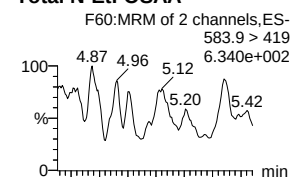
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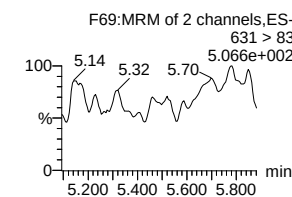
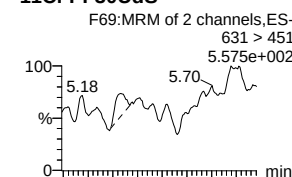
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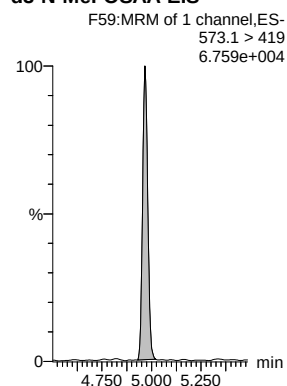
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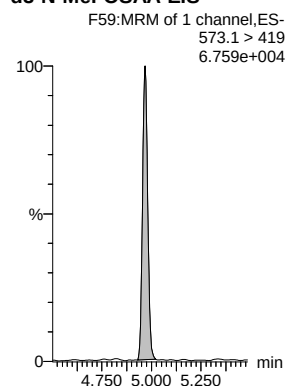
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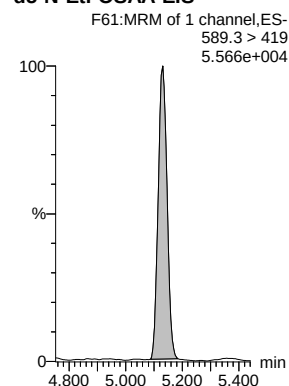
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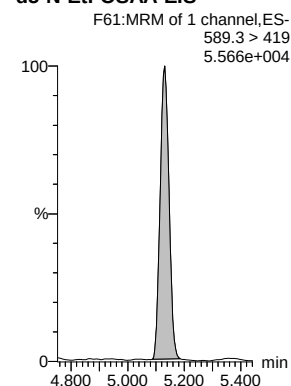
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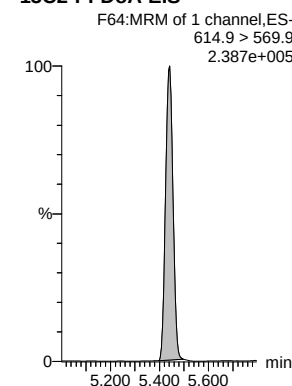
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



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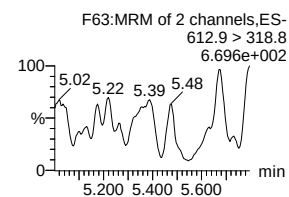
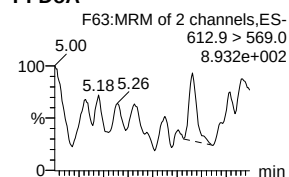
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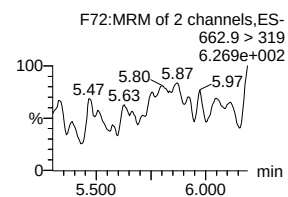
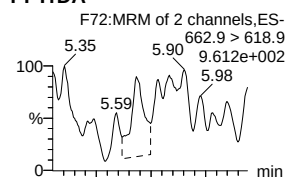
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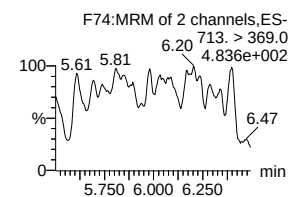
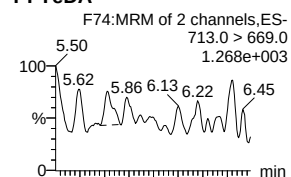
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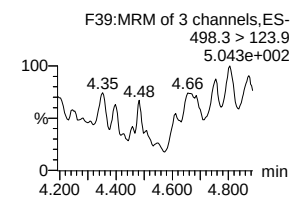
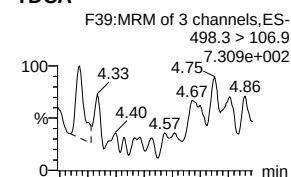
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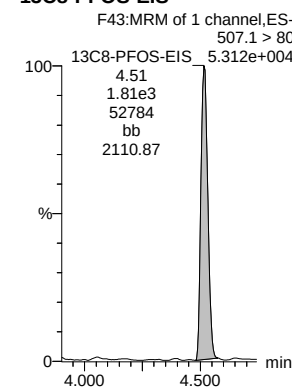
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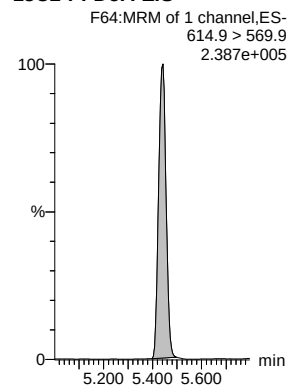
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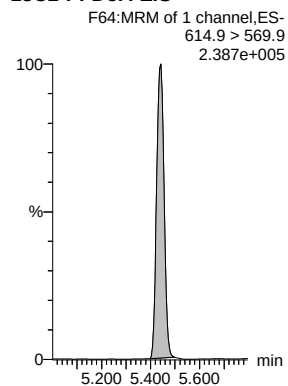
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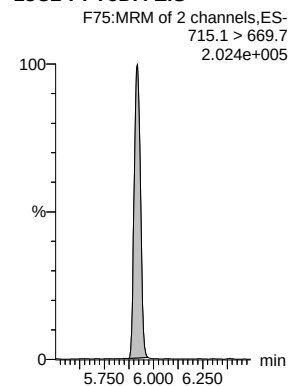
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13C2-PFDoA-EIS



13C2-PFTeDA-EIS



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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	1.994e3	8.181e2	0.250		2.32	2.32	30.5	48.426	121.1	2.427	NO
2	7 PFHxA	313.0 > 269.0	8.127e3	7.871e3	0.250		2.84	2.84	12.9	50.431	126.1	14.489	NO
3	9 HFPO-DA	285.1 > 168.9	1.520e3	1.607e3	0.250		3.07	3.07	11.8	48.127	120.3	2.275	NO
4	11 PFHpA	363.0 > 319	8.646e3	7.255e3	0.250		3.46	3.46	14.9	44.188	110.5	49.145	NO
5	12 ADONA	376.8 > 250.9	1.309e4	7.255e3	0.250		3.55	3.57	22.5	41.649	104.1	3.800	NO
6	51 13C3-PFBS-EIS	302.0 > 98.9	8.181e2		0.250	102.513	2.32	2.32	818	31.923	63.8		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	7.871e3		0.250	1081.420	2.84	2.84	7870	29.112	58.2		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.607e3		0.250	231.766	3.31	3.07	1610	27.738	55.5		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	7.255e3		0.250	909.870	3.46	3.46	7250	31.894	63.8		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	7.255e3		0.250	909.870	3.46	3.46	7250	31.894	63.8		
11	-1												
12	13 L-PFHxS	399 > 79.9	1.647e3	1.590e3	0.250		3.61	3.61	12.9	46.694	116.7	3.670	NO
13	1... Total PFHxS	399 > 79.9	1.647e3	1.590e3	0.250		3.93		12.9	46.694			
14	16 L-PFOA	413 > 369	8.470e3	8.047e3	0.250		3.97	3.97	13.2	47.711	119.3	3.027	NO
15	1... Total PFOA	413 > 369	8.470e3	8.047e3	0.250		4.60		13.2	47.711			
16	21 PFNA	463.0 > 418.8	8.584e3	7.976e3	0.250		4.43	4.42	13.5	45.885	114.7	13.374	NO
17	61 13C3-PFHxS-EIS	402 > 80	1.590e3		0.250	213.280	3.77	3.61	1590	29.825	59.6		
18	61 13C3-PFHxS-EIS	402 > 80	1.590e3		0.250	213.280	3.77	3.61	1590	29.825	59.6		
19	69 13C2-PFOA-EIS	414.9 > 369.7	8.047e3		0.250	1053.156	4.06	3.97	8050	30.565	61.1		
20	69 13C2-PFOA-EIS	414.9 > 369.7	8.047e3		0.250	1053.156	4.06	3.97	8050	30.565	61.1		
21	65 13C5-PFNA-EIS	468.2 > 422.9	7.976e3		0.250	1077.196	4.50	4.43	7980	29.618	59.2		
22	-1												
23	23 L-PFOS	499 > 80	1.708e3	1.529e3	0.250		4.52	4.52	14.0	45.145	112.9	2.293	NO
24	1... Total PFOS	499 > 80	1.708e3	1.529e3	0.250		4.60		14.0	45.145			
25	25 9CI-PF3ONS	531 > 351	3.460e3	1.529e3	0.250		4.72	4.74	28.3	42.889	107.2	28.904	NO
26	26 PFDA	513 > 469	7.542e3	9.315e3	0.250		4.81	4.81	10.1	47.548	118.9	5.282	NO
27	33 PFUdA	563.0 > 519	7.728e3	7.677e3	0.250		5.15	5.15	12.6	45.205	113.0	21.156	NO
28	71 13C8-PFOS-EIS	507.1 > 80	1.529e3		0.250	194.116	4.52	4.52	1530	31.514	63.0		
29	71 13C8-PFOS-EIS	507.1 > 80	1.529e3		0.250	194.116	4.52	4.52	1530	31.514	63.0		
30	71 13C8-PFOS-EIS	507.1 > 80	1.529e3		0.250	194.116	4.52	4.52	1530	31.514	63.0		
31	73 13C2-PFDA-EIS	515.1 > 469.9	9.315e3		0.250	1300.443	4.81	4.81	9310	28.651	57.3		
32	79 13C2-PFUdA-EIS	565 > 519.8	7.677e3		0.250	1330.460	5.15	5.15	7680	23.081	46.2		
33	-1												
34	29 L-MeFOSAA	570 > 419	2.030e3	1.877e3	0.250		4.97	4.97	13.5	45.508	113.8	1.760	NO
35	1... Total N-MeFOSAA	570. > 419	2.030e3	1.877e3	0.250		5.19		13.5	45.508			
36	31 L-EtFOSAA	583.9 > 419	2.301e3	1.840e3	0.250		5.13	5.14	15.6	44.985	112.5	1.392	AMR for OPV 7/10/2020 NO

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-18-20.qld

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Name: 200702P1-19, Date: 02-Jul-2020, Time: 12:24:49, ID: B0F0205-BS1 OPR 0.25, Description: OPR

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	2.301e3	1.840e3	0.250		5.37		15.6	44.985			
38	35 11Cl-PF30UdS	631 > 451	2.467e3	8.096e3	0.250		5.38	5.37	3.81	46.897	117.2	21.504	NO
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	1.877e3		0.250	311.775	5.05	4.97	1880	24.075	48.2		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	1.877e3		0.250	311.775	5.05	4.97	1880	24.075	48.2		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	1.840e3		0.250	324.344	5.40	5.13	1840	22.698	45.4		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	1.840e3		0.250	324.344	5.40	5.13	1840	22.698	45.4		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	8.096e3		0.250	1423.871	5.58	5.44	8100	22.743	45.5		
44	-1												
45	37 PFDoA	612.9 > 569.0	7.751e3	8.096e3	0.250		5.44	5.44	12.0	48.650	121.6	13.144	NO
46	39 PFTrDA	662.9 > 618.9	7.352e3	8.096e3	0.250		5.69	5.70	11.4	42.631	106.6	129.382	NO
47	41 PFTeDA	713.0 > 669.0	5.819e3	8.399e3	0.250		5.92	5.92	8.66	51.801	129.5	15.112	NO
48	1... TDCA	498.3>106.9			0.250		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.529e3		0.250	194.116	4.52	4.52	1530	31.514	63.0		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	8.096e3		0.250	1423.871	5.58	5.44	8100	22.743	45.5		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	8.096e3		0.250	1423.871	5.58	5.44	8100	22.743	45.5		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	8.399e3		0.250	1503.225	5.92	5.92	8400	22.350	44.7		

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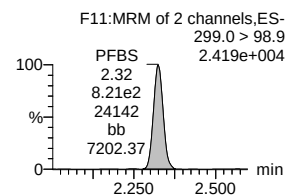
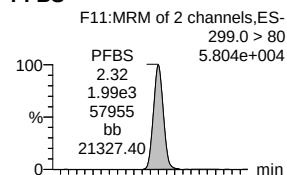
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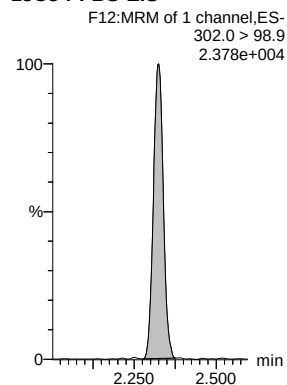
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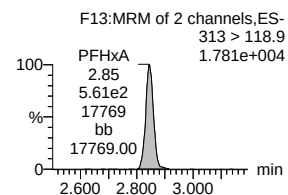
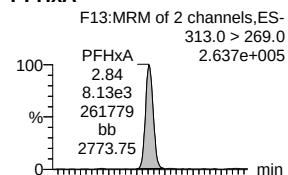
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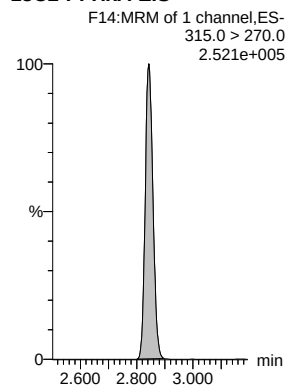
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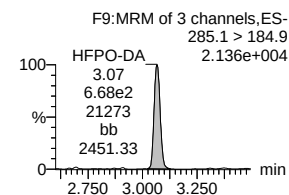
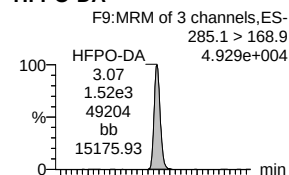
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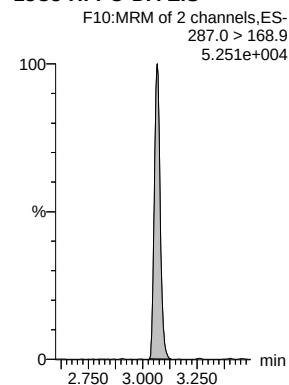
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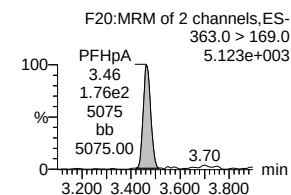
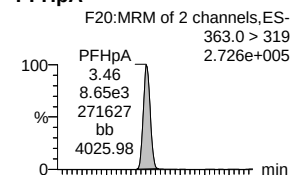
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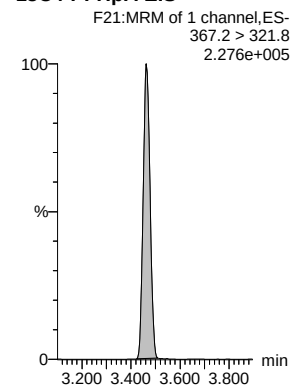
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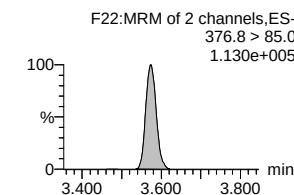
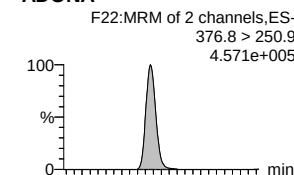
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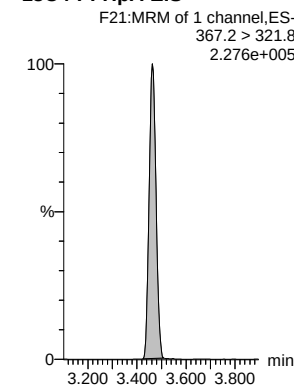
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13C4-PFHpA-EIS



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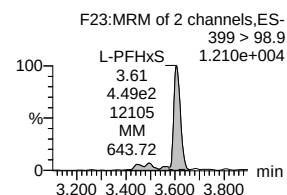
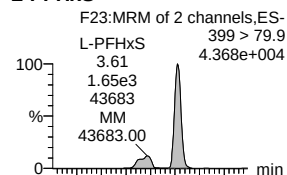
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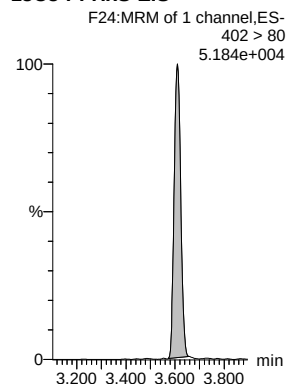
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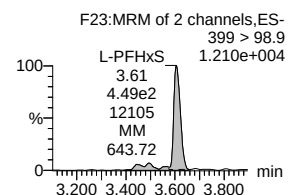
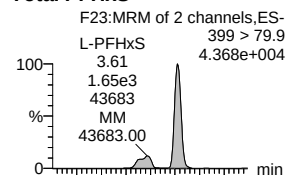
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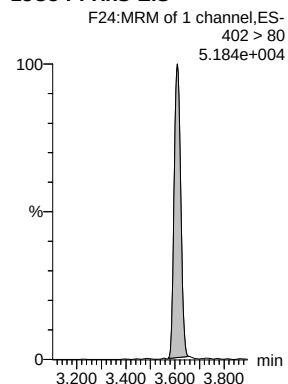
13C3-PFHxS-EIS



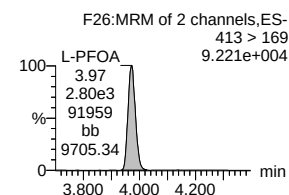
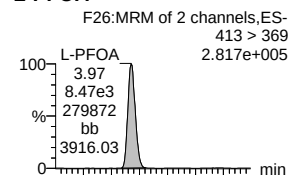
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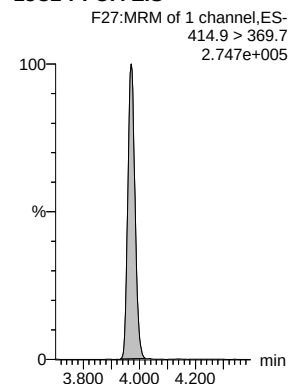
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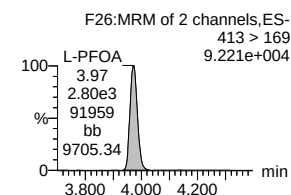
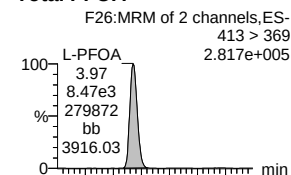
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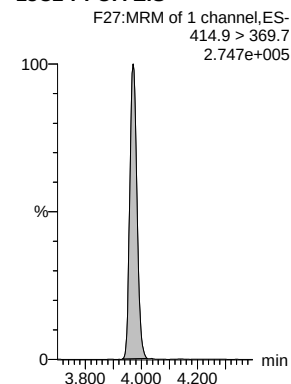
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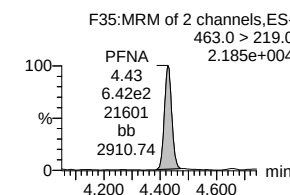
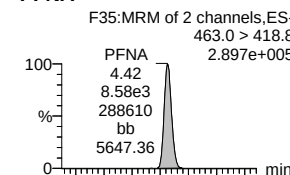
Total PFOA



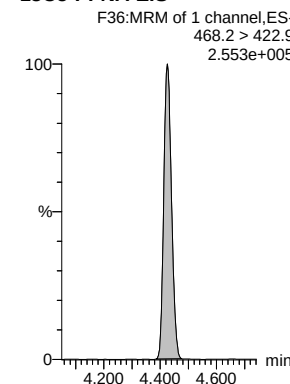
13C2-PFOA-EIS



PFNA



13C5-PFNA-EIS



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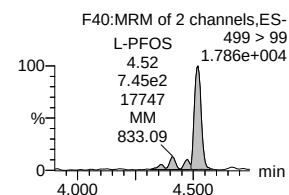
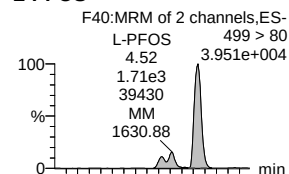
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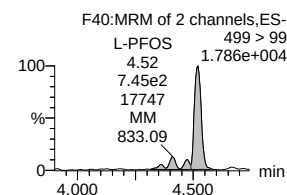
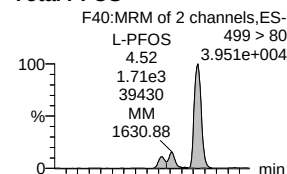
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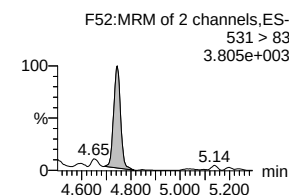
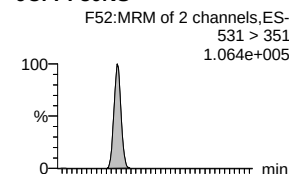
L-PFOS



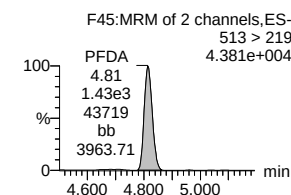
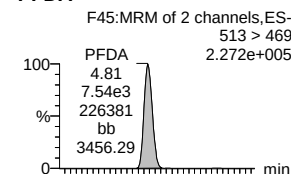
Total PFOS



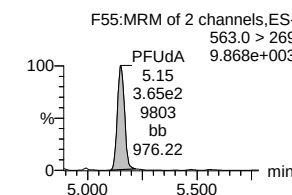
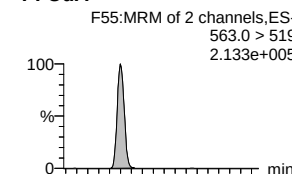
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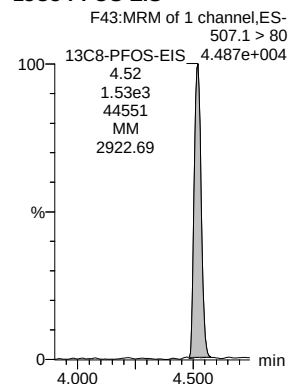
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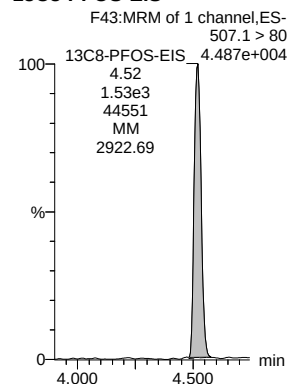
PFUdA



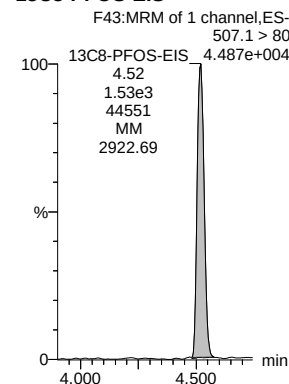
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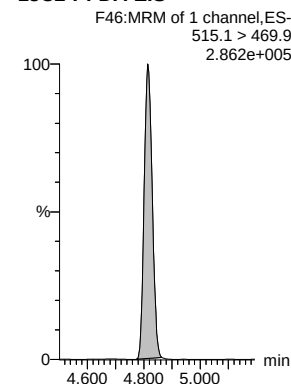
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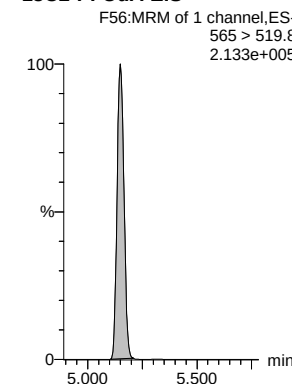
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-PFUdA-EIS



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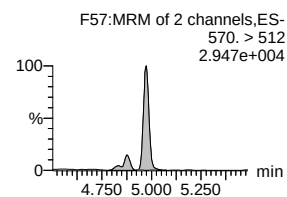
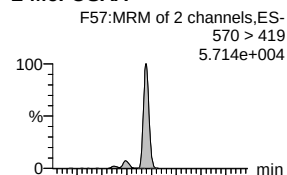
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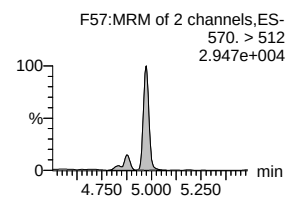
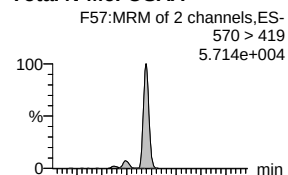
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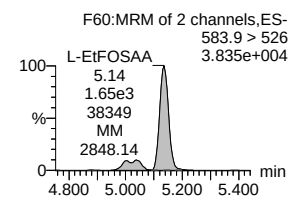
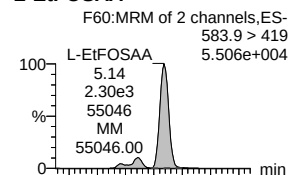
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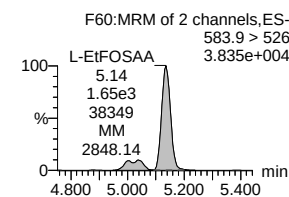
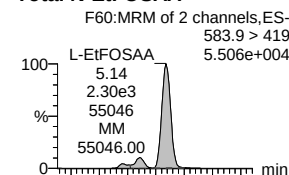
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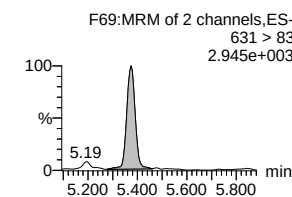
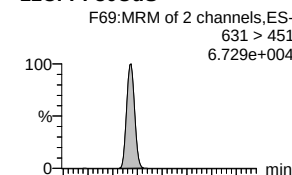
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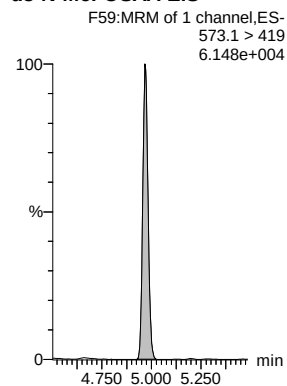
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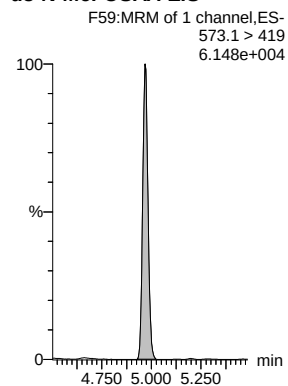
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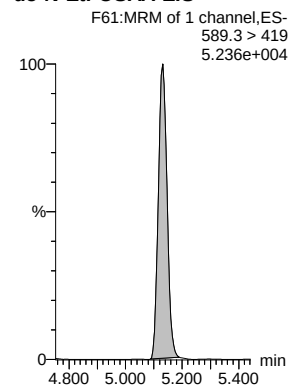
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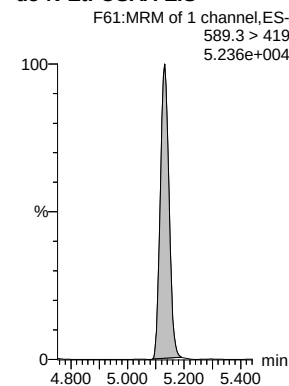
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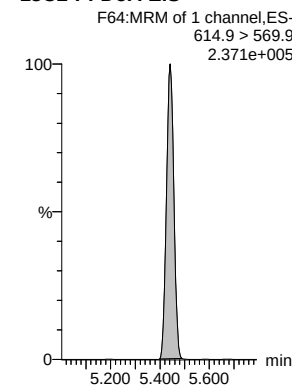
d5-N-EtFOSAA-EIS



d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



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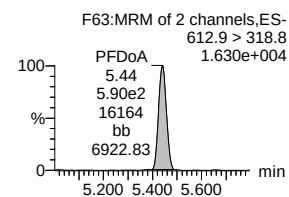
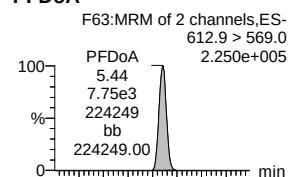
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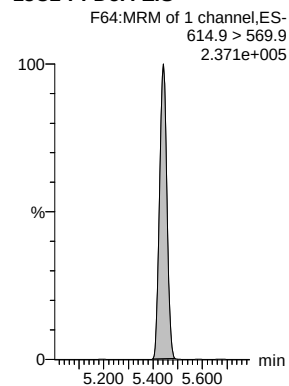
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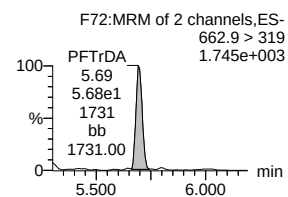
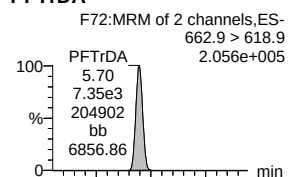
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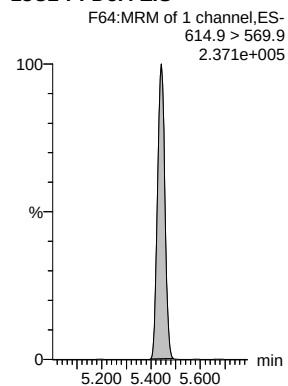
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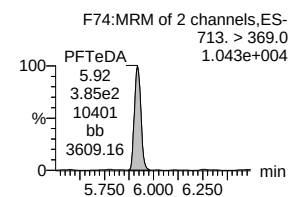
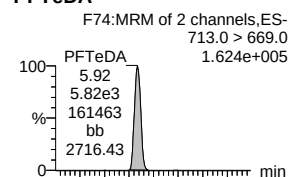
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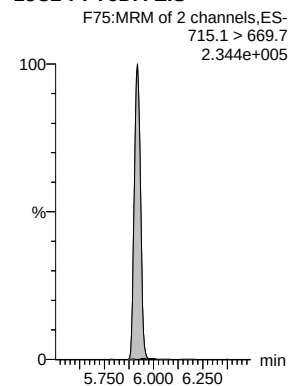
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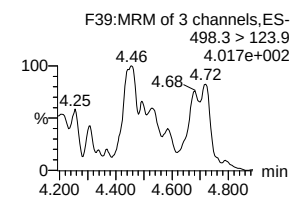
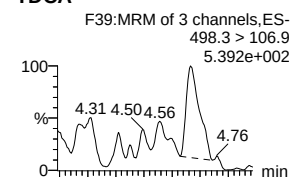
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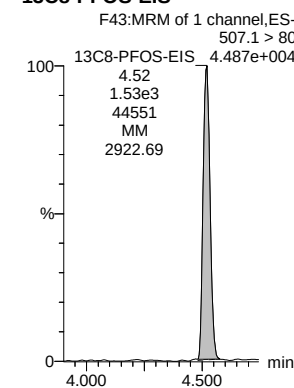
13C2-PFTeDA-EIS



TDCA



13C8-PFOS-EIS



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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	1.982e3	8.474e2	0.250		2.32	2.32	29.2	46.488	116.2	2.503	NO
2	7 PFHxA	313.0 > 269.0	8.156e3	8.191e3	0.250		2.84	2.84	12.4	48.618	121.5	16.194	NO
3	9 HFPO-DA	285.1 > 168.9	1.601e3	1.659e3	0.250		3.06	3.06	12.1	49.099	122.7	2.377	NO
4	11 PFHpA	363.0 > 319	9.246e3	7.529e3	0.250		3.46	3.46	15.4	45.537	113.8	43.529	NO
5	12 ADONA	376.8 > 250.9	1.559e4	7.529e3	0.250		3.55	3.57	25.9	47.777	119.4	5.017	NO
6	51 13C3-PFBS-EIS	302.0 > 98.9	8.474e2		0.250	102.513	2.32	2.32	847	33.065	66.1		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	8.191e3		0.250	1081.420	2.84	2.84	8190	30.296	60.6		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.659e3		0.250	231.766	3.31	3.06	1660	28.627	57.3		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	7.529e3		0.250	909.870	3.46	3.46	7530	33.100	66.2		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	7.529e3		0.250	909.870	3.46	3.46	7530	33.100	66.2		
11	-1												
12	13 L-PFHxS	399 > 79.9	1.714e3	1.770e3	0.250		3.61	3.61	12.1	43.669	109.2	4.142	NO
13	1... Total PFHxS	399 > 79.9	1.714e3	1.770e3	0.250		3.93		12.1	43.669			
14	16 L-PFOA	413 > 369	8.711e3	8.100e3	0.250		3.97	3.97	13.4	48.747	121.9	3.063	NO
15	1... Total PFOA	413 > 369	8.711e3	8.100e3	0.250		4.60		13.4	48.747			
16	21 PFNA	463.0 > 418.8	9.133e3	9.127e3	0.250		4.43	4.42	12.5	42.654	106.6	12.561	NO
17	61 13C3-PFHxS-EIS	402 > 80	1.770e3		0.250	213.280	3.77	3.61	1770	33.202	66.4		
18	61 13C3-PFHxS-EIS	402 > 80	1.770e3		0.250	213.280	3.77	3.61	1770	33.202	66.4		
19	69 13C2-PFOA-EIS	414.9 > 369.7	8.100e3		0.250	1053.156	4.06	3.97	8100	30.766	61.5		
20	69 13C2-PFOA-EIS	414.9 > 369.7	8.100e3		0.250	1053.156	4.06	3.97	8100	30.766	61.5		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.127e3		0.250	1077.196	4.50	4.43	9130	33.893	67.8		
22	-1												
23	23 L-PFOS	499 > 80	1.711e3	1.552e3	0.250		4.52	4.52	13.8	44.542	111.4	2.442	NO
24	1... Total PFOS	499 > 80	1.711e3	1.552e3	0.250		4.60		13.8	44.542			
25	25 9CI-PF3ONS	531 > 351	3.799e3	1.552e3	0.250		4.71	4.74	30.6	46.402	116.0	29.843	NO
26	26 PFDA	513 > 469	7.965e3	9.098e3	0.250		4.81	4.81	10.9	51.423	128.6	5.479	NO
27	33 PFUdA	563.0 > 519	8.190e3	8.538e3	0.250		5.15	5.15	12.0	43.070	107.7	22.526	NO
28	71 13C8-PFOS-EIS	507.1 > 80	1.552e3		0.250	194.116	4.52	4.52	1550	31.991	64.0		
29	71 13C8-PFOS-EIS	507.1 > 80	1.552e3		0.250	194.116	4.52	4.52	1550	31.991	64.0		
30	71 13C8-PFOS-EIS	507.1 > 80	1.552e3		0.250	194.116	4.52	4.52	1550	31.991	64.0		
31	73 13C2-PFDA-EIS	515.1 > 469.9	9.098e3		0.250	1300.443	4.81	4.81	9100	27.983	56.0		
32	79 13C2-PFUdA-EIS	565 > 519.8	8.538e3		0.250	1330.460	5.15	5.15	8540	25.671	51.3		
33	-1												
34	29 L-MeFOSAA	570 > 419	1.881e3	1.882e3	0.250		4.97	4.97	12.5	42.066	105.2	1.565	NO
35	1... Total N-MeFOSAA	570. > 419	1.881e3	1.882e3	0.250		5.19		12.5	42.066			
36	31 L-EtFOSAA	583.9 > 419	2.194e3	1.692e3	0.250		5.13	5.14	16.2	46.662	116.7	1.434	AMR for OPV 7/10/2020 NO

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-18-20.qld

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Name: 200702P1-20, Date: 02-Jul-2020, Time: 12:35:20, ID: B0F0205-BSD1 LCSD 0.25, Description: LCSD

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	2.194e3	1.692e3	0.250		5.37		16.2	46.662			
38	35 11Cl-PF30UdS	631 > 451	2.386e3	8.960e3	0.250		5.38	5.37	3.33	40.968	102.4	13.606	NO
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	1.882e3		0.250	311.775	5.05	4.97	1880	24.141	48.3		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	1.882e3		0.250	311.775	5.05	4.97	1880	24.141	48.3		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	1.692e3		0.250	324.344	5.40	5.13	1690	20.863	41.7		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	1.692e3		0.250	324.344	5.40	5.13	1690	20.863	41.7		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	8.960e3		0.250	1423.871	5.58	5.44	8960	25.170	50.3		
44	-1												
45	37 PFDoA	612.9 > 569.0	7.795e3	8.960e3	0.250		5.44	5.44	10.9	44.180	110.5	13.981	NO
46	39 PFTrDA	662.9 > 618.9	7.818e3	8.960e3	0.250		5.69	5.69	10.9	40.955	102.4	81.859	NO
47	41 PFTeDA	713.0 > 669.0	5.706e3	9.170e3	0.250		5.92	5.92	7.78	46.501	116.3	14.608	NO
48	1... TDCA	498.3>106.9			0.250		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.552e3		0.250	194.116	4.52	4.52	1550	31.991	64.0		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	8.960e3		0.250	1423.871	5.58	5.44	8960	25.170	50.3		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	8.960e3		0.250	1423.871	5.58	5.44	8960	25.170	50.3		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	9.170e3		0.250	1503.225	5.92	5.92	9170	24.401	48.8		

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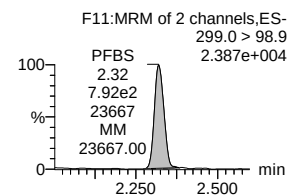
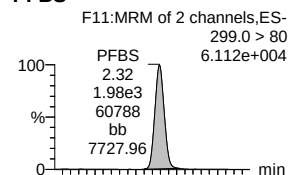
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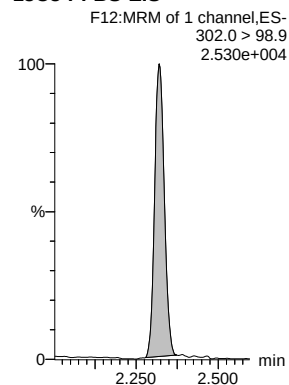
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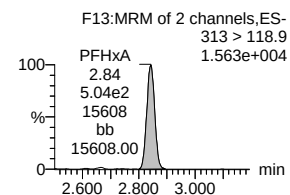
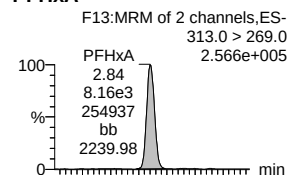
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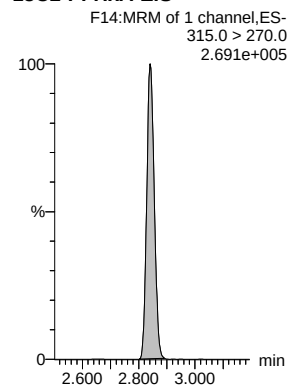
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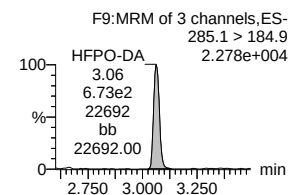
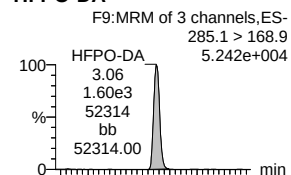
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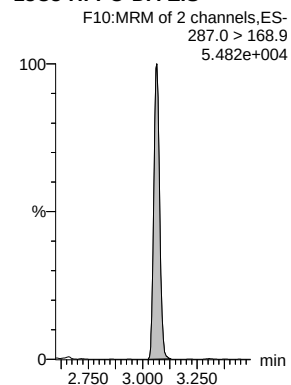
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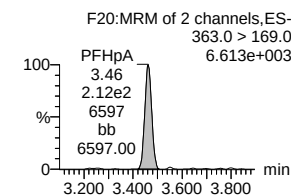
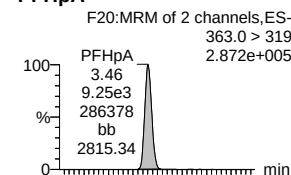
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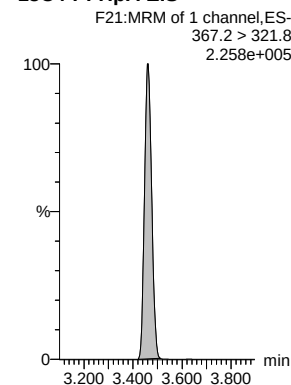
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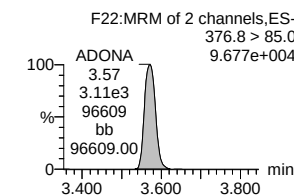
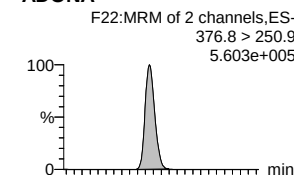
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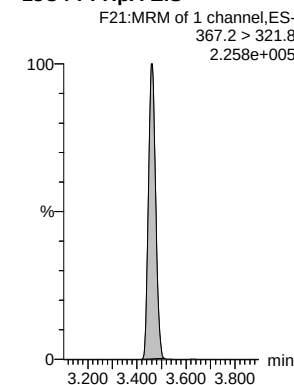
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ADONA



13C4-PFHpA-EIS



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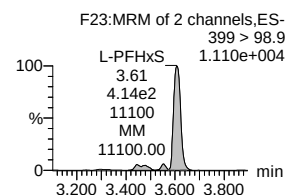
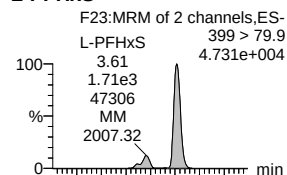
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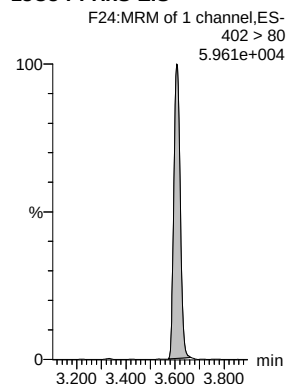
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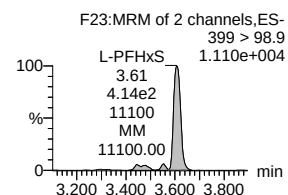
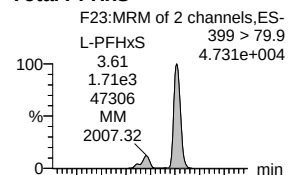
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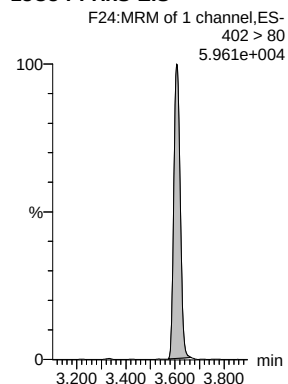
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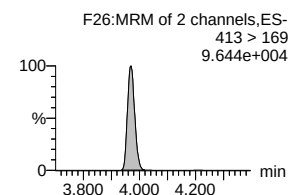
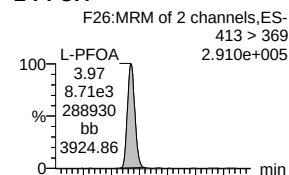
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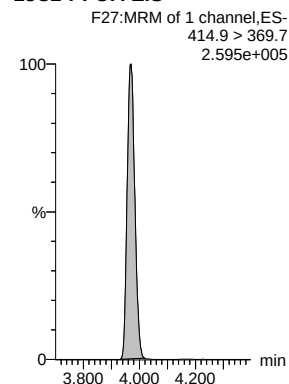
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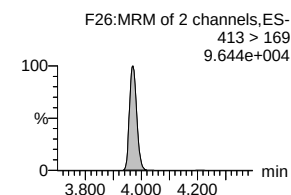
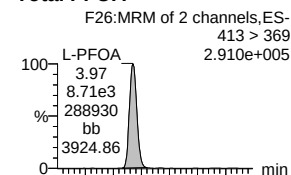
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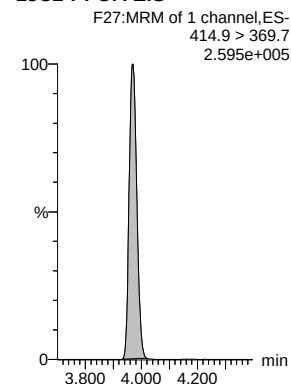
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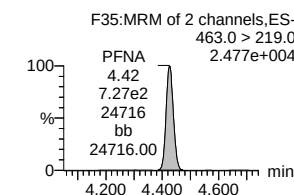
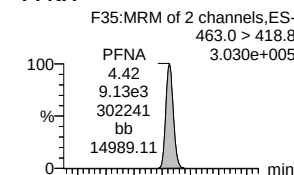
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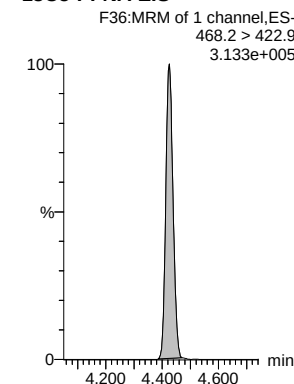
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PFNA



13C5-PFNA-EIS



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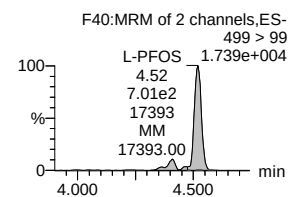
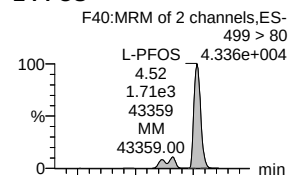
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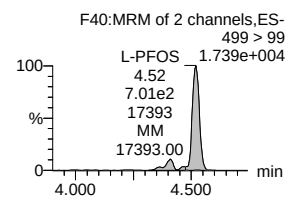
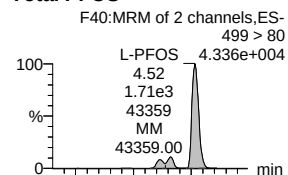
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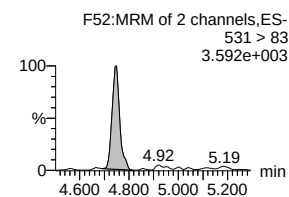
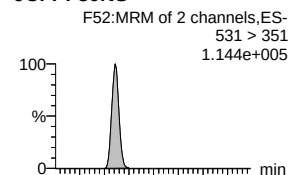
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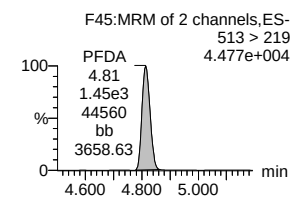
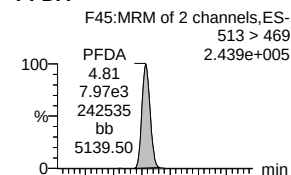
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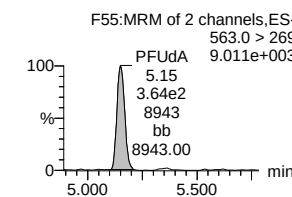
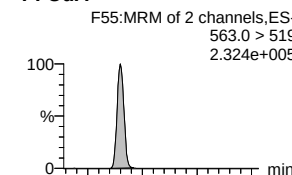
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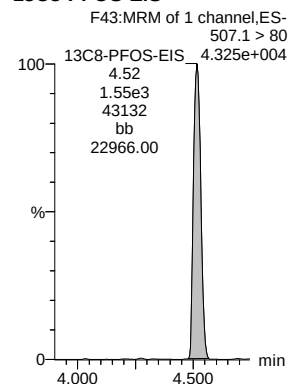
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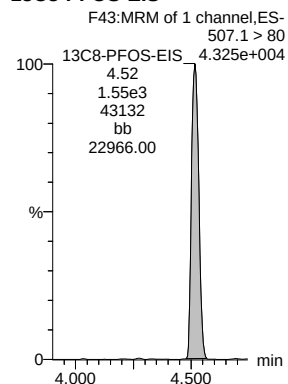
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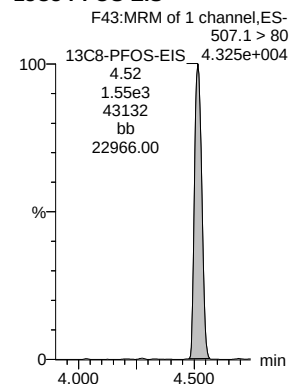
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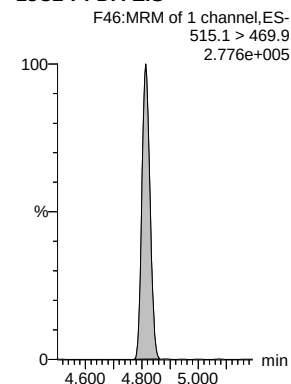
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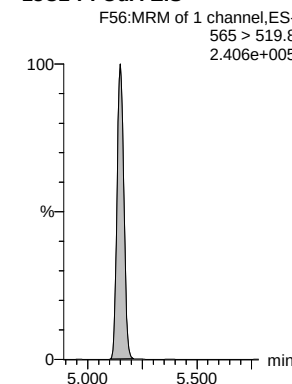
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13C2-PFDA-EIS



13C2-PFUdA-EIS



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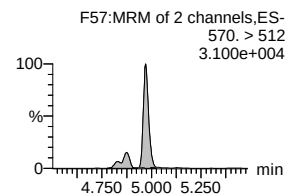
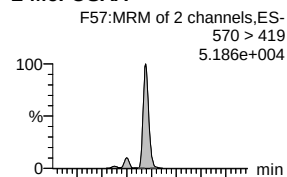
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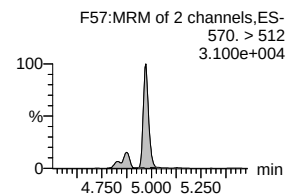
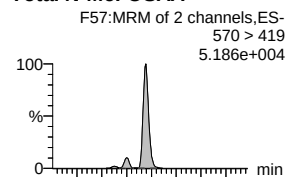
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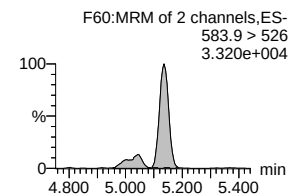
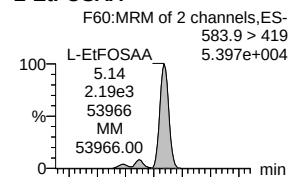
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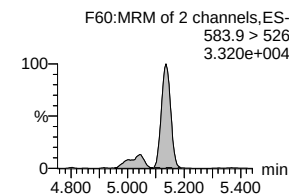
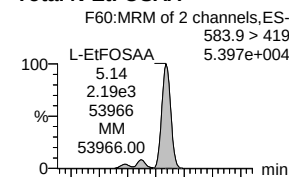
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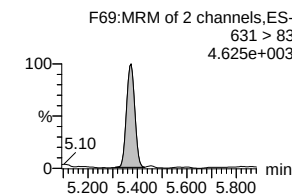
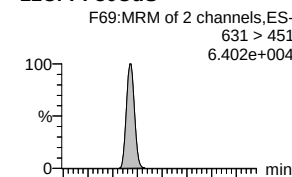
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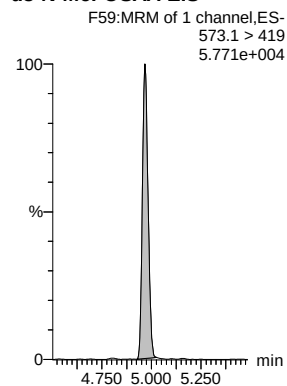
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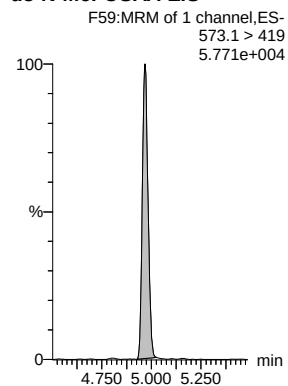
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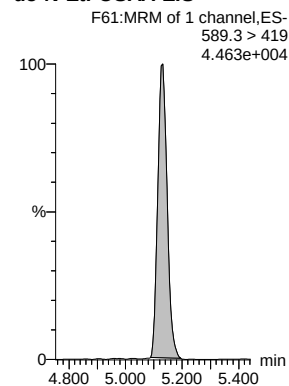
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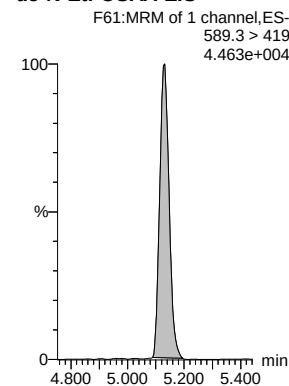
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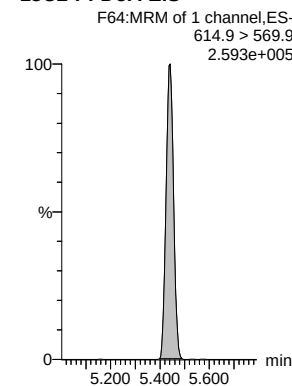
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13C2-PFDoA-EIS



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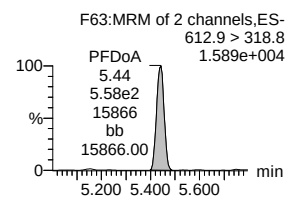
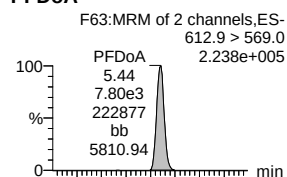
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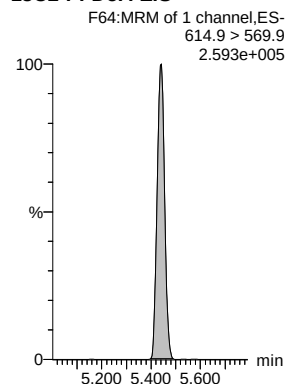
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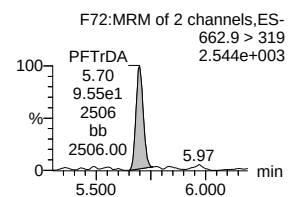
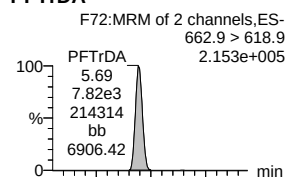
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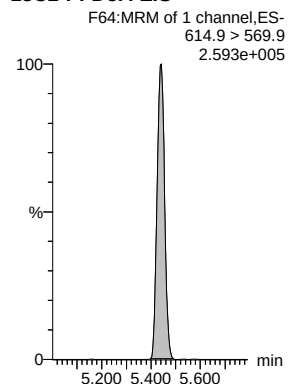
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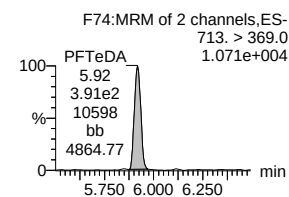
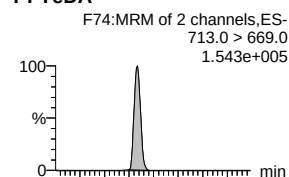
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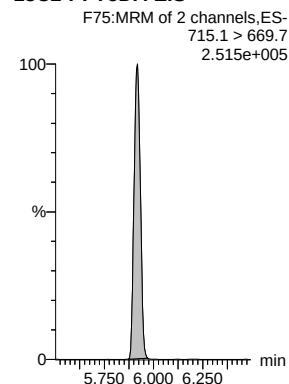
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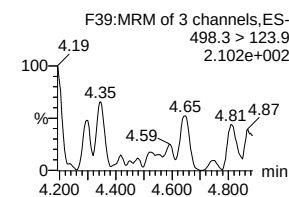
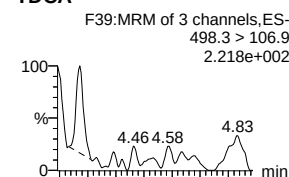
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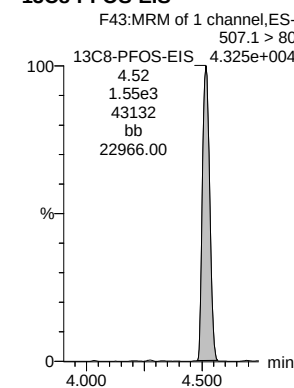
13C2-PFTeDA-EIS



TDCA



13C8-PFOS-EIS



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Printed: Friday, July 10, 2020 09:44:09 Pacific Daylight Time

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2	7 PFHxA	313.0 > 269.0		8.812e3	0.247		2.84						YES
3	9 HFPO-DA	285.1 > 168.9		1.802e3	0.247		3.06						YES
4	11 PFHpA	363.0 > 319		8.097e3	0.247		3.46						YES
5	12 ADONA	376.8 > 250.9		8.097e3	0.247		3.55						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	9.708e2		0.247	102.513	2.32	2.32	971	38.298	75.8		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	8.812e3		0.247	1081.420	2.84	2.84	8810	32.953	65.2		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.802e3		0.247	231.766	3.31	3.06	1800	31.435	62.2		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	8.097e3		0.247	909.870	3.46	3.46	8100	35.988	71.2		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	8.097e3		0.247	909.870	3.46	3.46	8100	35.988	71.2		
11	-1												
12	13 L-PFHxS	399 > 79.9		1.900e3	0.247		3.61						YES
13	1... Total PFHxS	399 > 79.9	0.000e0	1.900e3	0.247		3.93		0.000				
14	16 L-PFOA	413 > 369		9.055e3	0.247		3.97						YES
15	1... Total PFOA	413 > 369	0.000e0	9.055e3	0.247		4.60		0.000				
16	21 PFNA	463.0 > 418.8		9.360e3	0.247		4.43						YES
17	61 13C3-PFHxS-EIS	402 > 80	1.900e3		0.247	213.280	3.77	3.61	1900	36.026	71.3		
18	61 13C3-PFHxS-EIS	402 > 80	1.900e3		0.247	213.280	3.77	3.61	1900	36.026	71.3		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.055e3		0.247	1053.156	4.06	3.97	9060	34.773	68.8		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.055e3		0.247	1053.156	4.06	3.97	9060	34.773	68.8		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.360e3		0.247	1077.196	4.50	4.43	9360	35.141	69.5		
22	-1												
23	23 L-PFOS	499 > 80		1.848e3	0.247		4.52						YES
24	1... Total PFOS	499 > 80	0.000e0	1.848e3	0.247		4.60		0.000				
25	25 9CI-PF30NS	531 > 351		1.848e3	0.247		4.72						YES
26	26 PFDA	513 > 469		1.109e4	0.247		4.81						YES
27	33 PFUdA	563.0 > 519		1.032e4	0.247		5.15						YES
28	71 13C8-PFOS-EIS	507.1 > 80	1.848e3		0.247	194.116	4.52	4.52	1850	38.494	76.1		
29	71 13C8-PFOS-EIS	507.1 > 80	1.848e3		0.247	194.116	4.52	4.52	1850	38.494	76.1		
30	71 13C8-PFOS-EIS	507.1 > 80	1.848e3		0.247	194.116	4.52	4.52	1850	38.494	76.1		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.109e4		0.247	1300.443	4.81	4.81	11100	34.494	68.2		
32	79 13C2-PFUdA-EIS	565 > 519.8	1.032e4		0.247	1330.460	5.15	5.15	10300	31.367	62.0		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.657e3	0.247		4.97						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.657e3	0.247		5.19		0.000				
36	31 L-EtFOSAA	583.9 > 419		2.490e3	0.247		5.13						YES

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-23.qld

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Name: 200702P1-23, Date: 02-Jul-2020, Time: 13:14:21, ID: 2001315-01 SB01-20200618 0.24727, Description: SB01-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	2.490e3	0.247		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		1.124e4	0.247		5.37						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.657e3		0.247	311.775	5.05	4.97	2660	34.467	68.2		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.657e3		0.247	311.775	5.05	4.97	2660	34.467	68.2		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.490e3		0.247	324.344	5.40	5.13	2490	31.046	61.4		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.490e3		0.247	324.344	5.40	5.13	2490	31.046	61.4		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	1.124e4		0.247	1423.871	5.58	5.44	11200	31.930	63.2		
44	-1												
45	37 PFDoA	612.9 > 569.0		1.124e4	0.247		5.44						YES
46	39 PFTrDA	662.9 > 618.9		1.124e4	0.247		5.68						YES
47	41 PFTeDA	713.0 > 669.0		1.084e4	0.247		5.92						YES
48	1... TDCA	498.3>106.9			0.247		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.848e3		0.247	194.116	4.52	4.52	1850	38.494	76.1		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	1.124e4		0.247	1423.871	5.58	5.44	11200	31.930	63.2		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	1.124e4		0.247	1423.871	5.58	5.44	11200	31.930	63.2		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	1.084e4		0.247	1503.225	5.92	5.92	10800	29.153	57.7		

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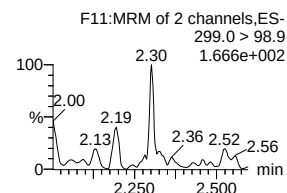
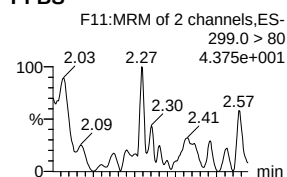
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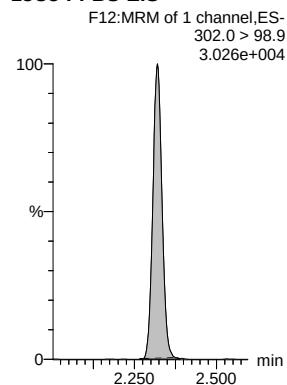
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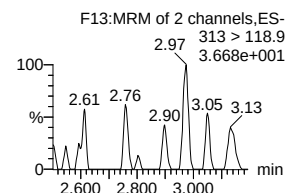
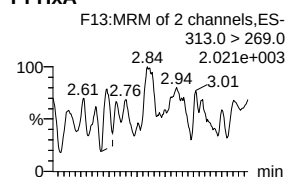
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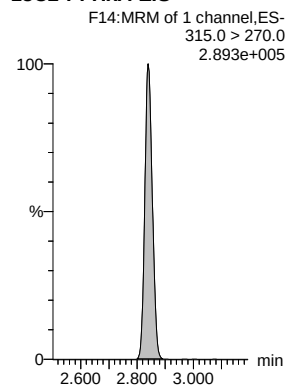
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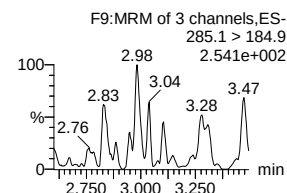
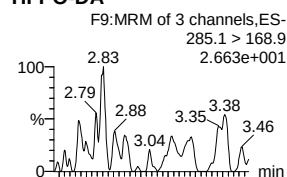
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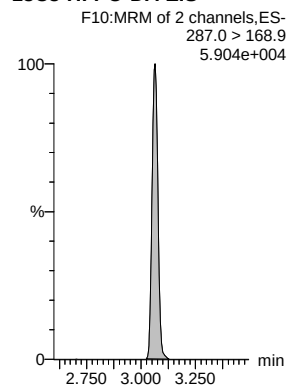
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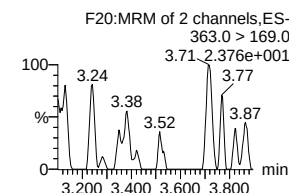
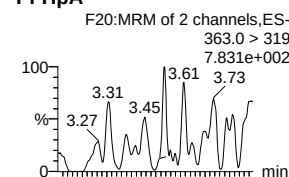
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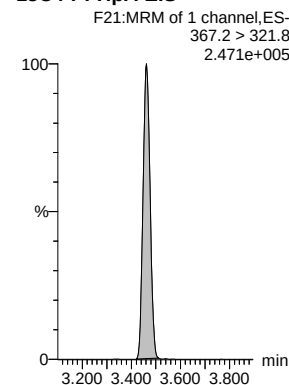
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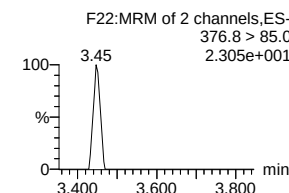
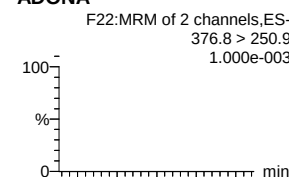
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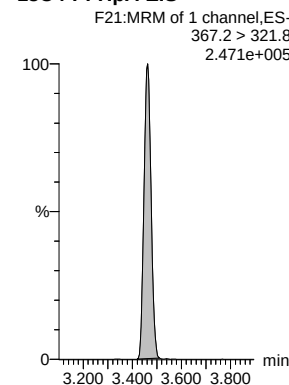
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ADONA



13C4-PFHpA-EIS



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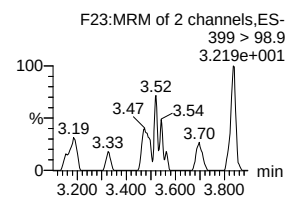
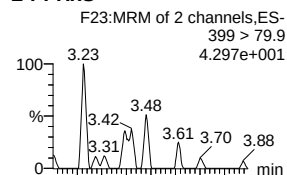
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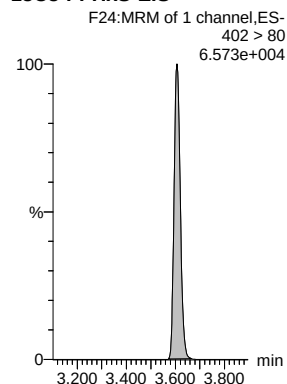
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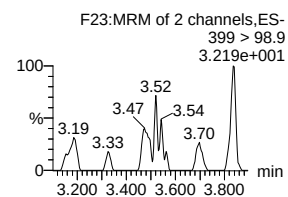
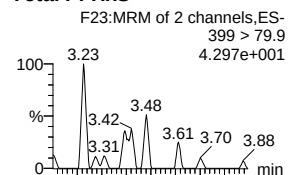
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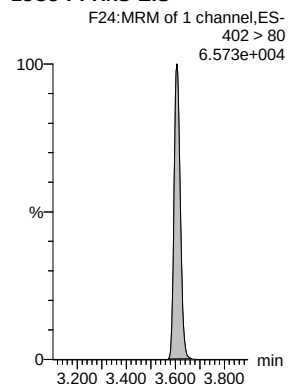
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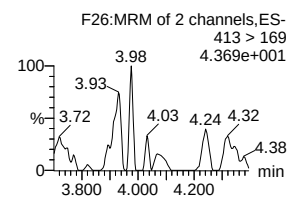
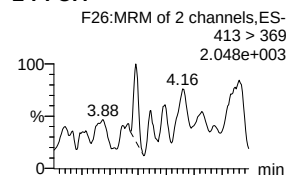
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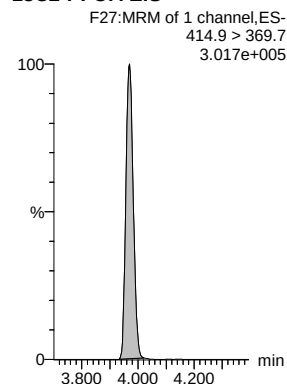
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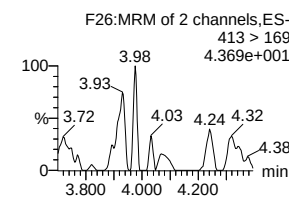
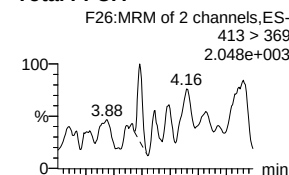
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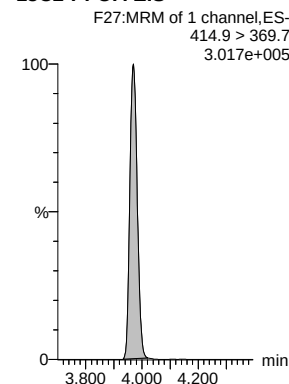
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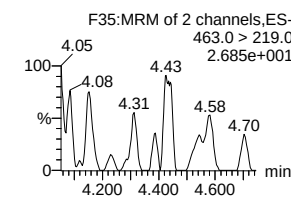
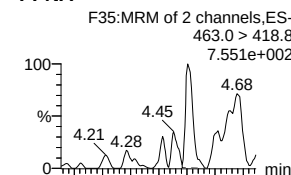
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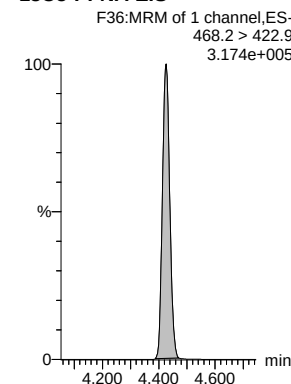
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PFNA



13C5-PFNA-EIS



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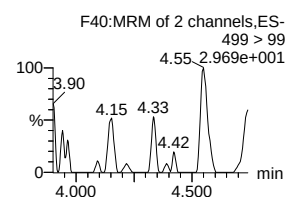
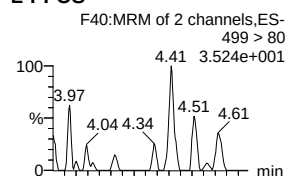
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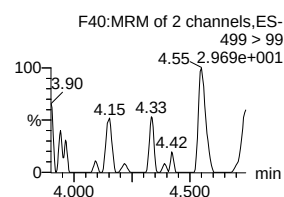
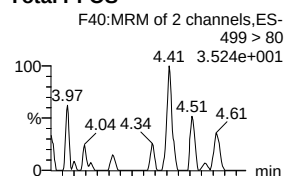
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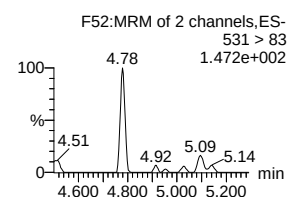
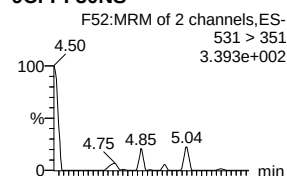
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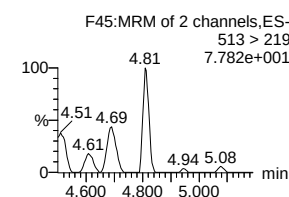
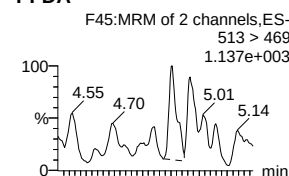
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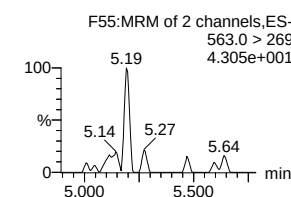
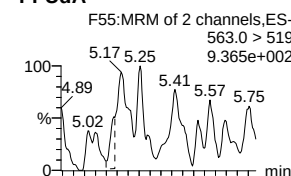
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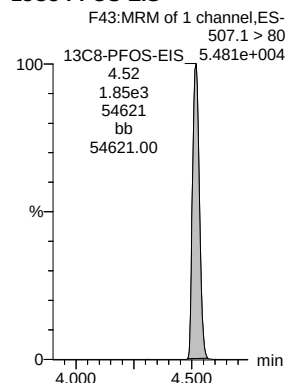
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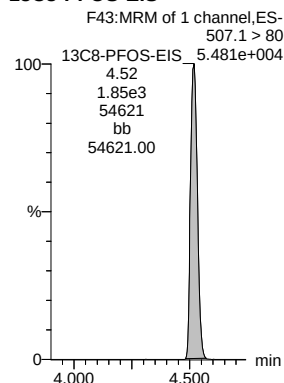
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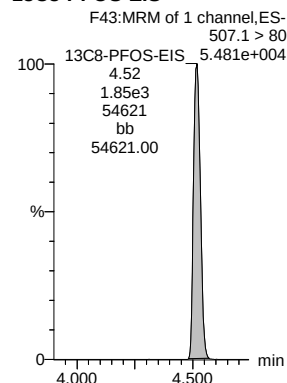
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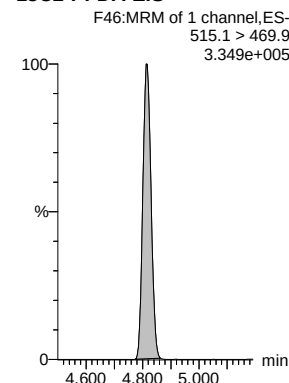
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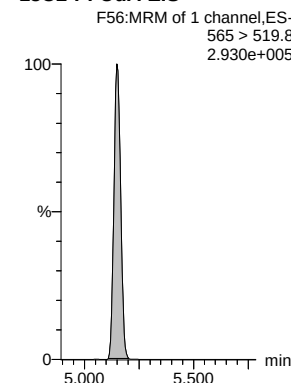
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13C2-PFDA-EIS



13C2-PFuDA-EIS



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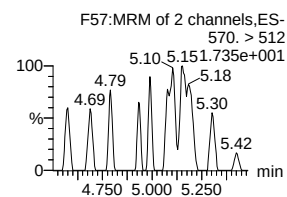
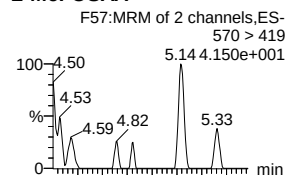
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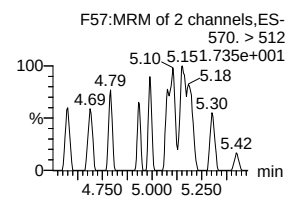
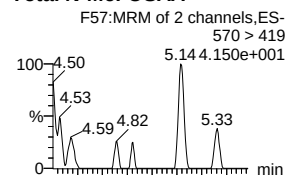
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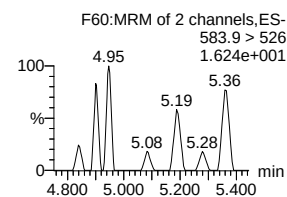
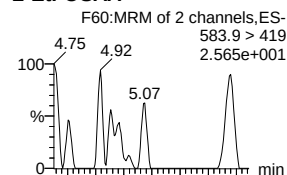
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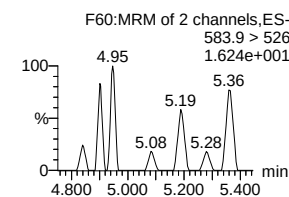
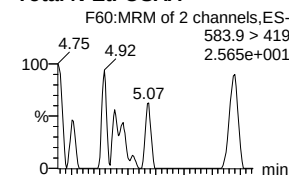
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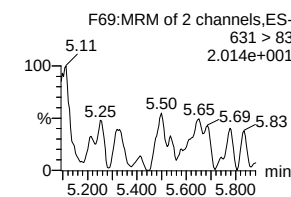
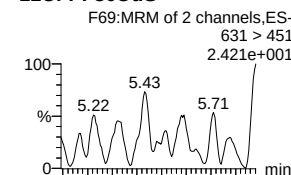
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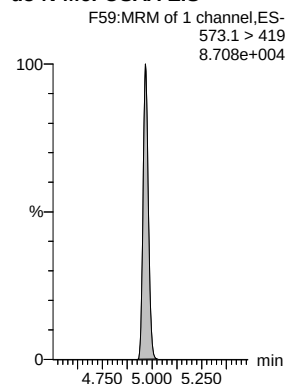
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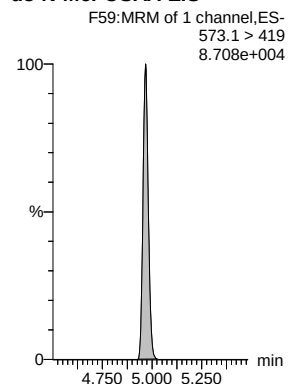
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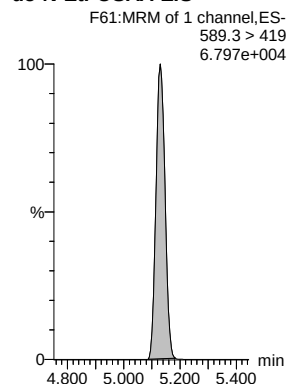
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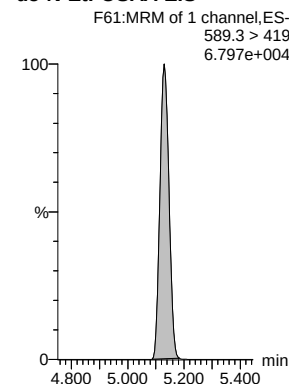
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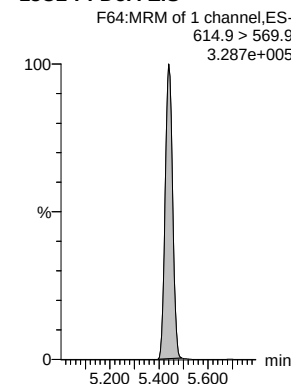
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



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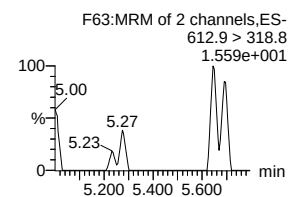
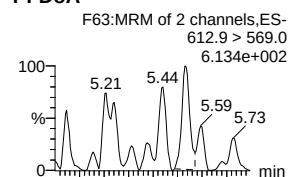
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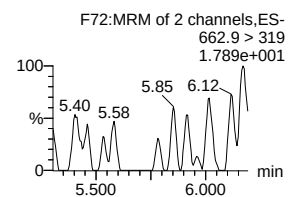
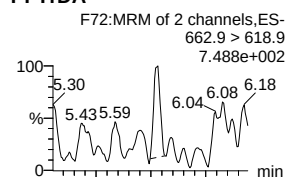
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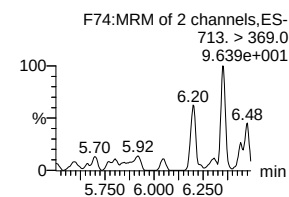
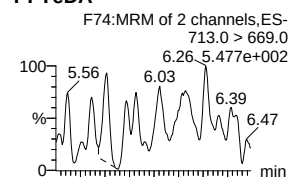
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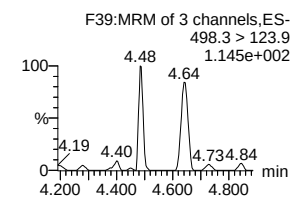
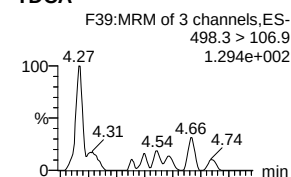
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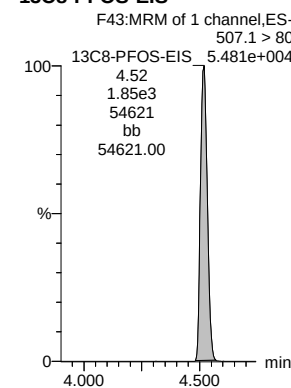
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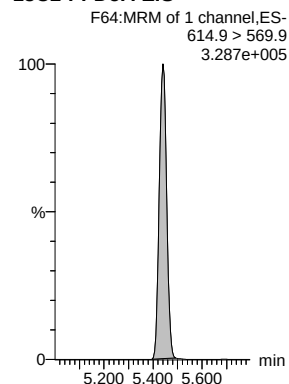
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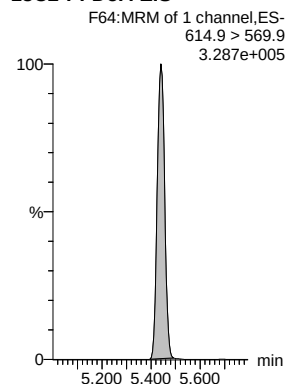
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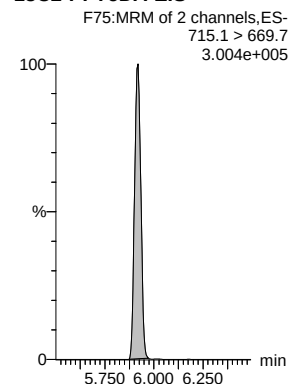
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13C2-PFDaA-EIS



13C2-PFTeDA-EIS



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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80		9.567e2	0.255		2.32						YES
2	7 PFHxA	313.0 > 269.0		9.412e3	0.255		2.84						YES
3	9 HFPO-DA	285.1 > 168.9		1.937e3	0.255		3.06						YES
4	11 PFHpA	363.0 > 319		8.622e3	0.255		3.46						YES
5	12 ADONA	376.8 > 250.9		8.622e3	0.255		3.55						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	9.567e2		0.255	102.513	2.32	2.32	957	36.601	74.7		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	9.412e3		0.255	1081.420	2.84	2.84	9410	34.131	69.6		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.937e3		0.255	231.766	3.31	3.06	1940	32.781	66.9		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	8.622e3		0.255	909.870	3.46	3.46	8620	37.162	75.8		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	8.622e3		0.255	909.870	3.46	3.46	8620	37.162	75.8		
11	-1												
12	13 L-PFHxS	399 > 79.9		1.981e3	0.255		3.61						YES
13	1... Total PFHxS	399 > 79.9	0.000e0	1.981e3	0.255		3.93		0.000				
14	16 L-PFOA	413 > 369		9.156e3	0.255		3.97						YES
15	1... Total PFOA	413 > 369	0.000e0	9.156e3	0.255		4.60		0.000				
16	21 PFNA	463.0 > 418.8		9.714e3	0.255		4.42						YES
17	61 13C3-PFHxS-EIS	402 > 80	1.981e3		0.255	213.280	3.77	3.61	1980	36.433	74.3		
18	61 13C3-PFHxS-EIS	402 > 80	1.981e3		0.255	213.280	3.77	3.61	1980	36.433	74.3		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.156e3		0.255	1053.156	4.06	3.97	9160	34.094	69.5		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.156e3		0.255	1053.156	4.06	3.97	9160	34.094	69.5		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.714e3		0.255	1077.196	4.50	4.42	9710	35.364	72.1		
22	-1												
23	23 L-PFOS	499 > 80		2.015e3	0.255		4.52						YES
24	1... Total PFOS	499 > 80	0.000e0	2.015e3	0.255		4.60		0.000				
25	25 9CI-PF3ONS	531 > 351		2.015e3	0.255		4.71						YES
26	26 PFDA	513 > 469		1.104e4	0.255		4.81						YES
27	33 PFUdA	563.0 > 519		1.045e4	0.255		5.15						YES
28	71 13C8-PFOS-EIS	507.1 > 80	2.015e3		0.255	194.116	4.52	4.52	2010	40.703	83.0		
29	71 13C8-PFOS-EIS	507.1 > 80	2.015e3		0.255	194.116	4.52	4.52	2010	40.703	83.0		
30	71 13C8-PFOS-EIS	507.1 > 80	2.015e3		0.255	194.116	4.52	4.52	2010	40.703	83.0		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.104e4		0.255	1300.443	4.81	4.81	11000	33.307	67.9		
32	79 13C2-PFUdA-EIS	565 > 519.8	1.045e4		0.255	1330.460	5.15	5.15	10500	30.815	62.9		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.432e3	0.255		4.96						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.432e3	0.255		5.19		0.000				
36	31 L-EtFOSAA	583.9 > 419		2.314e3	0.255		5.13						YES

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-24.qld

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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	2.314e3	0.255		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		1.164e4	0.255		5.37						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.432e3		0.255	311.775	5.05	4.96	2430	30.591	62.4		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.432e3		0.255	311.775	5.05	4.96	2430	30.591	62.4		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.314e3		0.255	324.344	5.40	5.13	2310	27.981	57.1		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.314e3		0.255	324.344	5.40	5.13	2310	27.981	57.1		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	1.164e4		0.255	1423.871	5.58	5.44	11600	32.065	65.4		
44	-1												
45	37 PFDoA	612.9 > 569.0		1.164e4	0.255		5.44						YES
46	39 PFTrDA	662.9 > 618.9		1.164e4	0.255		5.68						YES
47	41 PFTeDA	713.0 > 669.0		1.007e4	0.255		5.91						YES
48	1... TDCA	498.3>106.9			0.255		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	2.015e3		0.255	194.116	4.52	4.52	2010	40.703	83.0		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	1.164e4		0.255	1423.871	5.58	5.44	11600	32.065	65.4		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	1.164e4		0.255	1423.871	5.58	5.44	11600	32.065	65.4		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	1.007e4		0.255	1503.225	5.92	5.91	10100	26.266	53.6		

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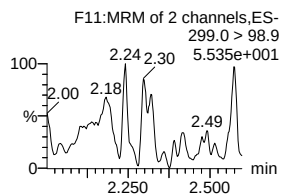
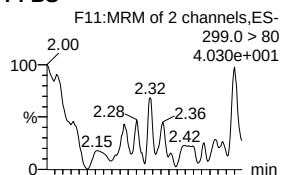
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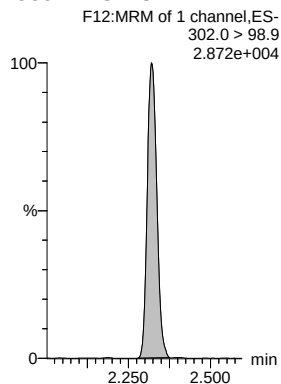
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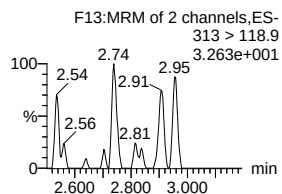
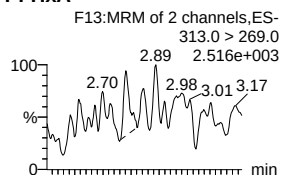
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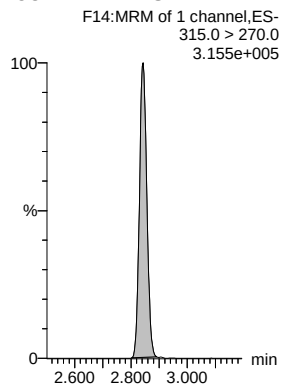
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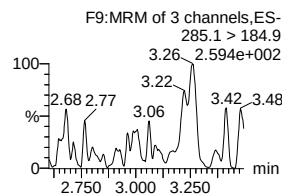
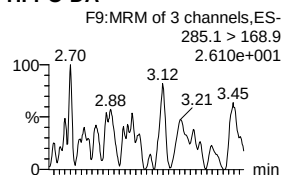
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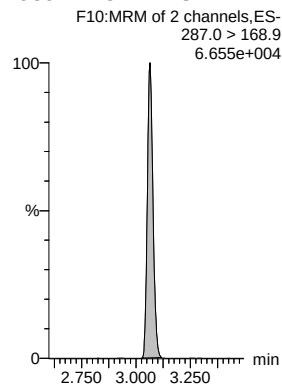
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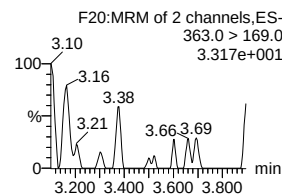
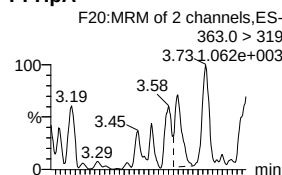
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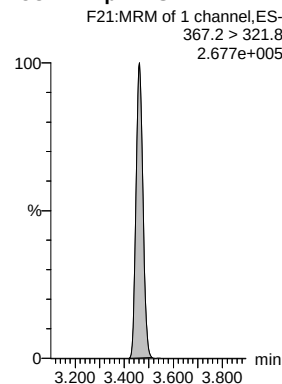
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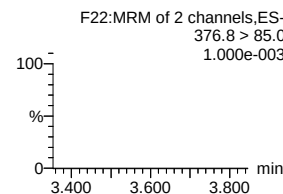
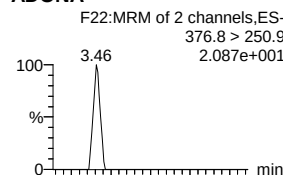
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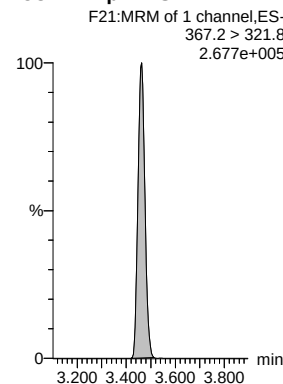
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ADONA



13C4-PFHpA-EIS



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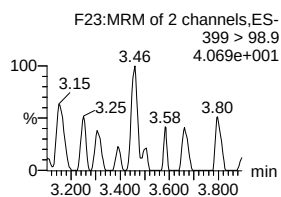
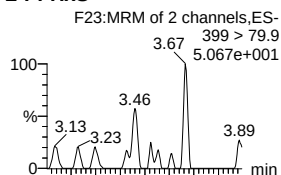
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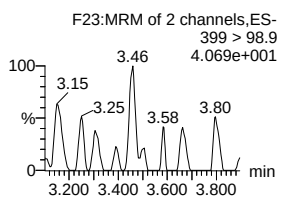
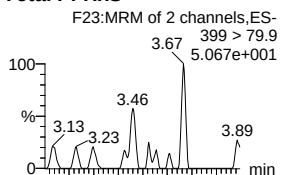
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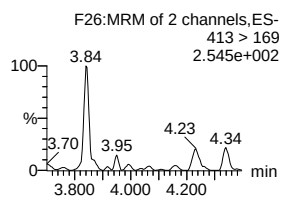
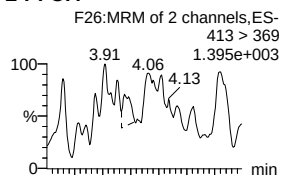
L-PFHxS



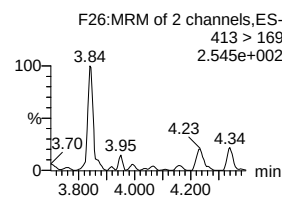
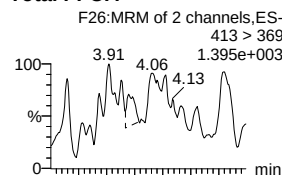
Total PFHxS



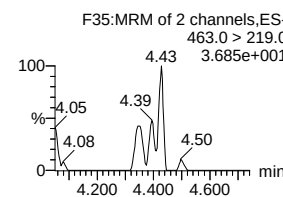
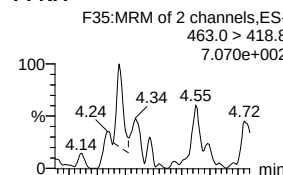
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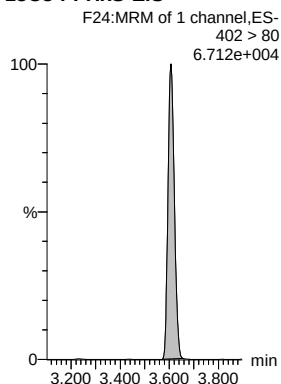
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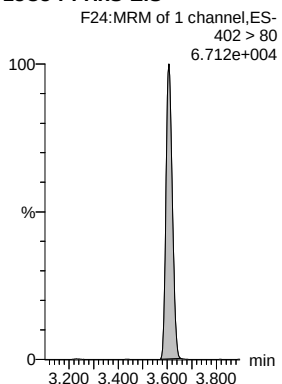
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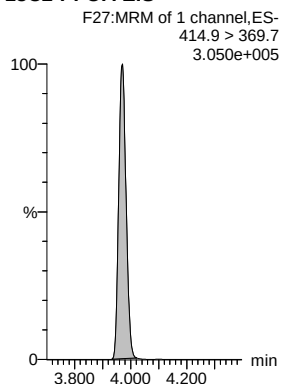
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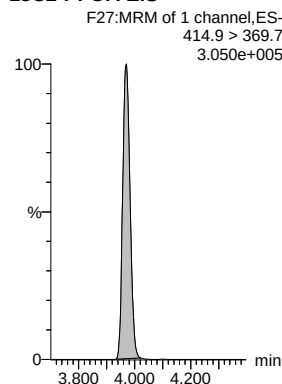
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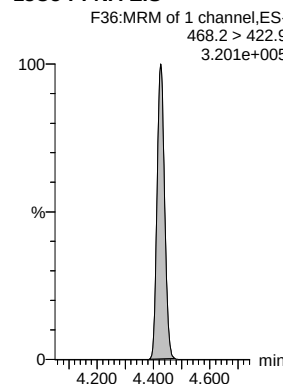
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13C2-PFOA-EIS



13C5-PFNA-EIS



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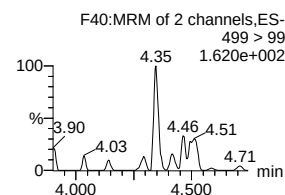
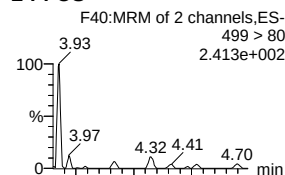
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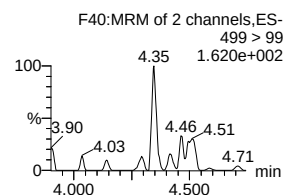
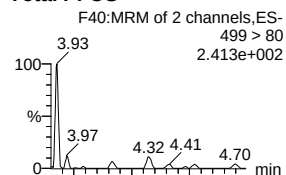
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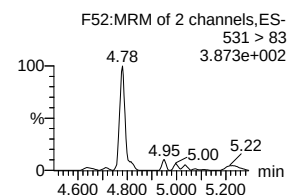
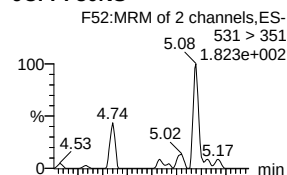
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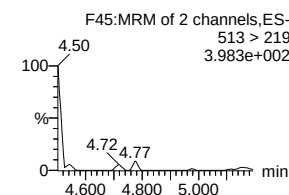
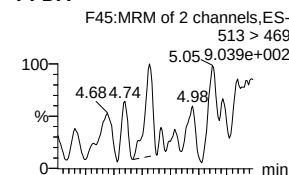
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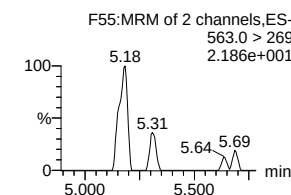
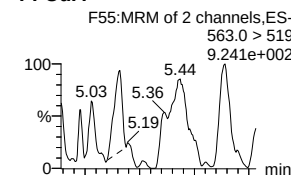
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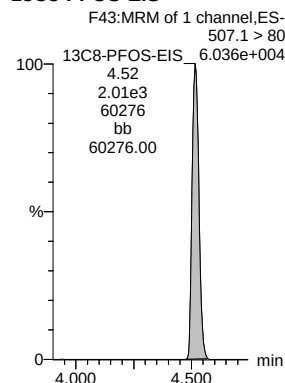
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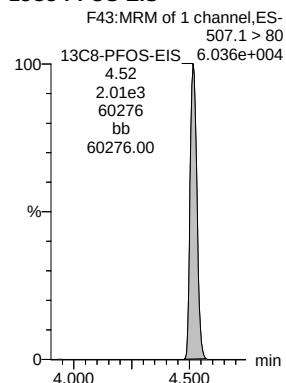
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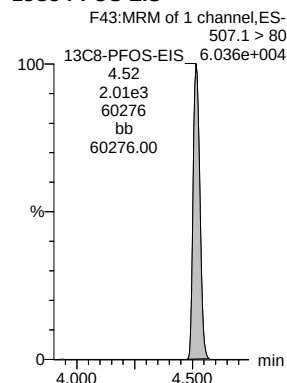
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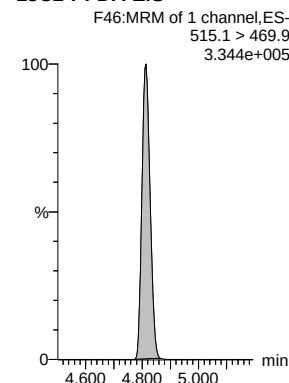
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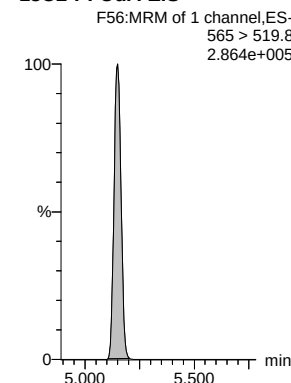
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13C2-PFDA-EIS



13C2-PFUdA-EIS



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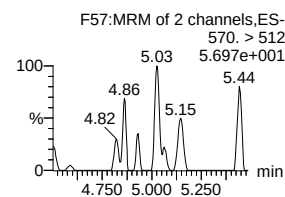
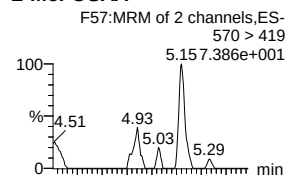
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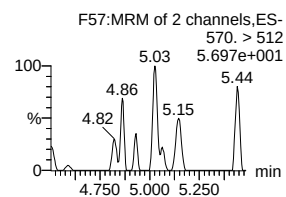
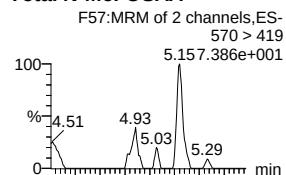
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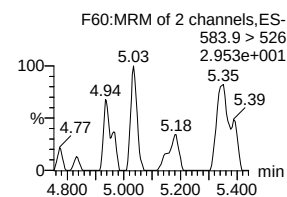
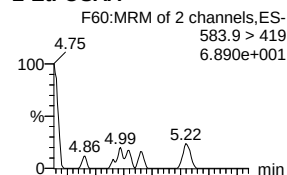
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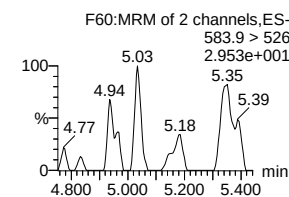
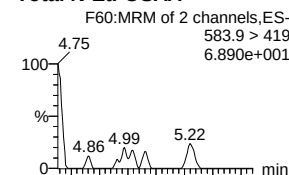
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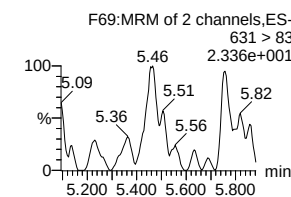
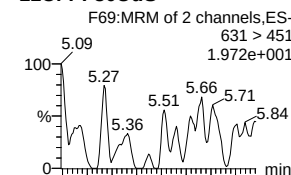
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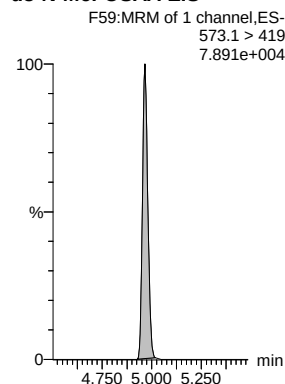
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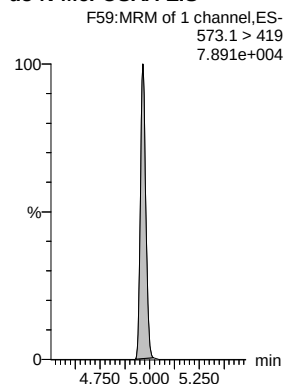
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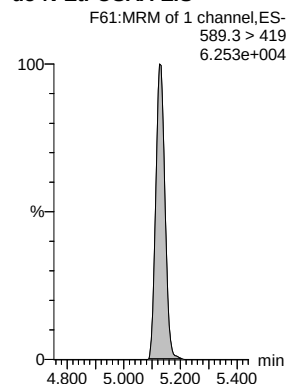
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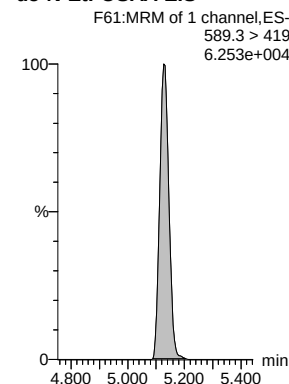
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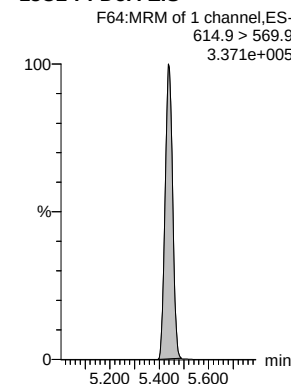
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



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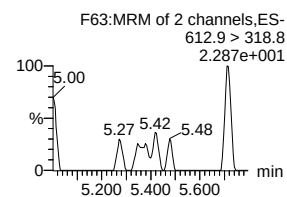
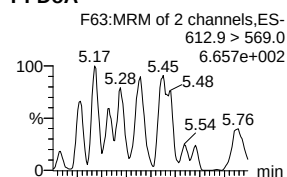
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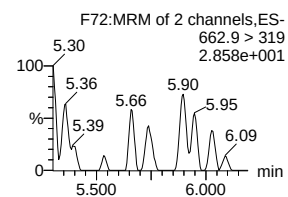
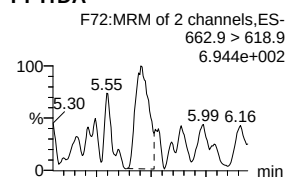
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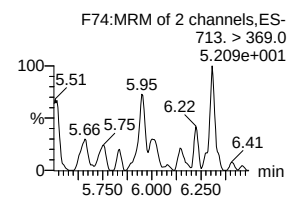
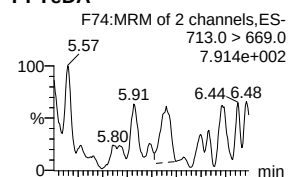
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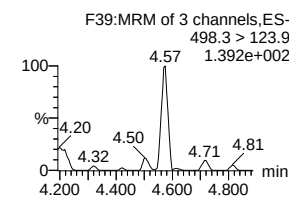
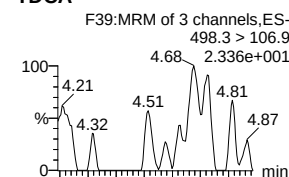
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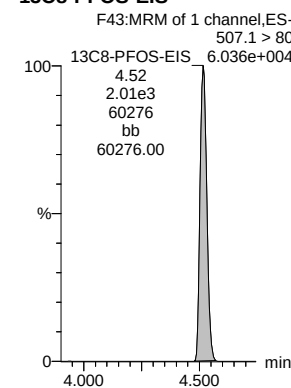
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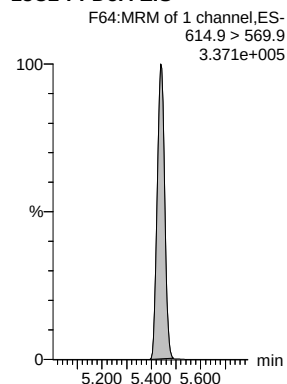
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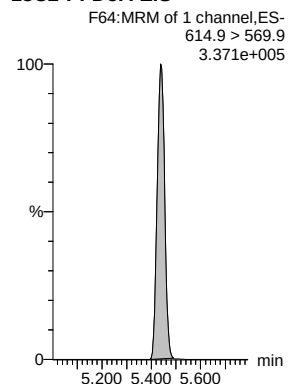
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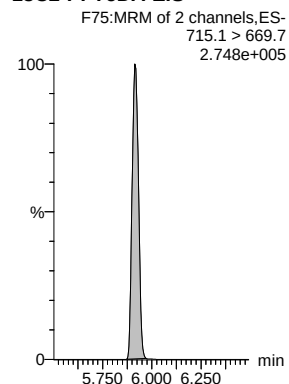
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13C2-PFDaA-EIS



13C2-PFTeDA-EIS



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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-25.qld

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Name: 200702P1-25, Date: 02-Jul-2020, Time: 13:35:22, ID: 2001315-03 24-GW-15DBMW51-20200618 0.25758, Description: 24-GW-15DBMW51-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	2.204e2	9.330e2	0.258		2.32	2.32	2.95	4.583		2.461	NO
2	7 PFHxA	313.0 > 269.0	2.706e3	9.054e3	0.258		2.84	2.84	3.74	13.935		19.193	NO
3	9 HFPO-DA	285.1 > 168.9		1.911e3	0.258		3.06						YES
4	11 PFHpA	363.0 > 319	6.809e2	8.251e3	0.258		3.46	3.46	1.03	2.903		84.718	YES
5	12 ADONA	376.8 > 250.9		8.251e3	0.258		3.55						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	9.330e2		0.258	102.513	2.32	2.32	933	35.335	72.8		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	9.054e3		0.258	1081.420	2.84	2.84	9050	32.503	67.0		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.911e3		0.258	231.766	3.31	3.06	1910	32.012	66.0		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	8.251e3		0.258	909.870	3.46	3.46	8250	35.207	72.5		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	8.251e3		0.258	909.870	3.46	3.46	8250	35.207	72.5		
11	-1												
12	13 L-PFHxS	399 > 79.9	1.014e3	1.792e3	0.258		3.61	3.61	7.08	24.799		4.817	NO
13	1... Total PFHxS	399 > 79.9	1.014e3	1.792e3	0.258		3.93		7.08	24.799			
14	16 L-PFOA	413 > 369	2.695e3	9.321e3	0.258		3.97	3.97	3.61	12.647		3.046	NO
15	1... Total PFOA	413 > 369	2.695e3	9.321e3	0.258		4.60		3.61	12.647			
16	21 PFNA	463.0 > 418.8	2.722e2	9.156e3	0.258		4.42	4.43	0.372	1.213		8.737	NO
17	61 13C3-PFHxS-EIS	402 > 80	1.792e3		0.258	213.280	3.77	3.61	1790	32.613	67.2		
18	61 13C3-PFHxS-EIS	402 > 80	1.792e3		0.258	213.280	3.77	3.61	1790	32.613	67.2		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.321e3		0.258	1053.156	4.06	3.97	9320	34.361	70.8		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.321e3		0.258	1053.156	4.06	3.97	9320	34.361	70.8		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.156e3		0.258	1077.196	4.50	4.42	9160	32.998	68.0		
22	-1												
23	23 L-PFOS	499 > 80	5.657e2	1.849e3	0.258		4.51	4.52	3.82	11.927		2.626	NO
24	1... Total PFOS	499 > 80	5.657e2	1.849e3	0.258		4.60		3.82	11.927			
25	25 9CI-PF30NS	531 > 351		1.849e3	0.258		4.71						YES
26	26 PFDA	513 > 469	2.791e2	1.076e4	0.258		4.81	4.81	0.324	1.340		8.904	YES
27	33 PFUdA	563.0 > 519		1.014e4	0.258		5.15						YES
28	71 13C8-PFOS-EIS	507.1 > 80	1.849e3		0.258	194.116	4.52	4.51	1850	36.975	76.2		
29	71 13C8-PFOS-EIS	507.1 > 80	1.849e3		0.258	194.116	4.52	4.51	1850	36.975	76.2		
30	71 13C8-PFOS-EIS	507.1 > 80	1.849e3		0.258	194.116	4.52	4.51	1850	36.975	76.2		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.076e4		0.258	1300.443	4.81	4.81	10800	32.137	66.2		
32	79 13C2-PFUdA-EIS	565 > 519.8	1.014e4		0.258	1330.460	5.15	5.15	10100	29.594	61.0		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.139e3	0.258		4.97						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.139e3	0.258		5.19		0.000				
36	31 L-EtFOSAA	583.9 > 419		2.488e3	0.258		5.13						YES

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-25.qld

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Name: 200702P1-25, Date: 02-Jul-2020, Time: 13:35:22, ID: 2001315-03 24-GW-15DBMW51-20200618 0.25758, Description: 24-GW-15DBMW51-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	2.488e3	0.258		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		1.037e4	0.258		5.38						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.139e3		0.258	311.775	5.05	4.97	2140	26.638	54.9		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.139e3		0.258	311.775	5.05	4.97	2140	26.638	54.9		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.488e3		0.258	324.344	5.40	5.13	2490	29.779	61.4		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.488e3		0.258	324.344	5.40	5.13	2490	29.779	61.4		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	1.037e4		0.258	1423.871	5.58	5.44	10400	28.282	58.3		
44	-1												
45	37 PFDoA	612.9 > 569.0	8.023e1	1.037e4	0.258		5.44	5.44	0.0967	0.192		286.554	YES
46	39 PFTrDA	662.9 > 618.9		1.037e4	0.258		5.69						YES
47	41 PFTeDA	713.0 > 669.0	1.303e2	1.046e4	0.258		5.91	5.91	0.156	0.670		21.706	YES
48	1... TDCA	498.3>106.9			0.258		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.849e3		0.258	194.116	4.52	4.51	1850	36.975	76.2		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	1.037e4		0.258	1423.871	5.58	5.44	10400	28.282	58.3		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	1.037e4		0.258	1423.871	5.58	5.44	10400	28.282	58.3		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	1.046e4		0.258	1503.225	5.92	5.91	10500	27.021	55.7		

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-25.qld

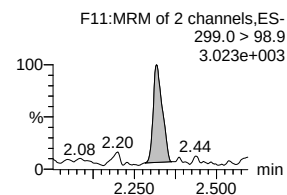
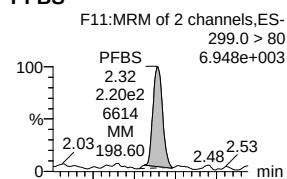
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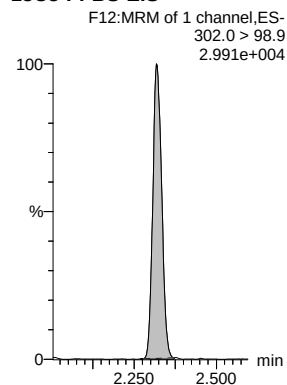
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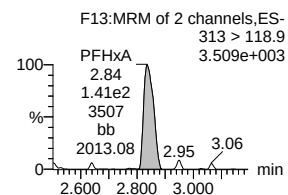
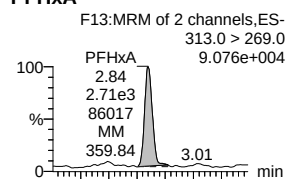
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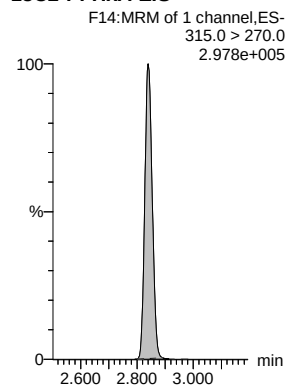
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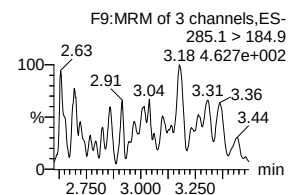
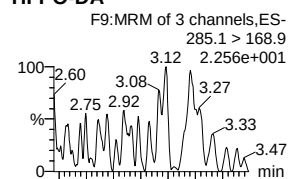
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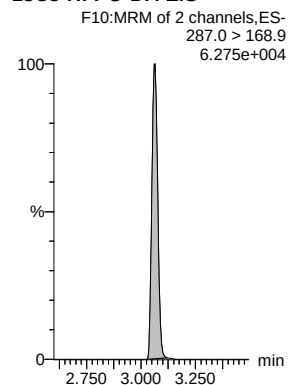
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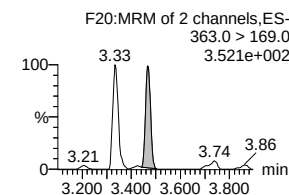
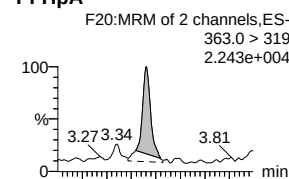
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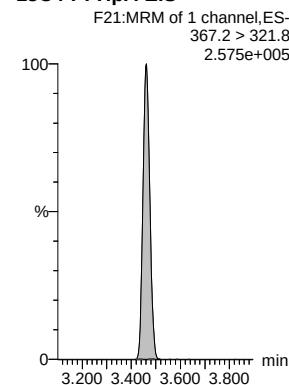
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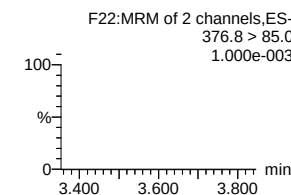
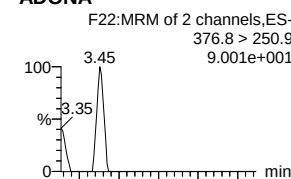
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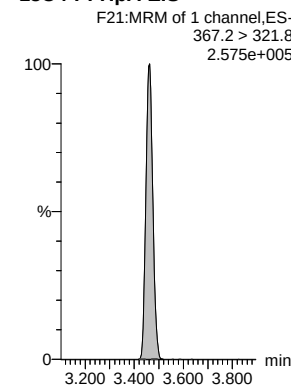
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ADONA



13C4-PFHpA-EIS



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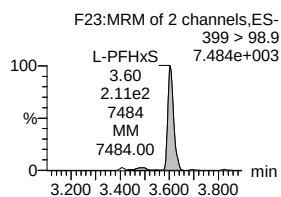
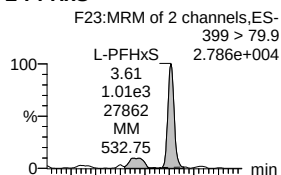
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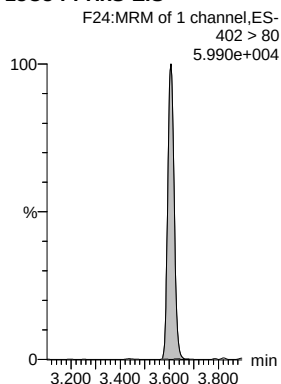
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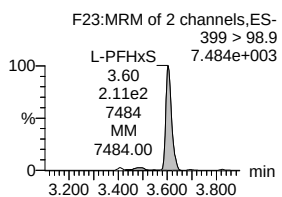
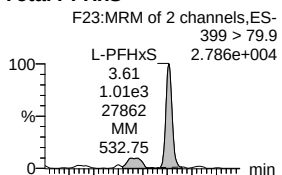
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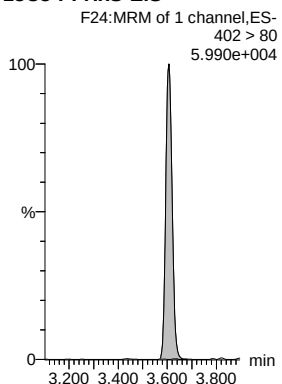
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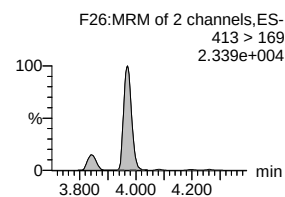
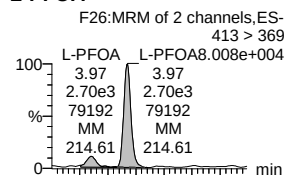
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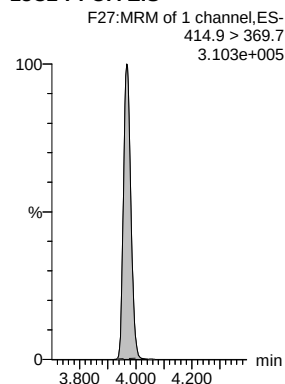
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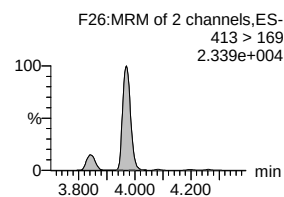
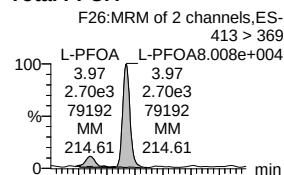
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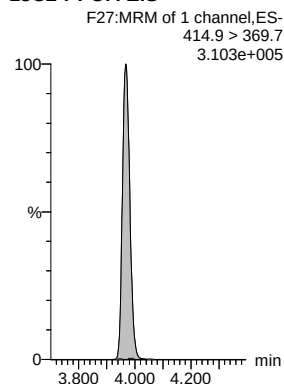
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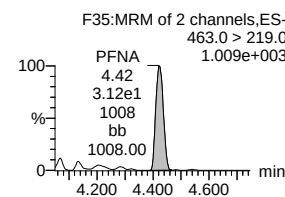
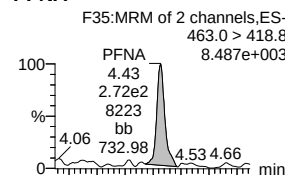
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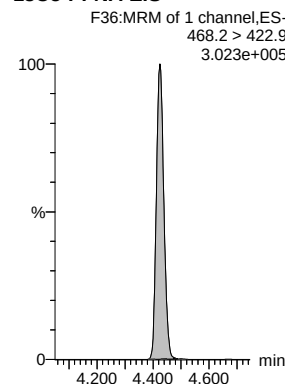
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PFNA



13C5-PFNA-EIS



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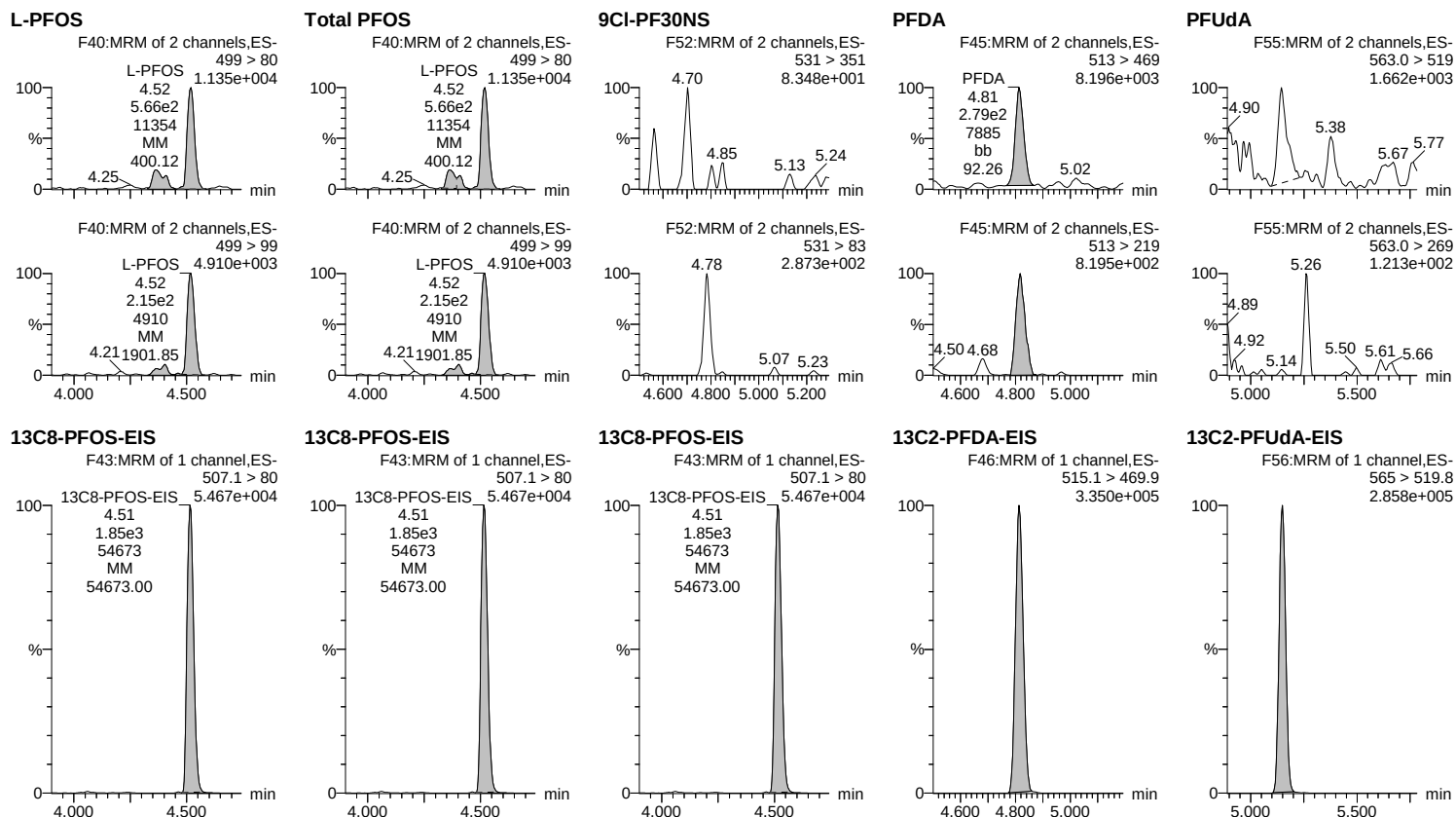
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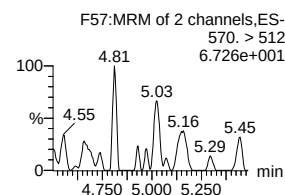
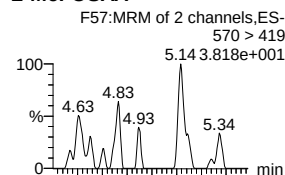
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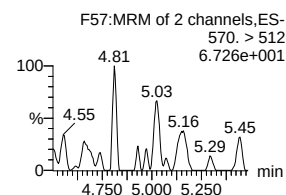
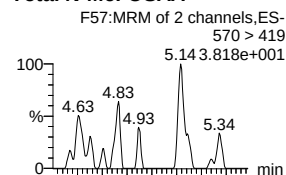
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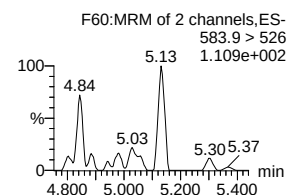
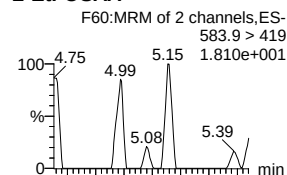
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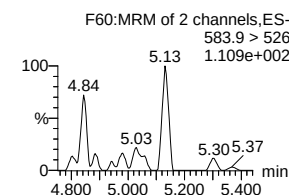
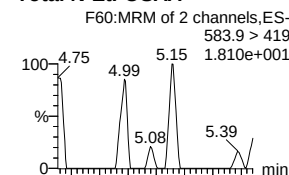
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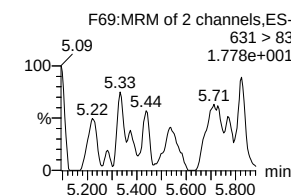
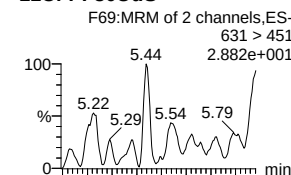
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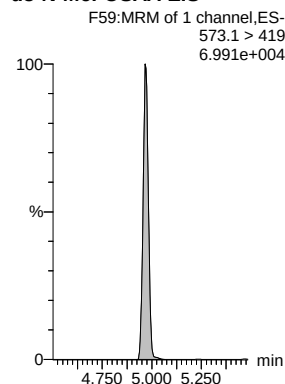
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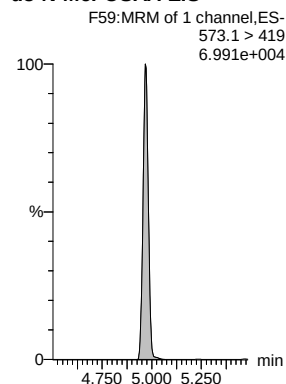
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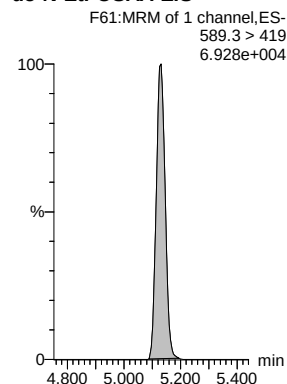
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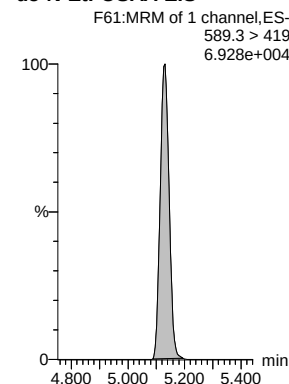
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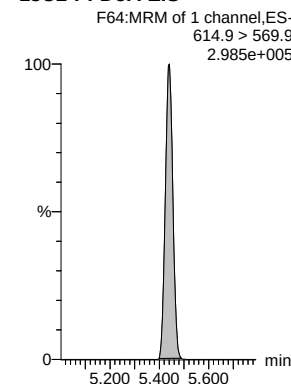
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



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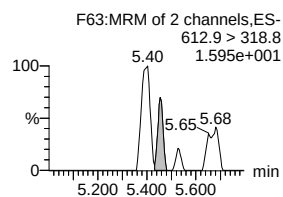
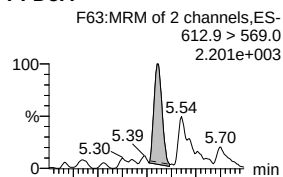
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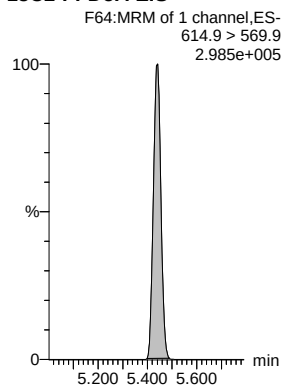
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Name: 200702P1-25, Date: 02-Jul-2020, Time: 13:35:22, ID: 2001315-03 24-GW-15DBMW51-20200618 0.25758, Description: 24-GW-15DBMW51-20200618

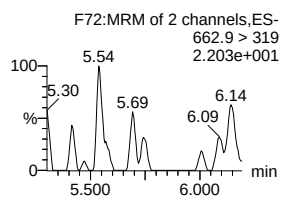
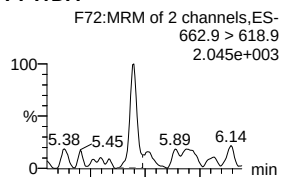
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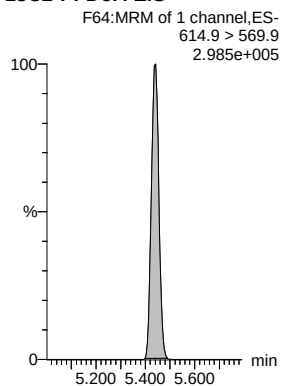
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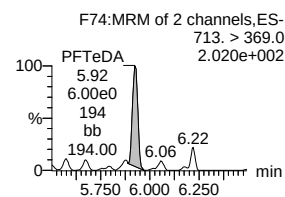
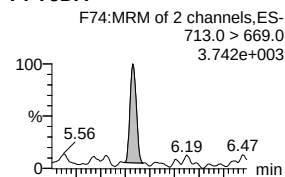
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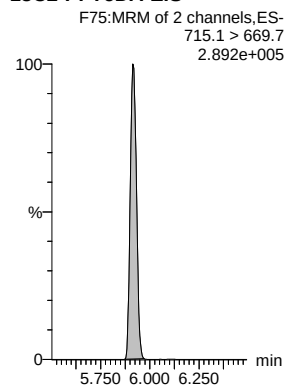
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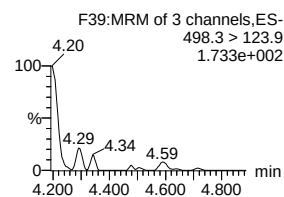
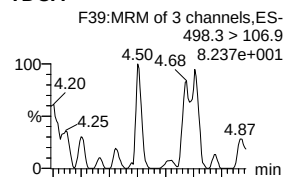
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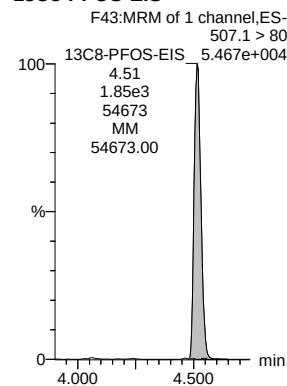
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TDCA



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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-26.qld

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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	3.798e3	9.632e2	0.265		2.32	2.32	49.3	73.781		2.489	NO
2	7 PFHxA	313.0 > 269.0	4.300e4	8.567e3	0.265		2.84	2.84	62.7	232.355		16.420	NO
3	9 HFPO-DA	285.1 > 168.9		1.810e3	0.265		3.07						YES
4	11 PFHpA	363.0 > 319	3.945e3	7.815e3	0.265		3.46	3.46	6.31	17.599		58.440	NO
5	12 ADONA	376.8 > 250.9		7.815e3	0.265		3.55						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	9.632e2		0.265	102.513	2.32	2.32	963	35.438	75.2		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	8.567e3		0.265	1081.420	2.84	2.84	8570	29.878	63.4		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.810e3		0.265	231.766	3.31	3.07	1810	29.453	62.5		
9	59 13C4-PFHxA-EIS	367.2 > 321.8	7.815e3		0.265	909.870	3.46	3.46	7820	32.394	68.7		
10	59 13C4-PFHxA-EIS	367.2 > 321.8	7.815e3		0.265	909.870	3.46	3.46	7820	32.394	68.7		
11	-1												
12	13 L-PFHxS	399 > 79.9	9.144e2	1.873e3	0.265		3.61	3.61	6.10	20.781		4.489	NO
13	1... Total PFHxS	399 > 79.9	9.144e2	1.873e3	0.265		3.93		6.10	20.781			
14	16 L-PFOA	413 > 369	8.515e3	9.171e3	0.265		3.97	3.97	11.6	39.669		2.927	NO
15	1... Total PFOA	413 > 369	8.515e3	9.171e3	0.265		4.60		11.6	39.669			
16	21 PFNA	463.0 > 418.8	1.786e2	9.320e3	0.265		4.43	4.42	0.240	0.754		23.853	YES
17	61 13C3-PFHxS-EIS	402 > 80	1.873e3		0.265	213.280	3.77	3.61	1870	33.115	70.2		
18	61 13C3-PFHxS-EIS	402 > 80	1.873e3		0.265	213.280	3.77	3.61	1870	33.115	70.2		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.171e3		0.265	1053.156	4.06	3.97	9170	32.841	69.7		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.171e3		0.265	1053.156	4.06	3.97	9170	32.841	69.7		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.320e3		0.265	1077.196	4.50	4.43	9320	32.631	69.2		
22	-1												
23	23 L-PFOS	499 > 80	9.356e2	1.974e3	0.265		4.52	4.52	5.92	18.001		2.679	NO
24	1... Total PFOS	499 > 80	9.356e2	1.974e3	0.265		4.60		5.92	18.001			
25	25 9CI-PF30NS	531 > 351		1.974e3	0.265		4.72						YES
26	26 PFDA	513 > 469		1.086e4	0.265		4.81						YES
27	33 PFUdA	563.0 > 519		9.395e3	0.265		5.15						YES
28	71 13C8-PFOS-EIS	507.1 > 80	1.974e3		0.265	194.116	4.52	4.52	1970	38.356	81.4		
29	71 13C8-PFOS-EIS	507.1 > 80	1.974e3		0.265	194.116	4.52	4.52	1970	38.356	81.4		
30	71 13C8-PFOS-EIS	507.1 > 80	1.974e3		0.265	194.116	4.52	4.52	1970	38.356	81.4		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.086e4		0.265	1300.443	4.81	4.81	10900	31.505	66.8		
32	79 13C2-PFUdA-EIS	565 > 519.8	9.395e3		0.265	1330.460	5.15	5.15	9400	26.633	56.5		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.649e3	0.265		4.97						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.649e3	0.265		5.19		0.000				
36	31 L-EtFOSAA	583.9 > 419		2.484e3	0.265		5.13						YES

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-26.qld

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Name: 200702P1-26, Date: 02-Jul-2020, Time: 13:45:53, ID: 2001315-04 24-GW-24NFW8-20200618 0.26515, Description: 24-GW-24NFW8-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	2.484e3	0.265		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		9.890e3	0.265		5.37						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.649e3		0.265	311.775	5.05	4.97	2650	32.046	68.0		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.649e3		0.265	311.775	5.05	4.97	2650	32.046	68.0		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.484e3		0.265	324.344	5.40	5.13	2480	28.881	61.3		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.484e3		0.265	324.344	5.40	5.13	2480	28.881	61.3		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	9.890e3		0.265	1423.871	5.58	5.44	9890	26.195	55.6		
44	-1												
45	37 PFDoA	612.9 > 569.0		9.890e3	0.265		5.44						YES
46	39 PFTrDA	662.9 > 618.9		9.890e3	0.265		5.69						YES
47	41 PFTeDA	713.0 > 669.0		8.332e3	0.265		5.92						YES
48	1... TDCA	498.3>106.9			0.265		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.974e3		0.265	194.116	4.52	4.52	1970	38.356	81.4		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	9.890e3		0.265	1423.871	5.58	5.44	9890	26.195	55.6		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	9.890e3		0.265	1423.871	5.58	5.44	9890	26.195	55.6		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	8.332e3		0.265	1503.225	5.92	5.92	8330	20.904	44.3		

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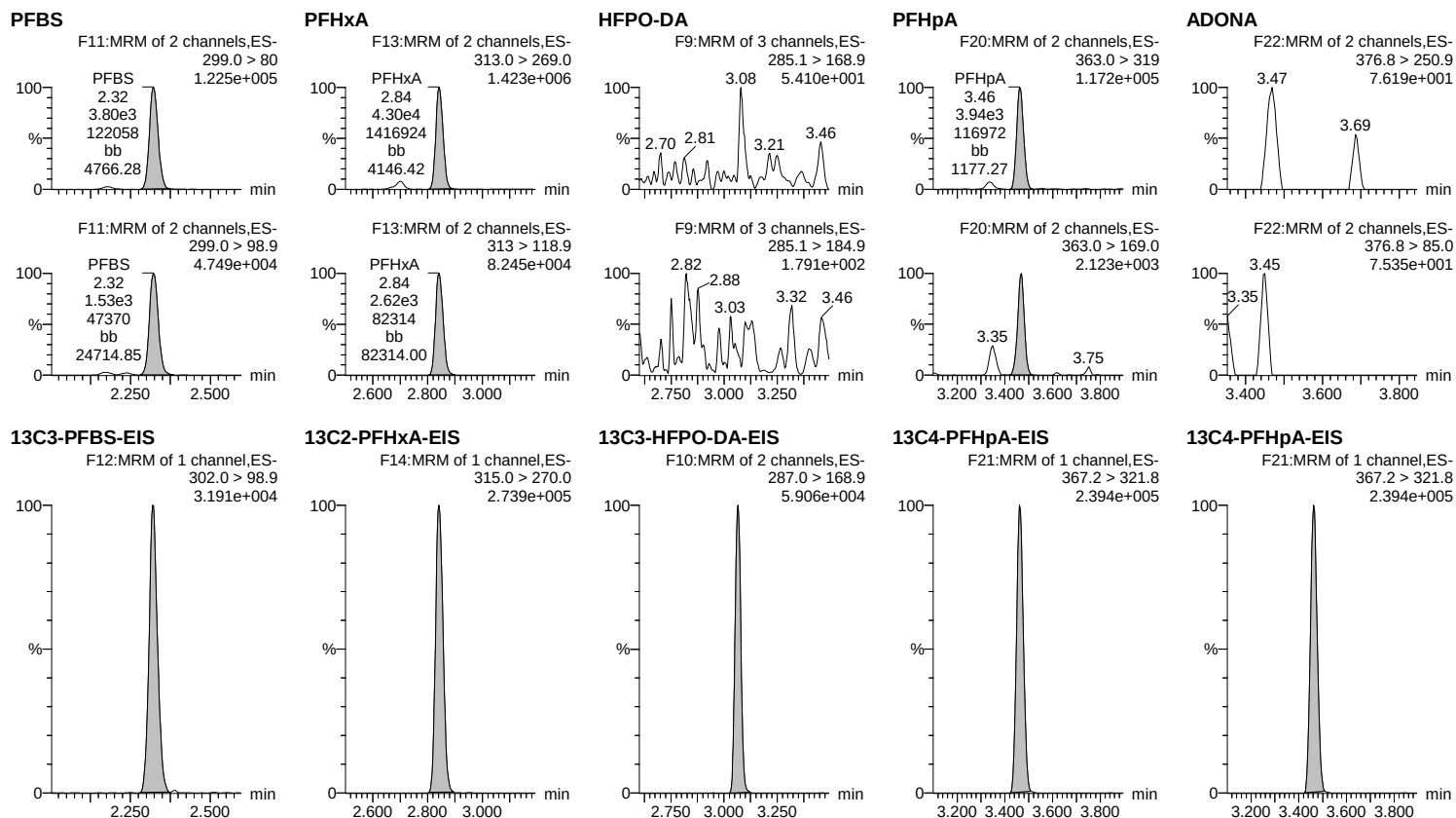
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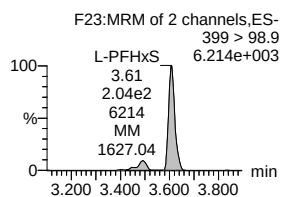
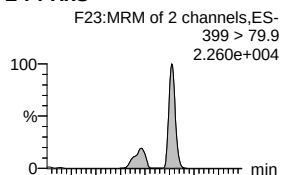
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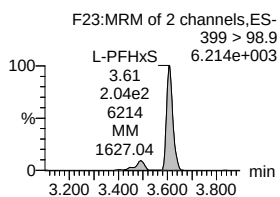
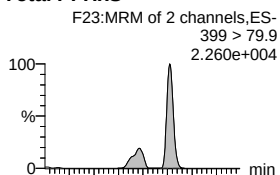
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Name: 200702P1-26, Date: 02-Jul-2020, Time: 13:45:53, ID: 2001315-04 24-GW-24NFW8-20200618 0.26515, Description: 24-GW-24NFW8-20200618

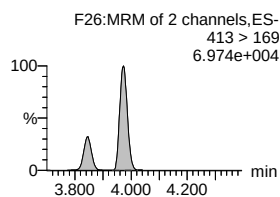
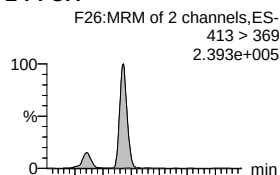
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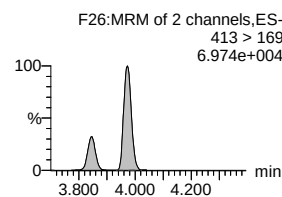
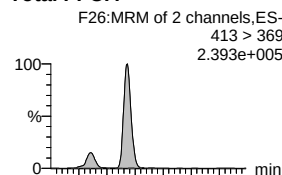
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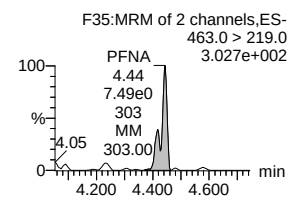
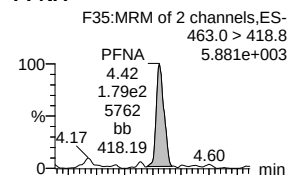
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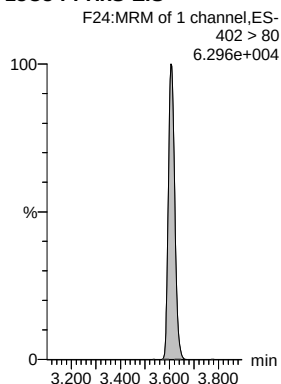
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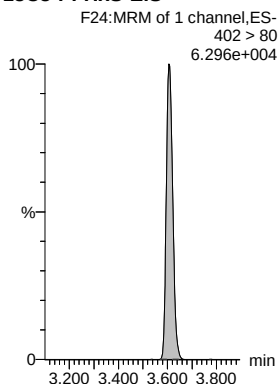
PFNA



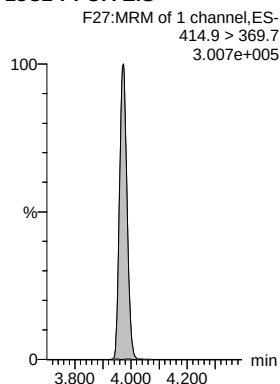
13C3-PFHxS-EIS



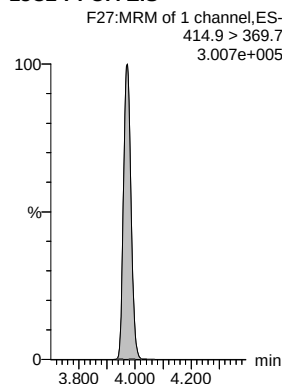
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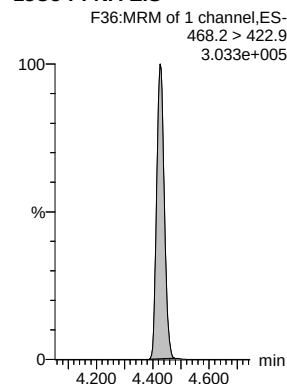
13C2-PFOA-EIS



13C2-PFOA-EIS



13C5-PFNA-EIS



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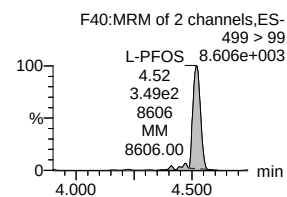
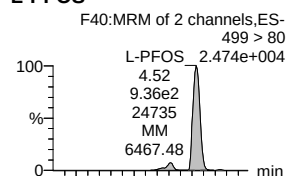
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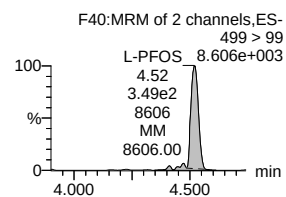
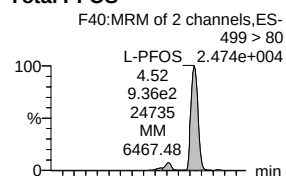
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Name: 200702P1-26, Date: 02-Jul-2020, Time: 13:45:53, ID: 2001315-04 24-GW-24NFW8-20200618 0.26515, Description: 24-GW-24NFW8-20200618

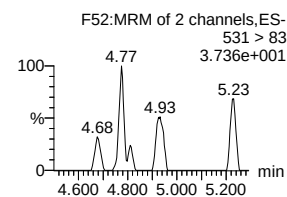
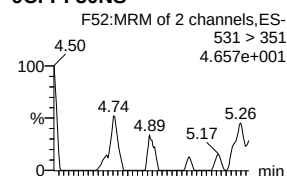
L-PFOS



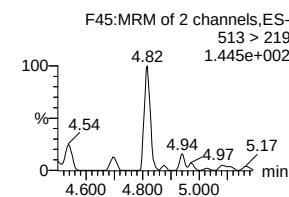
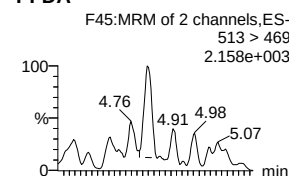
Total PFOS



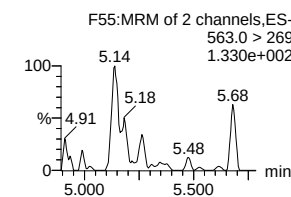
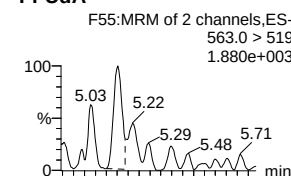
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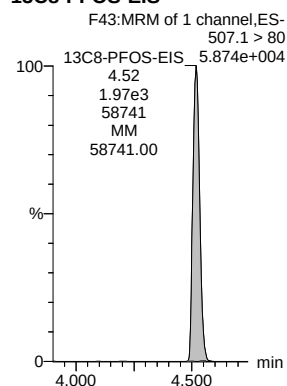
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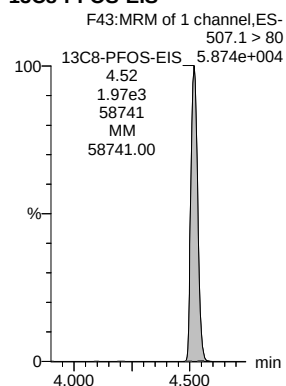
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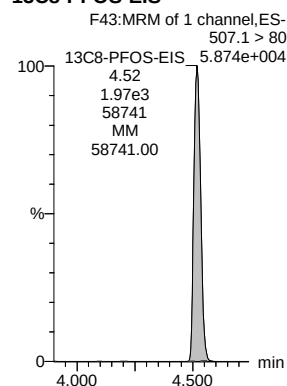
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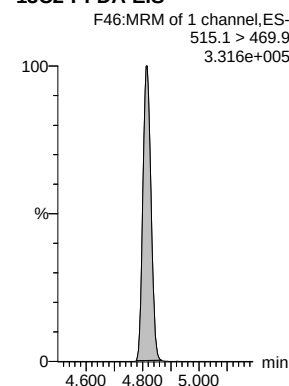
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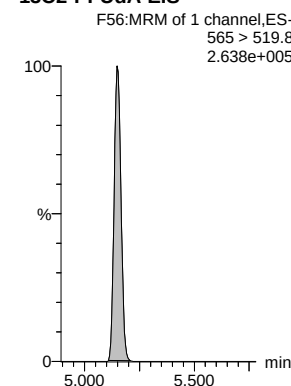
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-PFuDA-EIS



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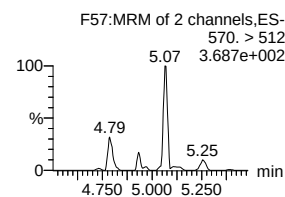
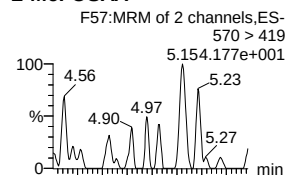
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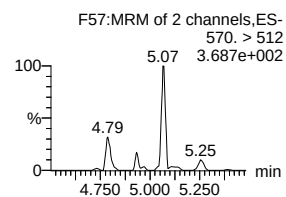
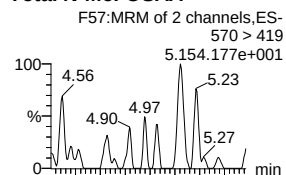
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Name: 200702P1-26, Date: 02-Jul-2020, Time: 13:45:53, ID: 2001315-04 24-GW-24NFW8-20200618 0.26515, Description: 24-GW-24NFW8-20200618

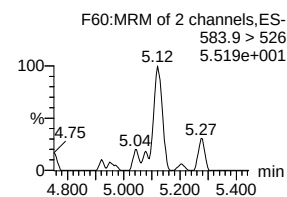
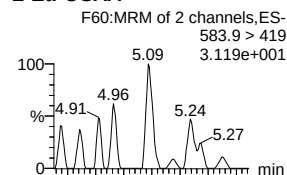
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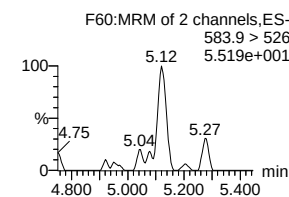
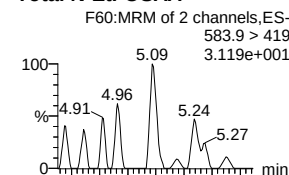
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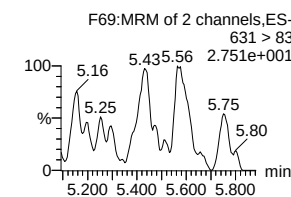
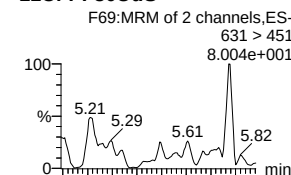
L-EtFOSAA



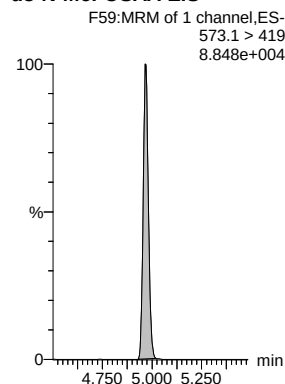
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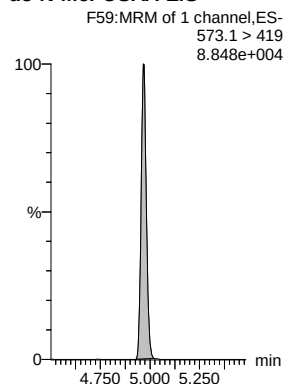
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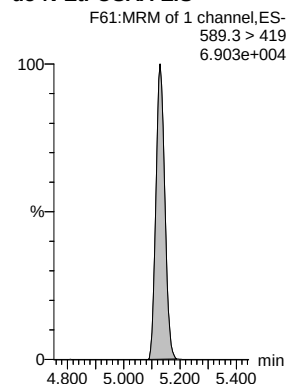
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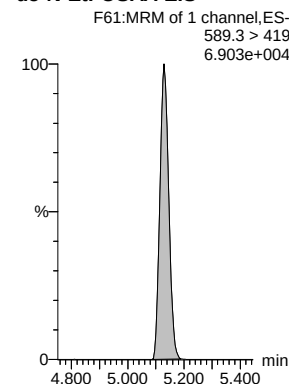
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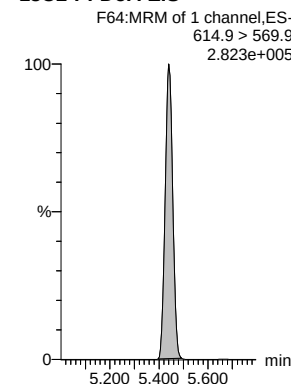
d5-N-EtFOSAA-EIS



d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



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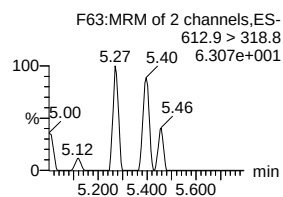
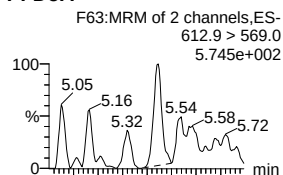
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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-26.qld

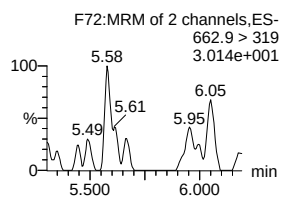
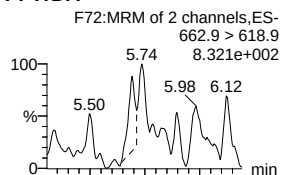
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Name: 200702P1-26, Date: 02-Jul-2020, Time: 13:45:53, ID: 2001315-04 24-GW-24NFW8-20200618 0.26515, Description: 24-GW-24NFW8-20200618

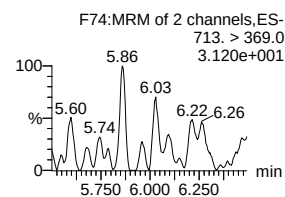
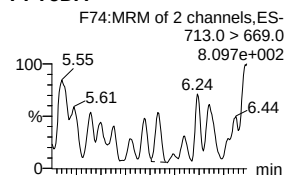
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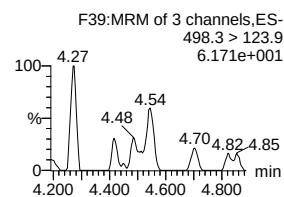
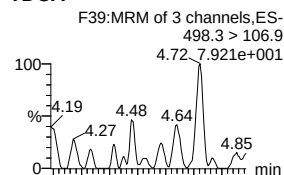
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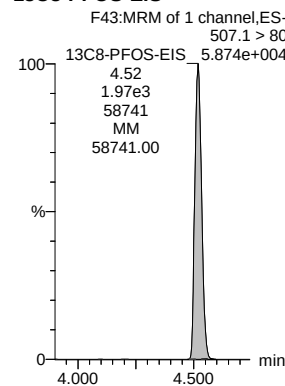
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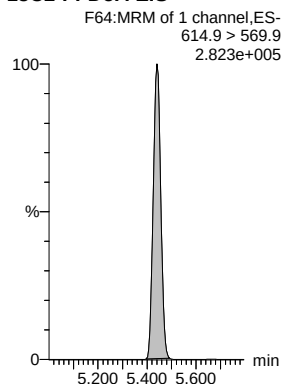
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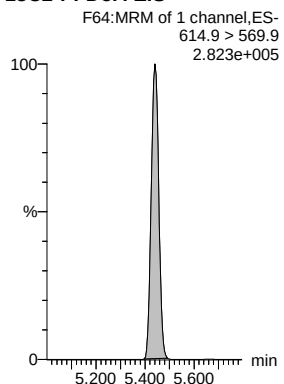
13C8-PFOS-EIS



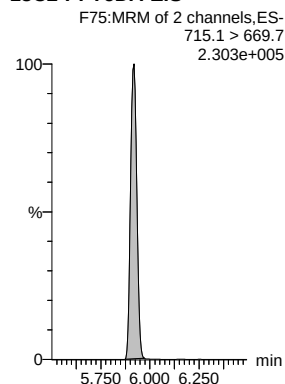
13C2-PFDaA-EIS



13C2-PFDaA-EIS



13C2-PFTeDA-EIS



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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-27.qld

Last Altered: Friday, July 10, 2020 10:02:23 Pacific Daylight Time

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Name: 200702P1-27, Date: 02-Jul-2020, Time: 13:56:24, ID: 2001315-05 24-GW-09DGMW75R-20200618 0.26765, Description: 24-GW-09DGMW75R-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	1.884e3	8.724e2	0.268		2.32	2.32	27.0	40.101		2.703	NO
2	7 PFHxA	313.0 > 269.0	1.718e4	8.602e3	0.268		2.84	2.84	25.0	91.426		16.199	NO
3	9 HFPO-DA	285.1 > 168.9		1.827e3	0.268		3.07						YES
4	11 PFHpA	363.0 > 319	2.230e3	7.655e3	0.268		3.46	3.46	3.64	10.035		36.964	NO
5	12 ADONA	376.8 > 250.9		7.655e3	0.268		3.55						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	8.724e2		0.268	102.513	2.32	2.32	872	31.796	68.1		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	8.602e3		0.268	1081.420	2.84	2.84	8600	29.719	63.6		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.827e3		0.268	231.766	3.31	3.07	1830	29.452	63.1		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	7.655e3		0.268	909.870	3.46	3.46	7650	31.432	67.3		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	7.655e3		0.268	909.870	3.46	3.46	7650	31.432	67.3		
11	-1												
12	13 L-PFHxS	399 > 79.9	1.330e3	1.857e3	0.268		3.61	3.61	8.95	30.182		4.092	NO
13	1... Total PFHxS	399 > 79.9	1.330e3	1.857e3	0.268		3.93		8.95	30.182			
14	16 L-PFOA	413 > 369	3.093e3	9.189e3	0.268		3.97	3.97	4.21	14.184		2.965	NO
15	1... Total PFOA	413 > 369	3.093e3	9.189e3	0.268		4.60		4.21	14.184			
16	21 PFNA	463.0 > 418.8		9.304e3	0.268		4.42						YES
17	61 13C3-PFHxS-EIS	402 > 80	1.857e3		0.268	213.280	3.77	3.61	1860	32.539	69.7		
18	61 13C3-PFHxS-EIS	402 > 80	1.857e3		0.268	213.280	3.77	3.61	1860	32.539	69.7		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.189e3		0.268	1053.156	4.06	3.97	9190	32.599	69.8		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.189e3		0.268	1053.156	4.06	3.97	9190	32.599	69.8		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.304e3		0.268	1077.196	4.50	4.42	9300	32.271	69.1		
22	-1												
23	23 L-PFOS	499 > 80	1.068e1	1.701e3	0.268		4.52	4.52	0.0785	0.135		0.757	YES
24	1... Total PFOS	499 > 80	1.068e1	1.701e3	0.268		4.60		0.0785	0.135			
25	25 9CI-PF30NS	531 > 351		1.701e3	0.268		4.71						YES
26	26 PFDA	513 > 469		1.030e4	0.268		4.81						YES
27	33 PFUdA	563.0 > 519		9.022e3	0.268		5.15						YES
28	71 13C8-PFOS-EIS	507.1 > 80	1.701e3		0.268	194.116	4.52	4.52	1700	32.734	70.1		
29	71 13C8-PFOS-EIS	507.1 > 80	1.701e3		0.268	194.116	4.52	4.52	1700	32.734	70.1		
30	71 13C8-PFOS-EIS	507.1 > 80	1.701e3		0.268	194.116	4.52	4.52	1700	32.734	70.1		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.030e4		0.268	1300.443	4.81	4.81	10300	29.600	63.4		
32	79 13C2-PFUdA-EIS	565 > 519.8	9.022e3		0.268	1330.460	5.15	5.15	9020	25.336	54.2		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.333e3	0.268		4.96						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.333e3	0.268		5.19		0.000				
36	31 L-EtFOSAA	583.9 > 419		1.957e3	0.268		5.13						YES

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-27.qld

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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	1.957e3	0.268		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		8.560e3	0.268		5.38						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.333e3		0.268	311.775	5.05	4.96	2330	27.957	59.9		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.333e3		0.268	311.775	5.05	4.96	2330	27.957	59.9		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	1.957e3		0.268	324.344	5.40	5.13	1960	22.538	48.3		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	1.957e3		0.268	324.344	5.40	5.13	1960	22.538	48.3		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	8.560e3		0.268	1423.871	5.58	5.44	8560	22.461	48.1		
44	-1												
45	37 PFDoA	612.9 > 569.0		8.560e3	0.268		5.44						YES
46	39 PFTrDA	662.9 > 618.9		8.560e3	0.268		5.69						YES
47	41 PFTeDA	713.0 > 669.0		7.646e3	0.268		5.92						YES
48	1... TDCA	498.3>106.9			0.268		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.701e3		0.268	194.116	4.52	4.52	1700	32.734	70.1		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	8.560e3		0.268	1423.871	5.58	5.44	8560	22.461	48.1		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	8.560e3		0.268	1423.871	5.58	5.44	8560	22.461	48.1		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	7.646e3		0.268	1503.225	5.92	5.92	7650	19.003	40.7		

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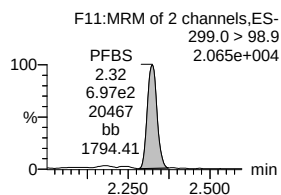
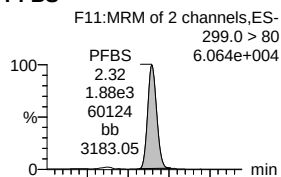
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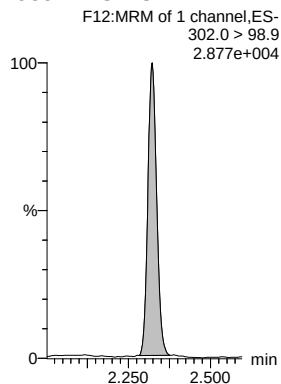
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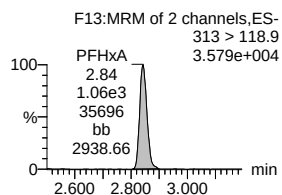
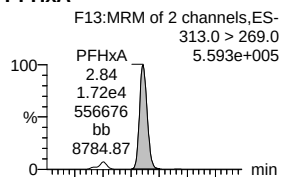
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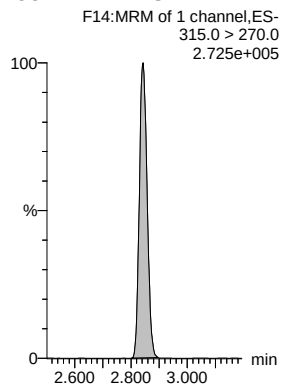
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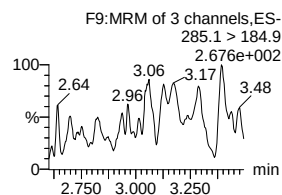
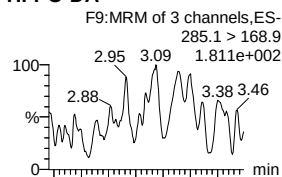
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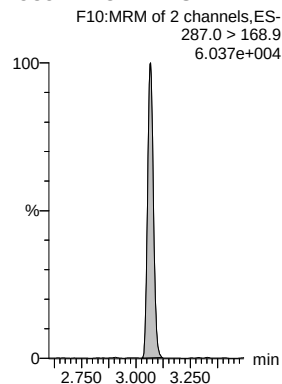
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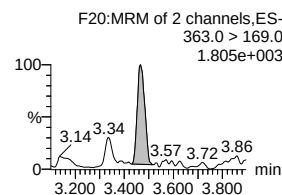
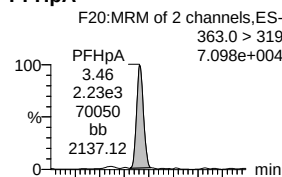
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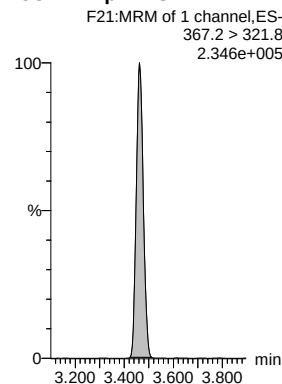
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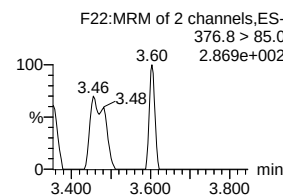
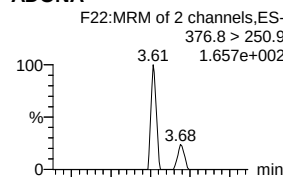
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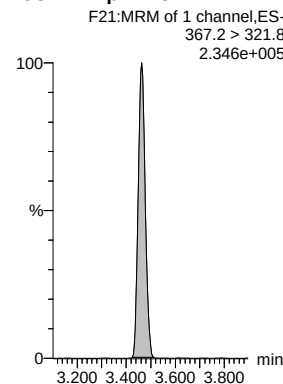
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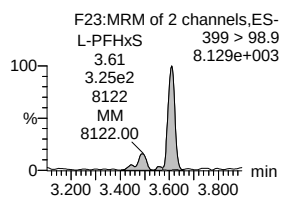
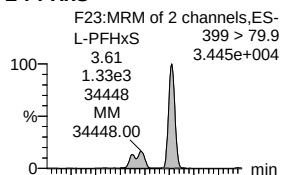
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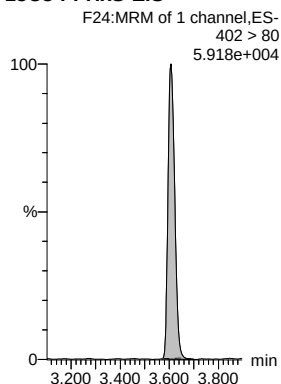
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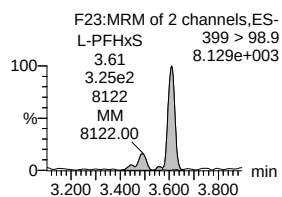
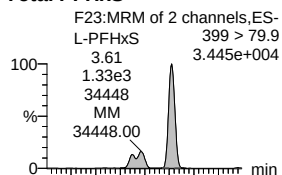
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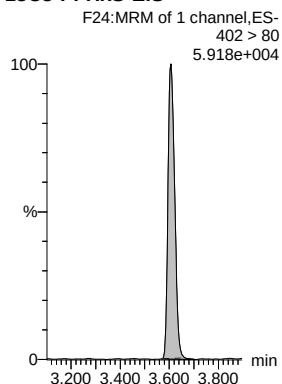
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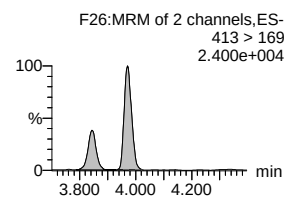
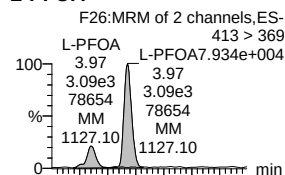
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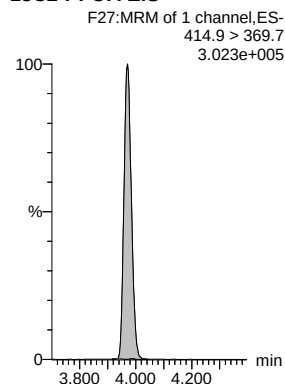
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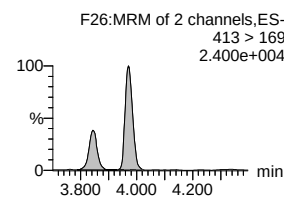
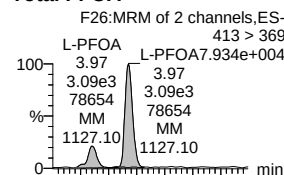
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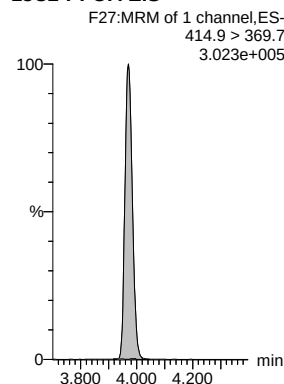
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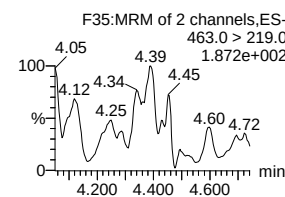
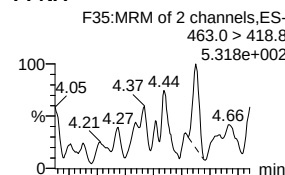
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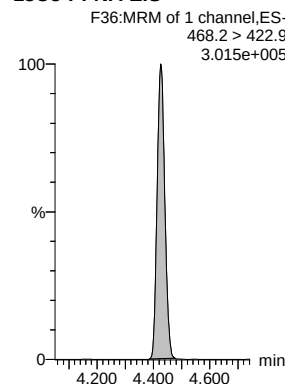
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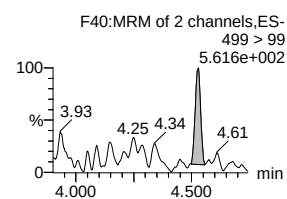
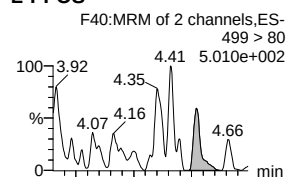
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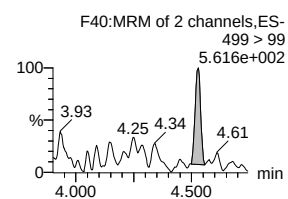
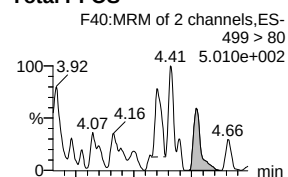
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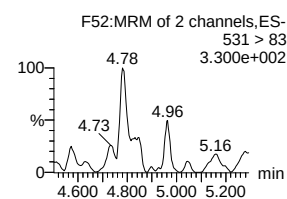
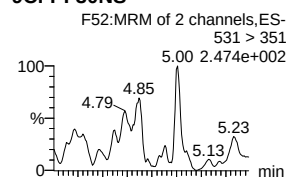
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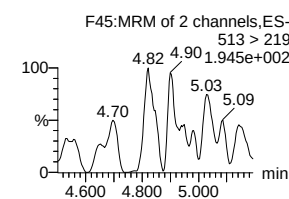
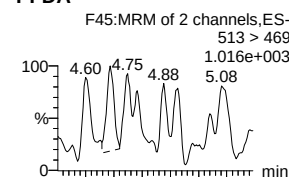
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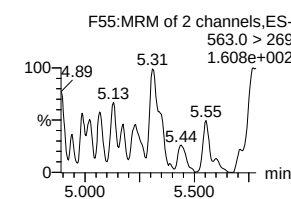
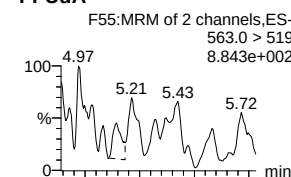
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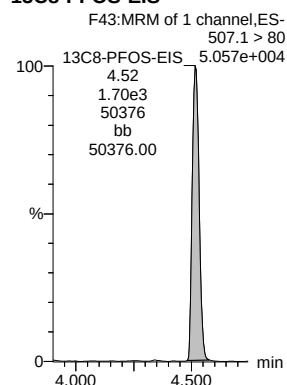
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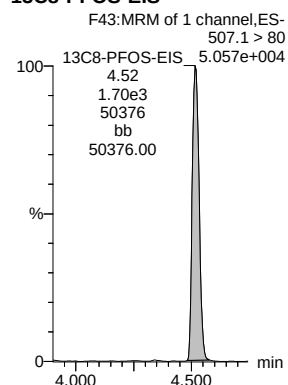
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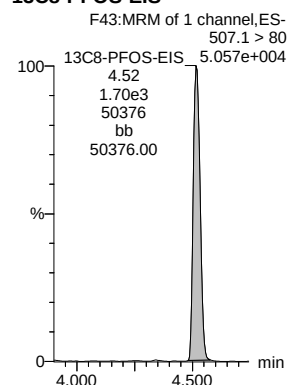
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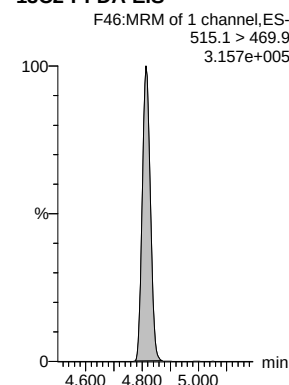
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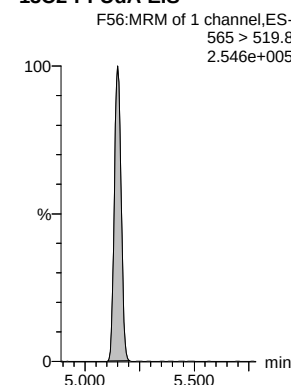
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13C2-PFDA-EIS



13C2-PFUdA-EIS



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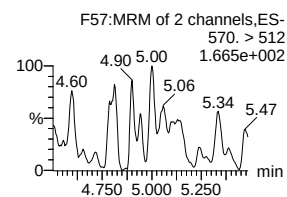
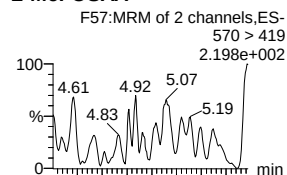
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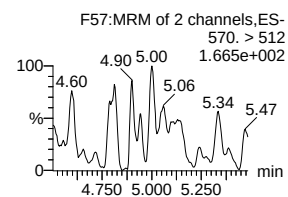
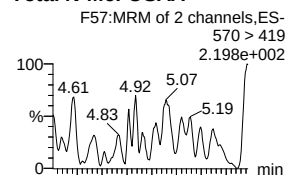
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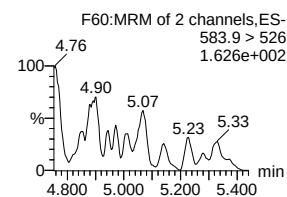
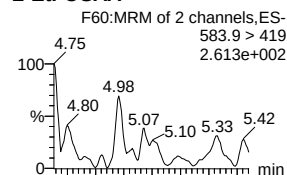
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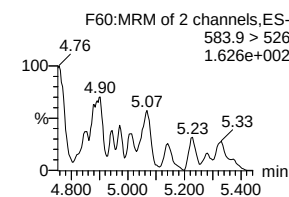
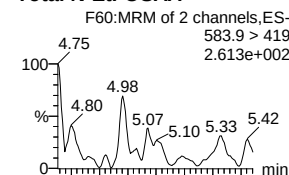
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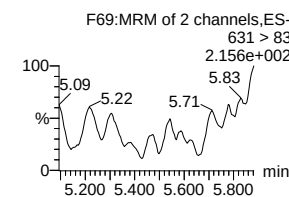
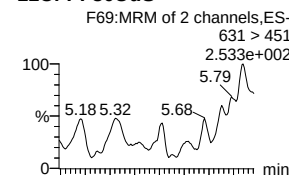
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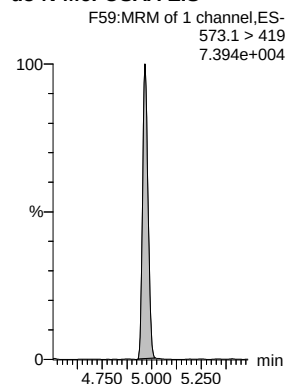
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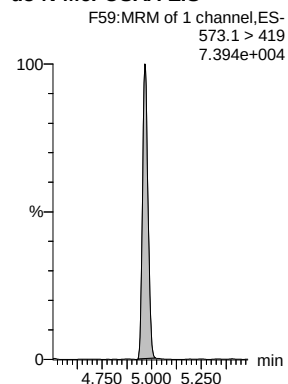
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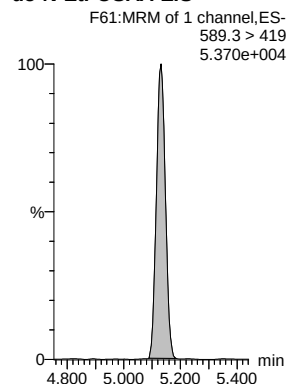
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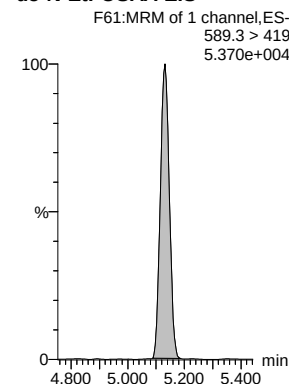
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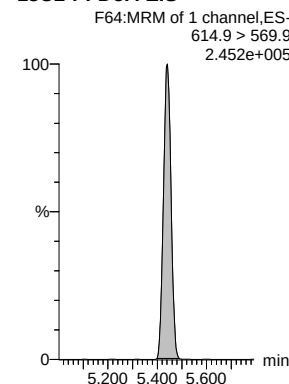
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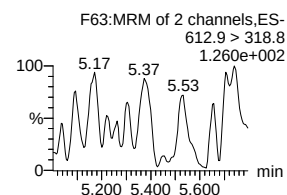
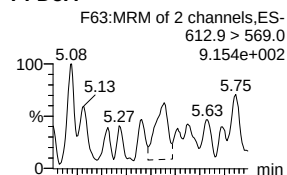
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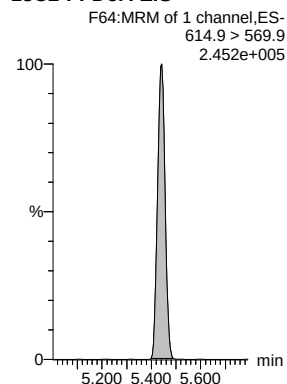
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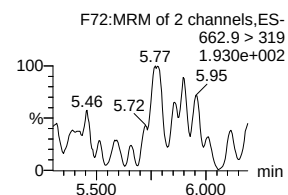
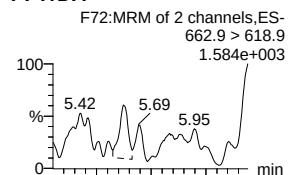
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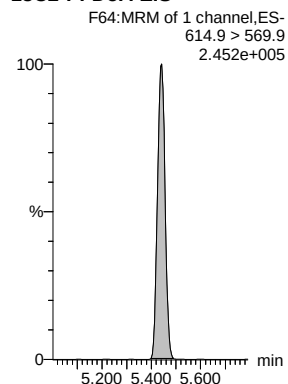
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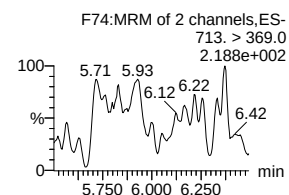
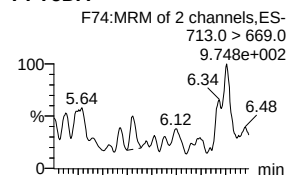
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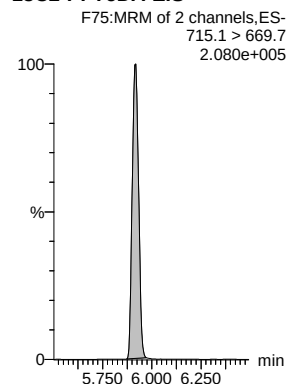
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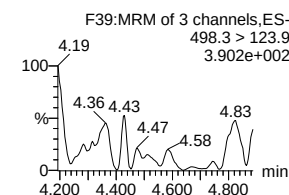
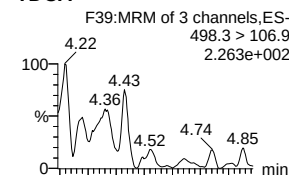
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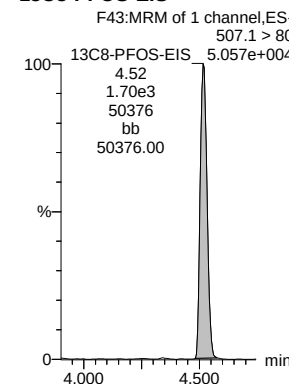
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13C8-PFOS-EIS



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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	5.044e2	9.680e2	0.259		2.87	2.87	6.51	9.793		2.525	NO
2	7 PFHxA	313.0 > 269.0	1.595e4	9.329e3	0.259		3.36	3.36	21.4	79.252		17.948	NO
3	9 HFPO-DA	285.1 > 168.9		1.831e3	0.259		3.58						YES
4	11 PFHpA	363.0 > 319	3.836e3	8.210e3	0.259		3.98	3.97	5.84	17.215		42.209	NO
5	12 ADONA	376.8 > 250.9		8.210e3	0.259		4.07						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	9.680e2		0.259	104.004	2.87	2.87	968	35.869	74.5		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	9.329e3		0.259	1090.353	3.38	3.36	9330	32.975	68.5		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.831e3		0.259	228.261	3.59	3.58	1830	30.914	64.2		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	8.210e3		0.259	983.154	3.98	3.98	8210	32.183	66.8		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	8.210e3		0.259	983.154	3.98	3.98	8210	32.183	66.8		
11	-1												
12	13 L-PFHxS	399 > 79.9	1.849e3	1.837e3	0.259		4.12	4.12	12.6	44.118		4.431	NO
13	1... Total PFHxS	399 > 79.9	1.849e3	1.837e3	0.259		3.93		12.6	44.118			
14	16 L-PFOA	413 > 369	3.611e4	9.291e3	0.259		4.49	4.49	48.6	166.784		2.800	NO
15	1... Total PFOA	413 > 369	3.611e4	9.291e3	0.259		4.60		48.6	166.784			
16	21 PFNA	463.0 > 418.8	8.497e1	1.032e4	0.259		4.93	4.93	0.103	0.288		36.513	YES
17	61 13C3-PFHxS-EIS	402 > 80	1.837e3		0.259	220.112	4.13	4.12	1840	32.161	66.8		
18	61 13C3-PFHxS-EIS	402 > 80	1.837e3		0.259	220.112	4.13	4.12	1840	32.161	66.8		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.291e3		0.259	1154.443	4.67	4.49	9290	31.016	64.4		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.291e3		0.259	1154.443	4.67	4.49	9290	31.016	64.4		
21	65 13C5-PFNA-EIS	468.2 > 422.9	1.032e4		0.259	1213.140	5.13	4.93	10300	32.789	68.1		
22	-1												
23	23 L-PFOS	499 > 80	1.414e2	1.880e3	0.259		5.01	5.01	0.940	3.118		1.869	NO
24	1... Total PFOS	499 > 80	1.414e2	1.880e3	0.259		4.60		0.940	3.118			
25	25 9CI-PF30NS	531 > 351		1.880e3	0.259		5.23						YES
26	26 PFDA	513 > 469	1.721e2	1.198e4	0.259		5.30	5.30	0.179	0.617		11.189	YES
27	33 PFUdA	563.0 > 519	6.062e1	1.081e4	0.259		5.62	5.63	0.0701	0.179		11.403	NO
28	71 13C8-PFOS-EIS	507.1 > 80	1.880e3		0.259	225.510	5.02	5.01	1880	32.133	66.7		
29	71 13C8-PFOS-EIS	507.1 > 80	1.880e3		0.259	225.510	5.02	5.01	1880	32.133	66.7		
30	71 13C8-PFOS-EIS	507.1 > 80	1.880e3		0.259	225.510	5.02	5.01	1880	32.133	66.7		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.198e4		0.259	1491.471	5.31	5.30	12000	30.961	64.3		
32	79 13C2-PFUdA-EIS	565 > 519.8	1.081e4		0.259	1581.335	5.54	5.62	10800	26.347	54.7		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.055e3	0.259		5.44						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.055e3	0.259		5.19		0.000				
36	31 L-EtFOSAA	583.9 > 419		2.202e3	0.259		5.60						YES

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-37-38.qld

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	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	2.202e3	0.259		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		1.259e4	0.259		5.83						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.055e3		0.259	331.163	5.46	5.44	2050	23.913	49.6		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.055e3		0.259	331.163	5.46	5.44	2050	23.913	49.6		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.202e3		0.259	313.941	5.61	5.60	2200	27.037	56.1		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.202e3		0.259	313.941	5.61	5.60	2200	27.037	56.1		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	1.259e4		0.259	1868.510	6.13	5.90	12600	25.964	53.9		
44	-1												
45	37 PFDoA	612.9 > 569.0	1.016e2	1.259e4	0.259		5.90	5.89	0.101	0.374		15.102	NO
46	39 PFTrDA	662.9 > 618.9		1.259e4	0.259		6.16						YES
47	41 PFTeDA	713.0 > 669.0	9.716e1	1.171e4	0.259		6.33	6.33	0.104	0.137		6.903	NO
48	1... TDCA	498.3>106.9			0.259	0.022	4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.880e3		0.259	225.510	5.02	5.01	1880	32.133	66.7		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	1.259e4		0.259	1868.510	6.13	5.90	12600	25.964	53.9		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	1.259e4		0.259	1868.510	6.13	5.90	12600	25.964	53.9		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	1.171e4		0.259	1905.823	6.34	6.33	11700	23.670	49.1		

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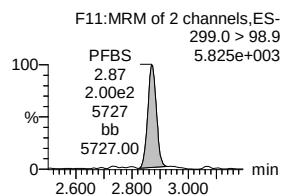
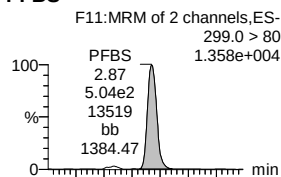
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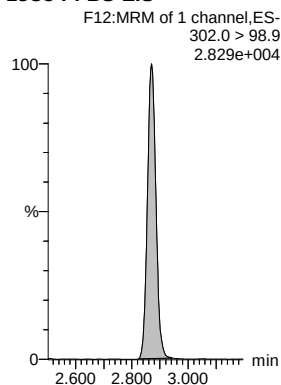
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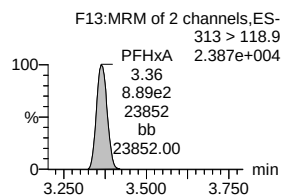
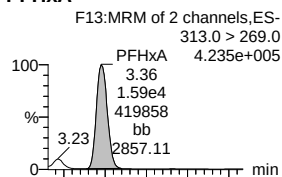
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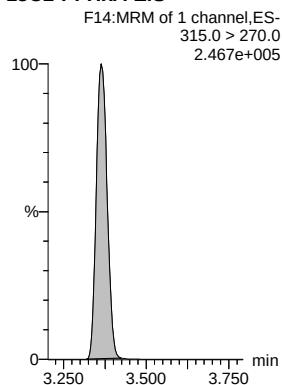
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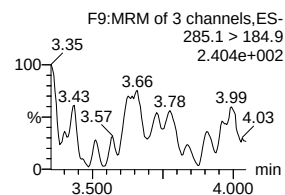
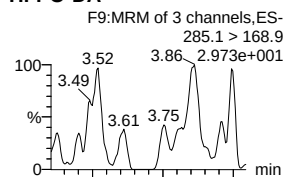
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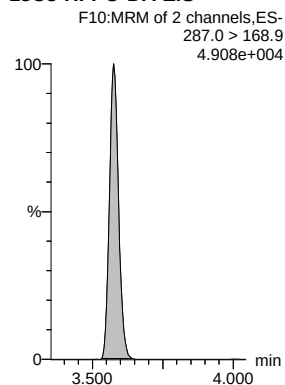
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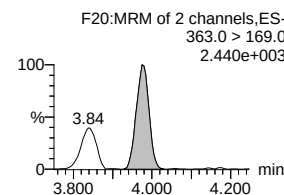
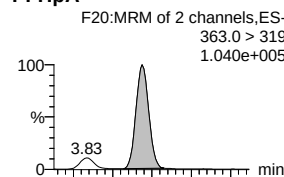
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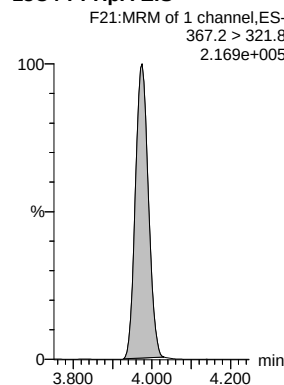
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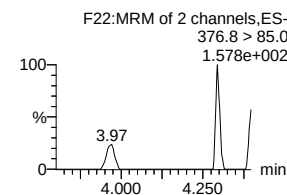
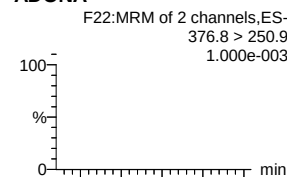
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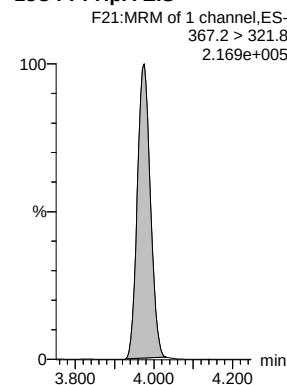
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ADONA



13C4-PFHpA-EIS



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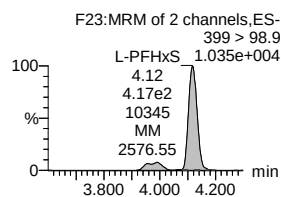
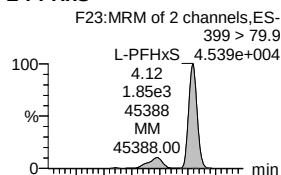
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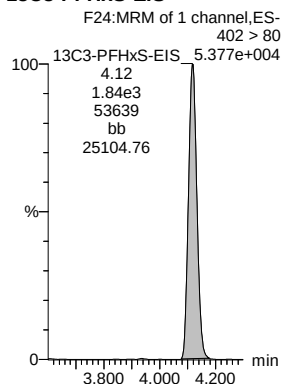
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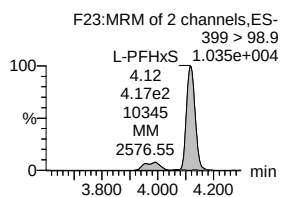
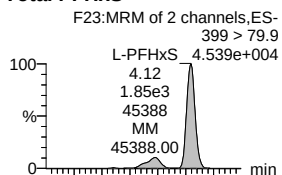
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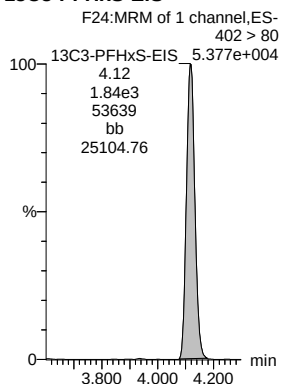
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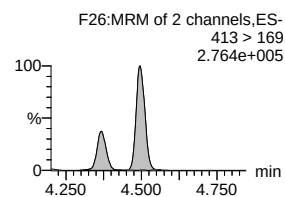
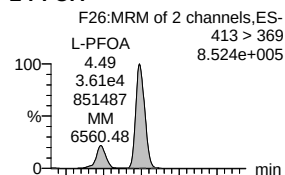
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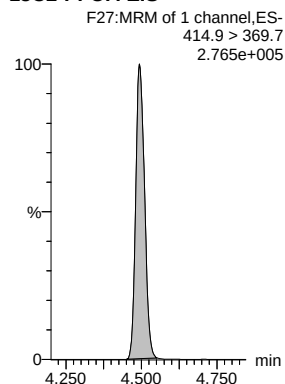
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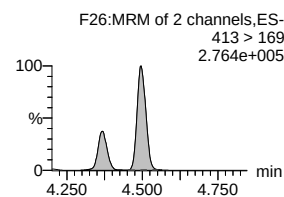
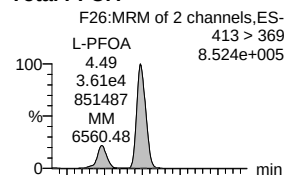
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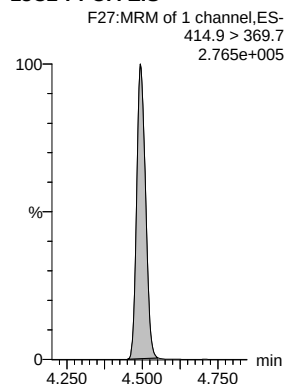
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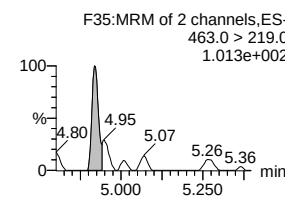
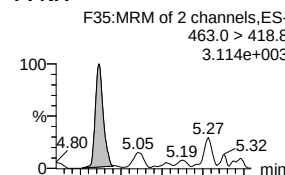
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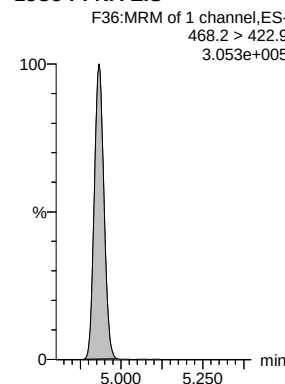
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PFNA



13C5-PFNA-EIS



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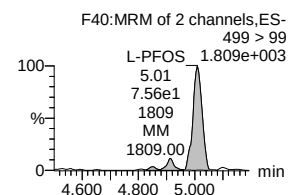
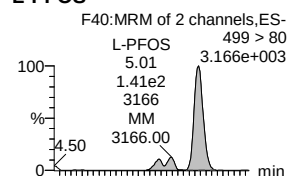
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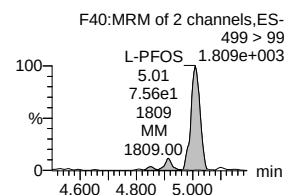
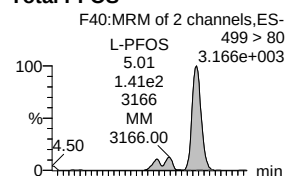
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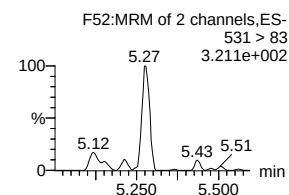
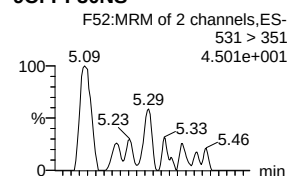
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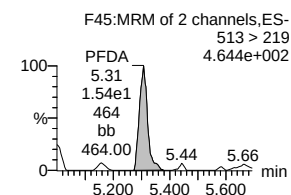
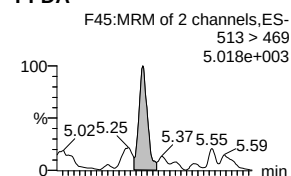
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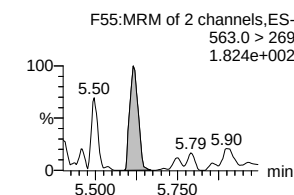
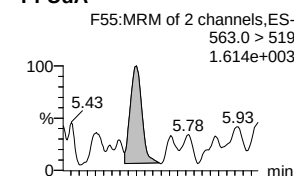
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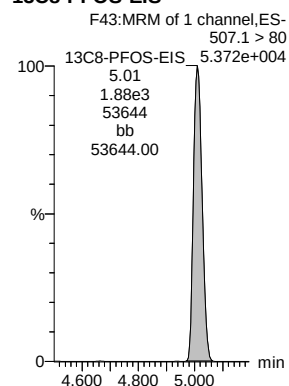
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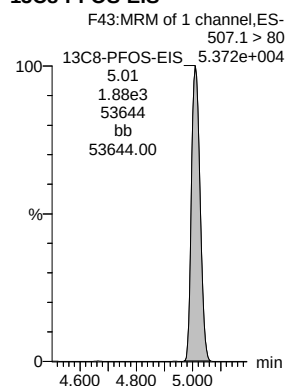
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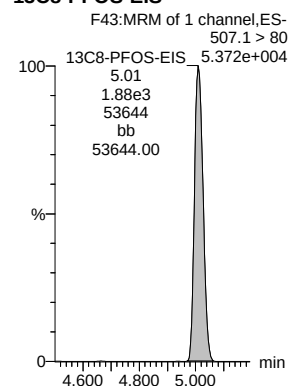
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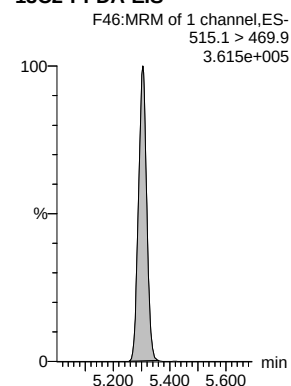
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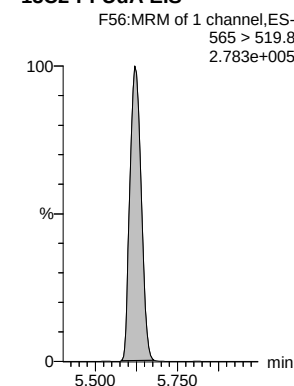
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13C2-PFDA-EIS



13C2-PFuDA-EIS



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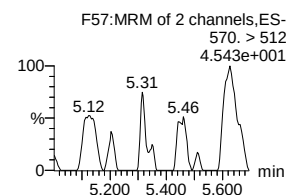
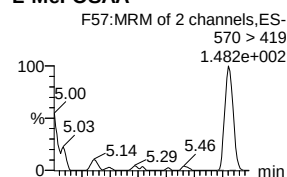
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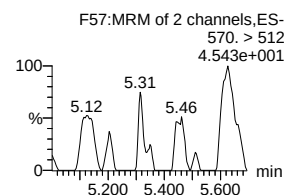
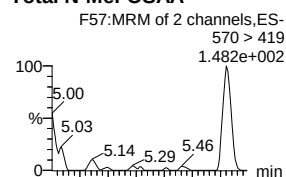
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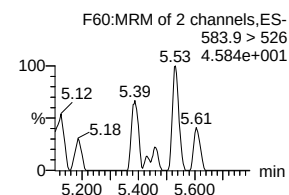
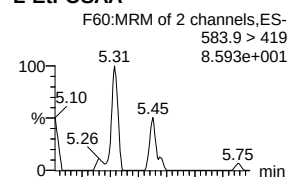
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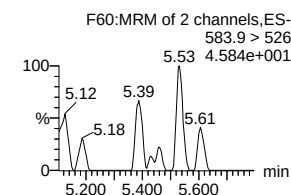
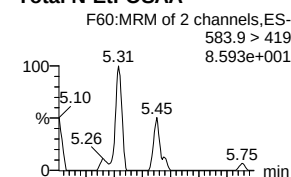
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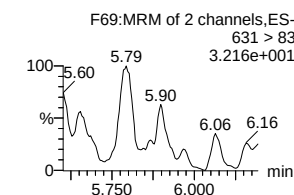
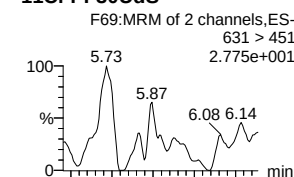
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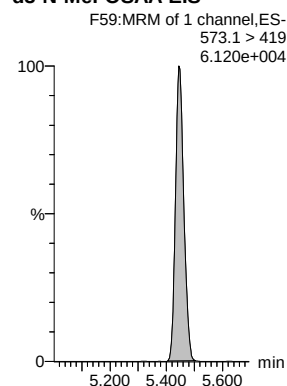
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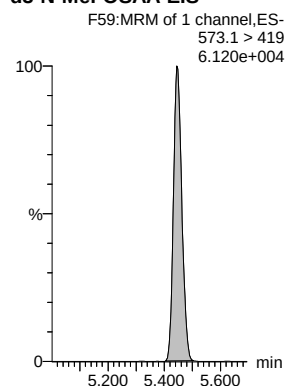
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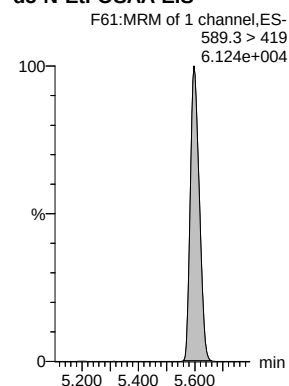
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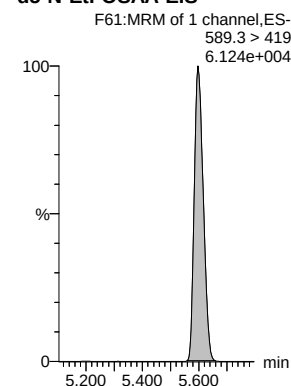
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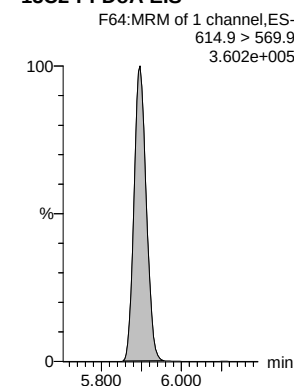
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



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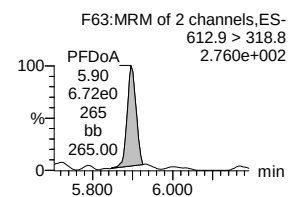
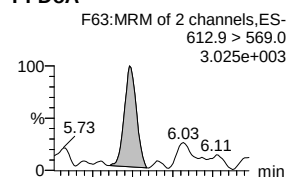
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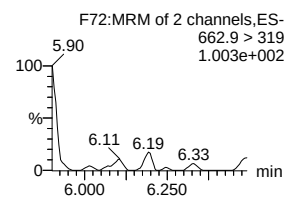
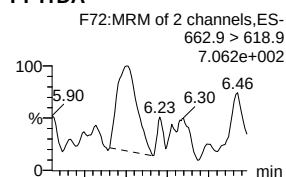
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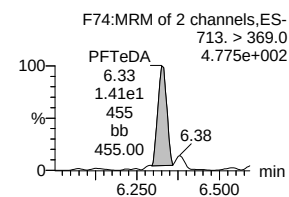
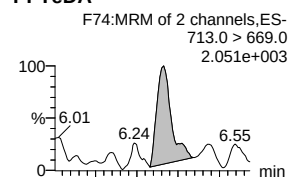
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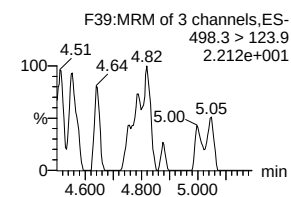
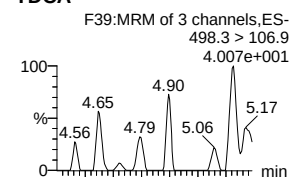
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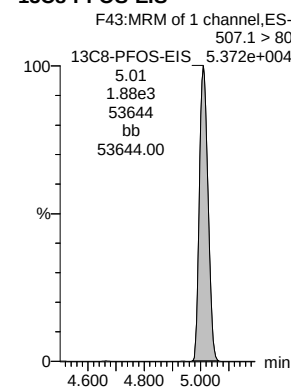
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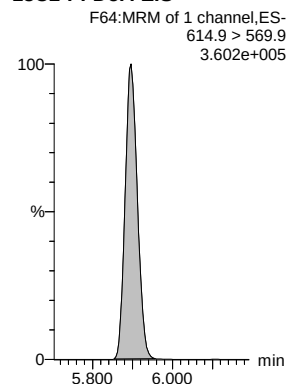
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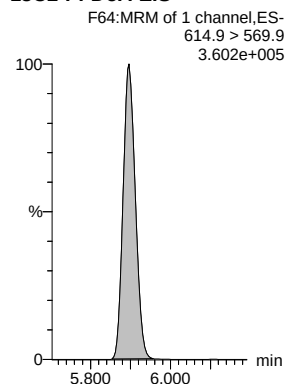
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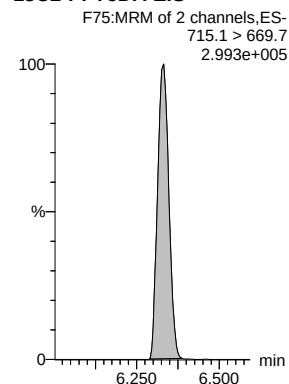
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13C2-PFDaA-EIS



13C2-PFTeDA-EIS



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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-29.qld

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Printed: Friday, July 10, 2020 10:40:32 Pacific Daylight Time

Name: 200702P1-29, Date: 02-Jul-2020, Time: 14:17:25, ID: 2001315-07 24-GW-18PS8-20200618 0.24835, Description: 24-GW-18PS8-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	4.976e2	9.069e2	0.248		2.32	2.32	6.86	11.008		2.508	NO
2	7 PFHxA	313.0 > 269.0	3.931e3	9.070e3	0.248		2.84	2.84	5.42	21.112		17.144	NO
3	9 HFPO-DA	285.1 > 168.9		1.958e3	0.248		3.06						YES
4	11 PFHpA	363.0 > 319	1.005e3	7.946e3	0.248		3.46	3.46	1.58	4.652		400.117	YES
5	12 ADONA	376.8 > 250.9		7.946e3	0.248		3.55						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	9.069e2		0.248	102.513	2.32	2.32	907	35.622	70.8		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	9.070e3		0.248	1081.420	2.84	2.84	9070	33.772	67.1		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.958e3		0.248	231.766	3.31	3.06	1960	34.020	67.6		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	7.946e3		0.248	909.870	3.46	3.46	7950	35.166	69.9		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	7.946e3		0.248	909.870	3.46	3.46	7950	35.166	69.9		
11	-1												
12	13 L-PFHxS	399 > 79.9	1.174e3	1.831e3	0.248		3.61	3.61	8.01	29.112		4.877	NO
13	1... Total PFHxS	399 > 79.9	1.174e3	1.831e3	0.248		3.93		8.01	29.112			
14	16 L-PFOA	413 > 369	2.502e3	9.355e3	0.248		3.97	3.97	3.34	12.124		3.486	NO
15	1... Total PFOA	413 > 369	2.502e3	9.355e3	0.248		4.60		3.34	12.124			
16	21 PFNA	463.0 > 418.8	4.350e2	9.630e3	0.248		4.43	4.42	0.565	1.920		9.746	NO
17	61 13C3-PFHxS-EIS	402 > 80	1.831e3		0.248	213.280	3.77	3.61	1830	34.575	68.7		
18	61 13C3-PFHxS-EIS	402 > 80	1.831e3		0.248	213.280	3.77	3.61	1830	34.575	68.7		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.355e3		0.248	1053.156	4.06	3.97	9360	35.769	71.1		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.355e3		0.248	1053.156	4.06	3.97	9360	35.769	71.1		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.630e3		0.248	1077.196	4.50	4.43	9630	35.995	71.5		
22	-1												
23	23 L-PFOS	499 > 80	7.995e3	1.843e3	0.248		4.52	4.52	54.2	176.622		2.478	NO
24	1... Total PFOS	499 > 80	7.995e3	1.843e3	0.248		4.60		54.2	176.622			
25	25 9CI-PF30NS	531 > 351		1.843e3	0.248		4.71						YES
26	26 PFDA	513 > 469	3.072e2	1.075e4	0.248		4.81	4.81	0.357	1.547		7.276	NO
27	33 PFUdA	563.0 > 519	1.898e2	1.030e4	0.248		5.15	5.15	0.230	0.782		100.694	YES
28	71 13C8-PFOS-EIS	507.1 > 80	1.843e3		0.248	194.116	4.52	4.52	1840	38.228	76.0		
29	71 13C8-PFOS-EIS	507.1 > 80	1.843e3		0.248	194.116	4.52	4.52	1840	38.228	76.0		
30	71 13C8-PFOS-EIS	507.1 > 80	1.843e3		0.248	194.116	4.52	4.52	1840	38.228	76.0		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.075e4		0.248	1300.443	4.81	4.81	10700	33.273	66.1		
32	79 13C2-PFUdA-EIS	565 > 519.8	1.030e4		0.248	1330.460	5.15	5.15	10300	31.161	61.9		
33	-1												
34	29 L-MeFOSAA	570 > 419	6.750e0	2.698e3	0.248		4.97	4.97	0.0313	0.393		0.773	YES
35	1... Total N-MeFOSAA	570. > 419	6.750e0	2.698e3	0.248		5.19		0.0313	0.393			
36	31 L-EtFOSAA	583.9 > 419		2.541e3	0.248		5.13						YES

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-29.qld

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Printed: Friday, July 10, 2020 10:40:32 Pacific Daylight Time

Name: 200702P1-29, Date: 02-Jul-2020, Time: 14:17:25, ID: 2001315-07 24-GW-18PS8-20200618 0.24835, Description: 24-GW-18PS8-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	2.541e3	0.248		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		1.085e4	0.248		5.38						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.698e3		0.248	311.775	5.05	4.97	2700	34.851	69.2		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.698e3		0.248	311.775	5.05	4.97	2700	34.851	69.2		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.541e3		0.248	324.344	5.40	5.13	2540	31.549	62.7		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.541e3		0.248	324.344	5.40	5.13	2540	31.549	62.7		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	1.085e4		0.248	1423.871	5.58	5.44	10800	30.673	60.9		
44	-1												
45	37 PFDoA	612.9 > 569.0		1.085e4	0.248		5.44						YES
46	39 PFTrDA	662.9 > 618.9		1.085e4	0.248		5.69						YES
47	41 PFTeDA	713.0 > 669.0		8.392e3	0.248		5.92						YES
48	1... TDCA	498.3>106.9			0.248		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.843e3		0.248	194.116	4.52	4.52	1840	38.228	76.0		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	1.085e4		0.248	1423.871	5.58	5.44	10800	30.673	60.9		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	1.085e4		0.248	1423.871	5.58	5.44	10800	30.673	60.9		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	8.392e3		0.248	1503.225	5.92	5.92	8390	22.479	44.7		

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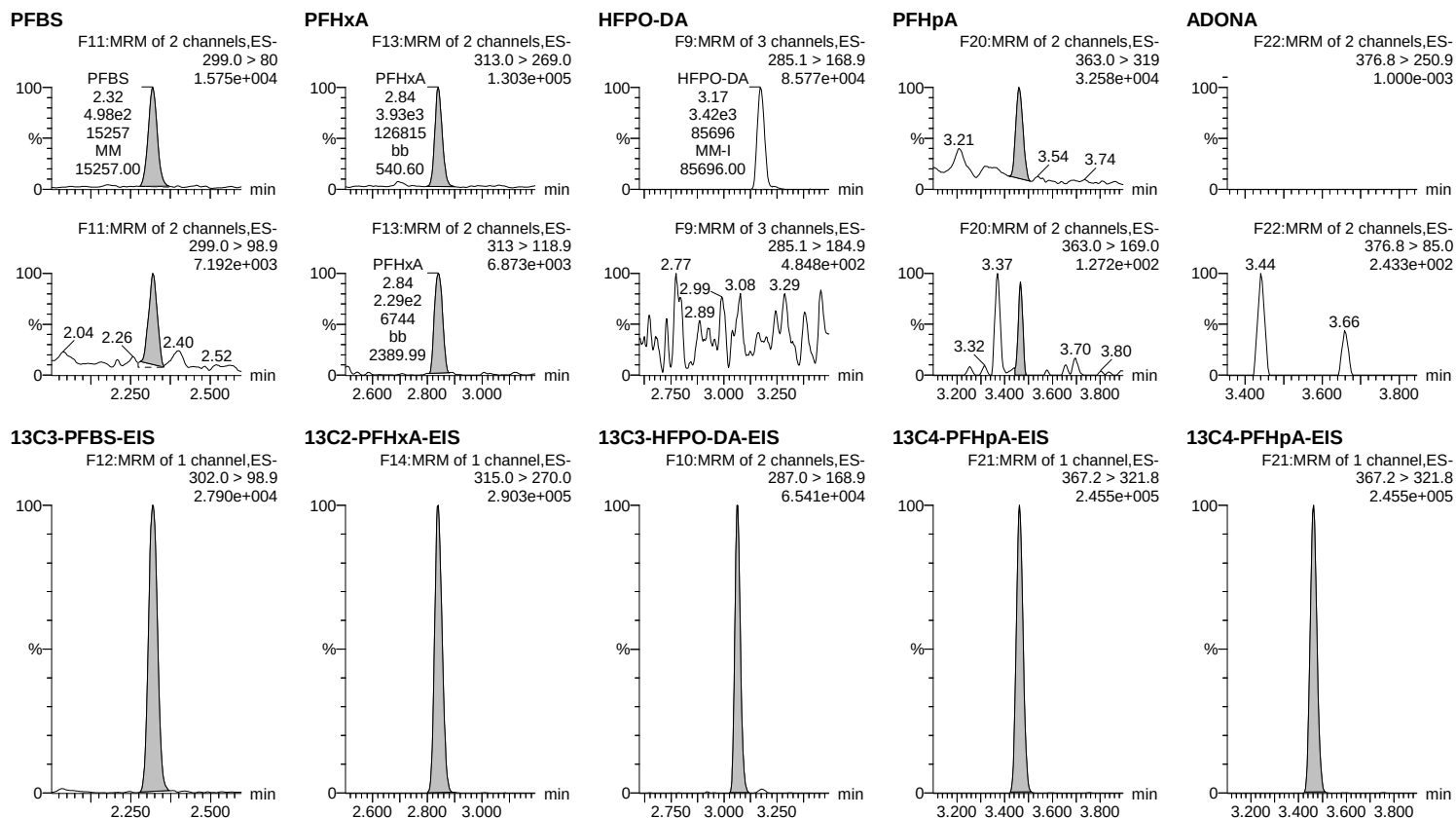
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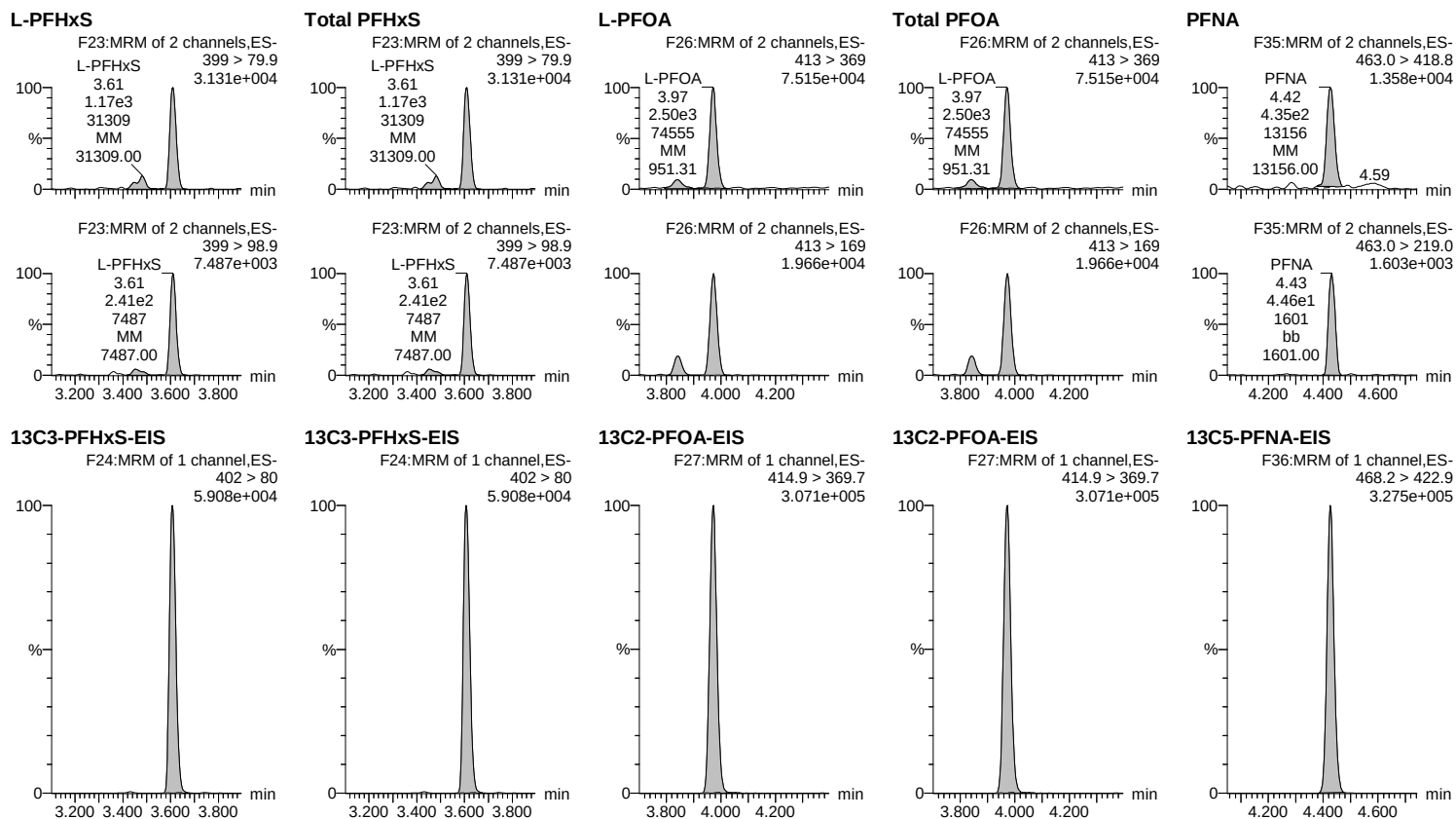
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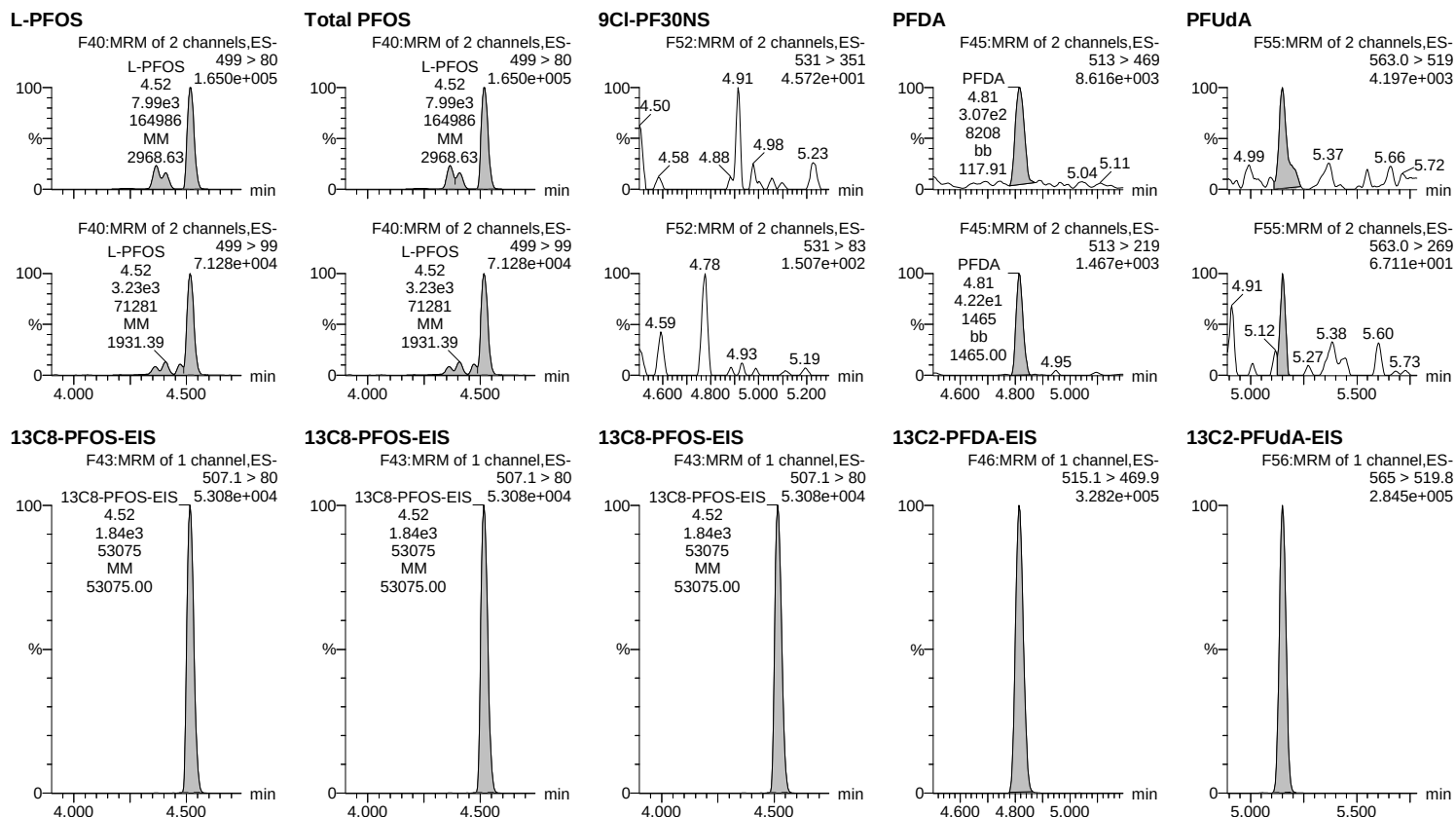
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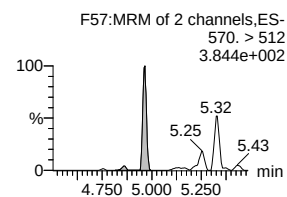
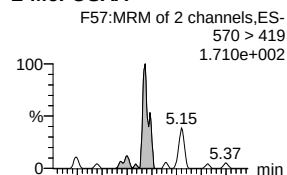
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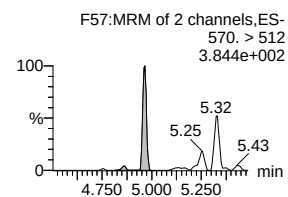
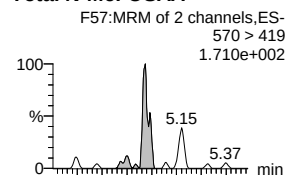
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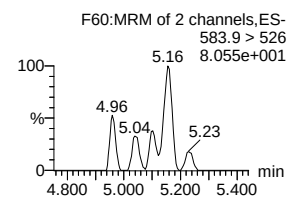
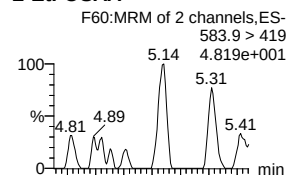
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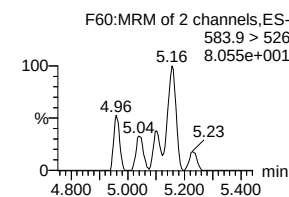
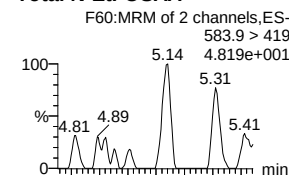
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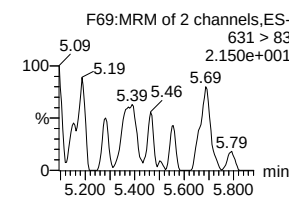
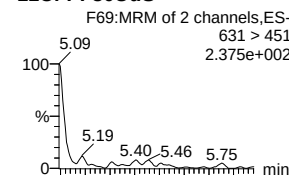
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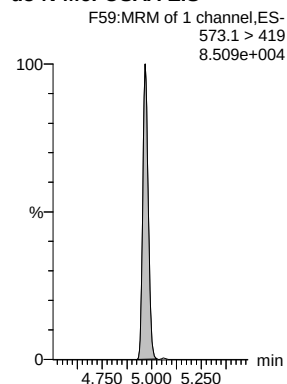
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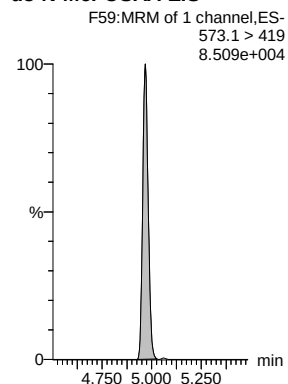
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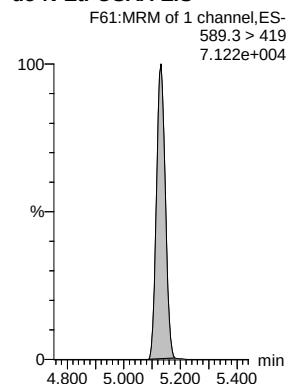
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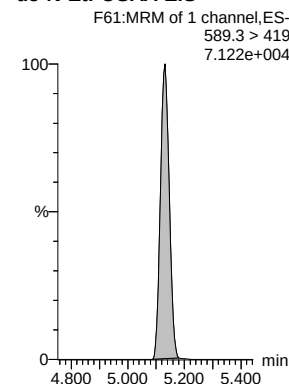
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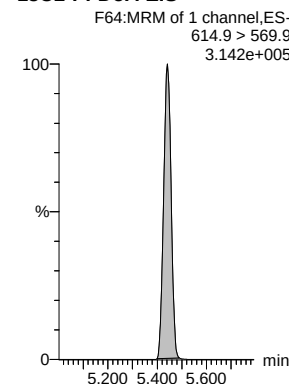
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d5-N-EtFOSAA-EIS



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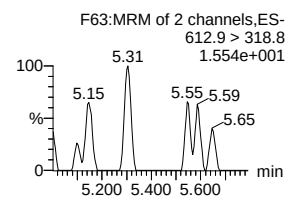
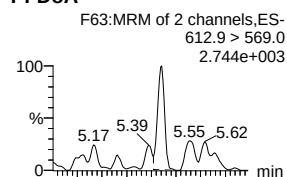
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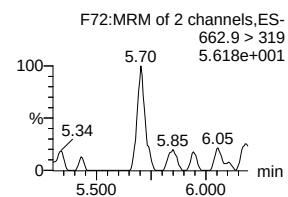
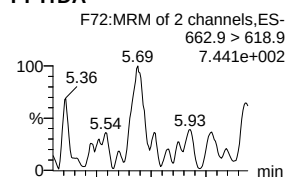
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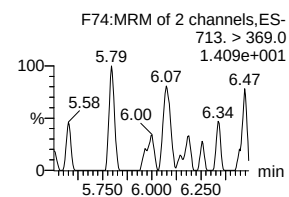
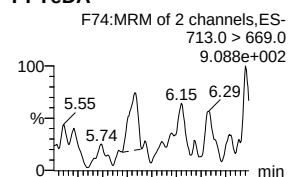
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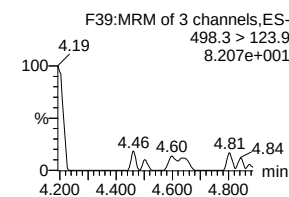
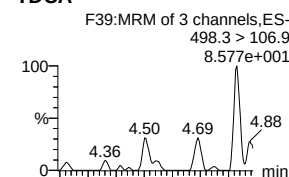
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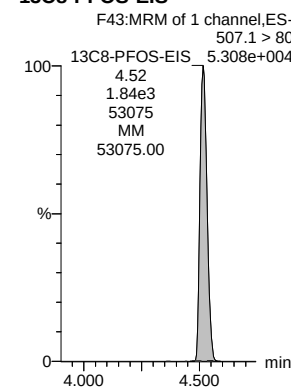
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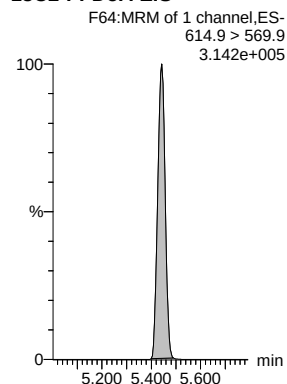
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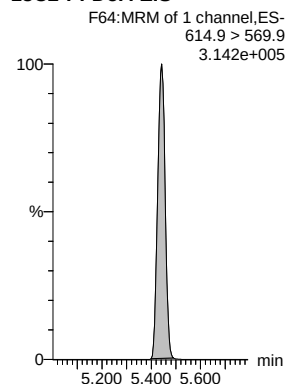
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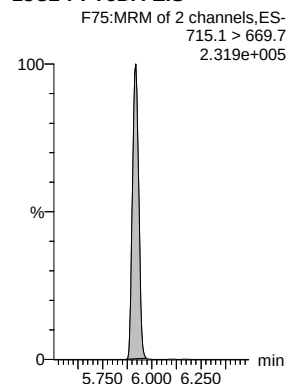
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13C2-PFDaA-EIS



13C2-PFTeDA-EIS



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-37-38.qld

Last Altered: Tuesday, July 07, 2020 12:47:05 Pacific Daylight Time

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Name: 200706P1-38, Date: 06-Jul-2020, Time: 16:57:15, ID: 2001315-08 24-GW-08DGMW73-20200618 0.25501, Description: 24-GW-08DGMW73-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	6.954e2	9.197e2	0.255		2.86	2.87	9.45	14.468		2.279	NO
2	7 PFHxA	313.0 > 269.0	1.175e4	7.929e3	0.255		3.38	3.38	18.5	69.886		14.647	NO
3	9 HFPO-DA	285.1 > 168.9		1.627e3	0.255		3.58						YES
4	11 PFHpA	363.0 > 319	2.818e3	7.315e3	0.255		3.98	3.98	4.82	14.420		41.335	NO
5	12 ADONA	376.8 > 250.9		7.315e3	0.255		4.08						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	9.197e2		0.255	104.004	2.87	2.86	920	34.676	70.7		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	7.929e3		0.255	1090.353	3.38	3.38	7930	28.517	58.2		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.627e3		0.255	228.261	3.59	3.58	1630	27.955	57.0		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	7.315e3		0.255	983.154	3.98	3.98	7310	29.175	59.5		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	7.315e3		0.255	983.154	3.98	3.98	7310	29.175	59.5		
11	-1												
12	13 L-PFHxS	399 > 79.9	1.508e4	1.901e3	0.255		4.12	4.12	99.1	356.023		3.943	NO
13	1... Total PFHxS	399 > 79.9	1.508e4	1.901e3	0.255		3.93		99.1	356.023			
14	16 L-PFOA	413 > 369	3.006e4	8.550e3	0.255		4.49	4.50	43.9	153.380		2.893	NO
15	1... Total PFOA	413 > 369	3.006e4	8.550e3	0.255		4.60		43.9	153.380			
16	21 PFNA	463.0 > 418.8		9.049e3	0.255		4.93						YES
17	61 13C3-PFHxS-EIS	402 > 80	1.901e3		0.255	220.112	4.13	4.12	1900	33.870	69.1		
18	61 13C3-PFHxS-EIS	402 > 80	1.901e3		0.255	220.112	4.13	4.12	1900	33.870	69.1		
19	69 13C2-PFOA-EIS	414.9 > 369.7	8.550e3		0.255	1154.443	4.67	4.49	8550	29.042	59.2		
20	69 13C2-PFOA-EIS	414.9 > 369.7	8.550e3		0.255	1154.443	4.67	4.49	8550	29.042	59.2		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.049e3		0.255	1213.140	5.13	4.93	9050	29.251	59.7		
22	-1												
23	23 L-PFOS	499 > 80	2.746e3	1.917e3	0.255		5.01	5.01	17.9	55.292		2.464	NO
24	1... Total PFOS	499 > 80	2.746e3	1.917e3	0.255		4.60		17.9	55.292			
25	25 9CI-PF30NS	531 > 351		1.917e3	0.255		5.23						YES
26	26 PFDA	513 > 469		1.113e4	0.255		5.30						YES
27	33 PFUdA	563.0 > 519		1.040e4	0.255		5.62						YES
28	71 13C8-PFOS-EIS	507.1 > 80	1.917e3		0.255	225.510	5.02	5.01	1920	33.342	68.0		
29	71 13C8-PFOS-EIS	507.1 > 80	1.917e3		0.255	225.510	5.02	5.01	1920	33.342	68.0		
30	71 13C8-PFOS-EIS	507.1 > 80	1.917e3		0.255	225.510	5.02	5.01	1920	33.342	68.0		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.113e4		0.255	1491.471	5.31	5.30	11100	29.267	59.7		
32	79 13C2-PFUdA-EIS	565 > 519.8	1.040e4		0.255	1581.335	5.54	5.62	10400	25.795	52.6		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.473e3	0.255		5.44						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.473e3	0.255		5.19		0.000				
36	31 L-EtFOSAA	583.9 > 419		2.101e3	0.255		5.60						YES

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-37-38.qld

Last Altered: Tuesday, July 07, 2020 12:47:05 Pacific Daylight Time

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Name: 200706P1-38, Date: 06-Jul-2020, Time: 16:57:15, ID: 2001315-08 24-GW-08DGMW73-20200618 0.25501, Description: 24-GW-08DGMW73-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	2.101e3	0.255		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		1.262e4	0.255		5.82						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.473e3		0.255	331.163	5.46	5.44	2470	29.285	59.7		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.473e3		0.255	331.163	5.46	5.44	2470	29.285	59.7		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.101e3		0.255	313.941	5.61	5.60	2100	26.246	53.5		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.101e3		0.255	313.941	5.61	5.60	2100	26.246	53.5		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	1.262e4		0.255	1868.510	6.13	5.89	12600	26.493	54.0		
44	-1												
45	37 PFDoA	612.9 > 569.0		1.262e4	0.255		5.89						YES
46	39 PFTrDA	662.9 > 618.9		1.262e4	0.255		6.16						YES
47	41 PFTeDA	713.0 > 669.0		1.182e4	0.255		6.33						YES
48	1... TDCA	498.3>106.9			0.255	0.022	4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.917e3		0.255	225.510	5.02	5.01	1920	33.342	68.0		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	1.262e4		0.255	1868.510	6.13	5.89	12600	26.493	54.0		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	1.262e4		0.255	1868.510	6.13	5.89	12600	26.493	54.0		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	1.182e4		0.255	1905.823	6.34	6.33	11800	24.324	49.6		

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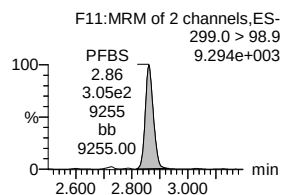
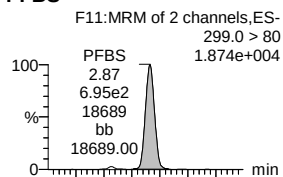
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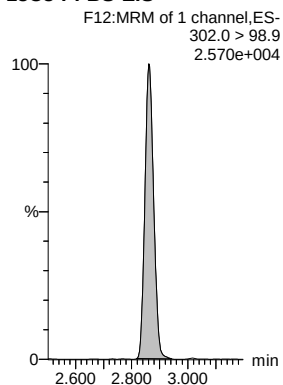
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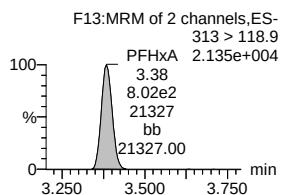
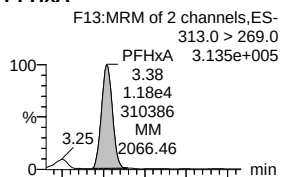
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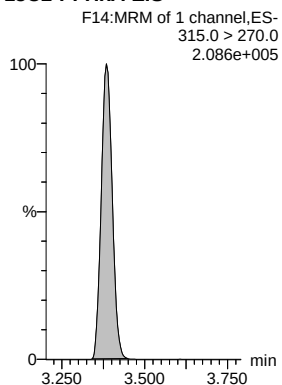
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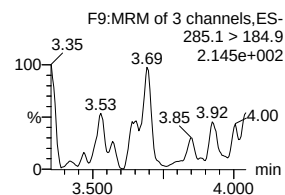
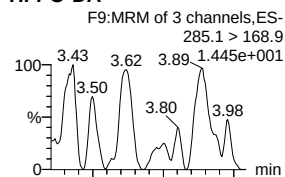
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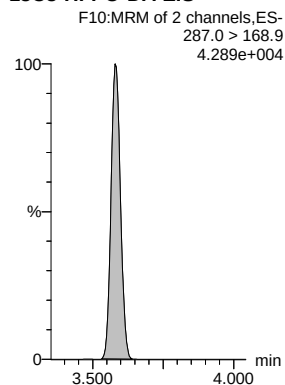
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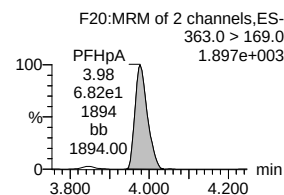
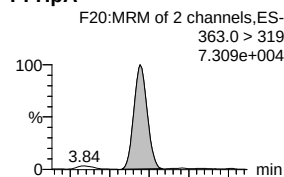
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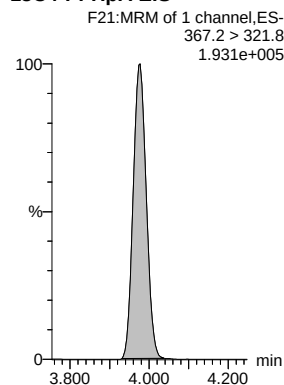
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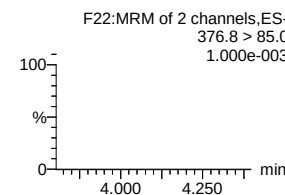
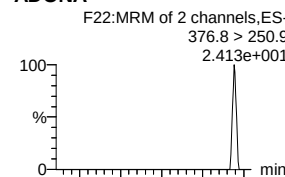
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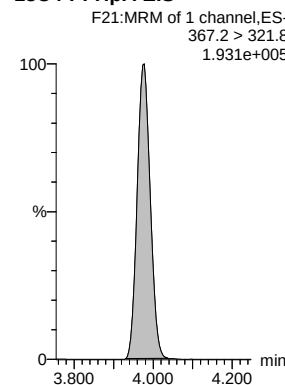
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ADONA



13C4-PFHpA-EIS



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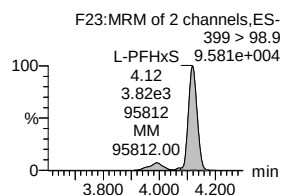
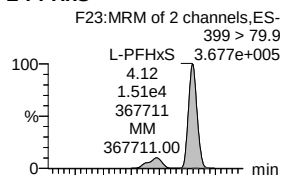
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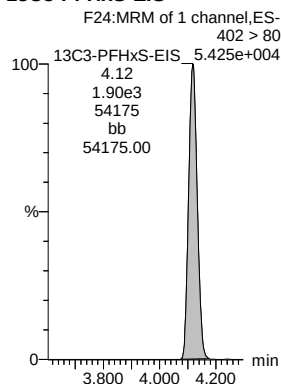
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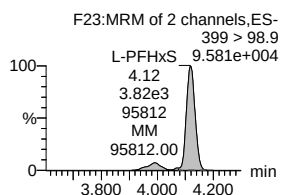
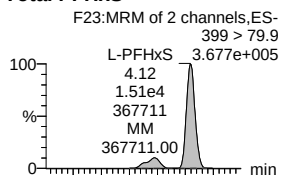
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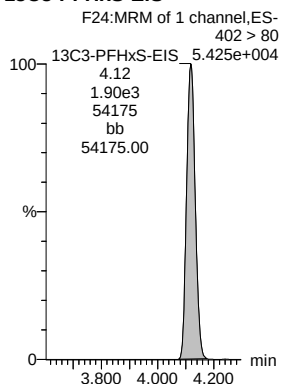
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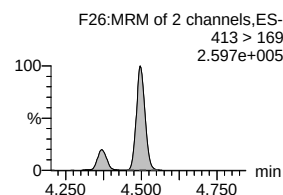
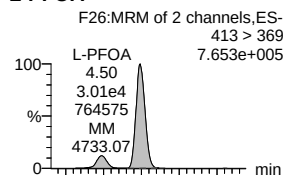
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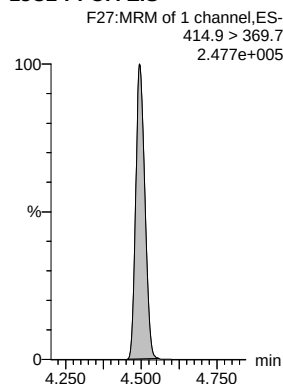
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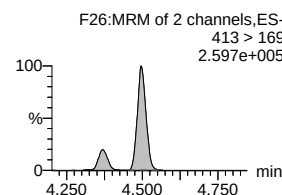
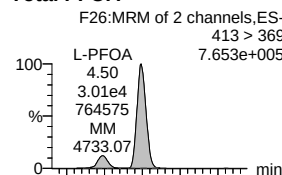
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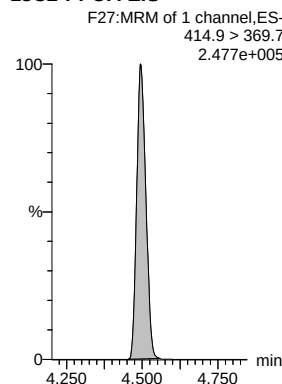
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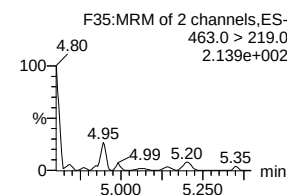
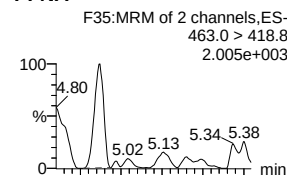
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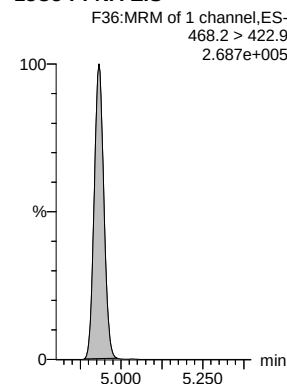
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PFNA



13C5-PFNA-EIS



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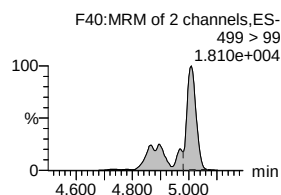
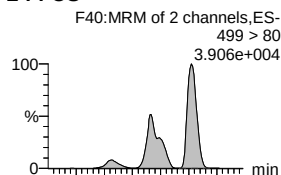
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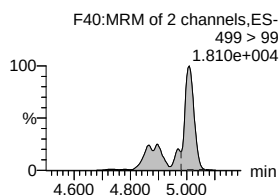
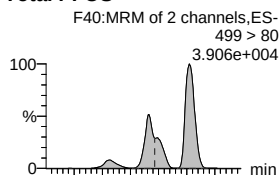
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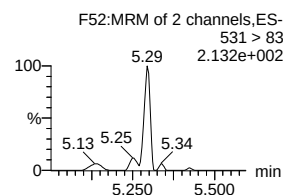
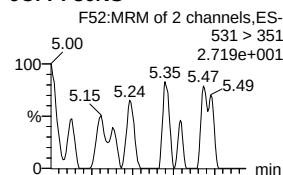
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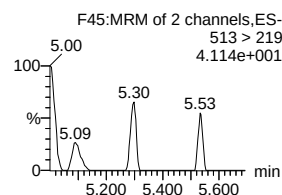
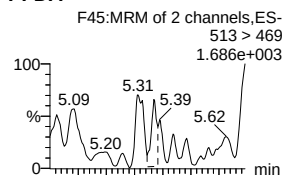
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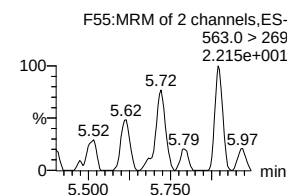
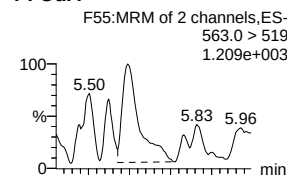
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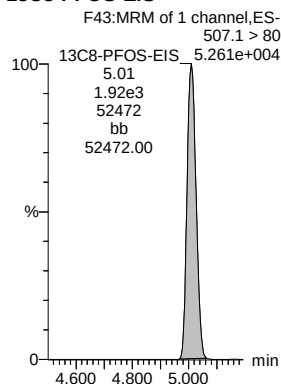
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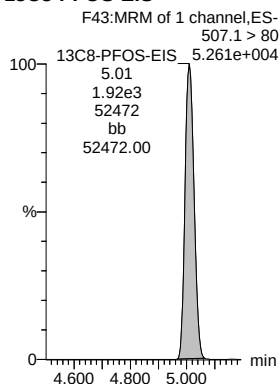
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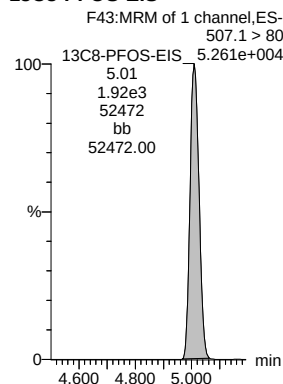
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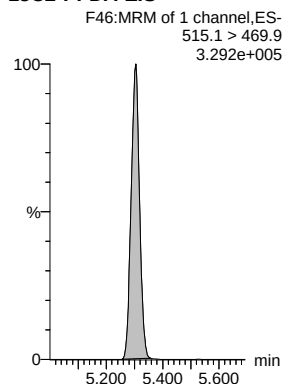
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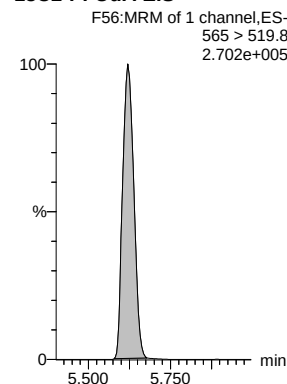
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13C2-PFDA-EIS



13C2-PFUdA-EIS



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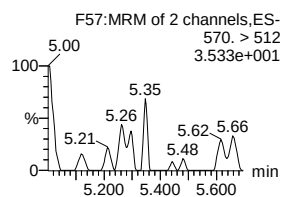
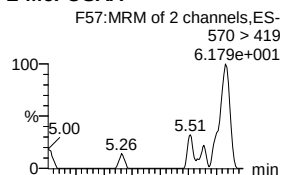
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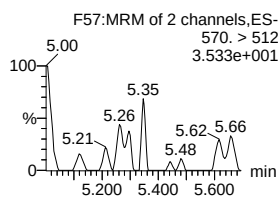
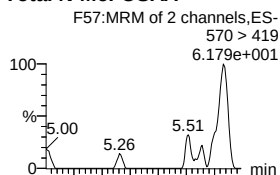
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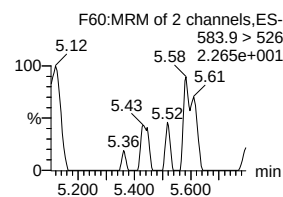
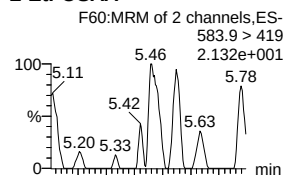
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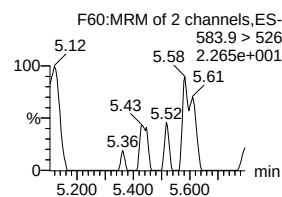
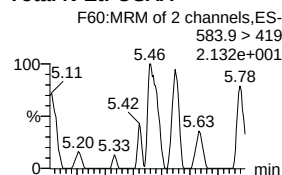
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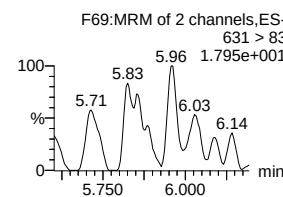
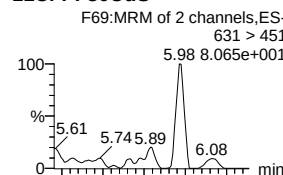
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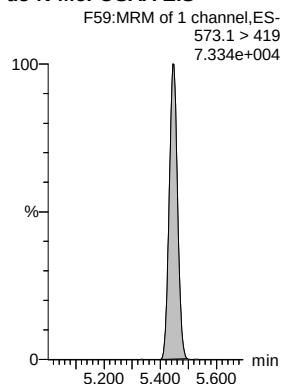
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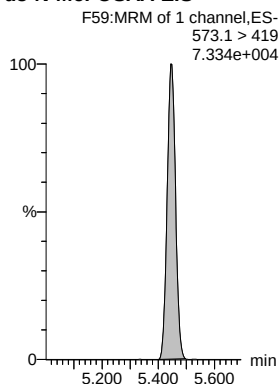
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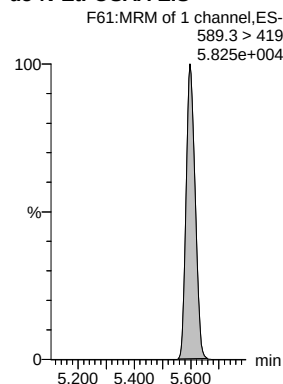
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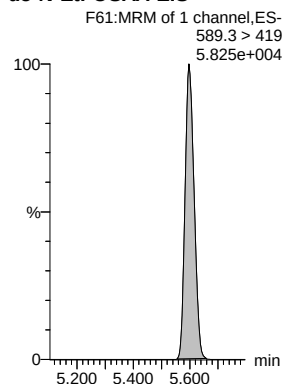
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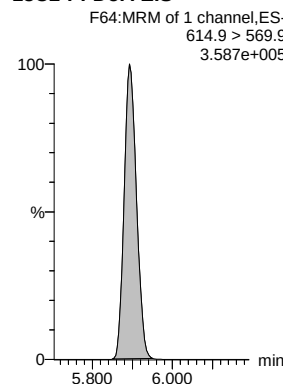
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13C2-PFDoA-EIS



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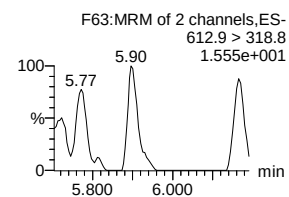
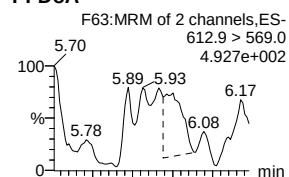
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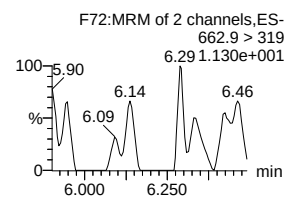
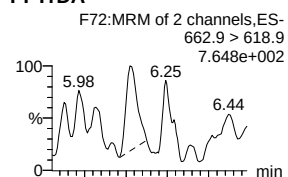
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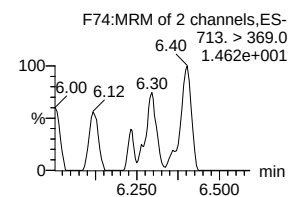
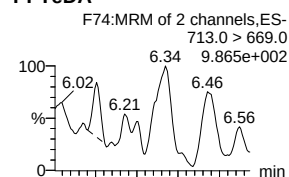
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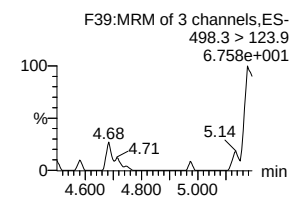
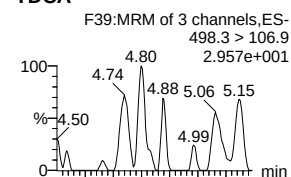
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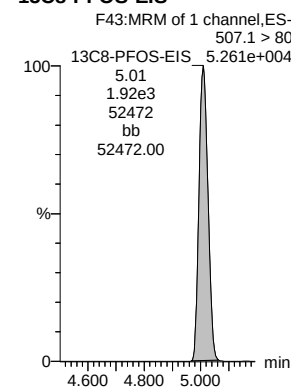
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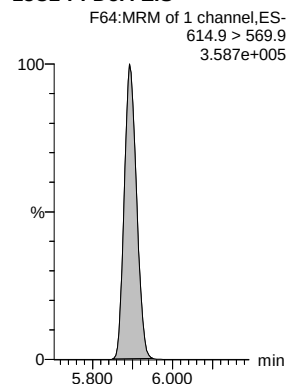
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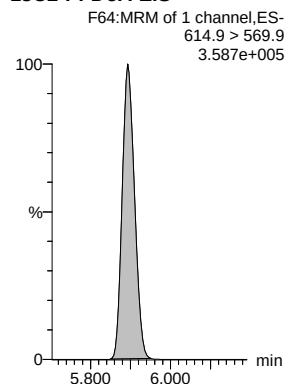
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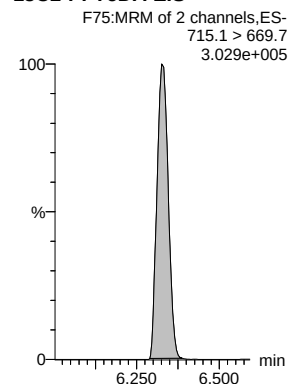
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13C2-PFDaA-EIS



13C2-PFTeDA-EIS



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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-31.qld

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Name: 200702P1-31, Date: 02-Jul-2020, Time: 14:38:25, ID: 2001315-09 24-GW-18PS3A-20200618 0.28418, Description: 24-GW-18PS3A-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5 PFBS	299.0 > 80	5.483e3	8.924e2	0.284		2.32	2.32	76.8	107.095		2.562	NO
2	7 PFHxA	313.0 > 269.0	1.059e5	8.771e3	0.284		2.84	2.84	151	521.799		16.462	NO
3	9 HFPO-DA	285.1 > 168.9		1.764e3	0.284		3.06						YES
4	11 PFHpA	363.0 > 319	1.686e4	7.830e3	0.284		3.46	3.46	26.9	70.319		51.123	NO
5	12 ADONA	376.8 > 250.9		7.830e3	0.284		3.55						YES
6	51 13C3-PFBS-EIS	302.0 > 98.9	8.924e2		0.284	102.513	2.32	2.32	892	30.632	69.6		
7	57 13C2-PFHxA-EIS	315.0 > 270.0	8.771e3		0.284	1081.420	2.84	2.84	8770	28.539	64.9		
8	53 13C3-HFPO-DA-EIS	287.0 > 168.9	1.764e3		0.284	231.766	3.31	3.06	1760	26.790	60.9		
9	59 13C4-PFHpA-EIS	367.2 > 321.8	7.830e3		0.284	909.870	3.46	3.46	7830	30.282	68.8		
10	59 13C4-PFHpA-EIS	367.2 > 321.8	7.830e3		0.284	909.870	3.46	3.46	7830	30.282	68.8		
11	-1												
12	13 L-PFHxS	399 > 79.9	5.385e4	1.743e3	0.284		3.61	3.61	386	1158.418		3.970	NO
13	1... Total PFHxS	399 > 79.9	5.385e4	1.743e3	0.284		3.93		386	1158.418			
14	16 L-PFOA	413 > 369	5.630e4	9.272e3	0.284		3.97	3.97	75.9	243.071		2.813	NO
15	1... Total PFOA	413 > 369	5.630e4	9.272e3	0.284		4.60		75.9	243.071			
16	21 PFNA	463.0 > 418.8	3.522e2	9.942e3	0.284		4.43	4.42	0.443	1.313		28.350	YES
17	61 13C3-PFHxS-EIS	402 > 80	1.743e3		0.284	213.280	3.77	3.61	1740	28.762	65.4		
18	61 13C3-PFHxS-EIS	402 > 80	1.743e3		0.284	213.280	3.77	3.61	1740	28.762	65.4		
19	69 13C2-PFOA-EIS	414.9 > 369.7	9.272e3		0.284	1053.156	4.06	3.97	9270	30.980	70.4		
20	69 13C2-PFOA-EIS	414.9 > 369.7	9.272e3		0.284	1053.156	4.06	3.97	9270	30.980	70.4		
21	65 13C5-PFNA-EIS	468.2 > 422.9	9.942e3		0.284	1077.196	4.50	4.43	9940	32.478	73.8		
22	-1												
23	23 L-PFOS	499 > 80	2.416e4	1.776e3	0.284		4.52	4.52	170	482.806		2.621	NO
24	1... Total PFOS	499 > 80	2.416e4	1.776e3	0.284		4.60		170	482.806			
25	25 9CI-PF30NS	531 > 351		1.776e3	0.284		4.71						YES
26	26 PFDA	513 > 469		1.090e4	0.284		4.81						YES
27	33 PFUdA	563.0 > 519		8.876e3	0.284		5.15						YES
28	71 13C8-PFOS-EIS	507.1 > 80	1.776e3		0.284	194.116	4.52	4.52	1780	32.200	73.2		
29	71 13C8-PFOS-EIS	507.1 > 80	1.776e3		0.284	194.116	4.52	4.52	1780	32.200	73.2		
30	71 13C8-PFOS-EIS	507.1 > 80	1.776e3		0.284	194.116	4.52	4.52	1780	32.200	73.2		
31	73 13C2-PFDA-EIS	515.1 > 469.9	1.090e4		0.284	1300.443	4.81	4.81	10900	29.495	67.1		
32	79 13C2-PFUdA-EIS	565 > 519.8	8.876e3		0.284	1330.460	5.15	5.15	8880	23.475	53.4		
33	-1												
34	29 L-MeFOSAA	570 > 419		2.267e3	0.284		4.97						YES
35	1... Total N-MeFOSAA	570. > 419	0.000e0	2.267e3	0.284		5.19		0.000				
36	31 L-EtFOSAA	583.9 > 419		2.050e3	0.284		5.13						YES

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Dataset: Y:\PFAS5.PRO\RESULTS\200702P1\200702P1-31.qld

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Name: 200702P1-31, Date: 02-Jul-2020, Time: 14:38:25, ID: 2001315-09 24-GW-18PS3A-20200618 0.28418, Description: 24-GW-18PS3A-20200618

	# Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1... Total N-EtFOSAA	583.9 > 419	0.000e0	2.050e3	0.284		5.37		0.000				
38	35 11Cl-PF30UdS	631 > 451		8.775e3	0.284		5.37						YES
39	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.267e3		0.284	311.775	5.05	4.97	2270	25.587	58.2		
40	77 d3-N-MeFOSAA-EIS	573.1 > 419	2.267e3		0.284	311.775	5.05	4.97	2270	25.587	58.2		
41	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.050e3		0.284	324.344	5.40	5.13	2050	22.240	50.6		
42	81 d5-N-EtFOSAA-EIS	589.3 > 419	2.050e3		0.284	324.344	5.40	5.13	2050	22.240	50.6		
43	83 13C2-PFDoA-EIS	614.9 > 569.9	8.775e3		0.284	1423.871	5.58	5.44	8780	21.687	49.3		
44	-1												
45	37 PFDoA	612.9 > 569.0		8.775e3	0.284		5.44						YES
46	39 PFTrDA	662.9 > 618.9		8.775e3	0.284		5.68						YES
47	41 PFTeDA	713.0 > 669.0		7.732e3	0.284		5.92						YES
48	1... TDCA	498.3>106.9			0.284		4.47						YES
49	71 13C8-PFOS-EIS	507.1 > 80	1.776e3		0.284	194.116	4.52	4.52	1780	32.200	73.2		
50	83 13C2-PFDoA-EIS	614.9 > 569.9	8.775e3		0.284	1423.871	5.58	5.44	8780	21.687	49.3		
51	83 13C2-PFDoA-EIS	614.9 > 569.9	8.775e3		0.284	1423.871	5.58	5.44	8780	21.687	49.3		
52	89 13C2-PFTeDA-EIS	715.1 > 669.7	7.732e3		0.284	1503.225	5.92	5.92	7730	18.100	41.1		

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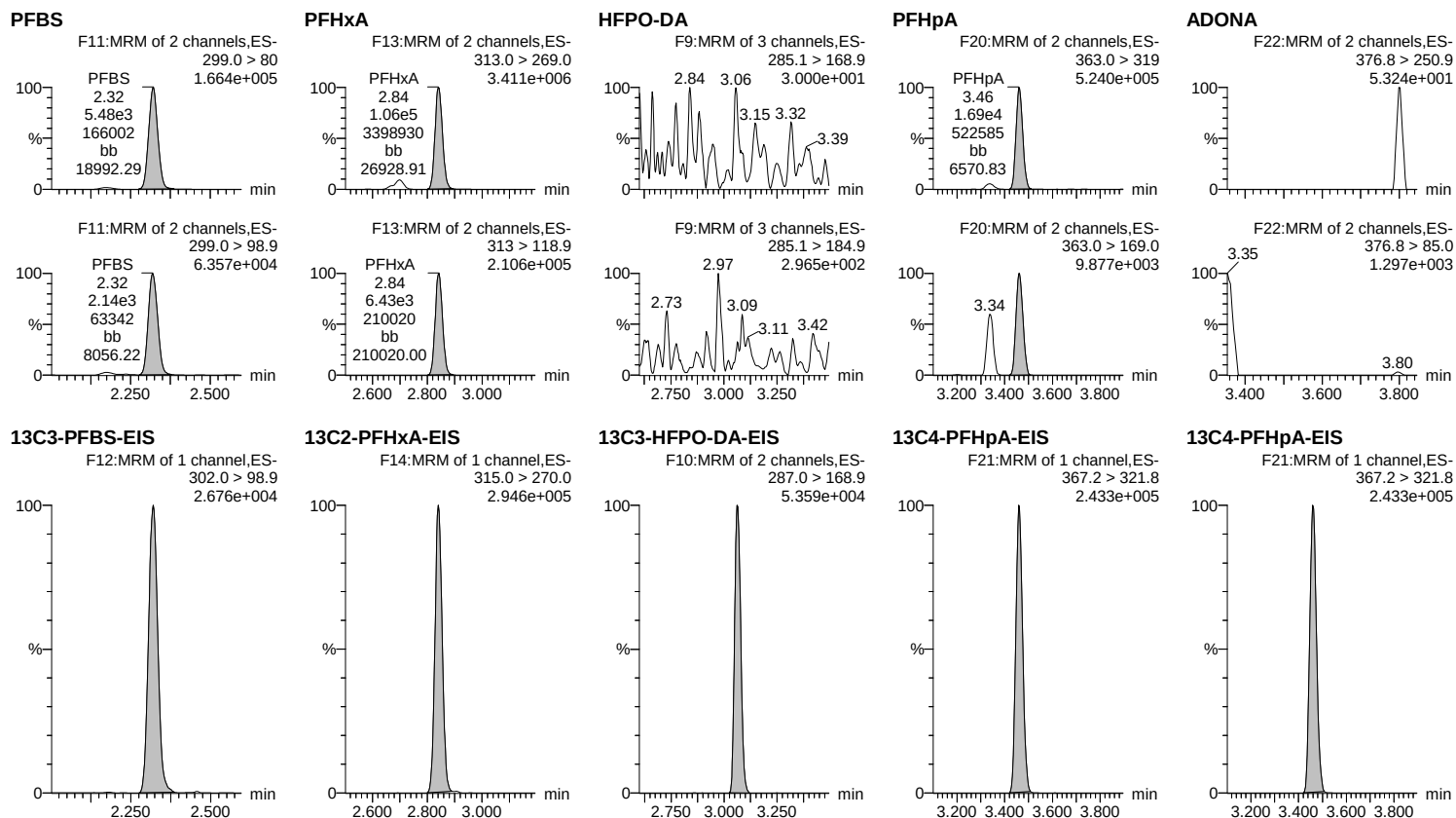
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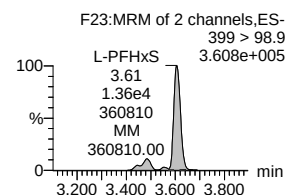
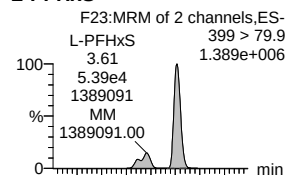
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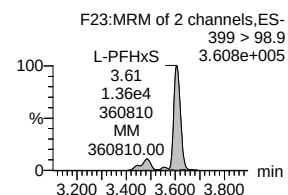
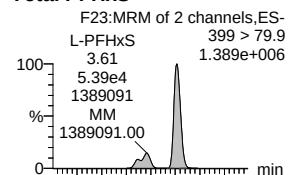
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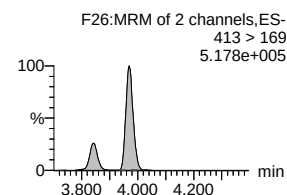
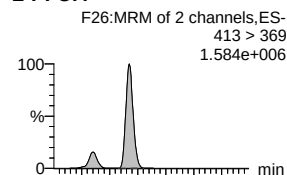
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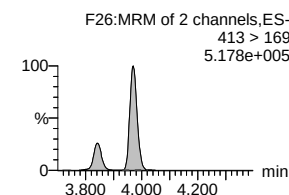
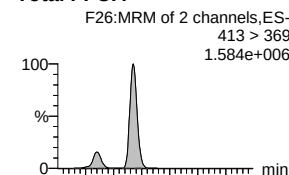
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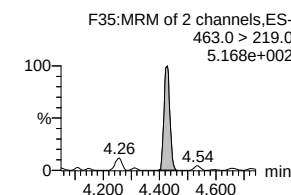
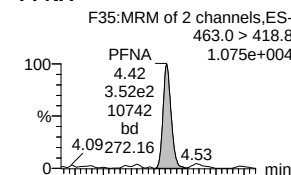
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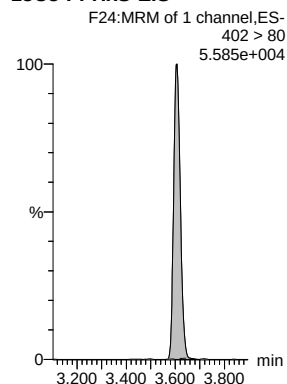
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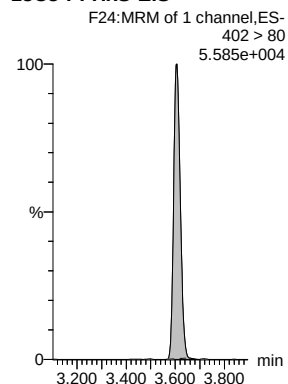
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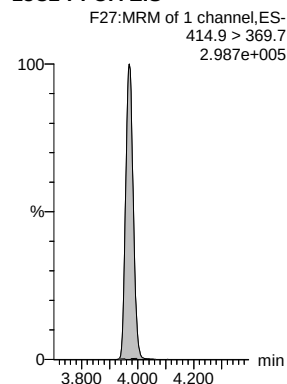
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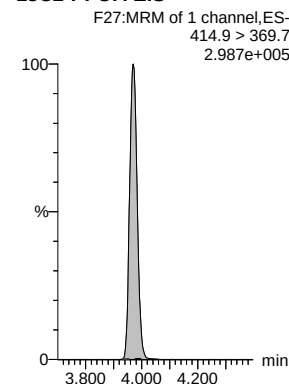
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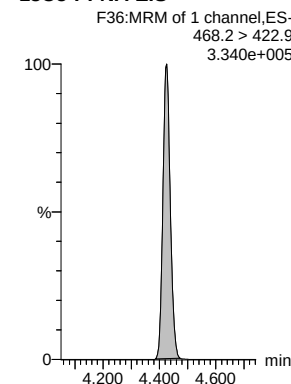
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13C2-PFOA-EIS



13C5-PFNA-EIS



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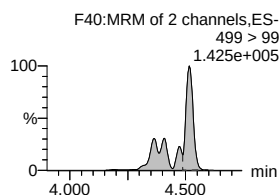
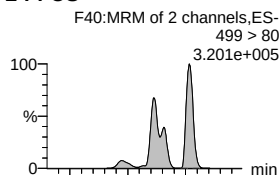
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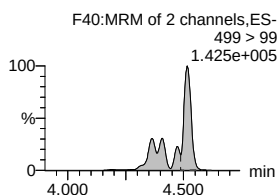
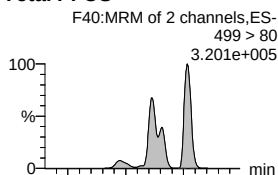
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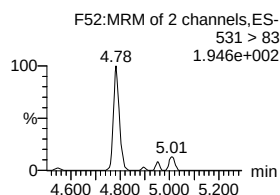
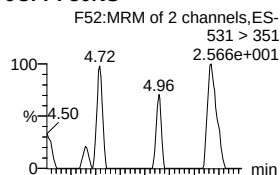
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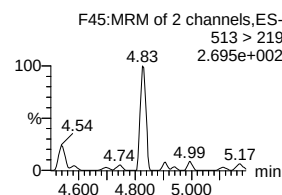
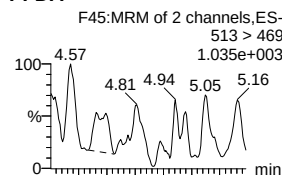
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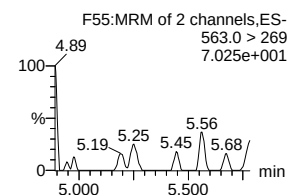
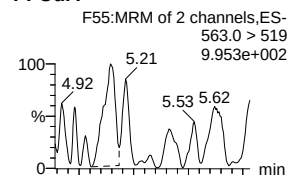
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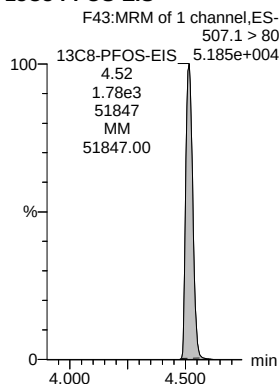
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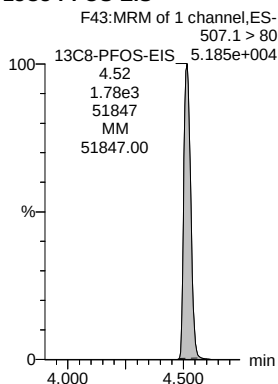
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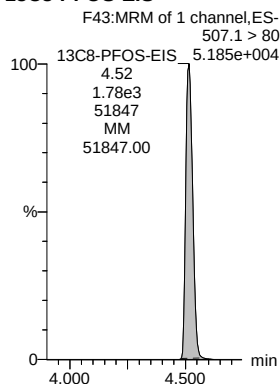
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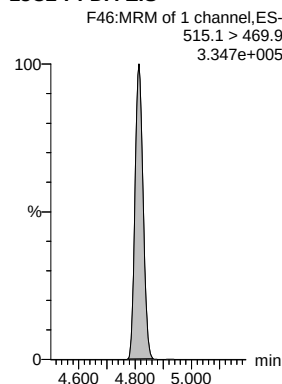
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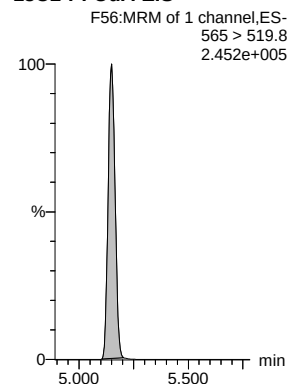
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13C2-PFDA-EIS



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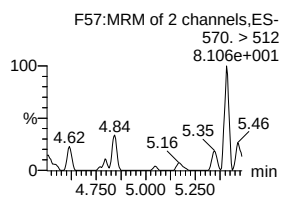
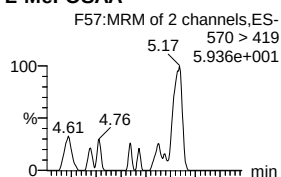
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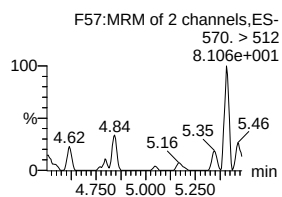
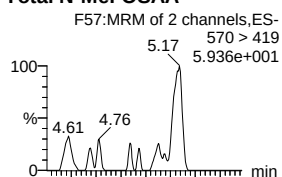
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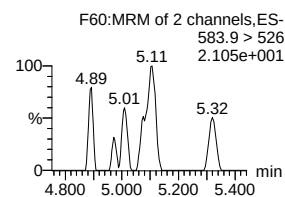
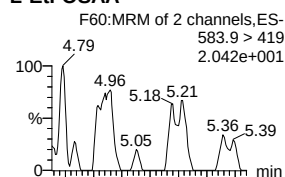
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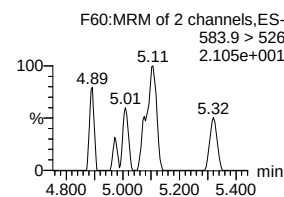
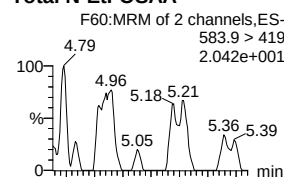
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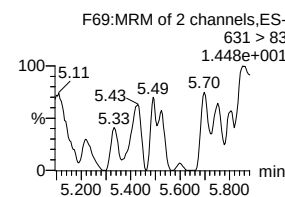
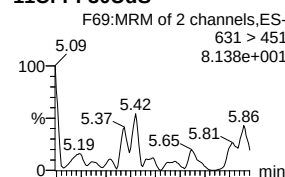
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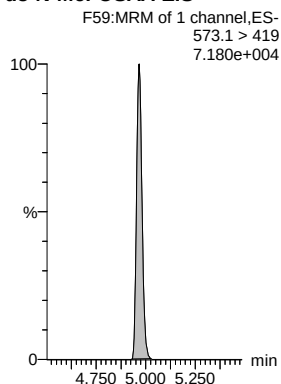
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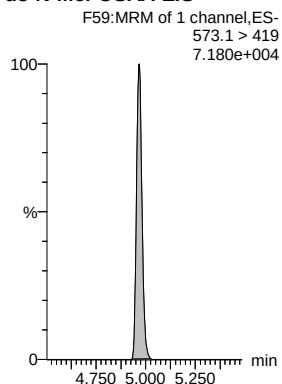
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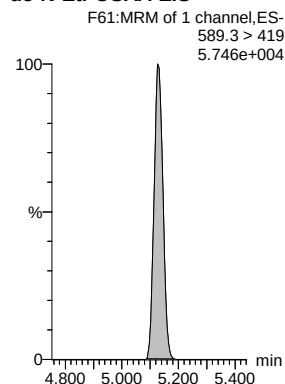
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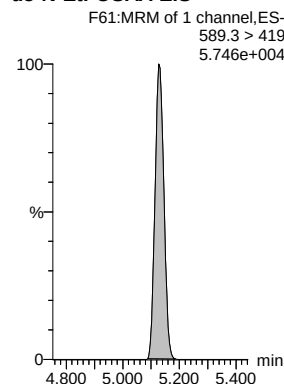
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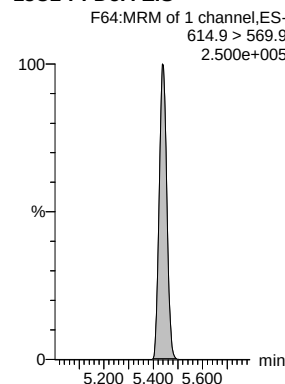
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



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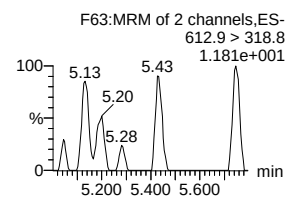
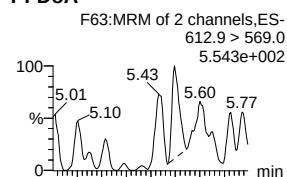
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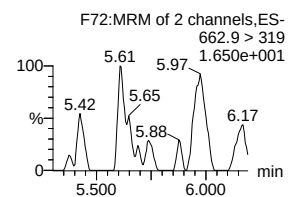
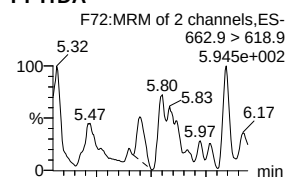
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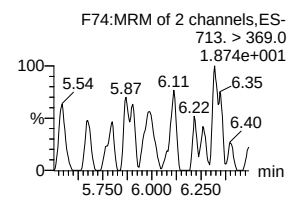
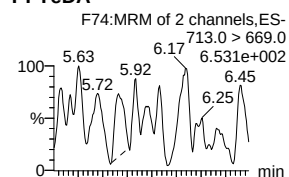
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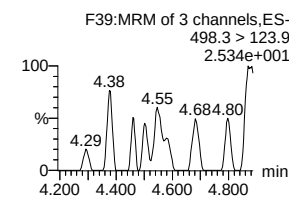
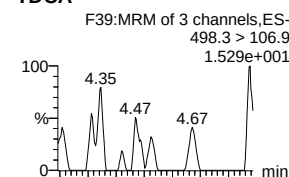
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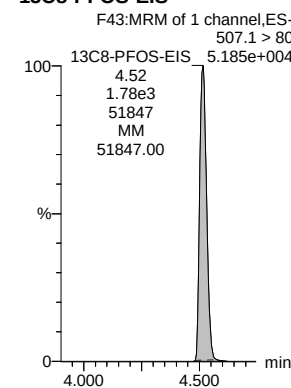
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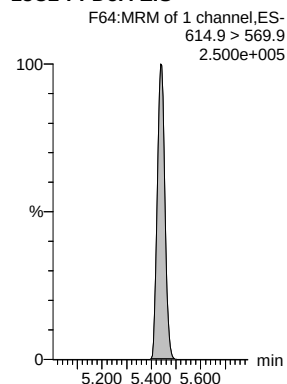
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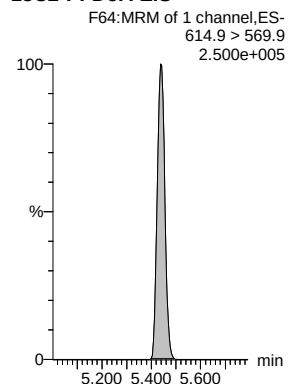
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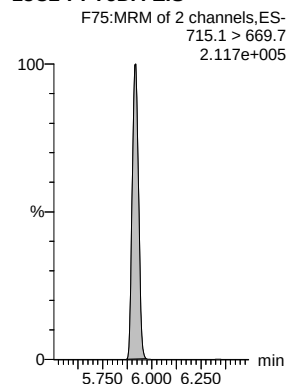
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13C2-PFDaA-EIS



13C2-PFTeDA-EIS



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INSTRUMENT BLANKS (IB)
AND
CONTINUING CALIBRATION VERIFICATIONS (CCV)

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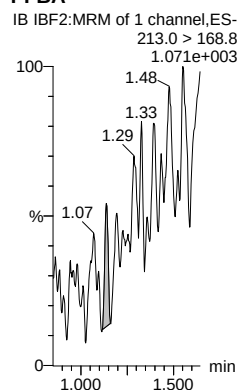
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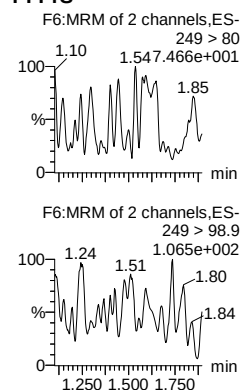
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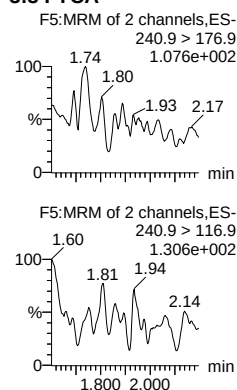
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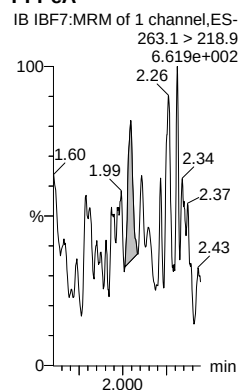
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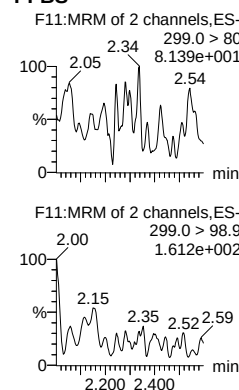
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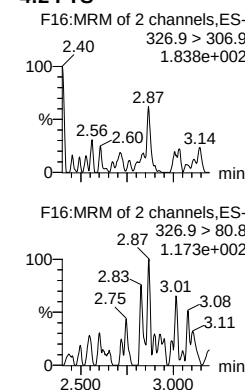
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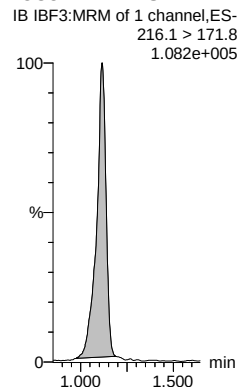
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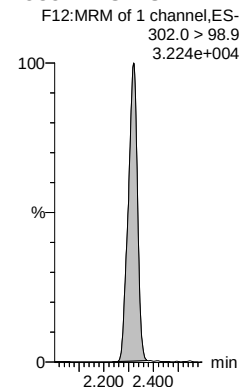
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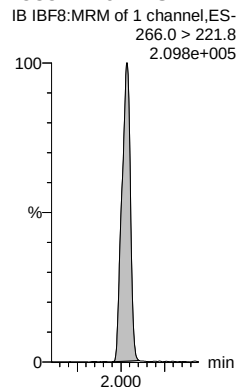
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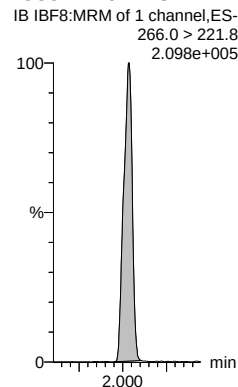
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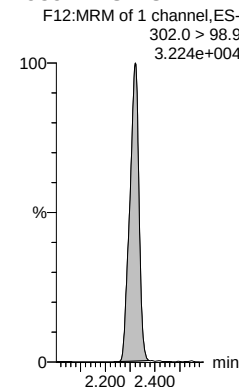
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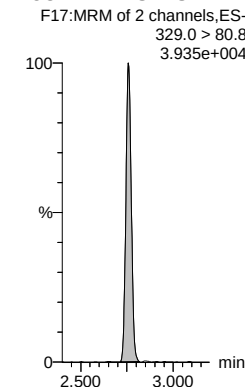
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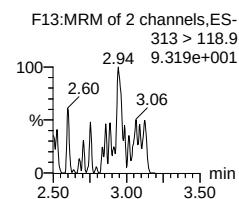
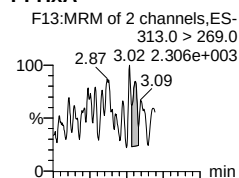
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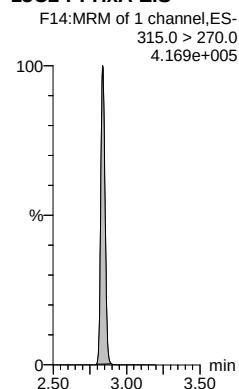
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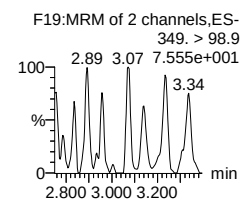
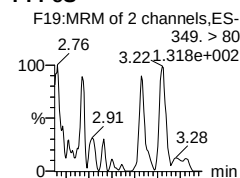
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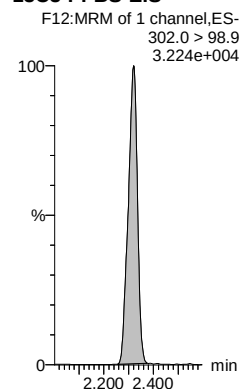
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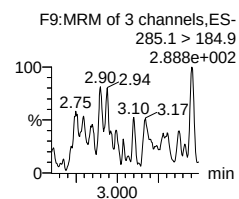
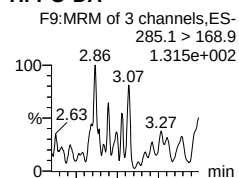
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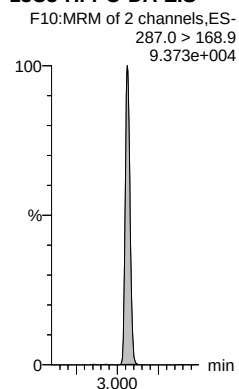
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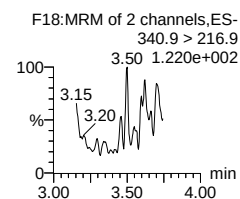
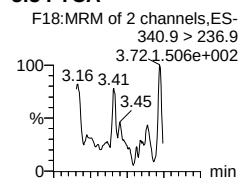
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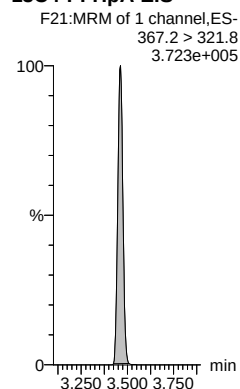
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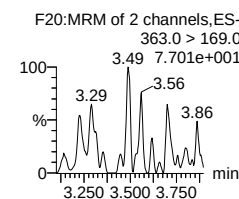
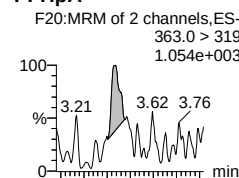
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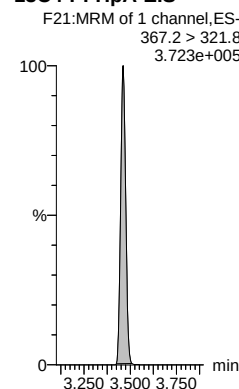
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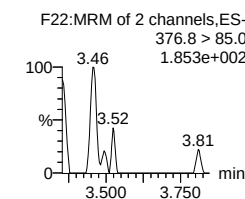
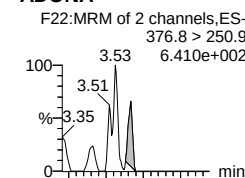
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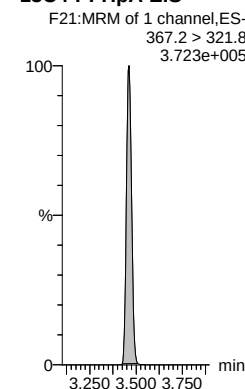
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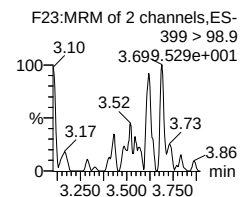
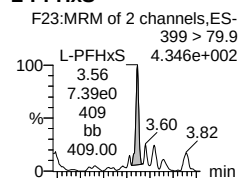
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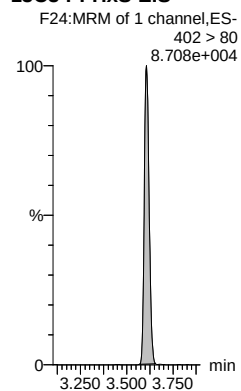
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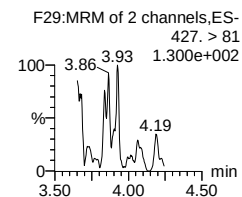
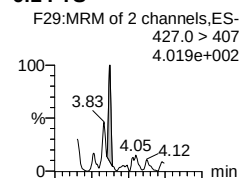
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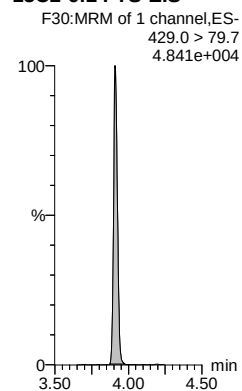
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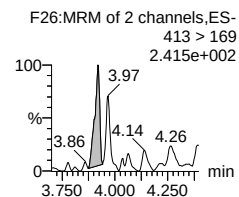
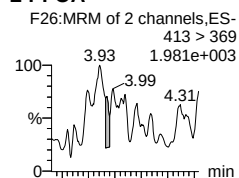
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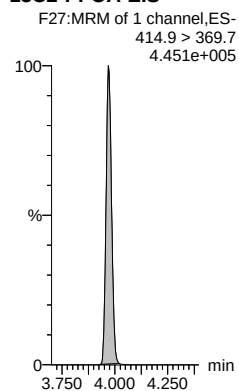
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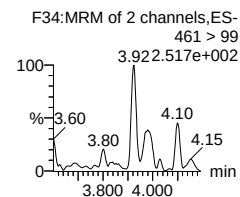
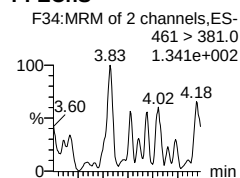
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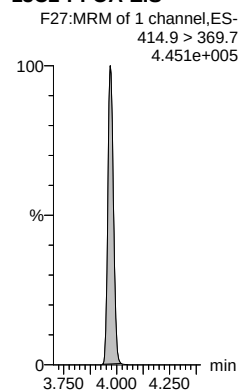
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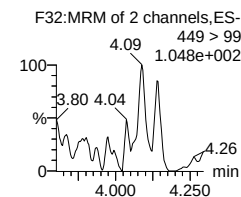
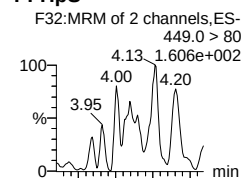
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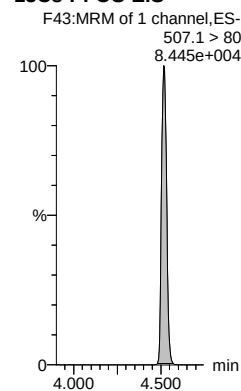
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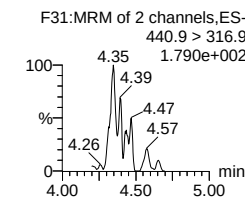
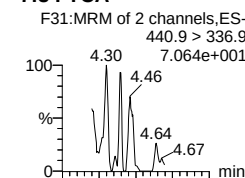
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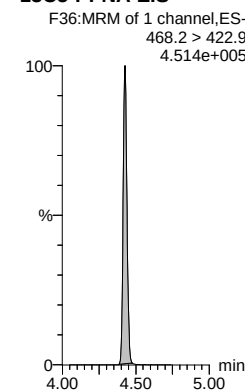
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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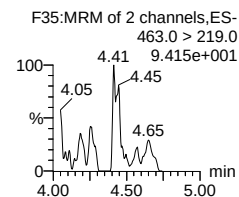
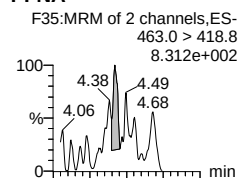
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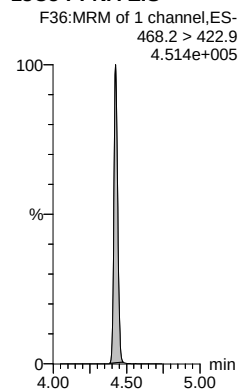
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Name: 200702P1-15, Date: 02-Jul-2020, Time: 11:42:47, ID: IB, Description: IB

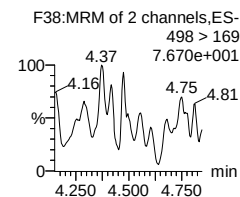
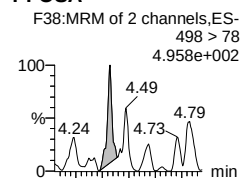
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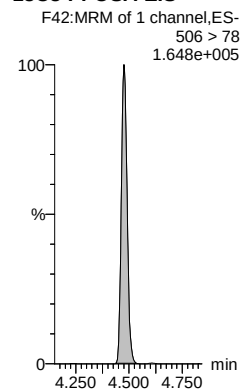
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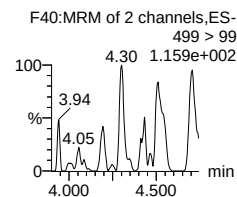
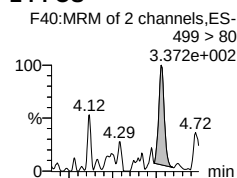
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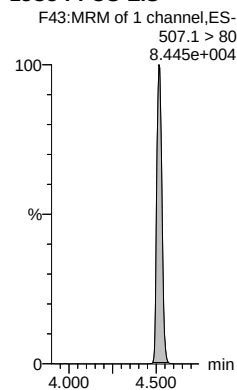
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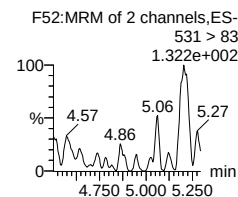
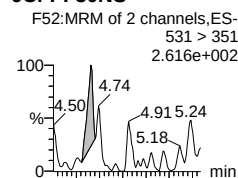
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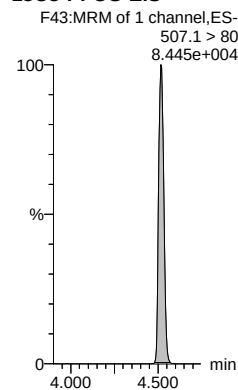
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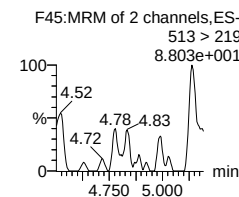
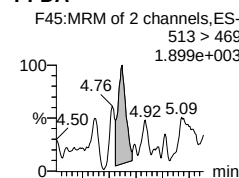
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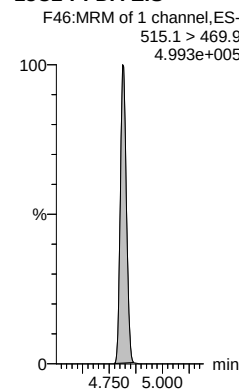
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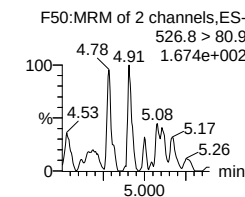
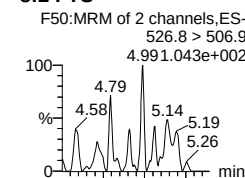
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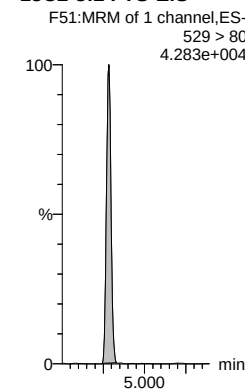
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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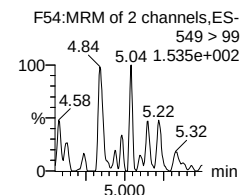
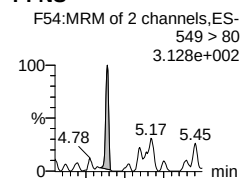
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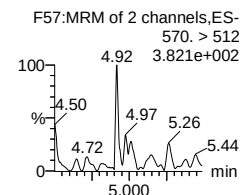
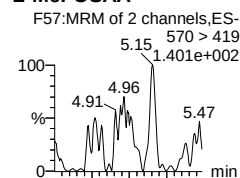
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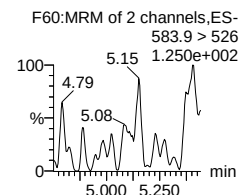
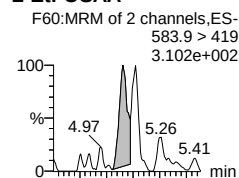
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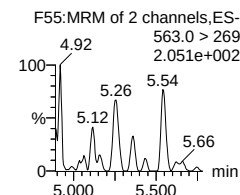
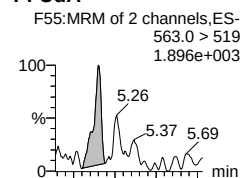
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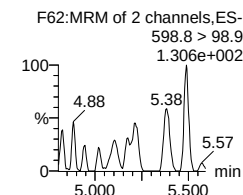
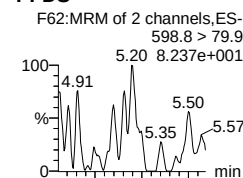
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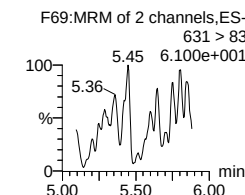
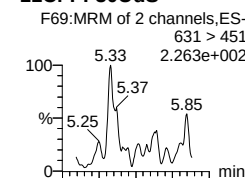
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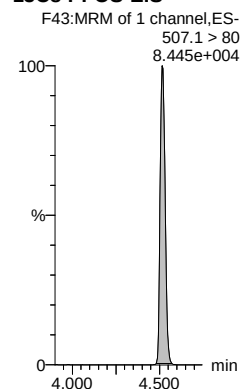
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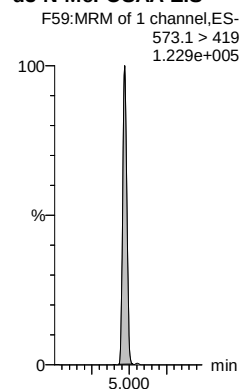
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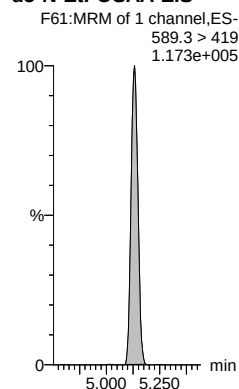
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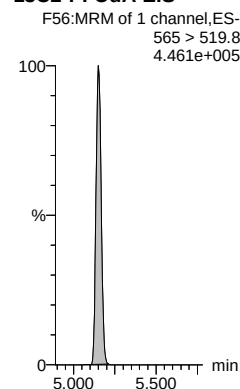
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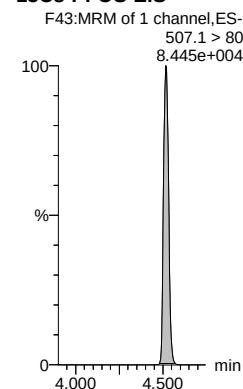
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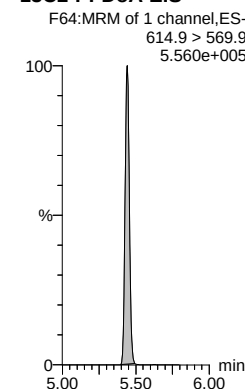
13C2-PFuDA-EIS



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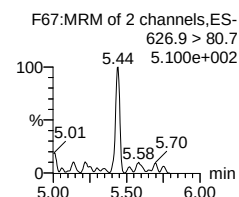
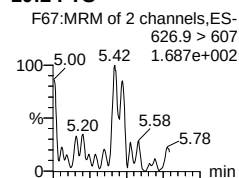
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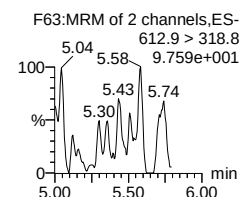
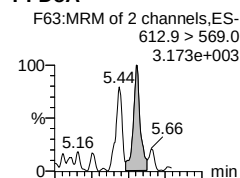
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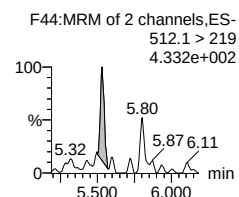
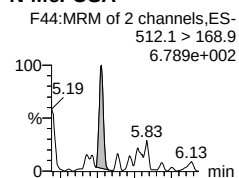
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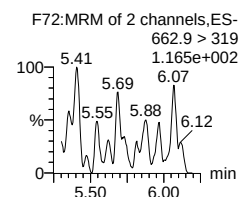
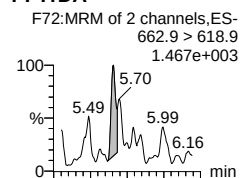
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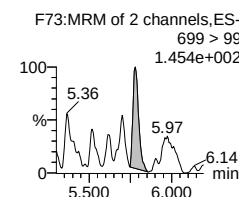
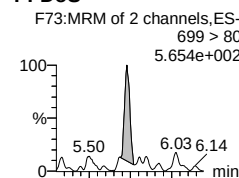
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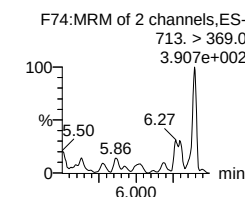
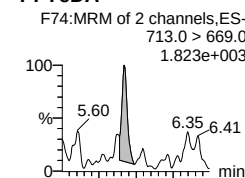
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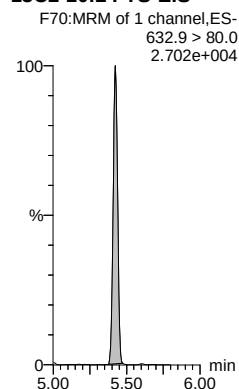
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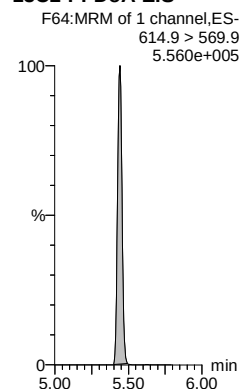
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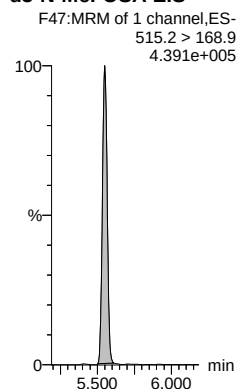
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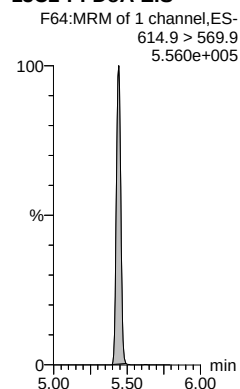
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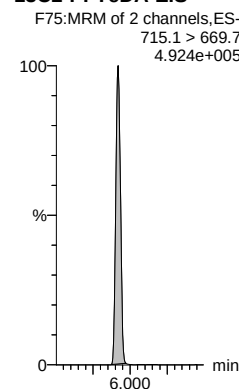
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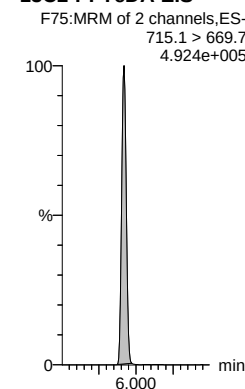
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13C2-PFTTeDA-EIS



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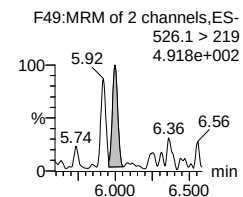
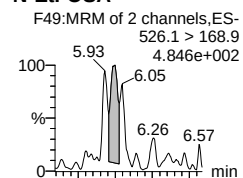
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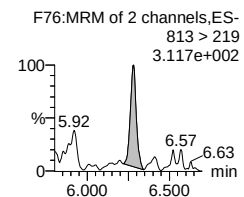
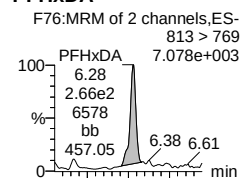
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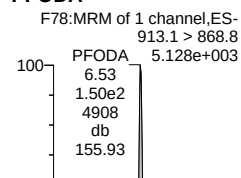
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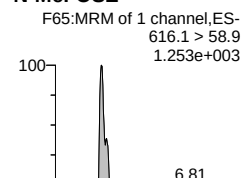
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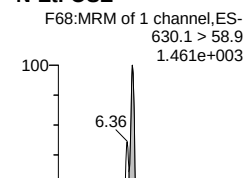
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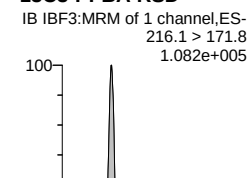
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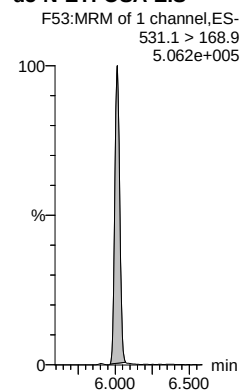
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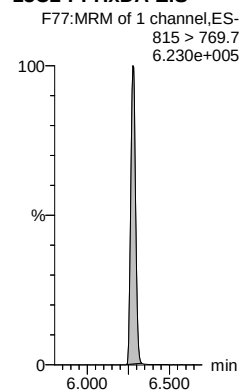
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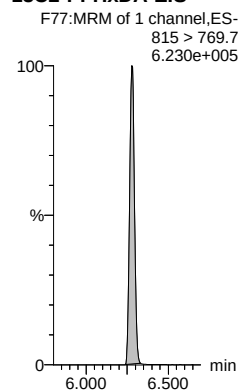
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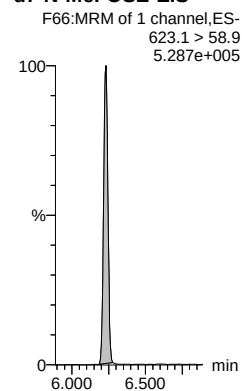
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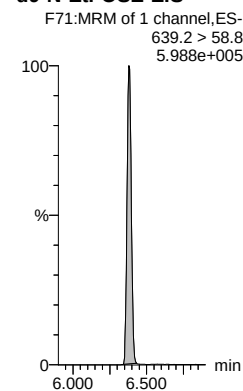
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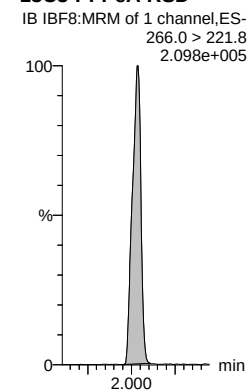
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13C3-PFPeA-RSD



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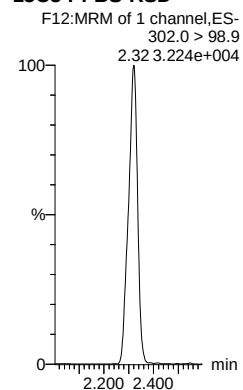
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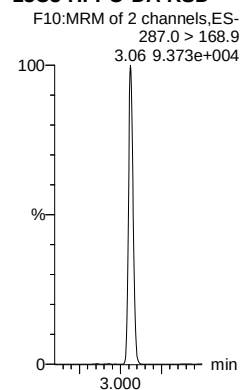
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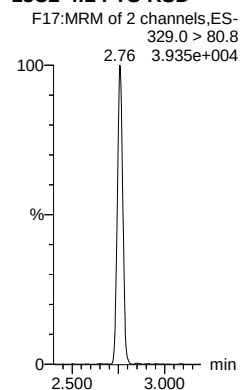
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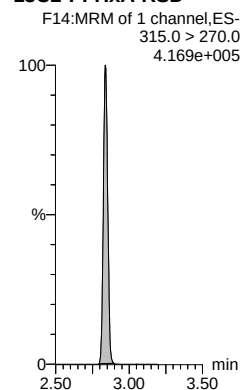
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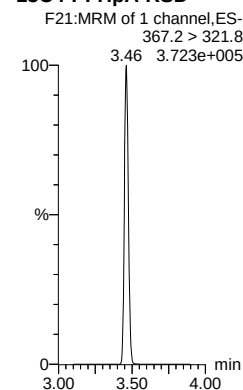
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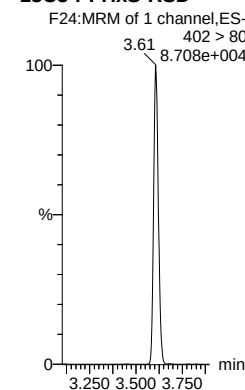
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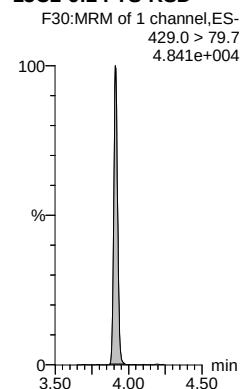
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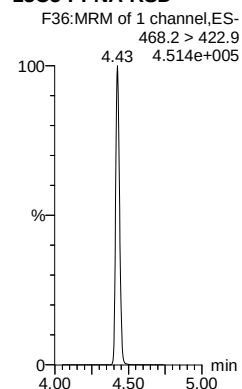
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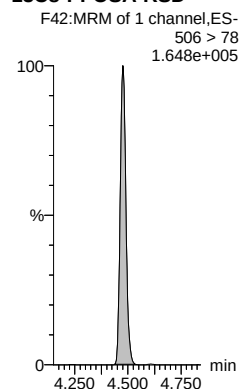
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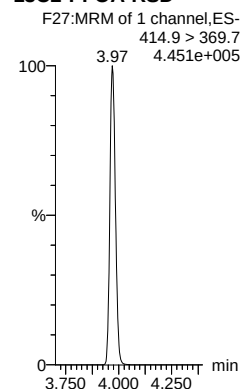
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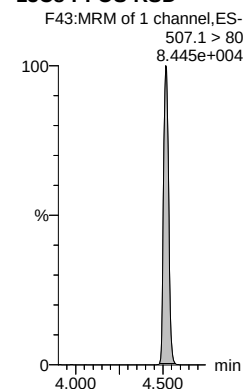
13C8-PFOSA-RSD



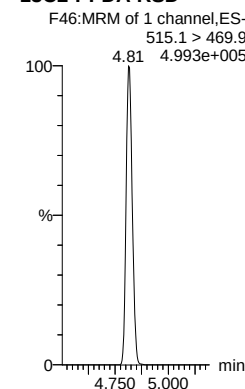
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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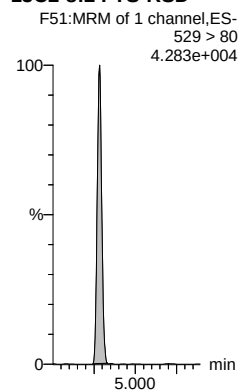
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Last Altered: Thursday, July 02, 2020 15:47:09 Pacific Daylight Time

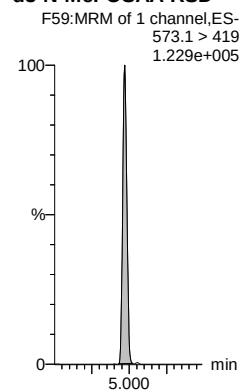
Printed: Thursday, July 02, 2020 15:47:33 Pacific Daylight Time

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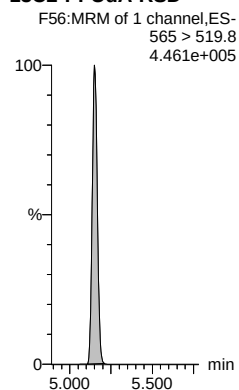
13C2-8:2 FTS-RSD



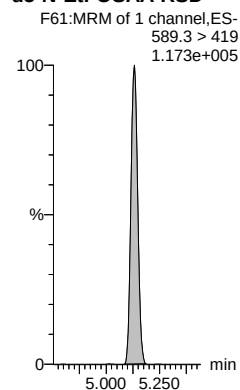
d3-N-MeFOSAA-RSD



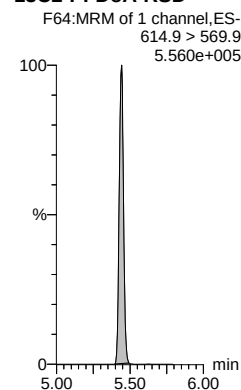
13C2-PFUDa-RSD



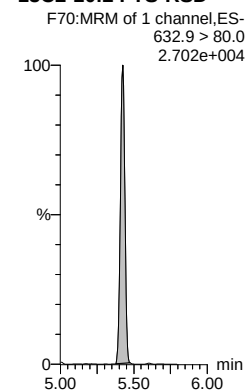
d5-N-EtFOSAA-RSD



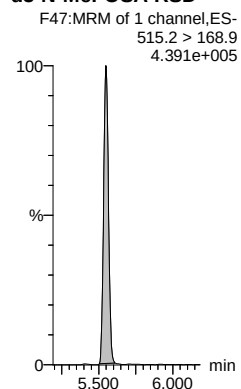
13C2-PFDoA-RSD



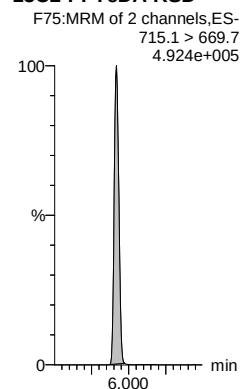
13C2-10:2 FTS-RSD



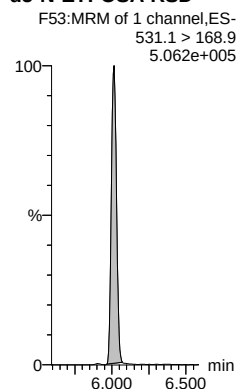
d3-N-MeFOSA-RSD



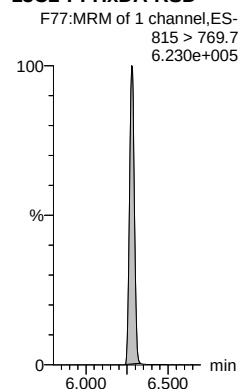
13C2-PFTEdA-RSD



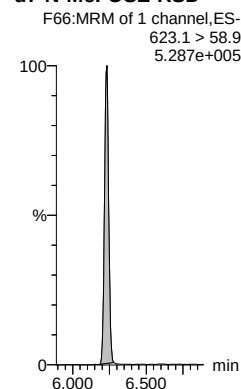
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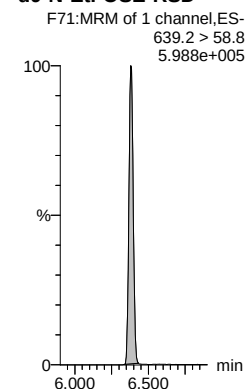
13C2-PFHxDA-RSD



d7-N-MeFOSE-RSD



d9-N-EtFOSE-RSD



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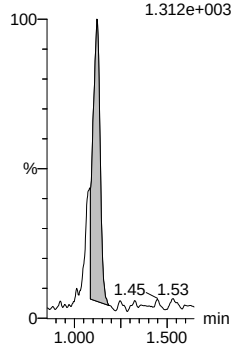
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Name: 200702P1-15, Date: 02-Jul-2020, Time: 11:42:47, ID: IB, Description: IB

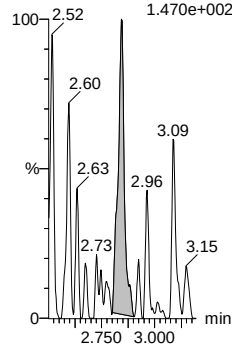
13C4-PFBA

IB IBF4:MRM of 1 channel,ES-
217.0 > 172.0
1.312e+003



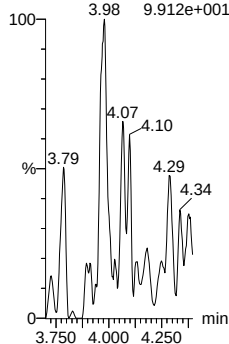
13C5-PFHxA

F15:MRM of 1 channel,ES-
318.0 > 272.9
1.470e+002



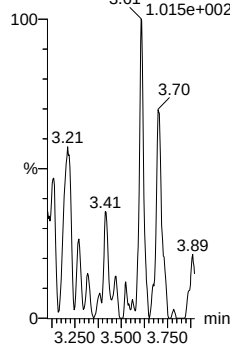
13C8-PFOA

F28:MRM of 1 channel,ES-
420.9 > 376.0
9.912e+001



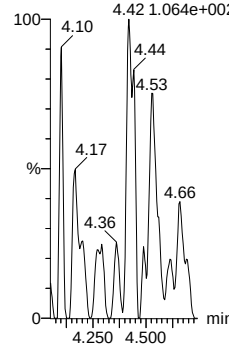
18O2-PFHxS

F25:MRM of 1 channel,ES-
403.0 > 103
1.015e+002



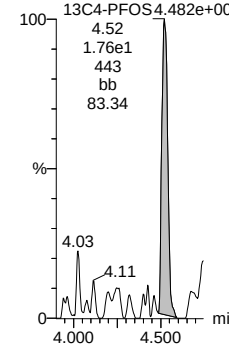
13C9-PFNA

F37:MRM of 1 channel,ES-
472.2 > 426.9
1.064e+002



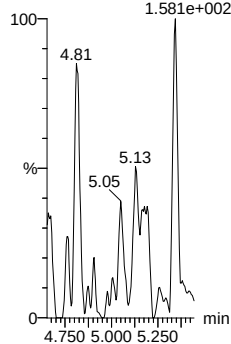
13C4-PFOS

F41:MRM of 1 channel,ES-
503 > 79.7
4.482e+002



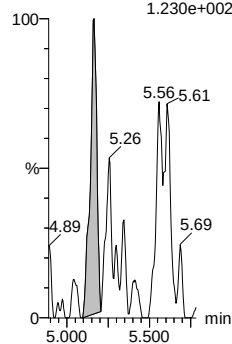
13C6-PFDA

F48:MRM of 1 channel,ES-
519.1 > 473.7
1.581e+002



13C7-PFUDa

F58:MRM of 1 channel,ES-
570.1 > 524.8
1.230e+002



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Name: 200702P1-15, Date: 02-Jul-2020, Time: 11:42:47, ID: IB, Description: IB

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1 PFBA	213.0 > 168.8	9.032	6249.198	1.00	1.14	0.018						
2	2 PFPrS	249 > 80		1358.684	1.00								YES
3	3 3:3 FTCA	240.9 > 176.9		11664.176	1.00								YES
4	4 PFPeA	263.1 > 218.9	9.755	11664.176	1.00	2.04	0.010						
5	5 PFBS	299.0 > 80		1358.684	1.00								YES
6	6 4:2 FTS	326.9 > 306.9		1318.771	1.00								YES
7	47 13C3-PFBA-EIS	216.1 > 171.8	6249.198		1.00	1.12	6249.198	12.500	13.7	109.5			
8	51 13C3-PFBS-EIS	302.0 > 98.9	1358.684		1.00	2.32	1358.684	12.500	13.3	106.0			
9	49 13C3-PFPeA-EIS	266.0 > 221.8	11664.176		1.00	2.03	11664.176	12.500	12.8	102.7			
10	49 13C3-PFPeA-EIS	266.0 > 221.8	11664.176		1.00	2.03	11664.176	12.500	12.8	102.7			
11	51 13C3-PFBS-EIS	302.0 > 98.9	1358.684		1.00	2.32	1358.684	12.500	13.3	106.0			
12	55 13C2-4:2 FTS-EIS	329.0 > 80.8	1318.771		1.00	2.76	1318.771	12.500	12.7	101.9			
13	-1												
14	7 PFHxA	313.0 > 269.0	47.785	13769.273	1.00	3.06	0.043						YES
15	8 PFPeS	349.>80		1358.684	1.00								YES
16	9 HFPO-DA	285.1 > 168.9		3056.452	1.00								YES
17	10 5:3 FTCA	340.9 > 236.9		11771.928	1.00								YES
18	11 PFHpA	363.0 > 319	31.997	11771.928	1.00	3.42	0.034		0.00744				YES
19	12 ADONA	376.8 > 250.9	6.290	11771.928	1.00	3.58	0.007		0.0585				YES
20	57 13C2-PFHxA-EIS	315.0 > 270.0	13769.273		1.00	2.84	13769.273	12.500	12.7	101.9			
21	51 13C3-PFBS-EIS	302.0 > 98.9	1358.684		1.00	2.32	1358.684	12.500	13.3	106.0			
22	53 13C3-HFPO-DA-EIS	287.0 > 168.9	3056.452		1.00	3.06	3056.452	12.500	13.2	105.5			
23	59 13C4-PFHpA-EIS	367.2 > 321.8	11771.928		1.00	3.46	11771.928	12.500	12.9	103.5			
24	59 13C4-PFHpA-EIS	367.2 > 321.8	11771.928		1.00	3.46	11771.928	12.500	12.9	103.5			
25	59 13C4-PFHpA-EIS	367.2 > 321.8	11771.928		1.00	3.46	11771.928	12.500	12.9	103.5			
26	-1												
27	13 L-PFHxS	399 > 79.9	7.395	2625.496	1.00	3.56	0.035		0.0310				YES
28	15 6:2 FTS	427.0 > 407	6.582	1470.696	1.00	3.87	0.056		0.135				YES
29	16 L-PFOA	413 > 369	16.093	13373.703	1.00	3.96	0.015					2.608	NO
30	18 PFecHS	461 > 381.0		13373.703	1.00								YES
31	19 PFHpS	449.0 > 80		2775.516	1.00								YES
32	20 7:3 FTCA	440.9 > 336.9		13532.047	1.00								YES
33	61 13C3-PFHxS-EIS	402 > 80	2625.496		1.00	3.61	2625.496	12.500	12.3	98.5			
34	63 13C2-6:2 FTS-EIS	429.0 > 79.7	1470.696		1.00	3.91	1470.696	12.500	12.7	101.8			
35	69 13C2-PFOA-EIS	414.9 > 369.7	13373.703		1.00	3.97	13373.703	12.500	12.7	101.6			
36	69 13C2-PFOA-EIS	414.9 > 369.7	13373.703		1.00	3.97	13373.703	12.500	12.7	101.6			

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Name: 200702P1-15, Date: 02-Jul-2020, Time: 11:42:47, ID: IB, Description: IB

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
38	65 13C5-PFNA-EIS	468.2 > 422.9	13532.047		1.00	4.43	13532.047	12.500	12.6	100.5	NO		
39	-1												
40	21 PFNA	463.0 > 418.8	24.124	13532.047	1.00	4.42	0.022		0.0148		NO		YES
41	22 PFOSA	498 > 78	11.394	5059.904	1.00	4.41	0.028		0.0199		NO		YES
42	23 L-PFOS	499 > 80	11.331	2775.516	1.00	4.53	0.051		0.0138		NO		YES
43	25 9CI-PF30NS	531 > 351	6.767	2775.516	1.00	4.70	0.030				NO		YES
44	26 PFDA	513 > 469	77.537	16498.447	1.00	4.81	0.059		0.0324		NO		YES
45	27 8:2 FTS	526.8 > 506.9		1351.971	1.00						NO		YES
46	65 13C5-PFNA-EIS	468.2 > 422.9	13532.047		1.00	4.43	13532.047	12.500	12.6	100.5	NO		
47	67 13C8-PFOSA-EIS	506 > 78	5059.904		1.00	4.47	5059.904	12.500	12.7	101.7	NO		
48	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
49	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
50	73 13C2-PFDA-EIS	515.1 > 469.9	16498.447		1.00	4.81	16498.447	12.500	12.7	101.5	NO		
51	75 13C2-8:2 FTS-EIS	529 > 80	1351.971		1.00	4.78	1351.971	12.500	13.0	104.0	NO		
52	-1												
53	28 PFNS	549 > 80	6.299	2775.516	1.00	4.89	0.028		0.0481		NO		YES
54	29 L-MeFOSAA	570 > 419		3822.817	1.00						NO		YES
55	31 L-EtFOSAA	583.9 > 419	12.938	4262.649	1.00	5.08	0.038		0.113		NO		YES
56	33 PFUdA	563.0 > 519	93.795	15898.801	1.00	5.15	0.074		0.0535		NO		YES
57	34 PFDS	598.8 > 79.9		2775.516	1.00						NO		YES
58	35 11CI-PF30UdS	631 > 451		18874.875	1.00						NO		YES
59	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
60	77 d3-N-MeFOSAA-EIS	573.1 > 419	3822.817		1.00	4.97	3822.817	12.500	12.3	98.1	NO		
61	81 d5-N-EtFOSAA-EIS	589.3 > 419	4262.649		1.00	5.13	4262.649	12.500	13.1	105.1	NO		
62	79 13C2-PFUdA-EIS	565 > 519.8	15898.801		1.00	5.15	15898.801	12.500	11.9	95.6	NO		
63	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
64	83 13C2-PFDoA-EIS	614.9 > 569.9	18874.875		1.00	5.44	18874.875	12.500	13.3	106.0	NO		
65	-1												
66	36 10:2 FTS	626.9 > 607		962.137	1.00						NO		YES
67	37 PFDoA	612.9 > 569.0	166.326	18874.875	1.00	5.55	0.110		0.0632		NO		YES
68	38 N-MeFOSA	512.1 > 168.9	20.911	16015.051	1.00	5.53	0.195		0.0586		NO	1.883	NO
69	39 PFTrDA	662.9 > 618.9	44.254	18874.875	1.00	5.66	0.029				NO		YES
70	40 PFDoS	699 > 80	18.262	17704.652	1.00	5.73	0.013		0.125		NO	3.245	NO
71	41 PFTeDA	713.0 > 669.0	72.482	17704.652	1.00	5.92	0.051		0.0155		NO		YES
72	85 13C2-10:2 FTS-EIS	632.9 > 80.0	962.137		1.00	5.42	962.137	12.500	10.2	81.3	NO		

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	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83 13C2-PFDoA-EIS	614.9 > 569.9	18874.875		1.00	5.44	18874.875	12.500	13.3	106.0	NO		
74	87 d3-N-MeFOSA-EIS	515.2 > 168.9	16015.051		1.00	5.55	16015.051	149.200	128	85.5	NO		
75	83 13C2-PFDoA-EIS	614.9 > 569.9	18874.875		1.00	5.44	18874.875	12.500	13.3	106.0	NO		
76	89 13C2-PFTEA-EIS	715.1 > 669.7	17704.652		1.00	5.92	17704.652	12.500	11.8	94.2	NO		
77	89 13C2-PFTEA-EIS	715.1 > 669.7	17704.652		1.00	5.92	17704.652	12.500	11.8	94.2	NO		
78	-1												
79	42 N-EtFOSA	526.1 > 168.9	25.166	19620.338	1.00	6.00	0.191				NO	1.256	NO
80	43 PFHxDA	813 > 769	266.456	20568.559	1.00	6.28	0.162		0.0154		NO	21.411	NO
81	44 PFODA	913.1 > 868.8	150.465	20568.559	1.00	6.53	0.091		0.123		NO		
82	45 N-MeFOSE	616.1 > 58.9	74.470	17384.578	1.00	6.20	0.639		0.182		NO		
83	46 N-EtFOSE	630.1 > 58.9	55.655	19316.719	1.00	6.39	0.430		0.348		NO		
84	48 13C3-PFBA-RSD	216.1 > 171.8	6249.198	55.419	1.00	1.12	1409.534	12.500	1650	13203.6	YES		
85	91 d5-N-ETFOSA-EIS	531.1 > 168.9	19620.338		1.00	6.01	19620.338	149.200	135	90.8	NO		
86	93 13C2-PFHxDA-EIS	815 > 769.7	20568.559		1.00	6.28	20568.559	12.500	11.4	91.5	NO		
87	93 13C2-PFHxDA-EIS	815 > 769.7	20568.559		1.00	6.28	20568.559	12.500	11.4	91.5	NO		
88	95 d7-N-MeFOSE-EIS	623.1 > 58.9	17384.578		1.00	6.23	17384.578	149.200	128	85.7	NO		
89	97 d9-N-EtFOSE-EIS	639.2 > 58.8	19316.719		1.00	6.38	19316.719	149.200	133	89.0	NO		
90	50 13C3-PFPeA-RSD	266.0 > 221.8	11664.176	5.026	1.00	2.03	29009.590	12.500	38000	30390...	YES		
91	-1												
92	52 13C3-PFBS-RSD	302.0 > 98.9			1.00			12.500			NO		
93	54 13C3-HFPO-DA-RSD	287.0 > 168.9		5.026	1.00			12.500			NO		
94	56 13C2-4:2 FTS-RSD	329.0 > 80.8			1.00			12.500			NO		
95	58 13C2-PFHxA-RSD	315.0 > 270.0	13769.273	5.026	1.00	2.84	34245.108	12.500	38300	30668...	YES		
96	60 13C4-PFHpA-RSD	367.2 > 321.8		5.026	1.00			12.500			NO		
97	62 13C3-PFHxS-RSD	402 > 80			1.00			12.500			NO		
98	64 13C2-6:2 FTS-RSD	429.0 > 79.7	1470.696	17.595	1.00	3.91	1044.825	12.500	2210	17682.9	YES		
99	66 13C5-PFNA-RSD	468.2 > 422.9			1.00			12.500			NO		
100	68 13C8-PFOA-RSD	506 > 78	5059.904	5.603	1.00	4.47	11288.381	12.500	27300	21841...	YES		
101	70 13C2-PFOA-RSD	414.9 > 369.7			1.00			12.500			NO		
102	72 13C8-PFOS-RSD	507.1 > 80	2775.516	17.595	1.00	4.52	1971.807	12.500	2330	18608.9	YES		
103	74 13C2-PFDA-RSD	515.1 > 469.9			1.00			12.500			NO		
104	-1												
105	76 13C2-8:2 FTS-RSD	529 > 80	1351.971	17.595	1.00	4.78	960.480	12.500	2040	16317.9	YES		
106	78 d3-N-MeFOSAA-RSD	573.1 > 419	3822.817	5.603	1.00	4.97	8528.505	12.500	25800	20638...	YES		
107	80 13C2-PFUDa-RSD	565 > 519.8	15898.801	5.603	1.00	5.15	35469.394	12.500	27600	22092...	YES		
108	82 d5-N-EtFOSAA-RSD	589.3 > 419	4262.649	5.603	1.00	5.13	9509.747	12.500	29100	23249...	YES		

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Name: 200702P1-15, Date: 02-Jul-2020, Time: 11:42:47, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	84	13C2-PFDoA-RSD	614.9 > 569.9	18874.875		1.00	5.44		12.500					
110	86	13C2-10:2 FTS-RSD	632.9 > 80.0	962.137	17.595	1.00	5.42	683.530	12.500	1980	15866.2	YES		
111	88	d3-N-MeFOSA-RSD	515.2 > 168.9	16015.051	5.603	1.00	5.55	35728.741	149.200	277000	18564...	YES		
112	90	13C2-PFTeDA-RSD	715.1 > 669.7	17704.652	5.603	1.00	5.92	39498.153	12.500	25400	20307...	YES		
113	92	d5-N-ETFOSA-RSD	531.1 > 168.9	19620.338	5.603	1.00	6.01	43771.948	149.200	293000	19659...	YES		
114	94	13C2-PFHxDA-RSD	815 > 769.7	20568.559	5.603	1.00	6.28	45887.380	12.500	24800	19814...	YES		
115	96	d7-N-MeFOSE-RSD	623.1 > 58.9	17384.578	5.603	1.00	6.23	38784.084	149.200	278000	18655...	YES		
116	98	d9-N-EtFOSE-RSD	639.2 > 58.8	19316.719	5.603	1.00	6.38	43094.590	149.200	284000	19013...	YES		
117	-1													
118	99	13C4-PFBA	217.0 > 172.0	55.419	55.419	1.00	1.12	12.500	12.500	12.5	100.0	NO		
119	1...	13C5-PFHxA	318.0 > 272.9	5.026	5.026	1.00	2.84	12.500	12.500	12.5	100.0	NO		
120	1...	13C8-PFOA	420.9 > 376.0			1.00			12.500			NO		
121	1...	18O2-PFHxS	403.0 > 103			1.00			12.500			NO		
122	1...	13C9-PFNA	472.2 > 426.9			1.00			12.500			NO		
123	1...	13C4-PFOS	503 > 79.7	17.595	17.595	1.00	4.52	12.500	12.500	12.5	100.0	NO		
124	1...	13C6-PFDA	519.1 > 473.7			1.00			12.500			NO		
125	1...	13C7-PFUDa	570.1 > 524.8	5.603	5.603	1.00	5.16	12.500	12.500	12.5	100.0	NO		

LC Calibration Standards Review Checklist 05

	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
① Calibration ID: ST2002PI-11	L M H ☒	☒	☒	☒	☒	☒	☒
② Calibration ID: -12	L M H ☒	☒	☒	☒	☒	☒	☒
Calibration ID: -13	L M H ☒	☒	☒	☒	☒	☒	☒
Calibration ID: -14	L M H ☒	☒	☒	☒	☒	☒	☒
Calibration ID: -15	L M H ☒	☒	☒	☒	☒	☒	☒
Calibration ID: T10	L M H ☒	☒	☒	☒	☒	☒	☒
Calibration ID:	L M H ☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H ☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H ☐	☐	☐	☐	☐	☐	☐
Calibration ID:	L M H ☐	☐	☐	☐	☐	☐	☐

NA

Full Mass Cal. Date: 01/22/2020

Run Log Present: ☒

of Samples per Sequence Checked: ☒

Instrument Blank Saved ☒

All Branches in Acquisition Window ☒

IIS Area Saved ☐

Reviewed By: AS 07/06/20
Initials/Date

Comments:

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Name: 200702P1-34, Date: 02-Jul-2020, Time: 15:09:56, ID: ST200702P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906

1	PFBA	213.0 > 168.8	4627.891	5726.116	1.00	1.12	10.539	10.000	10.0	100.2	NO		
2	PFPs	249 > 80	1104.601	1365.505	1.00	1.45	10.112	10.000	10.5	104.6	NO	3.194	NO
3	3:3 FTCA	240.9 > 176.9	683.825	11595.285	1.00	1.90	0.737	10.000	9.54	95.4	NO	3.721	NO
4	PFPeA	263.1 > 218.9	8619.368	11595.285	1.00	2.04	9.292	10.000	9.85	98.5	NO		
5	PFBS	299.0 > 80	2793.253	1365.505	1.00	2.32	25.570	10.000	10.2	101.7	NO	2.482	NO
6	4:2 FTS	326.9 > 306.9	2815.949	1433.694	1.00	2.75	24.552	10.000	9.39	93.9	NO	12.051	NO
47	13C3-PFBA-EIS	216.1 > 171.8	5726.116		1.00	1.12	5726.116	12.500	12.5	100.3	NO		
51	13C3-PFBS-EIS	302.0 > 98.9	1365.505		1.00	2.32	1365.505	12.500	13.3	106.6	NO		
49	13C3-PFPeA-EIS	266.0 > 221.8	11595.285		1.00	2.04	11595.285	12.500	12.8	102.1	NO		
49	13C3-PFPeA-EIS	266.0 > 221.8	11595.285		1.00	2.04	11595.285	12.500	12.8	102.1	NO		
51	13C3-PFBS-EIS	302.0 > 98.9	1365.505		1.00	2.32	1365.505	12.500	13.3	106.6	NO		
55	13C2-4:2 FTS-EIS	329.0 > 80.8	1433.694		1.00	2.76	1433.694	12.500	13.8	110.8	NO		
-1													
7	PFHxA	313.0 > 269.0	11982.524	14054.251	1.00	2.84	10.657	10.000	10.4	104.0	NO	16.530	NO
8	PFPeS	349. > 80	2402.814	1365.505	1.00	3.05	21.996	10.000	10.6	106.1	NO	2.217	NO
9	HFPO-DA	285.1 > 168.9	2435.138	2881.944	1.00	3.06	10.562	10.000	10.7	107.5	NO	2.364	NO
10	5:3 FTCA	340.9 > 236.9	1503.546	12070.077	1.00	3.42	1.557	10.000	9.66	96.6	NO	1.694	NO
11	PFHpA	363.0 > 319	13114.694	12070.077	1.00	3.46	13.582	10.000	10.1	100.7	NO	47.479	NO
12	ADONA	376.8 > 250.9	21227.551	12070.077	1.00	3.57	21.984	10.000	10.2	101.5	NO	4.375	NO
57	13C2-PFHxA-EIS	315.0 > 270.0	14054.251		1.00	2.84	14054.251	12.500	13.0	104.0	NO		
51	13C3-PFBS-EIS	302.0 > 98.9	1365.505		1.00	2.32	1365.505	12.500	13.3	106.6	NO		
53	13C3-HFPO-DA-EIS	287.0 > 168.9	2881.944		1.00	3.06	2881.944	12.500	12.4	99.5	NO		
59	13C4-PFHpA-EIS	367.2 > 321.8	12070.077		1.00	3.46	12070.077	12.500	13.3	106.1	NO		
59	13C4-PFHpA-EIS	367.2 > 321.8	12070.077		1.00	3.46	12070.077	12.500	13.3	106.1	NO		
59	13C4-PFHpA-EIS	367.2 > 321.8	12070.077		1.00	3.46	12070.077	12.500	13.3	106.1	NO		
-1													
13	L-PFHxS	399 > 79.9	2358.937	2625.330	1.00	3.61	11.232	10.000	10.1	101.3	NO	3.841	NO
15	6:2 FTS	427.0 > 407	1390.253	1462.115	1.00	3.91	11.886	10.000	10.1	101.3	NO	0.747	NO
16	L-PFOA	413 > 369	12066.451	13559.201	1.00	3.97	11.124	10.000	10.1	100.8	NO	2.967	NO
18	PFecHS	461 > 381.0	2418.742	13559.201	1.00	3.98	2.230	10.000	9.65	96.5	NO	0.533	NO
19	PFHpS	449.0 > 80	2153.194	2569.378	1.00	4.09	10.475	10.000	10.7	106.5	NO	1.644	NO
20	7:3 FTCA	440.9 > 336.9	2479.192	14611.649	1.00	4.40	2.121	10.000	9.16	91.6	NO	1.278	NO
61	13C3-PFHxS-EIS	402 > 80	2625.330		1.00	3.61	2625.330	12.500	12.3	98.5	NO		
63	13C2-6:2 FTS-EIS	429.0 > 79.7	1462.115		1.00	3.91	1462.115	12.500	12.7	101.2	NO		
69	13C2-PFOA-EIS	414.9 > 369.7	13559.201		1.00	3.97	13559.201	12.500	12.9	103.0	NO		
69	13C2-PFOA-EIS	414.9 > 369.7	13559.201		1.00	3.97	13559.201	12.500	12.9	103.0	NO		

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Name: 200702P1-34, Date: 02-Jul-2020, Time: 15:09:56, ID: ST200702P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906

71	13C8-PFOS-EIS	507.1 > 80	2569.378		1.00	4.51	2569.378	12.500	13.2	105.9	NO		
65	13C5-PFNA-EIS	468.2 > 422.9	14611.649		1.00	4.42	14611.649	12.500	13.6	108.5	NO		
-1													
21	PFNA	463.0 > 418.8	12545.090	14611.649	1.00	4.43	10.732	10.000	9.15	91.5	NO	13.757	NO
22	PFOSA	498 > 78	2887.593	5314.414	1.00	4.47	6.792	10.000	10.0	100.0	NO	21.769	NO
23	L-PFOS	499 > 80	2389.644	2569.378	1.00	4.52	11.626	10.000	9.39	93.9	NO	2.232	NO
25	9CI-PF30NS	531 > 351	6125.027	2569.378	1.00	4.74	29.798	10.000	11.3	113.0	NO	40.766	NO
26	PFDA	513 > 469	11825.957	16515.119	1.00	4.81	8.951	10.000	10.5	105.1	NO	5.434	NO
27	8:2 FTS	526.8 > 506.9	1357.330	1377.771	1.00	4.78	12.315	10.000	9.57	95.7	NO	0.719	NO
65	13C5-PFNA-EIS	468.2 > 422.9	14611.649		1.00	4.42	14611.649	12.500	13.6	108.5	NO		
67	13C8-PFOSA-EIS	506 > 78	5314.414		1.00	4.47	5314.414	12.500	13.4	106.8	NO		
71	13C8-PFOS-EIS	507.1 > 80	2569.378		1.00	4.51	2569.378	12.500	13.2	105.9	NO		
71	13C8-PFOS-EIS	507.1 > 80	2569.378		1.00	4.51	2569.378	12.500	13.2	105.9	NO		
73	13C2-PFDA-EIS	515.1 > 469.9	16515.119		1.00	4.81	16515.119	12.500	12.7	101.6	NO		
75	13C2-8:2 FTS-EIS	529 > 80	1377.771		1.00	4.78	1377.771	12.500	13.3	106.0	NO		
-1													
28	PFNS	549 > 80	2725.351	2569.378	1.00	4.88	13.259	10.000	10.4	103.7	NO	2.379	NO
29	L-MeFOSAA	570 > 419	3736.534	4247.112	1.00	4.97	10.997	10.000	9.26	92.6	NO	1.632	NO
31	L-EtFOSAA	583.9 > 419	4571.293	4323.048	1.00	5.13	13.218	10.000	9.53	95.3	NO	1.556	NO
33	PFUdA	563.0 > 519	12773.984	13913.200	1.00	5.15	11.476	10.000	10.3	103.0	NO	17.550	NO
34	PFDS	598.8 > 79.9	2310.838	2569.378	1.00	5.20	11.242	10.000	9.58	95.8	NO	1.914	NO
35	11CI-PF30UdS	631 > 451	4698.876	16279.759	1.00	5.37	3.608	10.000	11.1	111.0	NO	15.621	NO
71	13C8-PFOS-EIS	507.1 > 80	2569.378		1.00	4.51	2569.378	12.500	13.2	105.9	NO		
77	d3-N-MeFOSAA-EIS	573.1 > 419	4247.112		1.00	4.97	4247.112	12.500	13.6	109.0	NO		
81	d5-N-EtFOSAA-EIS	589.3 > 419	4323.048		1.00	5.13	4323.048	12.500	13.3	106.6	NO		
79	13C2-PFUdA-EIS	565 > 519.8	13913.200		1.00	5.15	13913.200	12.500	10.5	83.7	NO		
71	13C8-PFOS-EIS	507.1 > 80	2569.378		1.00	4.51	2569.378	12.500	13.2	105.9	NO		
83	13C2-PFDdA-EIS	614.9 > 569.9	16279.759		1.00	5.44	16279.759	12.500	11.4	91.5	NO		
-1													
36	10:2 FTS	626.9 > 607	1394.972	896.418	1.00	5.42	19.452	10.000	8.98	89.8	NO	0.840	NO
37	PFDdA	612.9 > 569.0	14285.351	16279.759	1.00	5.44	10.969	10.000	11.1	111.4	NO	13.311	NO
38	N-MeFOSA	512.1 > 168.9	6643.083	18386.133	1.00	5.52	53.907	50.000	52.0	104.0	NO	1.794	NO
39	PFTdA	662.9 > 618.9	15284.814	16279.759	1.00	5.69	11.736	10.000	11.0	110.2	NO	116.362	NO
40	PFDdS	699 > 80	3222.332	18415.295	1.00	5.72	2.187	10.000	10.7	106.9	NO	2.201	NO
41	PFTdA	713.0 > 669.0	10108.148	18415.295	1.00	5.91	6.861	10.000	10.2	102.5	NO	12.886	NO
85	13C2-10:2 FTS-EIS	632.9 > 80.0	896.418		1.00	5.42	896.418	12.500	9.47	75.7	NO		

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Name: 200702P1-34, Date: 02-Jul-2020, Time: 15:09:56, ID: ST200702P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906

83	13C2-PFDoA-EIS	614.9 > 569.9	16279.759		1.00	5.44	16279.759	12.500	11.4	91.5	NO		
87	d3-N-MeFOSA-EIS	515.2 > 168.9	18386.133		1.00	5.55	18386.133	149.200	146	98.1	NO		
83	13C2-PFDoA-EIS	614.9 > 569.9	16279.759		1.00	5.44	16279.759	12.500	11.4	91.5	NO		
89	13C2-PFTEA-EIS	715.1 > 669.7	18415.295		1.00	5.91	18415.295	12.500	12.3	98.0	NO		
89	13C2-PFTEA-EIS	715.1 > 669.7	18415.295		1.00	5.91	18415.295	12.500	12.3	98.0	NO		
-1													
42	N-EiFOSA	526.1 > 168.9	9238.056	22658.395	1.00	5.99	60.830	50.000	52.0	104.0	NO	1.931	NO
43	PFHxDA	813 > 769	18917.656	21506.596	1.00	6.28	10.995	10.000	10.3	102.6	NO	31.324	NO
44	PFODA	913.1 > 868.8	16483.072	21506.596	1.00	6.53	9.580	10.000	11.0	110.0	NO		
45	N-MeFOSE	616.1 > 58.9	7743.224	20227.271	1.00	6.24	57.115	50.000	51.7	103.3	NO		
46	N-EiFOSE	630.1 > 58.9	8112.181	22331.592	1.00	6.39	54.198	50.000	51.7	103.3	NO		
48	13C3-PFBA-RSD	216.1 > 171.8	5726.116	6631.629	1.00	1.12	10.793	12.500	12.6	101.1	NO		
91	d5-N-ETFOSA-EIS	531.1 > 168.9	22658.395		1.00	6.02	22658.395	149.200	156	104.8	NO		
93	13C2-PFHxDA-EIS	815 > 769.7	21506.596		1.00	6.28	21506.596	12.500	12.0	95.7	NO		
93	13C2-PFHxDA-EIS	815 > 769.7	21506.596		1.00	6.28	21506.596	12.500	12.0	95.7	NO		
95	d7-N-MeFOSE-EIS	623.1 > 58.9	20227.271		1.00	6.23	20227.271	149.200	149	99.8	NO		
97	d9-N-EiFOSE-EIS	639.2 > 58.8	22331.592		1.00	6.38	22331.592	149.200	153	102.9	NO		
50	13C3-PFPeA-RSD	266.0 > 221.8	11355.707	15195.011	1.00	2.04	9.342	12.500	12.2	97.9	NO		
-1													
52	13C3-PFBS-RSD	302.0 > 98.9	1365.505	1086.216	1.00	2.32	15.714	12.500	12.2	97.9	NO		
54	13C3-HFOA-DA-RSD	287.0 > 168.9	2881.944	15195.011	1.00	3.06	2.371	12.500	12.2	97.8	NO		
56	13C2-4:2 FTS-RSD	329.0 > 80.8	1433.694	1086.216	1.00	2.76	16.499	12.500	13.4	107.4	NO		
58	13C2-PFHxDA-RSD	315.0 > 270.0	14054.251	15195.011	1.00	2.84	11.562	12.500	12.9	103.5	NO		
60	13C4-PFHpA-RSD	367.2 > 321.8	12070.077	15195.011	1.00	3.46	9.929	12.500	12.9	103.6	NO		
62	13C3-PFHxS-RSD	402 > 80	2625.330	1086.216	1.00	3.61	30.212	12.500	11.8	94.6	NO		
64	13C2-6:2 FTS-RSD	429.0 > 79.7	1462.115	3197.385	1.00	3.91	5.716	12.500	12.1	96.7	NO		
66	13C5-PFNA-RSD	468.2 > 422.9	14611.649	15165.948	1.00	4.42	12.043	12.500	12.7	102.0	NO		
68	13C8-PFOA-RSD	506 > 78	5314.414	12093.956	1.00	4.47	5.493	12.500	13.3	106.3	NO		
70	13C2-PFOA-RSD	414.9 > 369.7	13559.201	12626.373	1.00	3.97	13.423	12.500	12.3	98.7	NO		
72	13C8-PFOS-RSD	507.1 > 80	2569.378	3197.385	1.00	4.51	10.045	12.500	11.8	94.8	NO		
74	13C2-PFDA-RSD	515.1 > 469.9	16515.119	13251.849	1.00	4.81	15.578	12.500	12.8	102.7	NO		
-1													
76	13C2-8:2 FTS-RSD	529 > 80	1377.771	3197.385	1.00	4.78	5.386	12.500	11.4	91.5	NO		
78	d3-N-MeFOSAA-RSD	573.1 > 419	4247.112	12093.956	1.00	4.97	4.390	12.500	13.3	106.2	NO		
80	13C2-PFUD-RSD	565 > 519.8	13913.200	12093.956	1.00	5.15	14.380	12.500	11.2	89.6	NO		
82	d5-N-EiFOSAA-RSD	589.3 > 419	4323.048	12093.956	1.00	5.13	4.468	12.500	13.7	109.2	NO		

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84	13C2-PFDoA-RSD	614.9 > 569.9	16279.759	13251.849	1.00	5.44	15.356	12.500	11.5	91.8	NO
86	13C2-10:2 FTS-RSD	632.9 > 80.0	896.418	3197.385	1.00	5.42	3.504	12.500	10.2	81.3	NO
88	d3-N-MeFOSA-RSD	515.2 > 168.9	18386.133	12093.956	1.00	5.55	19.003	149.200	147	98.7	NO
90	13C2-PFTeDA-RSD	715.1 > 669.7	18415.295	12093.956	1.00	5.91	19.034	12.500	12.2	97.9	NO
92	d5-N-ETFOSA-RSD	531.1 > 168.9	22658.395	12093.956	1.00	6.02	23.419	149.200	157	105.2	NO
94	13C2-PFHxDA-RSD	815 > 769.7	21506.596	12093.956	1.00	6.28	22.229	12.500	12.0	96.0	NO
96	d7-N-MeFOSE-RSD	623.1 > 58.9	20227.271	12093.956	1.00	6.23	20.906	149.200	150	100.6	NO
98	d9-N-EtFOSE-RSD	639.2 > 58.8	22331.592	12093.956	1.00	6.38	23.081	149.200	152	101.8	NO
-1											
99	13C4-PFBA	217.0 > 172.0	6631.629	6631.629	1.00	1.12	12.500	12.500	12.5	100.0	NO
1...	13C5-PFHxA	318.0 > 272.9	15195.011	15195.011	1.00	2.84	12.500	12.500	12.5	100.0	NO
1...	13C8-PFOA	420.9 > 376.0	12626.373	12626.373	1.00	3.97	12.500	12.500	12.5	100.0	NO
1...	18O2-PFHxS	403.0 > 103	1086.216	1086.216	1.00	3.60	12.500	12.500	12.5	100.0	NO
1...	13C9-PFNA	472.2 > 426.9	15165.948	15165.948	1.00	4.42	12.500	12.500	12.5	100.0	NO
1...	13C4-PFOS	503 > 79.7	3197.385	3197.385	1.00	4.51	12.500	12.500	12.5	100.0	NO
1...	13C6-PFDA	519.1 > 473.7	13251.849	13251.849	1.00	4.81	12.500	12.500	12.5	100.0	NO
1...	13C7-PFUdA	570.1 > 524.8	12093.956	12093.956	1.00	5.15	12.500	12.500	12.5	100.0	NO

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Quantify Compound Summary Report **MassLynx V4.2 SCN977**
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Dataset: Untitled

Last Altered: Sunday, July 05, 2020 18:34:22 Pacific Daylight Time

Printed: Sunday, July 05, 2020 18:36:07 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 05 Jul 2020 18:21:12

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Compound name: PFBA

1	200702P1-4	IPA	02-Jul-20	09:47:14
2	200702P1-5	ST200702P1-1 PFC CS-2 20F1901	02-Jul-20	09:57:43
3	200702P1-6	ST200702P1-2 PFC CS-1 20F1902	02-Jul-20	10:08:15
4	200702P1-7	ST200702P1-3 PFC CS0 20F1903	02-Jul-20	10:18:46
5	200702P1-8	ST200702P1-4 PFC CS1 20F1904	02-Jul-20	10:29:15
6	200702P1-9	ST200702P1-5 PFC CS2 20F1905	02-Jul-20	10:39:46
7	200702P1-10	ST200702P1-6 PFC CS3 20F1906	02-Jul-20	10:50:17
8	200702P1-11	ST200702P1-7 PFC CS4 20F1907	02-Jul-20	11:00:44
9	200702P1-12	ST200702P1-8 PFC CS5 20F1908	02-Jul-20	11:11:17
10	200702P1-13	ST200702P1-9 PFC CS6 20F1909	02-Jul-20	11:21:45
11	200702P1-14	ST200702P1-10 PFC CS7 20F1910	02-Jul-20	11:32:18
12	200702P1-15	IB	02-Jul-20	11:42:47
13	200702P1-16	ICV200702P1-1 PFC ICV 20F1911	02-Jul-20	11:53:18
14	200702P1-17	IB	02-Jul-20	12:03:49
15	200702P1-18	B0F0205-BLK1 Method Blank 0.25	02-Jul-20	12:14:17
16	200702P1-19	B0F0205-BS1 OPR 0.25	02-Jul-20	12:24:49
17	200702P1-20	B0F0205-BSD1 LCSD 0.25	02-Jul-20	12:35:20
18	200702P1-21	B0F0248-BS1 OPR 0.01	02-Jul-20	12:53:18
19	200702P1-22	B0F0248-BSD1 LCSD 0.01	02-Jul-20	13:03:52
20	200702P1-23	2001315-01 SB01-20200618 0.24727	02-Jul-20	13:14:21
21	200702P1-24	2001315-02 EB01-20200618 0.25499	02-Jul-20	13:24:53
22	200702P1-25	2001315-03 24-GW-15DBMW51-20200618 0.25758	02-Jul-20	13:35:22
23	200702P1-26	2001315-04 24-GW-24NFW8-20200618 0.26515	02-Jul-20	13:45:53
24	200702P1-27	2001315-05 24-GW-09DGMW75R-20200618 0.26765	02-Jul-20	13:56:24
25	200702P1-28	2001315-06 24-GW-24NEW4-20200618 0.25948	02-Jul-20	14:06:52
26	200702P1-29	2001315-07 24-GW-18PS8-20200618 0.24835	02-Jul-20	14:17:25
27	200702P1-30	2001315-08 24-GW-08DGMW73-20200618 0.25501	02-Jul-20	14:27:53
28	200702P1-31	2001315-09 24-GW-18PS3A-20200618 0.28418	02-Jul-20	14:38:25
29	200702P1-32	2001326-01 REEPEF2658FS 0.11212	02-Jul-20	14:48:54
30	200702P1-33	IB	02-Jul-20	14:59:25
31	200702P1-34	ST200702P1-11 PFC CS3 20F1906	02-Jul-20	15:09:56
32	200702P1-35	IB	02-Jul-20	15:20:25

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Last Altered: Sunday, July 05, 2020 18:34:22 Pacific Daylight Time
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Compound name: PFBA

33	200702P1-36	B0F0217-BLK1 Method Blank 0.25	02-Jul-20	15:30:56
34	200702P1-37	B0F0217-BS1 OPR 0.25	02-Jul-20	15:41:27
35	200702P1-38	2001329-01 GW2006160905GSC 0.24637	02-Jul-20	15:51:56
36	200702P1-39	2001329-02 GW2006160915MK 0.24954	02-Jul-20	16:02:27
37	200702P1-40	2001329-03 GW2006160935GSC 0.25142	02-Jul-20	16:13:36
38	200702P1-41	2001329-04 GW2006160955MK 0.25277	02-Jul-20	16:24:10
39	200702P1-42	2001329-05 GW2006161005GSC 0.25157	02-Jul-20	16:34:39
40	200702P1-43	2001329-06 GW2006161035MK 0.25092	02-Jul-20	16:45:10
41	200702P1-44	2001329-07 GW2006161035GSC 0.24948	02-Jul-20	16:55:41
42	200702P1-45	2001329-08 GW2006161115GSC 0.24985	02-Jul-20	17:06:10
43	200702P1-46	2001329-09 GW2006161120MK 0.2546	02-Jul-20	17:16:41
44	200702P1-47	2001329-10 GW2006161145GSC 0.25439	02-Jul-20	17:27:11
45	200702P1-48	IB	02-Jul-20	17:37:40
46	200702P1-49	ST200702P1-12 PFC CS3 20F1906	02-Jul-20	17:48:10
47	200702P1-50	IB	02-Jul-20	17:58:43
48	200702P1-51	B0F0096-BLK1 Method Blank 0.125	02-Jul-20	18:09:11
49	200702P1-52	B0F0095-BLK1 Method Blank 0.125	02-Jul-20	18:19:43
50	200702P1-53	B0F0095-BS1 OPR 0.125	02-Jul-20	18:30:12
51	200702P1-54	2001239-10 PZ15B 0.125	02-Jul-20	18:40:44
52	200702P1-55	2001239-13 WT11 0.125	02-Jul-20	18:51:14
53	200702P1-56	2001329-11 GW2006161150MK 0.25261	02-Jul-20	19:01:45
54	200702P1-57	2001329-12 GW2006161225GSC 0.24848	02-Jul-20	19:12:13
55	200702P1-58	2001329-13 GW2006161230MK 0.25409	02-Jul-20	19:22:45
56	200702P1-59	2001329-14 GW2006161300GSC 0.24265	02-Jul-20	19:33:14
57	200702P1-60	2001329-15 GW2006161305MK 0.24964	02-Jul-20	19:43:46
58	200702P1-61	2001329-16 GW2006161325GSC 0.24904	02-Jul-20	19:54:14
59	200702P1-62	2001329-17 GW2006161335MK 0.26432	02-Jul-20	20:04:46
60	200702P1-63	2001329-18 FB2006161400MK 0.25097	02-Jul-20	20:15:15
61	200702P1-64	2001329-19 GW2006161410GSC 0.24168	02-Jul-20	20:25:47
62	200702P1-65	IB	02-Jul-20	20:36:16
63	200702P1-66	ST200702P1-13 PFC CS3 20F1906	02-Jul-20	20:46:45
64	200702P1-67	IB	02-Jul-20	20:57:18
65	200702P1-68	2001329-20 GW2006161435MK 0.25717	02-Jul-20	21:07:47
66	200702P1-69	B0F0260-BLK1 Method Blank 0.25	02-Jul-20	21:18:18
67	200702P1-70	B0F0260-BS1 OPR 0.25	02-Jul-20	21:28:49
68	200702P1-71	B0F0260-MS1 Matrix Spike 0.24838	02-Jul-20	21:39:17

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Last Altered: Sunday, July 05, 2020 18:34:22 Pacific Daylight Time

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Compound name: PFBA

69	200702P1-72	B0F0260-MSD1 Matrix Spike Dup 0.25102	02-Jul-20	21:49:49
70	200702P1-73	2001317-01RE1 TB-01 0.25457	02-Jul-20	22:00:19
71	200702P1-74	2001317-02RE1 MW-30R 0.24472	02-Jul-20	22:10:50
72	200702P1-75	2001317-03RE1 MW-27 0.23992	02-Jul-20	22:21:20
73	200702P1-76	2001317-04RE1 MW-34 0.24713	02-Jul-20	22:31:49
74	200702P1-77	2001317-05RE1 MW-28 0.25215	02-Jul-20	22:42:19
75	200702P1-78	2001317-06RE1 MW-5 0.25013	02-Jul-20	22:52:50
76	200702P1-79	2001317-07RE1 MW-5 (24.5-29.5) 0.25062	02-Jul-20	23:03:21
77	200702P1-80	2001317-08RE1 MW-15 0.24232	02-Jul-20	23:13:52
78	200702P1-81	2001317-09RE1 BD-01 0.2453	02-Jul-20	23:24:21
79	200702P1-82	IB	02-Jul-20	23:34:52
80	200702P1-83	ST200702P1-14 PFC CS3 20F1906	02-Jul-20	23:45:21
81	200702P1-84	IB	02-Jul-20	23:55:53
82	200702P1-85	2001317-10RE1 BD-02 0.24755	03-Jul-20	00:06:22
83	200702P1-86	2001317-11RE1 MW-37 0.23921	03-Jul-20	00:16:53
84	200702P1-87	2001317-12RE1 MW-38 0.25046	03-Jul-20	00:27:24
85	200702P1-88	B0F0216-BLK1 Method Blank 0.25	03-Jul-20	00:37:54
86	200702P1-89	B0F0216-BS1 OPR 0.25	03-Jul-20	00:48:23
87	200702P1-90	B0F0216-MS1 Matrix Spike 0.24632	03-Jul-20	00:58:55
88	200702P1-91	B0F0216-MSD1 Matrix Spike Dup 0.23739	03-Jul-20	01:09:24
89	200702P1-92	2001325-01 AHLS 0.23397	03-Jul-20	01:19:55
90	200702P1-93	2001325-02 Island Bridge 0.23733	03-Jul-20	01:30:25
91	200702P1-94	2001325-03 Island Bridge Right Bank 0.2476	03-Jul-20	01:40:56
92	200702P1-95	2001325-04 3rd + Carter 0.24577	03-Jul-20	01:51:25
93	200702P1-96	2001325-05 BD-04 0.24069	03-Jul-20	02:01:56
94	200702P1-97	2001325-06 9th Ave Bank S 0.24313	03-Jul-20	02:12:25
95	200702P1-98	2001325-07 9th Ave Bank D 0.24398	03-Jul-20	02:22:57
96	200702P1-99	IB	03-Jul-20	02:33:27
97	200702P1-100	ST200702P1-15 PFC CS3 20F1906	03-Jul-20	02:43:57
98	200702P1-101	IB	03-Jul-20	02:54:28
99	200702P1-102	2001325-08 9th Ave Culvert D 0.25032	03-Jul-20	03:04:57
100	200702P1-103	2001325-09 Chisholm Bridge S 0.24834	03-Jul-20	03:15:29
101	200702P1-104	2001325-10 TB-02 0.24192	03-Jul-20	03:25:58
102	200702P1-105	2001325-11 PZ-1 0.2425	03-Jul-20	03:36:27
103	200702P1-106	2001325-12 PZ-2R 0.24664	03-Jul-20	03:46:59
104	200702P1-107	2001325-13 EW-2 0.24275	03-Jul-20	03:57:30

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Last Altered: Sunday, July 05, 2020 18:34:22 Pacific Daylight Time
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Compound name: PFBA

		Acq. Date	Acq. Time
105	200702P1-108	2001325-14 BD-02 0.2541	03-Jul-20 04:08:01
106	200702P1-109	IB	03-Jul-20 04:18:29
107	200702P1-110	ST200702P1-16 PFC CS3 20F1906	03-Jul-20 04:29:01
108	200702P1-111	IB	03-Jul-20 04:39:30

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-34.qld

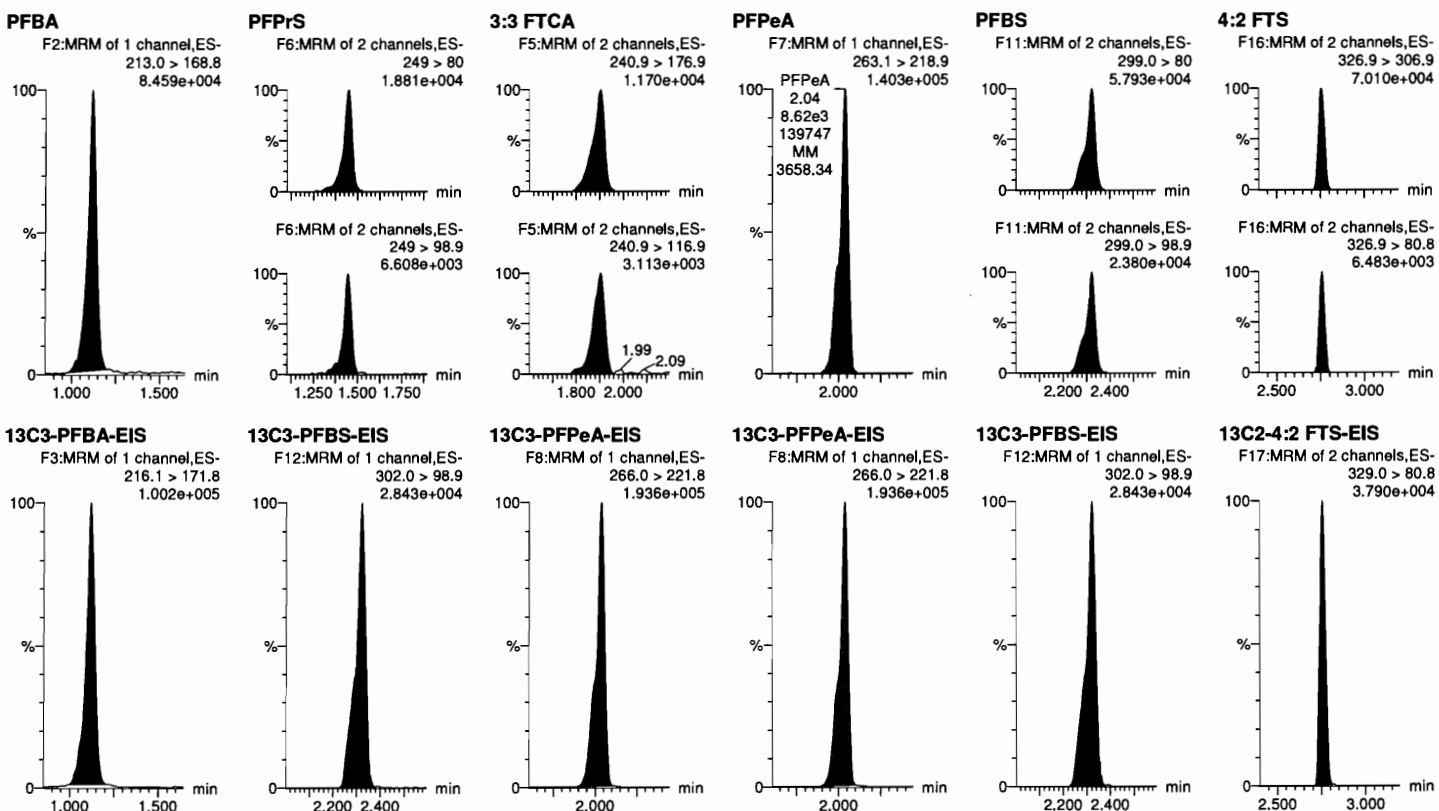
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Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Name: 200702P1-34, Date: 02-Jul-2020, Time: 15:09:56, ID: ST200702P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-34.qld

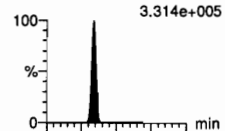
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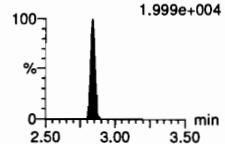
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PFHxA

F13:MRM of 2 channels,ES-
313.0 > 269.0
3.314e+005

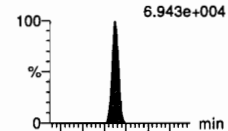


F13:MRM of 2 channels,ES-
313 > 118.9
1.999e+004

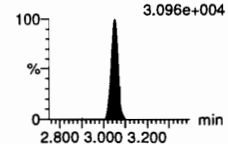


PFPeS

F19:MRM of 2 channels,ES-
349. > 80
6.943e+004

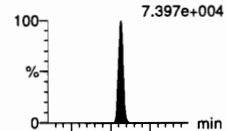


F19:MRM of 2 channels,ES-
349. > 98.9
3.096e+004

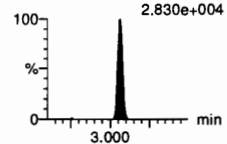


HFPO-DA

F9:MRM of 3 channels,ES-
285.1 > 168.9
7.397e+004

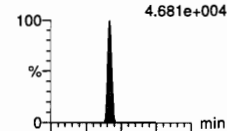


F9:MRM of 3 channels,ES-
285.1 > 184.9
2.830e+004

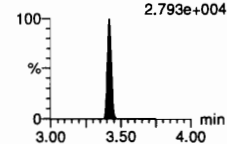


5:3 FTCA

F18:MRM of 2 channels,ES-
340.9 > 236.9
4.681e+004

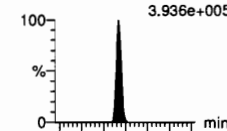


F18:MRM of 2 channels,ES-
340.9 > 216.9
2.793e+004

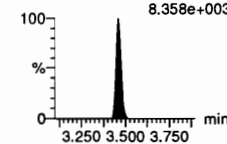


PFHpA

F20:MRM of 2 channels,ES-
363.0 > 319
3.936e+005

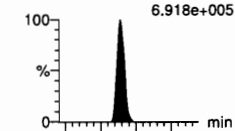


F20:MRM of 2 channels,ES-
363.0 > 169.0
8.358e+003

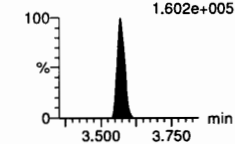


ADONA

F22:MRM of 2 channels,ES-
376.8 > 250.9
6.918e+005

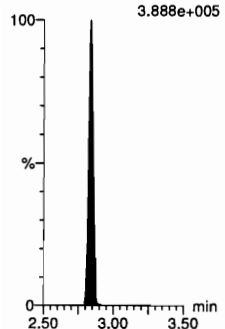


F22:MRM of 2 channels,ES-
376.8 > 85.0
1.602e+005



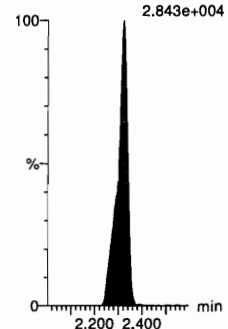
13C2-PFHxA-EIS

F14:MRM of 1 channel,ES-
315.0 > 270.0
3.888e+005



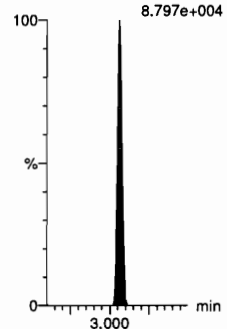
13C3-PFBS-EIS

F12:MRM of 1 channel,ES-
302.0 > 98.9
2.843e+004



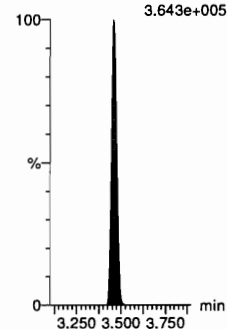
13C3-HFPO-DA-EIS

F10:MRM of 2 channels,ES-
287.0 > 168.9
8.797e+004



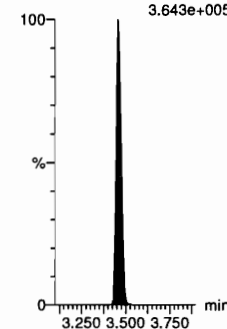
13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.643e+005



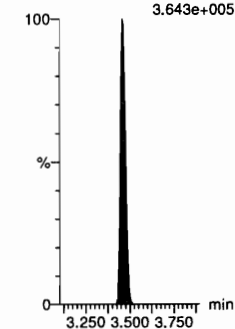
13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.643e+005



13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.643e+005



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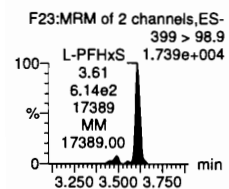
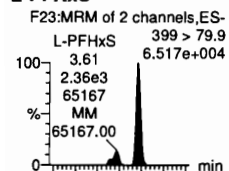
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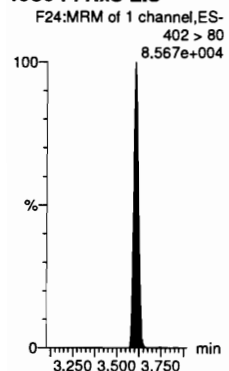
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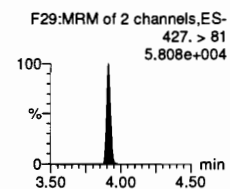
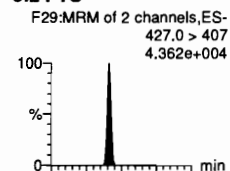
L-PFHxS



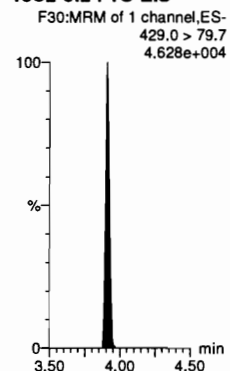
13C3-PFHxS-EIS



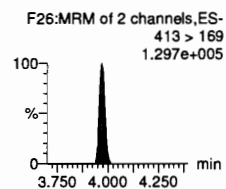
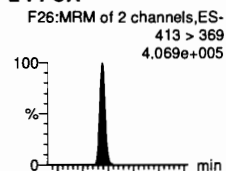
6:2 FTS



13C2-6:2 FTS-EIS



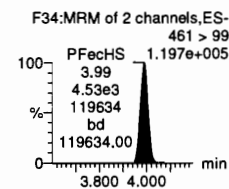
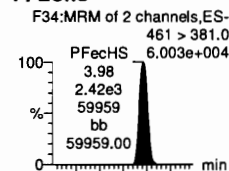
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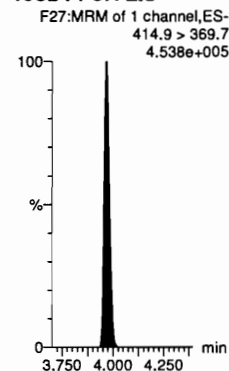
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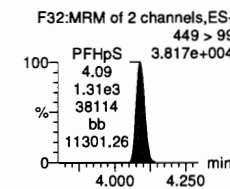
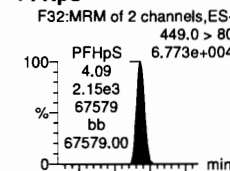
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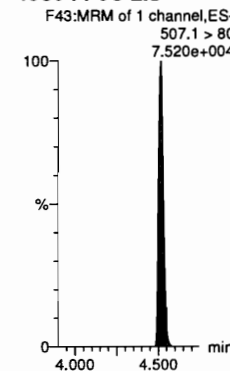
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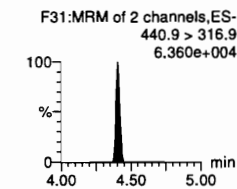
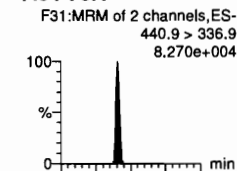
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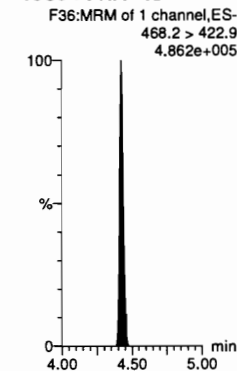
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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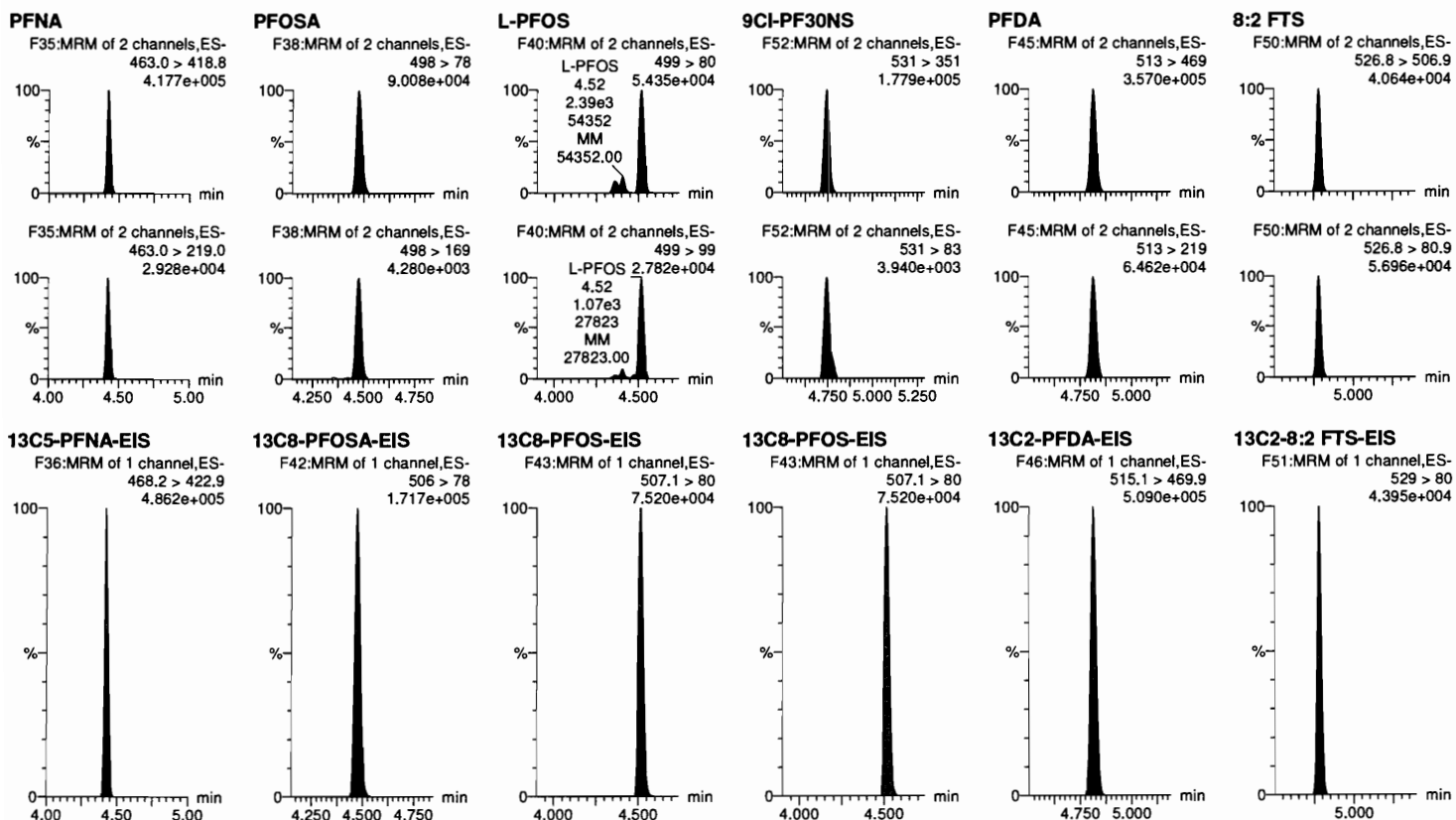
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Printed: Thursday, July 02, 2020 17:01:43 Pacific Daylight Time

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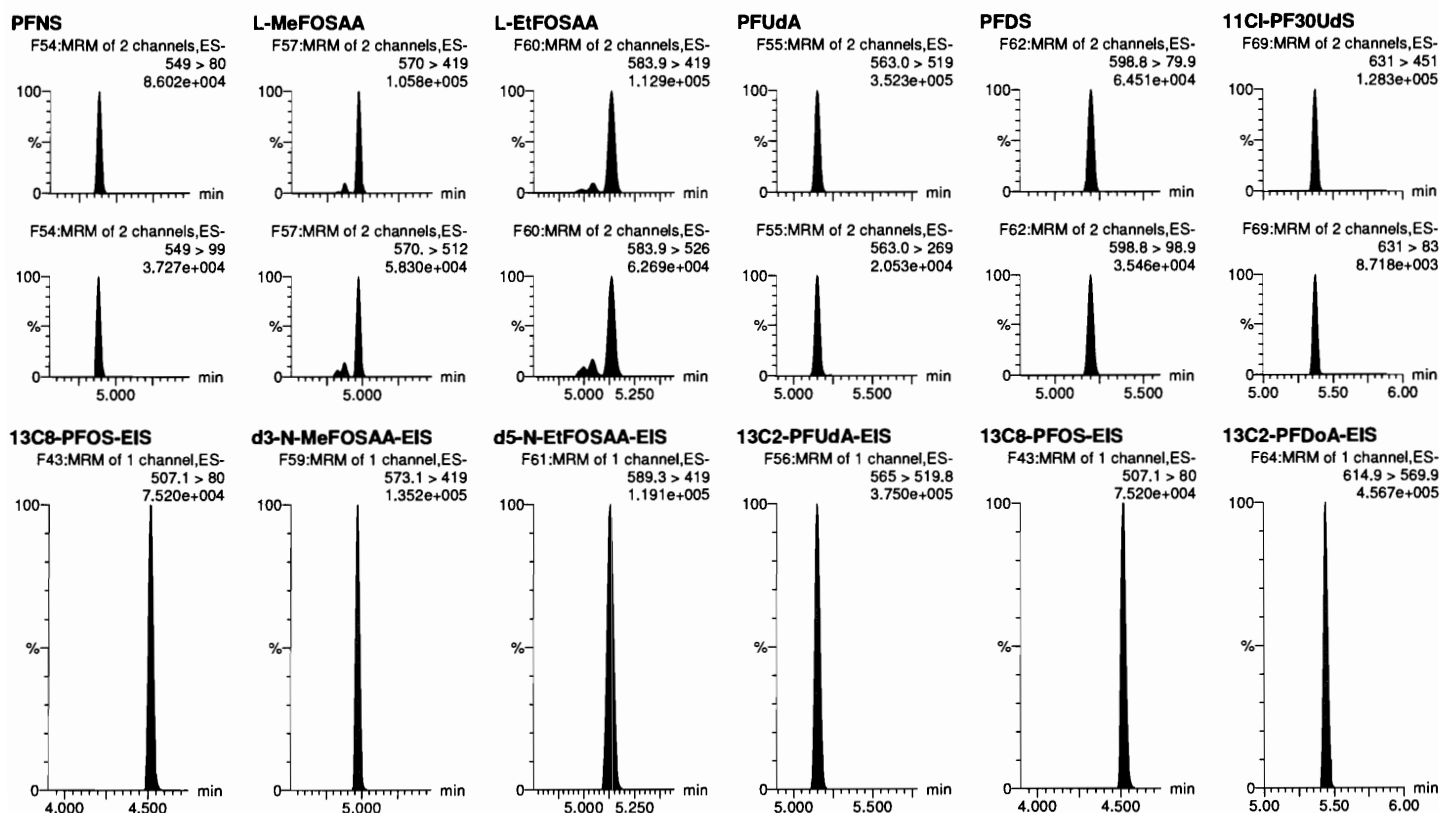
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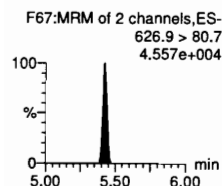
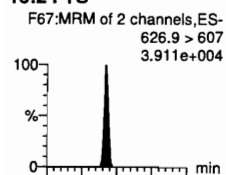
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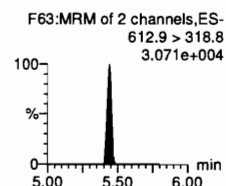
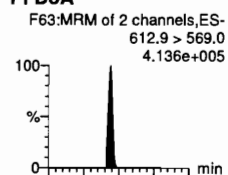
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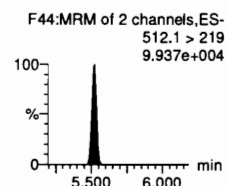
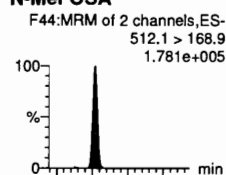
10:2 FTS



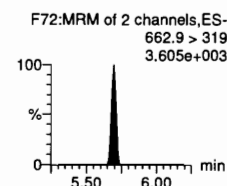
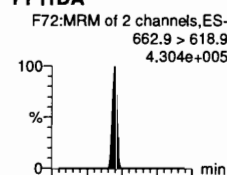
PFDaA



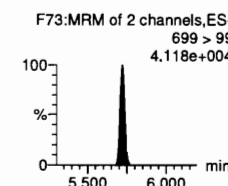
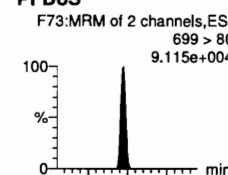
N-MeFOSA



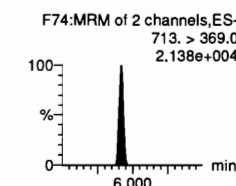
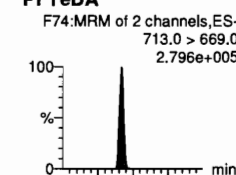
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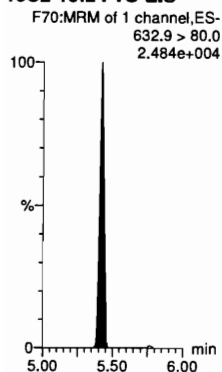
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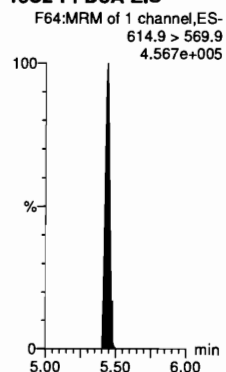
PFTeDA



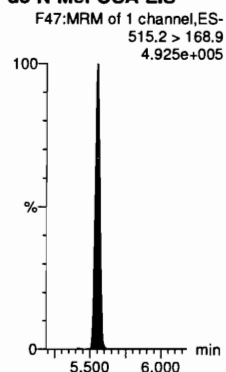
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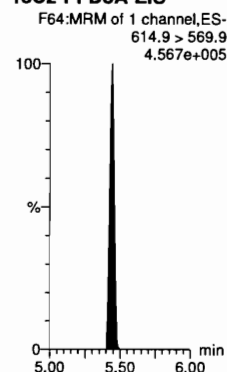
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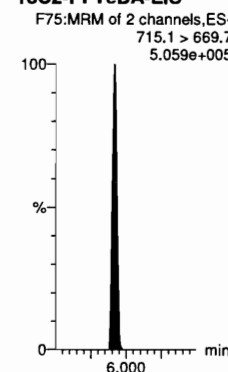
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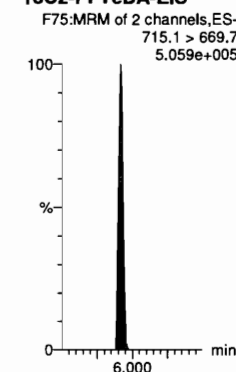
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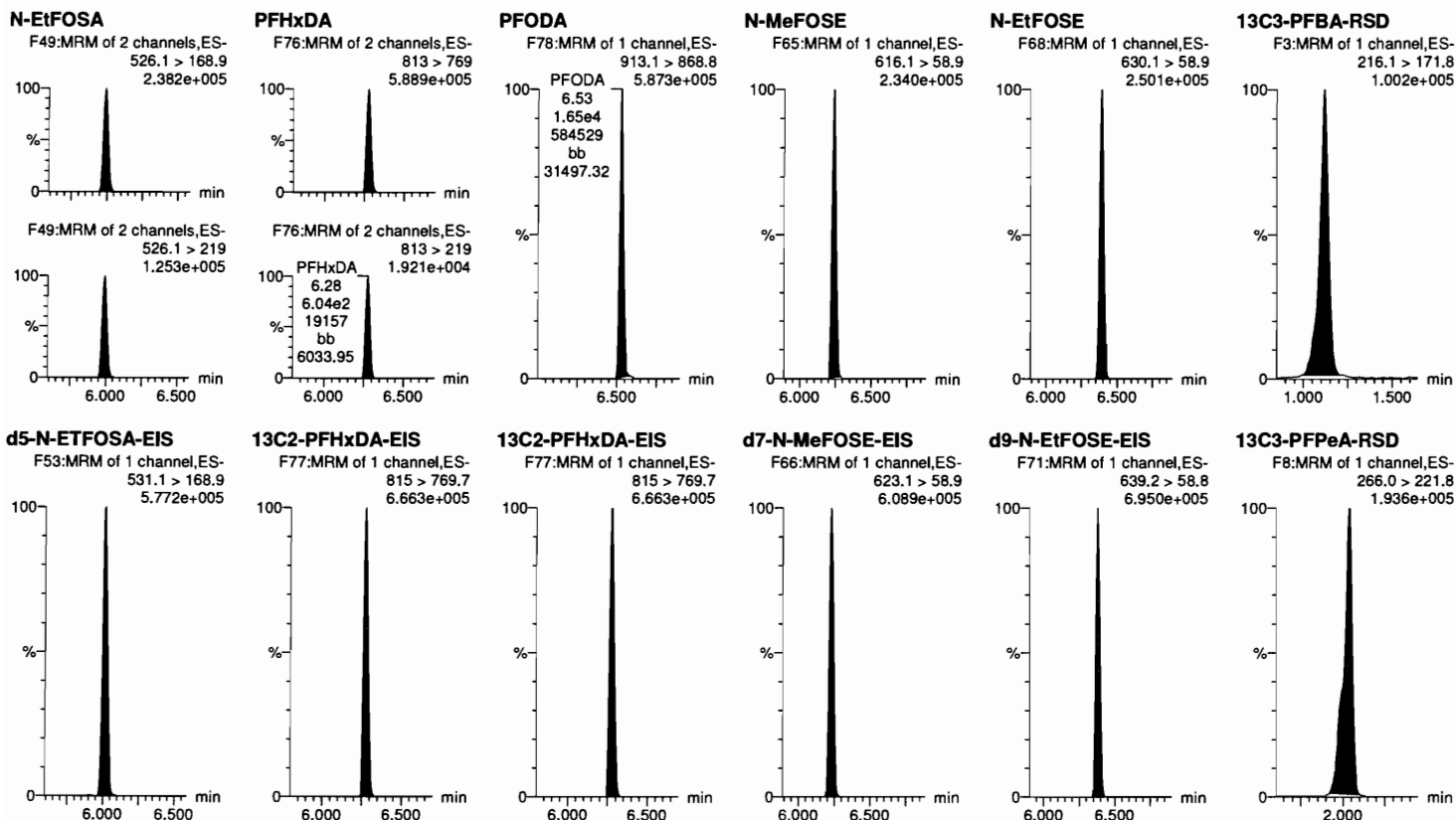
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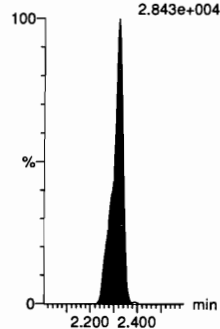
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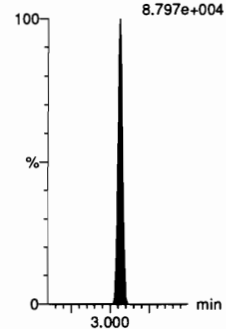
13C3-PFBS-RSD

F12:MRM of 1 channel,ES-
302.0 > 98.9
2.843e+004



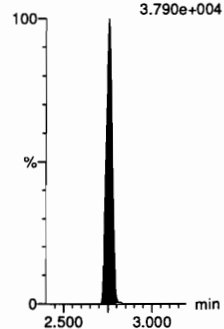
13C3-HFPO-DA-RSD

F10:MRM of 2 channels,ES-
287.0 > 168.9
8.797e+004



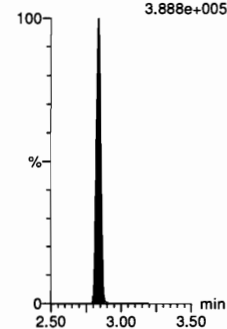
13C2-4:2 FTS-RSD

F17:MRM of 2 channels,ES-
329.0 > 80.8
3.790e+004



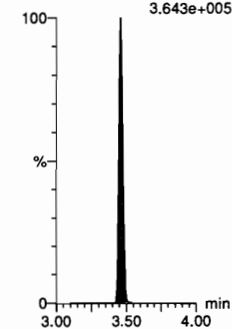
13C2-PFHx-A-RSD

F14:MRM of 1 channel,ES-
315.0 > 270.0
3.888e+005



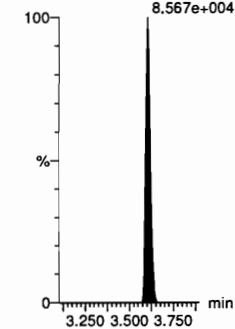
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F21:MRM of 1 channel,ES-
367.2 > 321.8
3.643e+005



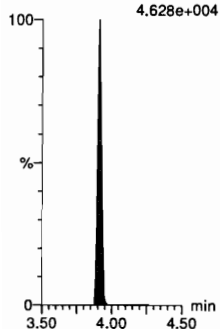
13C3-PFHxS-RSD

F24:MRM of 1 channel,ES-
402 > 80
8.567e+004



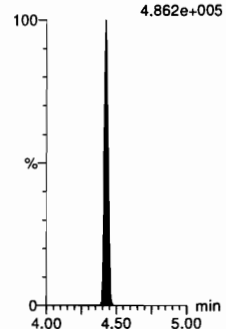
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F30:MRM of 1 channel,ES-
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4.628e+004



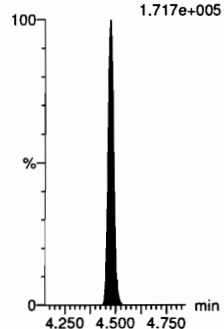
13C5-PFNA-RSD

F36:MRM of 1 channel,ES-
468.2 > 422.9
4.862e+005



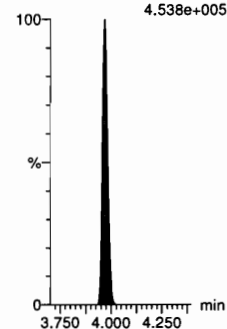
13C8-PFOSA-RSD

F42:MRM of 1 channel,ES-
506 > 78
1.717e+005



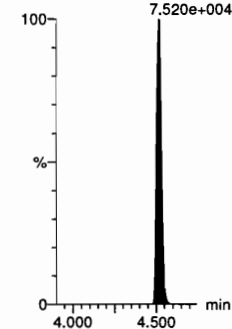
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F27:MRM of 1 channel,ES-
414.9 > 369.7
4.538e+005



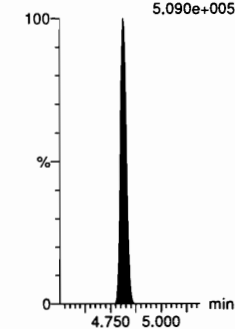
13C8-PFOS-RSD

F43:MRM of 1 channel,ES-
507.1 > 80
7.520e+004



13C2-PFDA-RSD

F46:MRM of 1 channel,ES-
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5.090e+005



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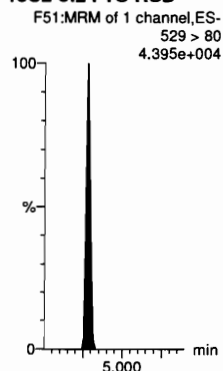
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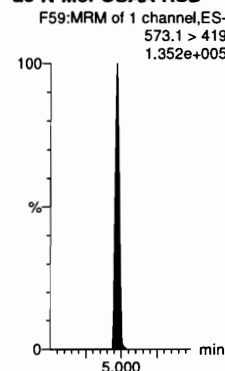
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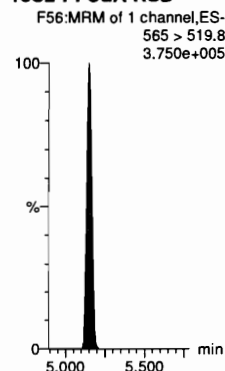
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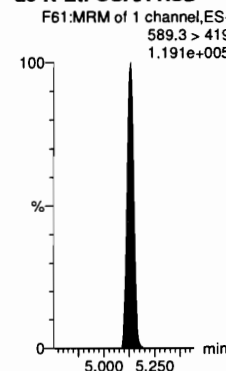
d3-N-MeFOSAA-RSD



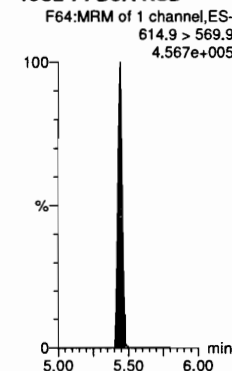
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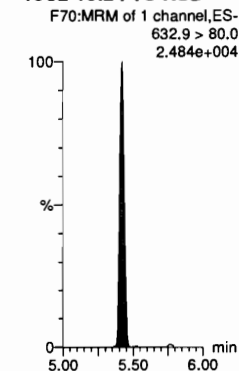
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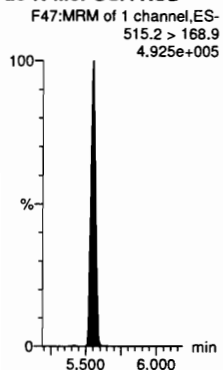
13C2-PFDoA-RSD



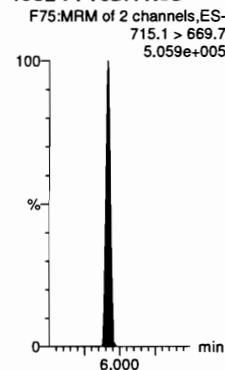
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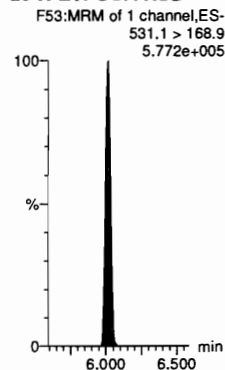
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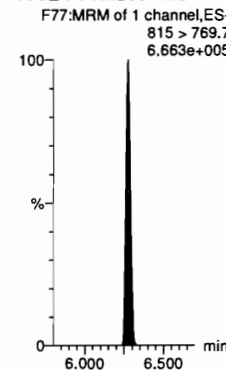
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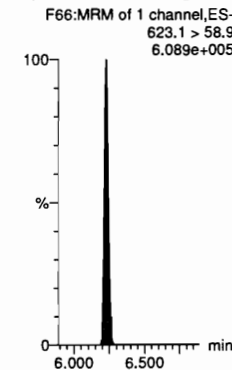
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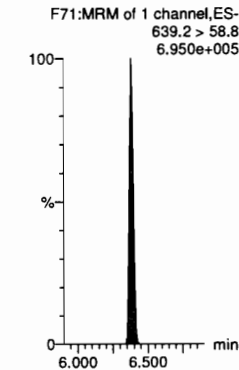
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d7-N-MeFOSE-RSD



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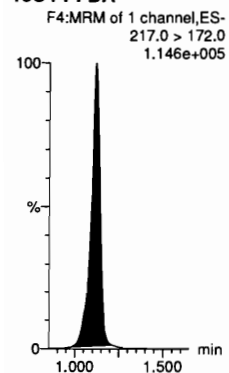
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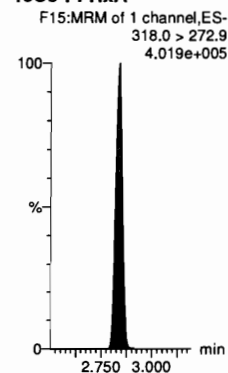
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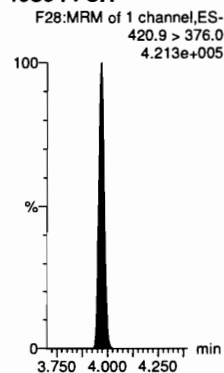
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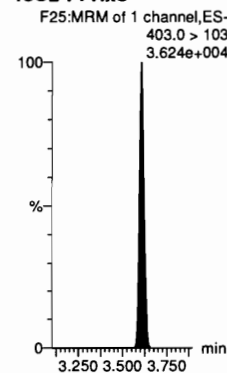
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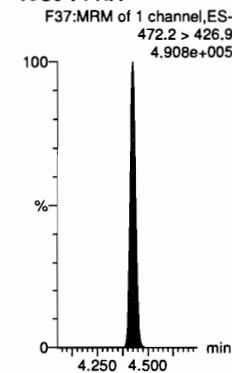
13C8-PFOA



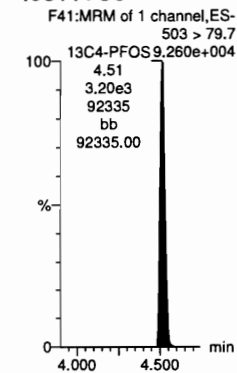
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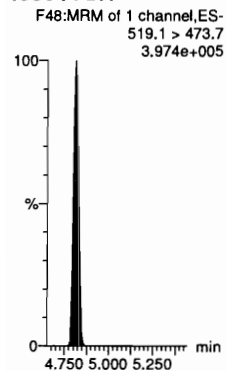
13C9-PFNA



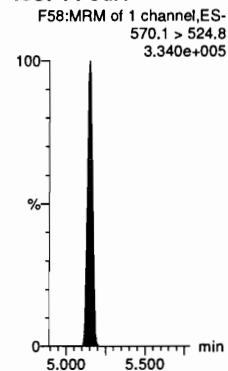
13C4-PFOS



13C6-PFDA



13C7-PFUDa



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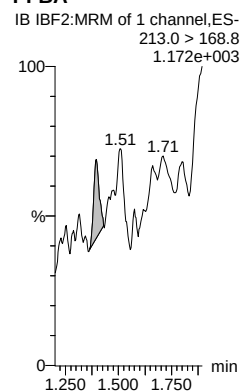
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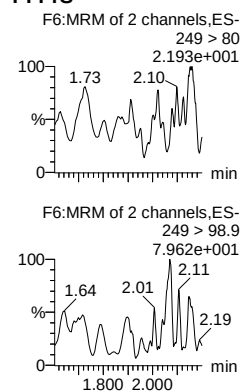
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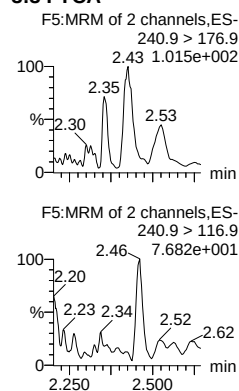
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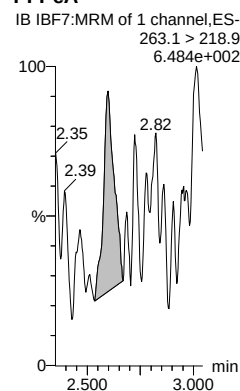
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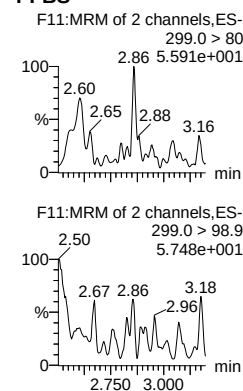
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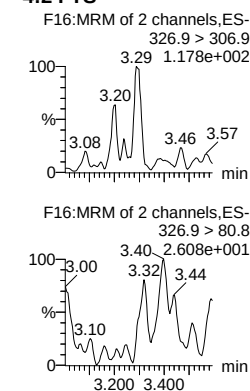
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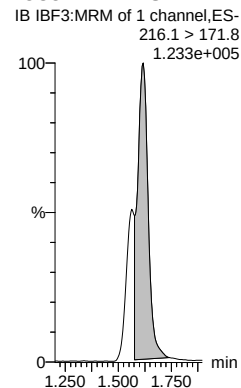
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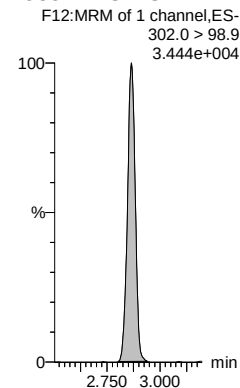
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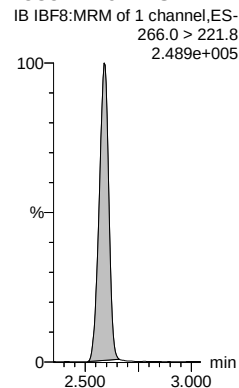
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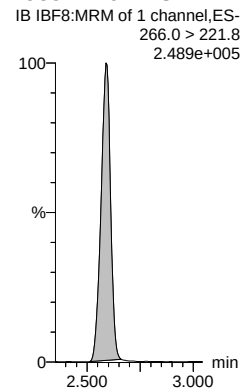
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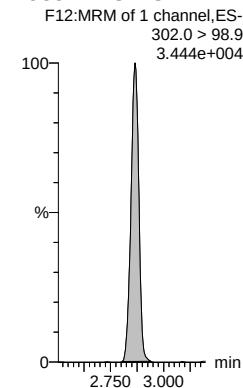
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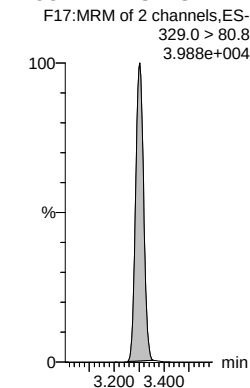
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13C3-PFBS-EIS



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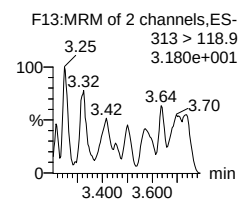
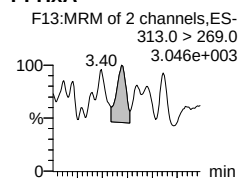
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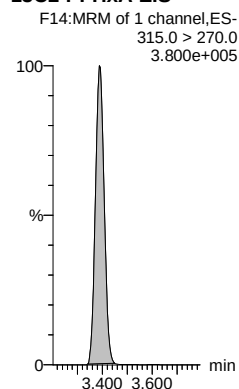
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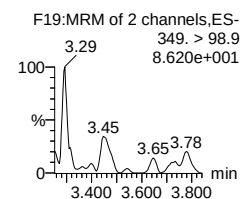
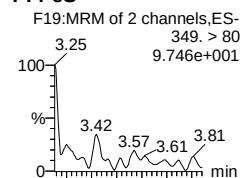
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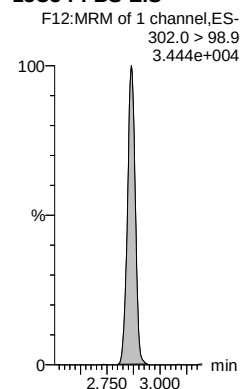
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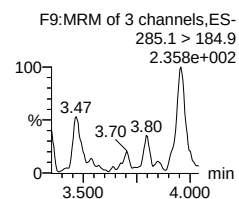
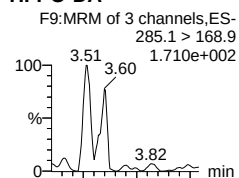
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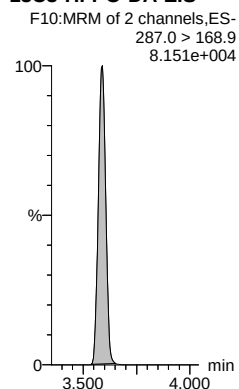
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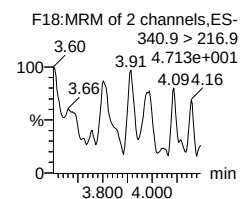
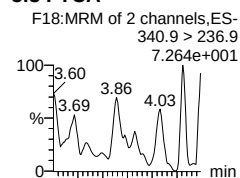
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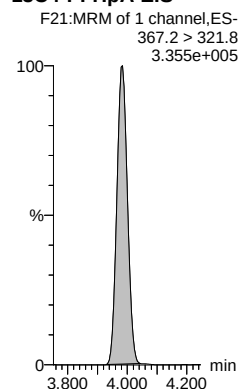
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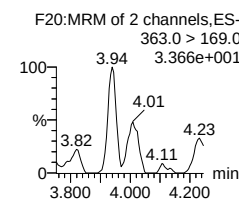
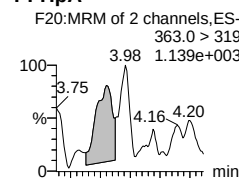
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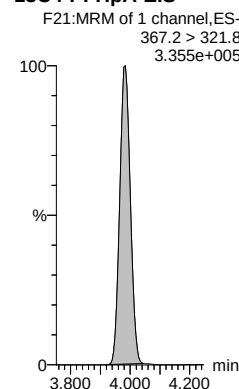
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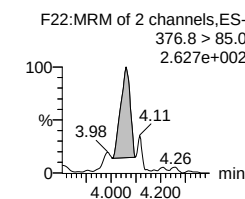
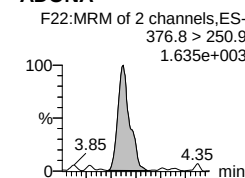
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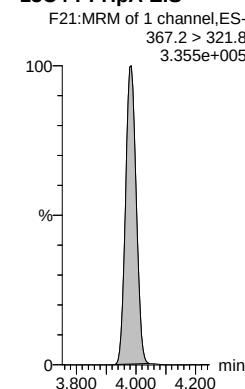
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ADONA



13C4-PFHpA-EIS



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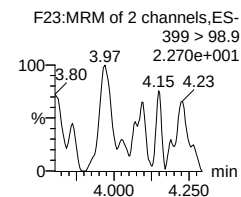
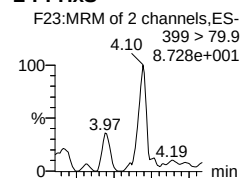
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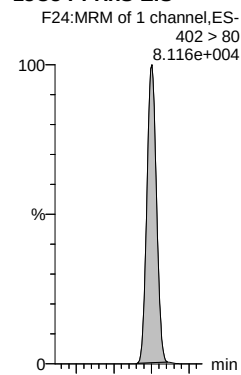
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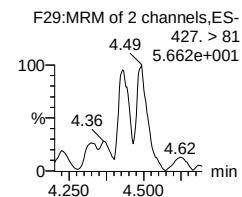
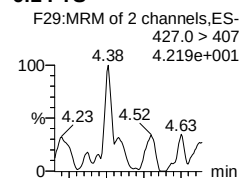
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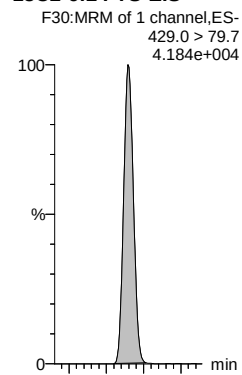
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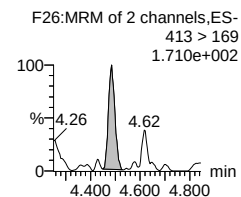
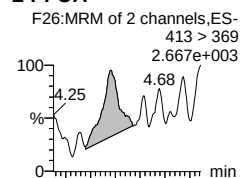
6:2 FTS



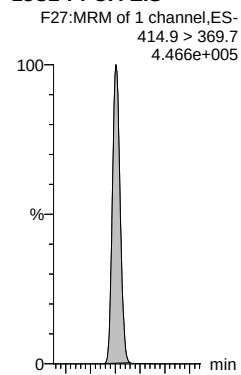
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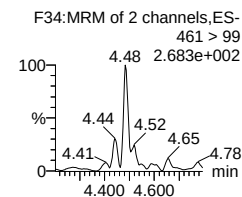
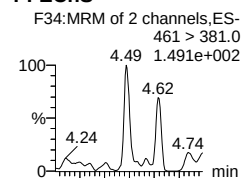
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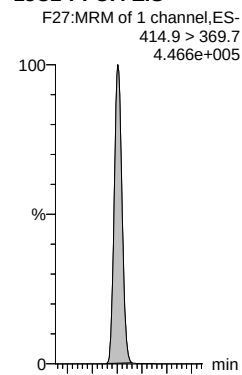
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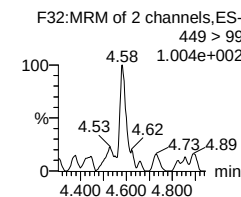
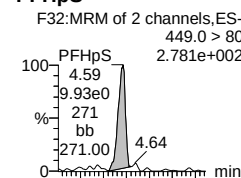
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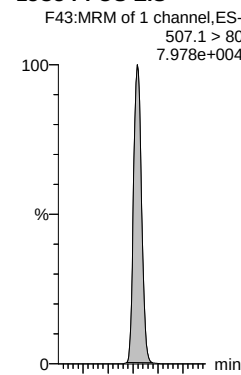
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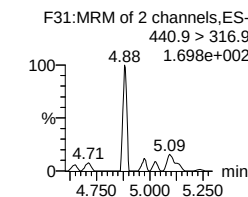
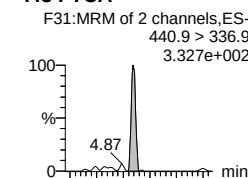
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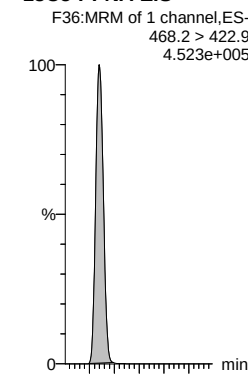
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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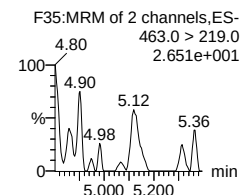
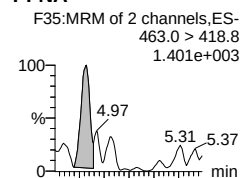
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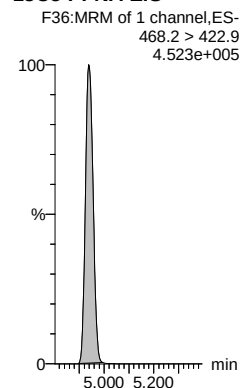
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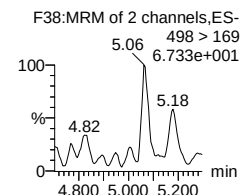
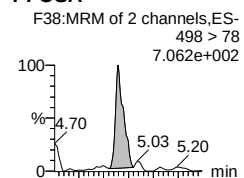
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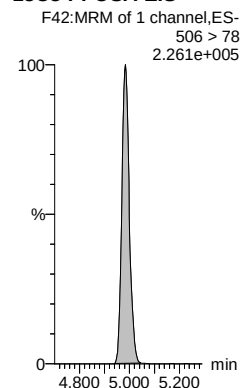
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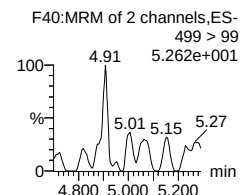
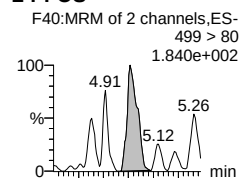
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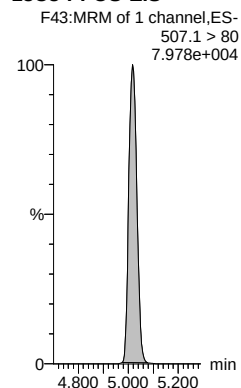
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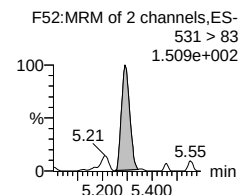
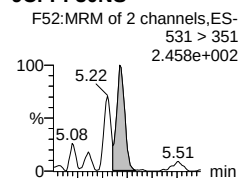
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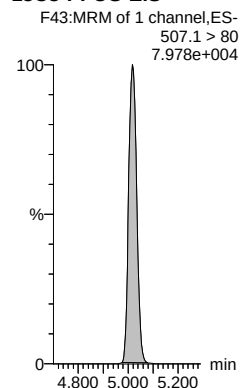
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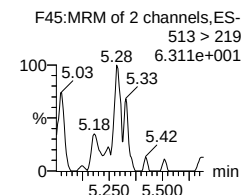
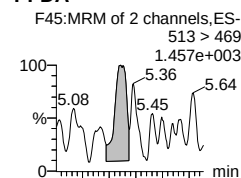
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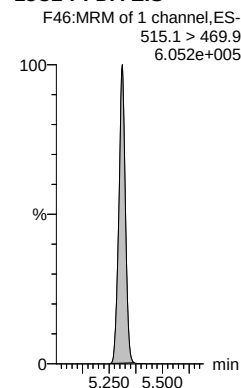
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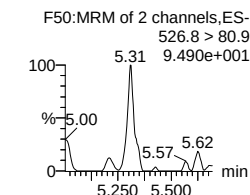
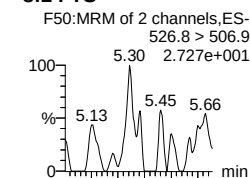
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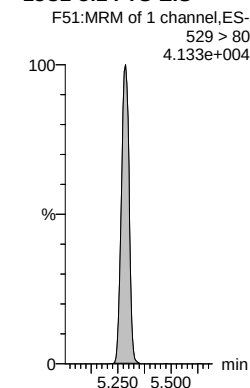
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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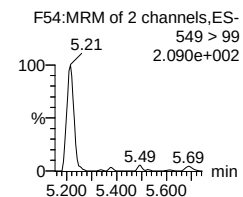
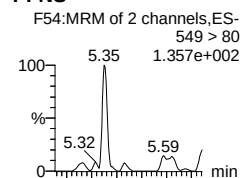
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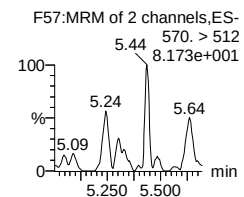
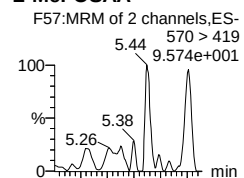
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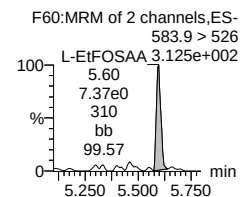
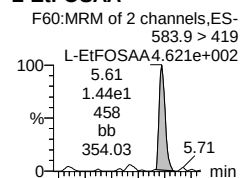
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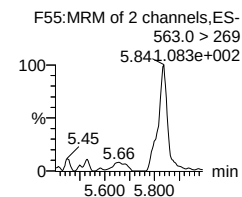
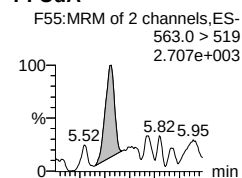
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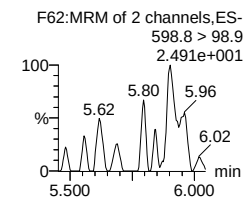
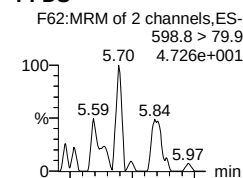
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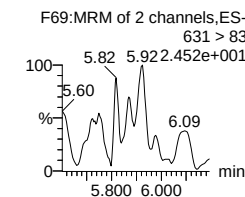
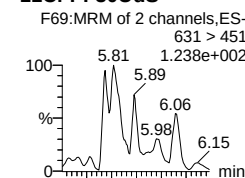
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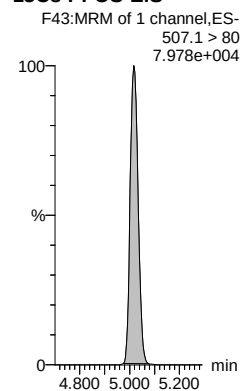
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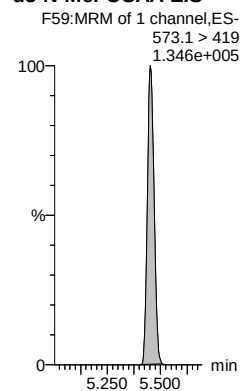
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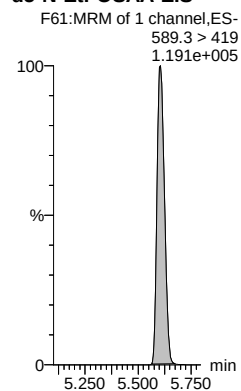
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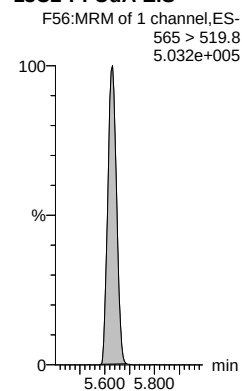
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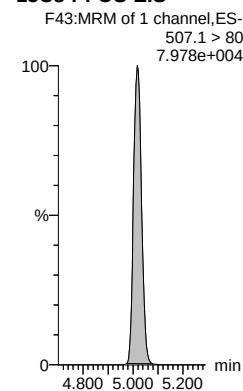
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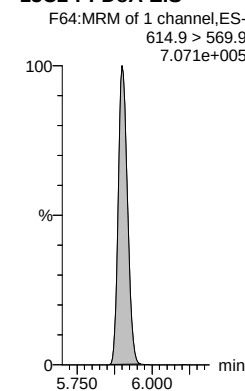
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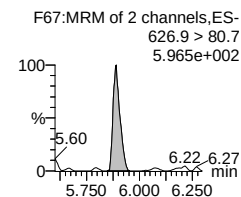
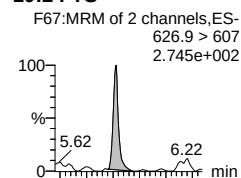
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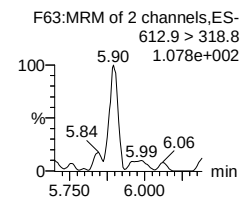
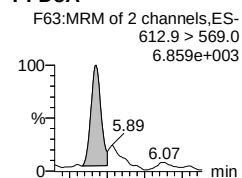
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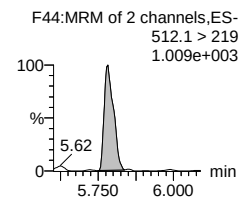
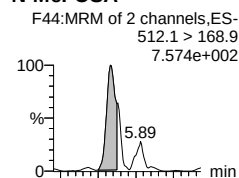
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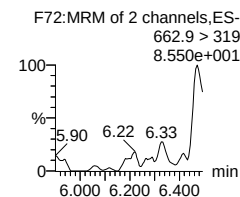
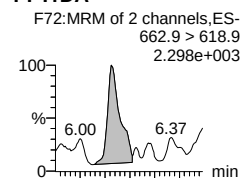
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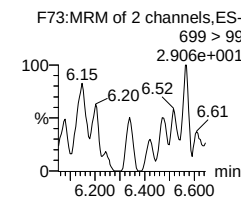
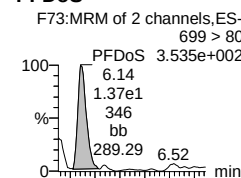
N-MeFOSA



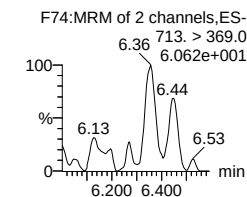
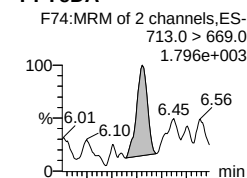
PFTTrDA



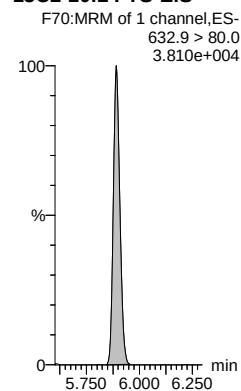
PFDoS



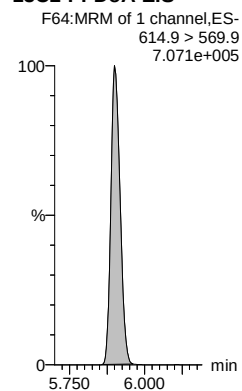
PFTTeDA



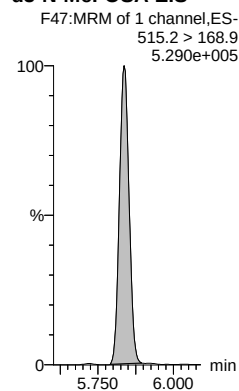
13C2-10:2 FTS-EIS



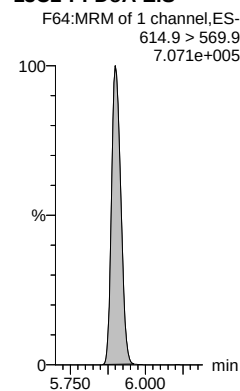
13C2-PFDaA-EIS



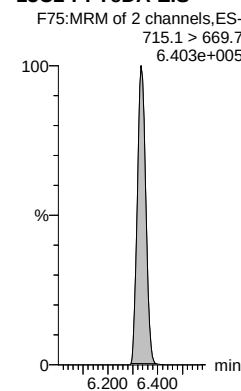
d3-N-MeFOSA-EIS



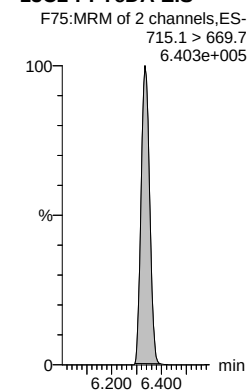
13C2-PFDaA-EIS



13C2-PFTTeDA-EIS



13C2-PFTTeDA-EIS



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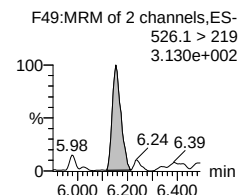
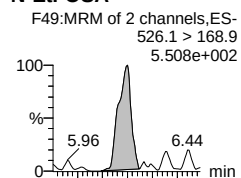
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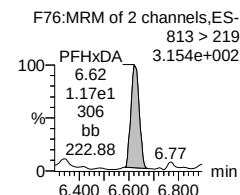
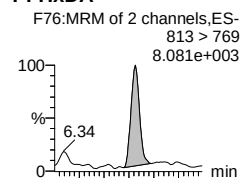
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Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

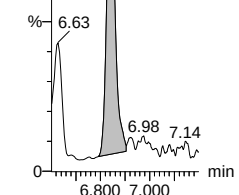
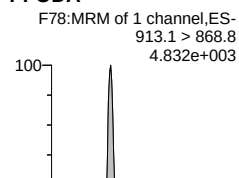
N-EtFOSA



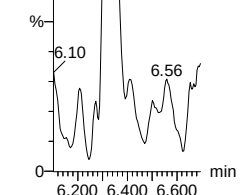
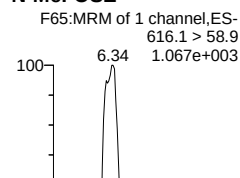
PFHxDA



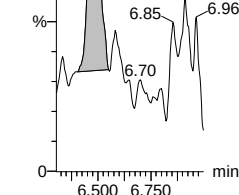
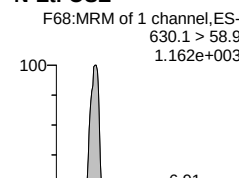
PFODA



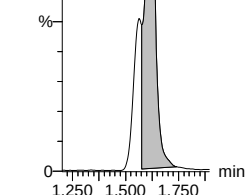
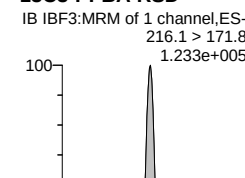
N-MeFOSE



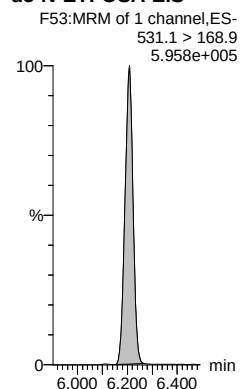
N-EtFOSE



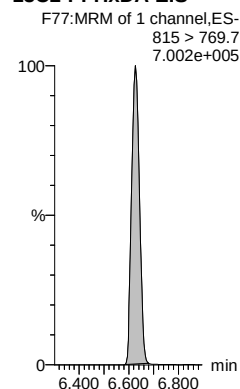
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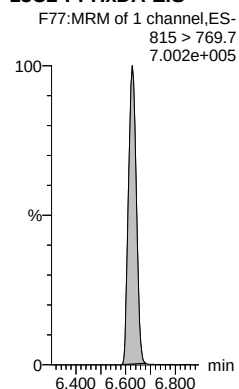
d5-N-ETFOSA-EIS



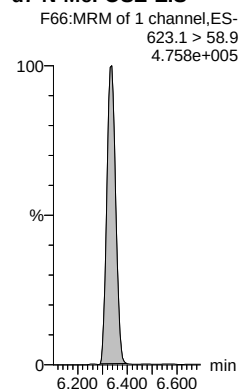
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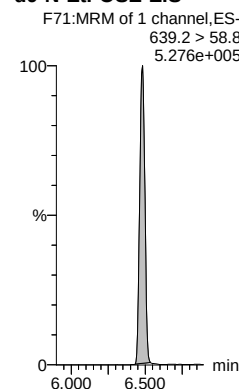
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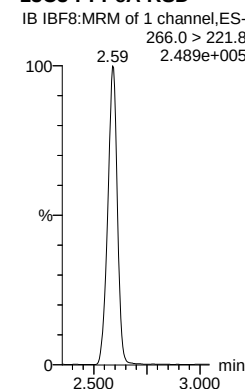
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD



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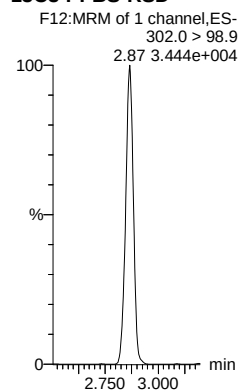
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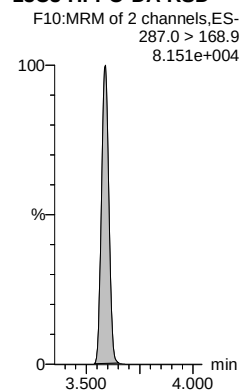
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Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

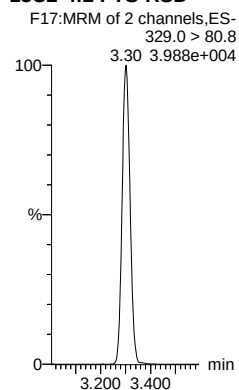
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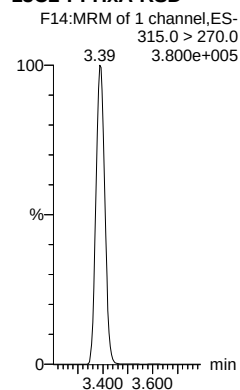
13C3-HFPO-DA-RSD



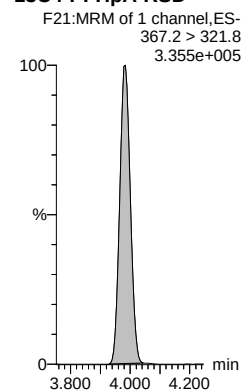
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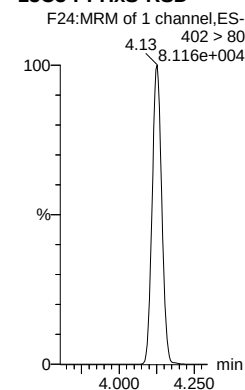
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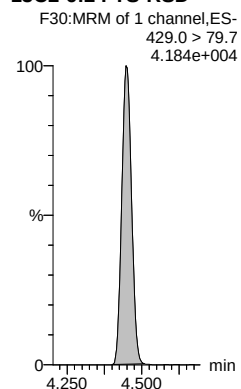
13C4-PFHpA-RSD



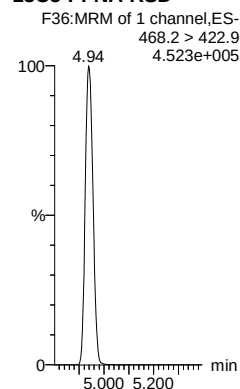
13C3-PFHxS-RSD



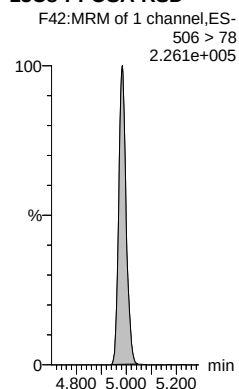
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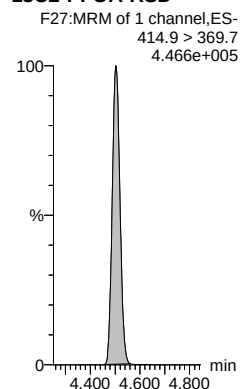
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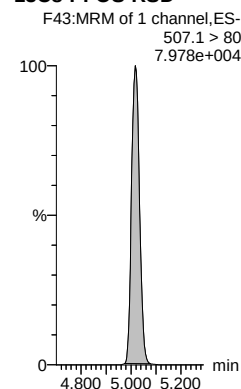
13C8-PFOSA-RSD



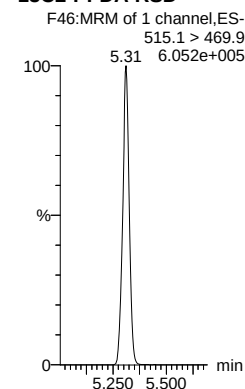
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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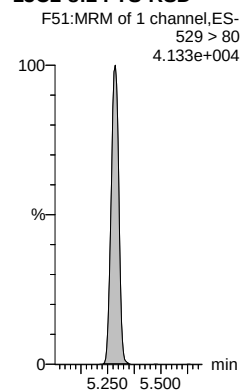
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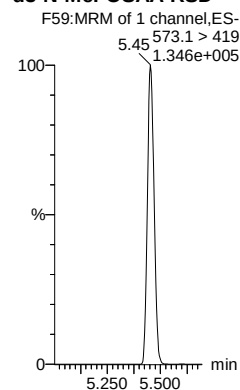
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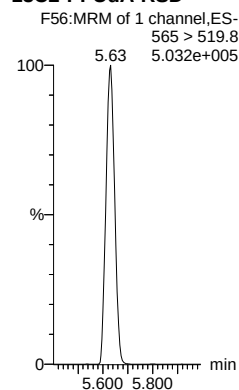
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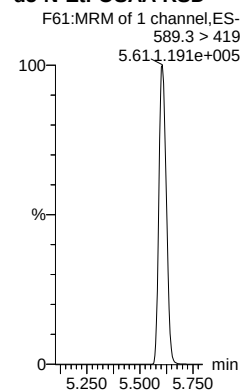
d3-N-MeFOSAA-RSD



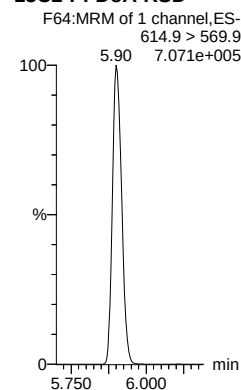
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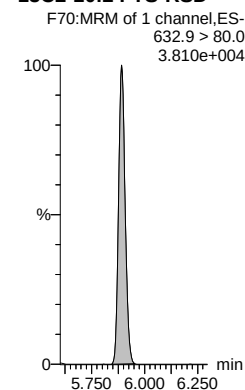
d5-N-EtFOSAA-RSD



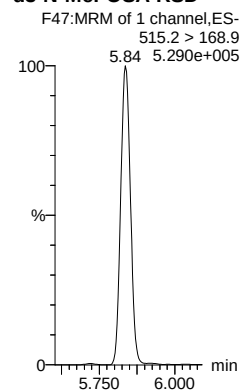
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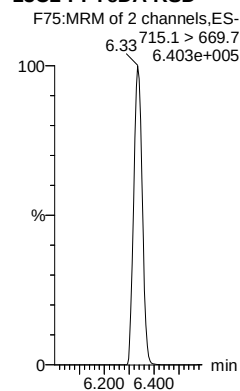
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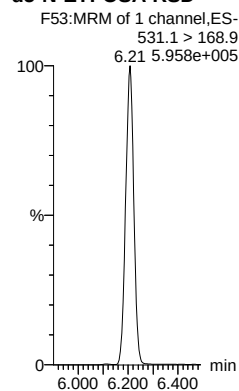
d3-N-MeFOSA-RSD



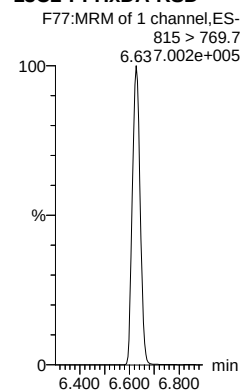
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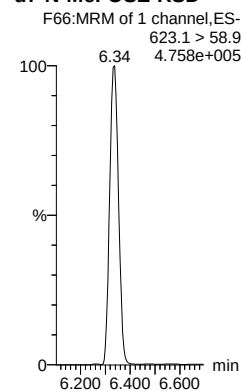
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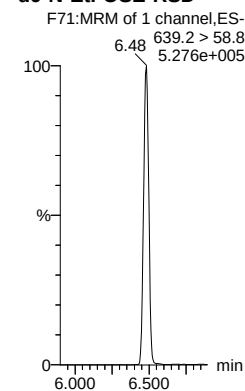
13C2-PFHxDA-RSD



d7-N-MeFOSE-RSD



d9-N-EtFOSE-RSD



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Dataset: Untitled

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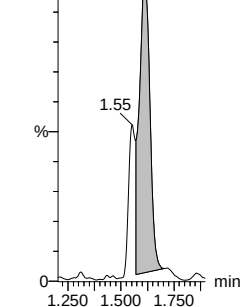
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13C4-PFBA

IB IBF4:MRM of 1 channel,ES-

217.0 > 172.0

1.441e+003

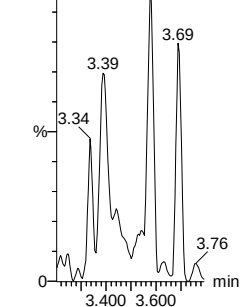


13C5-PFHxA

F15:MRM of 1 channel,ES-

318.0 > 272.9

9.122e+001

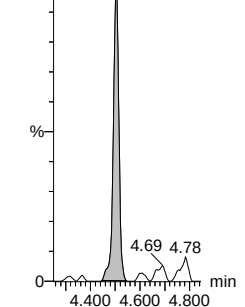


13C8-PFOA

F28:MRM of 1 channel,ES-

420.9 > 376.0

3.483e+002

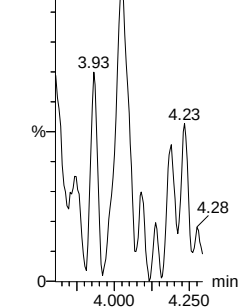


18O2-PFHxS

F25:MRM of 1 channel,ES-

403.0 > 103

2.509e+001

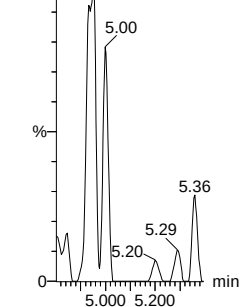


13C9-PFNA

F37:MRM of 1 channel,ES-

472.2 > 426.9

6.655e+001

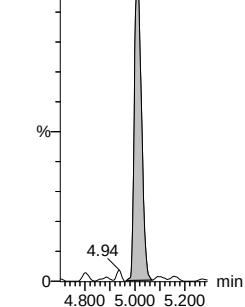


13C4-PFOS

F41:MRM of 1 channel,ES-

503 > 79.7

5.909e+002

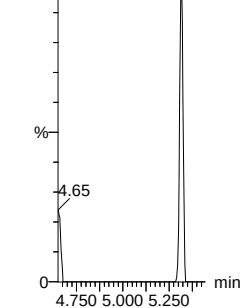


13C6-PFDA

F48:MRM of 1 channel,ES-

519.1 > 473.7

2.117e+002

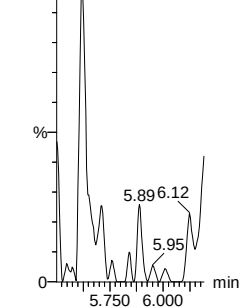


13C7-PFUDa

F58:MRM of 1 channel,ES-

570.1 > 524.8

7.186e+001



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Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1 PFBA	213.0 > 168.8	9.237	7031.754	1.00	1.40	0.016						
2	2 PFPrS	249 > 80		1445.272	1.00								YES
3	3 3:3 FTCA	240.9 > 176.9		12721.932	1.00								YES
4	4 PFPeA	263.1 > 218.9	25.230	12721.932	1.00	2.60	0.025		0.0220				
5	5 PFBS	299.0 > 80		1445.272	1.00								YES
6	6 4:2 FTS	326.9 > 306.9		1446.075	1.00								YES
7	47 13C3-PFBA-EIS	216.1 > 171.8	7031.754		1.00	1.62	7031.754	12.500	10.2	81.6			
8	51 13C3-PFBS-EIS	302.0 > 98.9	1445.272		1.00	2.87	1445.272	12.500	13.9	111.2			
9	49 13C3-PFPeA-EIS	266.0 > 221.8	12721.932		1.00	2.59	12721.932	12.500	13.2	105.8			
10	49 13C3-PFPeA-EIS	266.0 > 221.8	12721.932		1.00	2.59	12721.932	12.500	13.2	105.8			
11	51 13C3-PFBS-EIS	302.0 > 98.9	1445.272		1.00	2.87	1445.272	12.500	13.9	111.2			
12	55 13C2-4:2 FTS-EIS	329.0 > 80.8	1446.075		1.00	3.30	1446.075	12.500	14.3	114.6			
13	-1												
14	7 PFHxA	313.0 > 269.0	72.555	15300.678	1.00	3.48	0.059						YES
15	8 PFPeS	349.>80		1445.272	1.00								YES
16	9 HFPO-DA	285.1 > 168.9		3189.258	1.00								YES
17	10 5:3 FTCA	340.9 > 236.9		13649.274	1.00								YES
18	11 PFHpA	363.0 > 319	52.108	13649.274	1.00	3.92	0.048		0.00883				YES
19	12 ADONA	376.8 > 250.9	88.752	13649.274	1.00	4.05	0.081		0.00188			8.841	YES
20	57 13C2-PFHxA-EIS	315.0 > 270.0	15300.678		1.00	3.39	15300.678	12.500	14.0	112.3			
21	51 13C3-PFBS-EIS	302.0 > 98.9	1445.272		1.00	2.87	1445.272	12.500	13.9	111.2			
22	53 13C3-HFPO-DA-EIS	287.0 > 168.9	3189.258		1.00	3.59	3189.258	12.500	14.0	111.8			
23	59 13C4-PFHpA-EIS	367.2 > 321.8	13649.274		1.00	3.98	13649.274	12.500	13.9	111.1			
24	59 13C4-PFHpA-EIS	367.2 > 321.8	13649.274		1.00	3.98	13649.274	12.500	13.9	111.1			
25	59 13C4-PFHpA-EIS	367.2 > 321.8	13649.274		1.00	3.98	13649.274	12.500	13.9	111.1			
26	-1												
27	13 L-PFHxS	399 > 79.9		2956.690	1.00								YES
28	15 6:2 FTS	427.0 > 407		1567.986	1.00								YES
29	16 L-PFOA	413 > 369	129.786	15770.835	1.00	4.48	0.103		0.0430			25.854	YES
30	18 PFecHS	461 > 381.0		15770.835	1.00								YES
31	19 PFHpS	449.0 > 80	9.934	2919.588	1.00	4.59	0.043		0.0384				YES
32	20 7:3 FTCA	440.9 > 336.9	7.772	16049.925	1.00	4.92	0.006		0.0180				YES
33	61 13C3-PFHxS-EIS	402 > 80	2956.690		1.00	4.13	2956.690	12.500	13.4	107.5			
34	63 13C2-6:2 FTS-EIS	429.0 > 79.7	1567.986		1.00	4.45	1567.986	12.500	12.2	97.4			
35	69 13C2-PFOA-EIS	414.9 > 369.7	15770.835		1.00	4.50	15770.835	12.500	13.7	109.3			
36	69 13C2-PFOA-EIS	414.9 > 369.7	15770.835		1.00	4.50	15770.835	12.500	13.7	109.3			

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Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
38	65 13C5-PFNA-EIS	468.2 > 422.9	16049.925		1.00	4.94	16049.925	12.500	13.2	105.8	NO		
39	-1												
40	21 PFNA	463.0 > 418.8	57.165	16049.925	1.00	4.93	0.045		0.0224		NO		YES
41	22 PFOSA	498 > 78	25.110	7728.135	1.00	4.96	0.041		0.0514		NO		YES
42	23 L-PFOS	499 > 80	8.560	2919.588	1.00	5.01	0.037		0.103		NO		YES
43	25 9CI-PF30NS	531 > 351	9.123	2919.588	1.00	5.27	0.039		0.00792		NO	1.599	YES
44	26 PFDA	513 > 469	85.108	21328.793	1.00	5.30	0.050		0.00680		NO		YES
45	27 8:2 FTS	526.8 > 506.9		1698.056	1.00						NO		YES
46	65 13C5-PFNA-EIS	468.2 > 422.9	16049.925		1.00	4.94	16049.925	12.500	13.2	105.8	NO		
47	67 13C8-PFOSA-EIS	506 > 78	7728.135		1.00	4.98	7728.135	12.500	13.5	108.2	NO		
48	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
49	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
50	73 13C2-PFDA-EIS	515.1 > 469.9	21328.793		1.00	5.31	21328.793	12.500	14.3	114.4	NO		
51	75 13C2-8:2 FTS-EIS	529 > 80	1698.056		1.00	5.29	1698.056	12.500	15.4	123.1	NO		
52	-1												
53	28 PFNS	549 > 80		2919.588	1.00						NO		YES
54	29 L-MeFOSAA	570 > 419		4765.928	1.00						NO		YES
55	31 L-EtFOSAA	583.9 > 419	14.370	4706.535	1.00	5.61	0.038		0.0729		NO	1.950	NO
56	33 PFUdA	563.0 > 519	100.840	20308.568	1.00	5.63	0.062		0.0393		NO		YES
57	34 PFDS	598.8 > 79.9		2919.588	1.00						NO		YES
58	35 11CI-PF30UdS	631 > 451		24925.619	1.00						NO		YES
59	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
60	77 d3-N-MeFOSAA-EIS	573.1 > 419	4765.928		1.00	5.45	4765.928	12.500	14.4	115.1	NO		
61	81 d5-N-EtFOSAA-EIS	589.3 > 419	4706.535		1.00	5.61	4706.535	12.500	15.0	119.9	NO		
62	79 13C2-PFUdA-EIS	565 > 519.8	20308.568		1.00	5.63	20308.568	12.500	12.8	102.7	NO		
63	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
64	83 13C2-PFDoA-EIS	614.9 > 569.9	24925.619		1.00	5.90	24925.619	12.500	13.3	106.7	NO		
65	-1												
66	36 10:2 FTS	626.9 > 607	7.920	1352.273	1.00	5.89	0.073				NO	0.352	NO
67	37 PFDoA	612.9 > 569.0	251.215	24925.619	1.00	5.84	0.126		0.123		NO		YES
68	38 N-MeFOSA	512.1 > 168.9	24.563	19283.832	1.00	5.79	0.190		0.115		NO	0.693	YES
69	39 PFTrDA	662.9 > 618.9	124.413	24925.619	1.00	6.13	0.062		0.0581		NO		YES
70	40 PFDoS	699 > 80	13.725	24932.619	1.00	6.14	0.007		0.0634		NO		YES
71	41 PFTeDA	713.0 > 669.0	77.320	24932.619	1.00	6.32	0.039				NO		YES
72	85 13C2-10:2 FTS-EIS	632.9 > 80.0	1352.273		1.00	5.89	1352.273	12.500	12.4	99.6	NO		

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Last Altered: Tuesday, July 07, 2020 10:17:16 Pacific Daylight Time

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Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83 13C2-PFDoA-EIS	614.9 > 569.9	24925.619		1.00	5.90	24925.619	12.500	13.3	106.7	NO		
74	87 d3-N-MeFOSA-EIS	515.2 > 168.9	19283.832		1.00	5.84	19283.832	149.200	139	93.4	NO		
75	83 13C2-PFDoA-EIS	614.9 > 569.9	24925.619		1.00	5.90	24925.619	12.500	13.3	106.7	NO		
76	89 13C2-PFTEA-EIS	715.1 > 669.7	24932.619		1.00	6.33	24932.619	12.500	13.1	104.7	NO		
77	89 13C2-PFTEA-EIS	715.1 > 669.7	24932.619		1.00	6.33	24932.619	12.500	13.1	104.7	NO		
78	-1												
79	42 N-EtFOSA	526.1 > 168.9	32.074	22029.455	1.00	6.20	0.217		0.279		NO	2.593	NO
80	43 PFHxDA	813 > 769	298.843	25212.395	1.00	6.63	0.148				NO	25.568	NO
81	44 PFODA	913.1 > 868.8	179.740	25212.395	1.00	6.84	0.089		0.0930		NO		
82	45 N-MeFOSE	616.1 > 58.9		19306.602	1.00						NO		
83	46 N-EtFOSE	630.1 > 58.9	49.654	20422.244	1.00	6.49	0.363		0.0274		NO		
84	48 13C3-PFBA-RSD	216.1 > 171.8	7031.754	81.232	1.00	1.62	1082.048	12.500	1270	10132.7	YES		
85	91 d5-N-ETFOSA-EIS	531.1 > 168.9	22029.455		1.00	6.21	22029.455	149.200	142	95.1	NO		
86	93 13C2-PFHxDA-EIS	815 > 769.7	25212.395		1.00	6.63	25212.395	12.500	12.0	95.6	NO		
87	93 13C2-PFHxDA-EIS	815 > 769.7	25212.395		1.00	6.63	25212.395	12.500	12.0	95.6	NO		
88	95 d7-N-MeFOSE-EIS	623.1 > 58.9	19306.602		1.00	6.34	19306.602	149.200	143	96.0	NO		
89	97 d9-N-EtFOSE-EIS	639.2 > 58.8	20422.244		1.00	6.48	20422.244	149.200	137	92.0	NO		
90	50 13C3-PFPeA-RSD	266.0 > 221.8			1.00			12.500			NO		
91	-1												
92	52 13C3-PFBS-RSD	302.0 > 98.9			1.00			12.500			NO		
93	54 13C3-HFPO-DA-RSD	287.0 > 168.9	3189.258		1.00	3.59		12.500			NO		
94	56 13C2-4:2 FTS-RSD	329.0 > 80.8			1.00			12.500			NO		
95	58 13C2-PFHxA-RSD	315.0 > 270.0			1.00			12.500			NO		
96	60 13C4-PFHpA-RSD	367.2 > 321.8	13649.274		1.00	3.98		12.500			NO		
97	62 13C3-PFHxS-RSD	402 > 80			1.00			12.500			NO		
98	64 13C2-6:2 FTS-RSD	429.0 > 79.7	1567.986	19.889	1.00	4.45	985.461	12.500	2080	16676.0	YES		
99	66 13C5-PFNA-RSD	468.2 > 422.9			1.00			12.500			NO		
100	68 13C8-PFOA-RSD	506 > 78	7728.135		1.00	4.98		12.500			NO		
101	70 13C2-PFOA-RSD	414.9 > 369.7	15770.835	8.783	1.00	4.50	22445.114	12.500	20500	16418...	YES		
102	72 13C8-PFOS-RSD	507.1 > 80	2919.588	19.889	1.00	5.02	1834.926	12.500	2100	16783.2	YES		
103	74 13C2-PFDA-RSD	515.1 > 469.9			1.00			12.500			NO		
104	-1												
105	76 13C2-8:2 FTS-RSD	529 > 80	1698.056	19.889	1.00	5.29	1067.208	12.500	2340	18699.8	YES		
106	78 d3-N-MeFOSAA-RSD	573.1 > 419			1.00			12.500			NO		
107	80 13C2-PFUDa-RSD	565 > 519.8			1.00			12.500			NO		
108	82 d5-N-EtFOSAA-RSD	589.3 > 419			1.00			12.500			NO		

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Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	84	13C2-PFD _o A-RSD	614.9 > 569.9			1.00			12.500					
110	86	13C2-10:2 FTS-RSD	632.9 > 80.0	1352.273	19.889	1.00	5.89	849.888	12.500	2210	17709.6	YES		
111	88	d3-N-MeFOSA-RSD	515.2 > 168.9			1.00			149.200					
112	90	13C2-PFTeDA-RSD	715.1 > 669.7			1.00			12.500					
113	92	d5-N-ETFOSA-RSD	531.1 > 168.9			1.00			149.200					
114	94	13C2-PFHxDA-RSD	815 > 769.7			1.00			12.500					
115	96	d7-N-MeFOSE-RSD	623.1 > 58.9			1.00			149.200					
116	98	d9-N-EtFOSE-RSD	639.2 > 58.8			1.00			149.200					
117	-1													
118	99	13C4-PFBA	217.0 > 172.0	81.232	81.232	1.00	1.61	12.500	12.500	12.5	100.0	NO		
119	1...	13C5-PFHxA	318.0 > 272.9			1.00			12.500					
120	1...	13C8-PFOA	420.9 > 376.0	8.783	8.783	1.00	4.50	12.500	12.500	12.5	100.0	NO		
121	1...	18O2-PFHxS	403.0 > 103			1.00			12.500					
122	1...	13C9-PFNA	472.2 > 426.9			1.00			12.500					
123	1...	13C4-PFOS	503 > 79.7	19.889	19.889	1.00	5.01	12.500	12.500	12.5	100.0	NO		
124	1...	13C6-PFDA	519.1 > 473.7			1.00			12.500					
125	1...	13C7-PFUDa	570.1 > 524.8			1.00			12.500					

LC Calibration Standards Review Checklist Q5

Calibration ID:			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
ST2007061-11	L M H	☒	☒	☒	☒	☒	☒	☒	☒
-12	L M H	☒	☒	☒	☒	☒	☒	☒	☒
-13	L M H	☒	☒	☒	☒	☒	☒	☒	☒
-14	L M H	☒	☒	☒	☒	☒	☒	☒	☒
-15	L M H	☒	☒	☒	☒	☒	☒	☒	☒
-16	L M H	☒	☒	☒	☒	☒	☒	☒	☒
	L M H	☐	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 06-22-20

Run Log Present: ☒
of Samples per Sequence Checked: ☒
Instrument Blank Saved ☒
All Branches in Acquisition Window ☒
IIS Area Saved ☒
Reviewed By: FR 07/07/2020
Initials/Date

Comments:

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Last Altered: Tuesday, July 07, 2020 10:14:25 Pacific Daylight Time
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Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906

1 PFBA	213.0 > 168.8	7874.219	9536.798	1.00	1.61	10.321	10.000	9.97	99.7	NO		
2 PFPrS	249 > 80	1603.595	1379.378	1.00	1.95	14.532	10.000	10.9	108.9	NO	2.885	NO
3 3:3 FTCA	240.9 > 176.9	787.836	12698.616	1.00	2.43	0.776	10.000	9.39	93.9	NO	3.568	NO
4 PFPeA	263.1 > 218.9	9577.079	12698.616	1.00	2.58	9.427	10.000	10.2	101.8	NO		
5 PFBS	299.0 > 80	2939.529	1379.378	1.00	2.85	26.638	10.000	10.4	104.1	NO	2.563	NO
6 4:2 FTS	326.9 > 306.9	2884.368	1268.590	1.00	3.29	28.421	10.000	9.98	99.8	NO	12.212	NO
47 13C3-PFBA-EIS	216.1 > 171.8	9536.798		1.00	1.61	9536.798	12.500	13.8	110.6	NO		
51 13C3-PFBS-EIS	302.0 > 98.9	1379.378		1.00	2.85	1379.378	12.500	13.3	106.1	NO		
49 13C3-PFPeA-EIS	266.0 > 221.8	12698.616		1.00	2.58	12698.616	12.500	13.2	105.6	NO		
49 13C3-PFPeA-EIS	266.0 > 221.8	12698.616		1.00	2.58	12698.616	12.500	13.2	105.6	NO		
51 13C3-PFBS-EIS	302.0 > 98.9	1379.378		1.00	2.85	1379.378	12.500	13.3	106.1	NO		
55 13C2-4:2 FTS-EIS	329.0 > 80.8	1268.590		1.00	3.29	1268.590	12.500	12.6	100.6	NO		
-1												
7 PFHxA	313.0 > 269.0	12637.913	14639.554	1.00	3.38	10.791	10.000	10.3	103.5	NO	16.642	NO
8 PFPeS	349.0 > 80	2371.695	1379.378	1.00	3.55	21.492	10.000	10.3	103.0	NO	2.548	NO
9 HFPO-DA	285.1 > 168.9	2447.118	3140.680	1.00	3.58	9.740	10.000	9.68	96.8	NO	2.367	NO
10 5:3 FTCA	340.9 > 236.9	1698.485	13493.209	1.00	3.91	1.573	10.000	8.91	89.1	NO	1.735	NO
11 PFHpA	363.0 > 319	13770.608	13493.209	1.00	3.97	12.757	10.000	9.80	98.0	NO	49.800	NO
12 ADONA	376.8 > 250.9	22669.070	13493.209	1.00	4.08	21.000	10.000	9.65	96.5	NO	4.104	NO
57 13C2-PFHxA-EIS	315.0 > 270.0	14639.554		1.00	3.38	14639.554	12.500	13.4	107.4	NO		
51 13C3-PFBS-EIS	302.0 > 98.9	1379.378		1.00	2.85	1379.378	12.500	13.3	106.1	NO		
53 13C3-HFPO-DA-EIS	287.0 > 168.9	3140.680		1.00	3.58	3140.680	12.500	13.8	110.1	NO		
59 13C4-PFHpA-EIS	367.2 > 321.8	13493.209		1.00	3.97	13493.209	12.500	13.7	109.8	NO		
59 13C4-PFHpA-EIS	367.2 > 321.8	13493.209		1.00	3.97	13493.209	12.500	13.7	109.8	NO		
59 13C4-PFHpA-EIS	367.2 > 321.8	13493.209		1.00	3.97	13493.209	12.500	13.7	109.8	NO		
-1												
13 L-PFHxS	399 > 79.9	2369.503	2816.630	1.00	4.11	10.516	10.000	9.55	95.5	NO	3.828	NO
15 6:2 FTS	427.0 > 407	1483.914	1483.901	1.00	4.44	12.500	10.000	10.9	109.3	NO	0.755	NO
16 L-PFOA	413 > 369	13964.295	15274.092	1.00	4.49	11.428	10.000	10.1	100.8	NO	3.251	NO
18 PFecHS	461 > 381.0	2537.762	15274.092	1.00	4.50	2.077	10.000	9.21	92.1	NO	0.526	NO
19 PFHpS	449.0 > 80	2314.510	2809.042	1.00	4.60	10.299	10.000	10.6	105.8	NO	1.771	NO
20 7:3 FTCA	440.9 > 336.9	3588.461	15371.896	1.00	4.92	2.918	10.000	9.44	94.4	NO	1.217	NO
61 13C3-PFHxS-EIS	402 > 80	2816.630		1.00	4.11	2816.630	12.500	12.8	102.4	NO		
63 13C2-6:2 FTS-EIS	429.0 > 79.7	1483.901		1.00	4.44	1483.901	12.500	11.5	92.2	NO		
69 13C2-PFOA-EIS	414.9 > 369.7	15274.092		1.00	4.49	15274.092	12.500	13.2	105.8	NO		
69 13C2-PFOA-EIS	414.9 > 369.7	15274.092		1.00	4.49	15274.092	12.500	13.2	105.8	NO		

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Last Altered: Tuesday, July 07, 2020 10:14:25 Pacific Daylight Time

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Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906

71	13C8-PFOS-EIS	507.1 > 80	2809.042		1.00	5.00	2809.042	12.500	12.5	99.7	NO		
65	13C5-PFNA-EIS	468.2 > 422.9	15371.896		1.00	4.93	15371.896	12.500	12.7	101.4	NO		
-1													
21	PFNA	463.0 > 418.8	14387.799	15371.896	1.00	4.93	11.700	10.000	10.5	104.7	NO	13.296	NO
22	PFOSA	498 > 78	3948.826	7335.037	1.00	4.97	6.729	10.000	9.75	97.5	NO	22.785	NO
23	L-PFOS	499 > 80	2822.769	2809.042	1.00	5.00	12.561	10.000	9.91	99.1	NO	2.674	NO
25	9CI-PF30NS	531 > 351	6474.327	2809.042	1.00	5.22	28.810	10.000	10.1	101.2	NO	36.430	NO
26	PFDA	513 > 469	13442.274	19905.363	1.00	5.30	8.441	10.000	9.94	99.4	NO	4.946	NO
27	8:2 FTS	526.8 > 506.9	1390.938	1581.411	1.00	5.27	10.994	10.000	8.13	81.3	NO	0.663	NO
65	13C5-PFNA-EIS	468.2 > 422.9	15371.896		1.00	4.93	15371.896	12.500	12.7	101.4	NO		
67	13C8-PFOSA-EIS	506 > 78	7335.037		1.00	4.97	7335.037	12.500	12.8	102.7	NO		
71	13C8-PFOS-EIS	507.1 > 80	2809.042		1.00	5.00	2809.042	12.500	12.5	99.7	NO		
71	13C8-PFOS-EIS	507.1 > 80	2809.042		1.00	5.00	2809.042	12.500	12.5	99.7	NO		
73	13C2-PFDA-EIS	515.1 > 469.9	19905.363		1.00	5.30	19905.363	12.500	13.3	106.8	NO		
75	13C2-8:2 FTS-EIS	529 > 80	1581.411		1.00	5.27	1581.411	12.500	14.3	114.6	NO		
-1													
28	PFNS	549 > 80	2958.070	2809.042	1.00	5.36	13.163	10.000	9.94	99.4	NO	2.475	NO
29	L-MeFOSAA	570 > 419	4402.238	4350.112	1.00	5.44	12.650	10.000	10.4	104.0	NO	1.777	NO
31	L-EiFOSAA	583.9 > 419	4806.518	4658.295	1.00	5.60	12.898	10.000	9.30	93.0	NO	1.406	NO
33	PFUDa	563.0 > 519	15835.691	19243.490	1.00	5.62	10.286	10.000	9.35	93.5	NO	17.115	NO
34	PFDS	598.8 > 79.9	2976.634	2809.042	1.00	5.66	13.246	10.000	10.4	103.7	NO	2.406	NO
35	11CI-PF30UdS	631 > 451	5303.702	24612.705	1.00	5.81	2.694	10.000	10.4	104.3	NO	19.668	NO
71	13C8-PFOS-EIS	507.1 > 80	2809.042		1.00	5.00	2809.042	12.500	12.5	99.7	NO		
77	d3-N-MeFOSAA-EIS	573.1 > 419	4350.112		1.00	5.44	4350.112	12.500	13.1	105.1	NO		
81	d5-N-EiFOSAA-EIS	589.3 > 419	4658.295		1.00	5.59	4658.295	12.500	14.8	118.7	NO		
79	13C2-PFUDa-EIS	565 > 519.8	19243.490		1.00	5.62	19243.490	12.500	12.2	97.4	NO		
71	13C8-PFOS-EIS	507.1 > 80	2809.042		1.00	5.00	2809.042	12.500	12.5	99.7	NO		
83	13C2-PFDoA-EIS	614.9 > 569.9	24612.705		1.00	5.89	24612.705	12.500	13.2	105.4	NO		
-1													
36	10:2 FTS	626.9 > 607	2053.163	1239.527	1.00	5.88	20.705	10.000	11.3	113.2	NO	1.036	NO
37	PFDoA	612.9 > 569.0	18605.541	24612.705	1.00	5.89	9.449	10.000	9.63	96.3	NO	12.492	NO
38	N-MeFOSA	512.1 > 168.9	7966.409	20646.926	1.00	5.81	57.567	50.000	51.5	102.9	NO	1.918	NO
39	PFTTrDA	662.9 > 618.9	20404.146	24612.705	1.00	6.13	10.363	10.000	9.96	99.6	NO	86.475	NO
40	PFDoS	699 > 80	3484.474	24741.564	1.00	6.15	1.760	10.000	10.4	103.8	NO	2.123	NO
41	PFTeDA	713.0 > 669.0	12995.239	24741.564	1.00	6.33	6.565	10.000	9.87	98.7	NO	14.437	NO
85	13C2-10:2 FTS-EIS	632.9 > 80.0	1239.527		1.00	5.88	1239.527	12.500	11.4	91.3	NO		

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Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906

[illegible]

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-48.qld

Last Altered: Tuesday, July 07, 2020 10:14:25 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 10:16:23 Pacific Daylight Time

Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906

Peak	Retention Time (min)	Area	Height	Signal	Response	Conc	Conc	Conc	Conc	Conc	Conc
84	13C2-PFDoA-RSD	614.9 > 569.9	24612.705	16237.306	1.00	5.89	18.948	12.500	12.2	97.8	NO
86	13C2-10:2 FTS-RSD	632.9 > 80.0	1239.527	3316.298	1.00	5.88	4.672	12.500	12.2	97.4	NO
88	d3-N-MeFOSA-RSD	515.2 > 168.9	20646.926	14754.097	1.00	5.83	17.493	149.200	151	101.3	NO
90	13C2-PFTeDA-RSD	715.1 > 669.7	24741.564	14754.097	1.00	6.33	20.962	12.500	12.8	102.7	NO
92	d5-N-ETFOSA-RSD	531.1 > 168.9	23806.791	14754.097	1.00	6.20	20.170	149.200	155	103.7	NO
94	13C2-PFHxDA-RSD	815 > 769.7	27070.467	14754.097	1.00	6.62	22.935	12.500	12.9	103.3	NO
96	d7-N-MeFOSE-RSD	623.1 > 58.9	22617.865	14754.097	1.00	6.33	19.162	149.200	161	108.0	NO
98	d9-N-EtFOSE-RSD	639.2 > 58.8	23431.799	14754.097	1.00	6.48	19.852	149.200	151	101.0	NO
-1											
99	13C4-PFBA	217.0 > 172.0	10884.140	10884.140	1.00	1.60	12.500	12.500	12.5	100.0	NO
1...	13C5-PFHxA	318.0 > 272.9	16866.539	16866.539	1.00	3.38	12.500	12.500	12.5	100.0	NO
1...	13C8-PFOA	420.9 > 376.0	14290.067	14290.067	1.00	4.49	12.500	12.500	12.5	100.0	NO
1...	18O2-PFHxS	403.0 > 103	1056.683	1056.683	1.00	4.11	12.500	12.500	12.5	100.0	NO
1...	13C9-PFNA	472.2 > 426.9	17627.199	17627.199	1.00	4.93	12.500	12.500	12.5	100.0	NO
1...	13C4-PFOS	503 > 79.7	3316.298	3316.298	1.00	5.00	12.500	12.500	12.5	100.0	NO
1...	13C6-PFDA	519.1 > 473.7	16237.306	16237.306	1.00	5.30	12.500	12.500	12.5	100.0	NO
1...	13C7-PFUDA	570.1 > 524.8	14754.097	14754.097	1.00	5.62	12.500	12.500	12.5	100.0	NO

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Dataset: Untitled

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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 08:33:50
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Compound name: PFBA

1	200706P1-19	ST200706P1-1 PFC CS-2 20F1901	06-Jul-20	13:13:57
2	200706P1-20	ST200706P1-2 PFC CS-1 20F1902	06-Jul-20	13:24:27
3	200706P1-21	ST200706P1-3 PFC CS0 20F1903	06-Jul-20	13:34:57
4	200706P1-22	ST200706P1-4 PFC CS1 20F1904	06-Jul-20	13:45:26
5	200706P1-23	ST200706P1-5 PFC CS2 20F1905	06-Jul-20	13:55:58
6	200706P1-24	ST200706P1-6 PFC CS3 20F1906	06-Jul-20	14:06:27
7	200706P1-25	ST200706P1-7 PFC CS4 20F1907	06-Jul-20	14:16:59
8	200706P1-26	ST200706P1-8 PFC CS5 20F1908	06-Jul-20	14:27:27
9	200706P1-27	ST200706P1-9 PFC CS6 20F1909	06-Jul-20	14:37:59
10	200706P1-28	ST200706P1-10 PFC CS7 20F1910	06-Jul-20	14:48:28
11	200706P1-29	IB	06-Jul-20	14:58:58
12	200706P1-30	ICV200706P1-1 PFC ICV 20F1911	06-Jul-20	15:09:30
13	200706P1-31	IB	06-Jul-20	15:19:59
14	200706P1-32	B0F0205-BS1 OPR 0.25	06-Jul-20	15:30:30
15	200706P1-33	2001315-06 24-GW-24NEW4-20200618 0.25948	06-Jul-20	15:41:01
16	200706P1-34	2001315-08 24-GW-08DGMW73-20200618 0.25501	06-Jul-20	15:51:31
17	200706P1-35	2001345-06@5X Septic Receiving 0.11338	06-Jul-20	16:02:00
18	200706P1-36	IB	06-Jul-20	16:12:35
19	200706P1-37	2001315-06 24-GW-24NEW4-20200618 0.25948	06-Jul-20	16:46:41
20	200706P1-38	2001315-08 24-GW-08DGMW73-20200618 0.25501	06-Jul-20	16:57:15
21	200706P1-39	2001326-01 REEPEF2658FS 0.11212	06-Jul-20	17:07:46
22	200706P1-40	B0G0023-BLK1 Method Blank 0.01	06-Jul-20	17:18:14
23	200706P1-41	B0G0023-BS1 OPR 0.01	06-Jul-20	17:28:46
24	200706P1-42	B0G0023-BSD1 LCSD 0.01	06-Jul-20	17:39:17
25	200706P1-43	2001353-01RE1 CAVERLY 0.01	06-Jul-20	17:49:46
26	200706P1-44	2001353-02RE1 SOMERSET FARMS 0.01	06-Jul-20	18:00:17
27	200706P1-45	2001353-03 TOZIER 0.01	06-Jul-20	18:10:46
28	200706P1-46	2001353-04RE1 TOZIER (2 vials-same) 0.01	06-Jul-20	18:21:18
29	200706P1-47	IB	06-Jul-20	18:31:47
30	200706P1-48	ST200706P1-11 PFC CS3 20F1906	06-Jul-20	18:42:17
31	200706P1-49	IB	06-Jul-20	18:52:49
32	200706P1-50	B0F0257-BLK1 Method Blank 0.25	06-Jul-20	19:03:20

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Compound name: PFBA

33	200706P1-51	B0F0257-BS1 OPR 0.25	06-Jul-20	19:13:50
34	200706P1-52	B0F0257-BSD1 LCSD 0.25	06-Jul-20	19:24:18
35	200706P1-53	B0F0257-MS1 Matrix Spike 0.2511	06-Jul-20	19:34:50
36	200706P1-54	B0F0257-MSD1 Matrix Spike Dup 0.24211	06-Jul-20	19:45:19
37	200706P1-55	2001356-01 ET-LW02-2020 0.25782	06-Jul-20	19:55:51
38	200706P1-56	IB	06-Jul-20	20:06:19
39	200706P1-57	2001357-01 SB01-20200624 0.24654	06-Jul-20	20:16:52
40	200706P1-58	2001357-02 EB01-20200624 0.24804	06-Jul-20	20:27:21
41	200706P1-59	2001357-03 I006MW065-20200624 0.25563	06-Jul-20	20:37:52
42	200706P1-60	IB	06-Jul-20	20:48:23
43	200706P1-61	2001357-04 DUP01-20200624 0.25403	06-Jul-20	20:58:53
44	200706P1-62	IB	06-Jul-20	21:09:22
45	200706P1-63	2001358-01 EB02-20200624 0.24128	06-Jul-20	21:19:52
46	200706P1-64	2001358-02 24-GW-24MW06-20200624 0.26389	06-Jul-20	21:30:23
47	200706P1-65	2001358-03 DUP01-20200624 0.26301	06-Jul-20	21:40:52
48	200706P1-66	2001358-04 24-GW-24MW10D-20200624 0.25918	06-Jul-20	21:51:24
49	200706P1-67	2001358-05 DUP02-20200624 0.2559	06-Jul-20	22:01:54
50	200706P1-68	2001358-06 24-GW-24MW10C-20200624 0.25497	06-Jul-20	22:12:25
51	200706P1-69	2001358-07 24-GW-24MW07R-20200624 0.25444	06-Jul-20	22:22:53
52	200706P1-70	B0F0172-BLK1 Method Blank 0.25	06-Jul-20	22:33:25
53	200706P1-71	B0F0172-BS1 OPR 0.25	06-Jul-20	22:43:54
54	200706P1-72	2001276-01 Equipment Blank-1 0.22934	06-Jul-20	22:54:26
55	200706P1-73	ST200706P1-12 PFC CS3 20F1906	06-Jul-20	23:04:55
56	200706P1-74	IB	06-Jul-20	23:15:27
57	200706P1-75	2001276-02 MW-20-01 0.25109	06-Jul-20	23:25:56
58	200706P1-76	2001276-03 Field Blank 0.24862	06-Jul-20	23:36:27
59	200706P1-77	2001276-04 MW-20-02 0.26126	06-Jul-20	23:46:56
60	200706P1-78	2001276-05 MW-20-03 0.24623	06-Jul-20	23:57:28
61	200706P1-79	2001276-06 Equipment Blank-2 0.24081	07-Jul-20	00:07:57
62	200706P1-80	2001276-07 Duplicate-1 0.24702	07-Jul-20	00:18:27
63	200706P1-81	B0F0088-BLK1 Method Blank 5	07-Jul-20	00:28:59
64	200706P1-82	B0F0088-BS1 OPR 5	07-Jul-20	00:39:27
65	200706P1-83	B0F0088-BSD1 LCSD 5	07-Jul-20	00:50:00
66	200706P1-84	2001248-01 05082020 B 5	07-Jul-20	01:00:28
67	200706P1-85	2001250-01 05082020 A 5	07-Jul-20	01:10:58
68	200706P1-86	ST200706P1-13 PFC CS3 20F1906	07-Jul-20	01:21:30

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Last Altered: Tuesday, July 07, 2020 12:16:39 Pacific Daylight Time
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Compound name: PFBA

69	200706P1-87	IB	07-Jul-20	01:31:59
70	200706P1-88	2001251-01 05082020 C 5	07-Jul-20	01:42:31
71	200706P1-89	2001252-01 05082020 E 2.5	07-Jul-20	01:53:00
72	200706P1-90	2001351-01 05082020AY 2.5	07-Jul-20	02:03:30
73	200706P1-91	2001375-01 05082020AF 3	07-Jul-20	02:14:01
74	200706P1-92	2001376-01 05082020T 2.5	07-Jul-20	02:24:33
75	200706P1-93	2001383-01 05082020AO 3	07-Jul-20	02:35:01
76	200706P1-94	2001384-01 05082020AG 2.5	07-Jul-20	02:45:33
77	200706P1-95	2001391-01 05082020J 2.5	07-Jul-20	02:56:03
78	200706P1-96	2001392-01 05082020R 3	07-Jul-20	03:06:32
79	200706P1-97	2001393-01 05082020G 2.5	07-Jul-20	03:17:04
80	200706P1-98	ST200706P1-14 PFC CS3 20F1906	07-Jul-20	03:27:34
81	200706P1-99	IB	07-Jul-20	03:38:03
82	200706P1-100	2001402-01 06122020A 5	07-Jul-20	03:48:35
83	200706P1-101	2001403-01 05082020AN 2.5	07-Jul-20	03:59:04
84	200706P1-102	2001302-01@5X OP-1 0.03392	07-Jul-20	04:09:35
85	200706P1-103	2001302-02@5X OP-2 0.03359	07-Jul-20	04:20:04
86	200706P1-104	2001302-03@5X OP-3 0.0336	07-Jul-20	04:30:36
87	200706P1-105	2001302-04@5X OP-4 0.03354	07-Jul-20	04:41:05
88	200706P1-106	2001302-05@5X OP-5 0.03336	07-Jul-20	04:51:36
89	200706P1-107	2001302-06@5X OP-6 0.03266	07-Jul-20	05:02:06
90	200706P1-108	2001302-07@5X OP-7 0.03389	07-Jul-20	05:12:35
91	200706P1-109	2001302-08@5X OP-8 0.03326	07-Jul-20	05:23:07
92	200706P1-110	ST200706P1-15 PFC CS3 20F1906	07-Jul-20	05:33:36
93	200706P1-111	IB	07-Jul-20	05:44:07
94	200706P1-112	2001302-09@5X OP-9 0.03376	07-Jul-20	05:54:38
95	200706P1-113	2001302-10@5X OP-10 0.03297	07-Jul-20	06:05:07
96	200706P1-114	2001302-11@5X OP-11 0.03382	07-Jul-20	06:15:39
97	200706P1-115	2001302-12@5X OP-12 0.03372	07-Jul-20	06:26:08
98	200706P1-116	2001302-13@5X OP-13 0.03255	07-Jul-20	06:36:39
99	200706P1-117	2001302-14@5X OP-14 0.03286	07-Jul-20	06:47:10
100	200706P1-118	2001302-15@5X OP-15 0.03232	07-Jul-20	06:57:39
101	200706P1-119	2001302-16@5X OP-16 0.03366	07-Jul-20	07:08:11
102	200706P1-120	2001302-17@5X OP-17 0.03283	07-Jul-20	07:18:40
103	200706P1-121	2001302-18@5X OP-18 0.03296	07-Jul-20	07:29:10
104	200706P1-122	ST200706P1-16 PFC CS3 20F1906	07-Jul-20	07:39:40

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-48.qld

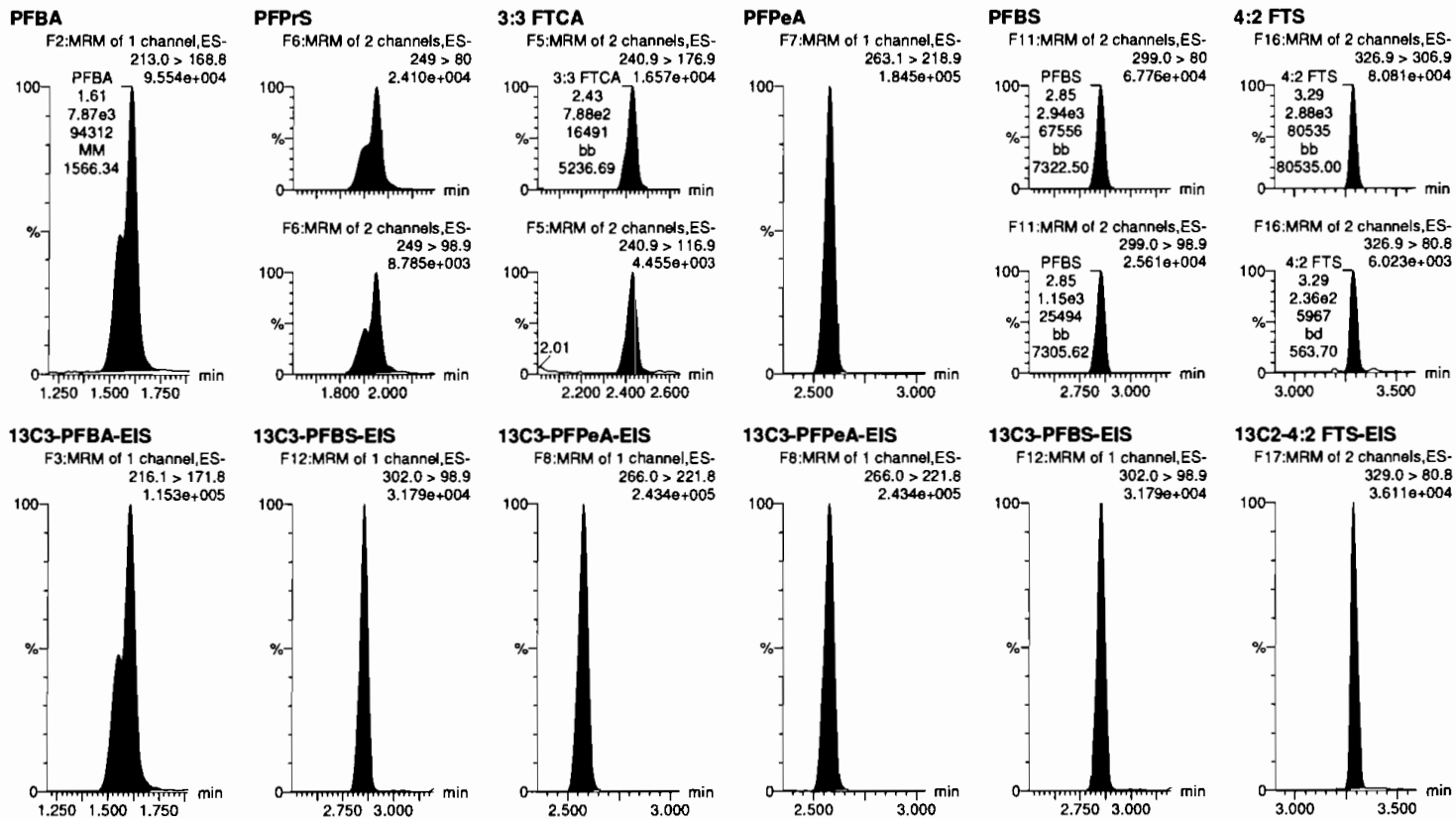
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Printed: Tuesday, July 07, 2020 10:16:23 Pacific Daylight Time

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Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906



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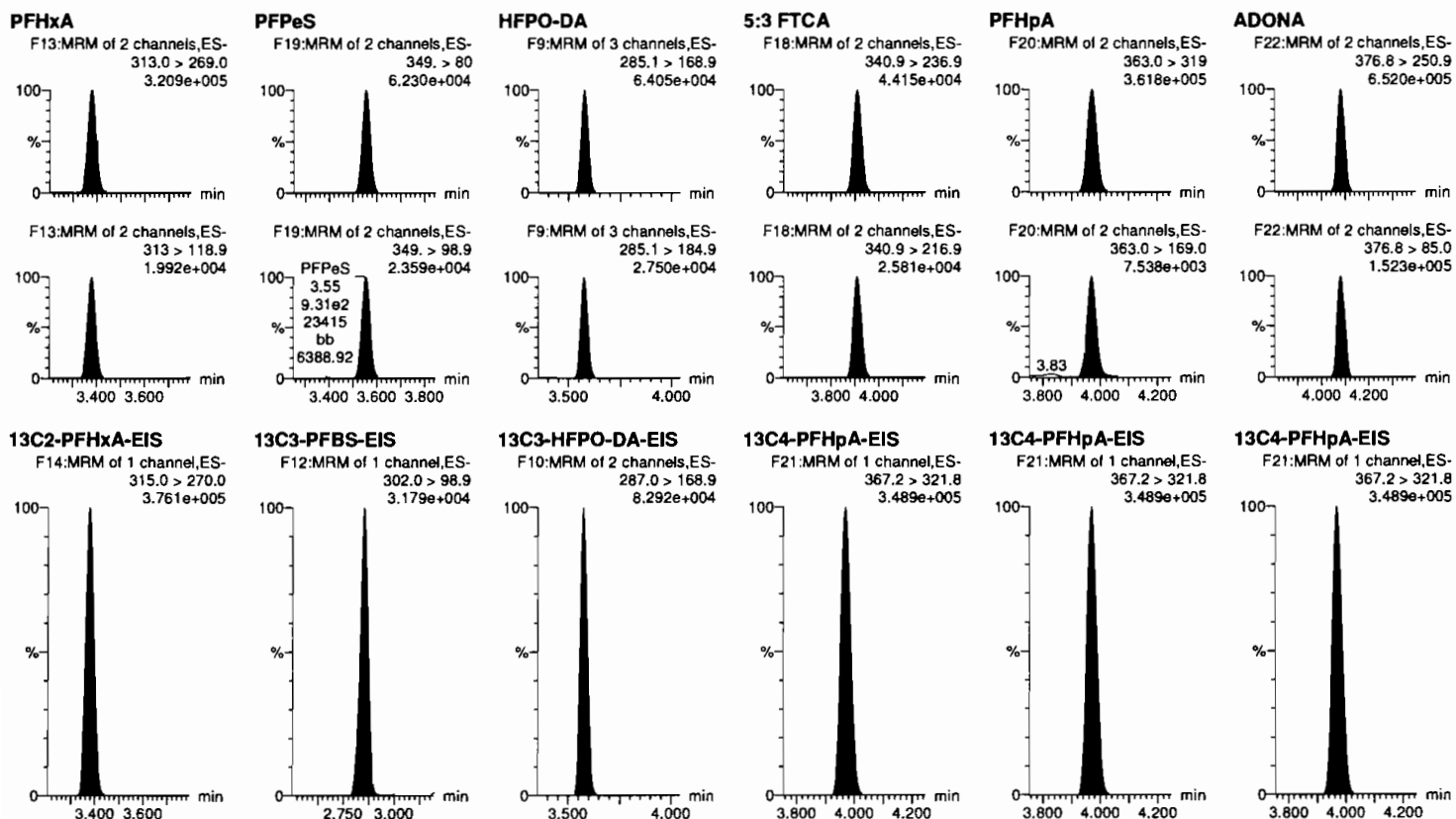
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Printed: Tuesday, July 07, 2020 10:16:23 Pacific Daylight Time

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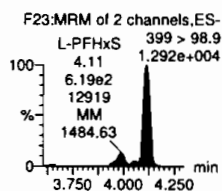
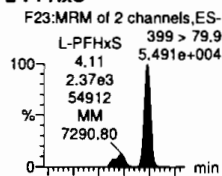
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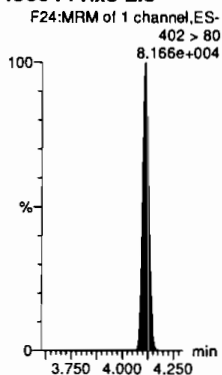
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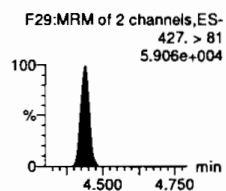
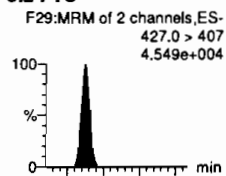
L-PFHxS



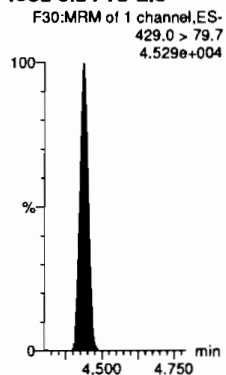
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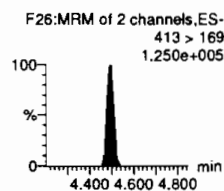
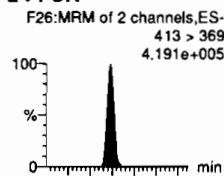
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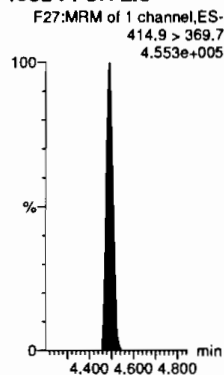
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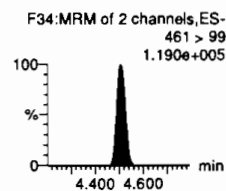
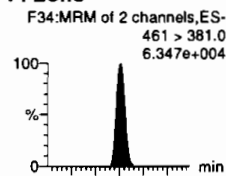
L-PFOA



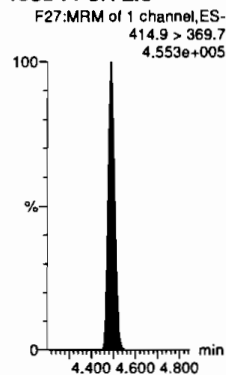
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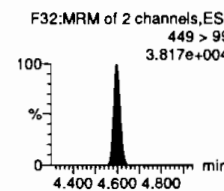
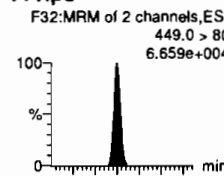
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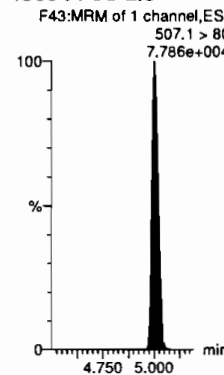
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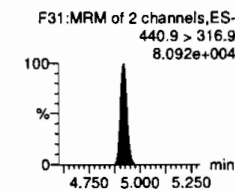
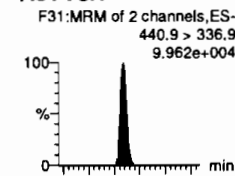
PFHpS



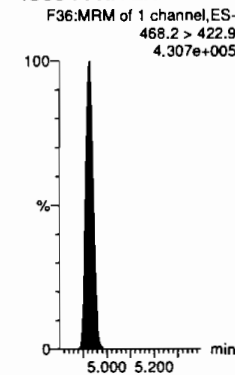
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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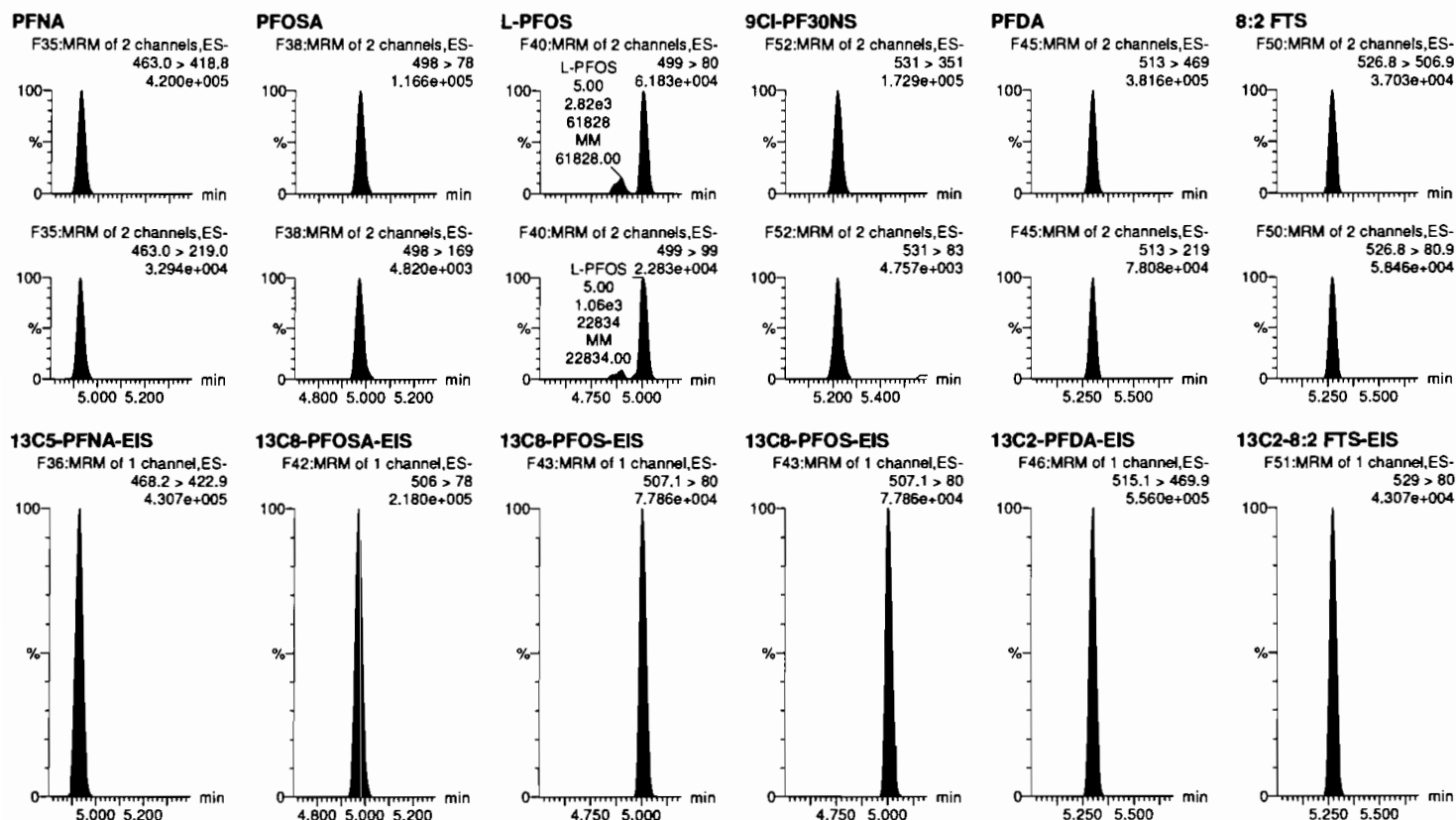
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-48.qld

Last Altered: Tuesday, July 07, 2020 10:14:25 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 10:16:23 Pacific Daylight Time

Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906



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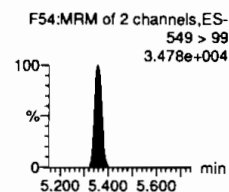
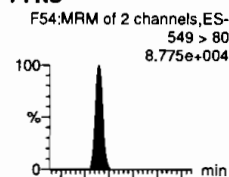
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Last Altered: Tuesday, July 07, 2020 10:14:25 Pacific Daylight Time

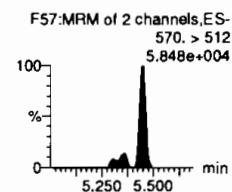
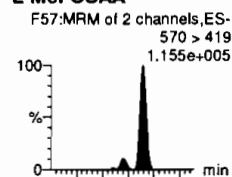
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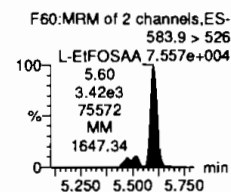
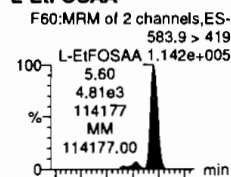
PFNS



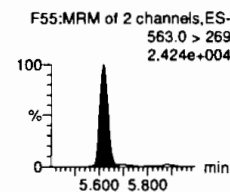
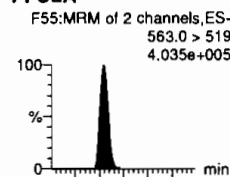
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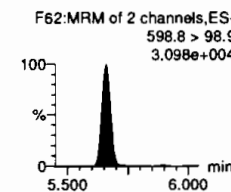
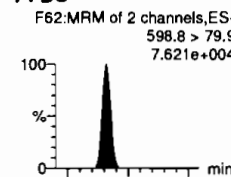
L-EtFOSAA



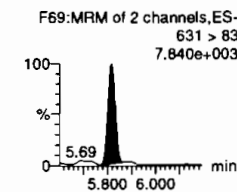
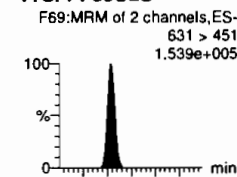
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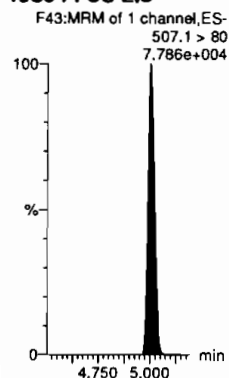
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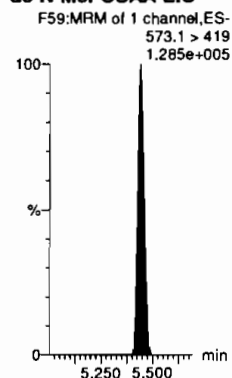
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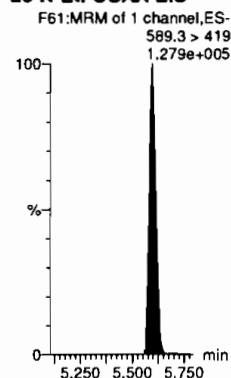
13C8-PFOS-EIS



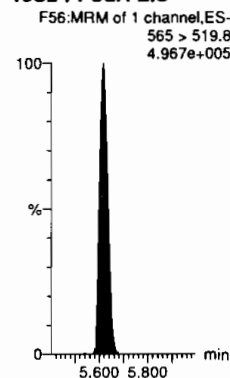
d3-N-MeFOSAA-EIS



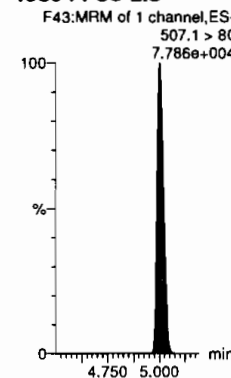
d5-N-EtFOSAA-EIS



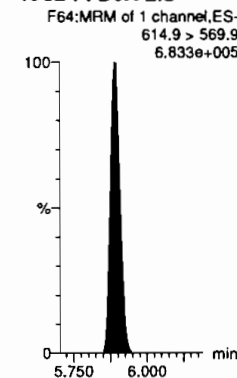
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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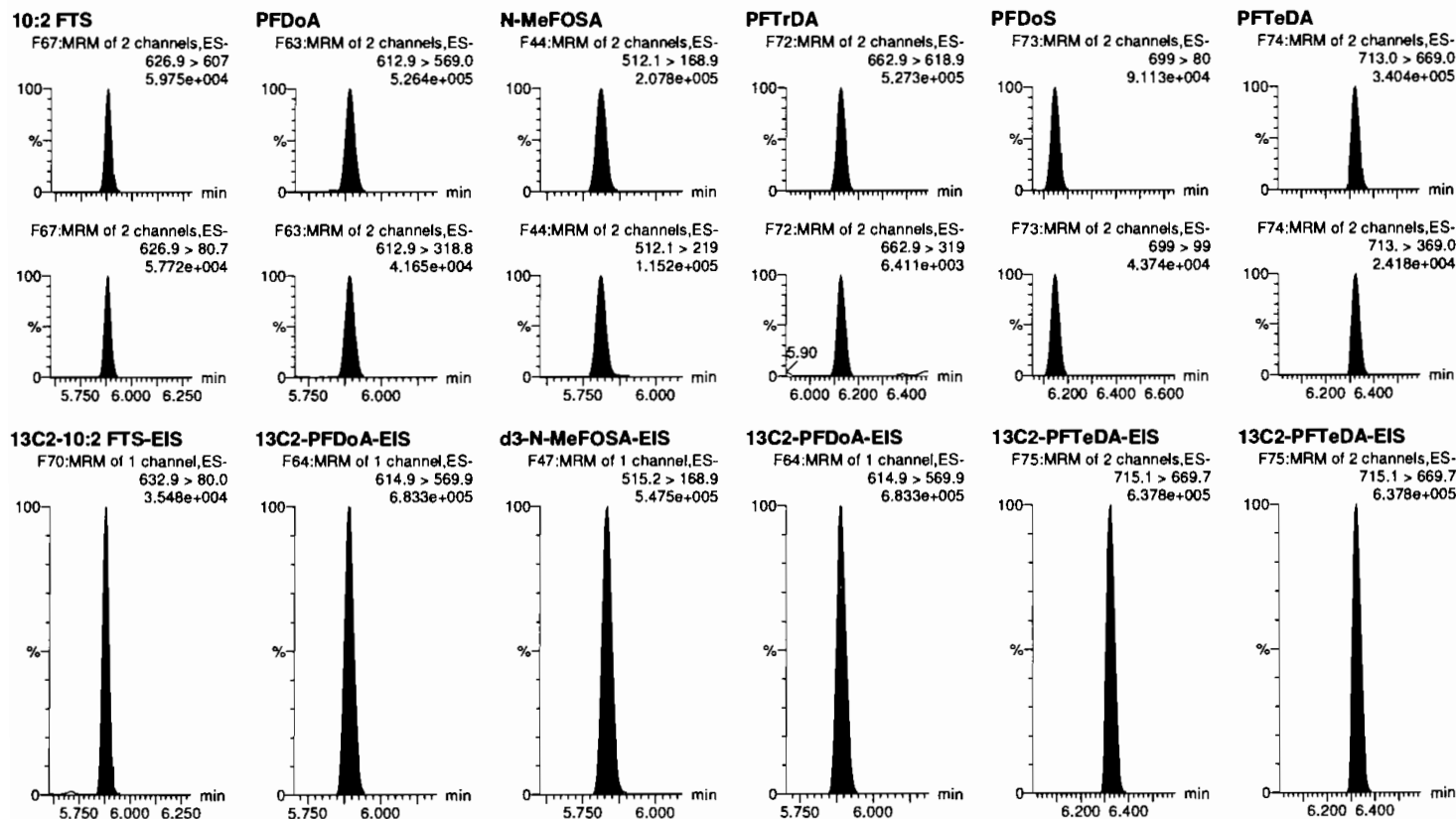
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-48.qld

Last Altered: Tuesday, July 07, 2020 10:14:25 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 10:16:23 Pacific Daylight Time

Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906



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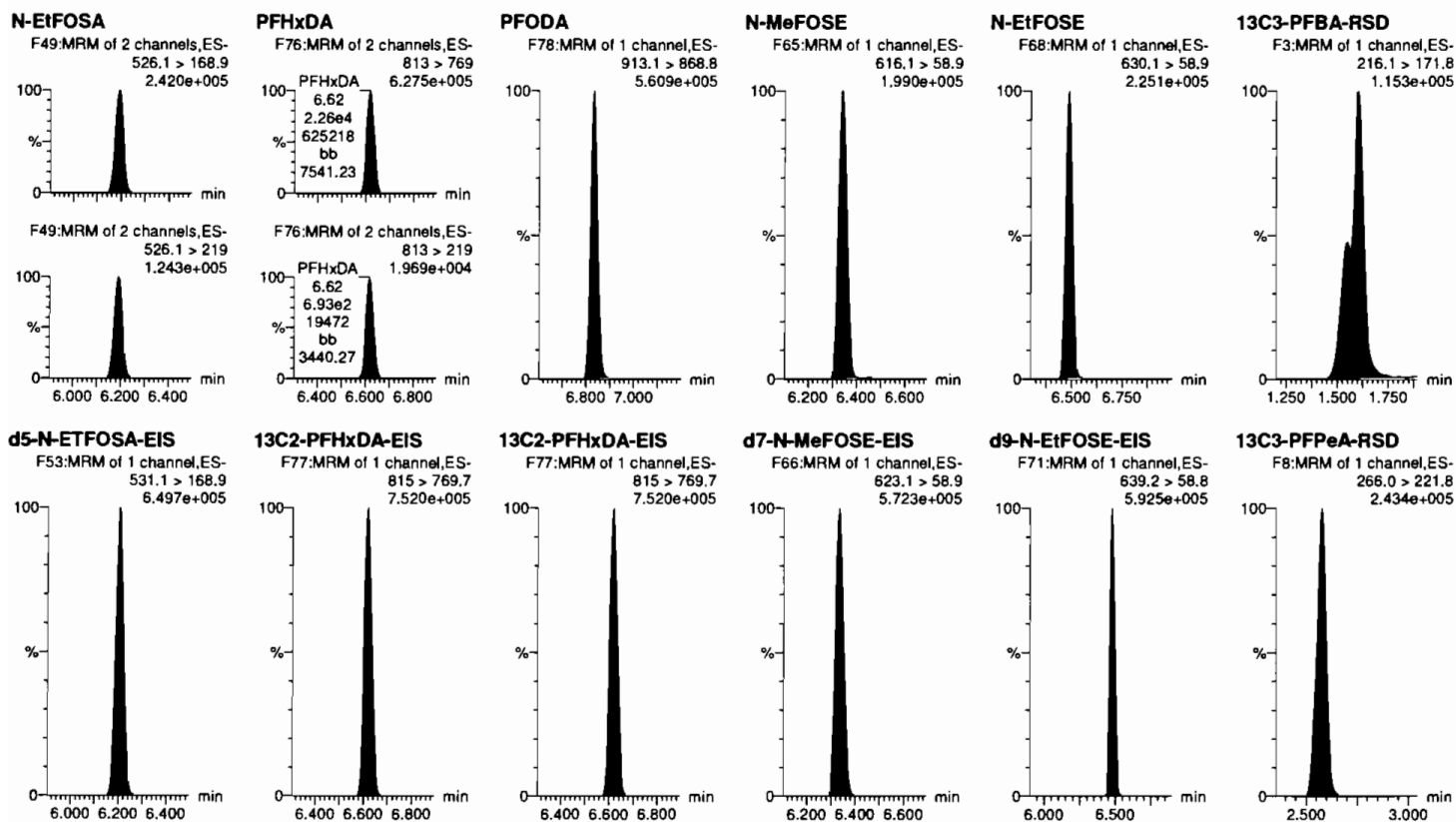
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-48.qld

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Printed: Tuesday, July 07, 2020 10:16:23 Pacific Daylight Time

Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906



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Quantify Sample Report
Vista Analytical Laboratory

MassLynx V4.2 SCN977

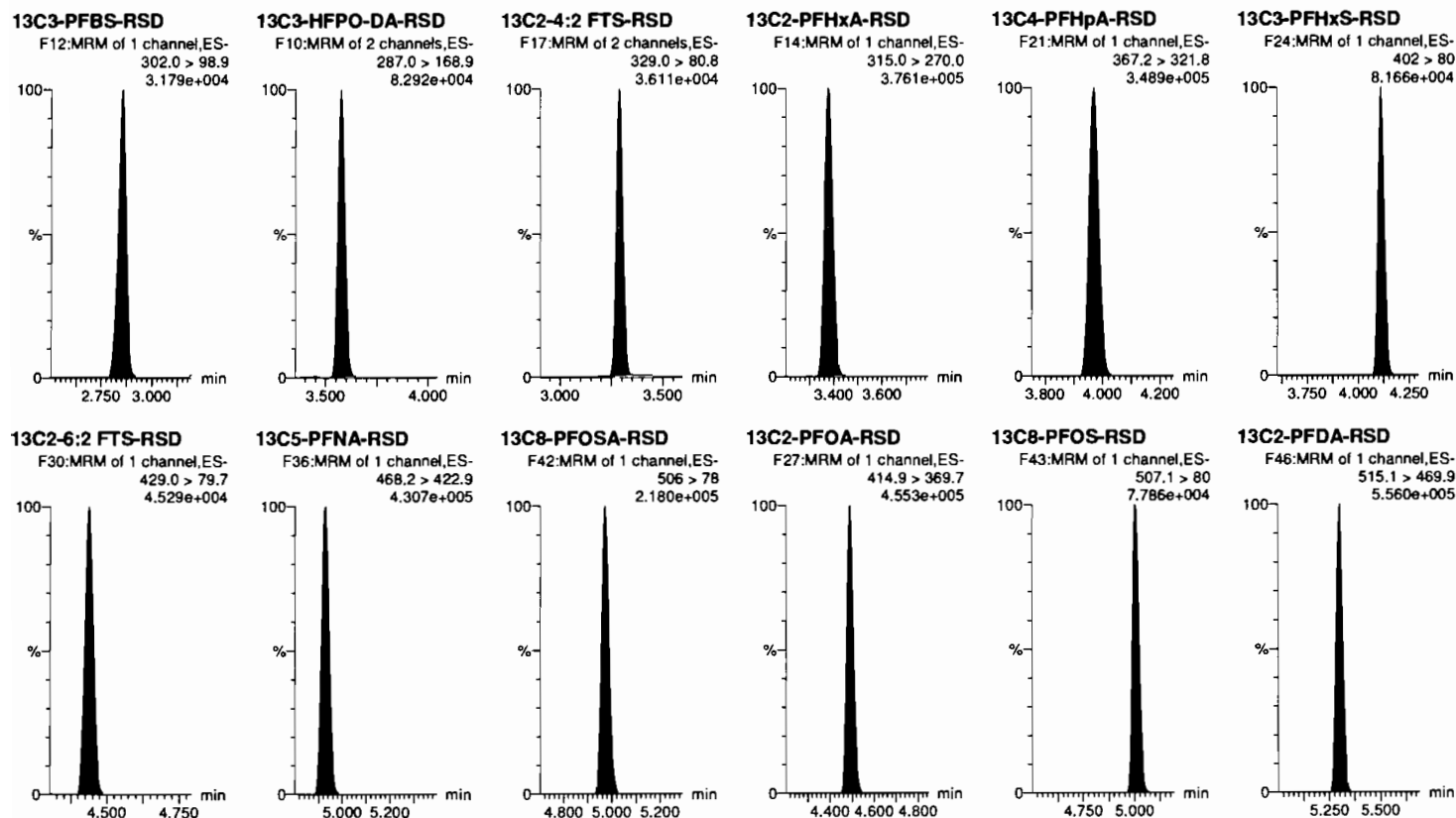
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-48.qld

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Printed: Tuesday, July 07, 2020 10:16:23 Pacific Daylight Time

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-48.qld

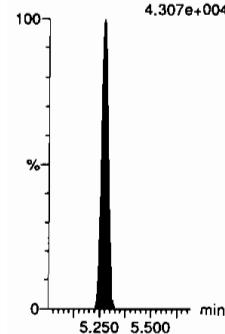
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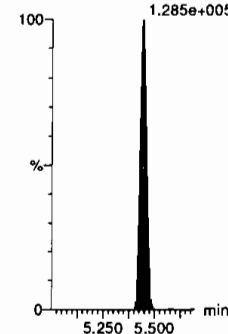
13C2-8:2 FTS-RSD

F51:MRM of 1 channel, ES-
529 > 80
4.307e+004



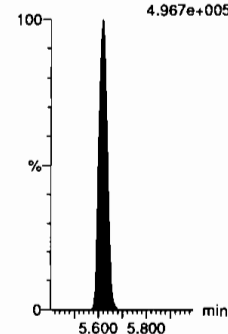
d3-N-MeFOSAA-RSD

F59:MRM of 1 channel, ES-
573.1 > 419
1.285e+005



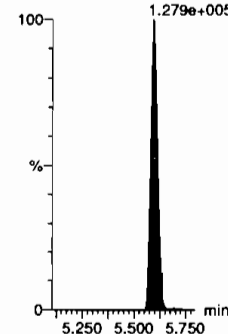
13C2-PFUDa-RSD

F56:MRM of 1 channel, ES-
565 > 519.8
4.967e+005



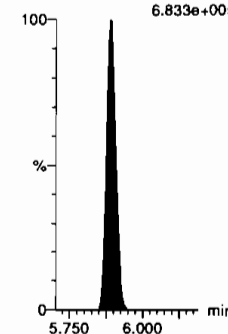
d5-N-EtFOSAA-RSD

F61:MRM of 1 channel, ES-
589.3 > 419
1.279e+005



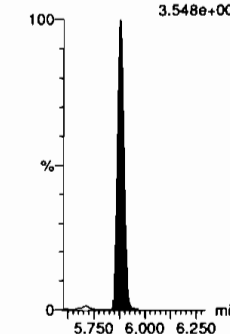
13C2-PFDoA-RSD

F64:MRM of 1 channel, ES-
614.9 > 569.9
6.833e+005



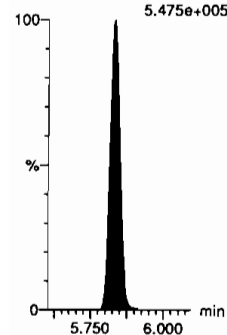
13C2-10:2 FTS-RSD

F70:MRM of 1 channel, ES-
632.9 > 80.0
3.548e+004



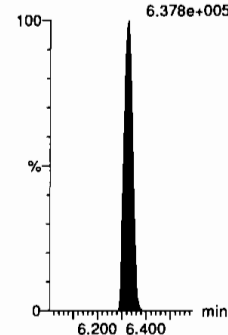
d3-N-MeFOSA-RSD

F47:MRM of 1 channel, ES-
515.2 > 168.9
5.475e+005



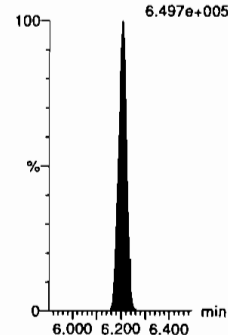
13C2-PFTeDA-RSD

F75:MRM of 2 channels, ES-
715.1 > 669.7
6.378e+005



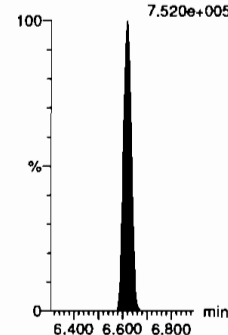
d5-N-ETFOSA-RSD

F53:MRM of 1 channel, ES-
531.1 > 168.9
6.497e+005



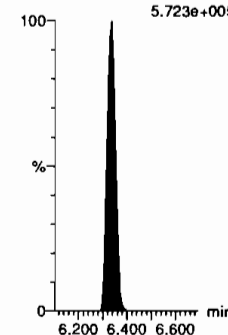
13C2-PFHxDA-RSD

F77:MRM of 1 channel, ES-
815 > 769.7
7.520e+005



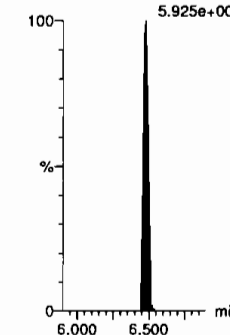
d7-N-MeFOSE-RSD

F66:MRM of 1 channel, ES-
623.1 > 58.9
5.723e+005



d9-N-EtFOSE-RSD

F71:MRM of 1 channel, ES-
639.2 > 58.8
5.925e+005



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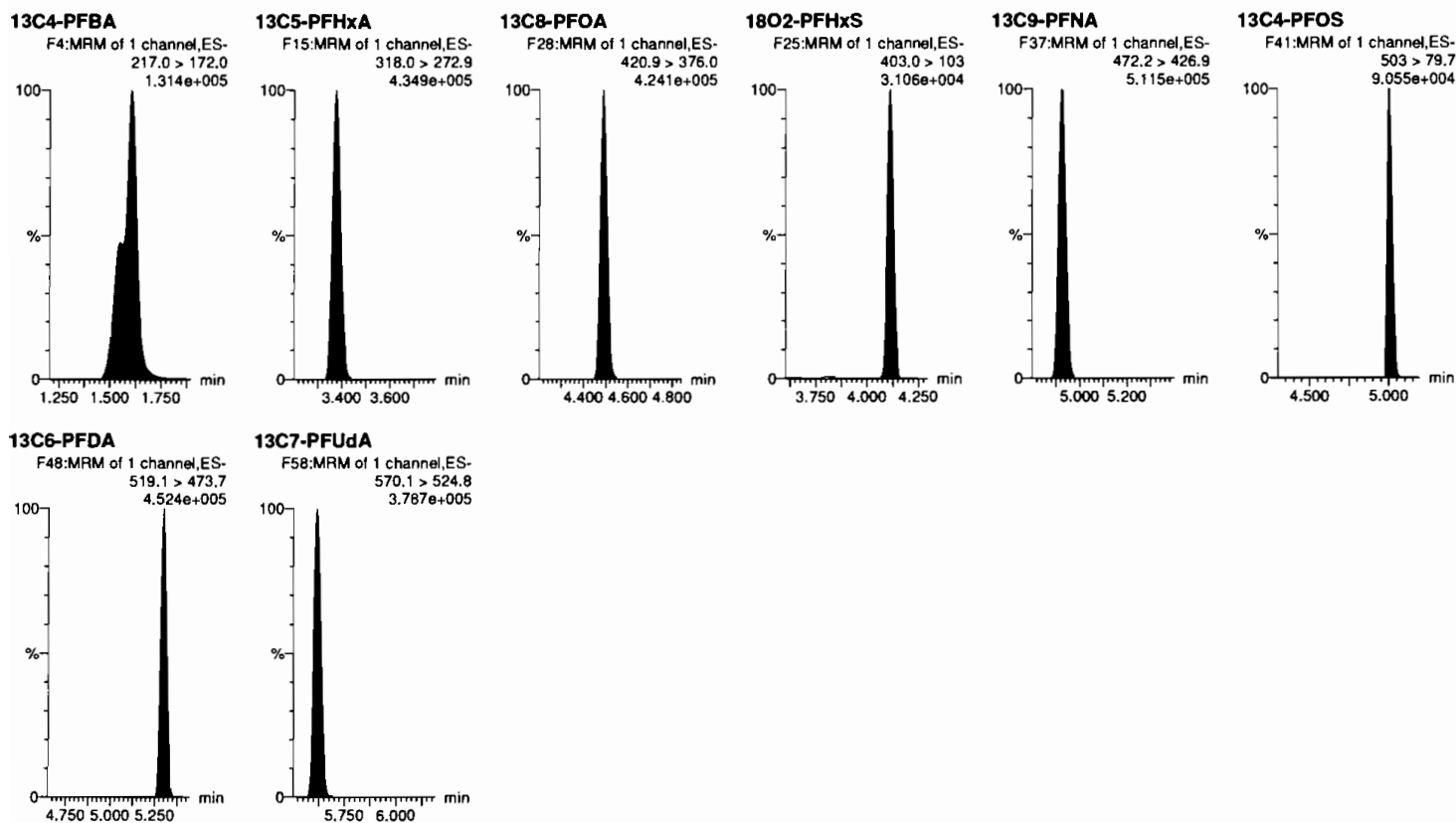
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-48.qld

Last Altered: Tuesday, July 07, 2020 10:14:25 Pacific Daylight Time
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Name: 200706P1-48, Date: 06-Jul-2020, Time: 18:42:17, ID: ST200706P1-11 PFC CS3 20F1906, Description: PFC CS3 20F1906



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

Quantify Compound Summary Report MassLynx V4.2 SCN977
Vista Analytical Laboratory

Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time
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low points
8:2 FTS: 0.5
Etrusa: 2.5

high points
5:3 FTA 100
5:3 FTA
7:3 FTA
8:2 FTS
↓

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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 02 Jul 2020 12:54:07
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Compound name: PFBA

Correlation coefficient: $r = 0.999882$, $r^2 = 0.999764$

Calibration curve: $1.04848 * x + 0.0326262$

Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)

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

✓ 7R 07/02/2020

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200702P1-5	Standard	0.250	1.12	113.198	5072.505	0.279	0.2	-6.0	NO	1.000	NO	MM
2	2	200702P1-6	Standard	0.500	1.12	231.943	5570.738	0.520	0.5	-6.9	NO	1.000	NO	MM
3	3	200702P1-7	Standard	1.000	1.12	455.836	4797.371	1.188	1.1	10.2	NO	1.000	NO	MM
4	4	200702P1-8	Standard	2.000	1.12	959.383	5776.957	2.076	1.9	-2.6	NO	1.000	NO	bb
5	5	200702P1-9	Standard	5.000	1.12	2574.002	5930.634	5.425	5.1	2.9	NO	1.000	NO	MM
6	6	200702P1-10	Standard	10.000	1.12	4934.135	5707.434	10.806	10.3	2.8	NO	1.000	NO	bb
7	7	200702P1-11	Standard	50.000	1.12	23490.727	5658.292	51.894	49.5	-1.1	NO	1.000	NO	bb
8	8	200702P1-12	Standard	100.000	1.12	49866.301	5968.348	104.439	99.6	-0.4	NO	1.000	NO	bb
9	9	200702P1-13	Standard	250.000	1.12	119344.930	5584.875	268.076	255.6	2.3	NO	1.000	NO	bb
10	10	200702P1-14	Standard	500.000	1.12	245956.703	5924.811	518.913	494.9	-1.0	NO	1.000	NO	bb

Compound name: PFPrS

Coefficient of Determination: $R^2 = 0.999214$

Calibration curve: $0.000322039 * x^2 + 0.96872 * x + -0.0600544$

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	200702P1-5	Standard	0.250	1.46	16.774	1233.912	0.170	0.2	-5.0	NO	0.999	NO	MM
2	2	200702P1-6	Standard	0.500	1.46	40.712	1255.359	0.405	0.5	-3.9	NO	0.999	NO	MM
3	3	200702P1-7	Standard	1.000	1.45	77.978	1166.377	0.836	0.9	-7.6	NO	0.999	NO	MM
4	4	200702P1-8	Standard	2.000	1.45	191.357	1226.824	1.950	2.1	3.7	NO	0.999	NO	MM
5	5	200702P1-9	Standard	5.000	1.46	528.624	1292.855	5.111	5.3	6.6	NO	0.999	NO	MM
6	6	200702P1-10	Standard	10.000	1.45	1019.486	1281.407	9.945	10.3	2.9	NO	0.999	NO	MM
7	7	200702P1-11	Standard	50.000	1.45	4853.195	1216.091	49.885	50.7	1.4	NO	0.999	NO	bb
8	8	200702P1-12	Standard	100.000	1.45	10515.663	1247.853	105.338	105.1	5.1	NO	0.999	NO	bb
9	9	200702P1-13	Standard	250.000	1.45	25134.270	1249.883	251.366	240.3	-3.9	NO	0.999	NO	bb
10	10	200702P1-14	Standard	500.000	1.45	50380.086	1106.555	569.110	503.3	0.7	NO	0.999	NO	bb

OK 07/02/20

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 3:3 FTCA

Coefficient of Determination: $R^2 = 0.998888$

Calibration curve: $-3.91841e-005 * x^2 + 0.0781094 * x + -0.00457548$

Response type: Internal Std (Ref 49), 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 200702P1-5	Standard	0.250	1.90	15.119	10417.169	0.018	0.3	16.4	NO	0.999	NO	MM
2	2 200702P1-6	Standard	0.500	1.91	24.599	11366.813	0.027	0.4	-19.0	NO	0.999	NO	MM
3	3 200702P1-7	Standard	1.000	1.90	50.192	9874.755	0.064	0.9	-12.8	NO	0.999	NO	MM
4	4 200702P1-8	Standard	2.000	1.90	132.165	10805.164	0.153	2.0	0.9	NO	0.999	NO	bb
5	5 200702P1-9	Standard	5.000	1.91	327.992	11565.721	0.354	4.6	-7.8	NO	0.999	NO	bb
6	6 200702P1-10	Standard	10.000	1.90	675.052	11360.080	0.743	9.6	-3.9	NO	0.999	NO	bb
7	7 200702P1-11	Standard	50.000	1.90	3589.187	11387.303	3.940	51.8	3.7	NO	0.999	NO	bb
8	8 200702P1-12	Standard	100.000	1.90	6312.403	10734.438	7.351	99.1	-0.9	NO	0.999	NO	bb
9	9 200702P1-13	Standard	250.000	1.90	3574.678	11459.769	3.899	51.3	-79.5	YES	0.999	NO	bbX
10	10 200702P1-14	Standard	500.000	1.90	6350.354	11096.443	7.154	96.3	-80.7	YES	0.999	NO	bbX

Compound name: PFPeA

Coefficient of Determination: $R^2 = 0.999679$

Calibration curve: $-9.30156e-005 * x^2 + 0.941335 * x + 0.024466$

Response type: Internal Std (Ref 49), 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 200702P1-5	Standard	0.250	2.04	206.040	10417.169	0.247	0.2	-5.3	NO	1.000	NO	MM
2	2 200702P1-6	Standard	0.500	2.04	480.572	11366.813	0.528	0.5	7.1	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	2.04	787.706	9874.755	0.997	1.0	3.3	NO	1.000	NO	MM
4	4 200702P1-8	Standard	2.000	2.04	1677.908	10805.164	1.941	2.0	1.8	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	2.04	4343.649	11565.721	4.695	5.0	-0.7	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	2.04	8873.374	11360.080	9.764	10.4	3.6	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	2.04	42225.168	11387.303	46.351	49.5	-1.1	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	2.04	82870.547	10734.438	96.501	103.5	3.5	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	2.04	205780.250	11459.769	224.459	244.3	-2.3	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	2.04	398912.719	11096.443	449.370	502.3	0.5	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Compound name: PFBS

Coefficient of Determination: $R^2 = 0.998973$

Calibration curve: $0.00037248 * x^2 + 2.51262 * x + -0.0141136$

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	200702P1-5	Standard	0.250	2.32	50.376	1233.912	0.510	0.2	-16.5	NO	0.999	NO	MM
2	2	200702P1-6	Standard	0.500	2.33	112.994	1255.359	1.125	0.5	-9.3	NO	0.999	NO	bb
3	3	200702P1-7	Standard	1.000	2.32	250.803	1166.377	2.688	1.1	7.5	NO	0.999	NO	MM
4	4	200702P1-8	Standard	2.000	2.32	500.852	1226.824	5.103	2.0	1.8	NO	0.999	NO	bb
5	5	200702P1-9	Standard	5.000	2.33	1372.018	1292.855	13.265	5.3	5.6	NO	0.999	NO	bb
6	6	200702P1-10	Standard	10.000	2.32	2623.570	1281.407	25.593	10.2	1.8	NO	0.999	NO	bb
7	7	200702P1-11	Standard	50.000	2.32	13395.274	1216.091	137.688	54.4	8.7	NO	0.999	NO	bb
8	8	200702P1-12	Standard	100.000	2.32	25861.379	1247.853	259.059	101.6	1.6	NO	0.999	NO	bb
9	9	200702P1-13	Standard	250.000	2.32	62238.652	1249.883	622.445	239.2	-4.3	NO	0.999	NO	bb
10	10	200702P1-14	Standard	500.000	2.32	120566.164	1106.555	1361.954	504.3	0.9	NO	0.999	NO	bb

Compound name: 4:2 FTS

Coefficient of Determination: $R^2 = 0.997604$

Calibration curve: $-0.000306525 * x^2 + 2.63084 * x + -0.130089$

Response type: Internal Std (Ref 55), 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	200702P1-5	Standard	0.250	2.76	44.084	1172.682	0.470	0.2	-8.8	NO	0.998	NO	bb
2	2	200702P1-6	Standard	0.500	2.77	75.950	1135.126	0.836	0.4	-26.5	NO	0.998	NO	bb
3	3	200702P1-7	Standard	1.000	2.77	234.758	1297.483	2.262	0.9	-9.1	NO	0.998	NO	bb
4	4	200702P1-8	Standard	2.000	2.76	544.854	1132.135	6.016	2.3	16.8	NO	0.998	NO	bb
5	5	200702P1-9	Standard	5.000	2.76	1255.401	1277.223	12.286	4.7	-5.6	NO	0.998	NO	bb
6	6	200702P1-10	Standard	10.000	2.76	2783.581	1294.177	26.886	10.3	2.8	NO	0.998	NO	bb
7	7	200702P1-11	Standard	50.000	2.76	13400.234	1119.741	149.591	57.3	14.6	NO	0.998	NO	bb
8	8	200702P1-12	Standard	100.000	2.76	23775.533	1138.843	260.961	100.4	0.4	NO	0.998	NO	bb
9	9	200702P1-13	Standard	250.000	2.76	56043.715	1163.447	602.130	235.4	-5.8	NO	0.998	NO	bb
10	10	200702P1-14	Standard	500.000	2.76	103266.789	1028.810	1254.687	506.9	1.4	NO	0.998	NO	bb

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Compound name: PFHxA

Correlation coefficient: $r = 0.999547$, $r^2 = 0.999094$

Calibration curve: $1.01705 * x + 0.0849482$

Response type: Internal Std (Ref 57), 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	200702P1-5	Standard	0.250	2.84	355.937	12179.840	0.365	0.3	10.3	NO	0.999	NO	bb
2	2	200702P1-6	Standard	0.500	2.84	569.348	12394.994	0.574	0.5	-3.8	NO	0.999	NO	bb
3	3	200702P1-7	Standard	1.000	2.84	1114.862	12627.369	1.104	1.0	0.2	NO	0.999	NO	bb
4	4	200702P1-8	Standard	2.000	2.84	2300.064	12403.267	2.318	2.2	9.8	NO	0.999	NO	MM
5	5	200702P1-9	Standard	5.000	2.84	5697.829	13452.638	5.294	5.1	2.4	NO	0.999	NO	bb
6	6	200702P1-10	Standard	10.000	2.84	11488.711	13517.747	10.624	10.4	3.6	NO	0.999	NO	bb
7	7	200702P1-11	Standard	50.000	2.84	57530.570	13106.534	54.868	53.9	7.7	NO	0.999	NO	bb
8	8	200702P1-12	Standard	100.000	2.84	108552.031	12698.171	106.858	105.0	5.0	NO	0.999	NO	bb
9	9	200702P1-13	Standard	250.000	2.84	272559.000	13357.420	255.063	250.7	0.3	NO	0.999	NO	bb
10	10	200702P1-14	Standard	500.000	2.84	501371.250	12579.636	498.197	489.8	-2.0	NO	0.999	NO	bb

Compound name: PFPeS

Coefficient of Determination: $R^2 = 0.997981$

Calibration curve: $-0.000495469 * x^2 + 2.06704 * x + 0.111955$

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	200702P1-5	Standard	0.250	3.05	48.624	1233.912	0.493	0.2	-26.3	NO	0.998	NO	bb
2	2	200702P1-6	Standard	0.500	3.06	101.120	1255.359	1.007	0.4	-13.4	NO	0.998	NO	bb
3	3	200702P1-7	Standard	1.000	3.06	217.547	1166.377	2.331	1.1	7.4	NO	0.998	NO	bb
4	4	200702P1-8	Standard	2.000	3.05	452.808	1226.824	4.614	2.2	8.9	NO	0.998	NO	bb
5	5	200702P1-9	Standard	5.000	3.05	1214.736	1292.855	11.745	5.6	12.7	NO	0.998	NO	bb
6	6	200702P1-10	Standard	10.000	3.05	2196.661	1281.407	21.428	10.3	3.4	NO	0.998	NO	bb
7	7	200702P1-11	Standard	50.000	3.05	10930.116	1216.091	112.349	55.0	10.0	NO	0.998	NO	bb
8	8	200702P1-12	Standard	100.000	3.05	20561.076	1247.853	205.965	102.1	2.1	NO	0.998	NO	bb
9	9	200702P1-13	Standard	250.000	3.05	45662.285	1249.883	456.666	234.0	-6.4	NO	0.998	NO	bb
10	10	200702P1-14	Standard	500.000	3.05	81665.523	1106.555	922.520	508.1	1.6	NO	0.998	NO	bb

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Compound name: HFPO-DA

Coefficient of Determination: $R^2 = 0.999203$

Calibration curve: $-0.00010111 * x^2 + 0.983956 * x + 0.000924238$

Response type: Internal Std (Ref 53), 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 200702P1-5	Standard	0.250	3.07	52.669	2590.986	0.254	0.3	2.9	NO	0.999	NO	bb
2	2 200702P1-6	Standard	0.500	3.06	104.685	2759.343	0.474	0.5	-3.8	NO	0.999	NO	bb
3	3 200702P1-7	Standard	1.000	3.06	190.357	2656.923	0.896	0.9	-9.1	NO	0.999	NO	bb
4	4 200702P1-8	Standard	2.000	3.06	437.756	2803.876	1.952	2.0	-0.9	NO	0.999	NO	bb
5	5 200702P1-9	Standard	5.000	3.07	1144.530	2811.698	5.088	5.2	3.5	NO	0.999	NO	bb
6	6 200702P1-10	Standard	10.000	3.06	2331.200	2897.073	10.058	10.2	2.3	NO	0.999	NO	bb
7	7 200702P1-11	Standard	50.000	3.06	11714.468	2814.491	52.027	53.2	6.3	NO	0.999	NO	bb
8	8 200702P1-12	Standard	100.000	3.06	22455.926	2820.005	99.539	102.2	2.2	NO	0.999	NO	bb
9	9 200702P1-13	Standard	250.000	3.06	54840.742	2978.797	230.130	239.8	-4.1	NO	0.999	NO	bb
10	10 200702P1-14	Standard	500.000	3.07	102479.680	2721.314	470.727	504.6	0.9	NO	0.999	NO	bb

Compound name: 5:3 FTCA

Coefficient of Determination: $R^2 = 0.999753$

Calibration curve: $-0.000165138 * x^2 + 0.163238 * x + -0.00371741$

Response type: Internal Std (Ref 59), 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 200702P1-5	Standard	0.250	3.42	36.106	10920.187	0.041	0.3	10.4	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	3.42	61.207	11454.069	0.067	0.4	-13.6	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	3.42	138.150	10799.322	0.160	1.0	0.3	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	3.42	278.570	11264.626	0.309	1.9	-4.0	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	3.42	693.696	11262.744	0.770	4.8	-4.8	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	3.42	1494.777	11373.376	1.643	10.2	1.9	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	3.42	7271.416	11651.368	7.801	50.4	0.8	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	3.42	12825.653	10950.841	14.640	99.8	-0.2	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	3.42	7251.802	10577.144	8.570	55.7	-77.7	YES	1.000	NO	bbX
10	10 200702P1-14	Standard	500.000	3.42	12998.186	9959.732	16.313	112.8	-77.4	YES	1.000	NO	bbX

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Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.999946$

Calibration curve: $-8.79446e-005 * x^2 + 1.34735 * x + 0.0239572$

Response type: Internal Std (Ref 59), 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 200702P1-5	Standard	0.250	3.46	332.474	10920.187	0.381	0.3	5.9	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	3.46	594.406	11454.069	0.649	0.5	-7.3	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	3.46	1238.635	10799.322	1.434	1.0	4.6	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	3.46	2509.474	11264.626	2.785	2.0	2.5	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	3.46	6229.323	11262.744	6.914	5.1	2.3	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	3.46	12382.461	11373.376	13.609	10.1	0.9	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	3.46	61235.199	11651.368	65.695	48.9	-2.2	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	3.46	117163.648	10950.841	133.738	99.9	-0.1	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	3.46	282204.531	10577.144	333.507	251.6	0.7	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	3.46	518554.813	9959.732	650.814	499.3	-0.1	NO	1.000	NO	bb

Compound name: ADONA

Coefficient of Determination: $R^2 = 0.999751$

Calibration curve: $0.000137715 * x^2 + 2.17563 * x + -0.120699$

Response type: Internal Std (Ref 59), 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 200702P1-5	Standard	0.250	3.56	288.172	10920.187	0.330	0.2	-17.2	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	3.58	852.228	11454.069	0.930	0.5	-3.4	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	3.56	2227.214	10799.322	2.578	1.2	24.0	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	3.57	3222.803	11264.626	3.576	1.7	-15.0	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	3.57	11060.718	11262.744	12.276	5.7	13.9	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	3.57	19618.082	11373.376	21.561	10.0	-0.4	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	3.57	99446.078	11651.368	106.689	48.9	-2.1	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	3.57	191391.281	10950.841	218.466	99.8	-0.2	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	3.57	469476.063	10577.144	554.824	251.1	0.4	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	3.57	893348.875	9959.732	1121.201	499.6	-0.1	NO	1.000	NO	bb

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Compound name: L-PFHxS

Coefficient of Determination: $R^2 = 0.999121$

Calibration curve: $0.000201992 * x^2 + 1.10648 * x + 0.000919352$

Response type: Internal Std (Ref 61), 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 200702P1-5	Standard	0.250	3.61	65.148	2411.590	0.338	0.3	21.7	NO	0.999	NO	MM
2	2 200702P1-6	Standard	0.500	3.61	105.511	2387.728	0.552	0.5	-0.3	NO	0.999	NO	MM
3	3 200702P1-7	Standard	1.000	3.61	203.722	2615.099	0.974	0.9	-12.1	NO	0.999	NO	MM
4	4 200702P1-8	Standard	2.000	3.61	449.319	2618.979	2.145	1.9	-3.2	NO	0.999	NO	MM
5	5 200702P1-9	Standard	5.000	3.61	1094.026	2597.653	5.264	4.8	-4.9	NO	0.999	NO	MM
6	6 200702P1-10	Standard	10.000	3.61	2246.580	2666.003	10.533	9.5	-5.0	NO	0.999	NO	MM
7	7 200702P1-11	Standard	50.000	3.61	11519.917	2580.123	55.811	50.0	-0.0	NO	0.999	NO	MM
8	8 200702P1-12	Standard	100.000	3.61	22330.164	2320.399	120.293	106.6	6.6	NO	0.999	NO	MM
9	9 200702P1-13	Standard	250.000	3.61	50970.266	2283.642	278.997	241.5	-3.4	NO	0.999	NO	MM
10	10 200702P1-14	Standard	500.000	3.61	96493.023	1985.929	607.354	502.8	0.6	NO	0.999	NO	MM

Compound name: 6:2 FTS

Coefficient of Determination: $R^2 = 0.999671$

Calibration curve: $-0.000273511 * x^2 + 1.18647 * x + -0.104492$

Response type: Internal Std (Ref 63), 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 200702P1-5	Standard	0.250	3.91	20.814	1311.615	0.198	0.3	2.1	NO	1.000	NO	MM
2	2 200702P1-6	Standard	0.500	3.91	45.829	1333.718	0.430	0.5	-10.0	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	3.91	109.458	1371.213	0.998	0.9	-7.1	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	3.91	215.826	1417.395	1.903	1.7	-15.4	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	3.91	629.172	1465.205	5.368	4.6	-7.7	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	3.91	1371.870	1444.089	11.875	10.1	1.2	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	3.91	6577.497	1361.446	60.391	51.6	3.2	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	3.91	12618.640	1396.882	112.918	97.4	-2.6	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	3.91	30099.609	1332.683	282.322	252.8	1.1	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	3.91	55202.246	1317.603	523.700	498.8	-0.2	NO	1.000	NO	bb

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Compound name: L-PFOA

Coefficient of Determination: $R^2 = 0.999938$

Calibration curve: $-3.93462e-005 * x^2 + 1.10119 * x + 0.0278768$

Response type: Internal Std (Ref 69), 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 200702P1-5	Standard	0.250	3.97	280.965	12329.649	0.285	0.2	-6.7	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	3.97	627.330	12535.274	0.626	0.5	8.6	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	3.97	1081.227	12560.201	1.076	1.0	-4.8	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	3.97	2300.290	12139.761	2.369	2.1	6.3	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	3.97	6138.614	13308.298	5.766	5.2	4.2	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	3.97	11851.680	13164.444	11.253	10.2	2.0	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	3.97	55784.582	12514.941	55.718	50.7	1.3	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	3.97	106574.797	12163.877	109.520	99.8	-0.2	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	3.97	251904.047	11627.205	270.813	248.1	-0.8	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	3.97	458464.875	10577.741	541.780	500.9	0.2	NO	1.000	NO	bb

Compound name: PFecHS

Coefficient of Determination: $R^2 = 0.999895$

Calibration curve: $1.15737e-005 * x^2 + 0.232701 * x + -0.0157983$

Response type: Internal Std (Ref 69), 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 200702P1-5	Standard	0.250	3.99	36.512	12329.649	0.037	0.2	-9.2	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	3.99	90.427	12535.274	0.090	0.5	-8.9	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	3.99	199.330	12560.201	0.198	0.9	-8.0	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	3.99	440.466	12139.761	0.454	2.0	0.8	NO	1.000	NO	MM
5	5 200702P1-9	Standard	5.000	3.99	1184.025	13308.298	1.112	4.8	-3.1	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	3.98	2439.282	13164.444	2.316	10.0	0.2	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	3.99	11654.814	12514.941	11.641	50.0	-0.1	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	3.99	23175.588	12163.877	23.816	101.9	1.9	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	3.99	54235.449	11627.205	58.307	247.6	-1.0	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	3.99	101062.234	10577.741	119.428	500.8	0.2	NO	1.000	NO	bb

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Compound name: PFHpS

Coefficient of Determination: $R^2 = 0.999602$

Calibration curve: $-3.58386e-005 * x^2 + 0.979909 * x + 0.0428201$

Response type: Internal Std (Ref 71), 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 200702P1-5	Standard	0.250	4.09	54.997	2480.130	0.277	0.2	-4.3	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	4.09	86.479	2551.917	0.424	0.4	-22.3	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	4.09	227.141	2519.159	1.127	1.1	10.7	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	4.09	431.441	2448.894	2.202	2.2	10.2	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	4.09	1000.026	2547.099	4.908	5.0	-0.7	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	4.09	2087.689	2426.451	10.755	10.9	9.4	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	4.09	10046.803	2584.938	48.583	49.6	-0.7	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	4.09	19111.869	2536.644	94.179	96.4	-3.6	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	4.09	46636.816	2360.779	246.936	254.3	1.7	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	4.09	83614.227	2178.921	479.677	498.6	-0.3	NO	1.000	NO	bb

Compound name: 7:3 FTCA

Coefficient of Determination: $R^2 = 0.999222$

Calibration curve: $-0.000255819 * x^2 + 0.237335 * x + -0.0326409$

Response type: Internal Std (Ref 65), 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 200702P1-5	Standard	0.250	4.41	35.062	12301.966	0.036	0.3	15.1	NO	0.999	NO	bb
2	2 200702P1-6	Standard	0.500	4.41	70.083	12540.737	0.070	0.4	-13.6	NO	0.999	NO	bb
3	3 200702P1-7	Standard	1.000	4.41	245.256	12808.300	0.239	1.1	14.7	NO	0.999	NO	bb
4	4 200702P1-8	Standard	2.000	4.41	400.877	12805.405	0.391	1.8	-10.5	NO	0.999	NO	bb
5	5 200702P1-9	Standard	5.000	4.41	1149.558	13165.917	1.091	4.8	-4.8	NO	0.999	NO	bb
6	6 200702P1-10	Standard	10.000	4.41	2423.751	13464.953	2.250	9.7	-2.8	NO	0.999	NO	bb
7	7 200702P1-11	Standard	50.000	4.41	11863.299	12938.838	11.461	51.3	2.5	NO	0.999	NO	bb
8	8 200702P1-12	Standard	100.000	4.41	20286.664	12064.223	21.019	99.3	-0.7	NO	0.999	NO	bb
9	9 200702P1-13	Standard	250.000	4.40	12189.085	12441.547	12.246	55.0	-78.0	YES	0.999	NO	bbX
10	10 200702P1-14	Standard	500.000	4.41	20218.650	11615.201	21.759	103.3	-79.3	YES	0.999	NO	bbX

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Compound name: PFNA

Coefficient of Determination: $R^2 = 0.999813$

Calibration curve: $-0.000140725 * x^2 + 1.17399 * x + 0.00493901$

Response type: Internal Std (Ref 65), 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 200702P1-5	Standard	0.250	4.42	292.127	12301.966	0.297	0.2	-0.5	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	4.43	616.910	12540.737	0.615	0.5	3.9	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	4.42	1192.156	12808.300	1.163	1.0	-1.3	NO	1.000	NO	MM
4	4 200702P1-8	Standard	2.000	4.42	2471.342	12805.405	2.412	2.1	2.6	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	4.42	6156.589	13165.917	5.845	5.0	-0.4	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	4.43	11951.798	13464.953	11.095	9.5	-5.4	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	4.42	60021.680	12938.838	57.986	49.7	-0.6	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	4.42	115214.031	12064.223	119.376	103.0	3.0	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	4.43	279811.219	12441.547	281.126	246.8	-1.3	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	4.42	513840.094	11615.201	552.982	501.1	0.2	NO	1.000	NO	bb

Compound name: PFOSA

Coefficient of Determination: $R^2 = 0.999513$

Calibration curve: $4.6124e-005 * x^2 + 0.677464 * x + 0.0146391$

Response type: Internal Std (Ref 67), 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 200702P1-5	Standard	0.250	4.47	57.281	4867.112	0.147	0.2	-21.8	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	4.47	132.525	4985.360	0.332	0.5	-6.2	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	4.48	277.755	4291.534	0.809	1.2	17.2	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	4.47	590.490	4865.125	1.517	2.2	10.9	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	4.48	1422.915	5170.183	3.440	5.1	1.1	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	4.48	2799.465	4975.293	7.033	10.4	3.5	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	4.48	14274.499	4920.080	36.266	53.3	6.6	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	4.48	26030.223	4818.193	67.531	99.0	-1.0	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	4.47	65118.063	4835.242	168.342	244.4	-2.2	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	4.48	121729.688	4321.019	352.144	502.6	0.5	NO	1.000	NO	bb

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Compound name: L-PFOS

Coefficient of Determination: $R^2 = 0.999886$

Calibration curve: $3.5975e-005 * x^2 + 1.23386 * x + 0.0340096$

Response type: Internal Std (Ref 71), 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 200702P1-5	Standard	0.250	4.52	84.392	2480.130	0.425	0.3	26.9	NO	1.000	NO	MM
2	2 200702P1-6	Standard	0.500	4.52	117.663	2551.917	0.576	0.4	-12.1	NO	1.000	NO	MM
3	3 200702P1-7	Standard	1.000	4.52	237.862	2519.159	1.180	0.9	-7.1	NO	1.000	NO	MM
4	4 200702P1-8	Standard	2.000	4.52	480.376	2448.894	2.452	2.0	-2.0	NO	1.000	NO	MM
5	5 200702P1-9	Standard	5.000	4.52	1304.124	2547.099	6.400	5.2	3.2	NO	1.000	NO	MM
6	6 200702P1-10	Standard	10.000	4.52	2483.343	2426.451	12.793	10.3	3.4	NO	1.000	NO	MM
7	7 200702P1-11	Standard	50.000	4.52	12772.928	2584.938	61.766	50.0	-0.1	NO	1.000	NO	MM
8	8 200702P1-12	Standard	100.000	4.52	24658.490	2536.644	121.511	98.2	-1.8	NO	1.000	NO	MM
9	9 200702P1-13	Standard	250.000	4.52	59212.477	2360.779	313.522	252.2	0.9	NO	1.000	NO	MM
10	10 200702P1-14	Standard	500.000	4.52	108949.586	2178.921	625.020	499.3	-0.1	NO	1.000	NO	MM

Compound name: 9CI-PF30NS

Coefficient of Determination: $R^2 = 0.998846$

Calibration curve: $8.6379e-005 * x^2 + 2.62727 * x + 0.0969333$

Response type: Internal Std (Ref 71), 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 200702P1-5	Standard	0.250	4.75	121.361	2480.130	0.612	0.2	-21.6	NO	0.999	NO	bb
2	2 200702P1-6	Standard	0.500	4.74	308.720	2551.917	1.512	0.5	7.7	NO	0.999	NO	bb
3	3 200702P1-7	Standard	1.000	4.74	509.863	2519.159	2.530	0.9	-7.4	NO	0.999	NO	bb
4	4 200702P1-8	Standard	2.000	4.74	1129.376	2448.894	5.765	2.2	7.9	NO	0.999	NO	bb
5	5 200702P1-9	Standard	5.000	4.74	2802.287	2547.099	13.752	5.2	3.9	NO	0.999	NO	bb
6	6 200702P1-10	Standard	10.000	4.74	5643.949	2426.451	29.075	11.0	10.3	NO	0.999	NO	bb
7	7 200702P1-11	Standard	50.000	4.74	28695.035	2584.938	138.761	52.7	5.4	NO	0.999	NO	bb
8	8 200702P1-12	Standard	100.000	4.74	49201.035	2536.644	242.451	92.0	-8.0	NO	0.999	NO	bb
9	9 200702P1-13	Standard	250.000	4.75	127836.211	2360.779	676.875	255.5	2.2	NO	0.999	NO	bb
10	10 200702P1-14	Standard	500.000	4.74	232102.578	2178.921	1331.522	498.6	-0.3	NO	0.999	NO	bb

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Compound name: PFDA

Coefficient of Determination: $R^2 = 0.999257$

Calibration curve: $2.47531e-005 * x^2 + 0.848561 * x + 0.0312289$

Response type: Internal Std (Ref 73), 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 200702P1-5	Standard	0.250	4.82	266.026	14854.023	0.224	0.2	-9.2	NO	0.999	NO	bb
2	2 200702P1-6	Standard	0.500	4.82	514.932	15231.689	0.423	0.5	-7.8	NO	0.999	NO	bb
3	3 200702P1-7	Standard	1.000	4.81	1207.249	15728.700	0.959	1.1	9.4	NO	0.999	NO	MM
4	4 200702P1-8	Standard	2.000	4.82	2313.551	15055.020	1.921	2.2	11.3	NO	0.999	NO	bb
5	5 200702P1-9	Standard	5.000	4.81	5793.629	16027.048	4.519	5.3	5.7	NO	0.999	NO	bb
6	6 200702P1-10	Standard	10.000	4.81	11365.162	16255.542	8.739	10.3	2.6	NO	0.999	NO	bb
7	7 200702P1-11	Standard	50.000	4.81	56288.355	16326.215	43.097	50.7	1.4	NO	0.999	NO	bb
8	8 200702P1-12	Standard	100.000	4.81	103451.359	14551.123	88.869	104.4	4.4	NO	0.999	NO	bb
9	9 200702P1-13	Standard	250.000	4.82	258545.266	15737.605	205.356	240.3	-3.9	NO	0.999	NO	bb
10	10 200702P1-14	Standard	500.000	4.81	500080.906	14407.598	433.869	503.9	0.8	NO	0.999	NO	bb

Compound name: 8:2 FTS

Coefficient of Determination: $R^2 = 0.998405$

Calibration curve: $-0.00193895 * x^2 + 1.32842 * x + -0.220956$

Response type: Internal Std (Ref 75), 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 200702P1-5	Standard	0.250	4.78	32.983	1322.680	0.312	0.4	60.5	YES	0.998	NO	bbX
2	2 200702P1-6	Standard	0.500	4.78	37.273	1464.972	0.318	0.4	-18.8	NO	0.998	NO	bb
3	3 200702P1-7	Standard	1.000	4.78	104.194	1275.569	1.021	0.9	-6.4	NO	0.998	NO	bb
4	4 200702P1-8	Standard	2.000	4.78	305.806	1360.712	2.809	2.3	14.4	NO	0.998	NO	bb
5	5 200702P1-9	Standard	5.000	4.78	830.210	1455.844	7.128	5.6	11.6	NO	0.998	NO	bb
6	6 200702P1-10	Standard	10.000	4.78	1365.565	1299.430	13.136	10.2	2.1	NO	0.998	NO	bb
7	7 200702P1-11	Standard	50.000	4.78	6473.661	1369.095	59.105	48.0	-3.9	NO	0.998	NO	bb
8	8 200702P1-12	Standard	100.000	4.78	12828.933	1403.177	114.285	101.1	1.1	NO	0.998	NO	bb
9	9 200702P1-13	Standard	250.000	4.78	29556.479	1382.002	267.334			NO	0.998	NO	bbXI
10	10 200702P1-14	Standard	500.000	4.78	53792.895	1353.063	496.955			NO	0.998	NO	bbXI

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Compound name: PFNS

Coefficient of Determination: $R^2 = 0.999850$

Calibration curve: $-0.000105071 \cdot x^2 + 1.28256 \cdot x + -0.0333192$

Response type: Internal Std (Ref 71), 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 200702P1-5	Standard	0.250	4.89	48.201	2480.130	0.243	0.2	-13.8	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	4.88	105.997	2551.917	0.519	0.4	-13.8	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	4.88	249.935	2519.159	1.240	1.0	-0.7	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	4.88	558.277	2448.894	2.850	2.2	12.4	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	4.88	1284.082	2547.099	6.302	4.9	-1.2	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	4.88	2687.705	2426.451	13.846	10.8	8.3	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	4.88	13089.824	2584.938	63.299	49.6	-0.8	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	4.88	25584.213	2536.644	126.073	99.1	-0.9	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	4.88	59391.473	2360.779	314.470	250.4	0.1	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	4.88	107205.266	2178.921	615.013	500.0	0.0	NO	1.000	NO	bb

Compound name: L-MeFOSAA

Coefficient of Determination: $R^2 = 0.998742$

Calibration curve: $-0.000285889 \cdot x^2 + 1.19955 \cdot x + -0.0857179$

Response type: Internal Std (Ref 77), 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 200702P1-5	Standard	0.250	4.98	41.561	3686.197	0.141	0.2	-24.4	NO	0.999	NO	bb
2	2 200702P1-6	Standard	0.500	4.97	182.857	3820.252	0.598	0.6	14.1	NO	0.999	NO	MM
3	3 200702P1-7	Standard	1.000	4.97	286.413	3850.589	0.930	0.8	-15.3	NO	0.999	NO	MM
4	4 200702P1-8	Standard	2.000	4.97	608.240	3589.550	2.118	1.8	-8.1	NO	0.999	NO	MM
5	5 200702P1-9	Standard	5.000	4.97	1719.285	3771.321	5.699	4.8	-3.4	NO	0.999	NO	MM
6	6 200702P1-10	Standard	10.000	4.97	3759.830	3897.192	12.059	10.1	1.5	NO	0.999	NO	MM
7	7 200702P1-11	Standard	50.000	4.97	19873.770	3757.060	66.121	55.9	11.9	NO	0.999	NO	MM
8	8 200702P1-12	Standard	100.000	4.97	36788.945	4050.937	113.520	96.9	-3.1	NO	0.999	NO	MM
9	9 200702P1-13	Standard	250.000	4.97	89297.820	4047.100	275.808	244.2	-2.3	NO	0.999	NO	MM
10	10 200702P1-14	Standard	500.000	4.97	164702.156	3875.115	531.282	503.4	0.7	NO	0.999	NO	MM

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:40:21 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 02 Jul 2020 12:54:07

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Compound name: L-EtFOSAA

Coefficient of Determination: $R^2 = 0.999690$

Calibration curve: $1.7982e-005 * x^2 + 1.39996 * x + -0.120599$

Response type: Internal Std (Ref 81), 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	200702P1-5	Standard	0.250	5.13	82.012	4030.376	0.254	0.3	7.1	NO	1.000	NO	bb
2	2	200702P1-6	Standard	0.500	5.14	170.160	3721.132	0.572	0.5	-1.1	NO	1.000	NO	MM
3	3	200702P1-7	Standard	1.000	5.14	407.900	3726.672	1.368	1.1	6.3	NO	1.000	NO	MM
4	4	200702P1-8	Standard	2.000	5.14	672.059	3998.420	2.101	1.6	-20.7	NO	1.000	NO	MM
5	5	200702P1-9	Standard	5.000	5.14	2267.070	4123.852	6.872	5.0	-0.1	NO	1.000	NO	MM
6	6	200702P1-10	Standard	10.000	5.14	4762.193	4054.301	14.683	10.6	5.7	NO	1.000	NO	MM
7	7	200702P1-11	Standard	50.000	5.14	22046.418	3763.180	73.231	52.4	4.7	NO	1.000	NO	MM
8	8	200702P1-12	Standard	100.000	5.14	42086.949	3803.238	138.326	98.8	-1.2	NO	1.000	NO	MM
9	9	200702P1-13	Standard	250.000	5.13	102430.641	3687.877	347.187	247.3	-1.1	NO	1.000	NO	MM
10	10	200702P1-14	Standard	500.000	5.13	177807.531	3147.009	706.256	501.3	0.3	NO	1.000	NO	MM

Compound name: PFUdA

Coefficient of Determination: $R^2 = 0.999938$

Calibration curve: $-0.000198645 * x^2 + 1.11438 * x + 0.0140951$

Response type: Internal Std (Ref 79), 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	200702P1-5	Standard	0.250	5.15	366.040	14491.323	0.316	0.3	8.3	NO	1.000	NO	bb
2	2	200702P1-6	Standard	0.500	5.15	625.747	15141.629	0.517	0.5	-9.8	NO	1.000	NO	bb
3	3	200702P1-7	Standard	1.000	5.15	1349.835	14971.531	1.127	1.0	-0.1	NO	1.000	NO	bb
4	4	200702P1-8	Standard	2.000	5.15	2818.033	15207.655	2.316	2.1	3.3	NO	1.000	NO	bb
5	5	200702P1-9	Standard	5.000	5.15	6834.365	14811.668	5.768	5.2	3.4	NO	1.000	NO	bb
6	6	200702P1-10	Standard	10.000	5.15	13976.324	16630.744	10.505	9.4	-5.7	NO	1.000	NO	bd
7	7	200702P1-11	Standard	50.000	5.15	64538.637	14509.589	55.600	50.3	0.7	NO	1.000	NO	bb
8	8	200702P1-12	Standard	100.000	5.15	129426.852	14791.147	109.379	99.9	-0.1	NO	1.000	NO	bb
9	9	200702P1-13	Standard	250.000	5.15	314222.063	14740.115	266.468	250.3	0.1	NO	1.000	NO	bb
10	10	200702P1-14	Standard	500.000	5.15	567908.375	13990.702	507.398	499.8	-0.0	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Compound name: PFDS

Coefficient of Determination: $R^2 = 0.999461$

Calibration curve: $2.5461e-005 * x^2 + 1.17145 * x + 0.0177344$

Response type: Internal Std (Ref 71), 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 200702P1-5	Standard	0.250	5.20	49.992	2480.130	0.252	0.2	-20.0	NO	0.999	NO	bb
2	2 200702P1-6	Standard	0.500	5.20	115.768	2551.917	0.567	0.5	-6.2	NO	0.999	NO	bb
3	3 200702P1-7	Standard	1.000	5.20	251.422	2519.159	1.248	1.0	5.0	NO	0.999	NO	bb
4	4 200702P1-8	Standard	2.000	5.20	453.369	2448.894	2.314	2.0	-2.0	NO	0.999	NO	bb
5	5 200702P1-9	Standard	5.000	5.21	1448.109	2547.099	7.107	6.1	21.0	NO	0.999	NO	bb
6	6 200702P1-10	Standard	10.000	5.20	2537.217	2426.451	13.071	11.1	11.4	NO	0.999	NO	bb
7	7 200702P1-11	Standard	50.000	5.20	12096.530	2584.938	58.495	49.9	-0.3	NO	0.999	NO	bb
8	8 200702P1-12	Standard	100.000	5.20	23001.986	2536.644	113.349	96.5	-3.5	NO	0.999	NO	bb
9	9 200702P1-13	Standard	250.000	5.20	55974.500	2360.779	296.377	251.6	0.6	NO	0.999	NO	bb
10	10 200702P1-14	Standard	500.000	5.20	103184.148	2178.921	591.945	499.9	-0.0	NO	0.999	NO	bb

Compound name: 11CI-PF30UdS

Coefficient of Determination: $R^2 = 0.999732$

Calibration curve: $-8.65994e-005 * x^2 + 0.32617 * x + -0.0032153$

Response type: Internal Std (Ref 83), 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 200702P1-5	Standard	0.250	5.37	95.069	16737.822	0.071	0.2	-9.0	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	5.37	206.728	16781.822	0.154	0.5	-3.6	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	5.37	465.692	14694.078	0.396	1.2	22.5	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	5.37	881.701	17586.570	0.627	1.9	-3.4	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	5.37	2242.230	18860.330	1.486	4.6	-8.6	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	5.37	4626.342	17798.387	3.249	10.0	-0.0	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	5.37	22296.775	17728.797	15.721	48.8	-2.3	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	5.37	42893.063	17049.199	31.448	99.0	-1.0	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	5.37	101419.680	16364.281	77.470	254.8	1.9	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	5.37	185271.109	16441.281	140.858	497.6	-0.5	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Compound name: 10:2 FTS

Coefficient of Determination: $R^2 = 0.996200$

Calibration curve: $-0.00128296 * x^2 + 2.20336 * x + -0.226422$

Response type: Internal Std (Ref 85), 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 200702P1-5	Standard	0.250	5.44	26.020	1010.538	0.322	0.2	-0.5	NO	0.996	NO	bb
2	2 200702P1-6	Standard	0.500	5.43	48.963	1076.557	0.569	0.4	-27.8	NO	0.996	NO	bb
3	3 200702P1-7	Standard	1.000	5.42	141.008	1230.054	1.433	0.8	-24.7	NO	0.996	NO	bb
4	4 200702P1-8	Standard	2.000	5.43	303.005	1043.343	3.630	1.8	-12.4	NO	0.996	NO	bb
5	5 200702P1-9	Standard	5.000	5.43	1002.078	923.245	13.567	6.3	25.7	NO	0.996	NO	bb
6	6 200702P1-10	Standard	10.000	5.43	1833.034	1183.740	19.356	8.9	-10.7	NO	0.996	NO	bb
7	7 200702P1-11	Standard	50.000	5.42	7877.792	840.603	117.145	55.0	10.1	NO	0.996	NO	bb
8	8 200702P1-12	Standard	100.000	5.42	15406.611	886.818	217.161	105.1	5.1	NO	0.996	NO	bb
9	9 200702P1-13	Standard	250.000	5.43	32707.004	934.152	437.656	229.4	-8.3	NO	0.996	NO	bb
10	10 200702P1-14	Standard	500.000	5.42	55449.691	872.832	794.106	514.9	3.0	NO	0.996	NO	bb

Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.999865$

Calibration curve: $-0.000218597 * x^2 + 0.982731 * x + 0.0479972$

Response type: Internal Std (Ref 83), 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 200702P1-5	Standard	0.250	5.44	399.974	16737.822	0.299	0.3	2.1	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	5.44	764.839	16781.822	0.570	0.5	6.2	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	5.44	1348.387	14694.078	1.147	1.1	11.9	NO	1.000	NO	bd
4	4 200702P1-8	Standard	2.000	5.44	2777.983	17586.570	1.975	2.0	-1.9	NO	1.000	NO	MM
5	5 200702P1-9	Standard	5.000	5.44	7339.962	18860.330	4.865	4.9	-1.9	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	5.44	14364.518	17798.387	10.088	10.2	2.4	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	5.44	69253.563	17728.797	48.828	50.2	0.4	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	5.44	133155.656	17049.199	97.626	101.6	1.6	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	5.44	299575.438	16364.281	228.833	246.3	-1.5	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	5.44	576182.000	16441.281	438.060	501.7	0.3	NO	1.000	NO	bb

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Compound name: N-MeFOSA

Coefficient of Determination: $R^2 = 0.998946$

Calibration curve: $-7.7036e-005 * x^2 + 1.03774 * x + 0.134012$

Response type: Internal Std (Ref 87), 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 200702P1-5	Standard	1.250	5.52	147.513	16452.186	1.338	1.2	-7.2	NO	0.999	NO	bb
2	2 200702P1-6	Standard	2.500	5.52	284.425	16757.473	2.532	2.3	-7.5	NO	0.999	NO	bb
3	3 200702P1-7	Standard	5.000	5.52	636.656	17093.406	5.557	5.2	4.6	NO	0.999	NO	bb
4	4 200702P1-8	Standard	10.000	5.52	1254.278	17544.254	10.667	10.2	1.6	NO	0.999	NO	bb
5	5 200702P1-9	Standard	25.000	5.52	3384.312	17603.686	28.684	27.6	10.3	NO	0.999	NO	bb
6	6 200702P1-10	Standard	50.000	5.52	6763.700	18735.934	53.861	52.0	3.9	NO	0.999	NO	bb
7	7 200702P1-11	Standard	250.000	5.52	33424.246	18346.885	271.812	267.1	6.8	NO	0.999	NO	bb
8	8 200702P1-12	Standard	500.000	5.52	61926.367	18249.184	506.292	506.8	1.4	NO	0.999	NO	bb
9	9 200702P1-13	Standard	1250.000	5.52	146216.078	19368.906	1126.312	1190.4	-4.8	NO	0.999	NO	bb
10	10 200702P1-14	Standard	2500.000	5.52	264259.375	18465.037	2135.252	2534.2	1.4	NO	0.999	NO	bb

Compound name: PFTrDA

Coefficient of Determination: $R^2 = 0.999177$

Calibration curve: $-0.000383496 * x^2 + 1.06613 * x + 0.0321406$

Response type: Internal Std (Ref 83), 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 200702P1-5	Standard	0.250	5.70	368.439	16737.822	0.275	0.2	-8.8	NO	0.999	NO	MM
2	2 200702P1-6	Standard	0.500	5.69	762.093	16781.822	0.568	0.5	0.5	NO	0.999	NO	bb
3	3 200702P1-7	Standard	1.000	5.69	1538.958	14694.078	1.309	1.2	19.8	NO	0.999	NO	bb
4	4 200702P1-8	Standard	2.000	5.70	3017.269	17586.570	2.145	2.0	-0.9	NO	0.999	NO	MM
5	5 200702P1-9	Standard	5.000	5.70	7655.603	18860.330	5.074	4.7	-5.3	NO	0.999	NO	bb
6	6 200702P1-10	Standard	10.000	5.69	14831.848	17798.387	10.417	9.8	-2.3	NO	0.999	NO	bb
7	7 200702P1-11	Standard	50.000	5.69	72788.922	17728.797	51.321	49.0	-2.1	NO	0.999	NO	bb
8	8 200702P1-12	Standard	100.000	5.70	134458.828	17049.199	98.581	95.7	-4.3	NO	0.999	NO	bb
9	9 200702P1-13	Standard	250.000	5.70	329833.813	16364.281	251.946	260.7	4.3	NO	0.999	NO	bb
10	10 200702P1-14	Standard	500.000	5.69	570194.938	16441.281	433.509	494.6	-1.1	NO	0.999	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Compound name: PFDoS

Coefficient of Determination: $R^2 = 0.999364$

Calibration curve: $-4.17318e-005 * x^2 + 0.206225 * x + -0.0128103$

Response type: Internal Std (Ref 89), 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 200702P1-5	Standard	0.250	5.73	61.748	18053.002	0.043	0.3	7.8	NO	0.999	NO	bb
2	2 200702P1-6	Standard	0.500	5.72	133.226	18462.633	0.090	0.5	-0.1	NO	0.999	NO	bb
3	3 200702P1-7	Standard	1.000	5.72	271.432	17815.732	0.190	1.0	-1.4	NO	0.999	NO	bb
4	4 200702P1-8	Standard	2.000	5.72	615.391	18557.340	0.415	2.1	3.7	NO	0.999	NO	bb
5	5 200702P1-9	Standard	5.000	5.72	1486.831	19264.434	0.965	4.7	-5.1	NO	0.999	NO	bb
6	6 200702P1-10	Standard	10.000	5.72	2870.913	18790.314	1.910	9.3	-6.6	NO	0.999	NO	bb
7	7 200702P1-11	Standard	50.000	5.72	15127.315	18912.672	9.998	49.0	-1.9	NO	0.999	NO	bb
8	8 200702P1-12	Standard	100.000	5.72	28810.320	16894.199	21.317	105.7	5.7	NO	0.999	NO	bb
9	9 200702P1-13	Standard	250.000	5.73	67131.781	17545.596	47.827	244.0	-2.4	NO	0.999	NO	bb
10	10 200702P1-14	Standard	500.000	5.72	123181.711	16553.271	93.019	502.1	0.4	NO	0.999	NO	bb

Compound name: PFTeDA

Correlation coefficient: $r = 0.998980$, $r^2 = 0.997962$

Calibration curve: $0.665506 * x + 0.0408871$

Response type: Internal Std (Ref 89), 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 200702P1-5	Standard	0.250	5.92	255.369	18053.002	0.177	0.2	-18.3	NO	0.998	NO	bd
2	2 200702P1-6	Standard	0.500	5.92	508.655	18462.633	0.344	0.5	-8.8	NO	0.998	NO	MM
3	3 200702P1-7	Standard	1.000	5.92	968.963	17815.732	0.680	1.0	-4.0	NO	0.998	NO	bb
4	4 200702P1-8	Standard	2.000	5.92	2131.503	18557.340	1.436	2.1	4.8	NO	0.998	NO	bb
5	5 200702P1-9	Standard	5.000	5.92	5508.173	19264.434	3.574	5.3	6.2	NO	0.998	NO	bb
6	6 200702P1-10	Standard	10.000	5.92	10860.673	18790.314	7.225	10.8	7.9	NO	0.998	NO	bb
7	7 200702P1-11	Standard	50.000	5.92	52280.891	18912.672	34.554	51.9	3.7	NO	0.998	NO	bb
8	8 200702P1-12	Standard	100.000	5.92	99521.836	16894.199	73.636	110.6	10.6	NO	0.998	NO	db
9	9 200702P1-13	Standard	250.000	5.92	236165.469	17545.596	168.251	252.8	1.1	NO	0.998	NO	db
10	10 200702P1-14	Standard	500.000	5.92	426365.781	16553.271	321.965	483.7	-3.3	NO	0.998	NO	db

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Compound name: N-EtFOSA

Coefficient of Determination: $R^2 = 0.999209$

Calibration curve: $-6.43157e-005 * x^2 + 1.15747 * x + 0.808012$

Response type: Internal Std (Ref 91), 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 200702P1-5	Standard	1.250	5.99	142.685	19568.424	1.088	0.2	-80.7	YES	0.999	NO	bbX
2	2 200702P1-6	Standard	2.500	5.99	404.159	20010.246	3.013	1.9	-23.8	NO	0.999	NO	bb
3	3 200702P1-7	Standard	5.000	5.99	903.766	20688.182	6.518	4.9	-1.3	NO	0.999	NO	bb
4	4 200702P1-8	Standard	10.000	5.99	1751.202	20595.813	12.686	10.3	2.7	NO	0.999	NO	bd
5	5 200702P1-9	Standard	25.000	5.99	4673.242	21022.094	33.167	28.0	12.0	NO	0.999	NO	bb
6	6 200702P1-10	Standard	50.000	5.99	9103.491	21617.264	62.831	53.7	7.5	NO	0.999	NO	bb
7	7 200702P1-11	Standard	250.000	5.99	43208.172	21574.475	298.810	261.3	4.5	NO	0.999	NO	bb
8	8 200702P1-12	Standard	500.000	5.99	81509.625	21313.262	570.595	506.5	1.3	NO	0.999	NO	bb
9	9 200702P1-13	Standard	1250.000	5.99	185279.094	21287.793	1298.568	1201.4	-3.9	NO	0.999	NO	bb
10	10 200702P1-14	Standard	2500.000	5.99	324747.406	19273.098	2513.987	2525.7	1.0	NO	0.999	NO	bb

Compound name: PFHxDA

Coefficient of Determination: $R^2 = 0.999875$

Calibration curve: $-0.000258973 * x^2 + 1.06046 * x + 0.145584$

Response type: Internal Std (Ref 93), 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 200702P1-5	Standard	0.250	6.28	693.166	20992.271	0.413	0.3	0.8	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	6.28	1181.601	21635.174	0.683	0.5	1.3	NO	1.000	NO	bb
3	3 200702P1-7	Standard	1.000	6.28	1992.229	21840.199	1.140	0.9	-6.2	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	6.28	3835.504	20617.766	2.325	2.1	2.8	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	6.28	9937.559	23016.230	5.397	5.0	-0.8	NO	1.000	NO	bb
6	6 200702P1-10	Standard	10.000	6.28	19452.770	22483.883	10.815	10.1	0.9	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	6.28	93558.625	22140.426	52.821	50.3	0.6	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	6.28	177828.281	21063.137	105.533	101.9	1.9	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	6.28	419021.250	21348.121	245.350	246.0	-1.6	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	6.28	753022.813	20152.480	467.078	501.8	0.4	NO	1.000	NO	bb

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: PFODA

Coefficient of Determination: $R^2 = 0.999978$

Calibration curve: $-0.00012309 * x^2 + 0.87337 * x + -0.0158707$

Response type: Internal Std (Ref 93), 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 200702P1-5	Standard	0.250	6.53	338.746	20992.271	0.202	0.2	-0.3	NO	1.000	NO	bb
2	2 200702P1-6	Standard	0.500	6.53	725.440	21635.174	0.419	0.5	-0.4	NO	1.000	NO	MM
3	3 200702P1-7	Standard	1.000	6.53	1444.822	21840.199	0.827	1.0	-3.5	NO	1.000	NO	bb
4	4 200702P1-8	Standard	2.000	6.53	2877.405	20617.766	1.744	2.0	0.8	NO	1.000	NO	bb
5	5 200702P1-9	Standard	5.000	6.53	7797.167	23016.230	4.235	4.9	-2.6	NO	1.000	NO	MM
6	6 200702P1-10	Standard	10.000	6.53	15303.914	22483.883	8.508	9.8	-2.3	NO	1.000	NO	bb
7	7 200702P1-11	Standard	50.000	6.53	77685.109	22140.426	43.859	50.6	1.2	NO	1.000	NO	bb
8	8 200702P1-12	Standard	100.000	6.53	144803.469	21063.137	85.934	99.8	-0.2	NO	1.000	NO	bb
9	9 200702P1-13	Standard	250.000	6.53	359682.469	21348.121	210.605	250.0	-0.0	NO	1.000	NO	bb
10	10 200702P1-14	Standard	500.000	6.53	654383.563	20152.480	405.895	500.0	-0.0	NO	1.000	NO	bb

Compound name: N-MeFOSE

Correlation coefficient: $r = 0.999826$, $r^2 = 0.999652$

Calibration curve: $1.09699 * x + 0.439849$

Response type: Internal Std (Ref 95), 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 200702P1-5	Standard	1.250	6.24	191.148	18043.582	1.581	1.0	-16.8	NO	1.000	NO	bb
2	2 200702P1-6	Standard	2.500	6.24	368.162	18233.039	3.013	2.3	-6.2	NO	1.000	NO	bb
3	3 200702P1-7	Standard	5.000	6.24	808.674	18852.664	6.400	5.4	8.7	NO	1.000	NO	bb
4	4 200702P1-8	Standard	10.000	6.24	1504.629	18864.725	11.900	10.4	4.5	NO	1.000	NO	bb
5	5 200702P1-9	Standard	25.000	6.24	3843.854	19368.873	29.610	26.6	6.4	NO	1.000	NO	bb
6	6 200702P1-10	Standard	50.000	6.24	7560.234	20275.088	55.634	50.3	0.6	NO	1.000	NO	bb
7	7 200702P1-11	Standard	250.000	6.24	38758.359	20324.570	284.520	259.0	3.6	NO	1.000	NO	bb
8	8 200702P1-12	Standard	500.000	6.24	73591.258	19738.721	556.258	506.7	1.3	NO	1.000	NO	bb
9	9 200702P1-13	Standard	1250.000	6.24	180810.016	20199.688	1335.508	1217.0	-2.6	NO	1.000	NO	bb
10	10 200702P1-14	Standard	2500.000	6.24	354569.719	19172.219	2759.295	2514.9	0.6	NO	1.000	NO	bb

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: N-EtFOSE

Correlation coefficient: $r = 0.999835$, $r^2 = 0.999671$

Calibration curve: $1.04763 * x + 0.0654311$

Response type: Internal Std (Ref 97), 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 200702P1-5	Standard	1.250	6.39	146.742	19587.232	1.118	1.0	-19.6	NO	1.000	NO	bb
2	2 200702P1-6	Standard	2.500	6.39	366.287	19722.773	2.771	2.6	3.3	NO	1.000	NO	bb
3	3 200702P1-7	Standard	5.000	6.39	751.094	20100.682	5.575	5.3	5.2	NO	1.000	NO	bb
4	4 200702P1-8	Standard	10.000	6.39	1544.464	20617.043	11.177	10.6	6.1	NO	1.000	NO	bb
5	5 200702P1-9	Standard	25.000	6.39	3935.637	21417.631	27.417	26.1	4.4	NO	1.000	NO	bb
6	6 200702P1-10	Standard	50.000	6.39	7633.191	21712.297	52.453	50.0	0.0	NO	1.000	NO	bb
7	7 200702P1-11	Standard	250.000	6.39	41093.246	22752.107	269.474	257.2	2.9	NO	1.000	NO	bb
8	8 200702P1-12	Standard	500.000	6.39	75977.789	21791.818	520.190	496.5	-0.7	NO	1.000	NO	bb
9	9 200702P1-13	Standard	1250.000	6.39	187385.422	21911.688	1275.936	1217.9	-2.6	NO	1.000	NO	bb
10	10 200702P1-14	Standard	2500.000	6.39	370392.719	20876.609	2647.106	2526.7	1.1	NO	1.000	NO	bb

Compound name: 13C3-PFBA-EIS

Response Factor: 456.595

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x-excluded
1	1 200702P1-5	Standard	12.500	1.12	5072.505		5072.505	11.1	-11.1	NO		NO	MMX
2	2 200702P1-6	Standard	12.500	1.12	5570.738		5570.738	12.2	-2.4	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	1.12	4797.371		4797.371	10.5	-15.9	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	1.12	5776.957		5776.957	12.7	1.2	NO		NO	MMX
5	5 200702P1-9	Standard	12.500	1.12	5930.634		5930.634	13.0	3.9	NO		NO	MMX
6	6 200702P1-10	Standard	12.500	1.12	5707.434		5707.434	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	1.12	5658.292		5658.292	12.4	-0.9	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	1.12	5968.348		5968.348	13.1	4.6	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	1.12	5564.875		5564.875	12.2	-2.5	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	1.12	5924.811		5924.811	13.0	3.8	NO		NO	MMX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C3-PFBA-RSD

Response Factor: 0.854028

RRF SD: 0.0290585, Relative SD: 3.40252

Response type: Internal Std (Ref 99), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	1.12	5065.699	5550.681	11.408	13.4	6.9	NO		NO	MM
2	2 200702P1-6	Standard	12.500	1.12	5570.738	6610.213	10.534	12.3	-1.3	NO		NO	bb
3	3 200702P1-7	Standard	12.500	1.12	4797.371	5759.228	10.412	12.2	-2.5	NO		NO	bb
4	4 200702P1-8	Standard	12.500	1.12	5791.474	6809.013	10.632	12.4	-0.4	NO		NO	MM
5	5 200702P1-9	Standard	12.500	1.12	5914.320	7209.558	10.254	12.0	-3.9	NO		NO	bb
6	6 200702P1-10	Standard	12.500	1.12	5707.434	6773.493	10.533	12.3	-1.3	NO		NO	bb
7	7 200702P1-11	Standard	12.500	1.12	5658.292	6373.761	11.097	13.0	3.9	NO		NO	bb
8	8 200702P1-12	Standard	12.500	1.12	5968.348	6853.579	10.885	12.7	2.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	1.12	5564.875	6752.777	10.301	12.1	-3.5	NO		NO	bb
10	10 200702P1-14	Standard	12.500	1.12	5924.811	6923.691	10.697	12.5	0.2	NO		NO	MM

Compound name: 13C3-PFPeA-EIS

Response Factor: 908.806

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x-excluded
1	1 200702P1-5	Standard	12.500	2.04	10417.169		10417.169	11.5	-8.3	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	2.04	11366.813		11366.813	12.5	0.1	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	2.04	9874.755		9874.755	10.9	-13.1	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	2.04	10805.164		10805.164	11.9	-4.9	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	2.04	11565.721		11565.721	12.7	1.8	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	2.04	11360.080		11360.080	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	2.04	11387.303		11387.303	12.5	0.2	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	2.04	10734.438		10734.438	11.8	-5.5	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	2.04	11459.769		11459.769	12.6	0.9	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	2.04	11096.443		11096.443	12.2	-2.3	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C3-PFPeA-RSD

Response Factor: 0.763647

RRF SD: 0.0371223, Relative SD: 4.86118

Response type: Internal Std (Ref 101), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	2.04	10190.035	13240.614	9.620	12.6	0.8	NO		NO	bb
2	2 200702P1-6	Standard	12.500	2.04	11369.090	14604.624	9.731	12.7	1.9	NO		NO	bb
3	3 200702P1-7	Standard	12.500	2.04	9807.203	14189.281	8.640	11.3	-9.5	NO		NO	MM
4	4 200702P1-8	Standard	12.500	2.04	10805.164	14657.860	9.214	12.1	-3.5	NO		NO	bb
5	5 200702P1-9	Standard	12.500	2.04	11582.065	14896.813	9.719	12.7	1.8	NO		NO	bb
6	6 200702P1-10	Standard	12.500	2.04	11360.080	15118.110	9.393	12.3	-1.6	NO		NO	bb
7	7 200702P1-11	Standard	12.500	2.04	11310.205	14548.909	9.717	12.7	1.8	NO		NO	bb
8	8 200702P1-12	Standard	12.500	2.04	10734.438	14645.063	9.162	12.0	-4.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	2.04	11455.507	14370.095	9.965	13.0	4.4	NO		NO	bb
10	10 200702P1-14	Standard	12.500	2.04	11096.443	13472.588	10.295	13.5	7.9	NO		NO	bb

Compound name: 13C3-PFBS-EIS

Response Factor: 102.513

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	2.32	1233.912		1233.912	12.0	-3.7	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	2.32	1255.359		1255.359	12.2	-2.0	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	2.33	1166.377		1166.377	11.4	-9.0	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	2.32	1226.824		1226.824	12.0	-4.3	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	2.32	1292.855		1292.855	12.6	0.9	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	2.32	1281.407		1281.407	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	2.32	1216.091		1216.091	11.9	-5.1	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	2.32	1247.853		1247.853	12.2	-2.6	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	2.32	1249.883		1249.883	12.2	-2.5	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	2.32	1106.555		1106.555	10.8	-13.6	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C3-PFBS-RSD

Response Factor: 1.28395

RRF SD: 0.09826, Relative SD: 7.65296

Response type: Internal Std (Ref 102), Area * (IS Conc. / 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	200702P1-5	Standard	12.500	2.32	1233.912	809.917	19.044	14.8	18.7	NO		NO	bb
2	2	200702P1-6	Standard	12.500	2.32	1255.359	1018.048	15.414	12.0	-4.0	NO		NO	bb
3	3	200702P1-7	Standard	12.500	2.33	1166.377	934.397	15.603	12.2	-2.8	NO		NO	bb
4	4	200702P1-8	Standard	12.500	2.32	1226.824	976.065	15.711	12.2	-2.1	NO		NO	bb
5	5	200702P1-9	Standard	12.500	2.32	1292.855	1066.818	15.148	11.8	-5.6	NO		NO	bb
6	6	200702P1-10	Standard	12.500	2.32	1281.407	1038.483	15.424	12.0	-3.9	NO		NO	bb
7	7	200702P1-11	Standard	12.500	2.32	1216.091	998.012	15.231	11.9	-5.1	NO		NO	bb
8	8	200702P1-12	Standard	12.500	2.32	1247.853	976.468	15.974	12.4	-0.5	NO		NO	bb
9	9	200702P1-13	Standard	12.500	2.32	1249.883	898.806	17.383	13.5	8.3	NO		NO	bb
10	10	200702P1-14	Standard	12.500	2.32	1106.555	888.907	15.561	12.1	-3.0	NO		NO	bb

Compound name: 13C3-HFPO-DA-EIS

Response Factor: 231.766

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200702P1-5	Standard	12.500	3.06	2590.986		2590.986	11.2	-10.6	NO		NO	bbX
2	2	200702P1-6	Standard	12.500	3.06	2759.343		2759.343	11.9	-4.8	NO		NO	bbX
3	3	200702P1-7	Standard	12.500	3.06	2656.923		2656.923	11.5	-8.3	NO		NO	bbX
4	4	200702P1-8	Standard	12.500	3.06	2803.876		2803.876	12.1	-3.2	NO		NO	bbX
5	5	200702P1-9	Standard	12.500	3.06	2811.698		2811.698	12.1	-2.9	NO		NO	bbX
6	6	200702P1-10	Standard	12.500	3.06	2897.073		2897.073	12.5	0.0	NO		NO	bb
7	7	200702P1-11	Standard	12.500	3.06	2814.491		2814.491	12.1	-2.9	NO		NO	bbX
8	8	200702P1-12	Standard	12.500	3.06	2820.005		2820.005	12.2	-2.7	NO		NO	bbX
9	9	200702P1-13	Standard	12.500	3.06	2978.797		2978.797	12.9	2.8	NO		NO	bbX
10	10	200702P1-14	Standard	12.500	3.06	2721.314		2721.314	11.7	-6.1	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C3-HFPO-DA-RSD

Response Factor: 0.193882

RRF SD: 0.00630151, Relative SD: 3.25018

Response type: Internal Std (Ref 101), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	3.06	2590.986	13240.614	2.446	12.6	0.9	NO		NO	bb
2	2 200702P1-6	Standard	12.500	3.06	2759.343	14604.624	2.362	12.2	-2.6	NO		NO	bb
3	3 200702P1-7	Standard	12.500	3.06	2656.923	14189.281	2.341	12.1	-3.4	NO		NO	bb
4	4 200702P1-8	Standard	12.500	3.06	2803.876	14657.860	2.391	12.3	-1.3	NO		NO	bb
5	5 200702P1-9	Standard	12.500	3.06	2811.698	14896.813	2.359	12.2	-2.6	NO		NO	bb
6	6 200702P1-10	Standard	12.500	3.06	2897.073	15118.110	2.395	12.4	-1.2	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.06	2814.491	14548.909	2.418	12.5	-0.2	NO		NO	bb
8	8 200702P1-12	Standard	12.500	3.06	2820.005	14645.063	2.407	12.4	-0.7	NO		NO	bb
9	9 200702P1-13	Standard	12.500	3.06	2978.797	14370.095	2.591	13.4	6.9	NO		NO	bb
10	10 200702P1-14	Standard	12.500	3.06	2721.314	13472.588	2.525	13.0	4.2	NO		NO	bb

Compound name: 13C2-4:2 FTS-EIS

Response Factor: 103.534

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	2.76	1172.682		1172.682	11.3	-9.4	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	2.76	1135.126		1135.126	11.0	-12.3	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	2.76	1297.483		1297.483	12.5	0.3	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	2.76	1132.135		1132.135	10.9	-12.5	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	2.76	1277.223		1277.223	12.3	-1.3	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	2.76	1294.177		1294.177	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	2.75	1119.741		1119.741	10.8	-13.5	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	2.76	1138.843		1138.843	11.0	-12.0	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	2.76	1163.447		1163.447	11.2	-10.1	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	2.76	1028.810		1028.810	9.9	-20.5	NO		NO	bbX

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Compound name: 13C2-4:2 FTS-RSD

Response Factor: 1.22949

RRF SD: 0.114142, Relative SD: 9.28371

Response type: Internal Std (Ref 102), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	2.76	1172.682	809.917	18.099	14.7	17.8	NO		NO	bb
2	2 200702P1-6	Standard	12.500	2.76	1135.126	1018.048	13.938	11.3	-9.3	NO		NO	bb
3	3 200702P1-7	Standard	12.500	2.76	1297.483	934.397	17.357	14.1	12.9	NO		NO	bb
4	4 200702P1-8	Standard	12.500	2.76	1132.135	976.065	14.499	11.8	-5.7	NO		NO	bb
5	5 200702P1-9	Standard	12.500	2.76	1277.223	1066.818	14.965	12.2	-2.6	NO		NO	bb
6	6 200702P1-10	Standard	12.500	2.76	1294.177	1038.483	15.578	12.7	1.4	NO		NO	bb
7	7 200702P1-11	Standard	12.500	2.75	1119.741	998.012	14.025	11.4	-8.7	NO		NO	bb
8	8 200702P1-12	Standard	12.500	2.76	1138.843	976.468	14.579	11.9	-5.1	NO		NO	bb
9	9 200702P1-13	Standard	12.500	2.76	1163.447	898.806	16.180	13.2	5.3	NO		NO	bb
10	10 200702P1-14	Standard	12.500	2.76	1028.810	888.907	14.467	11.8	-5.9	NO		NO	bb

Compound name: 13C2-PFHxA-EIS

Response Factor: 1081.42

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	2.84	12179.840		12179.840	11.3	-9.9	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	2.84	12394.994		12394.994	11.5	-8.3	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	2.84	12627.369		12627.369	11.7	-6.6	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	2.84	12403.267		12403.267	11.5	-8.2	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	2.84	13452.638		13452.638	12.4	-0.5	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	2.84	13517.747		13517.747	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	2.84	13106.534		13106.534	12.1	-3.0	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	2.84	12698.171		12698.171	11.7	-6.1	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	2.84	13357.420		13357.420	12.4	-1.2	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	2.84	12579.636		12579.636	11.6	-6.9	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C2-PFHxA-RSD

Response Factor: 0.893307

RRF SD: 0.0311175, Relative SD: 3.4834

Response type: Internal Std (Ref 101), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	2.84	12179.840	13240.614	11.499	12.9	3.0	NO		NO	bb
2	2 200702P1-6	Standard	12.500	2.84	12394.994	14604.624	10.609	11.9	-5.0	NO		NO	bb
3	3 200702P1-7	Standard	12.500	2.84	12627.369	14189.281	11.124	12.5	-0.4	NO		NO	bb
4	4 200702P1-8	Standard	12.500	2.84	12403.267	14657.860	10.577	11.8	-5.3	NO		NO	bb
5	5 200702P1-9	Standard	12.500	2.84	13452.638	14896.813	11.288	12.6	1.1	NO		NO	bb
6	6 200702P1-10	Standard	12.500	2.84	13517.747	15118.110	11.177	12.5	0.1	NO		NO	bb
7	7 200702P1-11	Standard	12.500	2.84	13106.534	14548.909	11.261	12.6	0.8	NO		NO	bb
8	8 200702P1-12	Standard	12.500	2.84	12698.171	14645.063	10.838	12.1	-2.9	NO		NO	bb
9	9 200702P1-13	Standard	12.500	2.84	13357.420	14370.095	11.619	13.0	4.1	NO		NO	bb
10	10 200702P1-14	Standard	12.500	2.84	12579.636	13472.588	11.672	13.1	4.5	NO		NO	bb

Compound name: 13C4-PFHpA-EIS

Response Factor: 909.87

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x-excluded
1	1 200702P1-5	Standard	12.500	3.46	10920.187		10920.187	12.0	-4.0	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	3.46	11454.069		11454.069	12.6	0.7	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	3.46	10799.322		10799.322	11.9	-5.0	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	3.46	11264.626		11264.626	12.4	-1.0	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	3.46	11262.744		11262.744	12.4	-1.0	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	3.46	11373.376		11373.376	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.46	11651.368		11651.368	12.8	2.4	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	3.46	10950.841		10950.841	12.0	-3.7	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	3.46	10577.144		10577.144	11.6	-7.0	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	3.46	9959.732		9959.732	10.9	-12.4	NO		NO	bbX

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Compound name: 13C4-PFHpA-RSD

Response Factor: 0.767087

RRF SD: 0.0283816, Relative SD: 3.69992

Response type: Internal Std (Ref 101), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	3.46	10920.187	13240.614	10.309	13.4	7.5	NO		NO	bb
2	2 200702P1-6	Standard	12.500	3.46	11454.069	14604.624	9.803	12.8	2.2	NO		NO	bb
3	3 200702P1-7	Standard	12.500	3.46	10799.322	14189.281	9.514	12.4	-0.8	NO		NO	bb
4	4 200702P1-8	Standard	12.500	3.46	11264.626	14657.860	9.606	12.5	0.2	NO		NO	bb
5	5 200702P1-9	Standard	12.500	3.46	11262.744	14896.813	9.451	12.3	-1.4	NO		NO	bb
6	6 200702P1-10	Standard	12.500	3.46	11373.376	15118.110	9.404	12.3	-1.9	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.46	11651.368	14548.909	10.011	13.1	4.4	NO		NO	bb
8	8 200702P1-12	Standard	12.500	3.46	10950.841	14645.063	9.347	12.2	-2.5	NO		NO	bb
9	9 200702P1-13	Standard	12.500	3.46	10577.144	14370.095	9.201	12.0	-4.0	NO		NO	bb
10	10 200702P1-14	Standard	12.500	3.46	9959.732	13472.588	9.241	12.0	-3.6	NO		NO	bb

Compound name: 13C3-PFHxS-EIS

Response Factor: 213.28

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	3.61	2411.590		2411.590	11.3	-9.5	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	3.61	2387.728		2387.728	11.2	-10.4	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	3.60	2615.099		2615.099	12.3	-1.9	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	3.61	2618.979		2618.979	12.3	-1.8	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	3.61	2597.653		2597.653	12.2	-2.6	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	3.61	2666.003		2666.003	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.61	2580.123		2580.123	12.1	-3.2	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	3.60	2320.399		2320.399	10.9	-13.0	NO		NO	MMX
9	9 200702P1-13	Standard	12.500	3.61	2283.642		2283.642	10.7	-14.3	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	3.61	1985.929		1985.929	9.3	-25.5	NO		NO	bbX

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Compound name: 13C3-PFHxS-RSD

Response Factor: 2.55594

RRF SD: 0.221979, Relative SD: 8.68485

Response type: Internal Std (Ref 102), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	3.61	2411.590	809.917	37.220	14.6	16.5	NO		NO	bb
2	2 200702P1-6	Standard	12.500	3.61	2387.728	1018.048	29.317	11.5	-8.2	NO		NO	bb
3	3 200702P1-7	Standard	12.500	3.60	2615.099	934.397	34.984	13.7	9.5	NO		NO	bb
4	4 200702P1-8	Standard	12.500	3.61	2618.979	976.065	33.540	13.1	5.0	NO		NO	bb
5	5 200702P1-9	Standard	12.500	3.61	2597.653	1066.818	30.437	11.9	-4.7	NO		NO	bb
6	6 200702P1-10	Standard	12.500	3.61	2666.003	1038.483	32.090	12.6	0.4	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.61	2580.123	998.012	32.316	12.6	1.1	NO		NO	bb
8	8 200702P1-12	Standard	12.500	3.60	2335.884	976.468	29.902	11.7	-6.4	NO		NO	bd
9	9 200702P1-13	Standard	12.500	3.61	2283.642	898.806	31.759	12.4	-0.6	NO		NO	bb
10	10 200702P1-14	Standard	12.500	3.61	1985.929	888.907	27.927	10.9	-12.6	NO		NO	bb

Compound name: 13C2-6:2 FTS-EIS

Response Factor: 115.527

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	3.91	1311.615		1311.615	11.4	-9.2	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	3.91	1333.718		1333.718	11.5	-7.6	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	3.91	1371.213		1371.213	11.9	-5.0	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	3.91	1417.395		1417.395	12.3	-1.8	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	3.91	1465.205		1465.205	12.7	1.5	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	3.91	1444.089		1444.089	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.91	1361.446		1361.446	11.8	-5.7	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	3.91	1396.882		1396.882	12.1	-3.3	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	3.91	1332.683		1332.683	11.5	-7.7	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	3.91	1317.603		1317.603	11.4	-8.8	NO		NO	bbX

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Compound name: 13C2-6:2 FTS-RSD

Response Factor: 0.472695

RRF SD: 0.0182898, Relative SD: 3.86926

Response type: Internal Std (Ref 105), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	3.91	1311.615	2602.740	6.299	13.3	6.6	NO		NO	bb
2	2 200702P1-6	Standard	12.500	3.91	1333.718	2805.789	5.942	12.6	0.6	NO		NO	bb
3	3 200702P1-7	Standard	12.500	3.91	1371.213	2966.247	5.778	12.2	-2.2	NO		NO	bb
4	4 200702P1-8	Standard	12.500	3.91	1417.395	2981.622	5.942	12.6	0.6	NO		NO	bb
5	5 200702P1-9	Standard	12.500	3.91	1465.205	3087.089	5.933	12.6	0.4	NO		NO	bb
6	6 200702P1-10	Standard	12.500	3.91	1444.089	2929.356	6.162	13.0	4.3	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.91	1361.446	3078.480	5.528	11.7	-6.4	NO		NO	bb
8	8 200702P1-12	Standard	12.500	3.91	1396.882	3047.948	5.729	12.1	-3.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	3.91	1332.683	2912.405	5.720	12.1	-3.2	NO		NO	bb
10	10 200702P1-14	Standard	12.500	3.91	1317.603	2720.691	6.054	12.8	2.5	NO		NO	bb

Compound name: 13C5-PFNA-EIS

Response Factor: 1077.2

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	4.43	12301.966		12301.966	11.4	-8.6	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	4.43	12540.737		12540.737	11.6	-6.9	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	4.42	12808.300		12808.300	11.9	-4.9	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	4.43	12805.405		12805.405	11.9	-4.9	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	4.43	13165.917		13165.917	12.2	-2.2	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	4.43	13464.953		13464.953	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.43	12938.838		12938.838	12.0	-3.9	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	4.42	12064.223		12064.223	11.2	-10.4	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	4.43	12441.547		12441.547	11.5	-7.6	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	4.42	11615.201		11615.201	10.8	-13.7	NO		NO	bbX

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Compound name: 13C5-PFNA-RSD

Response Factor: 0.944868

RRF SD: 0.042927, Relative SD: 4.54317

Response type: Internal Std (Ref 104), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	4.43	12301.966	12541.430	12.261	13.0	3.8	NO		NO	bb
2	2 200702P1-6	Standard	12.500	4.43	12540.737	13406.767	11.693	12.4	-1.0	NO		NO	bb
3	3 200702P1-7	Standard	12.500	4.42	12808.300	13837.694	11.570	12.2	-2.0	NO		NO	bb
4	4 200702P1-8	Standard	12.500	4.43	12805.405	13742.422	11.648	12.3	-1.4	NO		NO	bb
5	5 200702P1-9	Standard	12.500	4.43	13165.917	14101.859	11.670	12.4	-1.2	NO		NO	bb
6	6 200702P1-10	Standard	12.500	4.43	13464.953	14625.685	11.508	12.2	-2.6	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.43	12938.838	14281.326	11.325	12.0	-4.1	NO		NO	bb
8	8 200702P1-12	Standard	12.500	4.42	12064.223	13428.849	11.230	11.9	-4.9	NO		NO	bb
9	9 200702P1-13	Standard	12.500	4.43	12441.547	12766.684	12.182	12.9	3.1	NO		NO	bb
10	10 200702P1-14	Standard	12.500	4.42	11615.201	11149.511	13.022	13.8	10.3	NO		NO	bb

Compound name: 13C8-PFOSA-EIS

Response Factor: 398.023

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	4.48	4867.112		4867.112	12.2	-2.2	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	4.47	4985.360		4985.360	12.5	0.2	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	4.47	4291.534		4291.534	10.8	-13.7	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	4.47	4865.125		4865.125	12.2	-2.2	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	4.47	5170.183		5170.183	13.0	3.9	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	4.47	4975.293		4975.293	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.47	4920.080		4920.080	12.4	-1.1	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	4.47	4818.193		4818.193	12.1	-3.2	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	4.48	4835.242		4835.242	12.1	-2.8	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	4.47	4321.019		4321.019	10.9	-13.2	NO		NO	bbX

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:40:21 Pacific Daylight Time

Compound name: 13C8-PFOA-RSD

Response Factor: 0.413471

RRF SD: 0.0241597, Relative SD: 5.84314

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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	200702P1-5	Standard	12.500	4.48	4867.112	10631.153	5.723	13.8	10.7	NO		NO	bb
2	2	200702P1-6	Standard	12.500	4.47	4985.360	12078.382	5.159	12.5	-0.2	NO		NO	bb
3	3	200702P1-7	Standard	12.500	4.47	4291.534	11804.438	4.544	11.0	-12.1	NO		NO	bb
4	4	200702P1-8	Standard	12.500	4.47	4865.125	11884.892	5.117	12.4	-1.0	NO		NO	bb
5	5	200702P1-9	Standard	12.500	4.47	5170.183	12329.186	5.242	12.7	1.4	NO		NO	bb
6	6	200702P1-10	Standard	12.500	4.47	4975.293	12608.100	4.933	11.9	-4.6	NO		NO	bb
7	7	200702P1-11	Standard	12.500	4.47	4920.080	11781.391	5.220	12.6	1.0	NO		NO	bb
8	8	200702P1-12	Standard	12.500	4.47	4818.193	11671.311	5.160	12.5	-0.2	NO		NO	bb
9	9	200702P1-13	Standard	12.500	4.48	4835.242	11174.993	5.409	13.1	4.6	NO		NO	bb
10	10	200702P1-14	Standard	12.500	4.47	4321.019	10433.218	5.177	12.5	0.2	NO		NO	bb

Compound name: 13C2-PFOA-EIS

Response Factor: 1053.16

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200702P1-5	Standard	12.500	3.97	12329.649		12329.649	11.7	-6.3	NO		NO	bbX
2	2	200702P1-6	Standard	12.500	3.97	12535.274		12535.274	11.9	-4.8	NO		NO	bbX
3	3	200702P1-7	Standard	12.500	3.97	12560.201		12560.201	11.9	-4.6	NO		NO	bbX
4	4	200702P1-8	Standard	12.500	3.97	12139.761		12139.761	11.5	-7.8	NO		NO	bbX
5	5	200702P1-9	Standard	12.500	3.97	13308.298		13308.298	12.6	1.1	NO		NO	bbX
6	6	200702P1-10	Standard	12.500	3.97	13164.444		13164.444	12.5	0.0	NO		NO	bb
7	7	200702P1-11	Standard	12.500	3.97	12514.941		12514.941	11.9	-4.9	NO		NO	bbX
8	8	200702P1-12	Standard	12.500	3.97	12163.877		12163.877	11.5	-7.6	NO		NO	bbX
9	9	200702P1-13	Standard	12.500	3.97	11627.205		11627.205	11.0	-11.7	NO		NO	bbX
10	10	200702P1-14	Standard	12.500	3.97	10577.741		10577.741	10.0	-19.6	NO		NO	bbX

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:40:21 Pacific Daylight Time

Compound name: 13C2-PFOA-RSD

Response Factor: 1.08806

RRF SD: 0.0277352, Relative SD: 2.54904

Response type: Internal Std (Ref 103), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	3.97	12329.649	10788.852	14.285	13.1	5.0	NO		NO	bb
2	2 200702P1-6	Standard	12.500	3.97	12535.274	11745.127	13.341	12.3	-1.9	NO		NO	bb
3	3 200702P1-7	Standard	12.500	3.97	12560.201	11770.584	13.339	12.3	-1.9	NO		NO	bb
4	4 200702P1-8	Standard	12.500	3.97	12139.761	11287.534	13.444	12.4	-1.2	NO		NO	bb
5	5 200702P1-9	Standard	12.500	3.97	13308.298	11997.318	13.866	12.7	1.9	NO		NO	bb
6	6 200702P1-10	Standard	12.500	3.97	13164.444	12226.504	13.459	12.4	-1.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.97	12514.941	11876.331	13.172	12.1	-3.2	NO		NO	bb
8	8 200702P1-12	Standard	12.500	3.97	12163.877	11301.897	13.453	12.4	-1.1	NO		NO	bb
9	9 200702P1-13	Standard	12.500	3.97	11627.205	10642.227	13.657	12.6	0.4	NO		NO	bb
10	10 200702P1-14	Standard	12.500	3.97	10577.741	9449.526	13.992	12.9	2.9	NO		NO	bb

Compound name: 13C8-PFOS-EIS

Response Factor: 194.116

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	4.52	2480.130		2480.130	12.8	2.2	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	4.52	2551.917		2551.917	13.1	5.2	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	4.51	2519.159		2519.159	13.0	3.8	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	4.52	2448.894		2448.894	12.6	0.9	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	4.52	2547.099		2547.099	13.1	5.0	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	4.52	2426.451		2426.451	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.52	2584.938		2584.938	13.3	6.5	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	4.52	2536.644		2536.644	13.1	4.5	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	4.52	2360.779		2360.779	12.2	-2.7	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	4.51	2178.921		2178.921	11.2	-10.2	NO		NO	bbX

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time
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Compound name: 13C8-PFOS-RSD

Response Factor: 0.847684

RRF SD: 0.0471568, Relative SD: 5.56302

Response type: Internal Std (Ref 105), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	4.52	2480.130	2602.740	11.911	14.1	12.4	NO		NO	bb
2	2 200702P1-6	Standard	12.500	4.52	2551.917	2805.789	11.369	13.4	7.3	NO		NO	bb
3	3 200702P1-7	Standard	12.500	4.51	2519.159	2966.247	10.616	12.5	0.2	NO		NO	bb
4	4 200702P1-8	Standard	12.500	4.52	2448.894	2981.622	10.267	12.1	-3.1	NO		NO	bb
5	5 200702P1-9	Standard	12.500	4.52	2547.099	3087.089	10.314	12.2	-2.7	NO		NO	bb
6	6 200702P1-10	Standard	12.500	4.52	2431.347	2929.356	10.375	12.2	-2.1	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.52	2584.938	3078.480	10.496	12.4	-0.9	NO		NO	bb
8	8 200702P1-12	Standard	12.500	4.52	2544.702	3047.948	10.436	12.3	-1.5	NO		NO	bb
9	9 200702P1-13	Standard	12.500	4.52	2368.692	2912.405	10.166	12.0	-4.1	NO		NO	bb
10	10 200702P1-14	Standard	12.500	4.51	2178.921	2720.691	10.011	11.8	-5.5	NO		NO	bb

Compound name: 13C2-PFDA-EIS

Response Factor: 1300.44

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	4.81	14854.023		14854.023	11.4	-8.6	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	4.81	15231.689		15231.689	11.7	-6.3	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	4.81	15728.700		15728.700	12.1	-3.2	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	4.81	15055.020		15055.020	11.6	-7.4	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	4.81	16027.048		16027.048	12.3	-1.4	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	4.81	16255.542		16255.542	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.81	16326.215		16326.215	12.6	0.4	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	4.81	14551.123		14551.123	11.2	-10.5	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	4.82	15737.605		15737.605	12.1	-3.2	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	4.81	14407.598		14407.598	11.1	-11.4	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C2-PFDA-RSD

Response Factor: 1.21392

RRF SD: 0.0556107, Relative SD: 4.5811

Response type: Internal Std (Ref 106), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	4.81	14854.023	11660.344	15.924	13.1	4.9	NO		NO	bb
2	2 200702P1-6	Standard	12.500	4.81	15231.689	12921.673	14.735	12.1	-2.9	NO		NO	bb
3	3 200702P1-7	Standard	12.500	4.81	15728.700	12821.228	15.335	12.6	1.1	NO		NO	bb
4	4 200702P1-8	Standard	12.500	4.81	15055.020	12782.769	14.722	12.1	-3.0	NO		NO	bb
5	5 200702P1-9	Standard	12.500	4.81	16027.048	13389.327	14.963	12.3	-1.4	NO		NO	bb
6	6 200702P1-10	Standard	12.500	4.81	16255.542	13866.270	14.654	12.1	-3.4	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.81	16326.215	13498.116	15.119	12.5	-0.4	NO		NO	bb
8	8 200702P1-12	Standard	12.500	4.81	14551.123	12915.327	14.083	11.6	-7.2	NO		NO	bb
9	9 200702P1-13	Standard	12.500	4.82	15737.605	12026.305	16.357	13.5	7.8	NO		NO	bb
10	10 200702P1-14	Standard	12.500	4.81	14407.598	11363.529	15.849	13.1	4.4	NO		NO	bb

Compound name: 13C2-8:2 FTS-EIS

Response Factor: 103.954

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	4.78	1322.680		1322.680	12.7	1.8	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	4.78	1464.972		1464.972	14.1	12.7	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	4.78	1275.569		1275.569	12.3	-1.8	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	4.78	1360.712		1360.712	13.1	4.7	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	4.78	1455.844		1455.844	14.0	12.0	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	4.78	1299.430		1299.430	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.78	1369.095		1369.095	13.2	5.4	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	4.78	1403.177		1403.177	13.5	8.0	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	4.78	1382.002		1382.002	13.3	6.4	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	4.78	1353.063		1353.063	13.0	4.1	NO		NO	bbX

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C2-8:2 FTS-RSD

Response Factor: 0.470883

RRF SD: 0.0300916, Relative SD: 6.39046

Response type: Internal Std (Ref 105), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	4.78	1322.680	2602.740	6.352	13.5	7.9	NO		NO	bb
2	2 200702P1-6	Standard	12.500	4.78	1464.972	2805.789	6.527	13.9	10.9	NO		NO	bb
3	3 200702P1-7	Standard	12.500	4.78	1275.569	2966.247	5.375	11.4	-8.7	NO		NO	bb
4	4 200702P1-8	Standard	12.500	4.78	1360.712	2981.622	5.705	12.1	-3.1	NO		NO	bb
5	5 200702P1-9	Standard	12.500	4.78	1455.844	3087.089	5.895	12.5	0.2	NO		NO	bb
6	6 200702P1-10	Standard	12.500	4.78	1299.430	2929.356	5.545	11.8	-5.8	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.78	1369.095	3078.480	5.559	11.8	-5.6	NO		NO	bb
8	8 200702P1-12	Standard	12.500	4.78	1403.177	3047.948	5.755	12.2	-2.2	NO		NO	bb
9	9 200702P1-13	Standard	12.500	4.78	1382.002	2912.405	5.932	12.6	0.8	NO		NO	bb
10	10 200702P1-14	Standard	12.500	4.78	1353.063	2720.691	6.217	13.2	5.6	NO		NO	bb

Compound name: d3-N-MeFOSAA-EIS

Response Factor: 311.775

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	4.97	3686.197		3686.197	11.8	-5.4	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	4.97	3820.252		3820.252	12.3	-2.0	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	4.97	3850.589		3850.589	12.4	-1.2	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	4.97	3589.550		3589.550	11.5	-7.9	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	4.97	3771.321		3771.321	12.1	-3.2	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	4.97	3897.192		3897.192	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.97	3757.060		3757.060	12.1	-3.6	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	4.97	4050.937		4050.937	13.0	3.9	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	4.97	4047.100		4047.100	13.0	3.8	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	4.97	3875.115		3875.115	12.4	-0.6	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: d3-N-MeFOSAA-RSD

Response Factor: 0.33058

RRF SD: 0.0245964, Relative SD: 7.44037

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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	200702P1-5	Standard	12.500	4.97	3686.197	10631.153	4.334	13.1	4.9	NO		NO	bb
2	2	200702P1-6	Standard	12.500	4.97	3820.252	12078.382	3.954	12.0	-4.3	NO		NO	bb
3	3	200702P1-7	Standard	12.500	4.97	3850.589	11804.438	4.077	12.3	-1.3	NO		NO	bb
4	4	200702P1-8	Standard	12.500	4.97	3589.550	11884.892	3.775	11.4	-8.6	NO		NO	bb
5	5	200702P1-9	Standard	12.500	4.97	3771.321	12329.186	3.824	11.6	-7.5	NO		NO	bb
6	6	200702P1-10	Standard	12.500	4.97	3897.192	12608.100	3.864	11.7	-6.5	NO		NO	bb
7	7	200702P1-11	Standard	12.500	4.97	3757.060	11781.391	3.986	12.1	-3.5	NO		NO	bb
8	8	200702P1-12	Standard	12.500	4.97	4050.937	11671.311	4.339	13.1	5.0	NO		NO	bb
9	9	200702P1-13	Standard	12.500	4.97	4047.100	11174.993	4.527	13.7	9.6	NO		NO	bb
10	10	200702P1-14	Standard	12.500	4.97	3875.115	10433.218	4.643	14.0	12.4	NO		NO	bb

Compound name: 13C2-PFUDa-EIS

Response Factor: 1330.46

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200702P1-5	Standard	12.500	5.15	14491.323		14491.323	10.9	-12.9	NO		NO	bbX
2	2	200702P1-6	Standard	12.500	5.15	15141.629		15141.629	11.4	-9.0	NO		NO	bbX
3	3	200702P1-7	Standard	12.500	5.15	14971.531		14971.531	11.3	-10.0	NO		NO	bbX
4	4	200702P1-8	Standard	12.500	5.15	15207.655		15207.655	11.4	-8.6	NO		NO	bbX
5	5	200702P1-9	Standard	12.500	5.15	14811.668		14811.668	11.1	-10.9	NO		NO	bbX
6	6	200702P1-10	Standard	12.500	5.15	16630.744		16630.744	12.5	0.0	NO		NO	bb
7	7	200702P1-11	Standard	12.500	5.15	14509.589		14509.589	10.9	-12.8	NO		NO	bbX
8	8	200702P1-12	Standard	12.500	5.15	14791.147		14791.147	11.1	-11.1	NO		NO	bbX
9	9	200702P1-13	Standard	12.500	5.15	14740.115		14740.115	11.1	-11.4	NO		NO	bbX
10	10	200702P1-14	Standard	12.500	5.15	13990.702		13990.702	10.5	-15.9	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:40:21 Pacific Daylight Time

Compound name: 13C2-PFUDa-RSD

Response Factor: 1.28439

RRF SD: 0.0505584, Relative SD: 3.93638

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	5.15	14491.323	10631.153	17.039	13.3	6.1	NO		NO	bb
2	2 200702P1-6	Standard	12.500	5.15	15141.629	12078.382	15.670	12.2	-2.4	NO		NO	bb
3	3 200702P1-7	Standard	12.500	5.15	14971.531	11804.438	15.854	12.3	-1.3	NO		NO	bb
4	4 200702P1-8	Standard	12.500	5.15	15207.655	11884.892	15.995	12.5	-0.4	NO		NO	bb
5	5 200702P1-9	Standard	12.500	5.15	14811.668	12329.186	15.017	11.7	-6.5	NO		NO	bb
6	6 200702P1-10	Standard	12.500	5.15	16630.744	12608.100	16.488	12.8	2.7	NO		NO	bb
7	7 200702P1-11	Standard	12.500	5.15	14509.589	11781.391	15.395	12.0	-4.1	NO		NO	bb
8	8 200702P1-12	Standard	12.500	5.15	14791.147	11671.311	15.841	12.3	-1.3	NO		NO	bb
9	9 200702P1-13	Standard	12.500	5.15	14740.115	11174.993	16.488	12.8	2.7	NO		NO	bb
10	10 200702P1-14	Standard	12.500	5.15	13990.702	10433.218	16.762	13.1	4.4	NO		NO	bb

Compound name: d5-N-EtFOSAA-EIS

Response Factor: 324.344

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	5.13	4030.376		4030.376	12.4	-0.6	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	5.13	3721.132		3721.132	11.5	-8.2	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	5.13	3726.672		3726.672	11.5	-8.1	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	5.13	3998.420		3998.420	12.3	-1.4	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	5.13	4123.852		4123.852	12.7	1.7	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	5.13	4054.301		4054.301	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	5.13	3763.180		3763.180	11.6	-7.2	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	5.13	3803.238		3803.238	11.7	-6.2	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	5.13	3687.877		3687.877	11.4	-9.0	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	5.13	3147.009		3147.009	9.7	-22.4	NO		NO	bbX

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: d5-N-EtFOSAA-RSD

Response Factor: 0.327229

RRF SD: 0.0213078, Relative SD: 6.51159

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	5.13	4030.376	10631.153	4.739	14.5	15.9	NO		NO	bb
2	2 200702P1-6	Standard	12.500	5.13	3721.132	12078.382	3.851	11.8	-5.9	NO		NO	bb
3	3 200702P1-7	Standard	12.500	5.13	3726.672	11804.438	3.946	12.1	-3.5	NO		NO	bb
4	4 200702P1-8	Standard	12.500	5.13	3998.420	11884.892	4.205	12.9	2.8	NO		NO	bb
5	5 200702P1-9	Standard	12.500	5.13	4123.852	12329.186	4.181	12.8	2.2	NO		NO	bb
6	6 200702P1-10	Standard	12.500	5.13	4054.301	12608.100	4.020	12.3	-1.7	NO		NO	bb
7	7 200702P1-11	Standard	12.500	5.13	3763.180	11781.391	3.993	12.2	-2.4	NO		NO	bb
8	8 200702P1-12	Standard	12.500	5.13	3803.238	11671.311	4.073	12.4	-0.4	NO		NO	bb
9	9 200702P1-13	Standard	12.500	5.13	3687.877	11174.993	4.125	12.6	0.9	NO		NO	bb
10	10 200702P1-14	Standard	12.500	5.13	3147.009	10433.218	3.770	11.5	-7.8	NO		NO	bb

Compound name: 13C2-PFDoA-EIS

Response Factor: 1423.87

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	5.44	16737.822		16737.822	11.8	-6.0	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	5.44	16781.822		16781.822	11.8	-5.7	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	5.44	14694.078		14694.078	10.3	-17.4	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	5.44	17586.570		17586.570	12.4	-1.2	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	5.44	18860.330		18860.330	13.2	6.0	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	5.44	17798.387		17798.387	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	5.44	17728.797		17728.797	12.5	-0.4	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	5.44	17049.199		17049.199	12.0	-4.2	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	5.44	16364.281		16364.281	11.5	-8.1	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	5.44	16441.281		16441.281	11.5	-7.6	NO		NO	bbX

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C2-PFDoA-RSD

Response Factor: 1.33893

RRF SD: 0.088525, Relative SD: 6.61162

Response type: Internal Std (Ref 106), Area * (IS Conc. / 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	200702P1-5	Standard	12.500	5.44	16737.822	11660.344	17.943	13.4	7.2	NO		NO	bb
2	2	200702P1-6	Standard	12.500	5.44	16781.822	12921.673	16.234	12.1	-3.0	NO		NO	bb
3	3	200702P1-7	Standard	12.500	5.44	14694.078	12821.228	14.326	10.7	-14.4	NO		NO	bb
4	4	200702P1-8	Standard	12.500	5.44	17586.570	12782.769	17.198	12.8	2.8	NO		NO	bb
5	5	200702P1-9	Standard	12.500	5.44	18860.330	13389.327	17.608	13.2	5.2	NO		NO	bb
6	6	200702P1-10	Standard	12.500	5.44	17798.387	13866.270	16.045	12.0	-4.1	NO		NO	bb
7	7	200702P1-11	Standard	12.500	5.44	17728.797	13498.116	16.418	12.3	-1.9	NO		NO	bb
8	8	200702P1-12	Standard	12.500	5.44	17049.199	12915.327	16.501	12.3	-1.4	NO		NO	bb
9	9	200702P1-13	Standard	12.500	5.44	16364.281	12026.305	17.009	12.7	1.6	NO		NO	bb
10	10	200702P1-14	Standard	12.500	5.44	16441.281	11363.529	18.086	13.5	8.1	NO		NO	bb

Compound name: 13C2-10:2 FTS-EIS

Response Factor: 94.6992

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200702P1-5	Standard	12.500	5.42	1010.538		1010.538	10.7	-14.6	NO		NO	bbX
2	2	200702P1-6	Standard	12.500	5.42	1076.557		1076.557	11.4	-9.1	NO		NO	bbX
3	3	200702P1-7	Standard	12.500	5.42	1230.054		1230.054	13.0	3.9	NO		NO	bbX
4	4	200702P1-8	Standard	12.500	5.42	1043.343		1043.343	11.0	-11.9	NO		NO	bbX
5	5	200702P1-9	Standard	12.500	5.42	923.245		923.245	9.7	-22.0	NO		NO	bbX
6	6	200702P1-10	Standard	12.500	5.42	1183.740		1183.740	12.5	0.0	NO		NO	bb
7	7	200702P1-11	Standard	12.500	5.42	840.603		840.603	8.9	-29.0	NO		NO	MMX
8	8	200702P1-12	Standard	12.500	5.42	886.818		886.818	9.4	-25.1	NO		NO	MMX
9	9	200702P1-13	Standard	12.500	5.42	934.152		934.152	9.9	-21.1	NO		NO	MMX
10	10	200702P1-14	Standard	12.500	5.42	872.832		872.832	9.2	-26.3	NO		NO	MMX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C2-10:2 FTS-RSD

Response Factor: 0.344648

RRF SD: 0.0506953, Relative SD: 14.7093

Response type: Internal Std (Ref 105), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	5.42	1010.538	2602.740	4.853	14.1	12.7	NO		NO	bb
2	2 200702P1-6	Standard	12.500	5.42	1076.557	2805.789	4.796	13.9	11.3	NO		NO	bb
3	3 200702P1-7	Standard	12.500	5.42	1230.054	2966.247	5.184	15.0	20.3	NO		NO	bb
4	4 200702P1-8	Standard	12.500	5.42	1043.343	2981.622	4.374	12.7	1.5	NO		NO	bb
5	5 200702P1-9	Standard	12.500	5.42	923.245	3087.089	3.738	10.8	-13.2	NO		NO	bb
6	6 200702P1-10	Standard	12.500	5.42	1183.740	2929.356	5.051	14.7	17.2	NO		NO	bb
7	7 200702P1-11	Standard	12.500	5.42	838.645	3078.480	3.405	9.9	-21.0	NO		NO	MM
8	8 200702P1-12	Standard	12.500	5.42	886.678	3047.948	3.636	10.6	-15.6	NO		NO	MM
9	9 200702P1-13	Standard	12.500	5.42	940.525	2912.405	4.037	11.7	-6.3	NO		NO	MM
10	10 200702P1-14	Standard	12.500	5.42	871.959	2720.691	4.006	11.6	-7.0	NO		NO	MM

Compound name: d3-N-MeFOSA-EIS

Response Factor: 125.576

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	149.200	5.55	16452.186		16452.186	131.0	-12.2	NO		NO	bbX
2	2 200702P1-6	Standard	149.200	5.55	16757.473		16757.473	133.4	-10.6	NO		NO	bbX
3	3 200702P1-7	Standard	149.200	5.55	17093.406		17093.406	136.1	-8.8	NO		NO	bbX
4	4 200702P1-8	Standard	149.200	5.55	17544.254		17544.254	139.7	-6.4	NO		NO	bbX
5	5 200702P1-9	Standard	149.200	5.55	17603.686		17603.686	140.2	-6.0	NO		NO	bbX
6	6 200702P1-10	Standard	149.200	5.55	18735.934		18735.934	149.2	0.0	NO		NO	bb
7	7 200702P1-11	Standard	149.200	5.55	18346.885		18346.885	146.1	-2.1	NO		NO	bbX
8	8 200702P1-12	Standard	149.200	5.55	18249.184		18249.184	145.3	-2.6	NO		NO	bbX
9	9 200702P1-13	Standard	149.200	5.55	19368.906		19368.906	154.2	3.4	NO		NO	bbX
10	10 200702P1-14	Standard	149.200	5.55	18465.037		18465.037	147.0	-1.4	NO		NO	bbX

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time
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Compound name: d3-N-MeFOSA-RSD

Response Factor: 0.128996

RRF SD: 0.0105381, Relative SD: 8.16933

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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	200702P1-5	Standard	149.200	5.55	16452.186	10631.153	19.344	150.0	0.5	NO		NO	bb
2	2	200702P1-6	Standard	149.200	5.55	16757.473	12078.382	17.342	134.4	-9.9	NO		NO	bb
3	3	200702P1-7	Standard	149.200	5.55	17093.406	11804.438	18.101	140.3	-6.0	NO		NO	bb
4	4	200702P1-8	Standard	149.200	5.55	17544.254	11884.892	18.452	143.0	-4.1	NO		NO	bb
5	5	200702P1-9	Standard	149.200	5.55	17603.686	12329.186	17.848	138.4	-7.3	NO		NO	bb
6	6	200702P1-10	Standard	149.200	5.55	18735.934	12608.100	18.575	144.0	-3.5	NO		NO	bb
7	7	200702P1-11	Standard	149.200	5.55	18346.885	11781.391	19.466	150.9	1.1	NO		NO	bb
8	8	200702P1-12	Standard	149.200	5.55	18249.184	11671.311	19.545	151.5	1.6	NO		NO	bb
9	9	200702P1-13	Standard	149.200	5.55	19368.906	11174.993	21.665	168.0	12.6	NO		NO	bb
10	10	200702P1-14	Standard	149.200	5.55	18465.037	10433.218	22.123	171.5	14.9	NO		NO	bb

Compound name: 13C2-PFTeDA-EIS

Response Factor: 1503.23

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200702P1-5	Standard	12.500	5.92	18053.002		18053.002	12.0	-3.9	NO		NO	bbX
2	2	200702P1-6	Standard	12.500	5.92	18462.633		18462.633	12.3	-1.7	NO		NO	bbX
3	3	200702P1-7	Standard	12.500	5.92	17815.732		17815.732	11.9	-5.2	NO		NO	bbX
4	4	200702P1-8	Standard	12.500	5.92	18557.340		18557.340	12.3	-1.2	NO		NO	bbX
5	5	200702P1-9	Standard	12.500	5.92	19264.434		19264.434	12.8	2.5	NO		NO	bbX
6	6	200702P1-10	Standard	12.500	5.92	18790.314		18790.314	12.5	0.0	NO		NO	bb
7	7	200702P1-11	Standard	12.500	5.92	18912.672		18912.672	12.6	0.7	NO		NO	bbX
8	8	200702P1-12	Standard	12.500	5.92	16894.199		16894.199	11.2	-10.1	NO		NO	bbX
9	9	200702P1-13	Standard	12.500	5.92	17545.596		17545.596	11.7	-6.6	NO		NO	bbX
10	10	200702P1-14	Standard	12.500	5.92	16553.271		16553.271	11.0	-11.9	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C2-PFTeDA-RSD

Response Factor: 1.55597

RRF SD: 0.0690077, Relative SD: 4.43504

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	5.92	18053.002	10631.153	21.227	13.6	9.1	NO		NO	bb
2	2 200702P1-6	Standard	12.500	5.92	18462.633	12078.382	19.107	12.3	-1.8	NO		NO	bb
3	3 200702P1-7	Standard	12.500	5.92	17815.732	11804.438	18.866	12.1	-3.0	NO		NO	bb
4	4 200702P1-8	Standard	12.500	5.92	18557.340	11884.892	19.518	12.5	0.4	NO		NO	bb
5	5 200702P1-9	Standard	12.500	5.92	19264.434	12329.186	19.531	12.6	0.4	NO		NO	bb
6	6 200702P1-10	Standard	12.500	5.92	18790.314	12608.100	18.629	12.0	-4.2	NO		NO	bb
7	7 200702P1-11	Standard	12.500	5.92	18912.672	11781.391	20.066	12.9	3.2	NO		NO	bb
8	8 200702P1-12	Standard	12.500	5.92	16894.199	11671.311	18.094	11.6	-7.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	5.92	17545.596	11174.993	19.626	12.6	0.9	NO		NO	bb
10	10 200702P1-14	Standard	12.500	5.92	16553.271	10433.218	19.832	12.7	2.0	NO		NO	bb

Compound name: d5-N-ETFOSA-EIS

Response Factor: 144.888

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	149.200	6.02	19568.424		19568.424	135.1	-9.5	NO		NO	bbX
2	2 200702P1-6	Standard	149.200	6.01	20010.246		20010.246	138.1	-7.4	NO		NO	bbX
3	3 200702P1-7	Standard	149.200	6.01	20688.182		20688.182	142.8	-4.3	NO		NO	bbX
4	4 200702P1-8	Standard	149.200	6.01	20595.813		20595.813	142.2	-4.7	NO		NO	bbX
5	5 200702P1-9	Standard	149.200	6.01	21022.094		21022.094	145.1	-2.8	NO		NO	bbX
6	6 200702P1-10	Standard	149.200	6.01	21617.264		21617.264	149.2	0.0	NO		NO	bb
7	7 200702P1-11	Standard	149.200	6.01	21574.475		21574.475	148.9	-0.2	NO		NO	bbX
8	8 200702P1-12	Standard	149.200	6.02	21313.262		21313.262	147.1	-1.4	NO		NO	bbX
9	9 200702P1-13	Standard	149.200	6.01	21287.793		21287.793	146.9	-1.5	NO		NO	bbX
10	10 200702P1-14	Standard	149.200	6.01	19273.098		19273.098	133.0	-10.8	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: d5-N-ETFOSA-RSD

Response Factor: 0.14923

RRF SD: 0.00664546, Relative SD: 4.45317

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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 200702P1-5	Standard	149.200	6.02	19568.424	10631.153	23.008	154.2	3.3	NO		NO	bb
2	2 200702P1-6	Standard	149.200	6.01	20010.246	12078.382	20.709	138.8	-7.0	NO		NO	bb
3	3 200702P1-7	Standard	149.200	6.01	20688.182	11804.438	21.907	146.8	-1.6	NO		NO	bb
4	4 200702P1-8	Standard	149.200	6.01	20595.813	11884.892	21.662	145.2	-2.7	NO		NO	bb
5	5 200702P1-9	Standard	149.200	6.01	21022.094	12329.186	21.313	142.8	-4.3	NO		NO	bb
6	6 200702P1-10	Standard	149.200	6.01	21617.264	12608.100	21.432	143.6	-3.7	NO		NO	bb
7	7 200702P1-11	Standard	149.200	6.01	21574.475	11781.391	22.890	153.4	2.8	NO		NO	bb
8	8 200702P1-12	Standard	149.200	6.02	21313.262	11671.311	22.827	153.0	2.5	NO		NO	bb
9	9 200702P1-13	Standard	149.200	6.01	21287.793	11174.993	23.812	159.6	6.9	NO		NO	bb
10	10 200702P1-14	Standard	149.200	6.01	19273.098	10433.218	23.091	154.7	3.7	NO		NO	bb

Compound name: 13C2-PFHxDA-EIS

Response Factor: 1798.71

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	12.500	6.28	20992.271		20992.271	11.7	-6.6	NO		NO	bbX
2	2 200702P1-6	Standard	12.500	6.28	21635.174		21635.174	12.0	-3.8	NO		NO	bbX
3	3 200702P1-7	Standard	12.500	6.28	21840.199		21840.199	12.1	-2.9	NO		NO	bbX
4	4 200702P1-8	Standard	12.500	6.28	20617.766		20617.766	11.5	-8.3	NO		NO	bbX
5	5 200702P1-9	Standard	12.500	6.28	23016.230		23016.230	12.8	2.4	NO		NO	bbX
6	6 200702P1-10	Standard	12.500	6.28	22483.883		22483.883	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	6.28	22140.426		22140.426	12.3	-1.5	NO		NO	bbX
8	8 200702P1-12	Standard	12.500	6.28	21063.137		21063.137	11.7	-6.3	NO		NO	bbX
9	9 200702P1-13	Standard	12.500	6.28	21348.121		21348.121	11.9	-5.1	NO		NO	bbX
10	10 200702P1-14	Standard	12.500	6.28	20152.480		20152.480	11.2	-10.4	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C2-PFHxDA-RSD

Response Factor: 1.85268

RRF SD: 0.0746241, Relative SD: 4.02791

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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	200702P1-5	Standard	12.500	6.28	20992.271	10631.153	24.682	13.3	6.6	NO		NO	bb
2	2	200702P1-6	Standard	12.500	6.28	21635.174	12078.382	22.390	12.1	-3.3	NO		NO	bb
3	3	200702P1-7	Standard	12.500	6.28	21840.199	11804.438	23.127	12.5	-0.1	NO		NO	bb
4	4	200702P1-8	Standard	12.500	6.28	20617.766	11884.892	21.685	11.7	-6.4	NO		NO	bb
5	5	200702P1-9	Standard	12.500	6.28	23016.230	12329.186	23.335	12.6	0.8	NO		NO	bb
6	6	200702P1-10	Standard	12.500	6.28	22483.883	12608.100	22.291	12.0	-3.7	NO		NO	bb
7	7	200702P1-11	Standard	12.500	6.28	22140.426	11781.391	23.491	12.7	1.4	NO		NO	bb
8	8	200702P1-12	Standard	12.500	6.28	21063.137	11671.311	22.559	12.2	-2.6	NO		NO	bb
9	9	200702P1-13	Standard	12.500	6.28	21348.121	11174.993	23.879	12.9	3.1	NO		NO	bb
10	10	200702P1-14	Standard	12.500	6.28	20152.480	10433.218	24.145	13.0	4.3	NO		NO	bb

Compound name: d7-N-MeFOSE-EIS

Response Factor: 135.892

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200702P1-5	Standard	149.200	6.23	18043.582		18043.582	132.8	-11.0	NO		NO	bbX
2	2	200702P1-6	Standard	149.200	6.23	18233.039		18233.039	134.2	-10.1	NO		NO	bbX
3	3	200702P1-7	Standard	149.200	6.23	18852.664		18852.664	138.7	-7.0	NO		NO	bbX
4	4	200702P1-8	Standard	149.200	6.23	18864.725		18864.725	138.8	-7.0	NO		NO	bbX
5	5	200702P1-9	Standard	149.200	6.23	19368.873		19368.873	142.5	-4.5	NO		NO	bbX
6	6	200702P1-10	Standard	149.200	6.23	20275.088		20275.088	149.2	0.0	NO		NO	bb
7	7	200702P1-11	Standard	149.200	6.23	20324.570		20324.570	149.6	0.2	NO		NO	bbX
8	8	200702P1-12	Standard	149.200	6.23	19738.721		19738.721	145.3	-2.6	NO		NO	bbX
9	9	200702P1-13	Standard	149.200	6.23	20199.688		20199.688	148.6	-0.4	NO		NO	bbX
10	10	200702P1-14	Standard	149.200	6.23	19172.219		19172.219	141.1	-5.4	NO		NO	bbX

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: d7-N-MeFOSE-RSD

Response Factor: 0.139341

RRF SD: 0.00893334, Relative SD: 6.41111

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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 200702P1-5	Standard	149.200	6.23	18043.582	10631.153	21.215	152.3	2.0	NO		NO	bb
2	2 200702P1-6	Standard	149.200	6.23	18233.039	12078.382	18.869	135.4	-9.2	NO		NO	bb
3	3 200702P1-7	Standard	149.200	6.23	18852.664	11804.438	19.964	143.3	-4.0	NO		NO	bb
4	4 200702P1-8	Standard	149.200	6.23	18864.725	11884.892	19.841	142.4	-4.6	NO		NO	bb
5	5 200702P1-9	Standard	149.200	6.23	19368.873	12329.186	19.637	140.9	-5.5	NO		NO	bb
6	6 200702P1-10	Standard	149.200	6.23	20275.088	12608.100	20.101	144.3	-3.3	NO		NO	bb
7	7 200702P1-11	Standard	149.200	6.23	20324.570	11781.391	21.564	154.8	3.7	NO		NO	bb
8	8 200702P1-12	Standard	149.200	6.23	19738.721	11671.311	21.140	151.7	1.7	NO		NO	bb
9	9 200702P1-13	Standard	149.200	6.23	20199.688	11174.993	22.595	162.2	8.7	NO		NO	bb
10	10 200702P1-14	Standard	149.200	6.23	19172.219	10433.218	22.970	164.8	10.5	NO		NO	bb

Compound name: d9-N-EtFOSE-EIS

Response Factor: 145.525

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200702P1-5	Standard	149.200	6.38	19587.232		19587.232	134.6	-9.8	NO		NO	bbX
2	2 200702P1-6	Standard	149.200	6.38	19722.773		19722.773	135.5	-9.2	NO		NO	bbX
3	3 200702P1-7	Standard	149.200	6.38	20100.682		20100.682	138.1	-7.4	NO		NO	bbX
4	4 200702P1-8	Standard	149.200	6.38	20617.043		20617.043	141.7	-5.0	NO		NO	bbX
5	5 200702P1-9	Standard	149.200	6.38	21417.631		21417.631	147.2	-1.4	NO		NO	bbX
6	6 200702P1-10	Standard	149.200	6.38	21712.297		21712.297	149.2	0.0	NO		NO	bb
7	7 200702P1-11	Standard	149.200	6.38	22752.107		22752.107	156.3	4.8	NO		NO	bbX
8	8 200702P1-12	Standard	149.200	6.38	21791.818		21791.818	149.7	0.4	NO		NO	bbX
9	9 200702P1-13	Standard	149.200	6.38	21911.688		21911.688	150.6	0.9	NO		NO	bbX
10	10 200702P1-14	Standard	149.200	6.38	20876.609		20876.609	143.5	-3.8	NO		NO	bbX

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Compound name: d9-N-EtFOSE-RSD

Response Factor: 0.151912

RRF SD: 0.0104366, Relative SD: 6.87016

Response type: Internal Std (Ref 107), Area * (IS Conc. / 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	200702P1-5	Standard	149.200	6.38	19587.232	10631.153	23.030	151.6	1.6	NO		NO	bb
2	2	200702P1-6	Standard	149.200	6.38	19722.773	12078.382	20.411	134.4	-9.9	NO		NO	bb
3	3	200702P1-7	Standard	149.200	6.38	20100.682	11804.438	21.285	140.1	-6.1	NO		NO	bb
4	4	200702P1-8	Standard	149.200	6.38	20617.043	11884.892	21.684	142.7	-4.3	NO		NO	bb
5	5	200702P1-9	Standard	149.200	6.38	21417.631	12329.186	21.714	142.9	-4.2	NO		NO	bb
6	6	200702P1-10	Standard	149.200	6.38	21712.297	12608.100	21.526	141.7	-5.0	NO		NO	bb
7	7	200702P1-11	Standard	149.200	6.38	22752.107	11781.391	24.140	158.9	6.5	NO		NO	bb
8	8	200702P1-12	Standard	149.200	6.38	21791.818	11671.311	23.339	153.6	3.0	NO		NO	bb
9	9	200702P1-13	Standard	149.200	6.38	21911.688	11174.993	24.510	161.3	8.1	NO		NO	bb
10	10	200702P1-14	Standard	149.200	6.38	20876.609	10433.218	25.012	164.6	10.4	NO		NO	bb

Compound name: 13C4-PFBA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 99), Area * (IS Conc. / 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	200702P1-5	Standard	12.500	1.12	5550.681	5550.681	12.500	12.5	0.0	NO		NO	bb
2	2	200702P1-6	Standard	12.500	1.12	6610.213	6610.213	12.500	12.5	0.0	NO		NO	bb
3	3	200702P1-7	Standard	12.500	1.12	5759.228	5759.228	12.500	12.5	0.0	NO		NO	bb
4	4	200702P1-8	Standard	12.500	1.12	6809.013	6809.013	12.500	12.5	0.0	NO		NO	bb
5	5	200702P1-9	Standard	12.500	1.12	7209.558	7209.558	12.500	12.5	0.0	NO		NO	bb
6	6	200702P1-10	Standard	12.500	1.12	6773.493	6773.493	12.500	12.5	0.0	NO		NO	bb
7	7	200702P1-11	Standard	12.500	1.12	6373.761	6373.761	12.500	12.5	0.0	NO		NO	bb
8	8	200702P1-12	Standard	12.500	1.12	6853.579	6853.579	12.500	12.5	0.0	NO		NO	bb
9	9	200702P1-13	Standard	12.500	1.12	6752.777	6752.777	12.500	12.5	0.0	NO		NO	bb
10	10	200702P1-14	Standard	12.500	1.12	6923.691	6923.691	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C2-FOUEA-EIS

Response Factor: 1659.95

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200702P1-5	Standard	12.500	4.49	17062.346		17062.346	10.3	-17.8	NO		NO	bbX
2	2	200702P1-6	Standard	12.500	4.49	19713.762		19713.762	11.9	-5.0	NO		NO	bbX
3	3	200702P1-7	Standard	12.500	4.49	19892.682		19892.682	12.0	-4.1	NO		NO	bbX
4	4	200702P1-8	Standard	12.500	4.49	19883.627		19883.627	12.0	-4.2	NO		NO	bbX
5	5	200702P1-9	Standard	12.500	4.49	20059.664		20059.664	12.1	-3.3	NO		NO	bbX
6	6	200702P1-10	Standard	12.500	4.49	20749.410		20749.410	12.5	0.0	NO		NO	bb
7	7	200702P1-11	Standard	12.500	4.49	19987.697		19987.697	12.0	-3.7	NO		NO	bbX
8	8	200702P1-12	Standard	12.500	4.49	18602.408		18602.408	11.2	-10.3	NO		NO	bbX
9	9	200702P1-13	Standard	12.500	4.49	19232.721		19232.721	11.6	-7.3	NO		NO	bbX
10	10	200702P1-14	Standard	12.500	4.49	17354.275		17354.275	10.5	-16.4	NO		NO	bbX

Compound name: 13C5-PFHxA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 101), Area * (IS Conc. / 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	200702P1-5	Standard	12.500	2.84	13240.614	13240.614	12.500	12.5	0.0	NO		NO	bb
2	2	200702P1-6	Standard	12.500	2.84	14604.624	14604.624	12.500	12.5	0.0	NO		NO	bb
3	3	200702P1-7	Standard	12.500	2.84	14189.281	14189.281	12.500	12.5	0.0	NO		NO	bb
4	4	200702P1-8	Standard	12.500	2.84	14657.860	14657.860	12.500	12.5	0.0	NO		NO	bb
5	5	200702P1-9	Standard	12.500	2.84	14896.813	14896.813	12.500	12.5	0.0	NO		NO	bb
6	6	200702P1-10	Standard	12.500	2.84	15118.110	15118.110	12.500	12.5	0.0	NO		NO	bb
7	7	200702P1-11	Standard	12.500	2.84	14548.909	14548.909	12.500	12.5	0.0	NO		NO	bb
8	8	200702P1-12	Standard	12.500	2.84	14645.063	14645.063	12.500	12.5	0.0	NO		NO	bb
9	9	200702P1-13	Standard	12.500	2.84	14370.095	14370.095	12.500	12.5	0.0	NO		NO	bb
10	10	200702P1-14	Standard	12.500	2.84	13472.588	13472.588	12.500	12.5	0.0	NO		NO	bb

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Compound name: 18O2-PFHxS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 102), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	3.61	809.917	809.917	12.500	12.5	0.0	NO		NO	bb
2	2 200702P1-6	Standard	12.500	3.61	1018.048	1018.048	12.500	12.5	0.0	NO		NO	bb
3	3 200702P1-7	Standard	12.500	3.60	934.397	934.397	12.500	12.5	0.0	NO		NO	bb
4	4 200702P1-8	Standard	12.500	3.60	976.065	976.065	12.500	12.5	0.0	NO		NO	bb
5	5 200702P1-9	Standard	12.500	3.61	1066.818	1066.818	12.500	12.5	0.0	NO		NO	bb
6	6 200702P1-10	Standard	12.500	3.61	1038.483	1038.483	12.500	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.61	998.012	998.012	12.500	12.5	0.0	NO		NO	bb
8	8 200702P1-12	Standard	12.500	3.60	976.468	976.468	12.500	12.5	0.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	3.61	898.806	898.806	12.500	12.5	0.0	NO		NO	bb
10	10 200702P1-14	Standard	12.500	3.61	888.907	888.907	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 103), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	3.97	10788.852	10788.852	12.500	12.5	0.0	NO		NO	bb
2	2 200702P1-6	Standard	12.500	3.97	11745.127	11745.127	12.500	12.5	0.0	NO		NO	bb
3	3 200702P1-7	Standard	12.500	3.97	11770.584	11770.584	12.500	12.5	0.0	NO		NO	bb
4	4 200702P1-8	Standard	12.500	3.97	11287.534	11287.534	12.500	12.5	0.0	NO		NO	bb
5	5 200702P1-9	Standard	12.500	3.97	11997.318	11997.318	12.500	12.5	0.0	NO		NO	bb
6	6 200702P1-10	Standard	12.500	3.97	12226.504	12226.504	12.500	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	3.97	11876.331	11876.331	12.500	12.5	0.0	NO		NO	bb
8	8 200702P1-12	Standard	12.500	3.97	11301.897	11301.897	12.500	12.5	0.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	3.97	10642.227	10642.227	12.500	12.5	0.0	NO		NO	bb
10	10 200702P1-14	Standard	12.500	3.97	9449.526	9449.526	12.500	12.5	0.0	NO		NO	bb

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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

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Compound name: 13C9-PFNA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 104), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	4.43	12541.430	12541.430	12.500	12.5	0.0	NO		NO	bb
2	2 200702P1-6	Standard	12.500	4.43	13406.767	13406.767	12.500	12.5	0.0	NO		NO	bb
3	3 200702P1-7	Standard	12.500	4.42	13837.694	13837.694	12.500	12.5	0.0	NO		NO	bb
4	4 200702P1-8	Standard	12.500	4.43	13742.422	13742.422	12.500	12.5	0.0	NO		NO	bb
5	5 200702P1-9	Standard	12.500	4.43	14101.859	14101.859	12.500	12.5	0.0	NO		NO	bb
6	6 200702P1-10	Standard	12.500	4.42	14625.685	14625.685	12.500	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.42	14281.326	14281.326	12.500	12.5	0.0	NO		NO	bb
8	8 200702P1-12	Standard	12.500	4.43	13428.849	13428.849	12.500	12.5	0.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	4.43	12766.684	12766.684	12.500	12.5	0.0	NO		NO	bb
10	10 200702P1-14	Standard	12.500	4.42	11149.511	11149.511	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 105), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	4.52	2602.740	2602.740	12.500	12.5	0.0	NO		NO	bb
2	2 200702P1-6	Standard	12.500	4.52	2805.789	2805.789	12.500	12.5	0.0	NO		NO	bb
3	3 200702P1-7	Standard	12.500	4.51	2966.247	2966.247	12.500	12.5	0.0	NO		NO	bb
4	4 200702P1-8	Standard	12.500	4.52	2981.622	2981.622	12.500	12.5	0.0	NO		NO	bb
5	5 200702P1-9	Standard	12.500	4.52	3087.089	3087.089	12.500	12.5	0.0	NO		NO	bb
6	6 200702P1-10	Standard	12.500	4.52	2929.356	2929.356	12.500	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.52	3078.480	3078.480	12.500	12.5	0.0	NO		NO	bb
8	8 200702P1-12	Standard	12.500	4.52	3047.948	3047.948	12.500	12.5	0.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	4.52	2912.405	2912.405	12.500	12.5	0.0	NO		NO	bb
10	10 200702P1-14	Standard	12.500	4.52	2720.691	2720.691	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 106), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	4.81	11660.344	11660.344	12.500	12.5	0.0	NO		NO	bb
2	2 200702P1-6	Standard	12.500	4.81	12921.673	12921.673	12.500	12.5	0.0	NO		NO	bb
3	3 200702P1-7	Standard	12.500	4.81	12821.228	12821.228	12.500	12.5	0.0	NO		NO	bb
4	4 200702P1-8	Standard	12.500	4.81	12782.769	12782.769	12.500	12.5	0.0	NO		NO	bb
5	5 200702P1-9	Standard	12.500	4.81	13389.327	13389.327	12.500	12.5	0.0	NO		NO	bb
6	6 200702P1-10	Standard	12.500	4.81	13866.270	13866.270	12.500	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	4.81	13498.116	13498.116	12.500	12.5	0.0	NO		NO	bb
8	8 200702P1-12	Standard	12.500	4.81	12915.327	12915.327	12.500	12.5	0.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	4.81	12026.305	12026.305	12.500	12.5	0.0	NO		NO	bb
10	10 200702P1-14	Standard	12.500	4.81	11363.529	11363.529	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 107), Area * (IS Conc. / 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 200702P1-5	Standard	12.500	5.15	10631.153	10631.153	12.500	12.5	0.0	NO		NO	bb
2	2 200702P1-6	Standard	12.500	5.15	12078.382	12078.382	12.500	12.5	0.0	NO		NO	bb
3	3 200702P1-7	Standard	12.500	5.15	11804.438	11804.438	12.500	12.5	0.0	NO		NO	bb
4	4 200702P1-8	Standard	12.500	5.15	11884.892	11884.892	12.500	12.5	0.0	NO		NO	bb
5	5 200702P1-9	Standard	12.500	5.15	12329.186	12329.186	12.500	12.5	0.0	NO		NO	bb
6	6 200702P1-10	Standard	12.500	5.15	12608.100	12608.100	12.500	12.5	0.0	NO		NO	bb
7	7 200702P1-11	Standard	12.500	5.15	11781.391	11781.391	12.500	12.5	0.0	NO		NO	bb
8	8 200702P1-12	Standard	12.500	5.15	11671.311	11671.311	12.500	12.5	0.0	NO		NO	bb
9	9 200702P1-13	Standard	12.500	5.15	11174.993	11174.993	12.500	12.5	0.0	NO		NO	bb
10	10 200702P1-14	Standard	12.500	5.15	10433.218	10433.218	12.500	12.5	0.0	NO		NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Method: D:\PFAS5.PRO\MethDB\NEW_PFA5_80C_070220.mdb 02 Jul 2020 12:54:07

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFA5_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Name: 200702P1-5, Date: 02-Jul-2020, Time: 09:57:43, ID: ST200702P1-1 PFC CS-2 20F1901, Description: PFC CS-2 20F1901

	# Name	IS#	CoD	CoD Flag	%RSD
1	1 PFBA	47	0.9998	NO	
2	2 PFPrS	51	0.9992	NO	
3	3 3:3 FTCA	49	0.9989	NO	
4	4 PFPeA	49	0.9997	NO	
5	5 PFBS	51	0.9990	NO	
6	6 4:2 FTS	55	0.9976	NO	
7	7 PFHxA	57	0.9991	NO	
8	8 PFPeS	51	0.9980	NO	
9	9 HFPO-DA	53	0.9992	NO	
10	10 5:3 FTCA	59	0.9998	NO	
11	11 PFHpA	59	0.9999	NO	
12	12 ADONA	59	0.9998	NO	
13	13 L-PFHxS	61	0.9991	NO	
14	15 6:2 FTS	63	0.9997	NO	
15	16 L-PFOA	69	0.9999	NO	
16	18 PFecHS	69	0.9999	NO	
17	19 PFHpS	71	0.9996	NO	
18	20 7:3 FTCA	65	0.9992	NO	
19	21 PFNA	65	0.9998	NO	
20	22 PFOSA	67	0.9995	NO	
21	23 L-PFOS	71	0.9999	NO	
22	25 9CI-PF30NS	71	0.9988	NO	
23	26 PFDA	73	0.9993	NO	
24	27 8:2 FTS	75	0.9984	NO	
25	28 PFNS	71	0.9999	NO	
26	29 L-MeFOSAA	77	0.9987	NO	

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:40:21 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 02 Jul 2020 12:54:07

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Name: 200702P1-5, Date: 02-Jul-2020, Time: 09:57:43, ID: ST200702P1-1 PFC CS-2 20F1901, Description: PFC CS-2 20F1901

#	Name	IS#	CoD	CoD Flag	%RSD
1	31 L-EtFOSAA	81	0.9997	NO	
2	33 PFUDa	79	0.9999	NO	
3	34 PFDS	71	0.9995	NO	
4	35 11Cl-PF30UdS	83	0.9997	NO	
5	36 10:2 FTS	85	0.9962	NO	
6	37 PFDoA	83	0.9999	NO	
7	38 N-MeFOSA	87	0.9989	NO	
8	39 PFTrDA	83	0.9992	NO	
9	40 PFDoS	89	0.9994	NO	
10	41 PFTeDA	89	0.9980	NO	
11	42 N-EtFOSA	91	0.9992	NO	
12	43 PFHxDA	93	0.9999	NO	
13	44 PFODA	93	1.0000	NO	
14	45 N-MeFOSE	95	0.9997	NO	
15	46 N-EtFOSE	97	0.9997	NO	
16	47 13C3-PFBA-EIS			NO	0.000
17	48 13C3-PFBA-RSD	99		NO	3.403
18	49 13C3-PFPeA-EIS			NO	0.000
19	50 13C3-PFPeA-RSD	101		NO	4.861
20	51 13C3-PFBS-EIS			NO	0.000
21	52 13C3-PFBS-RSD	102		NO	7.653
22	53 13C3-HFPO-DA-EIS			NO	0.000
23	54 13C3-HFPO-DA-RSD	101		NO	3.250
24	55 13C2-4:2 FTS-EIS			NO	0.000
25	56 13C2-4:2 FTS-RSD	102		NO	9.284
26	57 13C2-PFHxA-EIS			NO	0.000
27	58 13C2-PFHxA-RSD	101		NO	3.483
28	59 13C4-PFHpA-EIS			NO	0.000
29	60 13C4-PFHpA-RSD	101		NO	3.700
30	61 13C3-PFHxS-EIS			NO	0.000
31	62 13C3-PFHxS-RSD	102		NO	8.685
32	63 13C2-6:2 FTS-EIS			NO	0.000

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Name: 200702P1-5, Date: 02-Jul-2020, Time: 09:57:43, ID: ST200702P1-1 PFC CS-2 20F1901, Description: PFC CS-2 20F1901

	# Name	IS#	CoD	CoD Flag	%RSD
33	64 13C2-6:2 FTS-RSD	105		NO	3.869
34	65 13C5-PFNA-EIS			NO	0.000
35	66 13C5-PFNA-RSD	104		NO	4.543
36	67 13C8-PFOA-EIS			NO	0.000
37	68 13C8-PFOA-RSD	107		NO	5.843
38	69 13C2-PFOA-EIS			NO	0.000
39	70 13C2-PFOA-RSD	103		NO	2.549
40	71 13C8-PFOS-EIS			NO	0.000
41	72 13C8-PFOS-RSD	105		NO	5.563
42	73 13C2-PFDA-EIS			NO	0.000
43	74 13C2-PFDA-RSD	106		NO	4.581
44	75 13C2-8:2 FTS-EIS			NO	0.000
45	76 13C2-8:2 FTS-RSD	105		NO	6.390
46	77 d3-N-MeFOSAA-EIS			NO	0.000
47	78 d3-N-MeFOSAA-RSD	107		NO	7.440
48	79 13C2-PFUDa-EIS			NO	0.000
49	80 13C2-PFUDa-RSD	107		NO	3.936
50	81 d5-N-EtFOSAA-EIS			NO	0.000
51	82 d5-N-EtFOSAA-RSD	107		NO	6.512
52	83 13C2-PFDoA-EIS			NO	0.000
53	84 13C2-PFDoA-RSD	106		NO	6.612
54	85 13C2-10:2 FTS-EIS			NO	0.000
55	86 13C2-10:2 FTS-RSD	105		NO	14.709
56	87 d3-N-MeFOSA-EIS			NO	0.000
57	88 d3-N-MeFOSA-RSD	107		NO	8.169
58	89 13C2-PFTeDA-EIS			NO	0.000
59	90 13C2-PFTeDA-RSD	107		NO	4.435
60	91 d5-N-ETFOSE-EIS			NO	0.000
61	92 d5-N-ETFOSE-RSD	107		NO	4.453
62	93 13C2-PFHxDA-EIS			NO	0.000
63	94 13C2-PFHxDA-RSD	107		NO	4.028
64	95 d7-N-MeFOSE-EIS			NO	0.000
65	96 d7-N-MeFOSE-RSD	107		NO	6.411
66	97 d9-N-EtFOSE-EIS			NO	0.000
67	98 d9-N-EtFOSE-RSD	107		NO	6.870
68	99 13C4-PFBA	99		NO	0.000

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Name: 200702P1-5, Date: 02-Jul-2020, Time: 09:57:43, ID: ST200702P1-1 PFC CS-2 20F1901, Description: PFC CS-2 20F1901

	# Name	IS#	CoD	CoD Flag	%RSD
69	1... 13C2-FOUEA-EIS			NO	0.000
70	1... 13C5-PFHxA	101		NO	0.000
71	1... 18O2-PFHxS	102		NO	0.000
72	1... 13C8-PFOA	103		NO	0.000
73	1... 13C9-PFNA	104		NO	0.000
74	1... 13C4-PFOS	105		NO	0.000
75	1... 13C6-PFDA	106		NO	0.000
76	1... 13C7-PFUDa	107		NO	0.000

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

Last Altered: Thursday, July 02, 2020 15:44:28 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:44:34 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 02 Jul 2020 15:44:26

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Name: 200702P1-10, Date: 02-Jul-2020, Time: 10:50:17, ID: ST200702P1-6 PFC CS3 20F1906, Description: PFC CS3 20F1906

	# Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio Out?
1	1 PFBA	1.12	1.12			
2	2 PFPrS	1.46	1.45	2.672	2.672	NO
3	3 3:3 FTCA	1.91	1.90	3.644	3.644	NO
4	4 PFPeA	2.04	2.04			
5	5 PFBS	2.32	2.32	2.537	2.537	NO
6	6 4:2 FTS	2.76	2.76	13.562	13.562	NO
7	7 PFHxA	2.84	2.84	18.079	18.079	NO
8	8 PFPeS	3.07	3.05	2.315	2.315	NO
9	9 HFPO-DA	3.06	3.06	2.289	2.289	NO
10	10 5:3 FTCA	3.42	3.42	1.727	1.727	NO
11	11 PFHpA	3.46	3.46	58.922	58.922	NO
12	12 ADONA	3.55	3.57	3.762	3.762	NO
13	13 L-PFHxS	3.61	3.61	4.115	4.115	NO
14	15 6:2 FTS	3.91	3.91	0.783	0.783	NO
15	16 L-PFOA	3.97	3.97	3.058	3.058	NO
16	18 PFecHS	3.99	3.98	0.553	0.553	NO
17	19 PFHpS	4.10	4.09	1.969	1.969	NO
18	20 7:3 FTCA	4.35	4.41	1.297	1.297	NO
19	21 PFNA	4.43	4.43	13.410	13.410	NO
20	22 PFOSA	4.47	4.48	18.902	18.902	NO
21	23 L-PFOS	4.52	4.52	2.486	2.486	NO
22	25 9Cl-PF30NS	4.72	4.74	37.455	37.455	NO
23	26 PFDA	4.81	4.81	4.786	4.786	NO
24	27 8:2 FTS	4.78	4.78	0.771	0.771	NO
25	28 PFNS	4.85	4.88	2.502	2.502	NO
26	29 L-MeFOSAA	4.97	4.97	1.720	1.720	NO

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Printed: Thursday, July 02, 2020 15:44:50 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 02 Jul 2020 15:44:26

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Name: 200702P1-10, Date: 02-Jul-2020, Time: 10:50:17, ID: ST200702P1-6 PFC CS3 20F1906, Description: PFC CS3 20F1906

	# Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio Out?
1	31 L-EtFOSAA	5.13	5.14	1.424	1.424	NO
2	33 PFUdA	5.15	5.15	17.992	17.992	NO
3	34 PFDS	5.20	5.20	2.184	2.184	NO
4	35 11Cl-PF30UdS	5.38	5.37	16.612	16.612	NO
5	36 10:2 FTS	5.42	5.43	1.102	1.102	NO
6	37 PFDoA	5.44	5.44	12.969	12.969	NO
7	38 N-MeFOSA	5.54	5.52	1.841	1.841	NO
8	39 PFTrDA	5.69	5.69	91.926	91.926	NO
9	40 PFDoS	5.73	5.72	2.049	2.049	NO
10	41 PFTeDA	5.92	5.92	15.435	15.435	NO
11	42 N-EtFOSA	6.00	5.99	1.905	1.905	NO
12	43 PFHxDA	6.28	6.28	31.476	31.476	NO
13	44 PFODA	6.48	6.53			
14	45 N-MeFOSE	6.23	6.24			
15	46 N-EtFOSE	6.38	6.39			

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Dataset: Untitled

Last Altered: Thursday, July 02, 2020 15:45:15 Pacific Daylight Time
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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 02 Jul 2020 12:54:07
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	200702P1-1	IPA	02-Jul-20	09:15:28
2	2	200702P1-2	IPA	02-Jul-20	09:26:12
3	3	200702P1-3	TEST	02-Jul-20	09:36:44
4	4	200702P1-4	IPA	02-Jul-20	09:47:14
5	5	200702P1-5	ST200702P1-1 PFC CS-2 20F1901	02-Jul-20	09:57:43
6	6	200702P1-6	ST200702P1-2 PFC CS-1 20F1902	02-Jul-20	10:08:15
7	7	200702P1-7	ST200702P1-3 PFC CS0 20F1903	02-Jul-20	10:18:46
8	8	200702P1-8	ST200702P1-4 PFC CS1 20F1904	02-Jul-20	10:29:15
9	9	200702P1-9	ST200702P1-5 PFC CS2 20F1905	02-Jul-20	10:39:46
10	10	200702P1-10	ST200702P1-6 PFC CS3 20F1906	02-Jul-20	10:50:17
11	11	200702P1-11	ST200702P1-7 PFC CS4 20F1907	02-Jul-20	11:00:44
12	12	200702P1-12	ST200702P1-8 PFC CS5 20F1908	02-Jul-20	11:11:17
13	13	200702P1-13	ST200702P1-9 PFC CS6 20F1909	02-Jul-20	11:21:45
14	14	200702P1-14	ST200702P1-10 PFC CS7 20F1910	02-Jul-20	11:32:18
15	15	200702P1-15	IB	02-Jul-20	11:42:47
16	16	200702P1-16	ICV200702P1-1 PFC ICV 20F1911	02-Jul-20	11:53:18
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Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

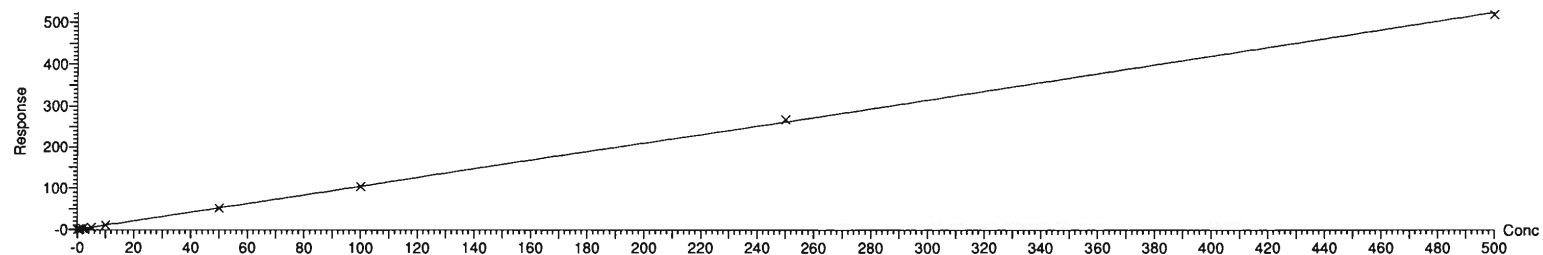
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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

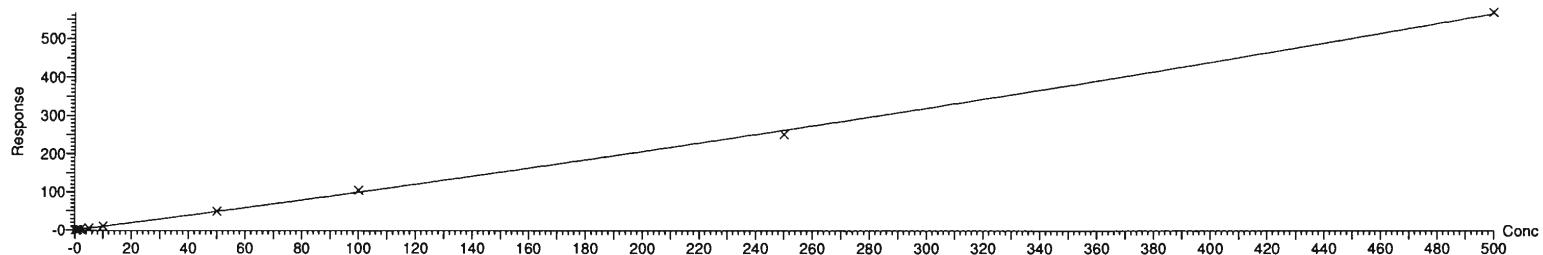
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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 02 Jul 2020 12:54:07
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Compound name: PFBA
Correlation coefficient: $r = 0.999882$, $r^2 = 0.999764$
Calibration curve: $1.04848 * x + 0.0326262$
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: PFPrS
Coefficient of Determination: $R^2 = 0.999214$
Calibration curve: $0.000322039 * x^2 + 0.96872 * x + -0.0600544$
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

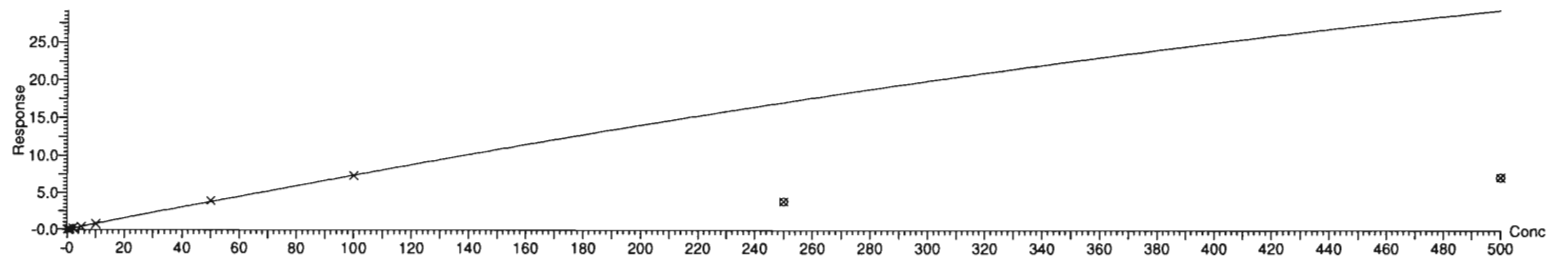
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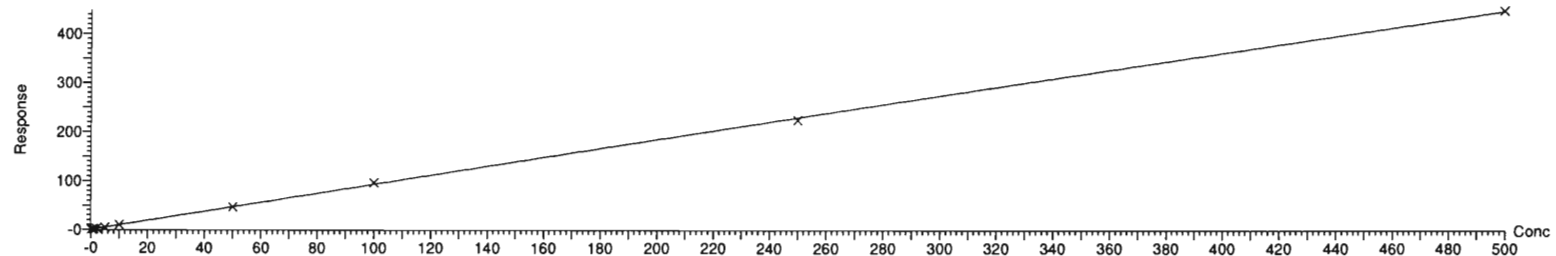
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Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: 3:3 FTCA
Coefficient of Determination: $R^2 = 0.998888$
Calibration curve: $-3.91841e-005 * x^2 + 0.0781094 * x + -0.00457548$
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: PFPeA
Coefficient of Determination: $R^2 = 0.999679$
Calibration curve: $-9.30156e-005 * x^2 + 0.941335 * x + 0.024466$
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

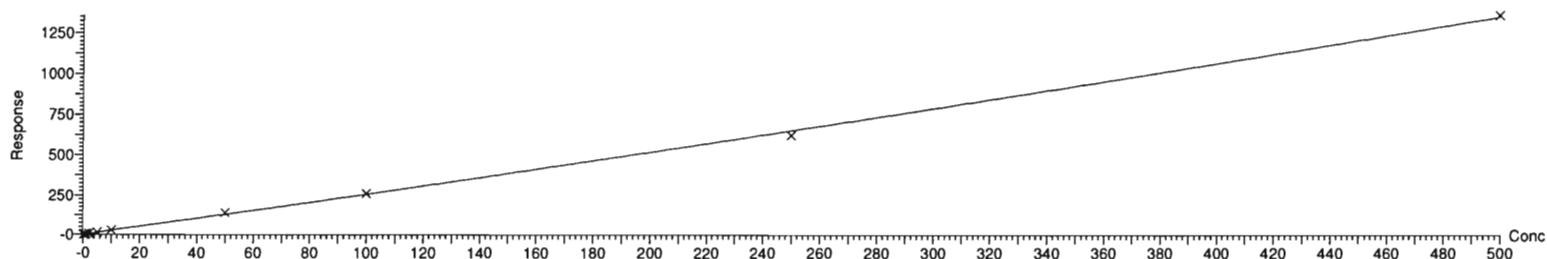
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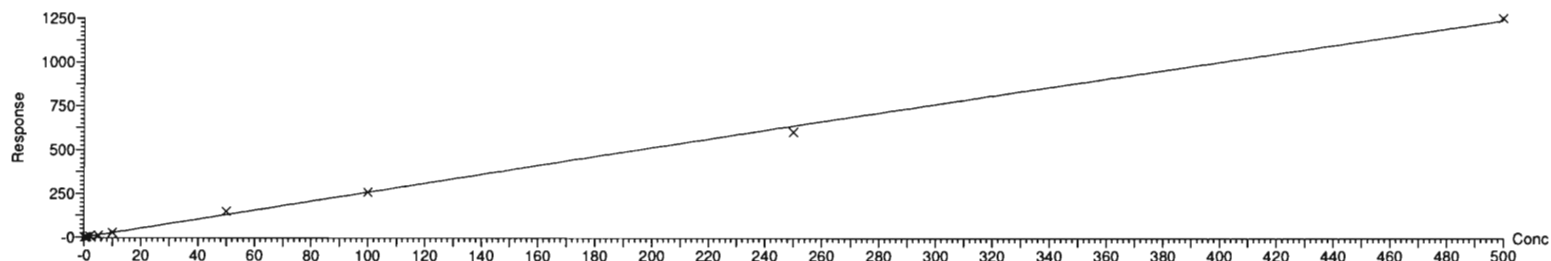
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Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: PFBS
Coefficient of Determination: $R^2 = 0.998973$
Calibration curve: $0.00037248 * x^2 + 2.51262 * x + -0.0141136$
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: 4:2 FTS
Coefficient of Determination: $R^2 = 0.997604$
Calibration curve: $-0.000306525 * x^2 + 2.63084 * x + -0.130089$
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

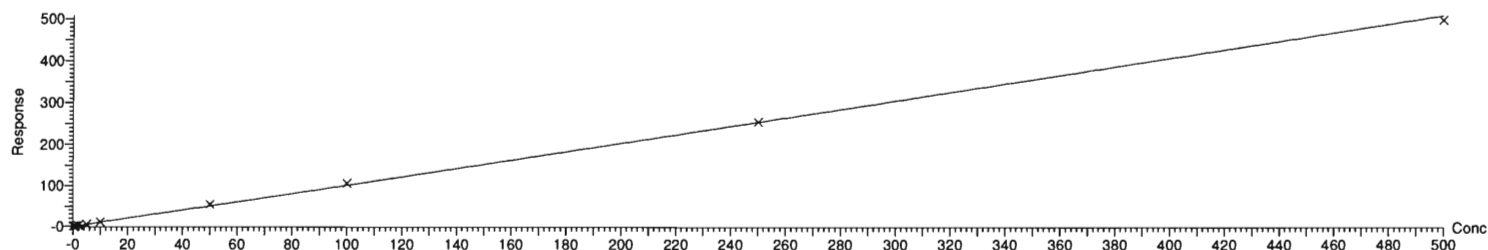
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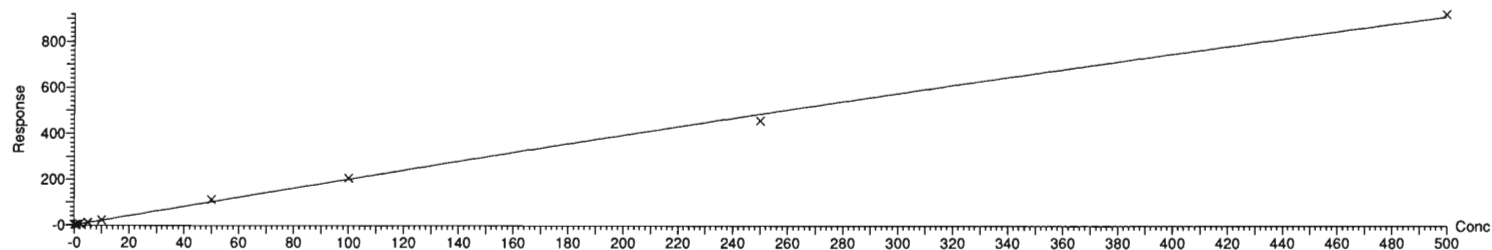
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Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: PFHxA
Correlation coefficient: $r = 0.999547$, $r^2 = 0.999094$
Calibration curve: $1.01705 \cdot x + 0.0849482$
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: $1/x$, Axis trans: None



Compound name: PFPeS
Coefficient of Determination: $R^2 = 0.997981$
Calibration curve: $-0.000495469 \cdot x^2 + 2.06704 \cdot x + 0.111955$
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: $1/x$, Axis trans: None



Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

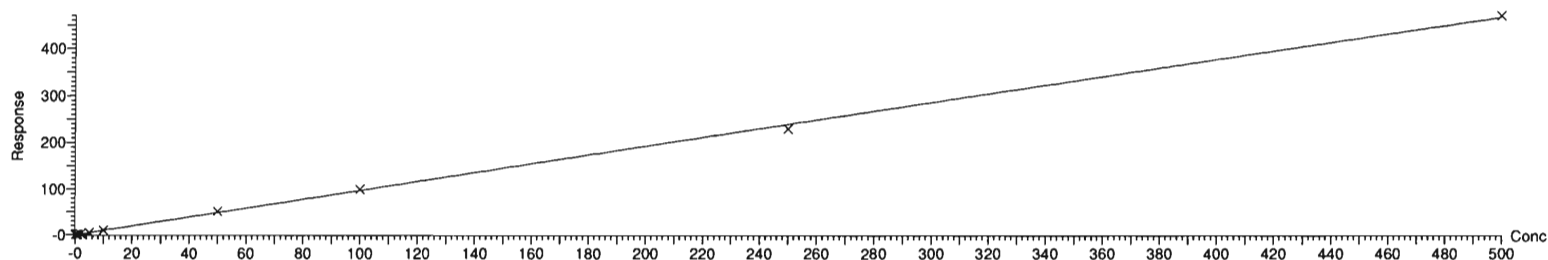
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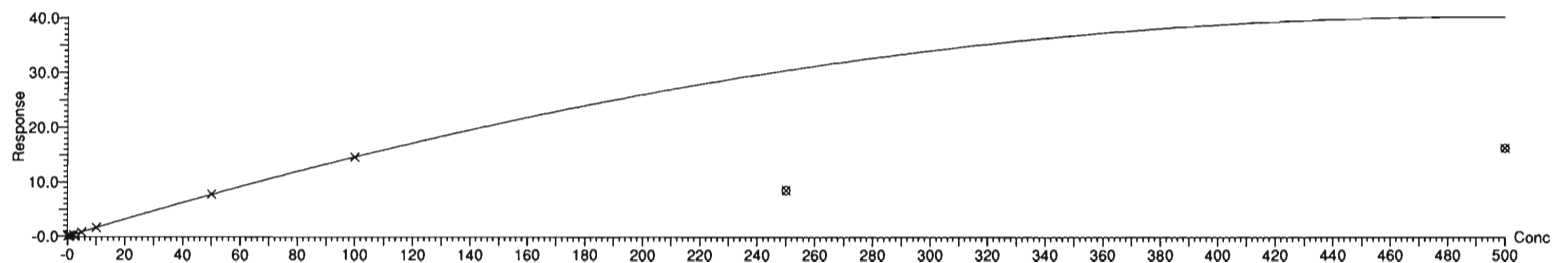
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Compound name: HFPO-DA
Coefficient of Determination: $R^2 = 0.999203$
Calibration curve: $-0.00010111 \cdot x^2 + 0.983956 \cdot x + 0.000924238$
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: 5:3 FTCA
Coefficient of Determination: $R^2 = 0.999753$
Calibration curve: $-0.000165138 \cdot x^2 + 0.163238 \cdot x + -0.00371741$
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
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Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

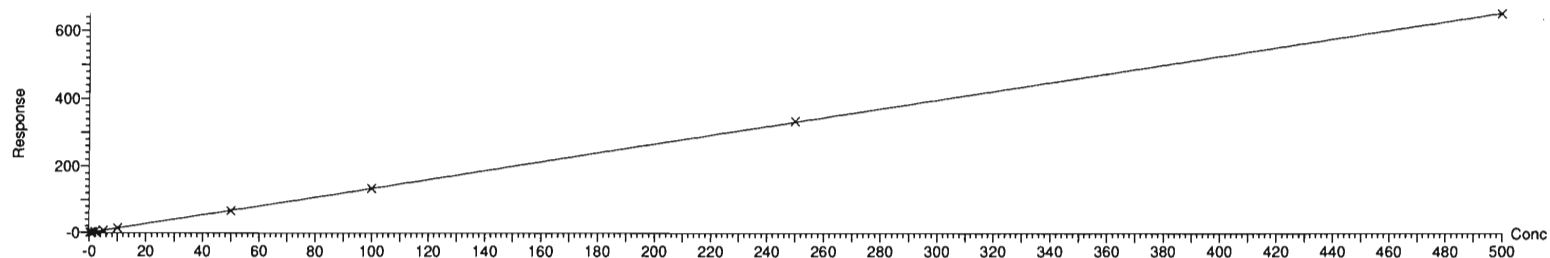
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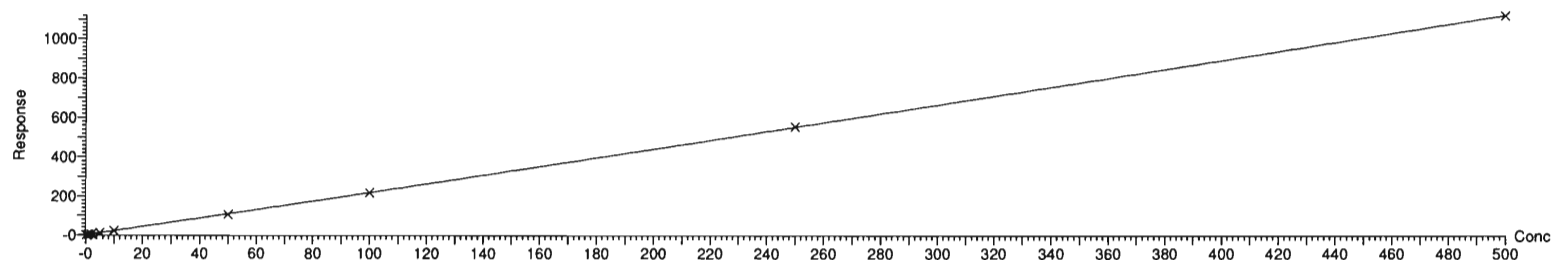
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Compound name: PFHpA
Coefficient of Determination: $R^2 = 0.999946$
Calibration curve: $-8.79446e-005 * x^2 + 1.34735 * x + 0.0239572$
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: ADONA
Coefficient of Determination: $R^2 = 0.999751$
Calibration curve: $0.000137715 * x^2 + 2.17563 * x + -0.120699$
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

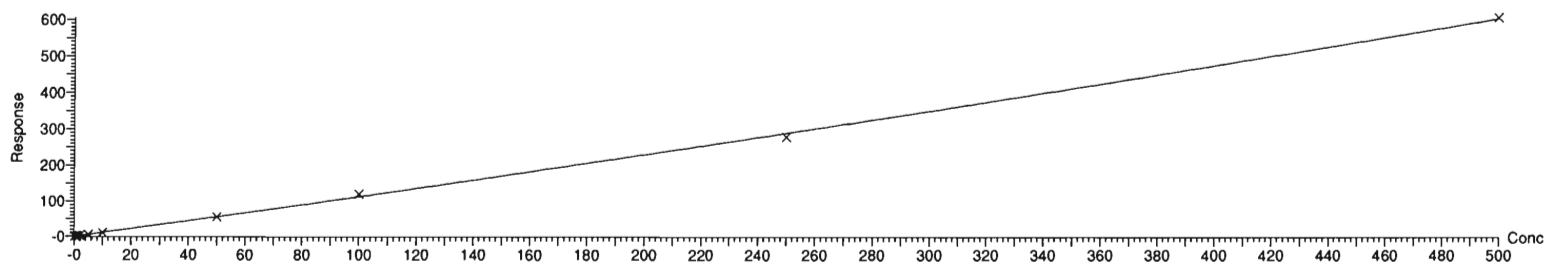
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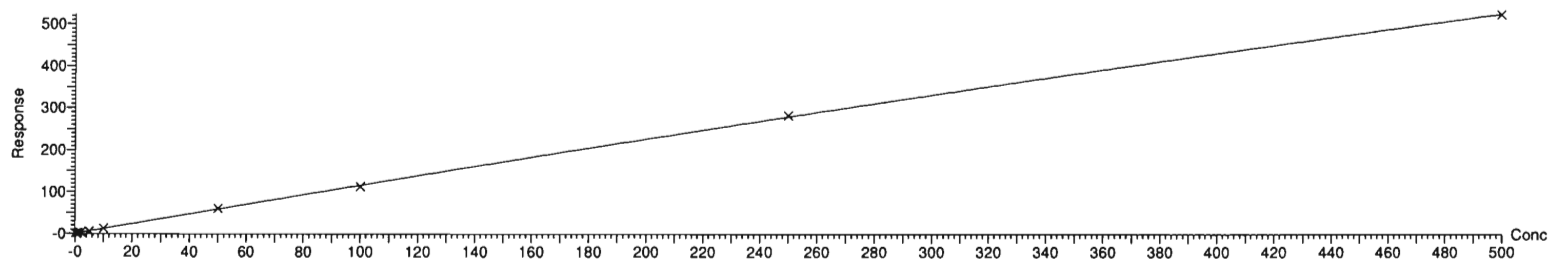
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Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: L-PFHxS
Coefficient of Determination: $R^2 = 0.999121$
Calibration curve: $0.000201992 * x^2 + 1.10648 * x + 0.000919352$
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: 6:2 FTS
Coefficient of Determination: $R^2 = 0.999671$
Calibration curve: $-0.000273511 * x^2 + 1.18647 * x + -0.104492$
Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)
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Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

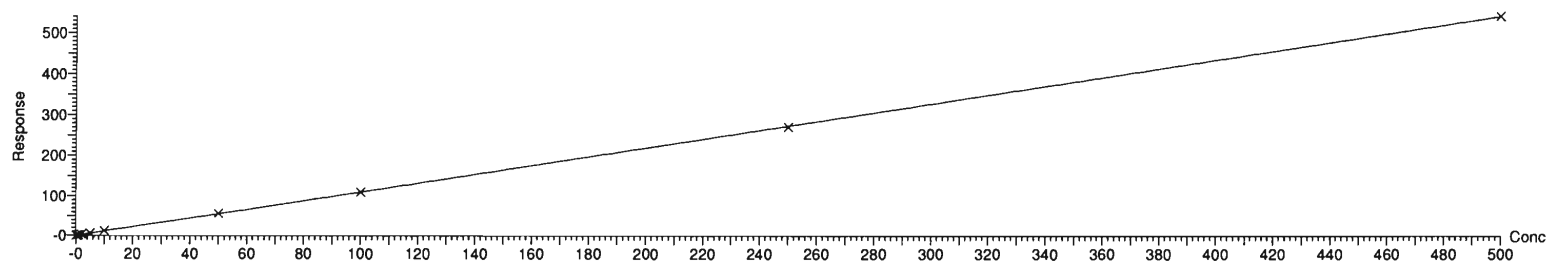
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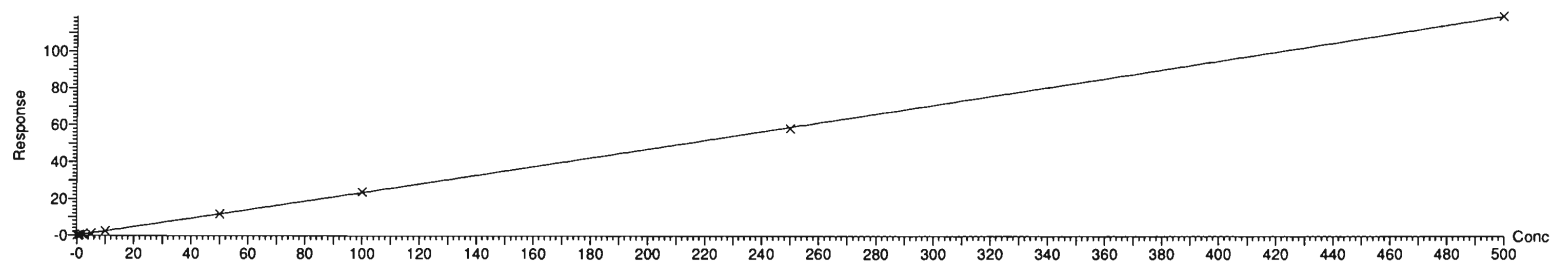
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Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: L-PFOA
Coefficient of Determination: $R^2 = 0.999938$
Calibration curve: $-3.93462e-005 * x^2 + 1.10119 * x + 0.0278768$
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: PFecHS
Coefficient of Determination: $R^2 = 0.999895$
Calibration curve: $1.15737e-005 * x^2 + 0.232701 * x + -0.0157983$
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

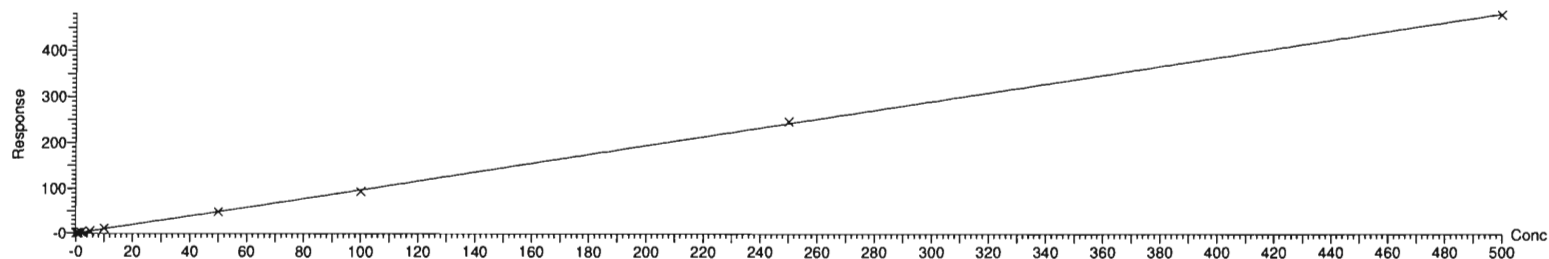
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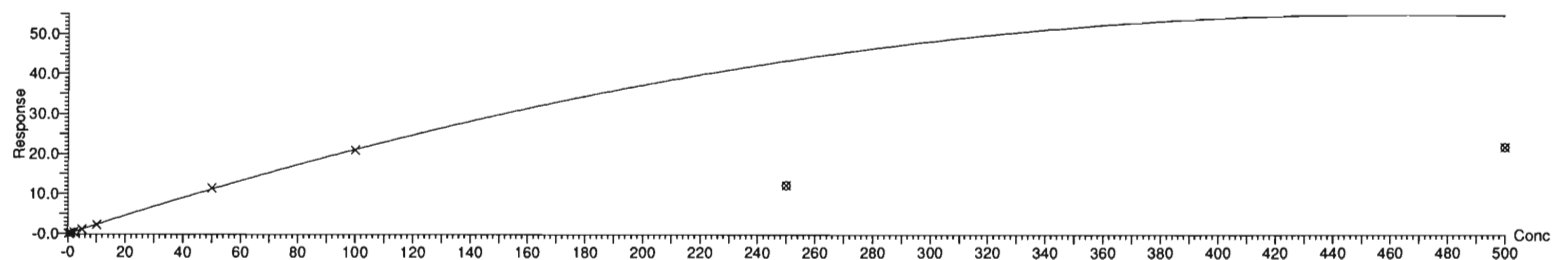
Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: PFHpS
Coefficient of Determination: $R^2 = 0.999602$
Calibration curve: $-3.58386e-005 * x^2 + 0.979909 * x + 0.0428201$
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: 7:3 FTCA
Coefficient of Determination: $R^2 = 0.999222$
Calibration curve: $-0.000255819 * x^2 + 0.237335 * x + -0.0326409$
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
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Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

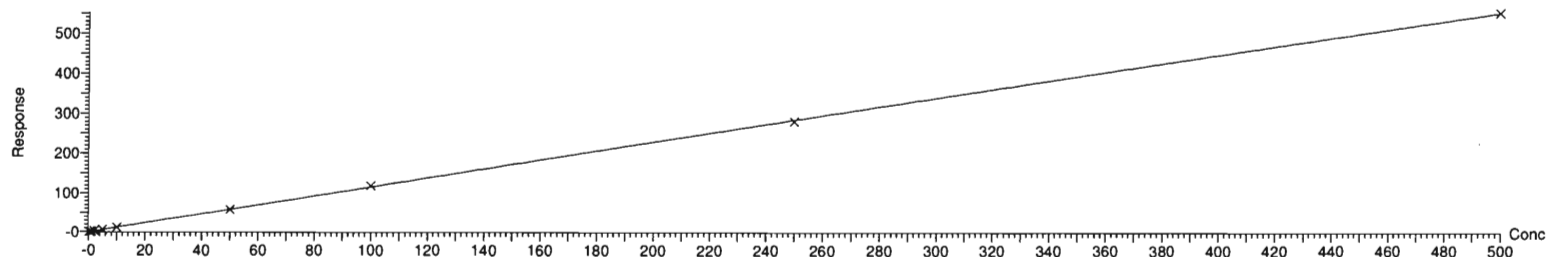
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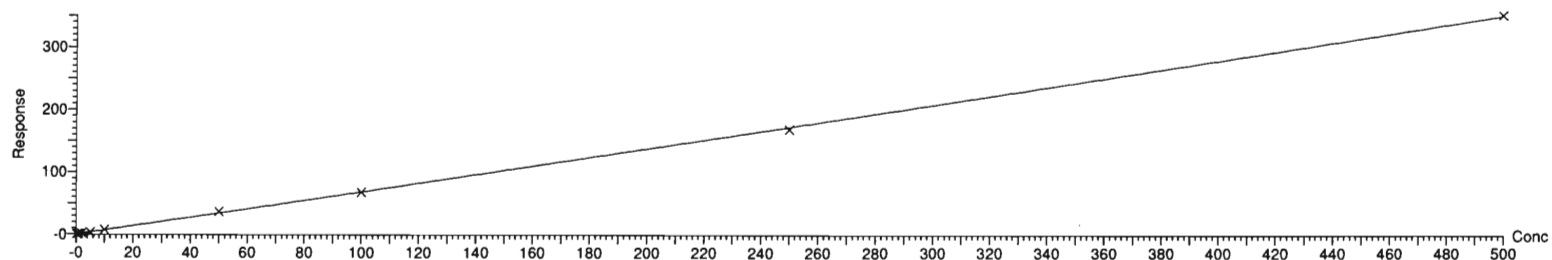
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Compound name: PFNA
Coefficient of Determination: $R^2 = 0.999813$
Calibration curve: $-0.000140725 * x^2 + 1.17399 * x + 0.00493901$
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: PFOSA
Coefficient of Determination: $R^2 = 0.999513$
Calibration curve: $4.6124e-005 * x^2 + 0.677464 * x + 0.0146391$
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
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Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

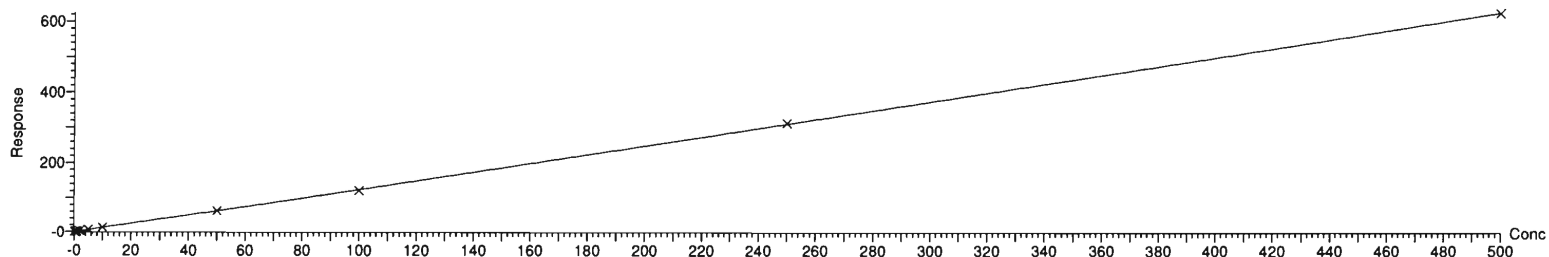
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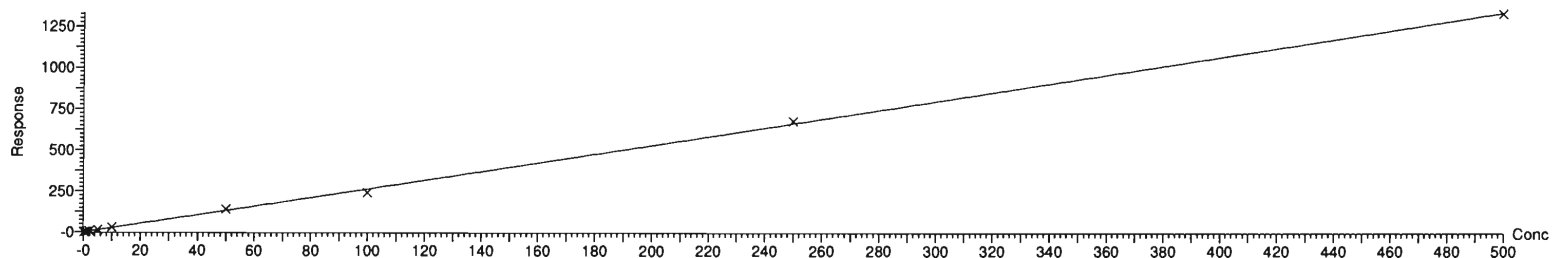
Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: L-PFOS
Coefficient of Determination: $R^2 = 0.999886$
Calibration curve: $3.5975e-005 * x^2 + 1.23386 * x + 0.0340096$
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: 9CI-PF30NS
Coefficient of Determination: $R^2 = 0.998846$
Calibration curve: $8.6379e-005 * x^2 + 2.62727 * x + 0.0969333$
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
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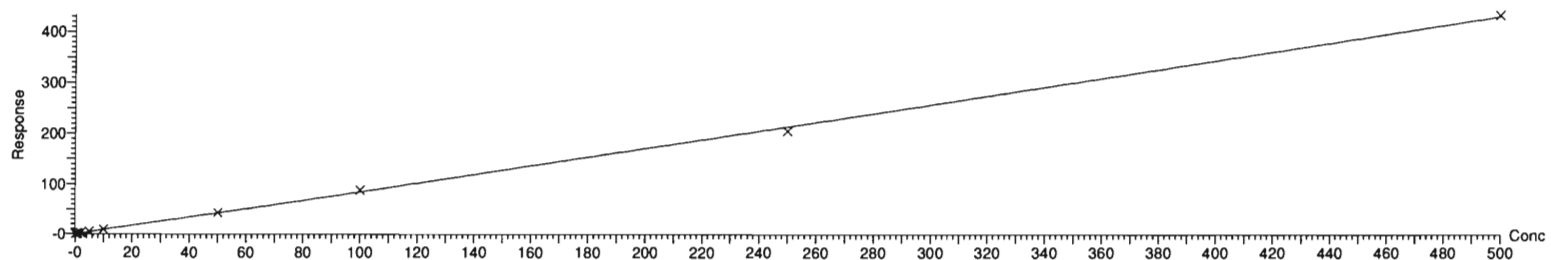
Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

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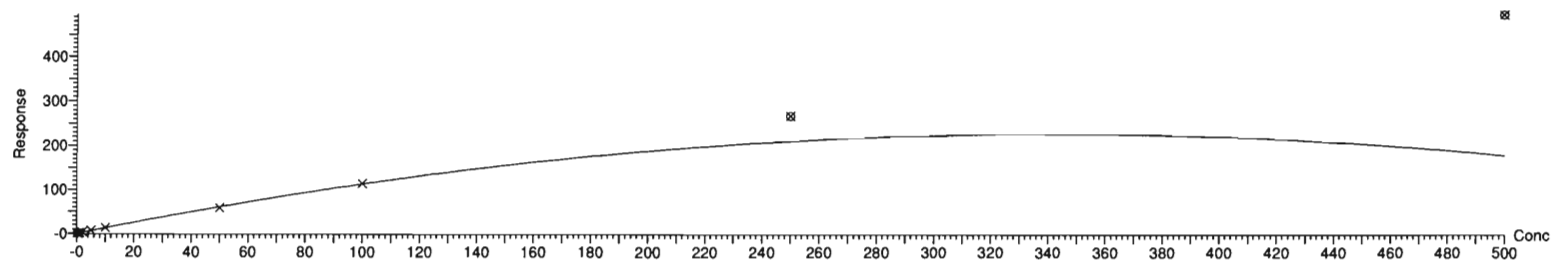
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Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time
Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: PFDA
Coefficient of Determination: $R^2 = 0.999257$
Calibration curve: $2.47531e-005 * x^2 + 0.848561 * x + 0.0312289$
Response type: Internal Std (Ref 73), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: 8:2 FTS
Coefficient of Determination: $R^2 = 0.998405$
Calibration curve: $-0.00193895 * x^2 + 1.32842 * x + -0.220956$
Response type: Internal Std (Ref 75), Area * (IS Conc. / IS Area)
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Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

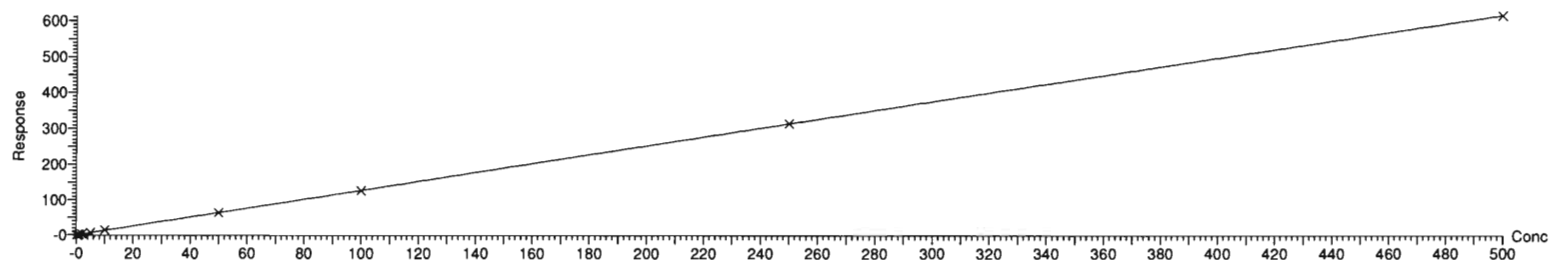
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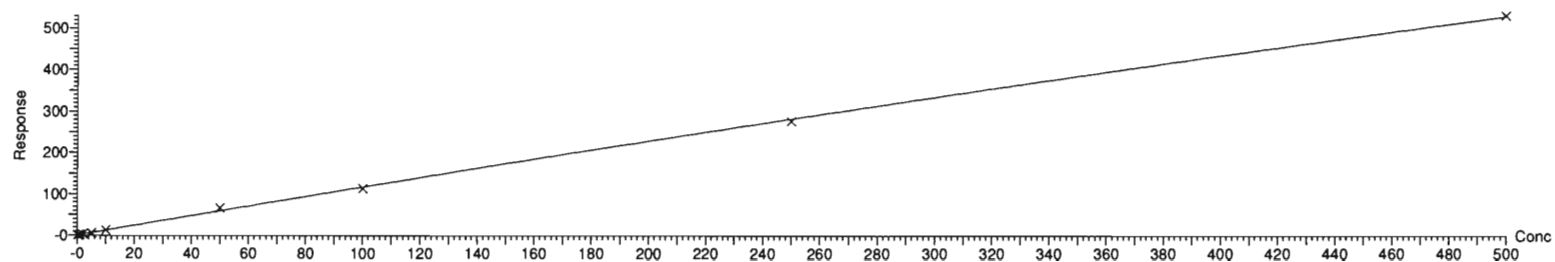
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Printed: Thursday, July 02, 2020 15:42:02 Pacific Daylight Time

Compound name: PFNS
Coefficient of Determination: $R^2 = 0.999850$
Calibration curve: $-0.000105071 \cdot x^2 + 1.28256 \cdot x + -0.0333192$
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: L-MeFOSAA
Coefficient of Determination: $R^2 = 0.998742$
Calibration curve: $-0.000285889 \cdot x^2 + 1.19955 \cdot x + -0.0857179$
Response type: Internal Std (Ref 77), Area * (IS Conc. / IS Area)
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Quantify Calibration Report **MassLynx V4.2 SCN977**
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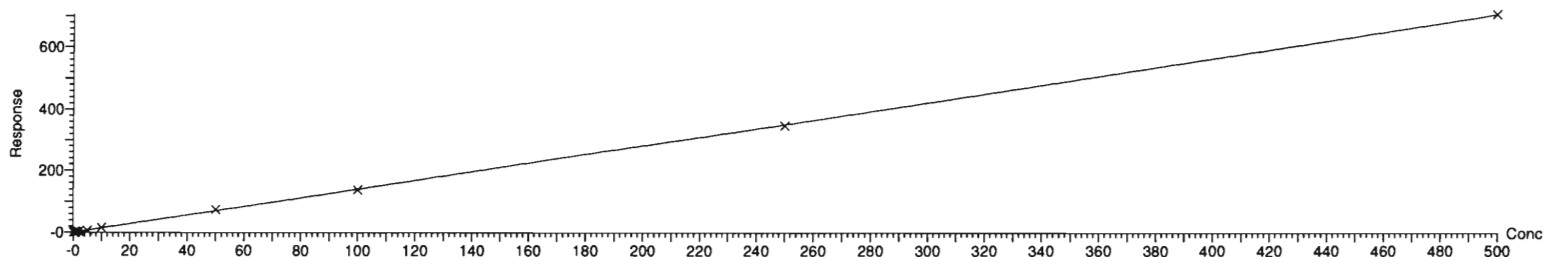
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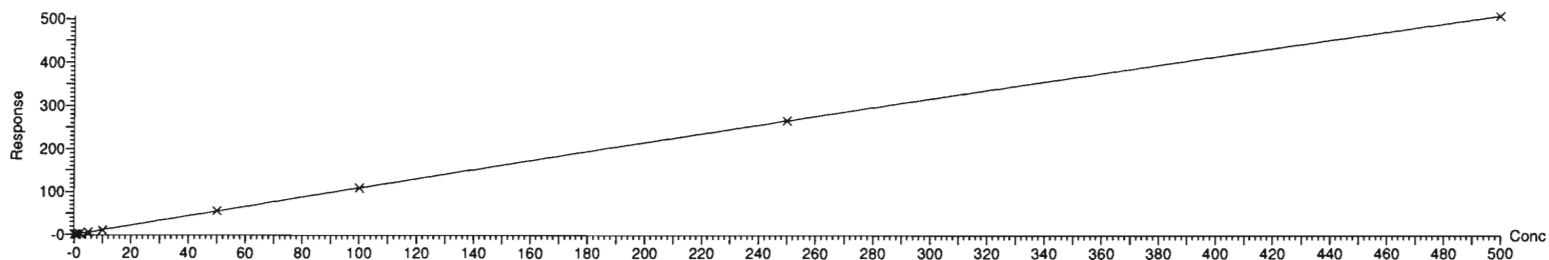
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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070220.mdb 02 Jul 2020 12:54:07
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-02-20.cdb 02 Jul 2020 15:39:20

Compound name: L-EtFOSAA
Coefficient of Determination: $R^2 = 0.999690$
Calibration curve: $1.7982e-005 * x^2 + 1.39996 * x + -0.120599$
Response type: Internal Std (Ref 81), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: PFUdA
Coefficient of Determination: $R^2 = 0.999938$
Calibration curve: $-0.000198645 * x^2 + 1.11438 * x + 0.0140951$
Response type: Internal Std (Ref 79), Area * (IS Conc. / IS Area)
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Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

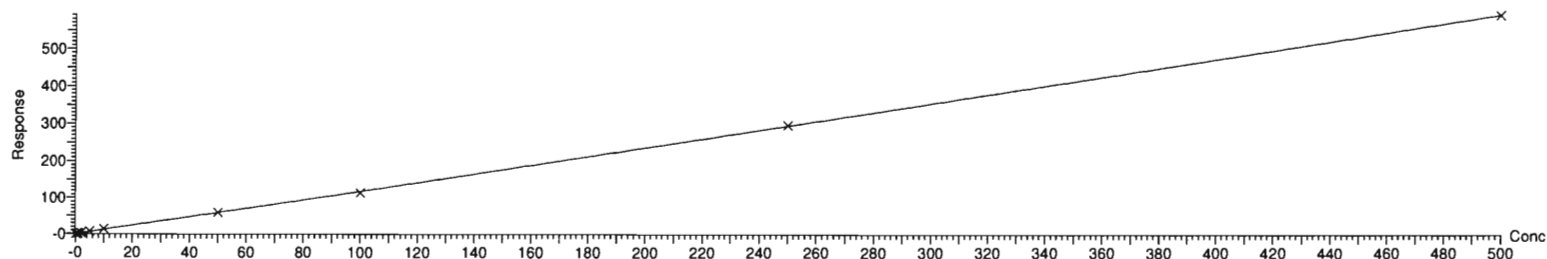
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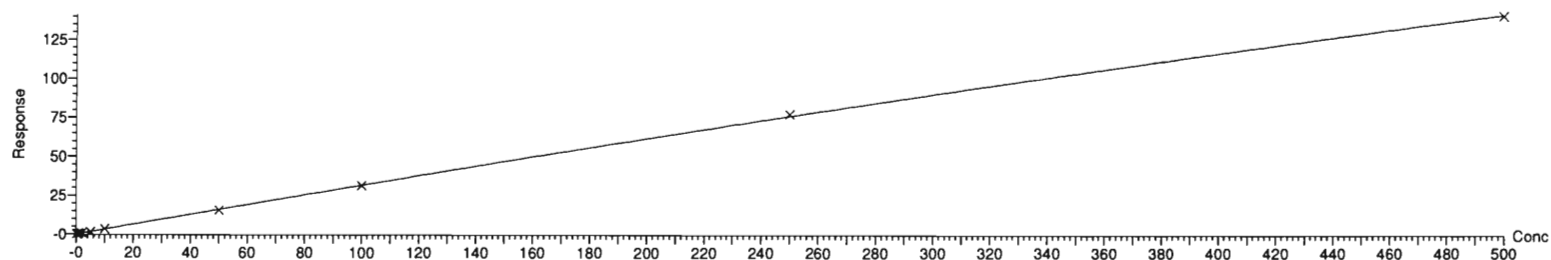
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Compound name: PFDS
Coefficient of Determination: $R^2 = 0.999461$
Calibration curve: $2.5461e-005 * x^2 + 1.17145 * x + 0.0177344$
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: 11Cl-PF30UdS
Coefficient of Determination: $R^2 = 0.999732$
Calibration curve: $-8.65994e-005 * x^2 + 0.32617 * x + -0.0032153$
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Quantify Calibration Report **MassLynx V4.2 SCN977**

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Vista Analytical Laboratory Q1

Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Printed: Thursday, July 02, 2020 15:42:14 Pacific Daylight Time

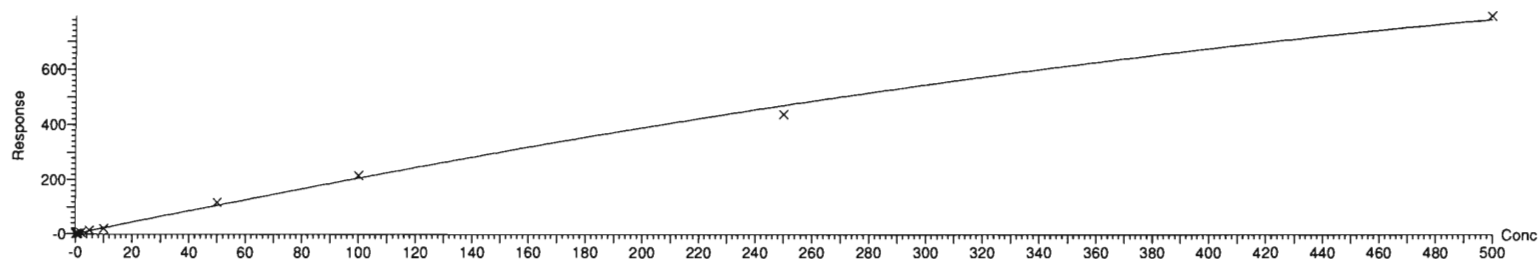
Compound name: 10:2 FTS

Coefficient of Determination: $R^2 = 0.996200$

Calibration curve: $-0.00128296 * x^2 + 2.20336 * x + -0.226422$

Response type: Internal Std (Ref 85), Area * (IS Conc. / IS Area)

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



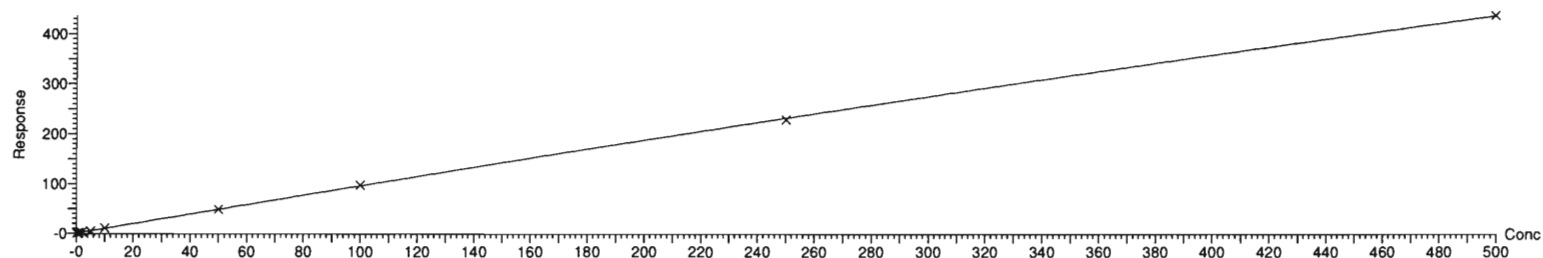
Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.999865$

Calibration curve: $-0.000218597 * x^2 + 0.982731 * x + 0.0479972$

Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)

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



Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

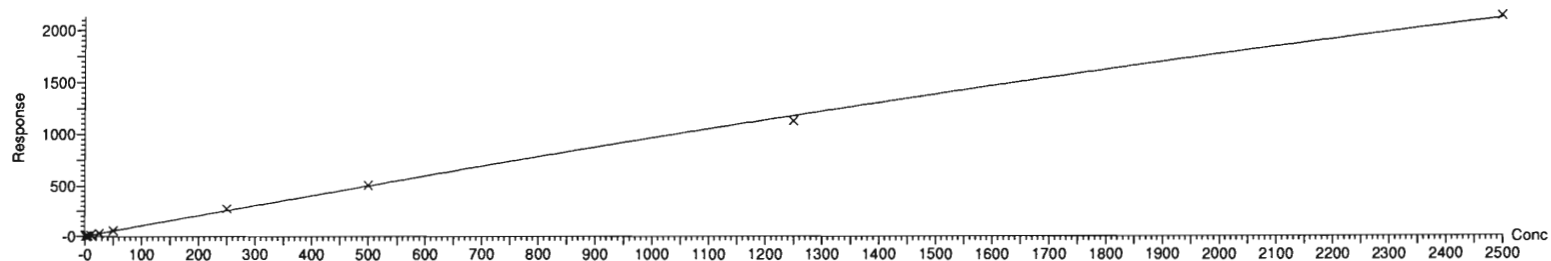
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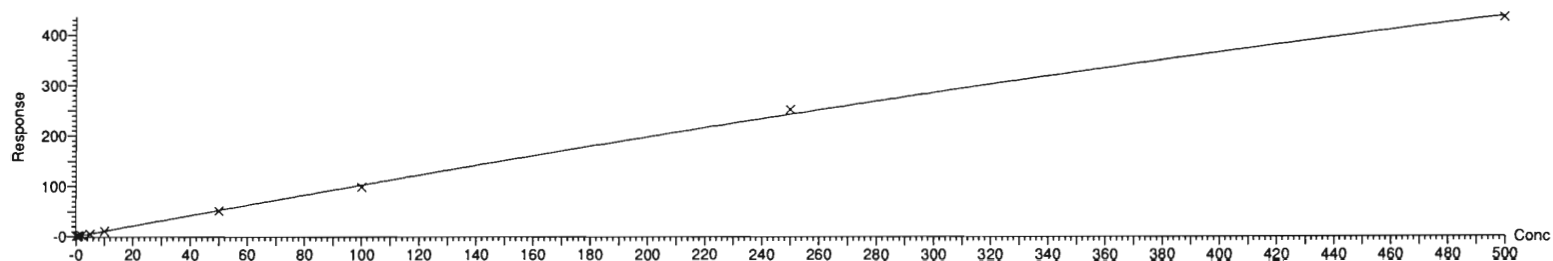
Last Altered: Thursday, July 02, 2020 15:39:20 Pacific Daylight Time

Printed: Thursday, July 02, 2020 15:42:14 Pacific Daylight Time

Compound name: N-MeFOSA
Coefficient of Determination: $R^2 = 0.998946$
Calibration curve: $-7.7036e-005 * x^2 + 1.03774 * x + 0.134012$
Response type: Internal Std (Ref 87), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: PFTrDA
Coefficient of Determination: $R^2 = 0.999177$
Calibration curve: $-0.000383496 * x^2 + 1.06613 * x + 0.0321406$
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Quantify Calibration Report **MassLynx V4.2 SCN977**

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Vista Analytical Laboratory Q1

Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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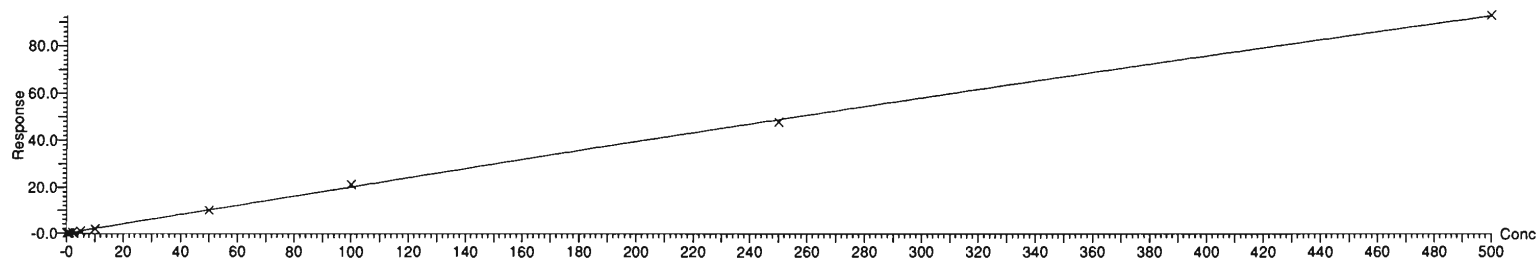
Compound name: PFDoS

Coefficient of Determination: $R^2 = 0.999364$

Calibration curve: $-4.17318e-005 * x^2 + 0.206225 * x + -0.0128103$

Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)

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



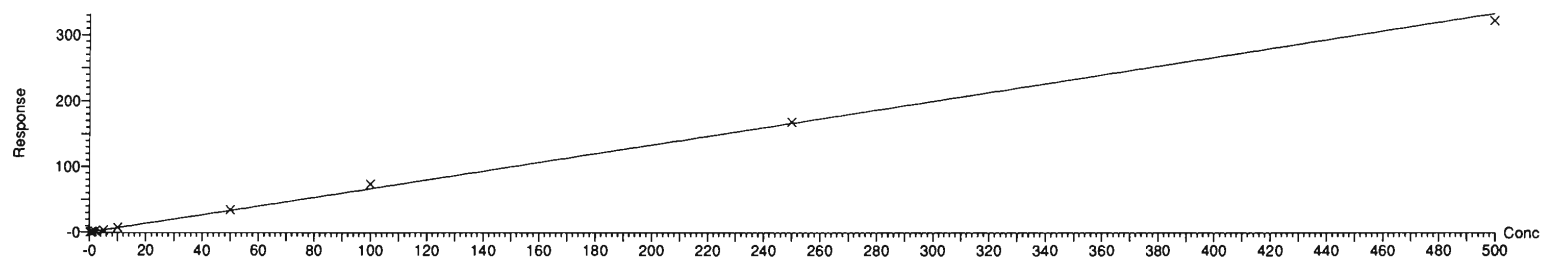
Compound name: PFTeDA

Correlation coefficient: $r = 0.998980$, $r^2 = 0.997962$

Calibration curve: $0.665506 * x + 0.0408871$

Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)

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



Quantify Calibration Report MassLynx V4.2 SCN977

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Vista Analytical Laboratory Q1

Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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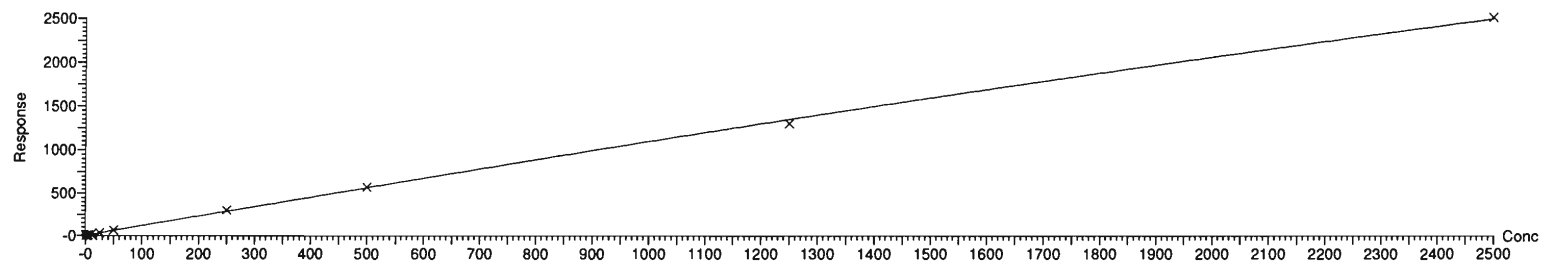
Compound name: N-EtFOSA

Coefficient of Determination: $R^2 = 0.999209$

Calibration curve: $-6.43157e-005 * x^2 + 1.15747 * x + 0.808012$

Response type: Internal Std (Ref 91), Area * (IS Conc. / IS Area)

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



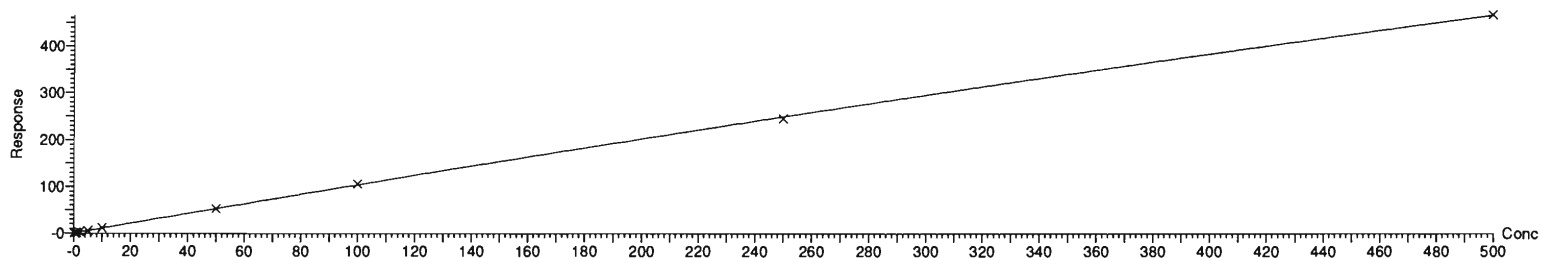
Compound name: PFHxDA

Coefficient of Determination: $R^2 = 0.999875$

Calibration curve: $-0.000258973 * x^2 + 1.06046 * x + 0.145584$

Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)

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Vista Analytical Laboratory Q1

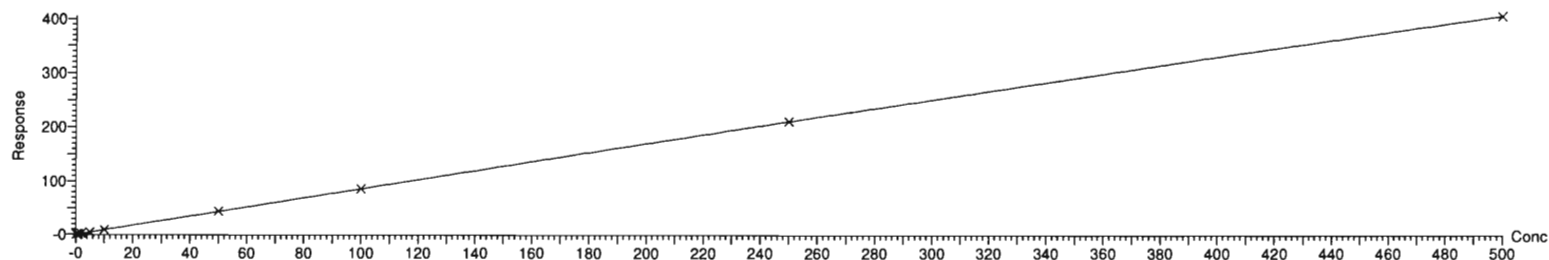
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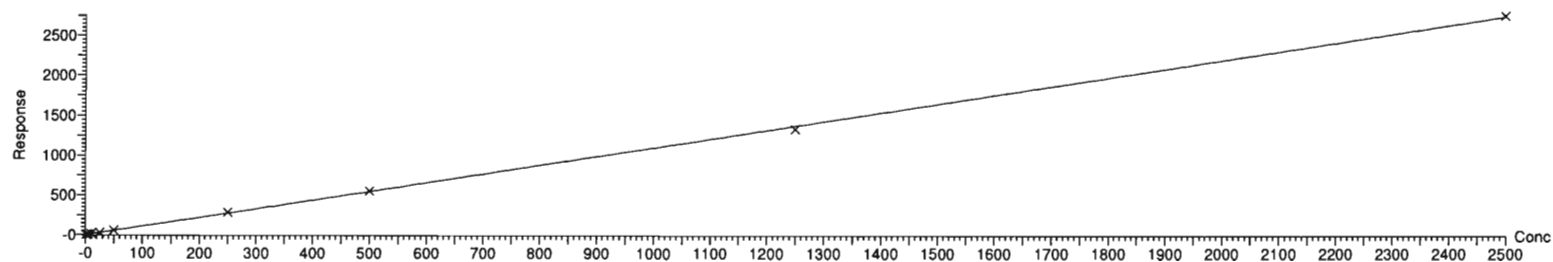
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Printed: Thursday, July 02, 2020 15:42:14 Pacific Daylight Time

Compound name: PFODA
Coefficient of Determination: $R^2 = 0.999978$
Calibration curve: $-0.00012309 \cdot x^2 + 0.87337 \cdot x + -0.0158707$
Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: N-MeFOSE
Correlation coefficient: $r = 0.999826$, $r^2 = 0.999652$
Calibration curve: $1.09699 \cdot x + 0.439849$
Response type: Internal Std (Ref 95), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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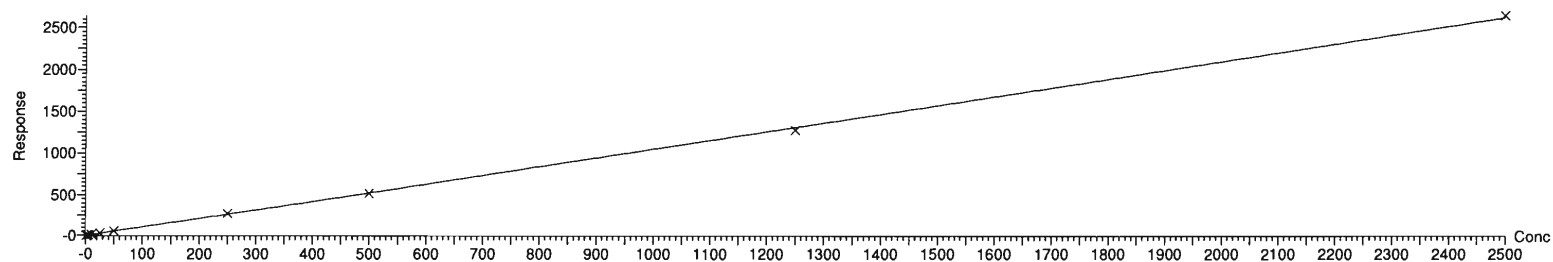
Compound name: N-EtFOSE

Correlation coefficient: $r = 0.999835$, $r^2 = 0.999671$

Calibration curve: $1.04763 * x + 0.0654311$

Response type: Internal Std (Ref 97), Area * (IS Conc. / IS Area)

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



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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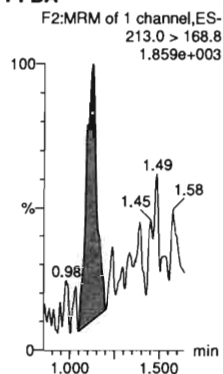
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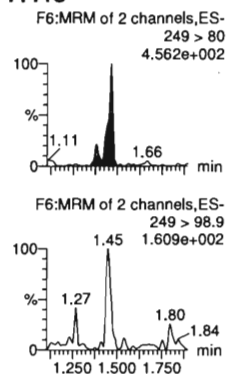
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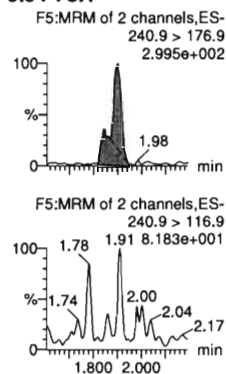
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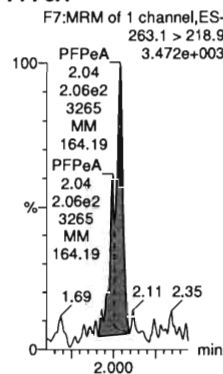
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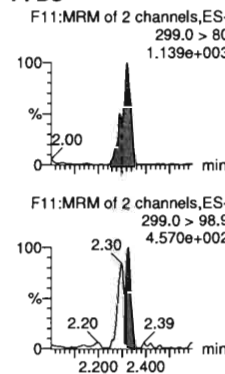
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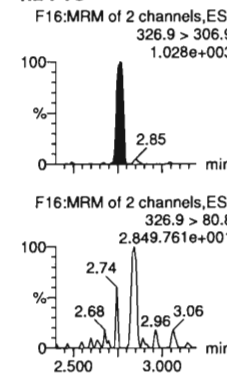
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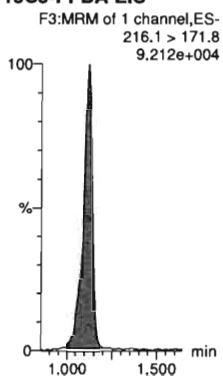
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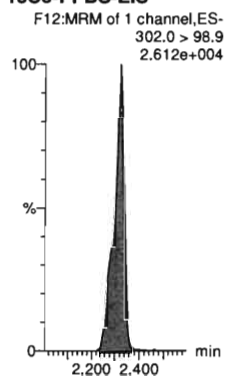
4:2 FTS



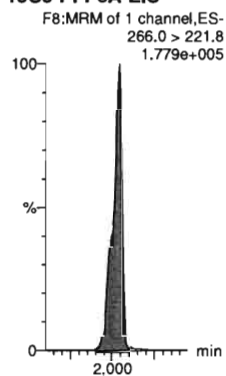
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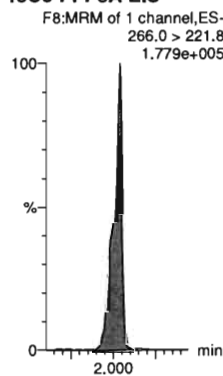
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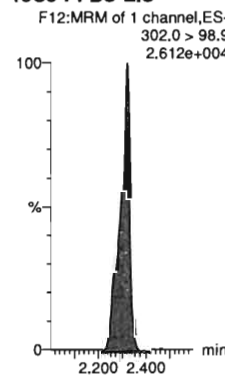
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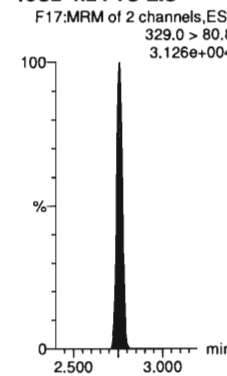
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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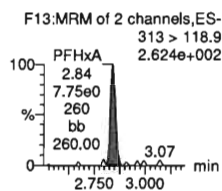
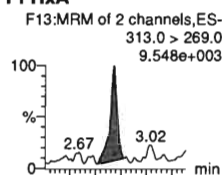
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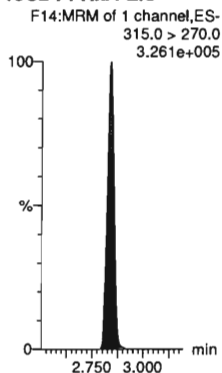
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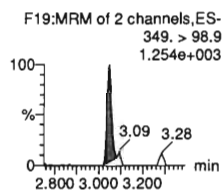
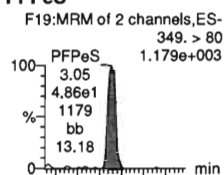
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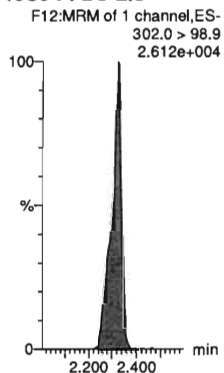
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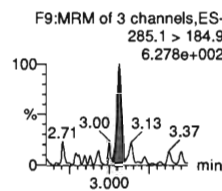
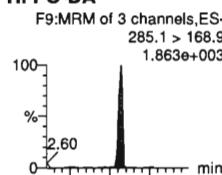
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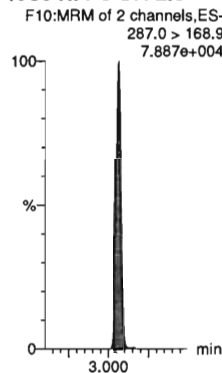
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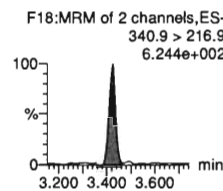
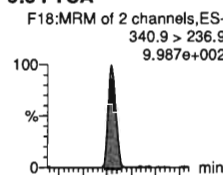
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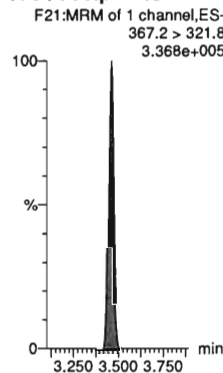
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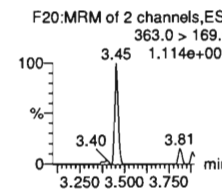
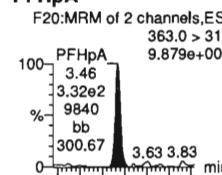
5:3 FTCA



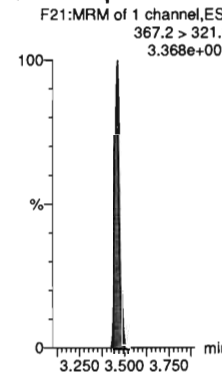
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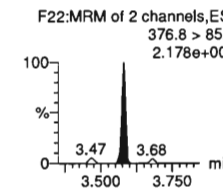
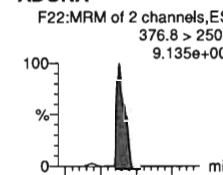
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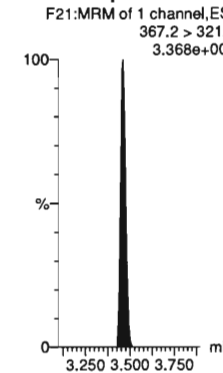
13C4-PFHpA-EIS



ADONA



13C4-PFHpA-EIS



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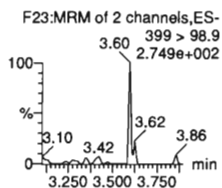
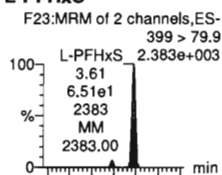
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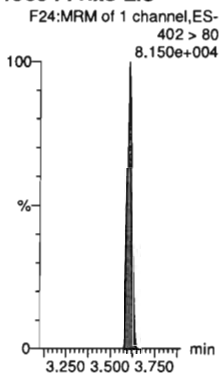
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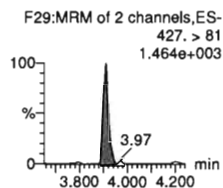
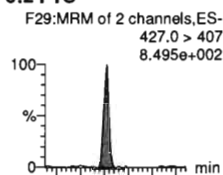
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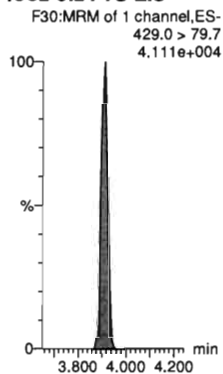
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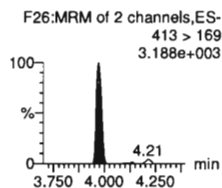
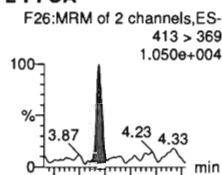
6:2 FTS



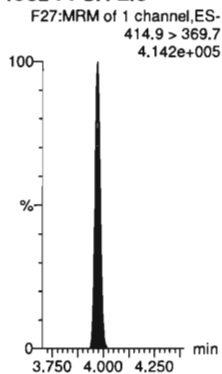
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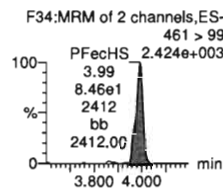
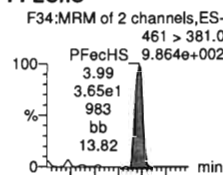
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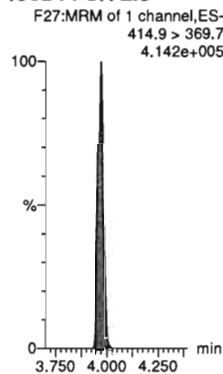
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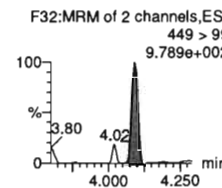
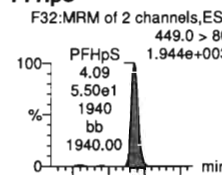
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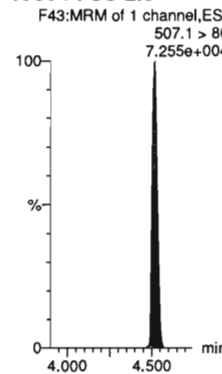
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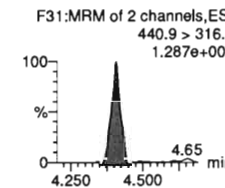
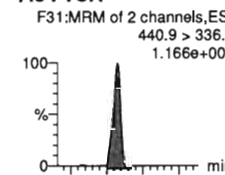
PFHpS



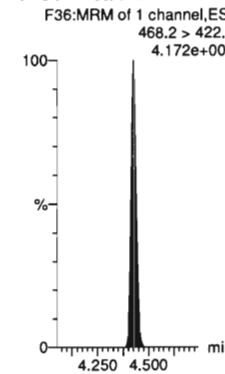
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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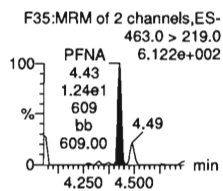
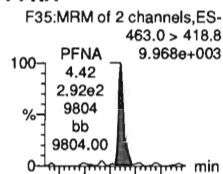
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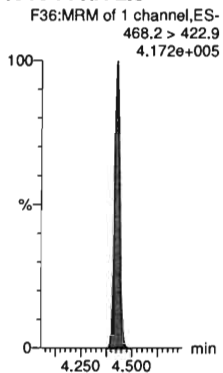
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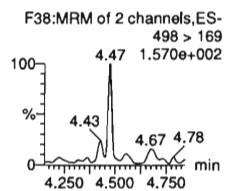
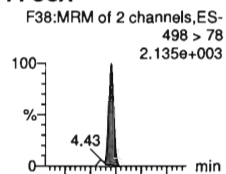
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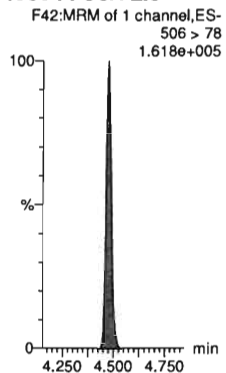
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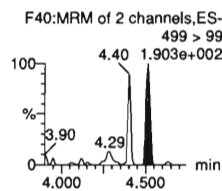
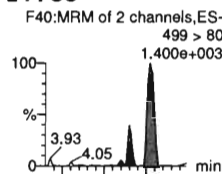
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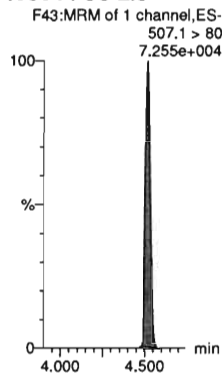
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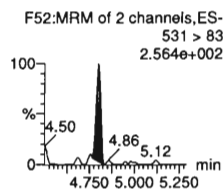
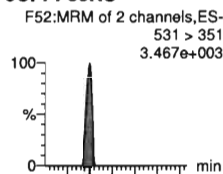
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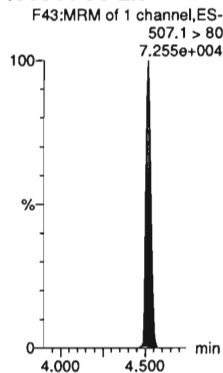
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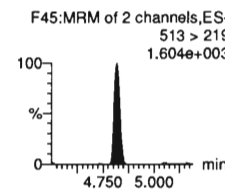
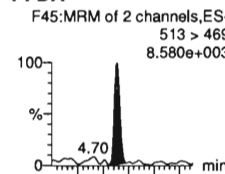
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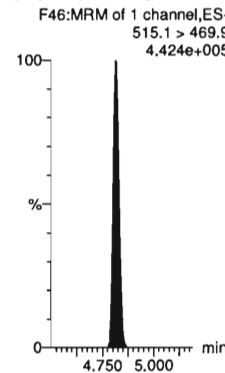
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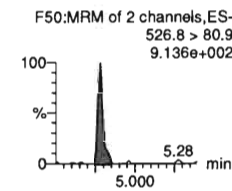
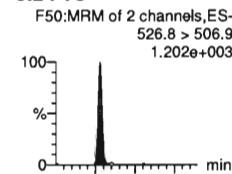
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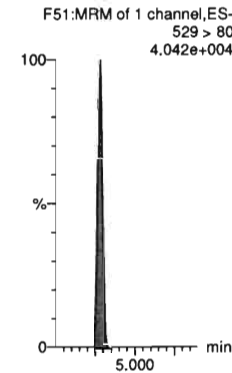
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8:2 FTS



13C2-8:2 FTS-EIS



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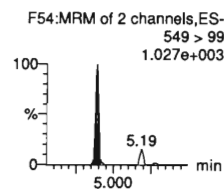
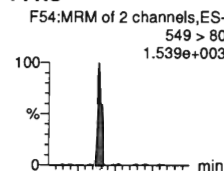
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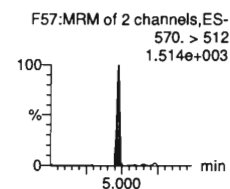
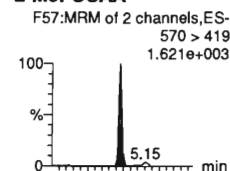
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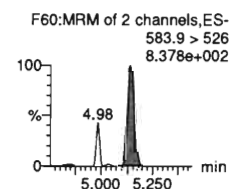
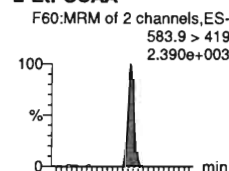
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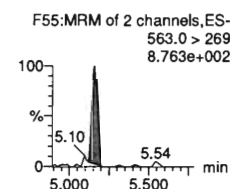
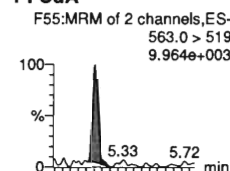
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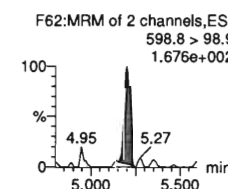
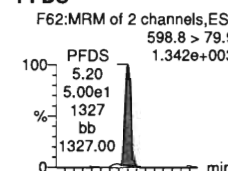
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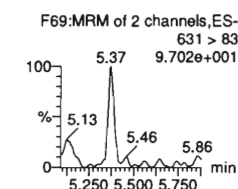
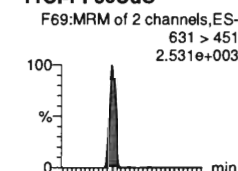
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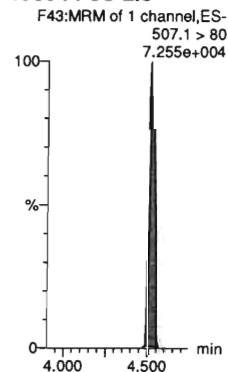
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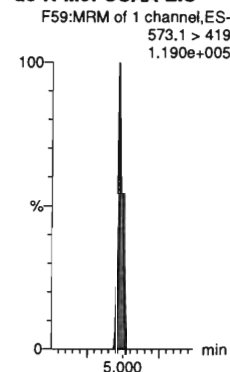
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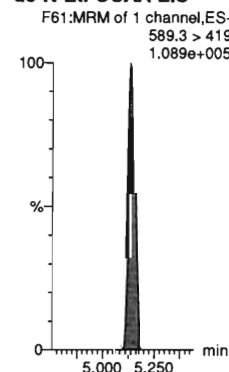
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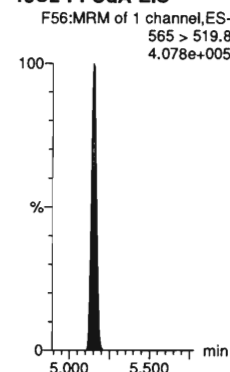
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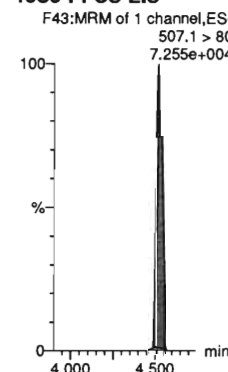
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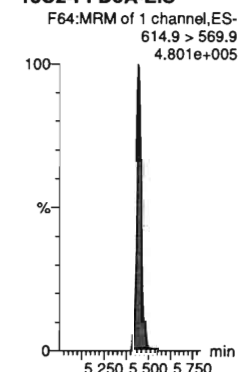
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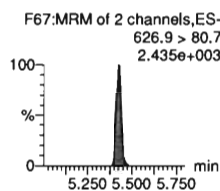
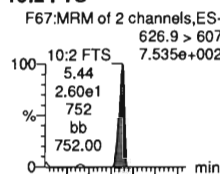
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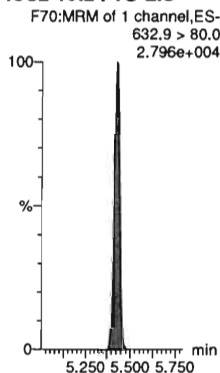
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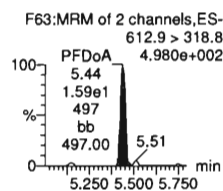
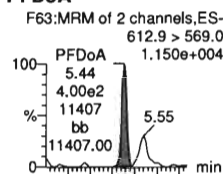
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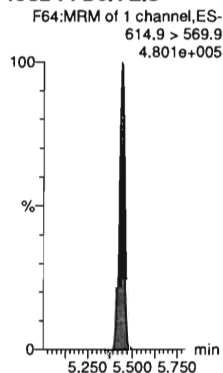
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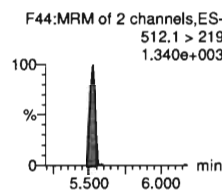
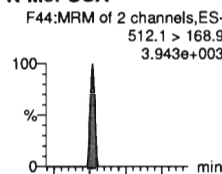
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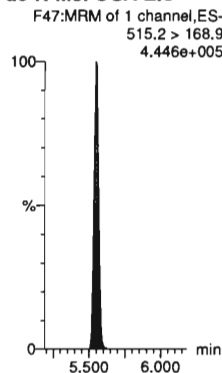
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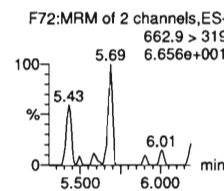
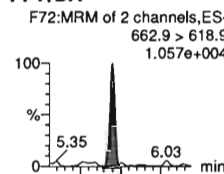
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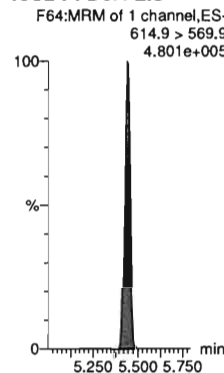
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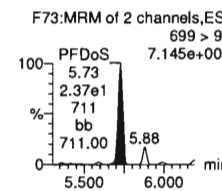
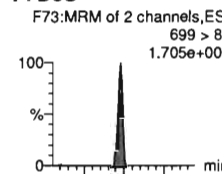
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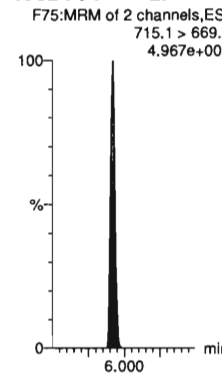
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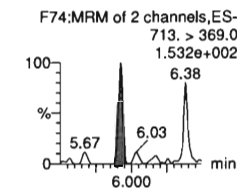
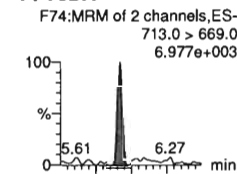
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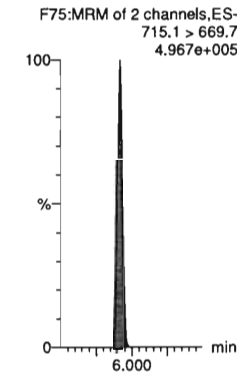
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PFTeDA



13C2-PFTeDA-EIS



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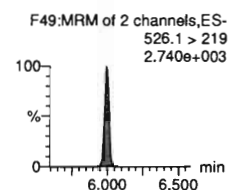
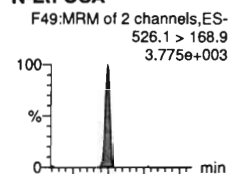
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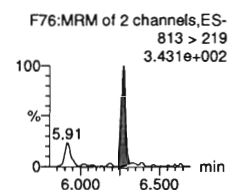
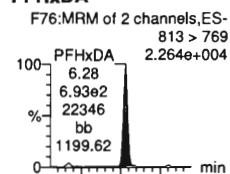
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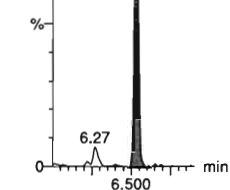
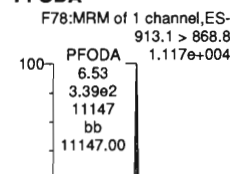
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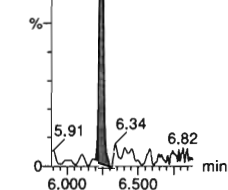
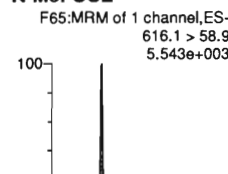
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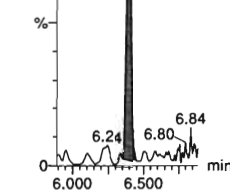
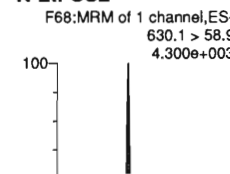
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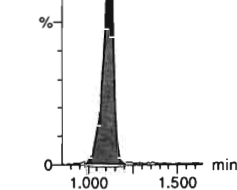
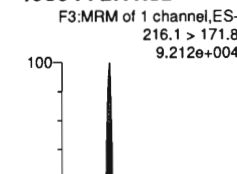
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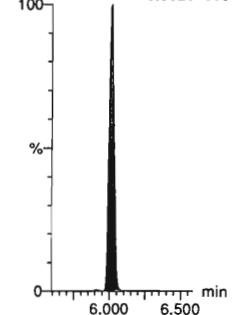
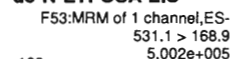
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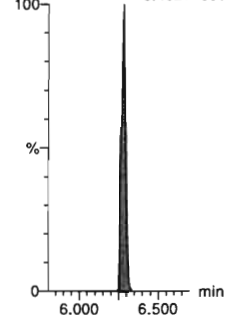
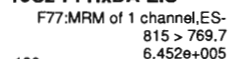
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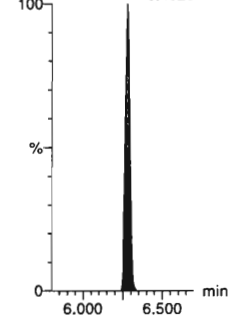
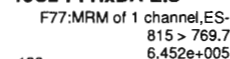
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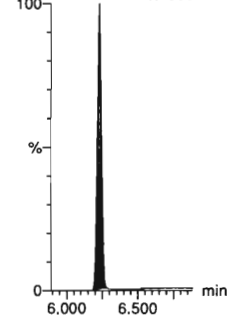
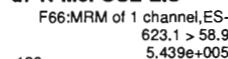
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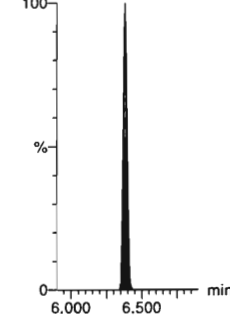
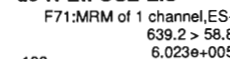
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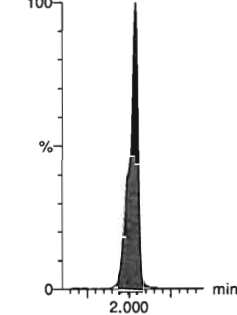
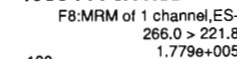
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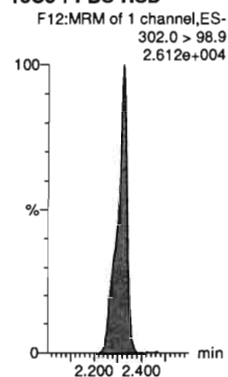
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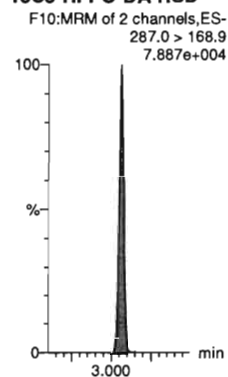
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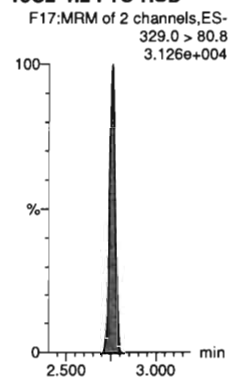
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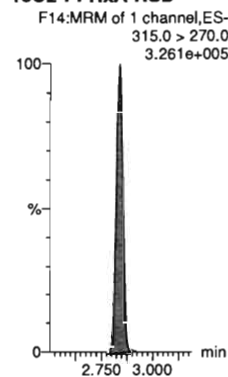
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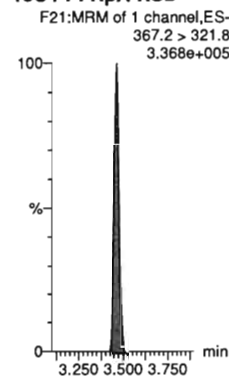
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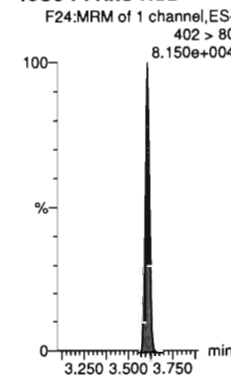
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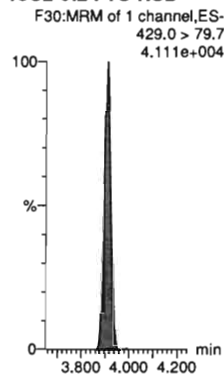
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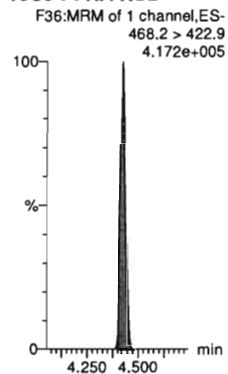
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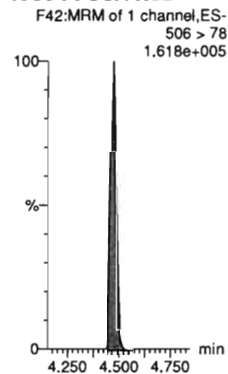
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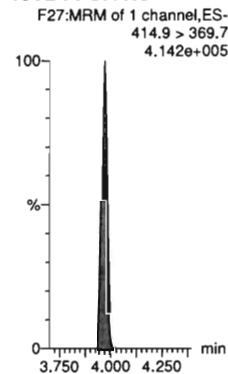
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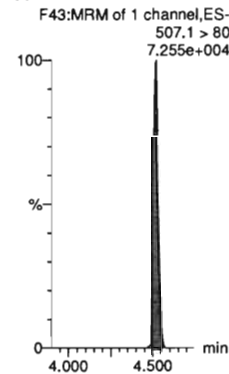
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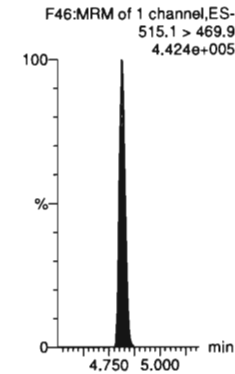
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

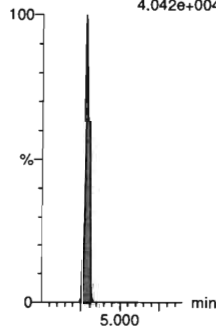
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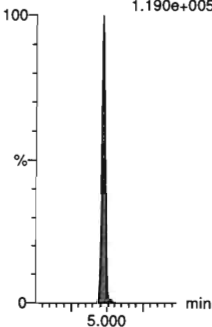
13C2-8:2 FTS-RSD

F51:MRM of 1 channel,ES-
529 > 80
4.042e+004



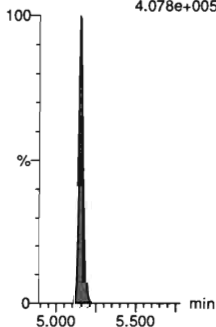
d3-N-MeFOSAA-RSD

F59:MRM of 1 channel,ES-
573.1 > 419
1.190e+005



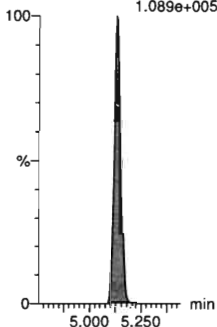
13C2-PFUdA-RSD

F56:MRM of 1 channel,ES-
565 > 519.8
4.078e+005



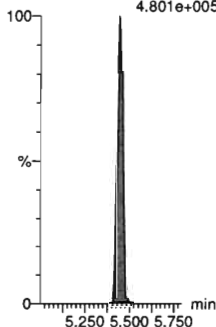
d5-N-EtFOSAA-RSD

F61:MRM of 1 channel,ES-
589.3 > 419
1.089e+005



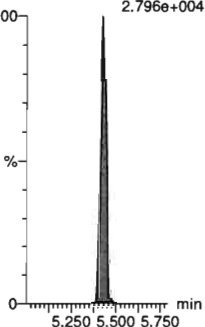
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F64:MRM of 1 channel,ES-
614.9 > 569.9
4.801e+005



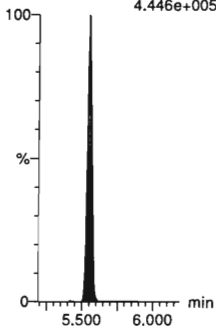
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F70:MRM of 1 channel,ES-
632.9 > 80.0
2.796e+004



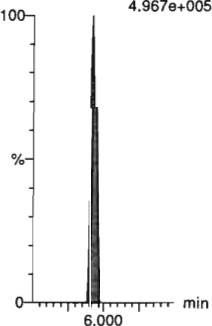
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F47:MRM of 1 channel,ES-
515.2 > 168.9
4.446e+005



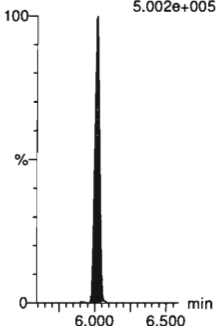
13C2-PFTeDA-RSD

F75:MRM of 2 channels,ES-
715.1 > 669.7
4.967e+005



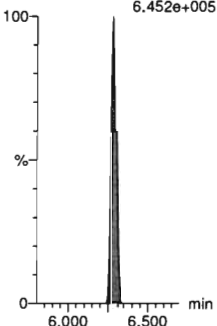
d5-N-ETFOSA-RSD

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.002e+005



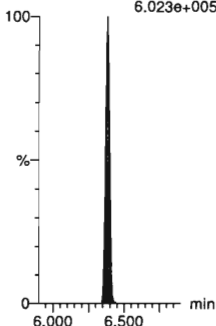
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F77:MRM of 1 channel,ES-
815 > 769.7
6.452e+005



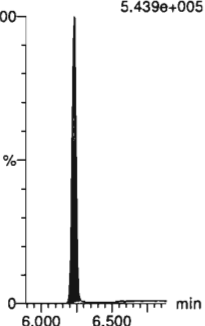
d9-N-EtFOSE-RSD

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.023e+005



d7-N-MeFOSE-RSD

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.439e+005



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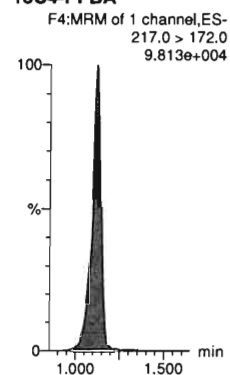
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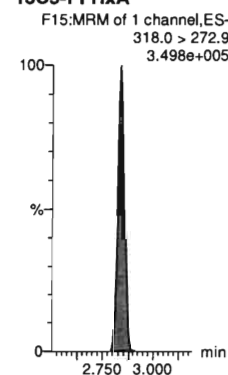
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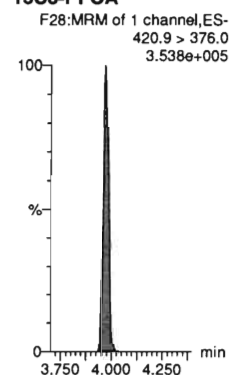
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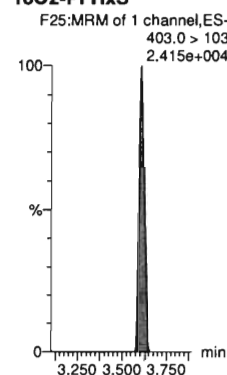
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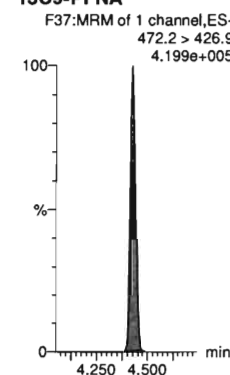
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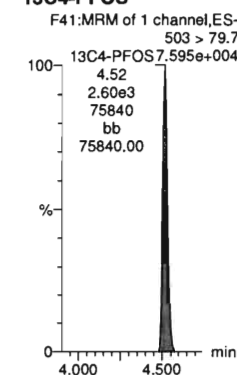
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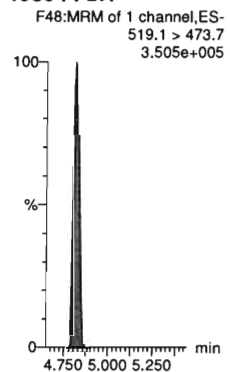
13C9-PFNA



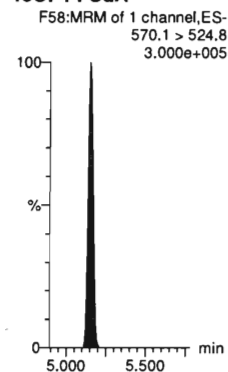
13C4-PFOS



13C6-PFDA



13C7-PFUDa



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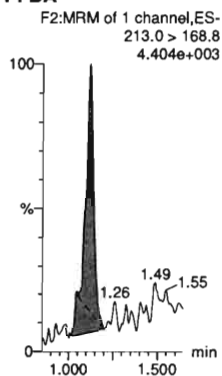
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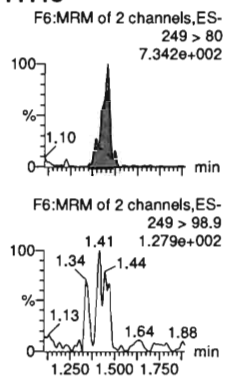
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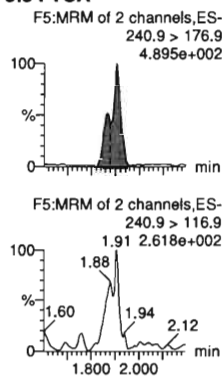
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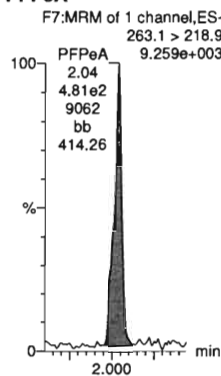
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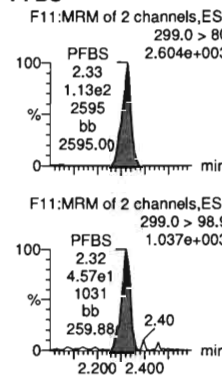
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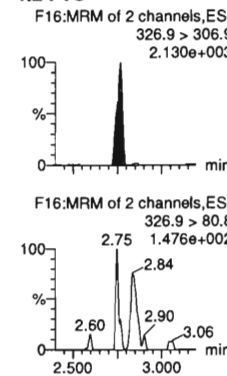
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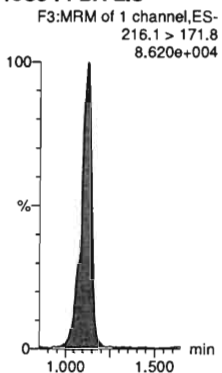
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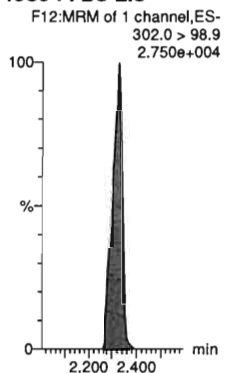
4:2 FTS



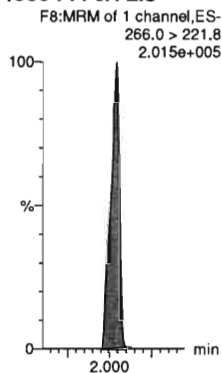
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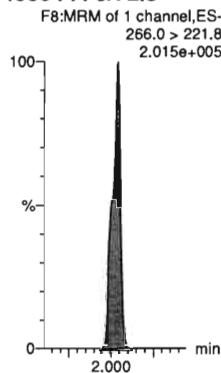
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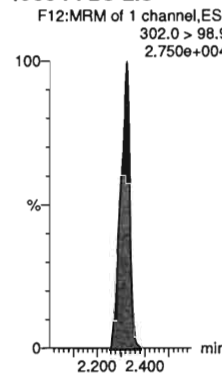
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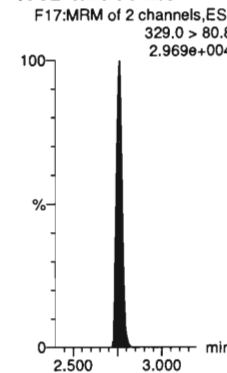
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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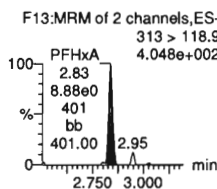
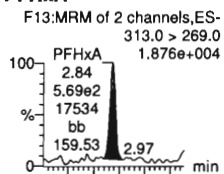
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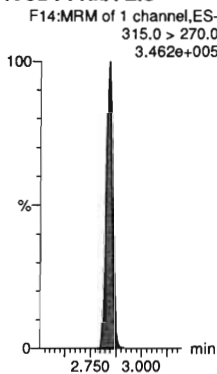
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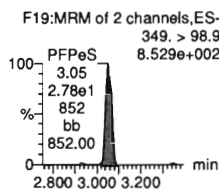
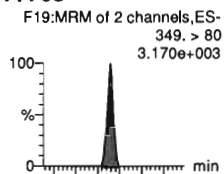
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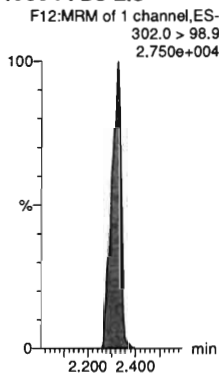
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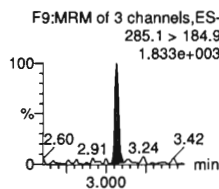
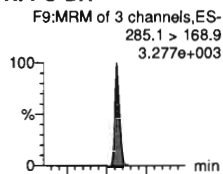
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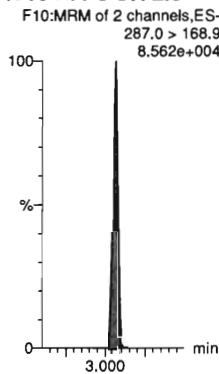
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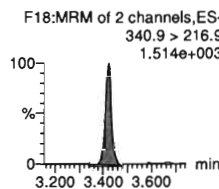
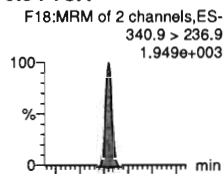
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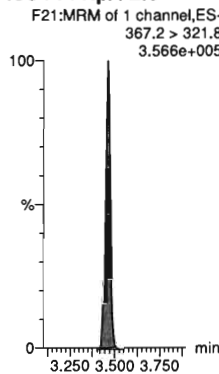
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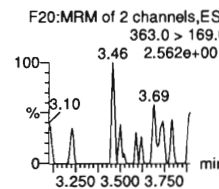
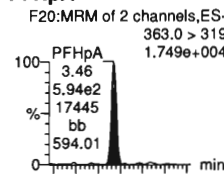
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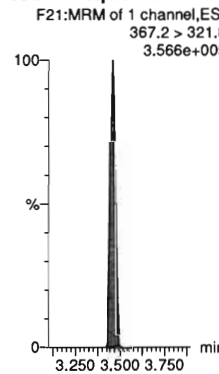
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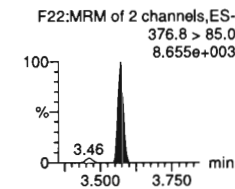
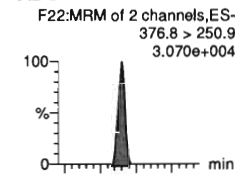
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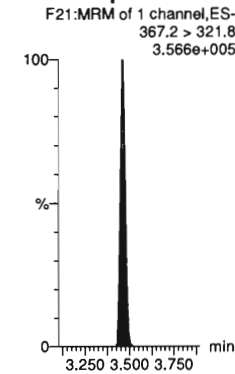
13C4-PFHpA-EIS



ADONA



13C4-PFHpA-EIS



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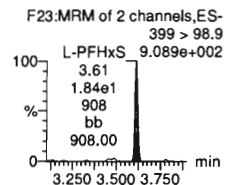
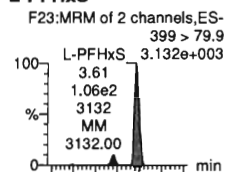
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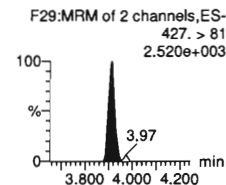
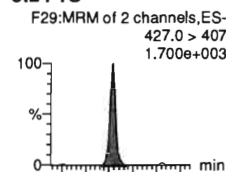
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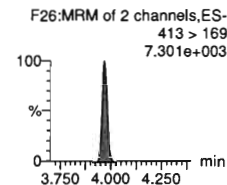
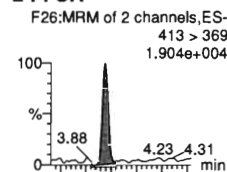
L-PFHxS



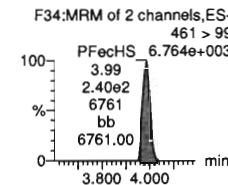
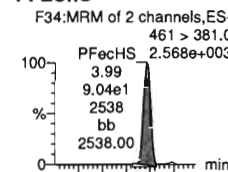
6:2 FTS



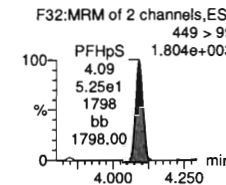
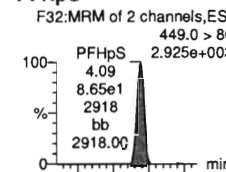
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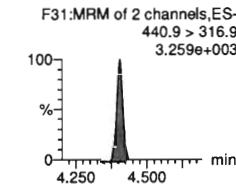
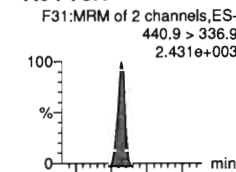
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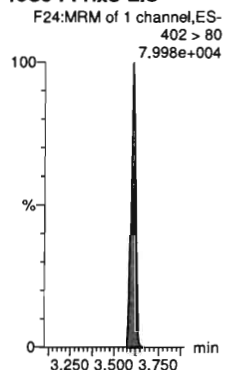
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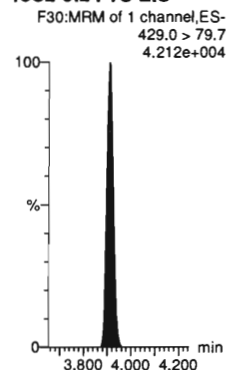
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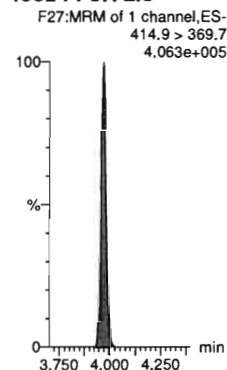
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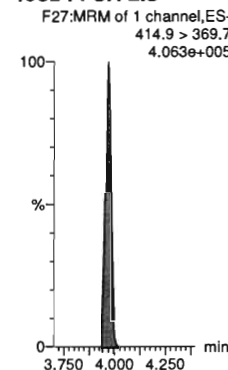
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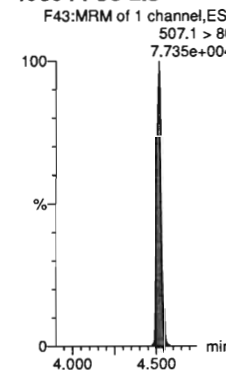
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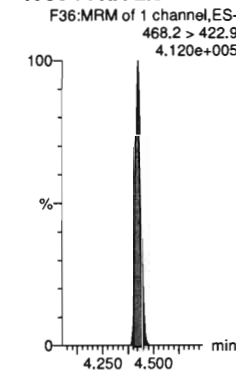
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13C8-PFOS-EIS



13C5-PFNA-EIS



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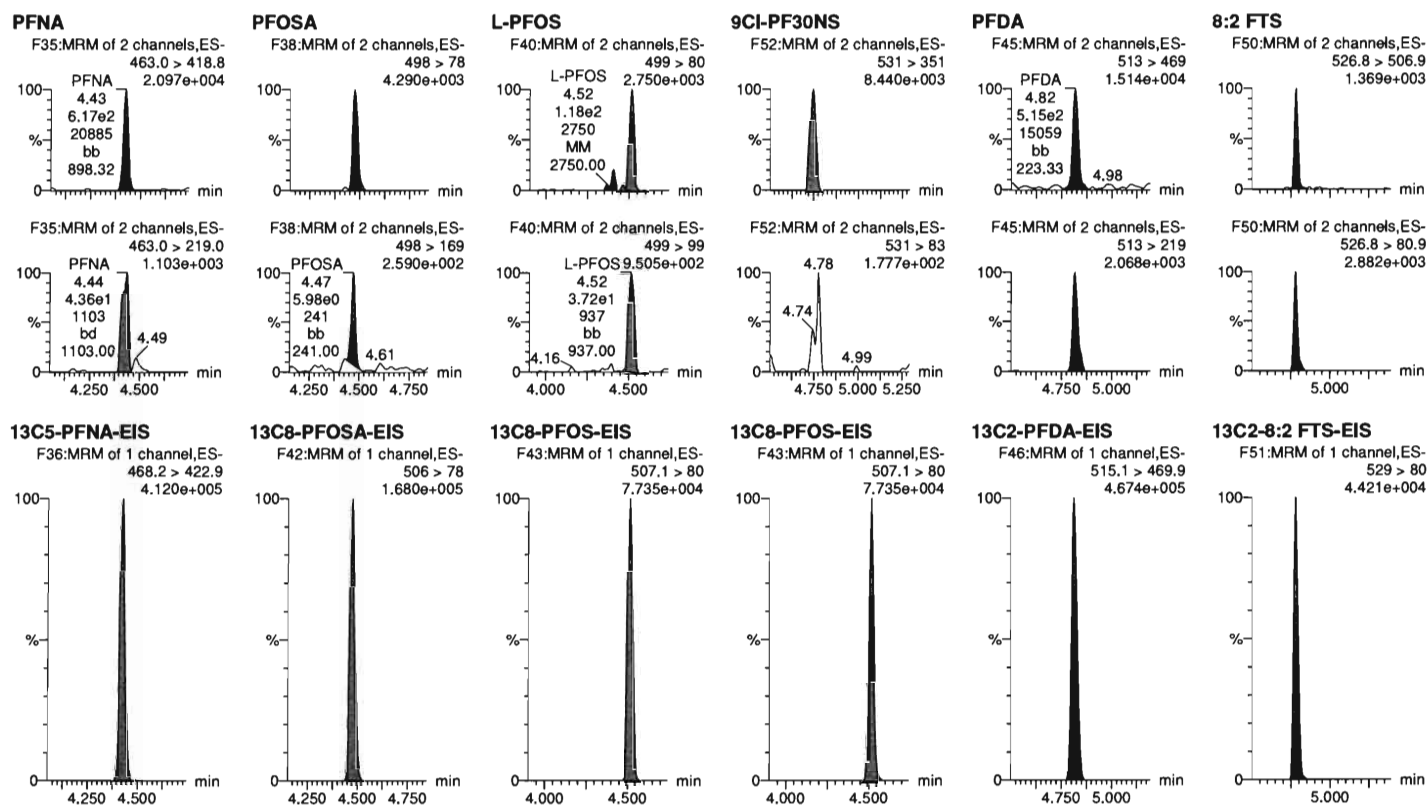
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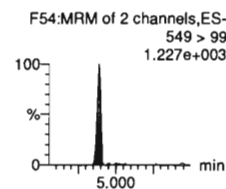
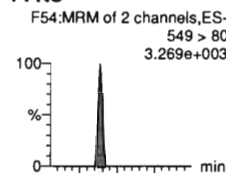
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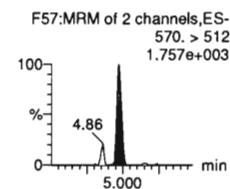
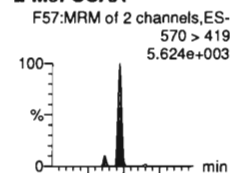
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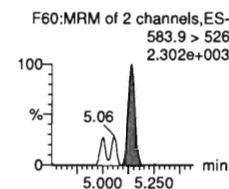
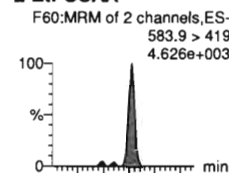
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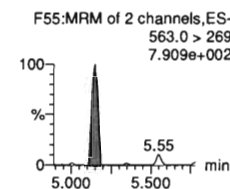
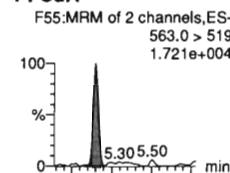
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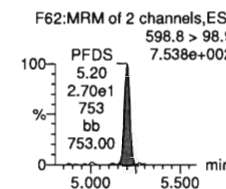
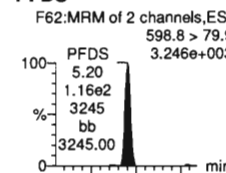
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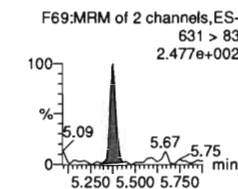
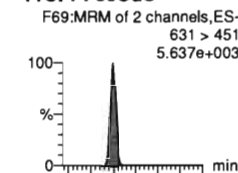
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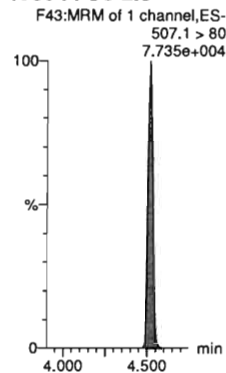
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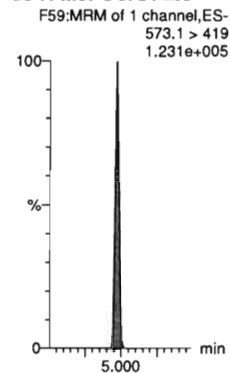
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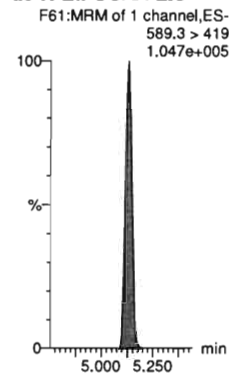
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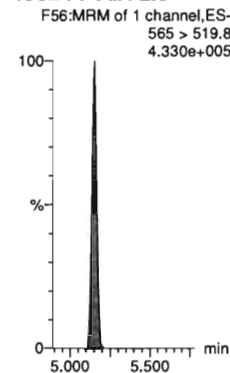
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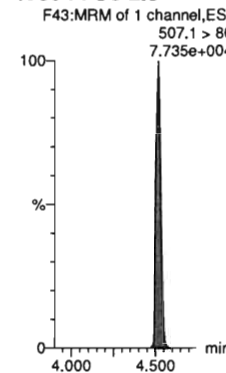
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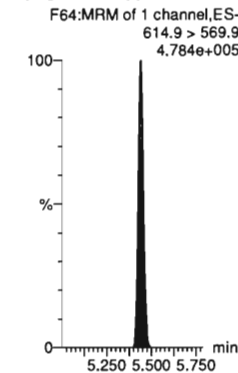
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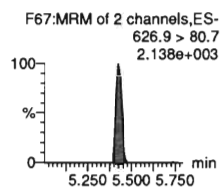
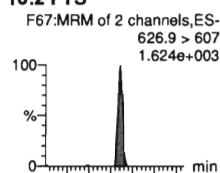
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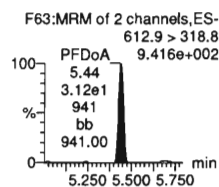
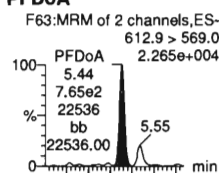
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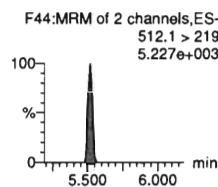
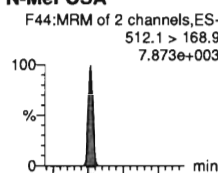
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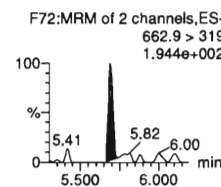
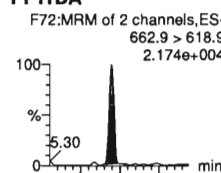
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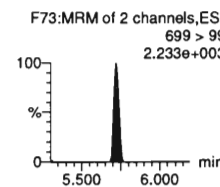
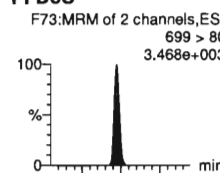
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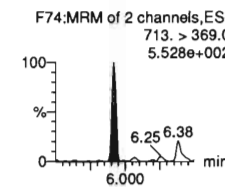
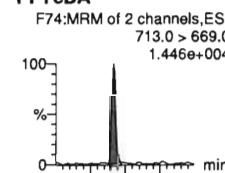
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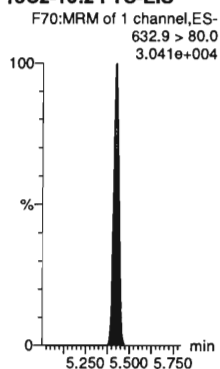
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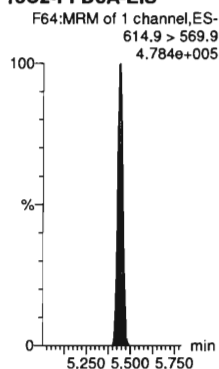
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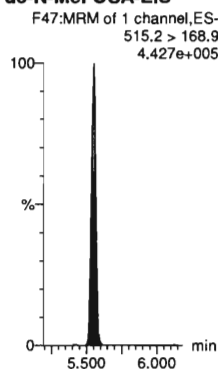
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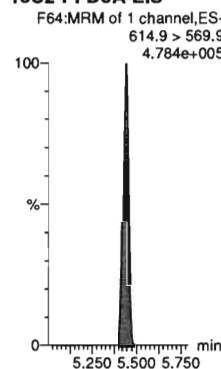
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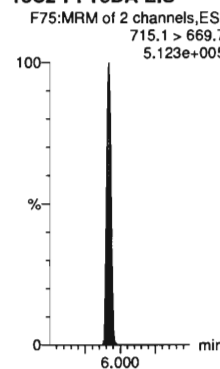
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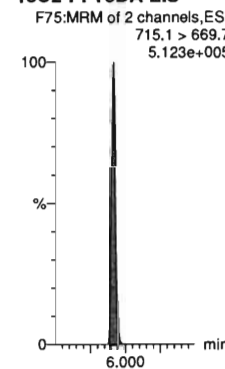
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13C2-PFTeDA-EIS



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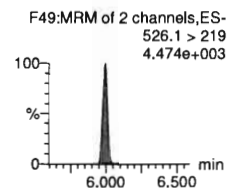
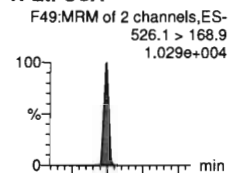
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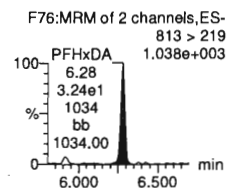
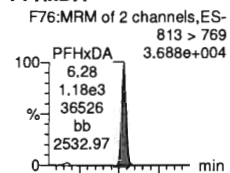
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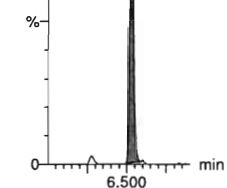
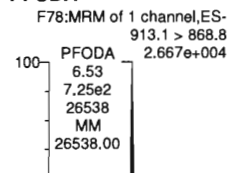
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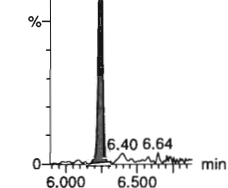
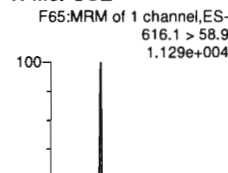
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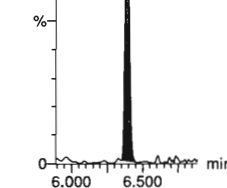
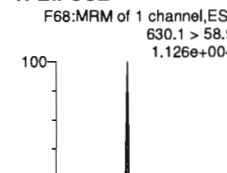
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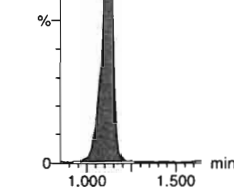
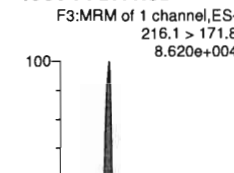
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N-EtFOSE

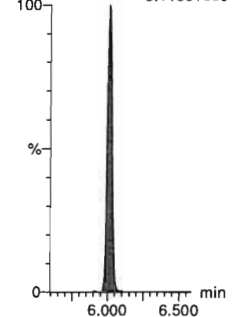


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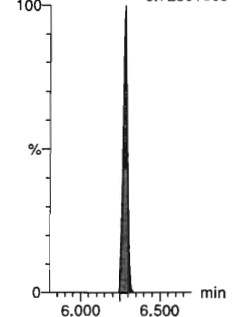
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F53:MRM of 1 channel,ES-531.1 > 168.9
5.115e+005



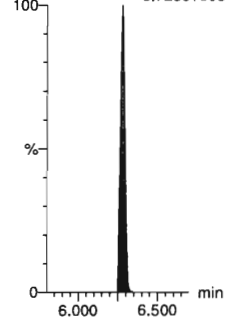
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F77:MRM of 1 channel,ES-815 > 769.7
6.728e+005



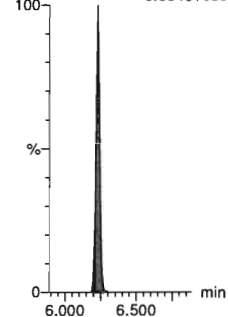
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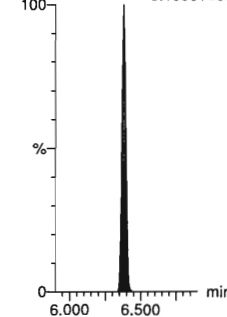
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F66:MRM of 1 channel,ES-623.1 > 58.9
5.584e+005



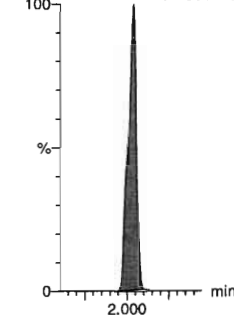
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F71:MRM of 1 channel,ES-639.2 > 58.8
6.133e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-266.0 > 221.8
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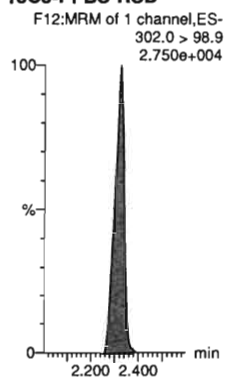
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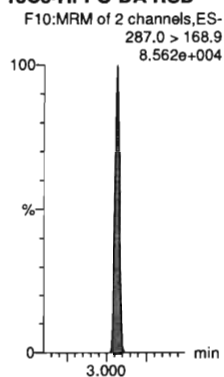
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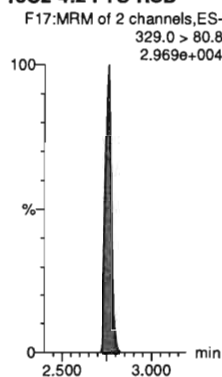
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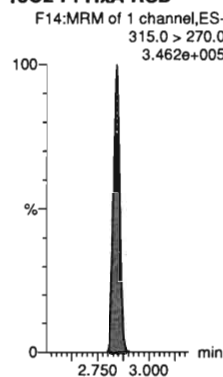
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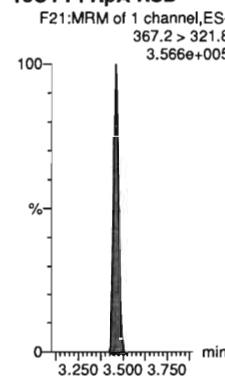
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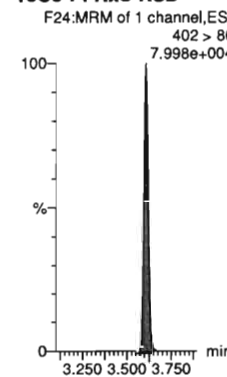
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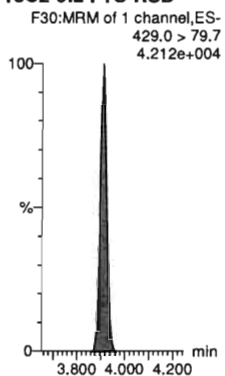
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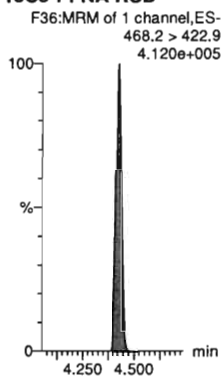
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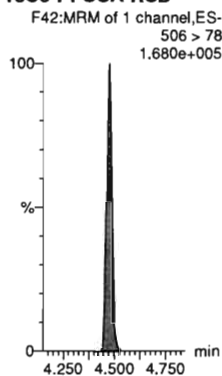
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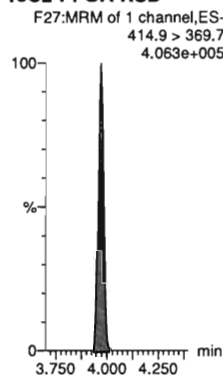
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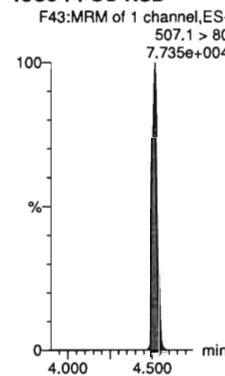
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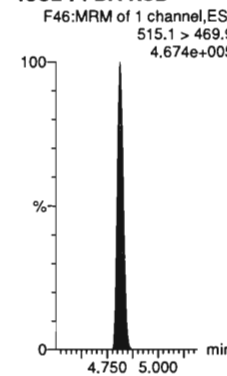
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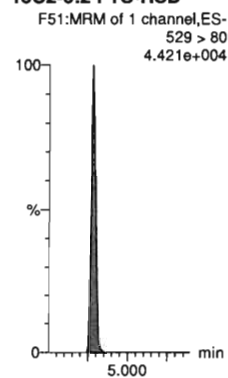
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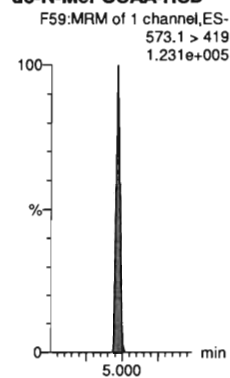
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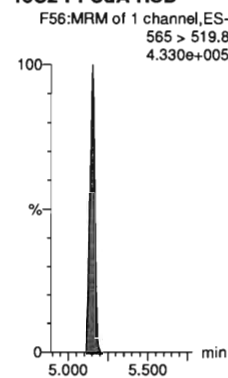
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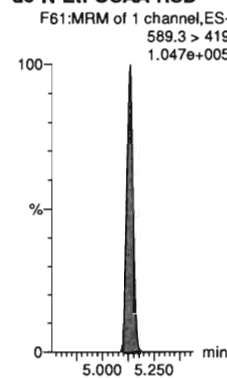
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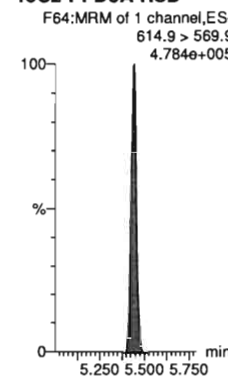
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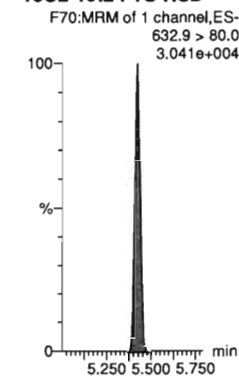
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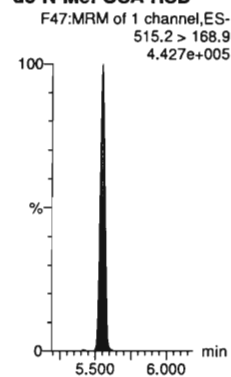
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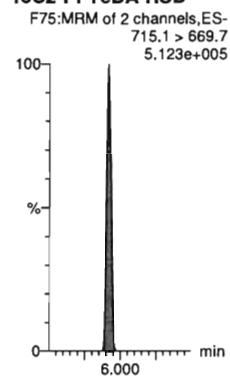
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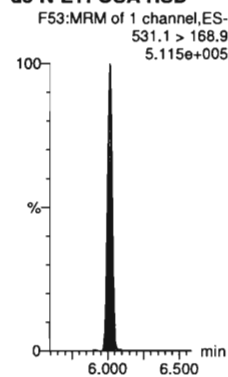
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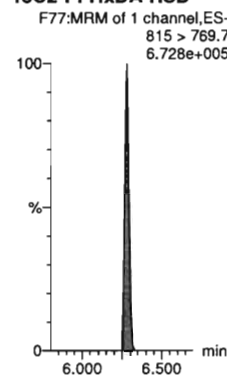
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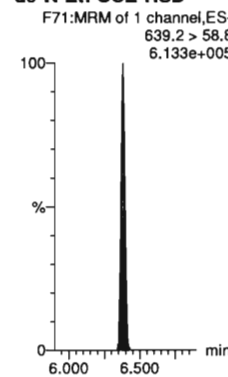
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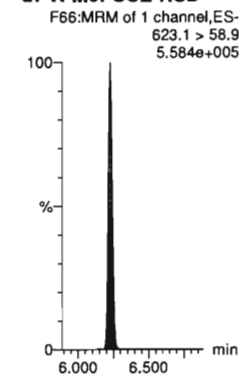
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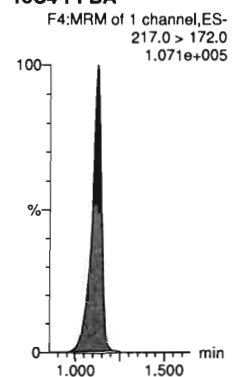
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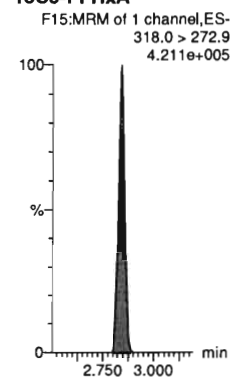
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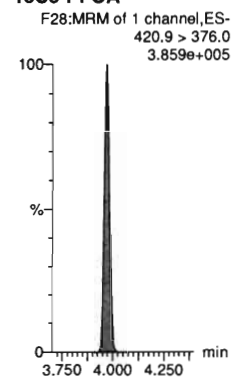
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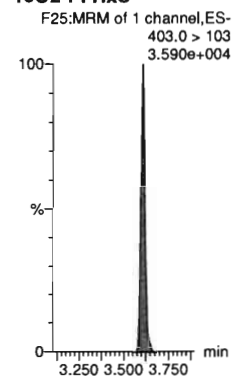
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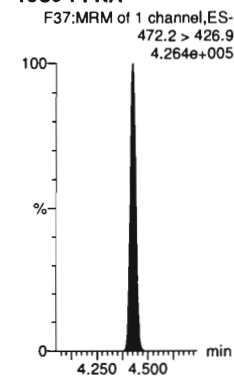
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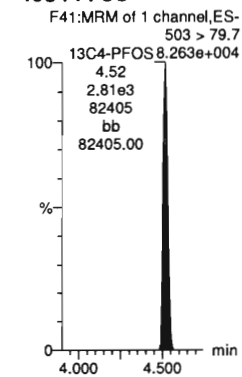
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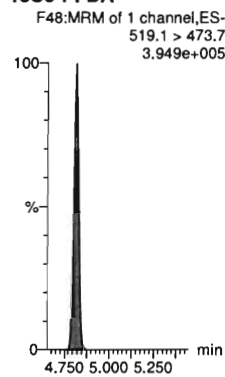
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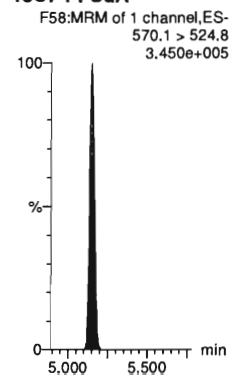
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13C6-PFDA



13C7-PFUDa



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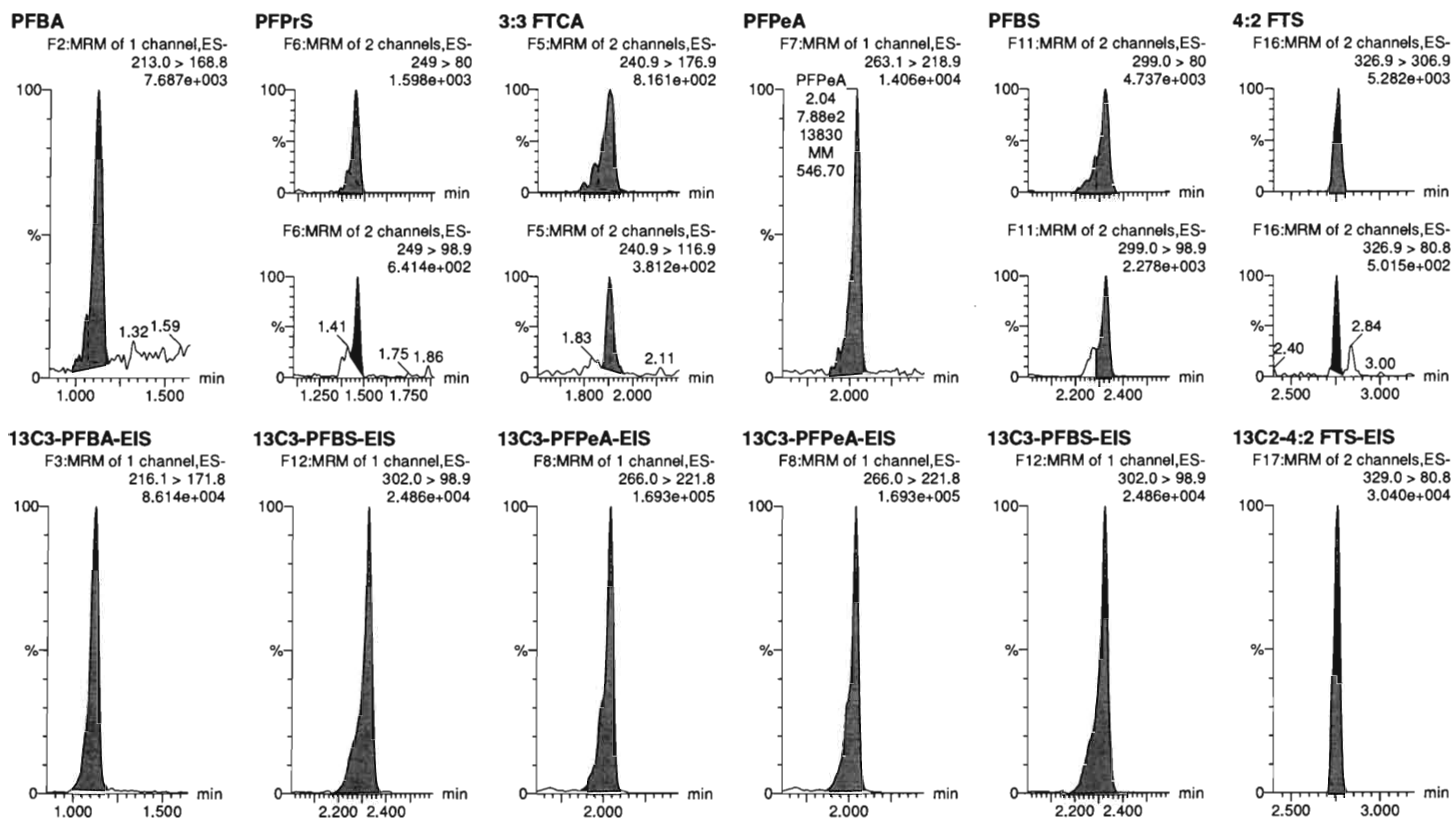
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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Printed: Thursday, July 02, 2020 13:47:09 Pacific Daylight Time

Name: 200702P1-7, Date: 02-Jul-2020, Time: 10:18:46, ID: ST200702P1-3 PFC CS0 20F1903, Description: PFC CS0 20F1903



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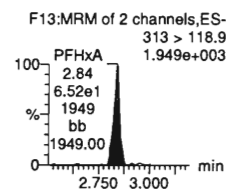
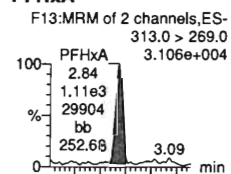
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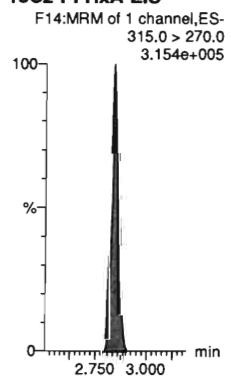
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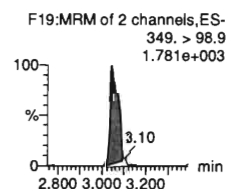
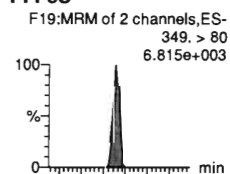
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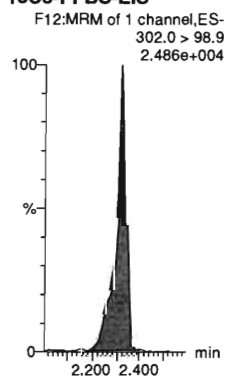
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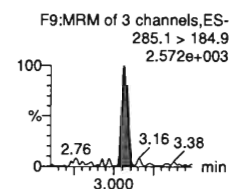
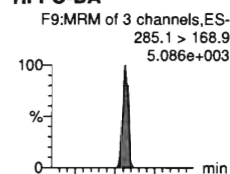
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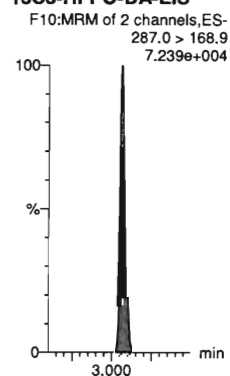
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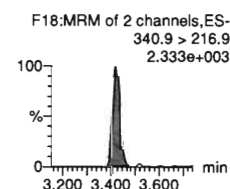
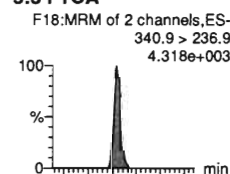
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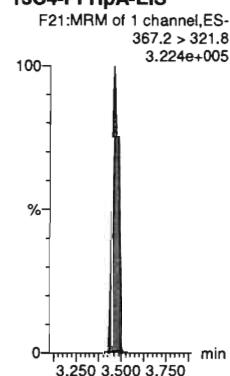
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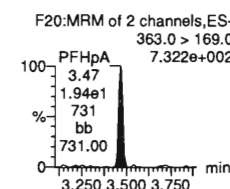
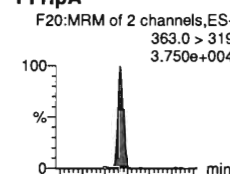
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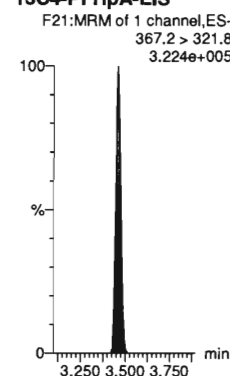
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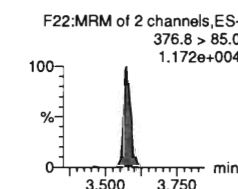
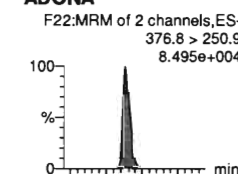
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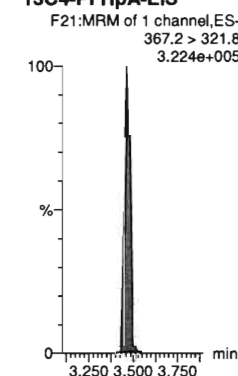
13C4-PFHpA-EIS



ADONA



13C4-PFHpA-EIS



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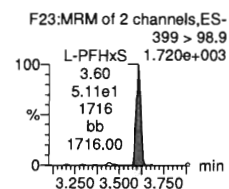
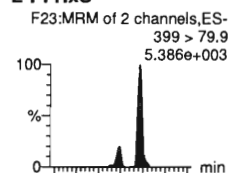
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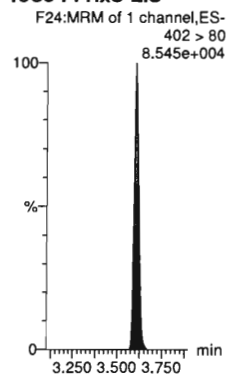
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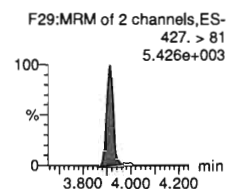
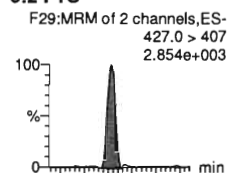
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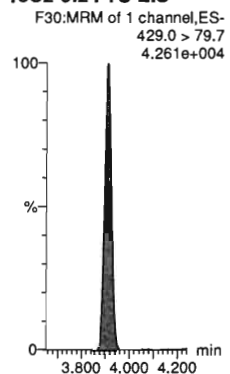
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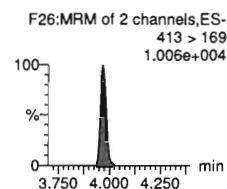
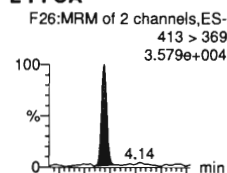
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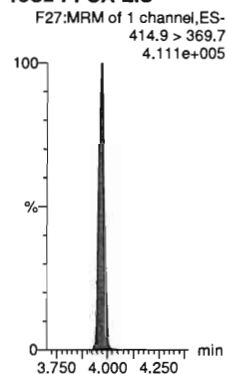
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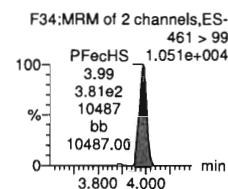
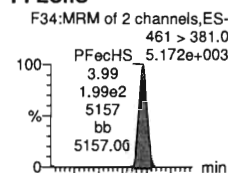
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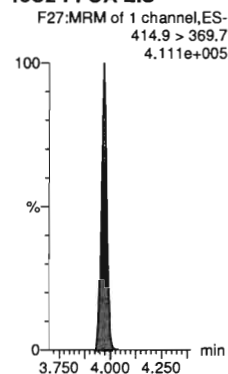
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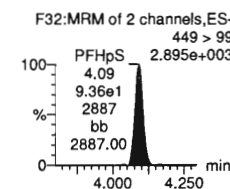
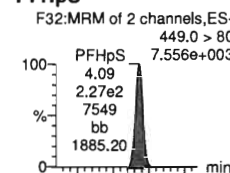
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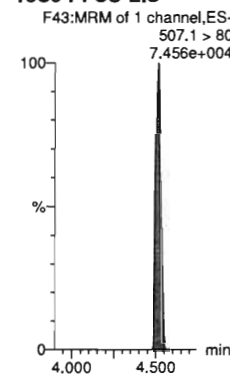
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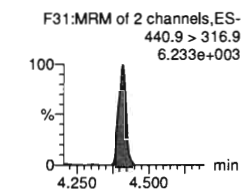
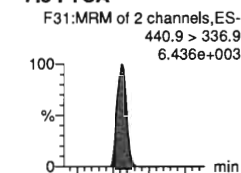
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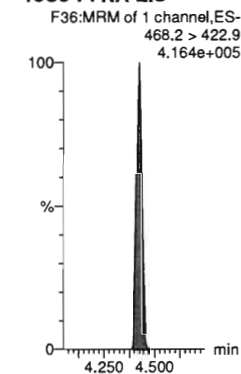
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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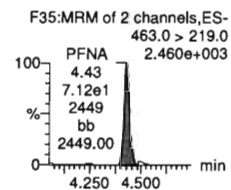
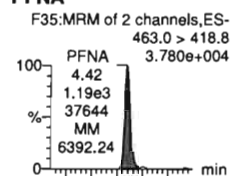
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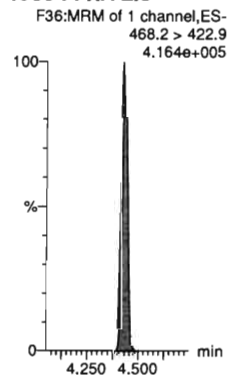
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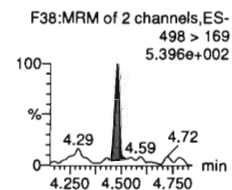
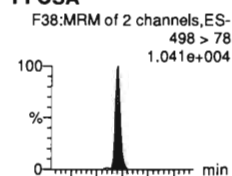
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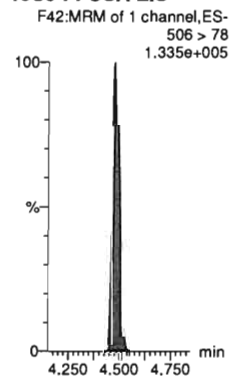
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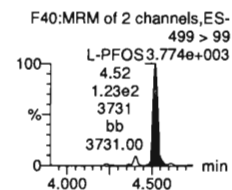
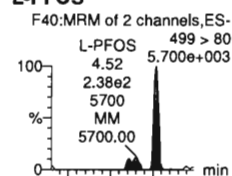
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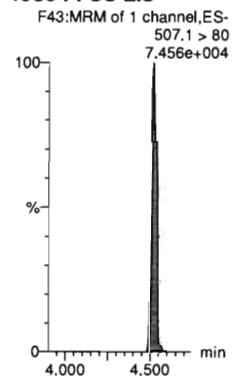
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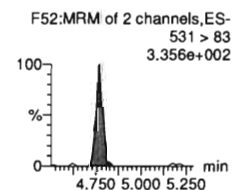
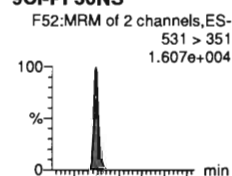
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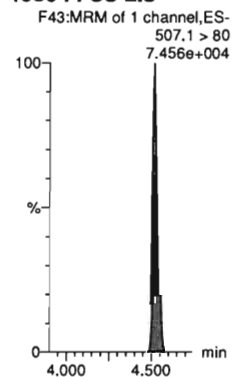
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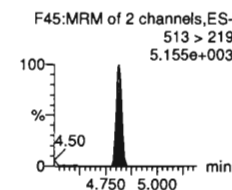
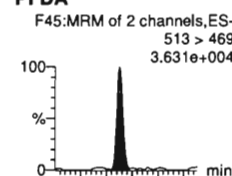
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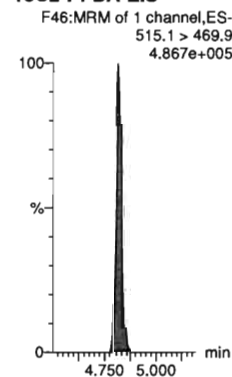
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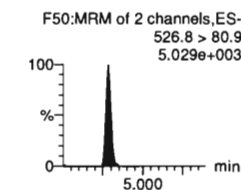
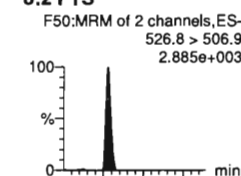
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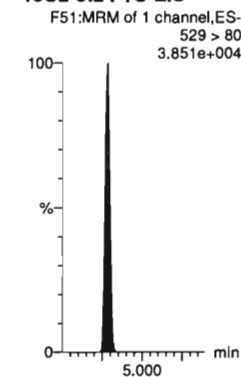
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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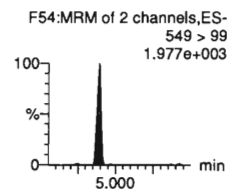
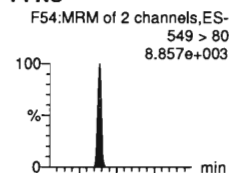
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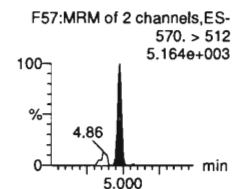
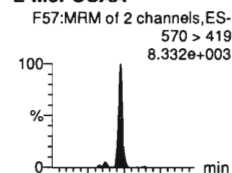
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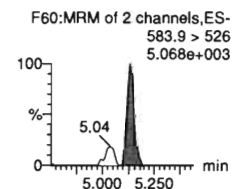
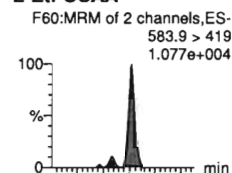
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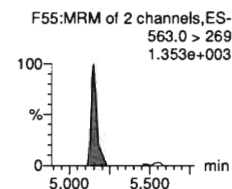
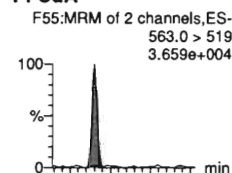
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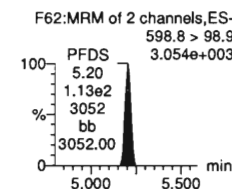
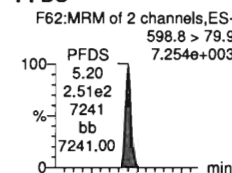
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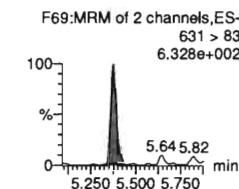
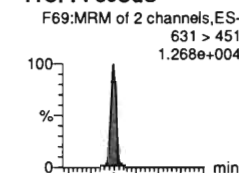
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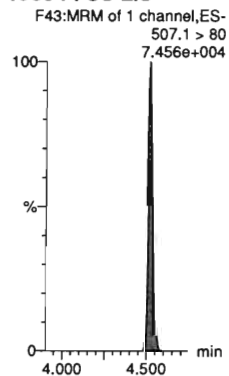
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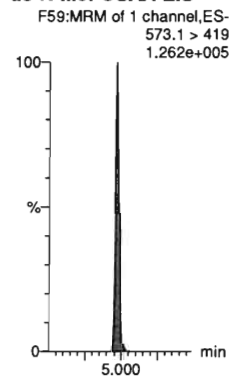
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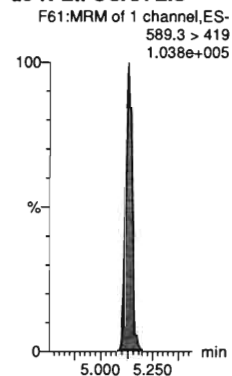
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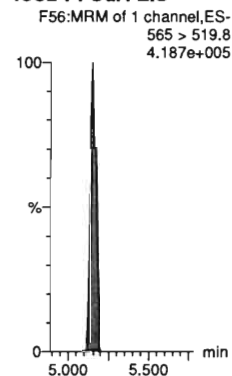
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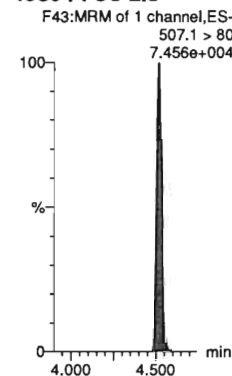
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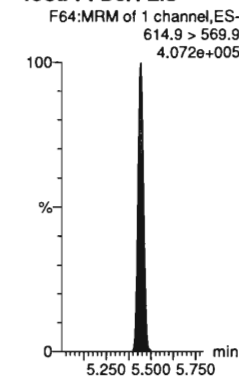
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13C8-PFOS-EIS



13C2-PFDoA-EIS



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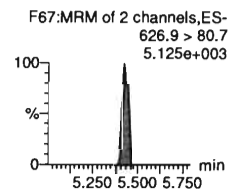
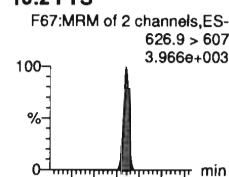
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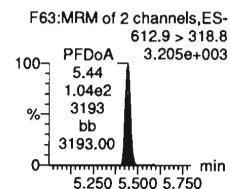
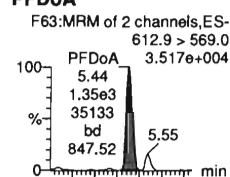
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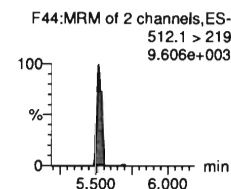
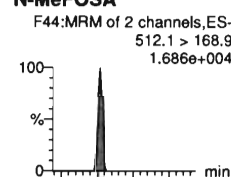
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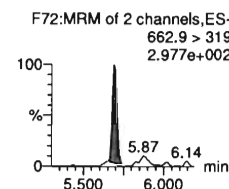
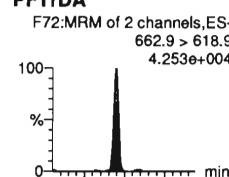
PFDaA



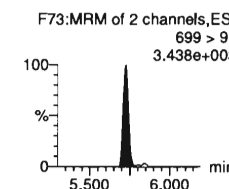
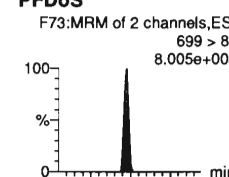
N-MeFOSA



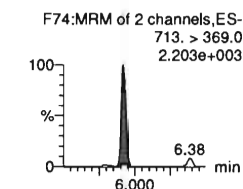
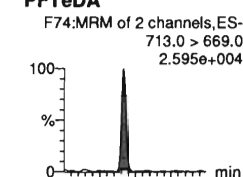
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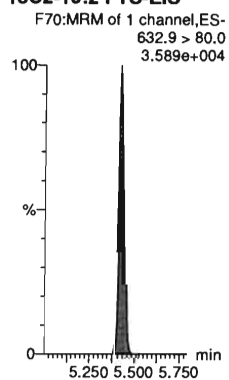
PFDoS



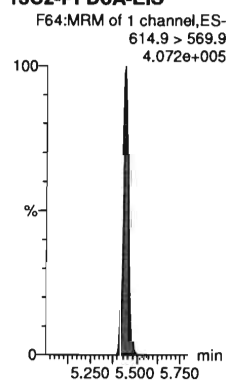
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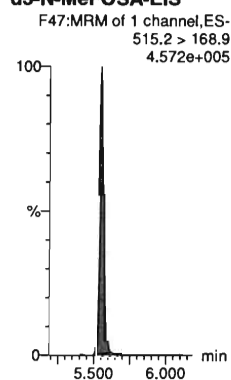
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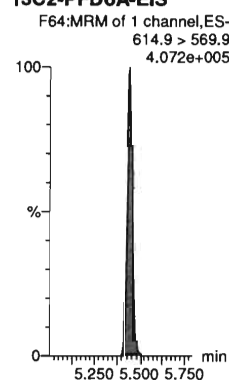
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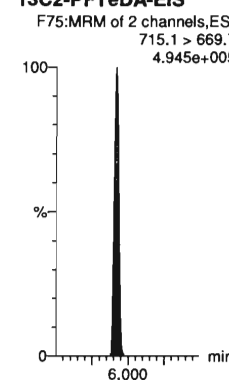
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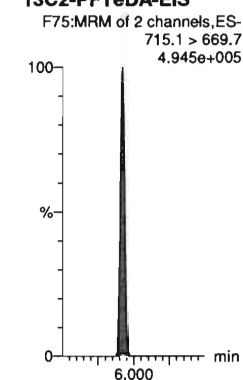
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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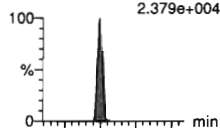
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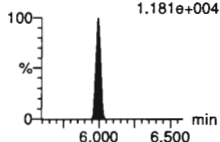
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N-EtFOSA

F49:MRM of 2 channels,ES-
526.1 > 168.9
2.379e+004

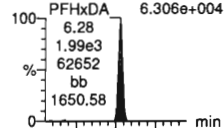


F49:MRM of 2 channels,ES-
526.1 > 219
1.181e+004

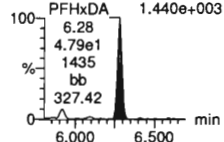


PFHxDA

F76:MRM of 2 channels,ES-
813 > 769
6.306e+004

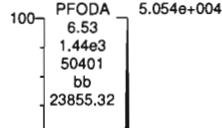


F76:MRM of 2 channels,ES-
813 > 219
1.440e+003



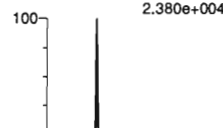
PFODA

F78:MRM of 1 channel,ES-
913.1 > 868.8
5.054e+004



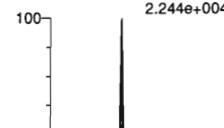
N-MeFOSE

F65:MRM of 1 channel,ES-
616.1 > 58.9
2.380e+004



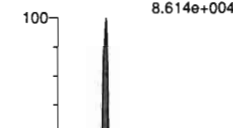
N-EtFOSE

F68:MRM of 1 channel,ES-
630.1 > 58.9
2.244e+004



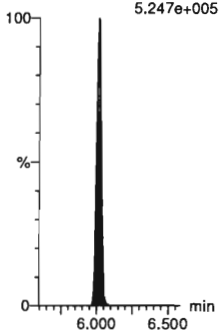
13C3-PFBA-RSD

F3:MRM of 1 channel,ES-
216.1 > 171.8
8.614e+004



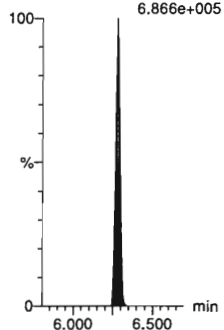
d5-N-ETFOSA-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.247e+005



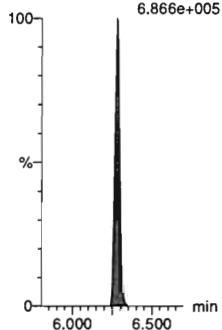
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
6.866e+005



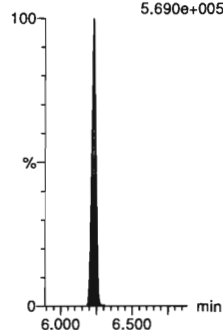
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F77:MRM of 1 channel,ES-
815 > 769.7
6.866e+005



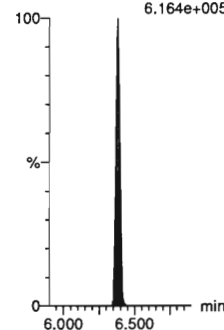
d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.690e+005



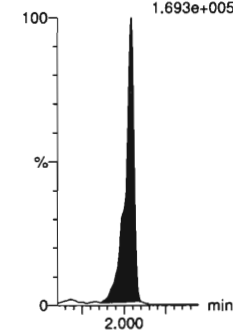
d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.164e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
1.693e+005



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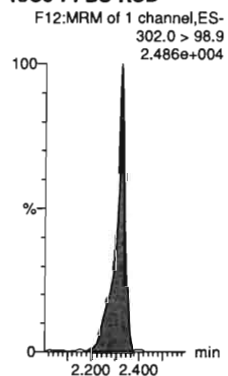
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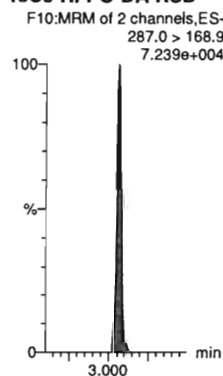
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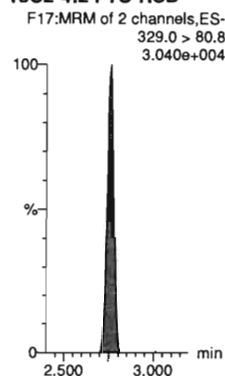
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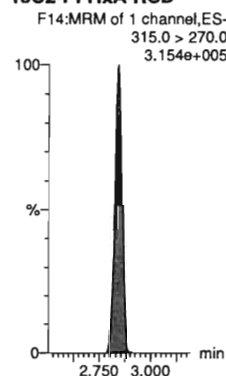
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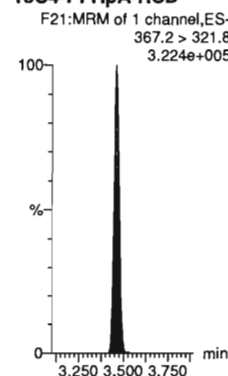
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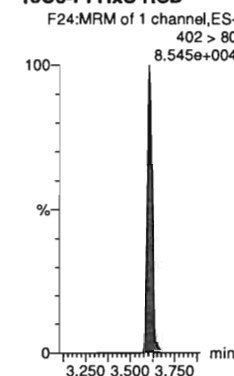
13C2-PFHxA-RSD



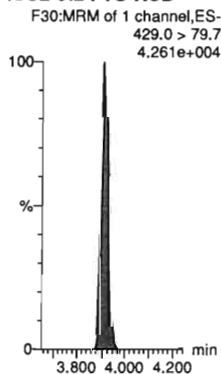
13C4-PFHpA-RSD



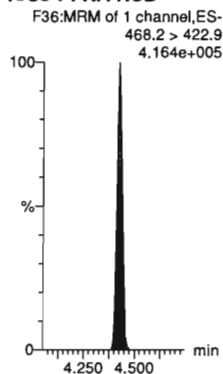
13C3-PFHxS-RSD



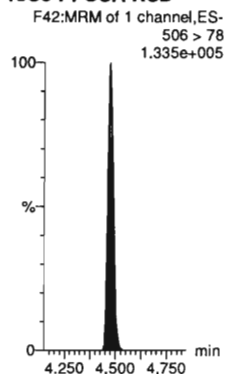
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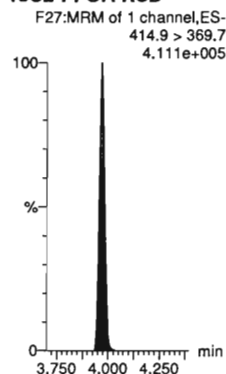
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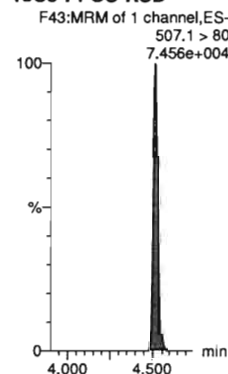
13C8-PFOSA-RSD



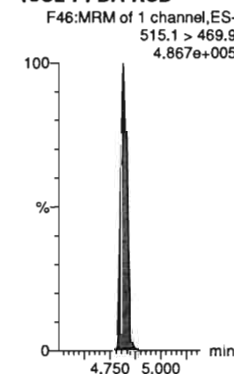
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

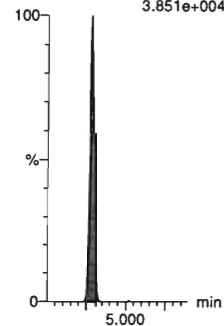
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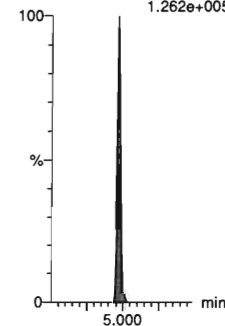
13C2-8:2 FTS-RSD

F51:MRM of 1 channel,ES-
529 > 80
3.851e+004



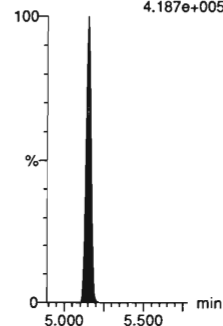
d3-N-MeFOSAA-RSD

F59:MRM of 1 channel,ES-
573.1 > 419
1.262e+005



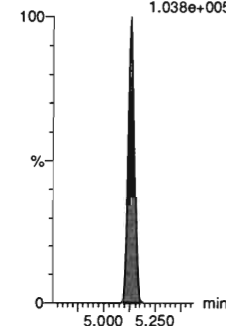
13C2-PFUDa-RSD

F56:MRM of 1 channel,ES-
565 > 519.8
4.187e+005



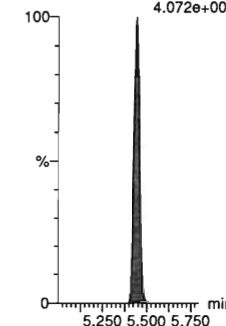
d5-N-EtFOSAA-RSD

F61:MRM of 1 channel,ES-
589.3 > 419
1.038e+005



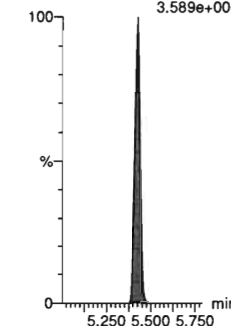
13C2-PFDoA-RSD

F64:MRM of 1 channel,ES-
614.9 > 569.9
4.072e+005



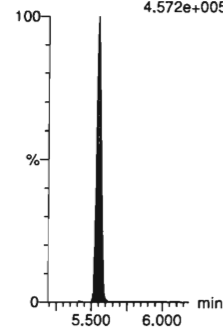
13C2-10:2 FTS-RSD

F70:MRM of 1 channel,ES-
632.9 > 80.0
3.589e+004



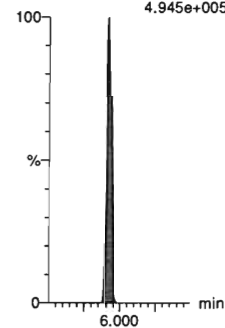
d3-N-MeFOSA-RSD

F47:MRM of 1 channel,ES-
515.2 > 168.9
4.572e+005



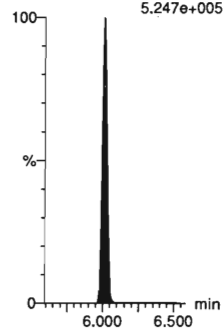
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F75:MRM of 2 channels,ES-
715.1 > 669.7
4.945e+005



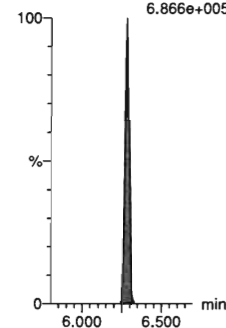
d5-N-ETFOSA-RSD

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.247e+005



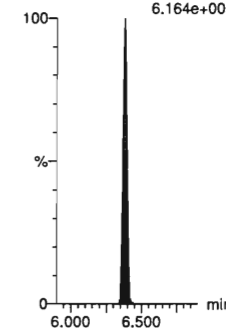
13C2-PFHxDA-RSD

F77:MRM of 1 channel,ES-
815 > 769.7
6.866e+005



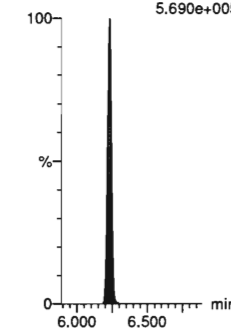
d9-N-EtFOSE-RSD

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.164e+005



d7-N-MeFOSE-RSD

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.690e+005



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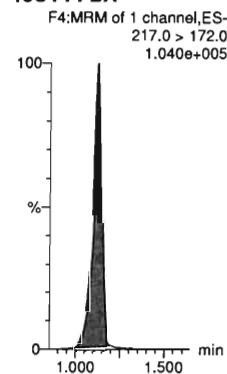
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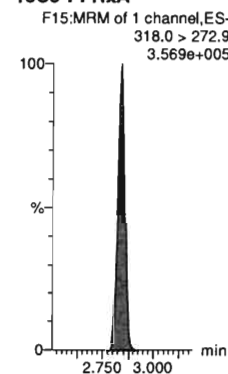
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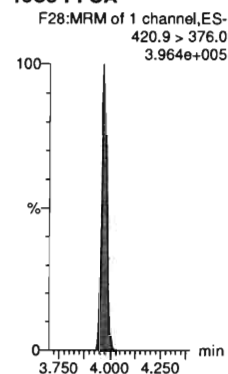
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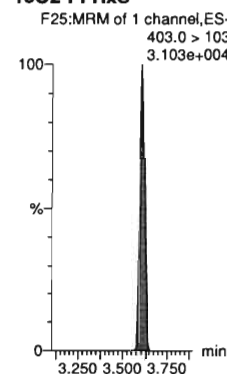
13C5-PFHxA



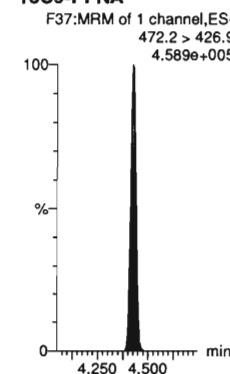
13C8-PFOA



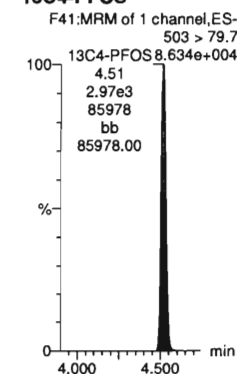
18O2-PFHxS



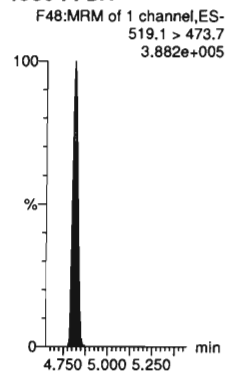
13C9-PFNA



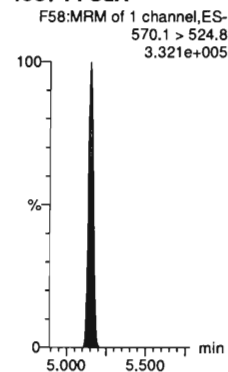
13C4-PFOS



13C6-PFDA



13C7-PFUDa



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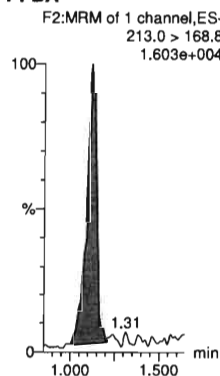
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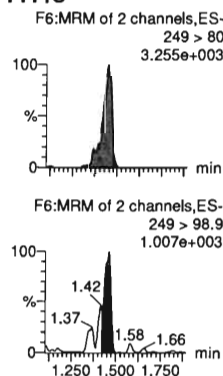
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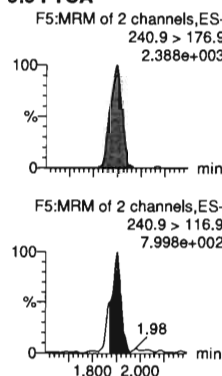
PFBA



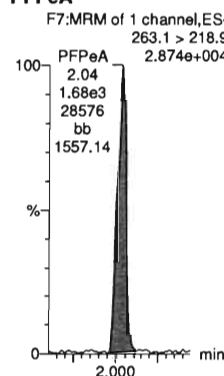
PFPrS



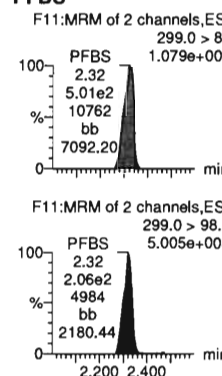
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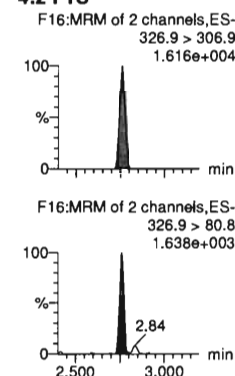
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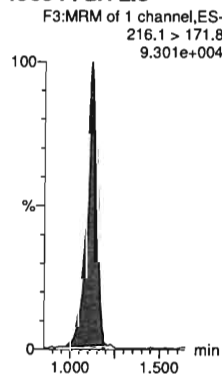
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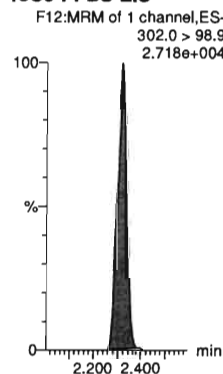
4:2 FTS



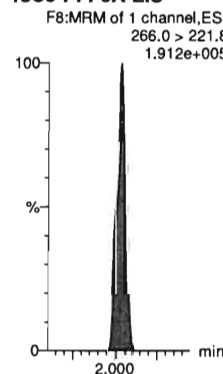
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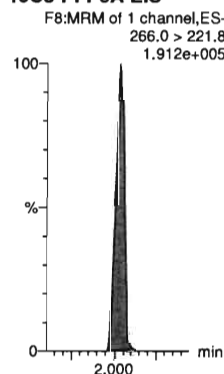
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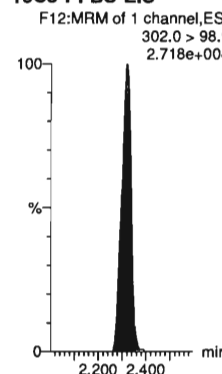
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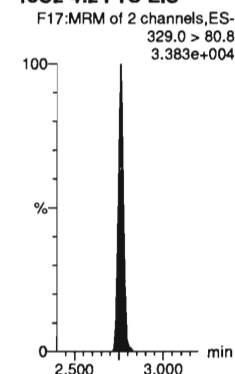
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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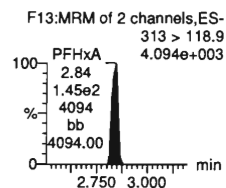
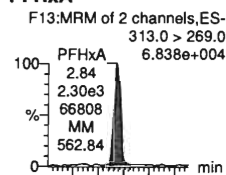
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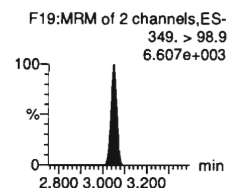
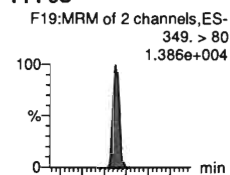
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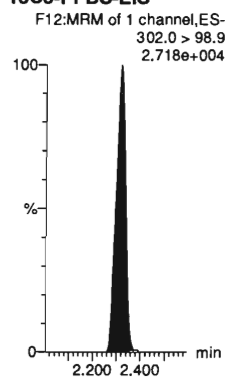
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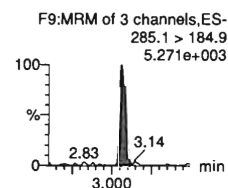
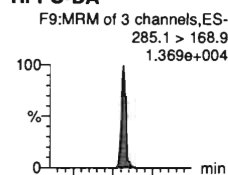
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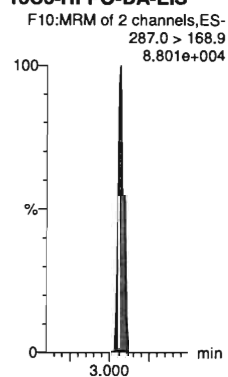
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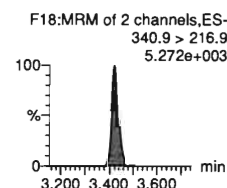
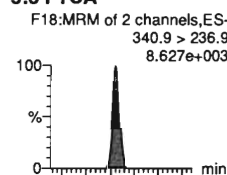
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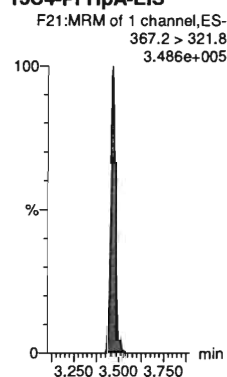
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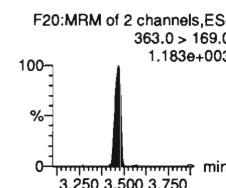
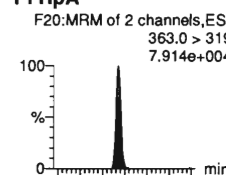
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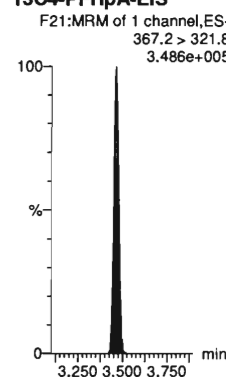
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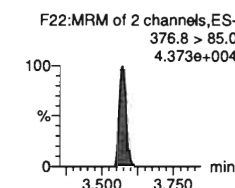
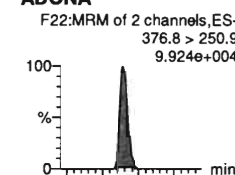
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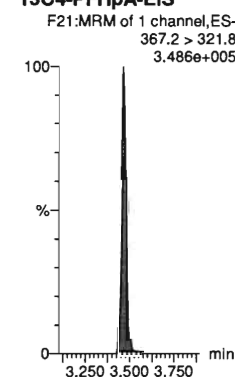
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ADONA



13C4-PFHpA-EIS



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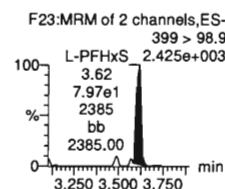
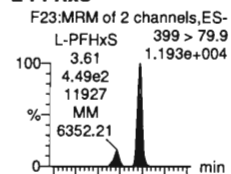
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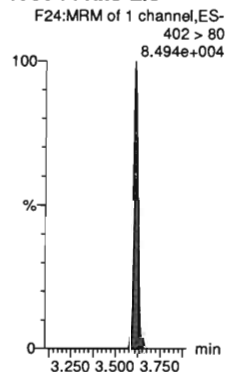
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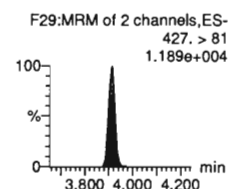
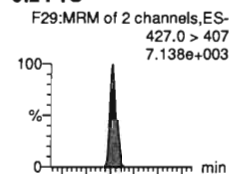
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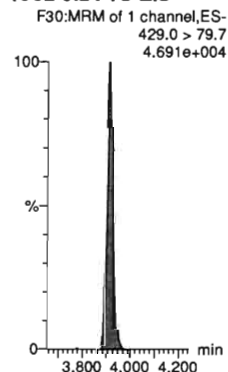
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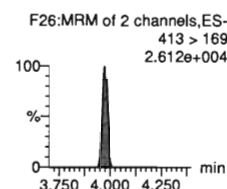
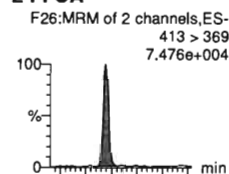
6:2 FTS



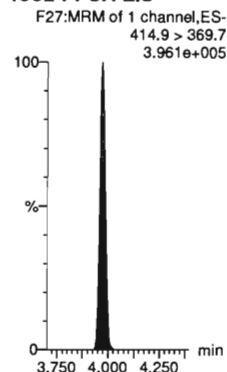
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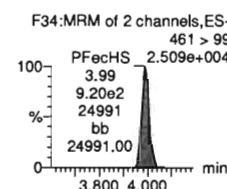
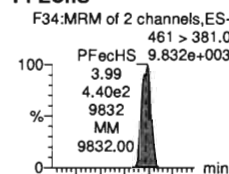
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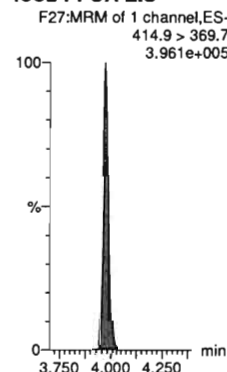
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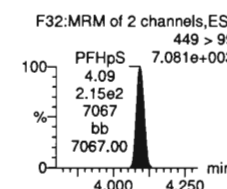
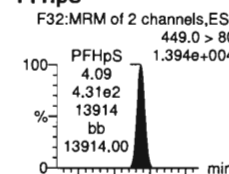
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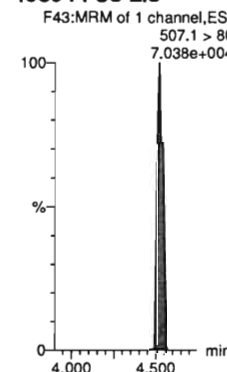
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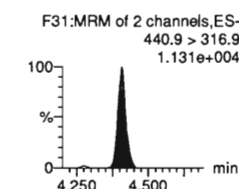
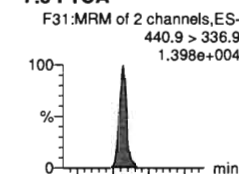
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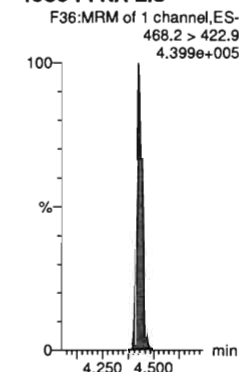
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7:3 FTCA



13C5-PFNA-EIS



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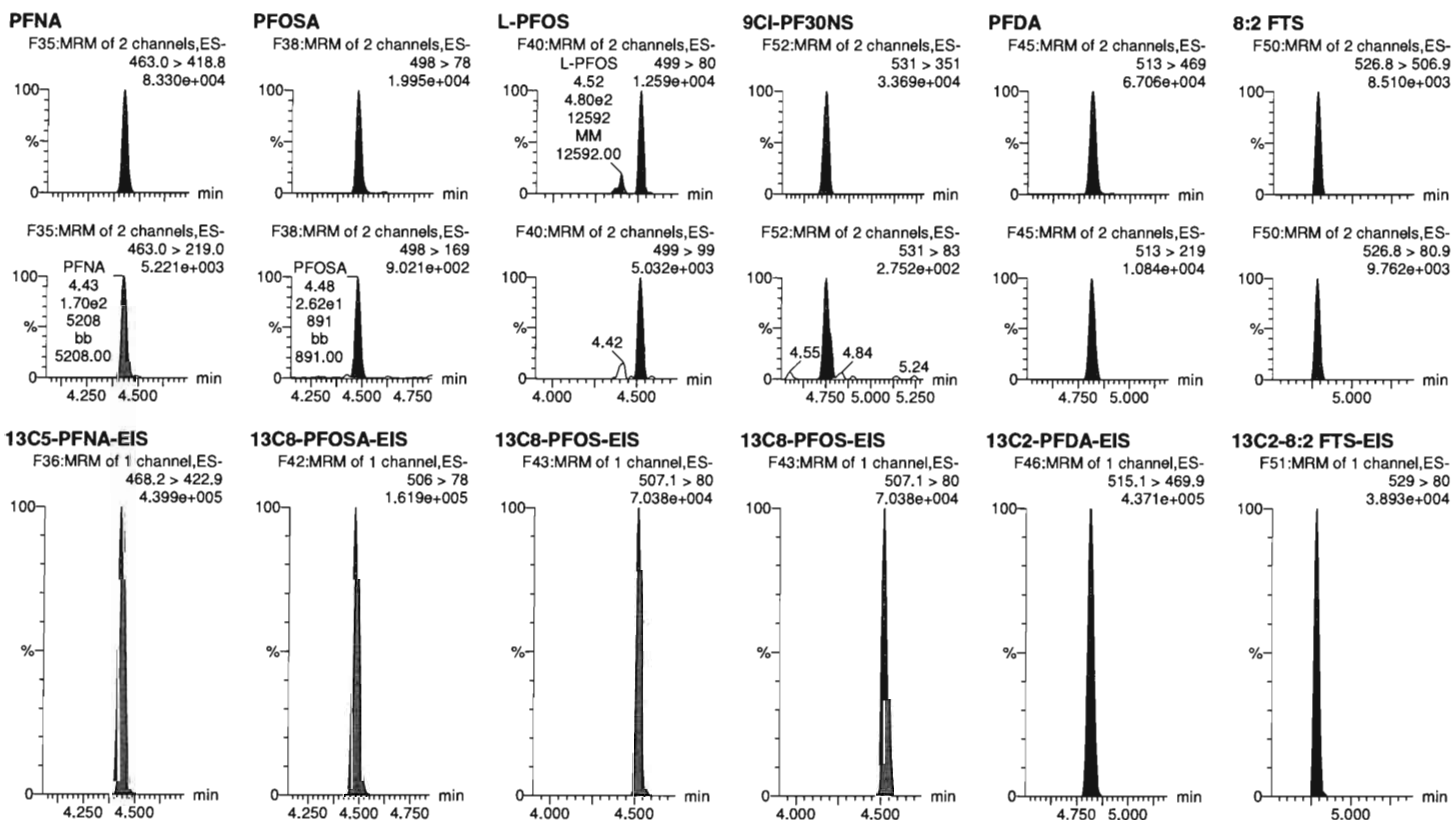
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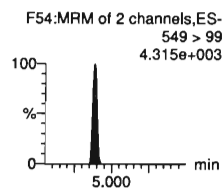
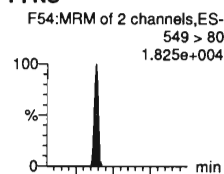
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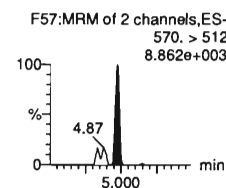
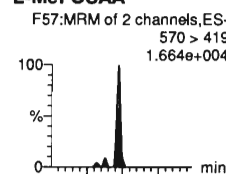
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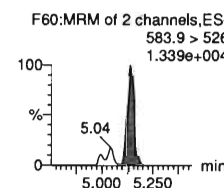
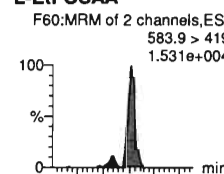
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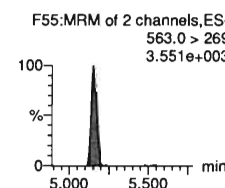
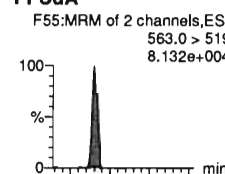
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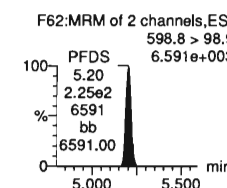
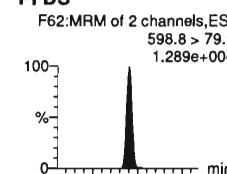
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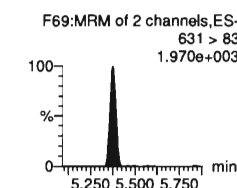
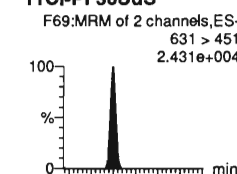
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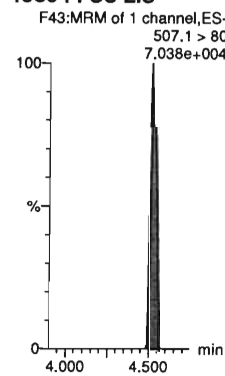
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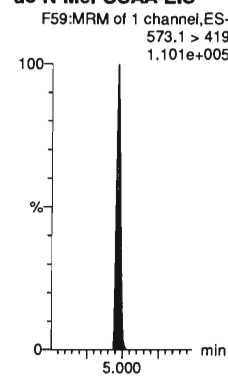
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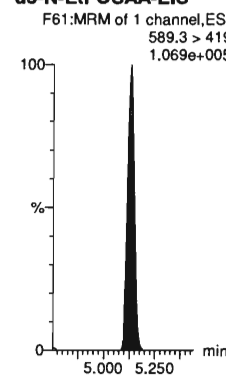
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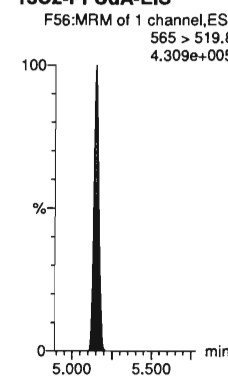
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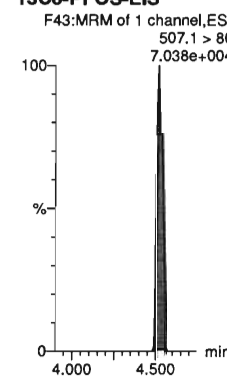
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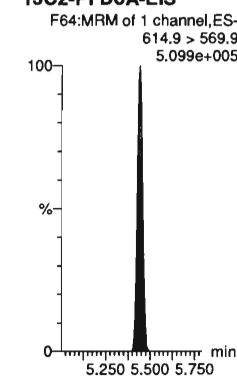
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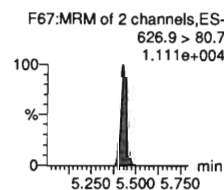
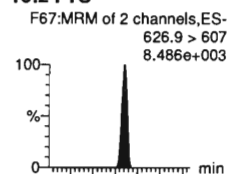
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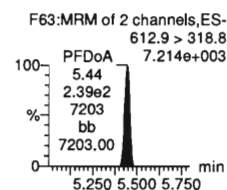
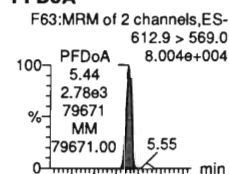
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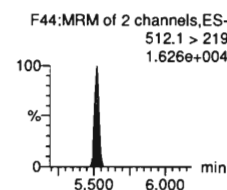
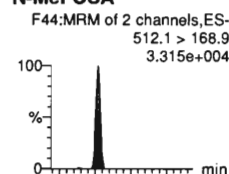
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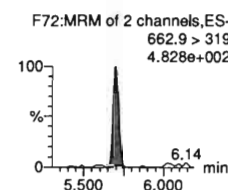
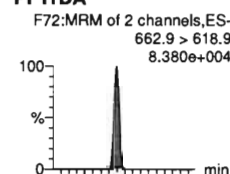
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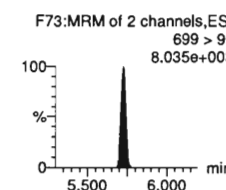
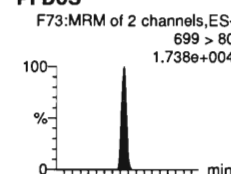
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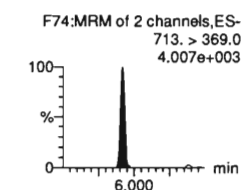
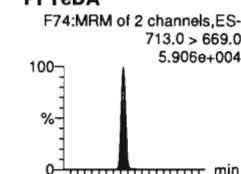
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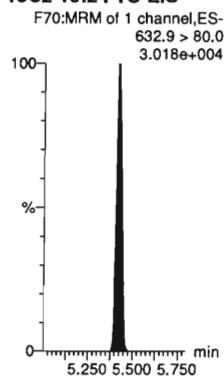
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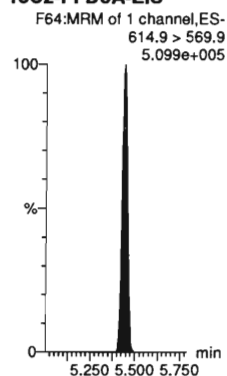
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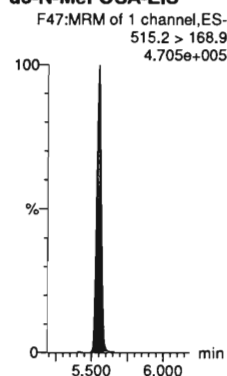
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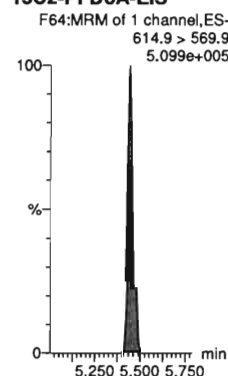
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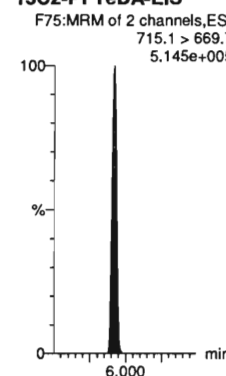
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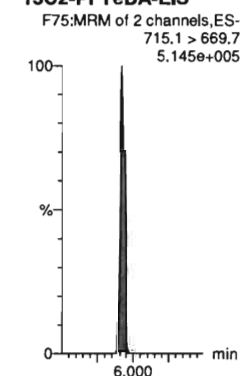
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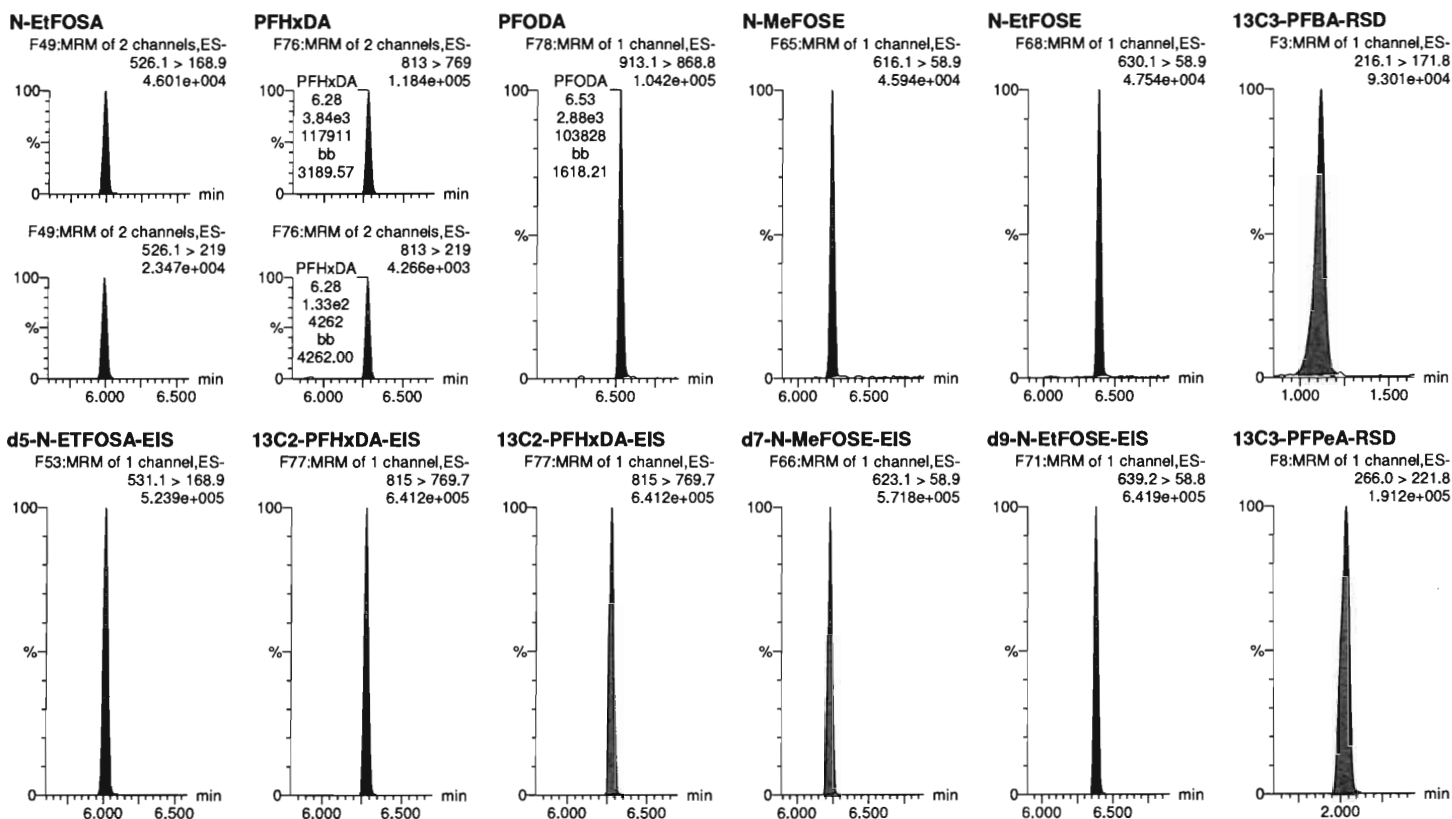
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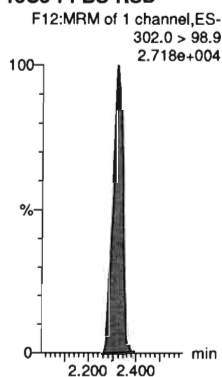
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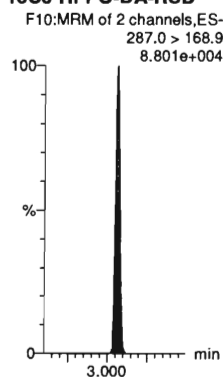
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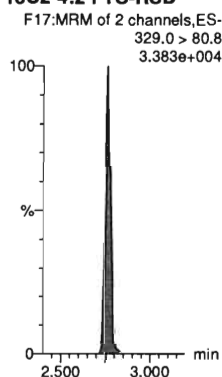
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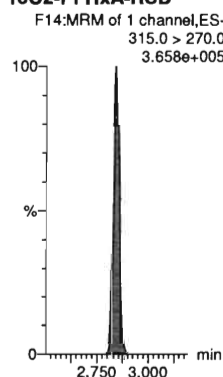
13C3-HFPO-DA-RSD



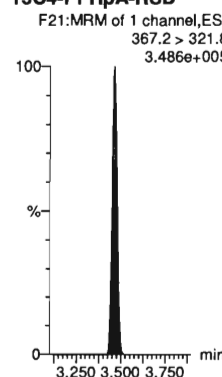
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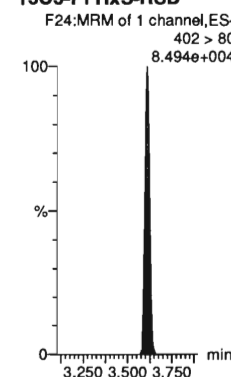
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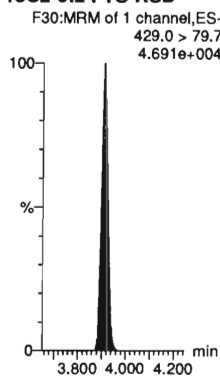
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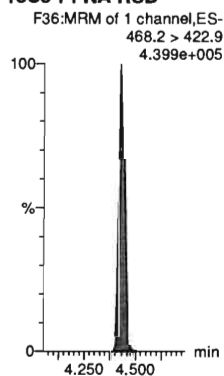
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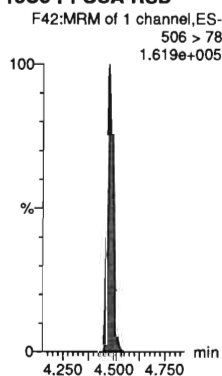
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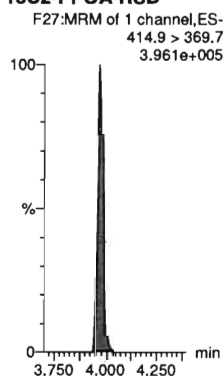
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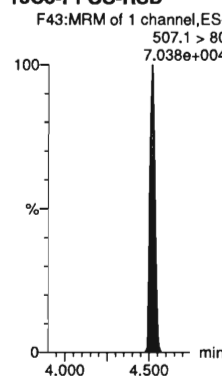
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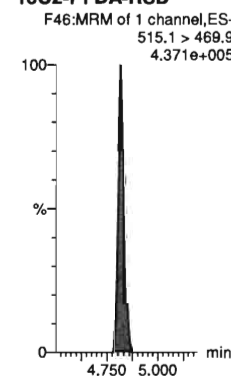
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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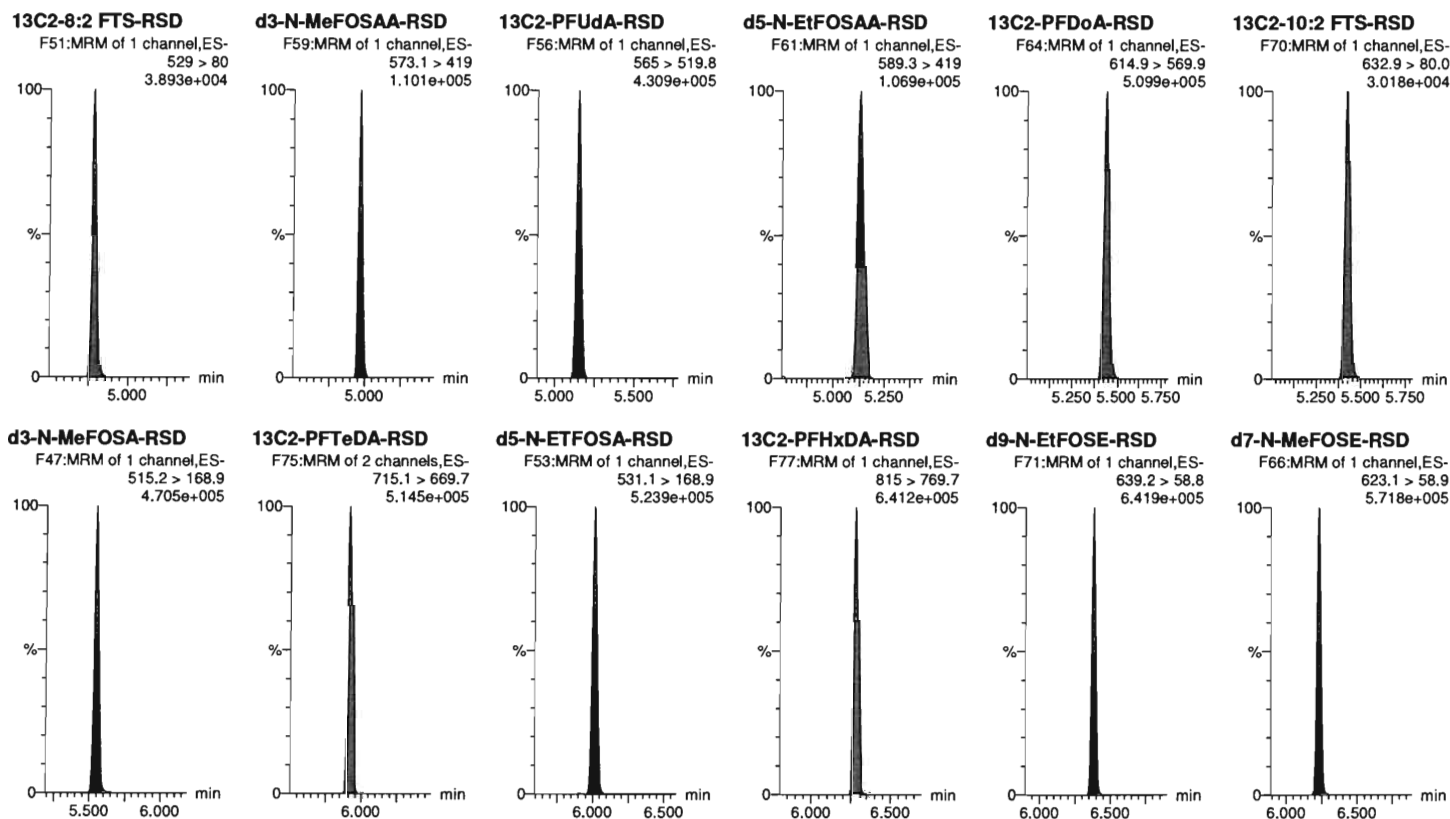
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Printed: Thursday, July 02, 2020 13:47:09 Pacific Daylight Time

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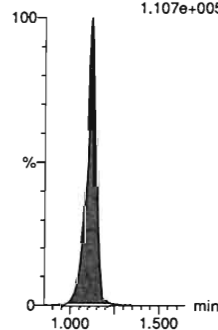
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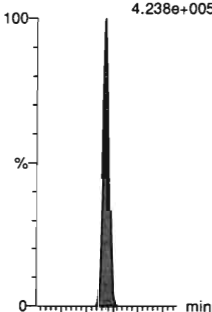
13C4-PFBA

F4:MRM of 1 channel,ES-
217.0 > 172.0
1.107e+005



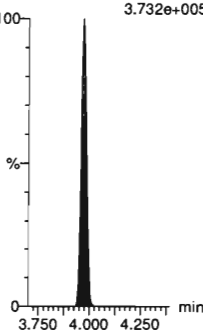
13C5-PFHxA

F15:MRM of 1 channel,ES-
318.0 > 272.9
4.238e+005



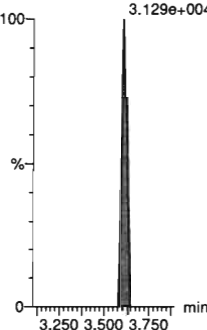
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F28:MRM of 1 channel,ES-
420.9 > 376.0
3.732e+005



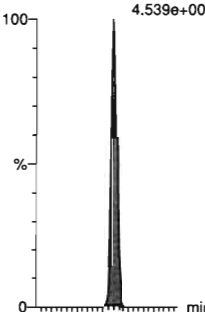
18O2-PFHxS

F25:MRM of 1 channel,ES-
403.0 > 103
3.129e+004



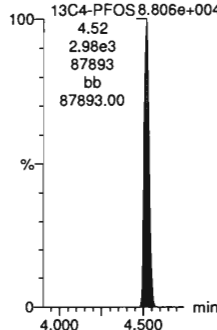
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F37:MRM of 1 channel,ES-
472.2 > 426.9
4.539e+005



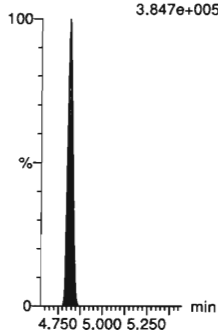
13C4-PFOS

F41:MRM of 1 channel,ES-
503 > 79.7
8.806e+004



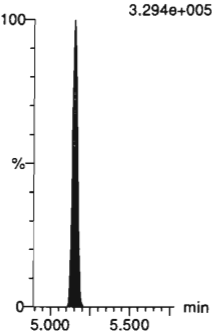
13C6-PFDA

F48:MRM of 1 channel,ES-
519.1 > 473.7
3.847e+005



13C7-PFUDa

F58:MRM of 1 channel,ES-
570.1 > 524.8
3.294e+005



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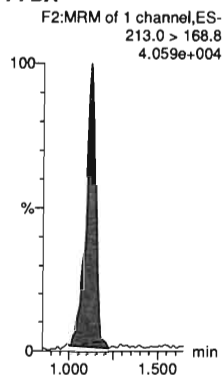
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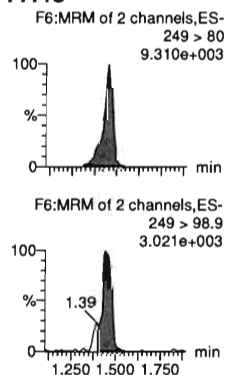
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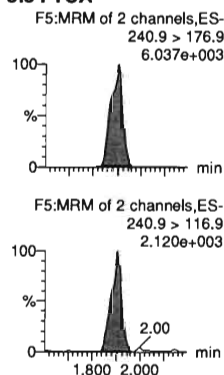
PFBA



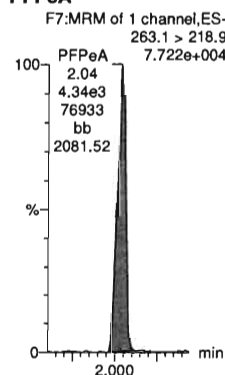
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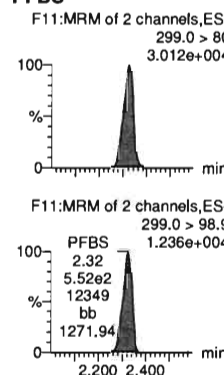
3:3 FTCA



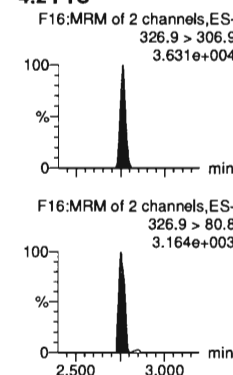
PFPeA



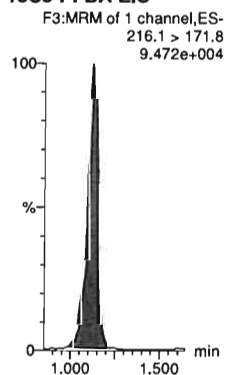
PFBS



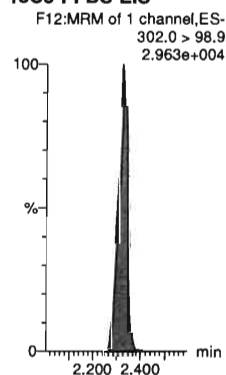
4:2 FTS



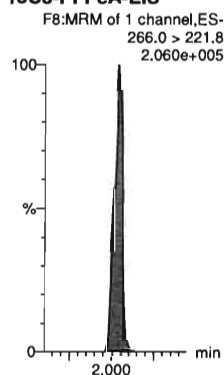
13C3-PFBA-EIS



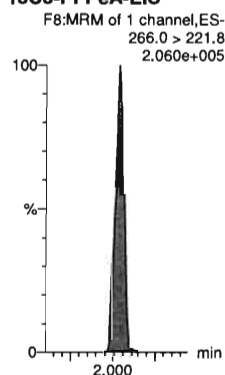
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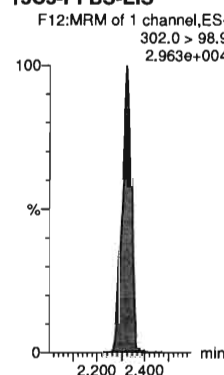
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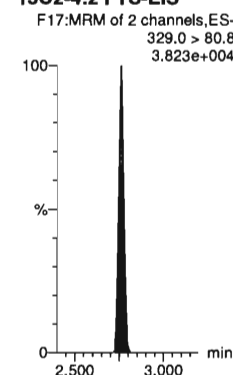
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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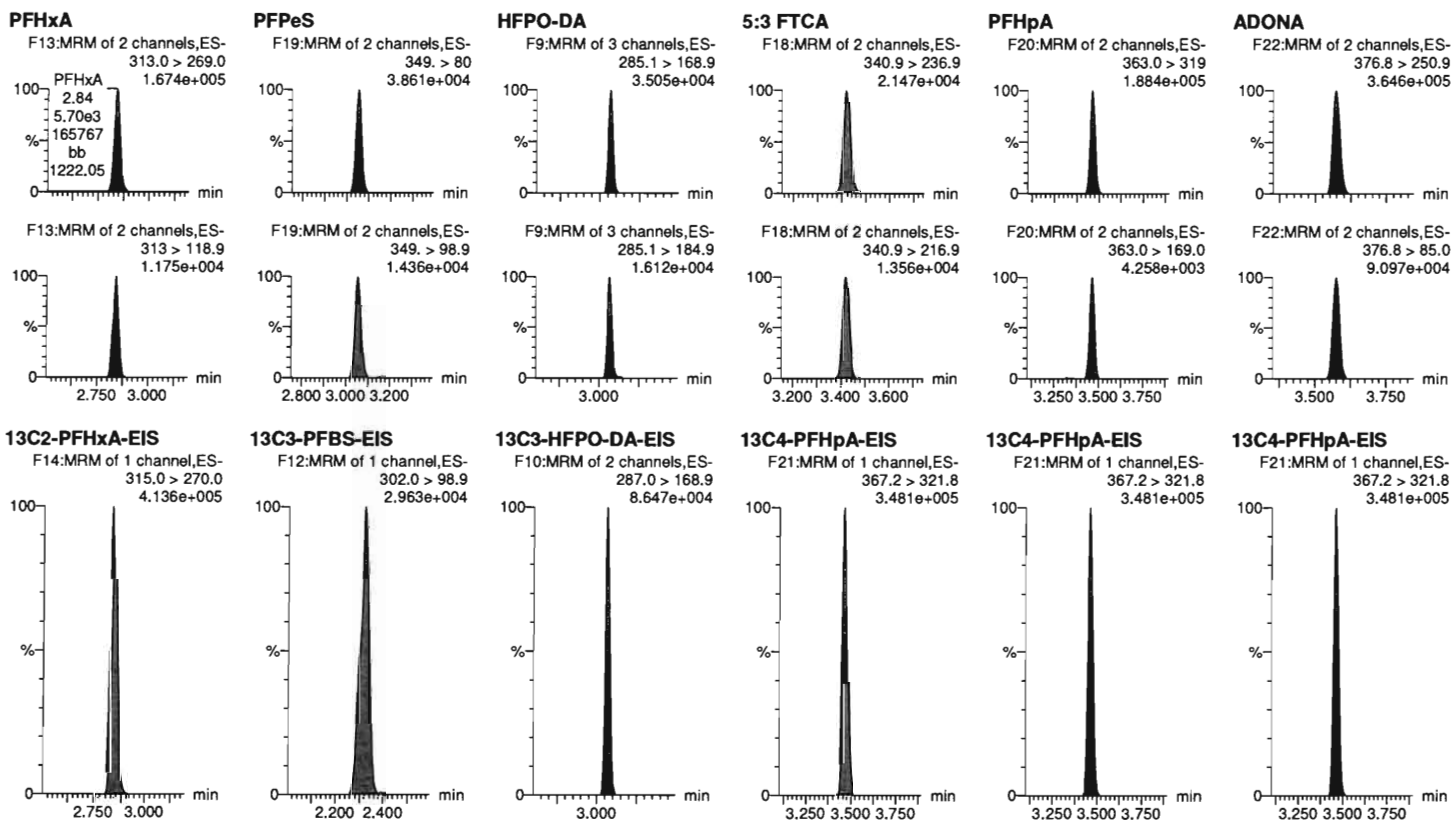
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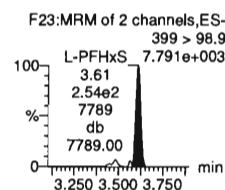
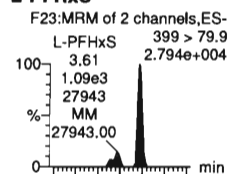
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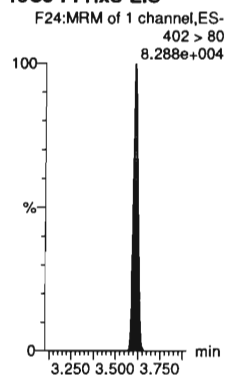
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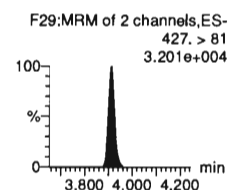
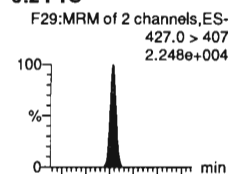
L-PFHxS



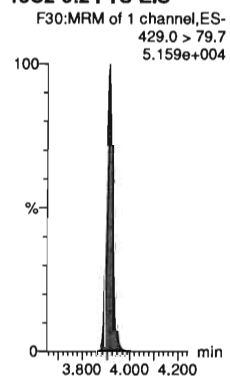
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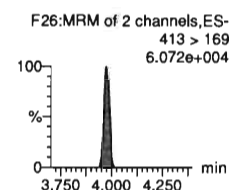
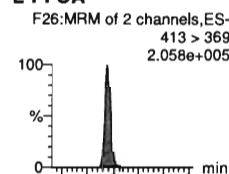
6:2 FTS



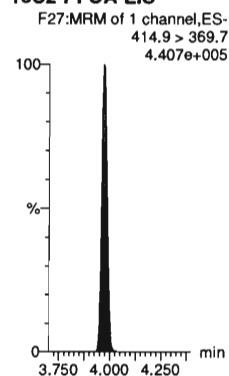
13C2-6:2 FTS-EIS



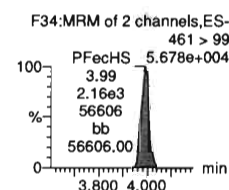
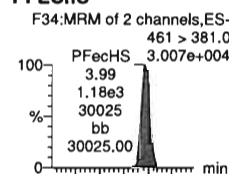
L-PFOA



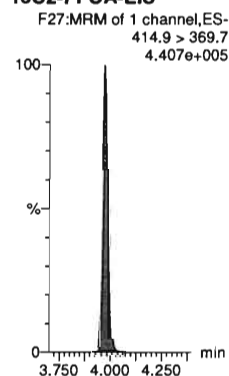
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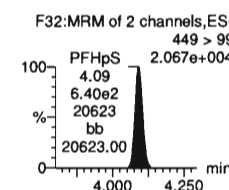
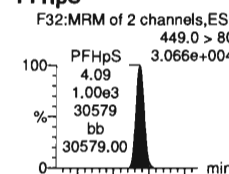
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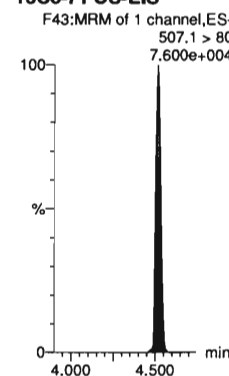
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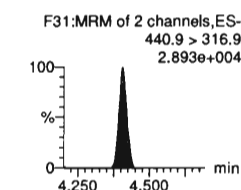
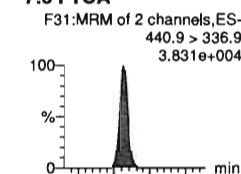
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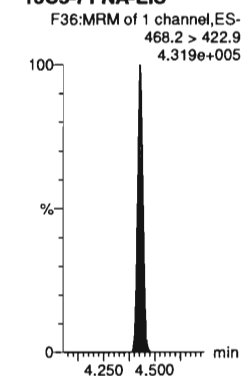
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7:3 FTCA



13C5-PFNA-EIS



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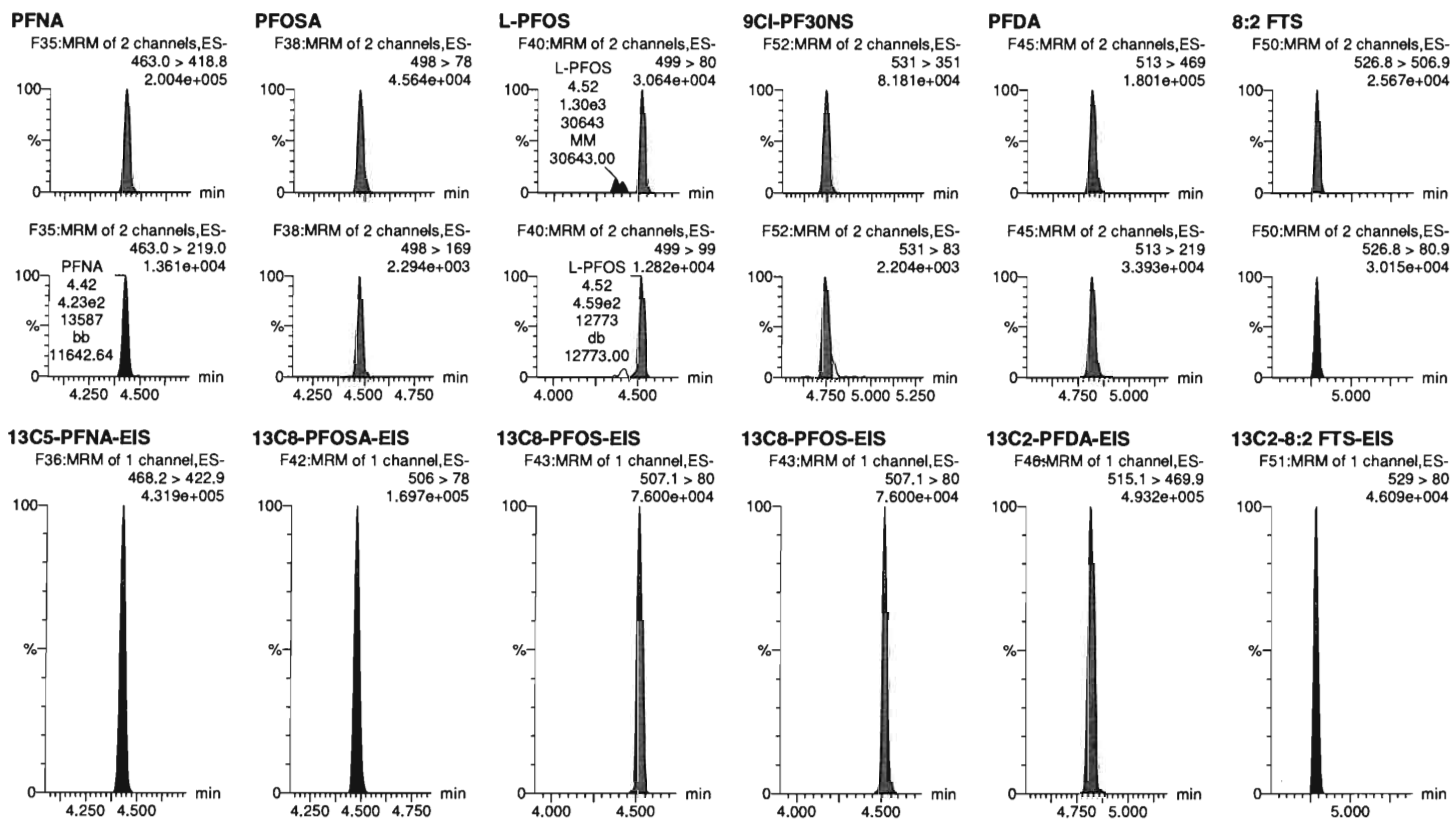
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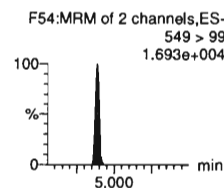
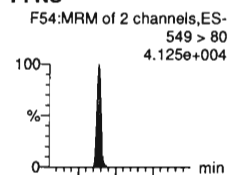
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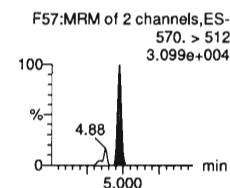
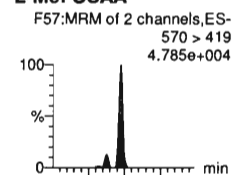
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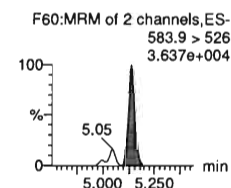
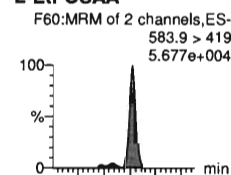
PFNS



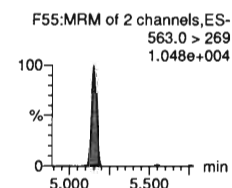
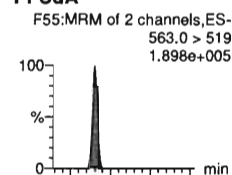
L-MeFOSAA



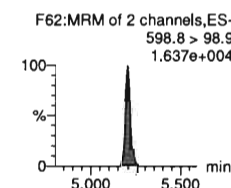
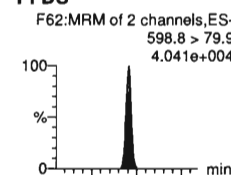
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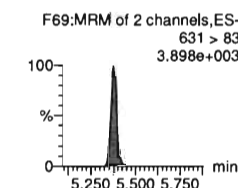
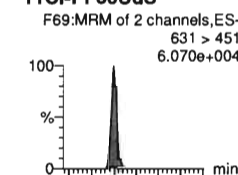
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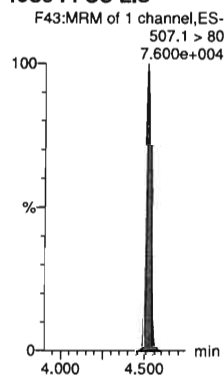
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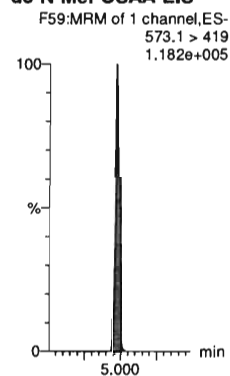
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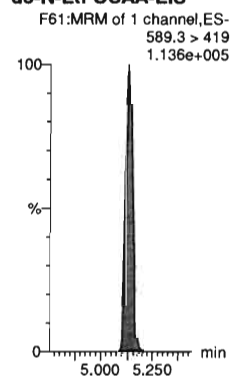
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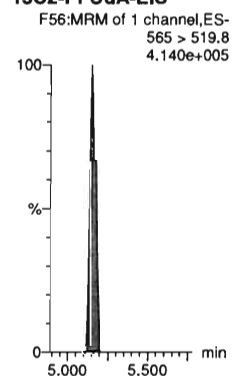
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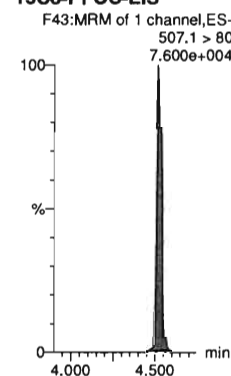
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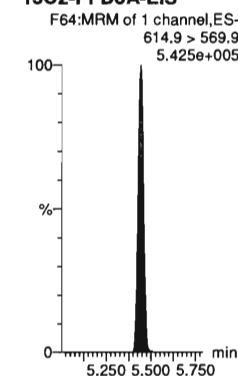
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13C8-PFOS-EIS



13C2-PFDoA-EIS



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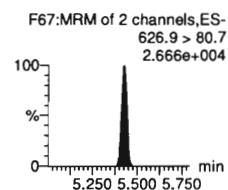
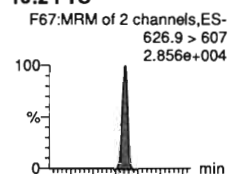
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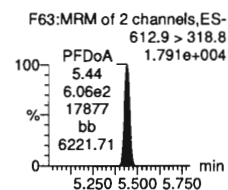
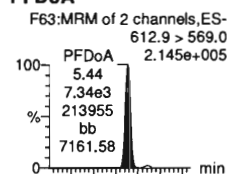
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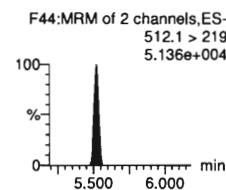
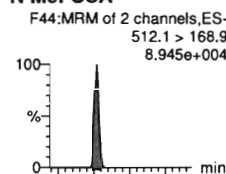
10:2 FTS



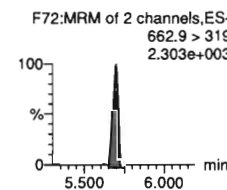
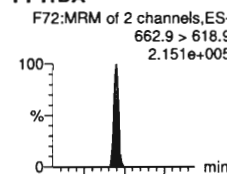
PFDaA



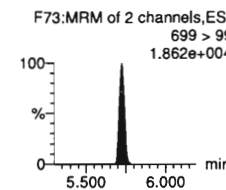
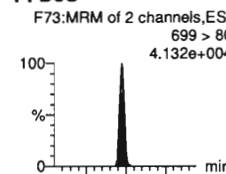
N-MeFOSA



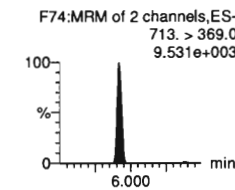
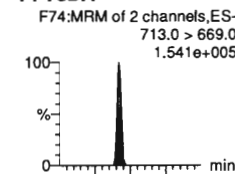
PFTrDA



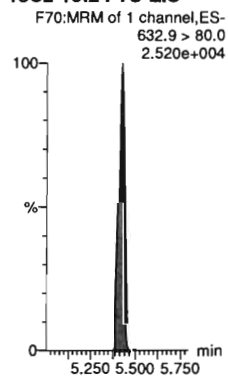
PFDoS



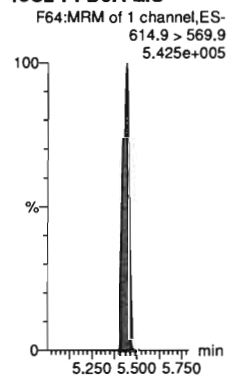
PFTeDA



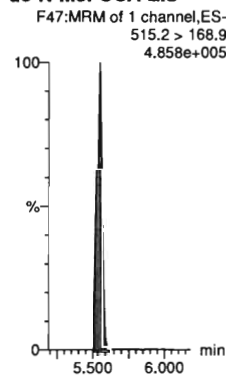
13C2-10:2 FTS-EIS



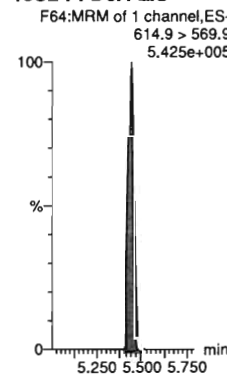
13C2-PFDaA-EIS



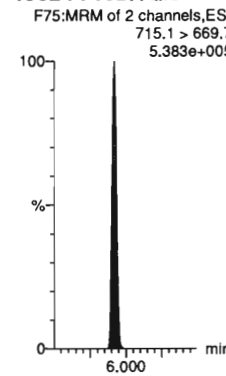
d3-N-MeFOSA-EIS



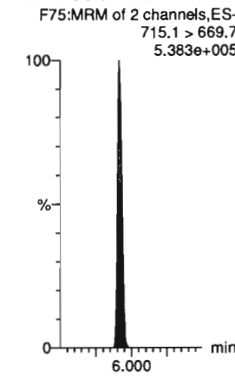
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

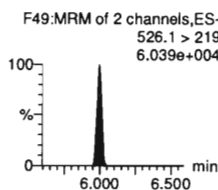
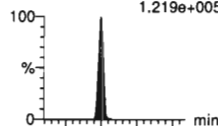
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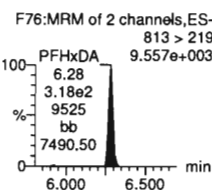
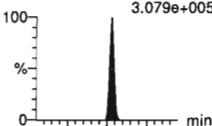
N-EtFOSA

F49:MRM of 2 channels,ES-
526.1 > 168.9
1.219e+005



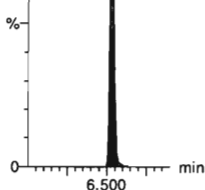
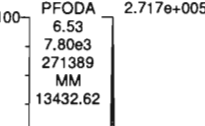
PFHxDA

F76:MRM of 2 channels,ES-
813 > 769
3.079e+005



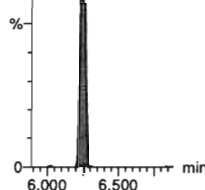
PFODA

F78:MRM of 1 channel,ES-
913.1 > 868.8
2.717e+005



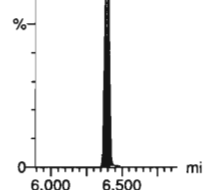
N-MeFOSE

F65:MRM of 1 channel,ES-
616.1 > 58.9
1.165e+005



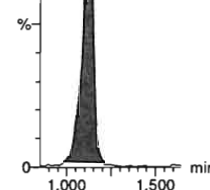
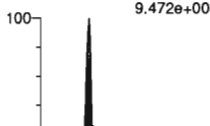
N-EtFOSE

F68:MRM of 1 channel,ES-
630.1 > 58.9
1.212e+005



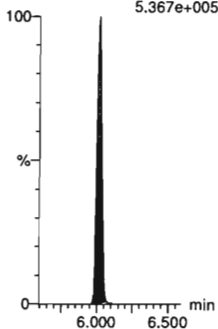
13C3-PFBA-RSD

F3:MRM of 1 channel,ES-
216.1 > 171.8
9.472e+004



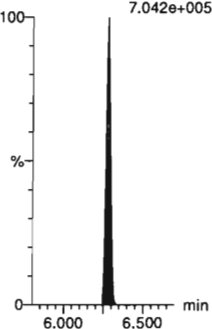
d5-N-ETFOSE-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.367e+005



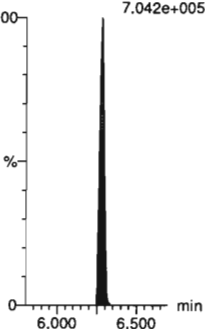
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
7.042e+005



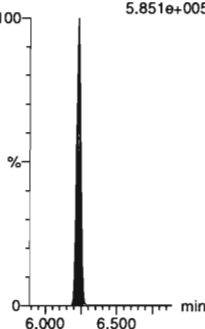
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F77:MRM of 1 channel,ES-
815 > 769.7
7.042e+005



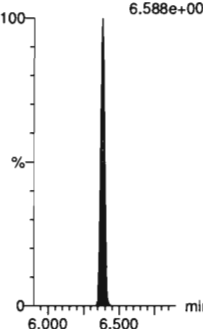
d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.851e+005



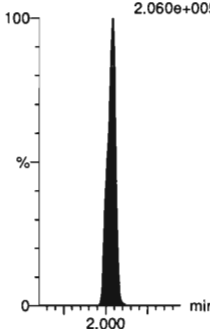
d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.588e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
2.060e+005



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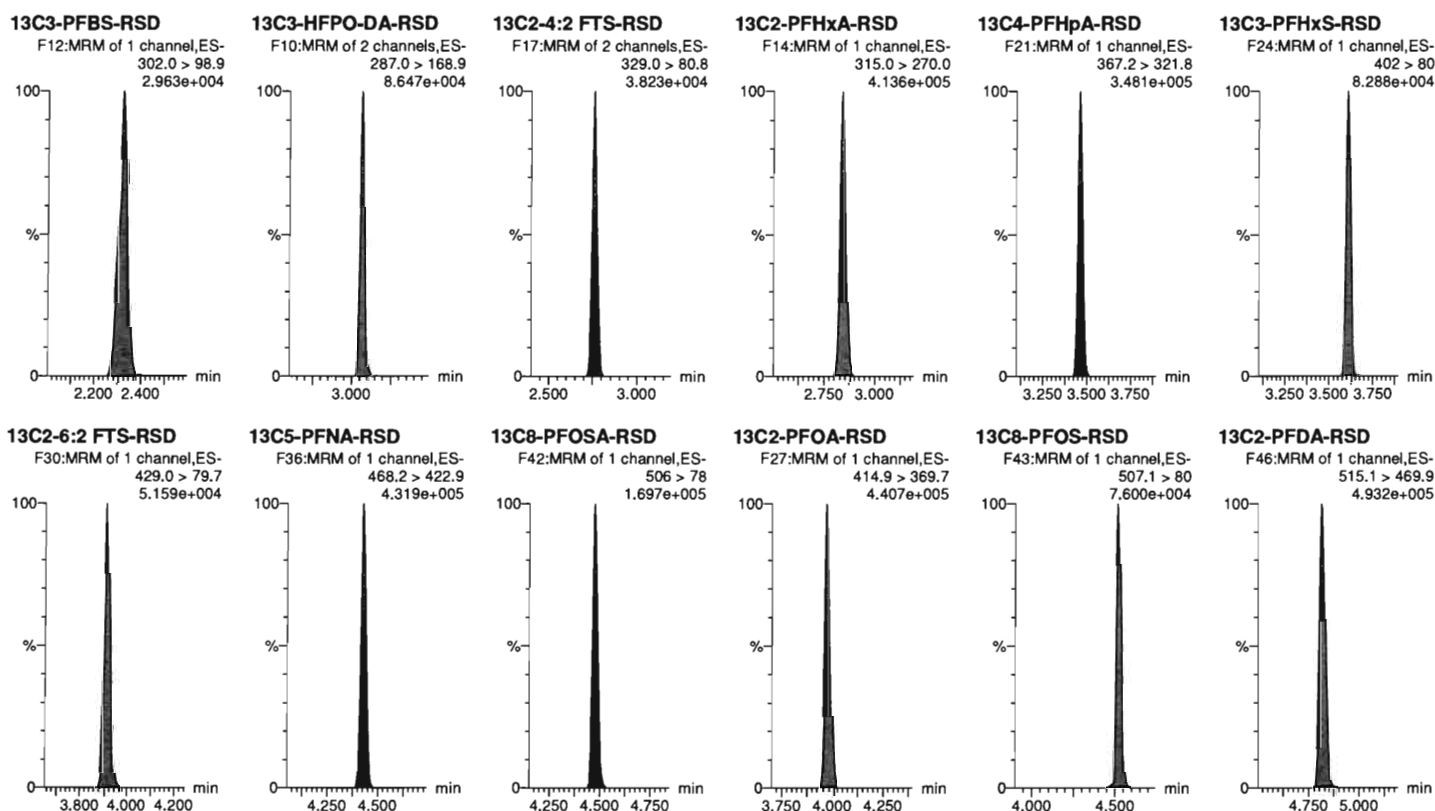
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Printed: Thursday, July 02, 2020 13:47:09 Pacific Daylight Time

Name: 200702P1-9, Date: 02-Jul-2020, Time: 10:39:46, ID: ST200702P1-5 PFC CS2 20F1905, Description: PFC CS2 20F1905



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

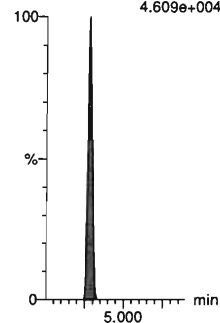
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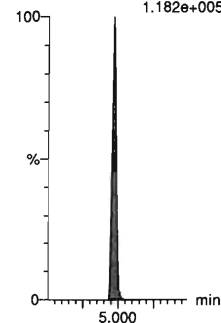
13C2-8:2 FTS-RSD

F51:MRM of 1 channel, ES-
529 > 80
4.609e+004



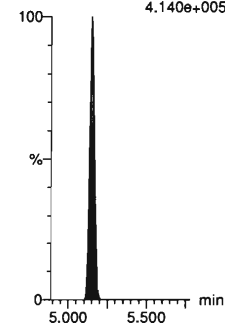
d3-N-MeFOSAA-RSD

F59:MRM of 1 channel, ES-
573.1 > 419
1.182e+005



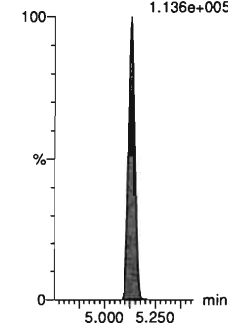
13C2-PFUDa-RSD

F56:MRM of 1 channel, ES-
565 > 519.8
4.140e+005



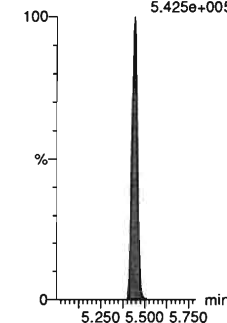
d5-N-EtFOSAA-RSD

F61:MRM of 1 channel, ES-
589.3 > 419
1.136e+005



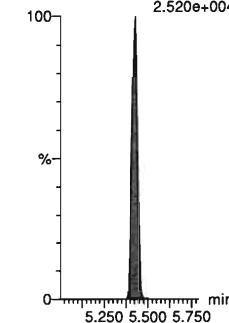
13C2-PFDoA-RSD

F64:MRM of 1 channel, ES-
614.9 > 569.9
5.425e+005



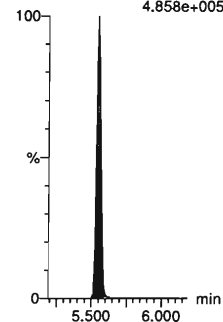
13C2-10:2 FTS-RSD

F70:MRM of 1 channel, ES-
632.9 > 80.0
2.520e+004



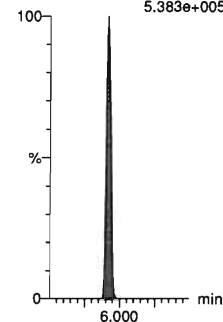
d3-N-MeFOSA-RSD

F47:MRM of 1 channel, ES-
515.2 > 168.9
4.858e+005



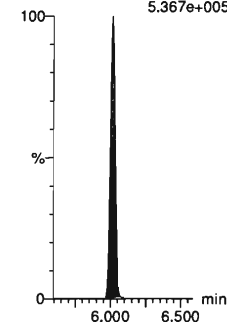
13C2-PFTeDA-RSD

F75:MRM of 2 channels, ES-
715.1 > 669.7
5.383e+005



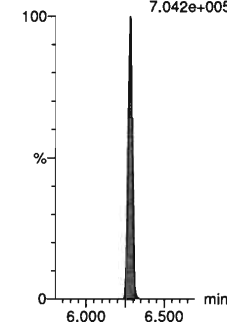
d5-N-ETFOSA-RSD

F53:MRM of 1 channel, ES-
531.1 > 168.9
5.367e+005



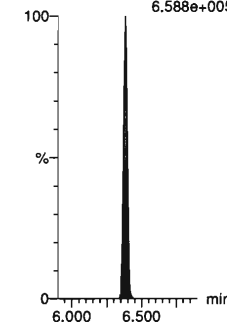
13C2-PFHxDA-RSD

F77:MRM of 1 channel, ES-
815 > 769.7
7.042e+005



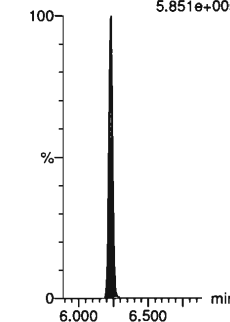
d9-N-EtFOSE-RSD

F71:MRM of 1 channel, ES-
639.2 > 58.8
6.588e+005



d7-N-MeFOSE-RSD

F66:MRM of 1 channel, ES-
623.1 > 58.9
5.851e+005



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

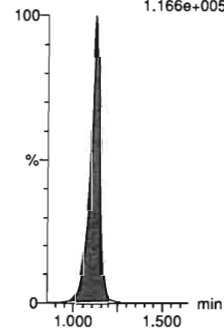
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Name: 200702P1-9, Date: 02-Jul-2020, Time: 10:39:46, ID: ST200702P1-5 PFC CS2 20F1905, Description: PFC CS2 20F1905

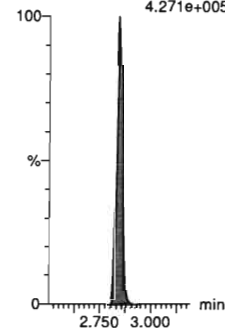
13C4-PFBA

F4:MRM of 1 channel,ES-
217.0 > 172.0
1.166e+005



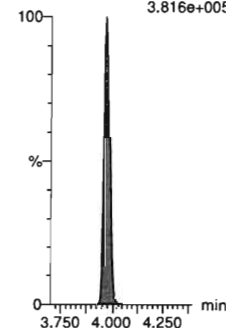
13C5-PFHxA

F15:MRM of 1 channel,ES-
318.0 > 272.9
4.271e+005



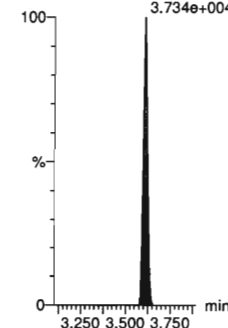
13C8-PFOA

F28:MRM of 1 channel,ES-
420.9 > 376.0
3.816e+005



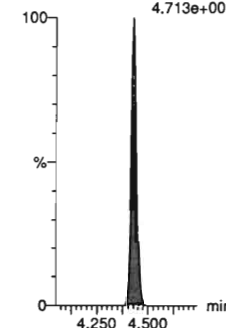
18O2-PFHxS

F25:MRM of 1 channel,ES-
403.0 > 103
3.734e+004



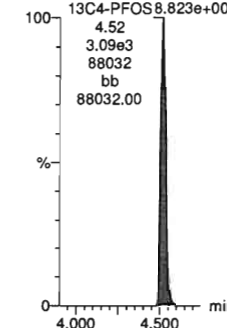
13C9-PFNA

F37:MRM of 1 channel,ES-
472.2 > 426.9
4.713e+005



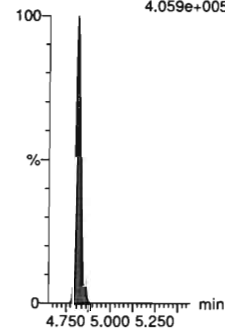
13C4-PFOS

F41:MRM of 1 channel,ES-
503 > 79.7
8.823e+004



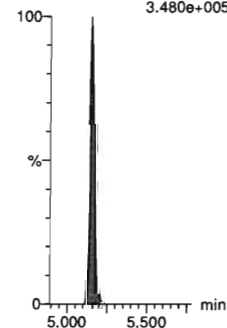
13C6-PFDA

F48:MRM of 1 channel,ES-
519.1 > 473.7
4.059e+005



13C7-PFUDa

F58:MRM of 1 channel,ES-
570.1 > 524.8
3.480e+005



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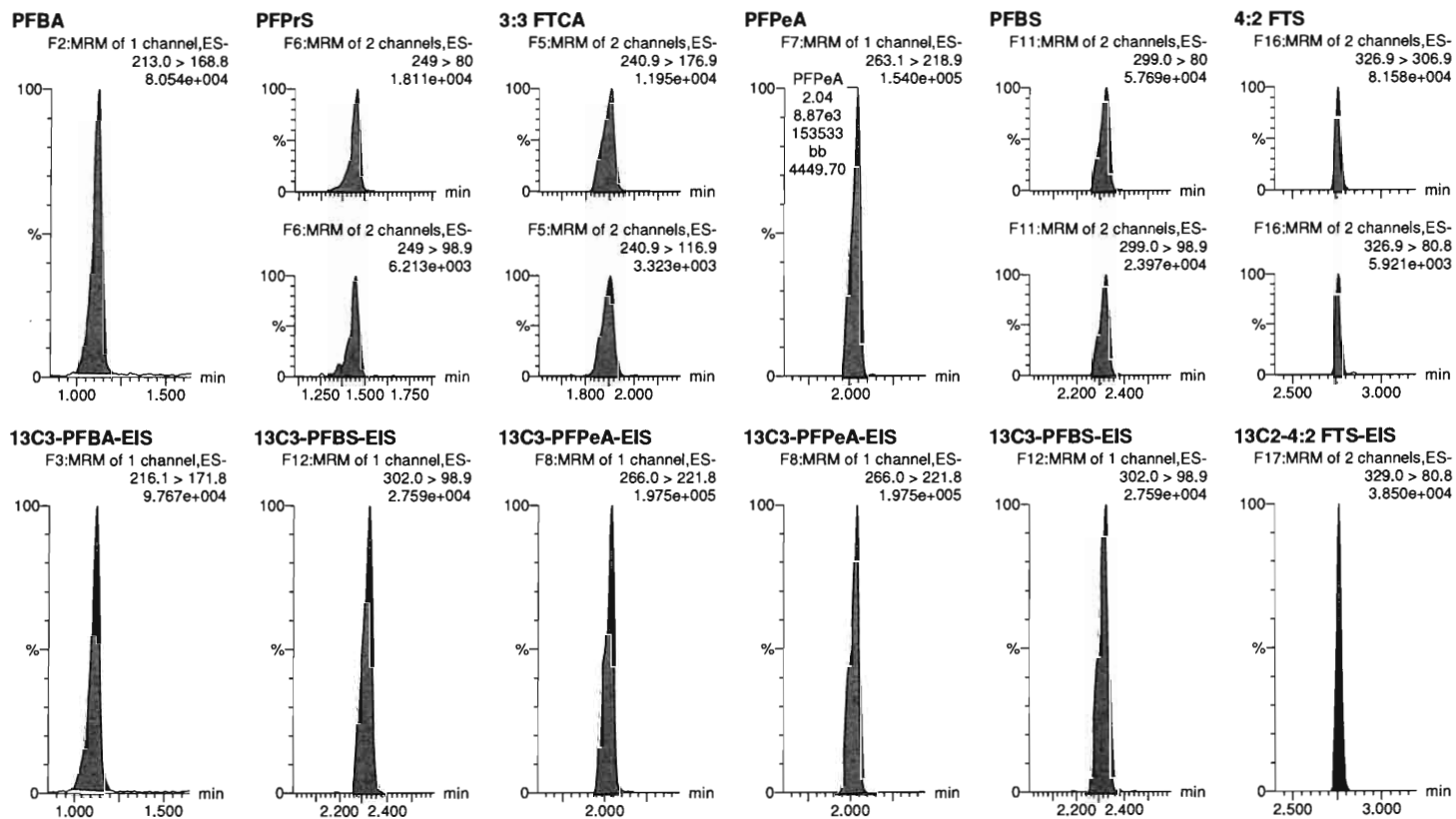
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Name: 200702P1-10, Date: 02-Jul-2020, Time: 10:50:17, ID: ST200702P1-6 PFC CS3 20F1906, Description: PFC CS3 20F1906



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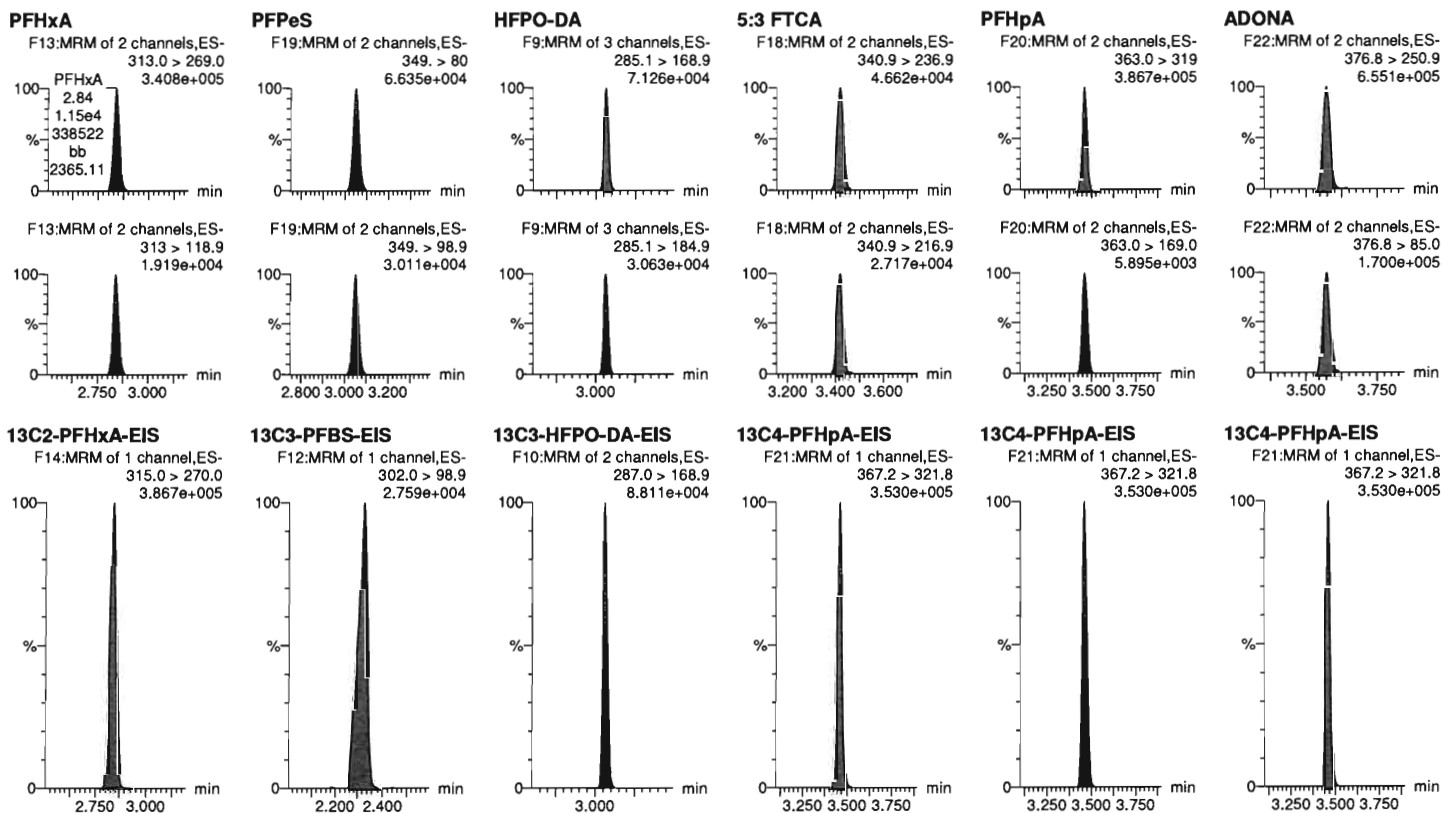
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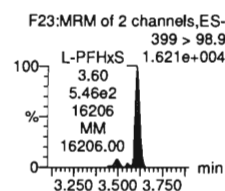
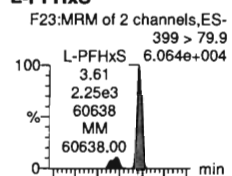
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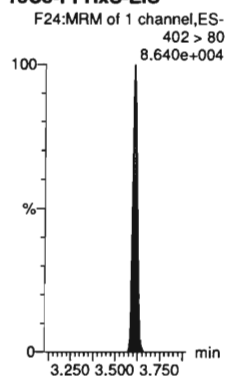
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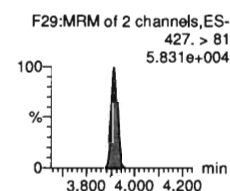
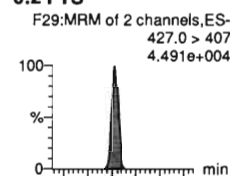
L-PFHxS



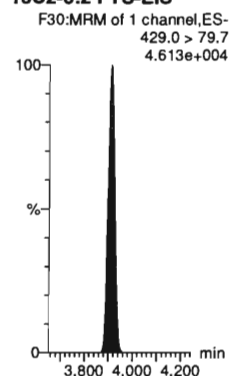
13C3-PFHxS-EIS



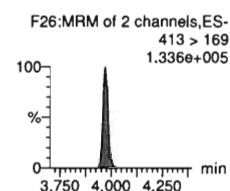
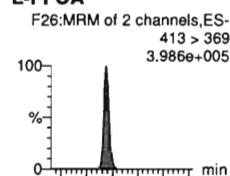
6:2 FTS



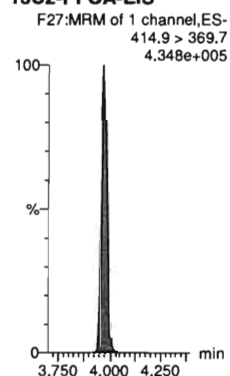
13C2-6:2 FTS-EIS



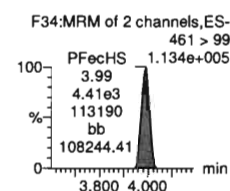
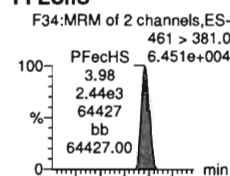
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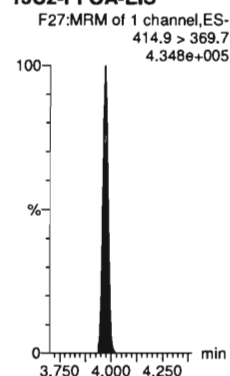
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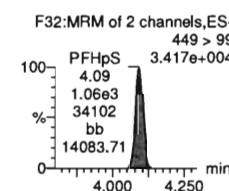
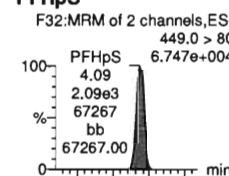
PFEChS



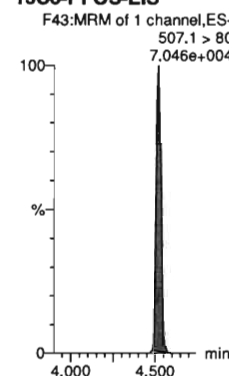
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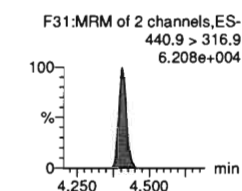
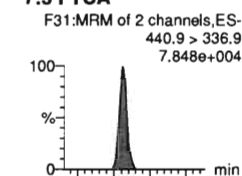
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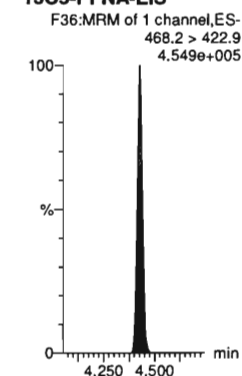
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7:3 FTCA



13C5-PFNA-EIS



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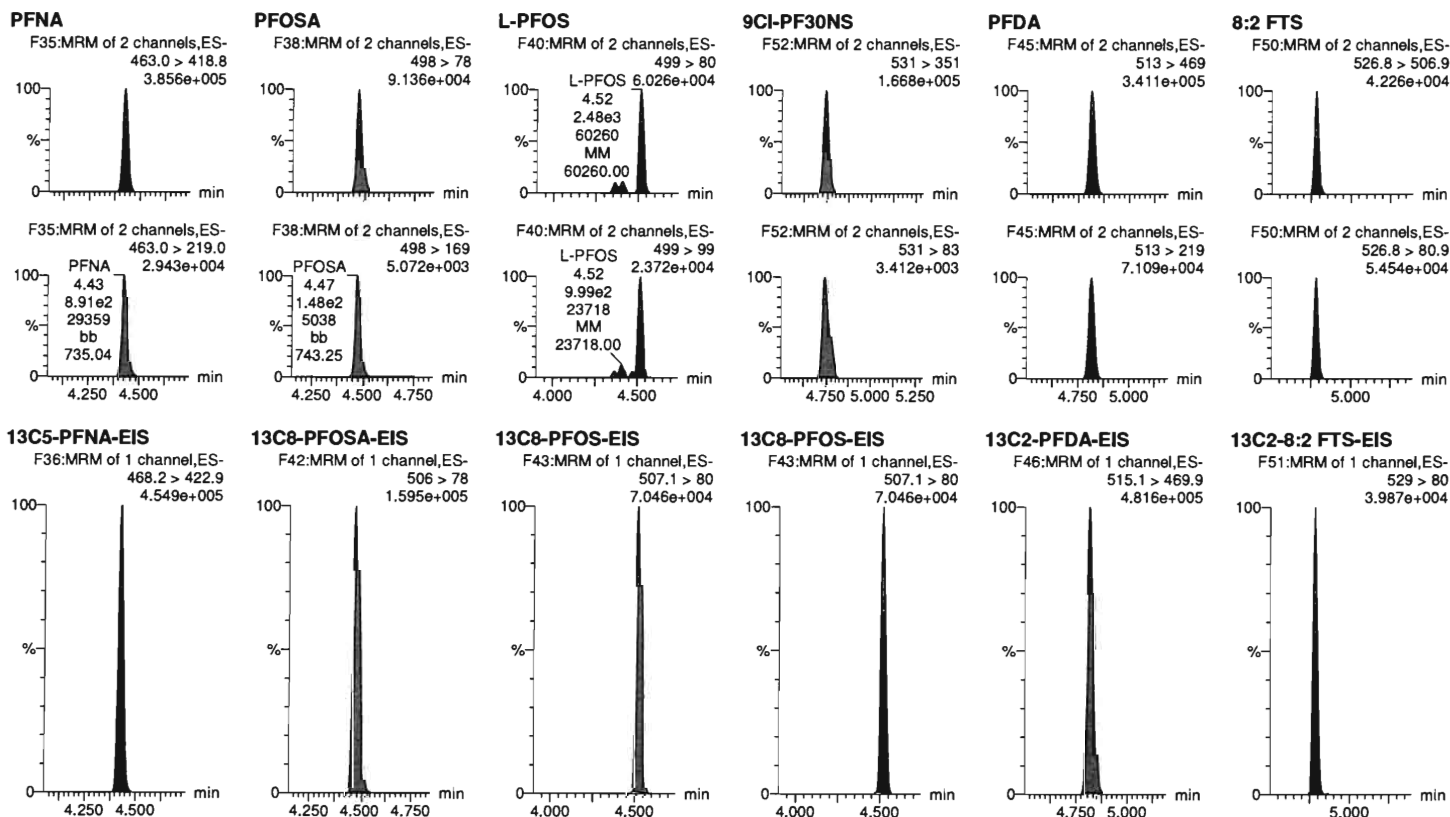
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Printed: Thursday, July 02, 2020 13:47:09 Pacific Daylight Time

Name: 200702P1-10, Date: 02-Jul-2020, Time: 10:50:17, ID: ST200702P1-6 PFC CS3 20F1906, Description: PFC CS3 20F1906



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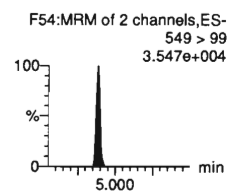
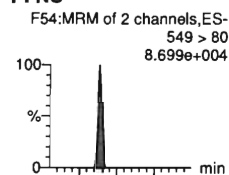
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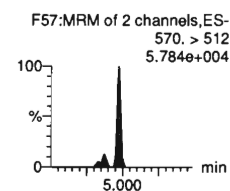
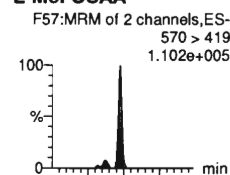
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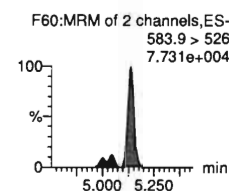
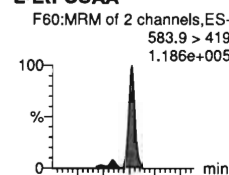
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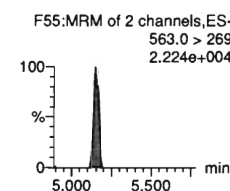
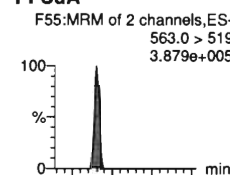
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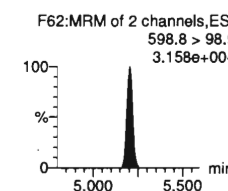
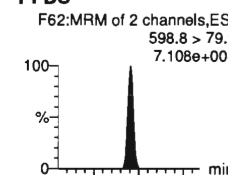
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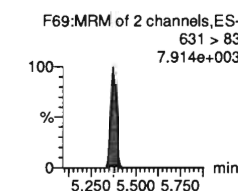
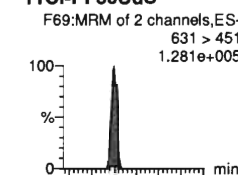
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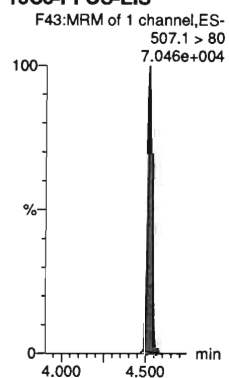
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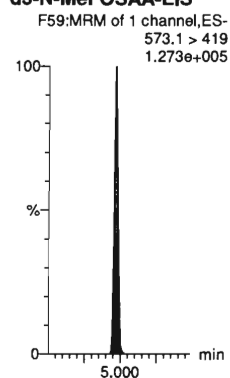
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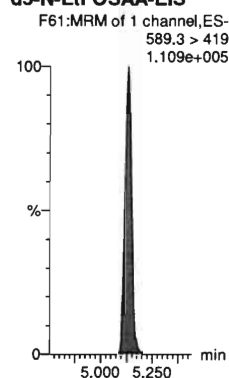
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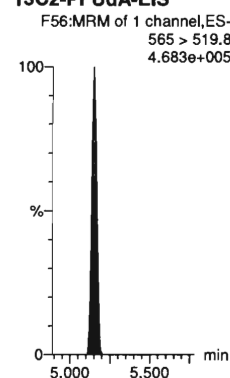
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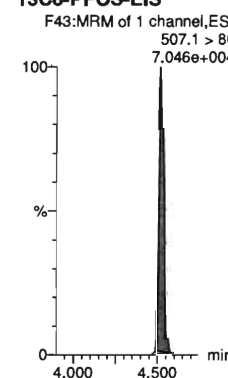
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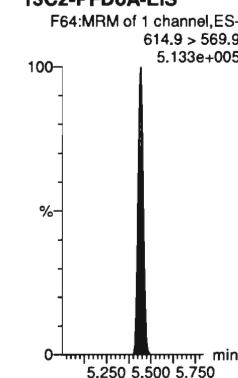
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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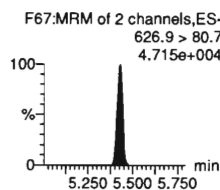
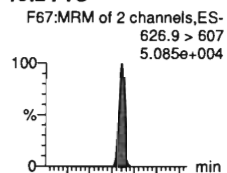
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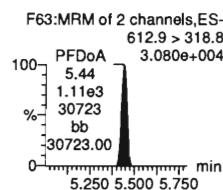
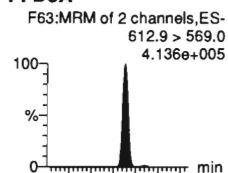
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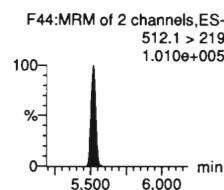
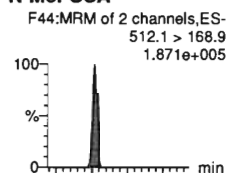
10:2 FTS



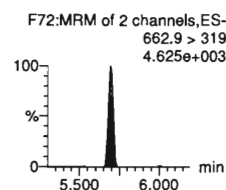
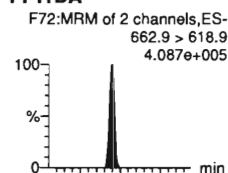
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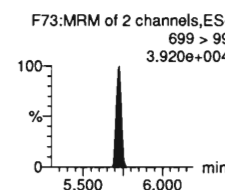
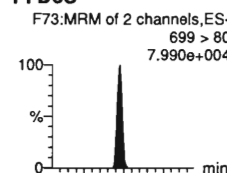
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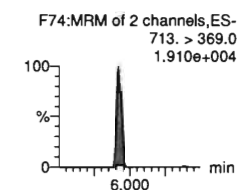
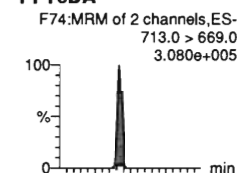
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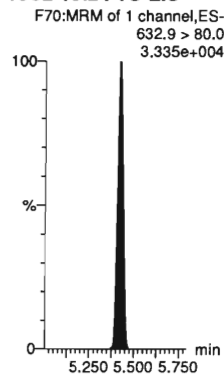
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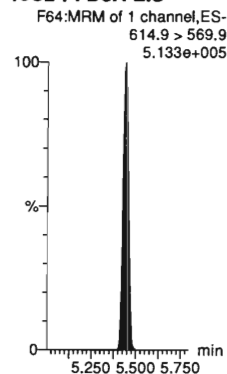
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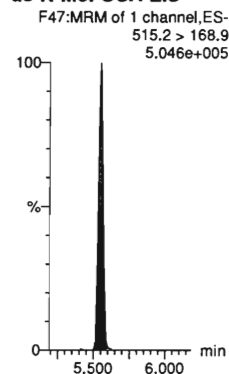
13C2-10:2 FTS-EIS



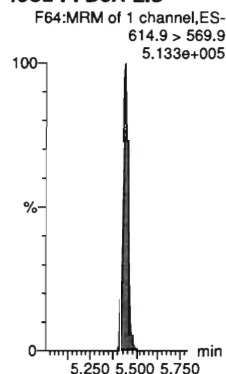
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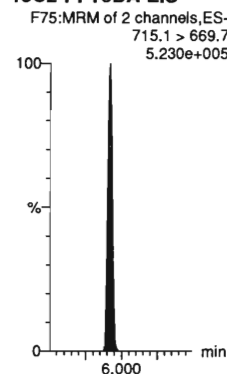
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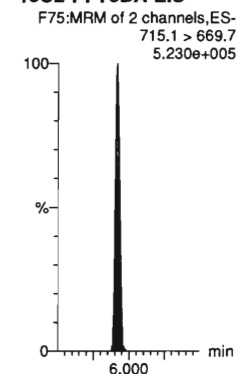
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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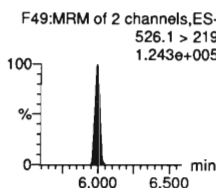
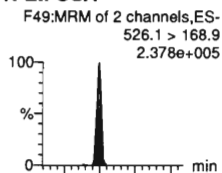
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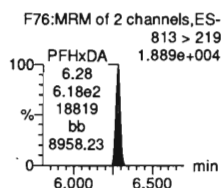
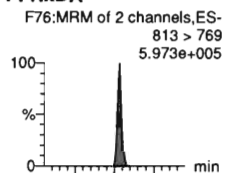
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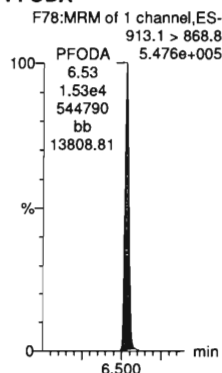
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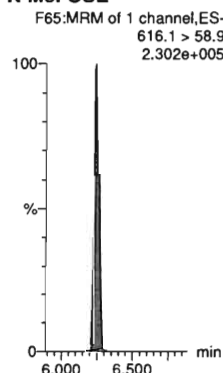
PFHxDA



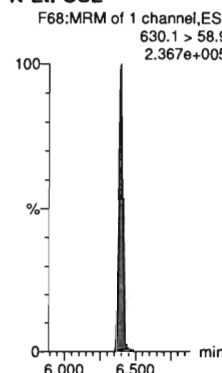
PFODA



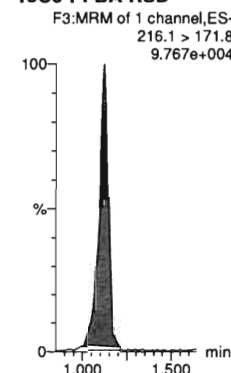
N-MeFOSE



N-EtFOSE



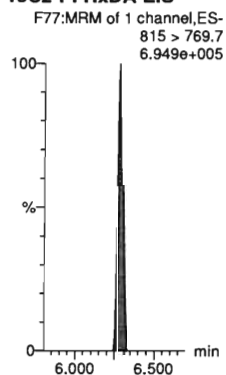
13C3-PFBA-RSD



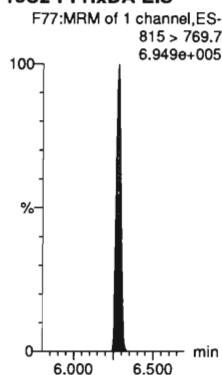
d5-N-ETFOSA-EIS



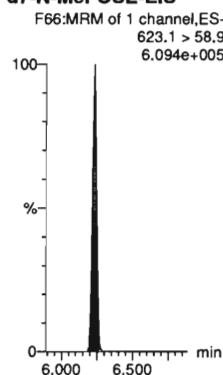
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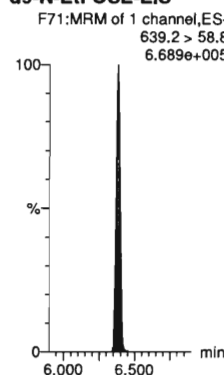
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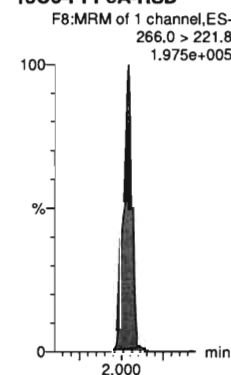
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD



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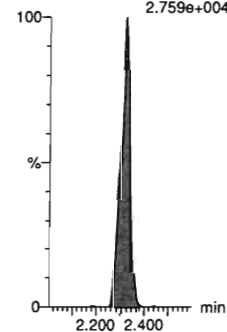
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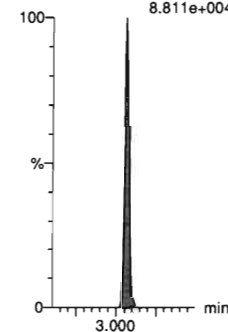
13C3-PFBS-RSD

F12:MRM of 1 channel,ES-
302.0 > 98.9
2.759e+004



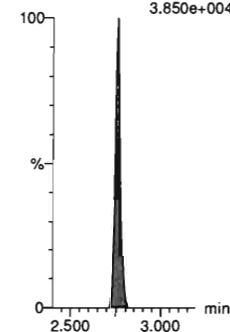
13C3-HFPO-DA-RSD

F10:MRM of 2 channels,ES-
287.0 > 168.9
8.811e+004



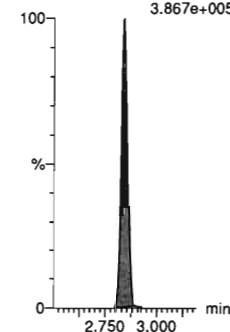
13C2-4:2 FTS-RSD

F17:MRM of 2 channels,ES-
329.0 > 80.8
3.850e+004



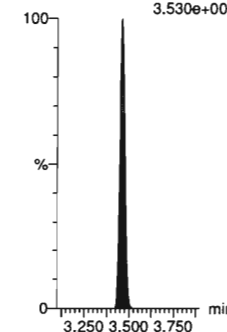
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F14:MRM of 1 channel,ES-
315.0 > 270.0
3.867e+005



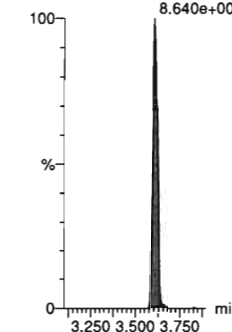
13C4-PFHpA-RSD

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.530e+005



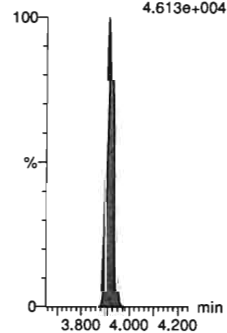
13C3-PFHxS-RSD

F24:MRM of 1 channel,ES-
402 > 80
8.640e+004



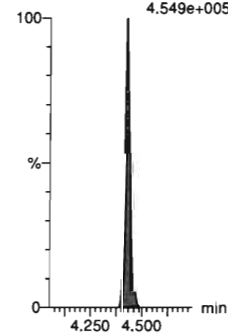
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F30:MRM of 1 channel,ES-
429.0 > 79.7
4.613e+004



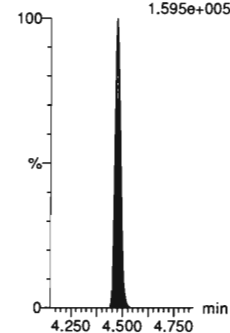
13C5-PFNA-RSD

F36:MRM of 1 channel,ES-
468.2 > 422.9
4.549e+005



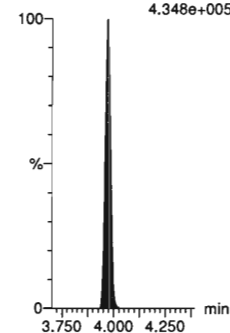
13C8-PFOSA-RSD

F42:MRM of 1 channel,ES-
506 > 78
1.595e+005



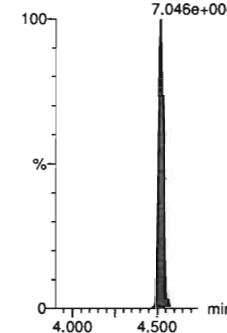
13C2-PFOA-RSD

F27:MRM of 1 channel,ES-
414.9 > 369.7
4.348e+005



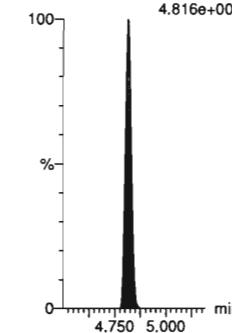
13C8-PFOS-RSD

F43:MRM of 1 channel,ES-
507.1 > 80
7.046e+004



13C2-PFDA-RSD

F46:MRM of 1 channel,ES-
515.1 > 469.9
4.816e+005



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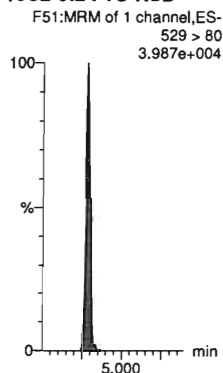
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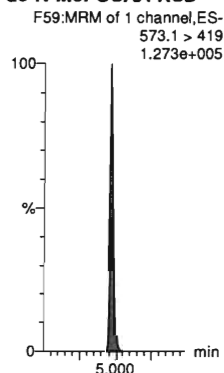
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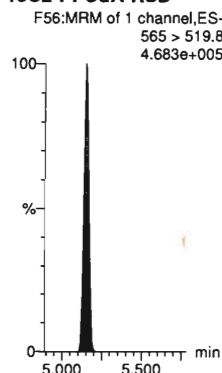
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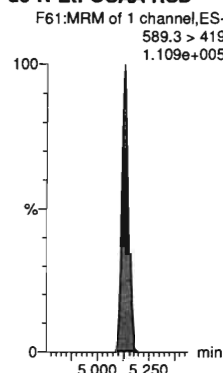
d3-N-MeFOSAA-RSD



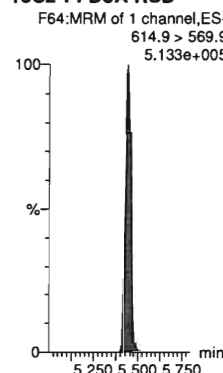
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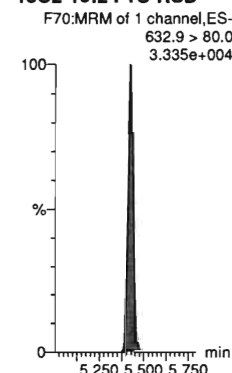
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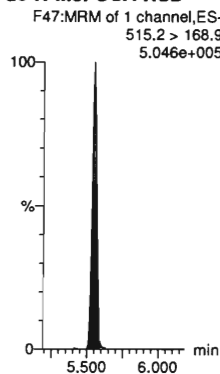
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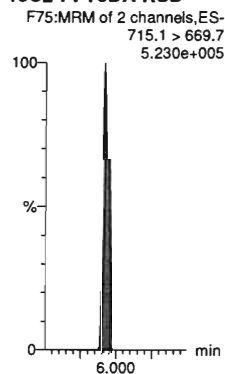
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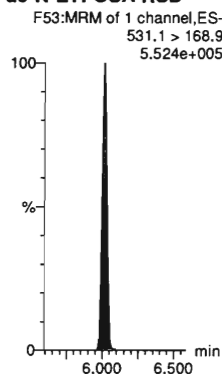
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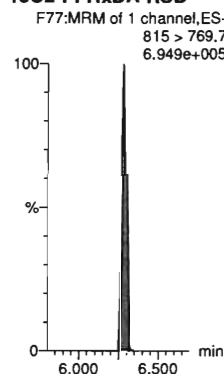
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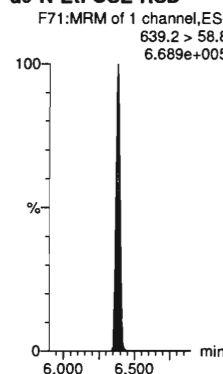
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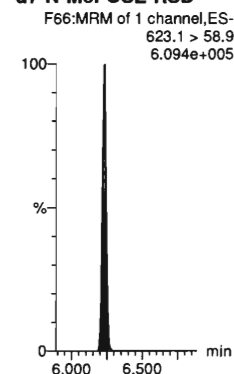
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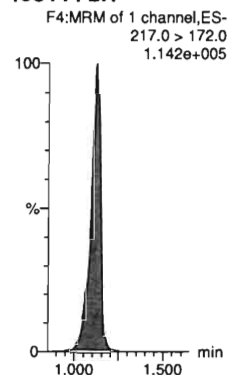
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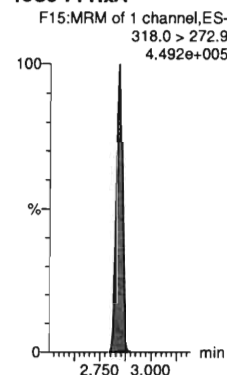
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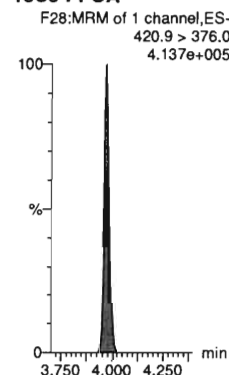
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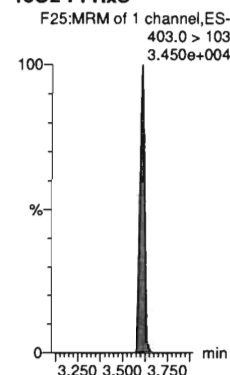
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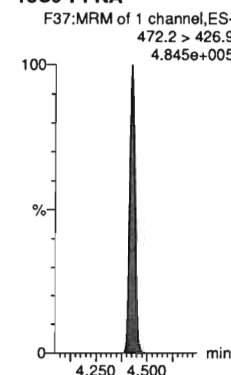
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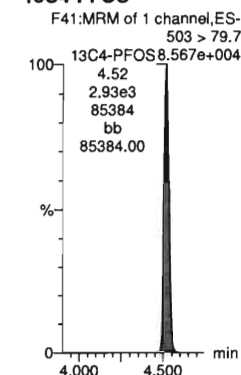
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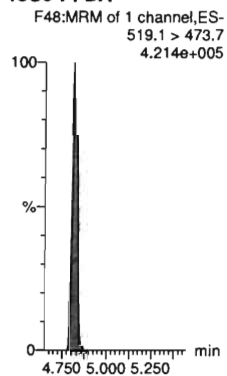
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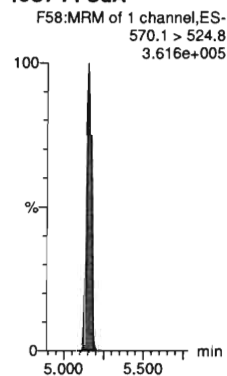
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13C6-PFDA



13C7-PFUDa



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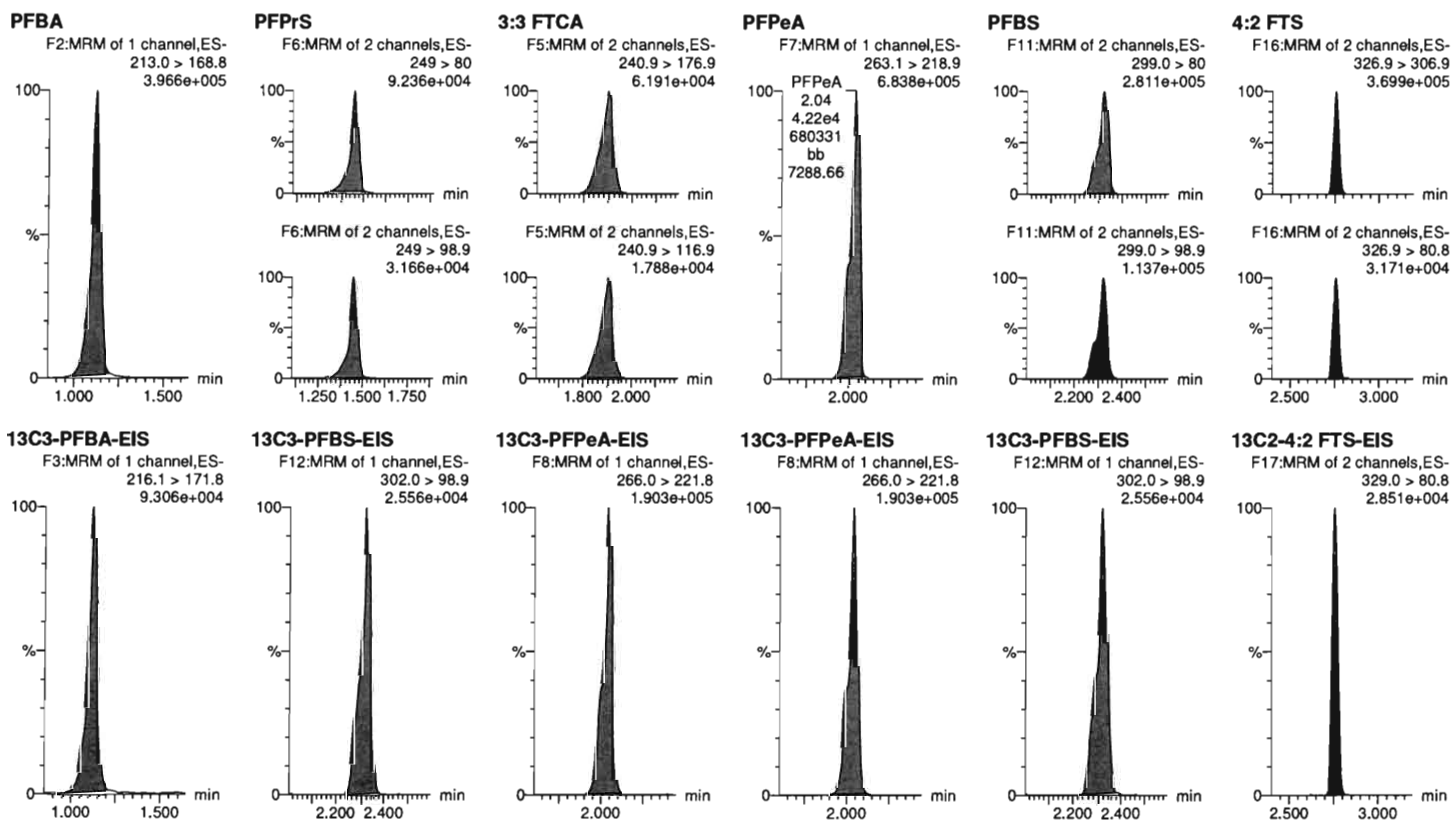
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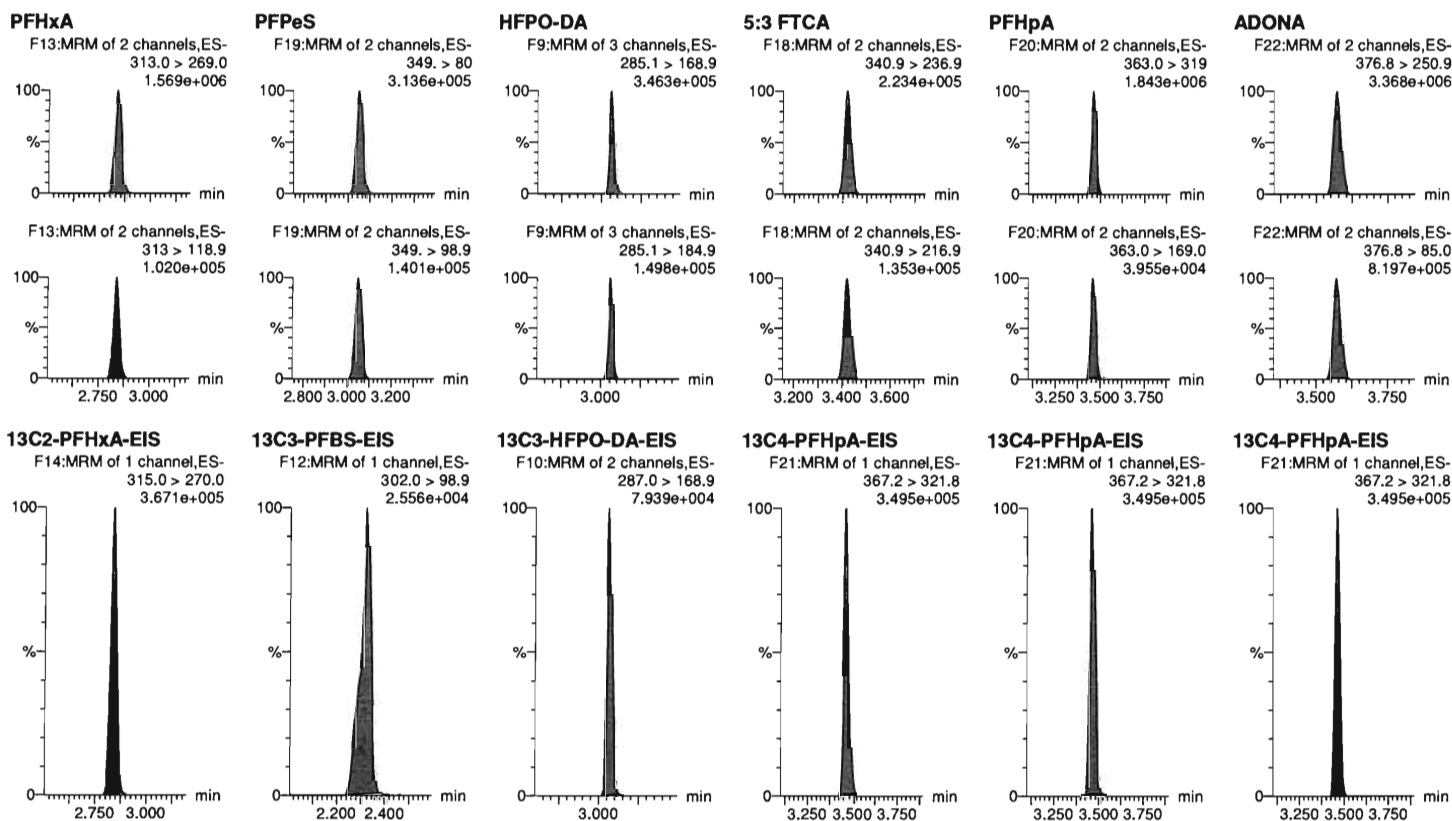
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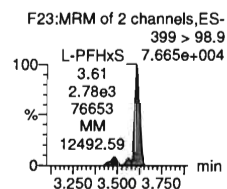
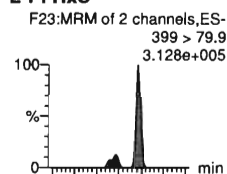
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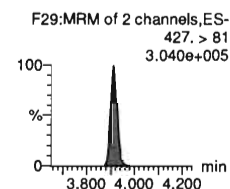
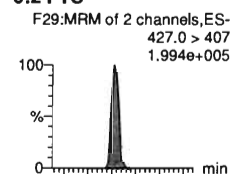
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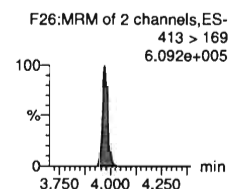
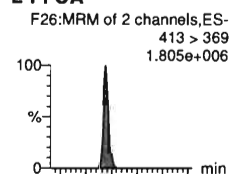
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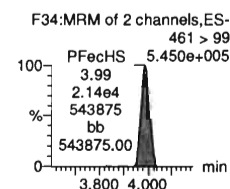
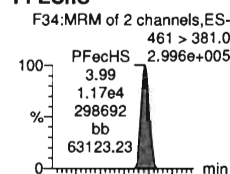
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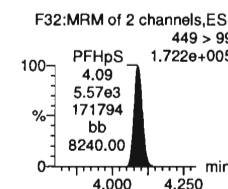
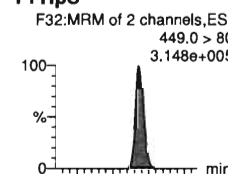
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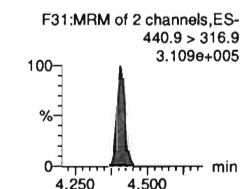
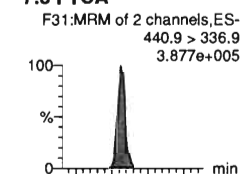
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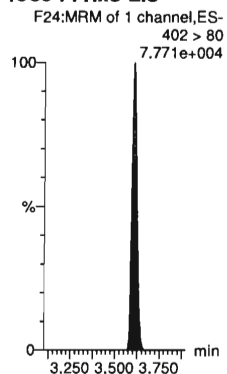
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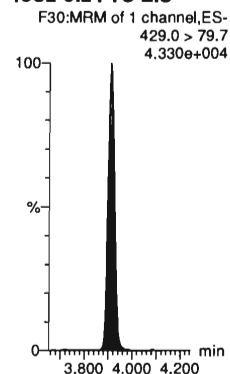
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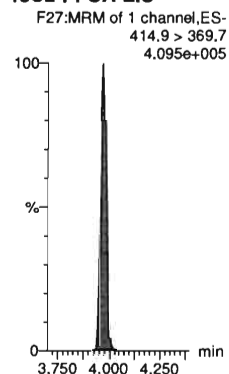
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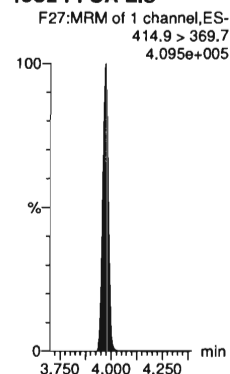
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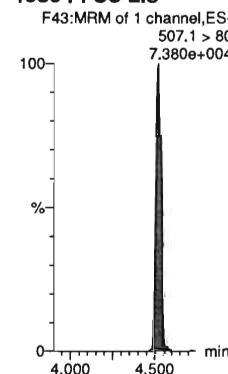
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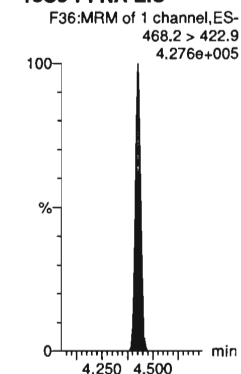
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS



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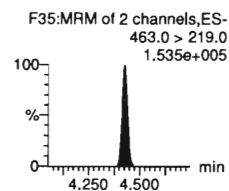
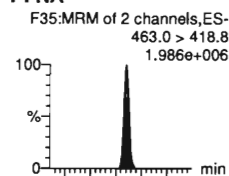
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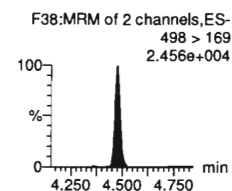
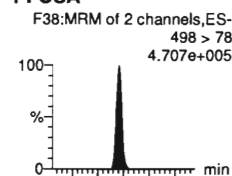
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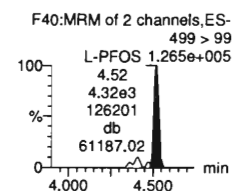
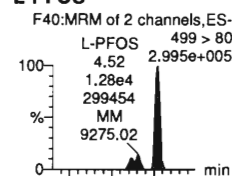
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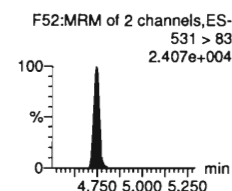
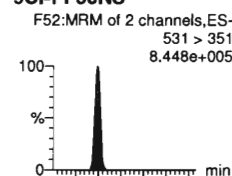
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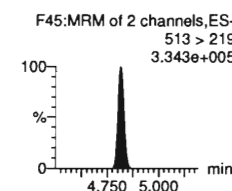
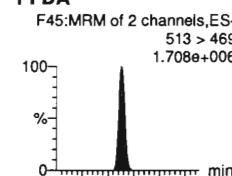
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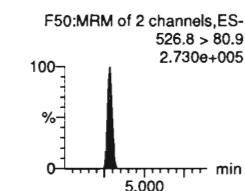
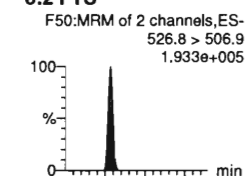
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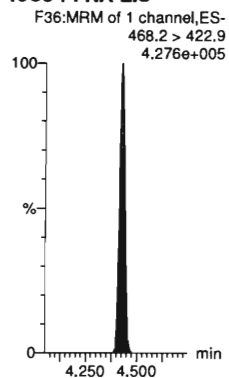
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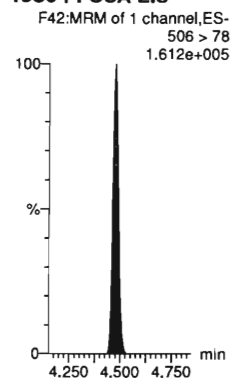
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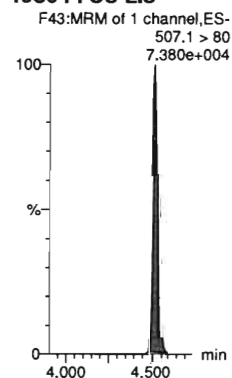
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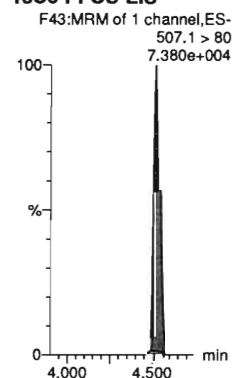
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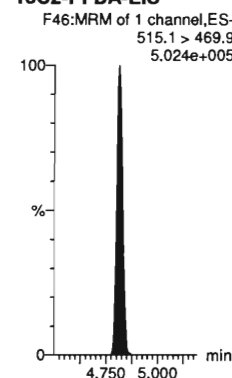
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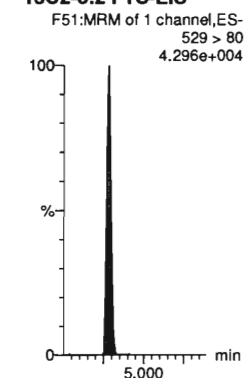
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS



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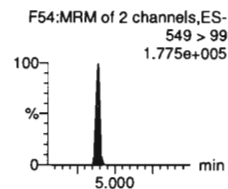
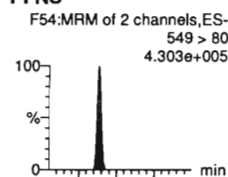
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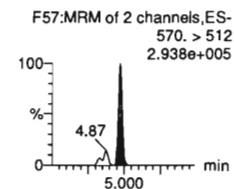
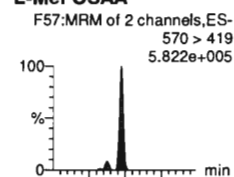
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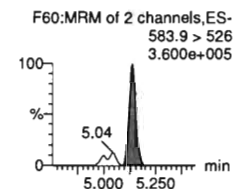
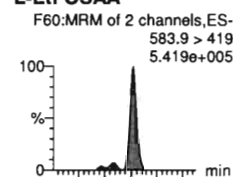
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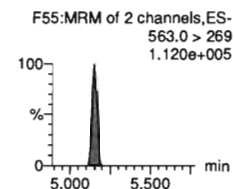
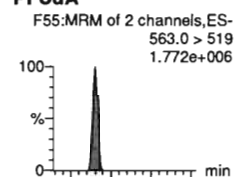
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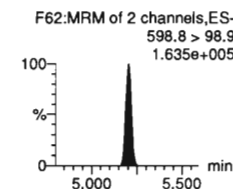
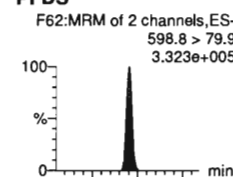
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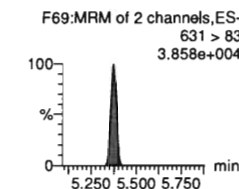
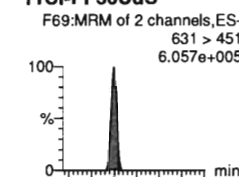
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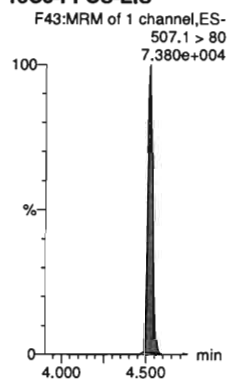
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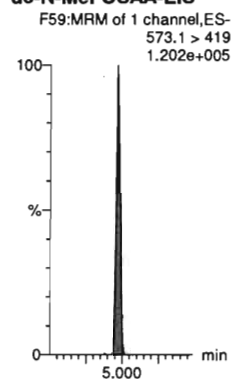
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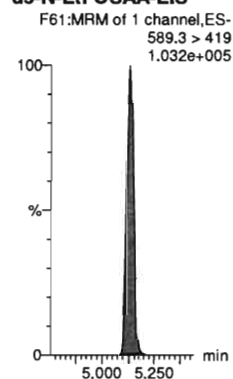
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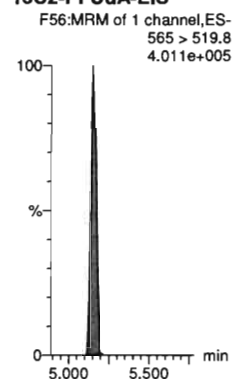
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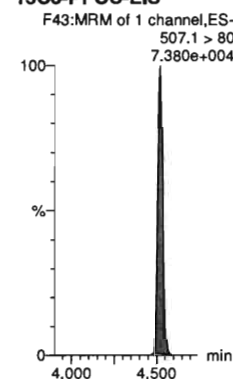
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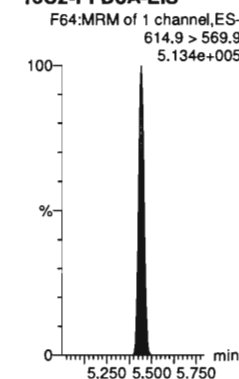
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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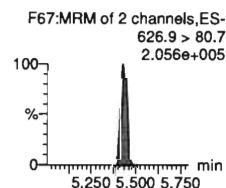
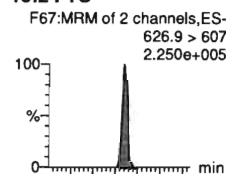
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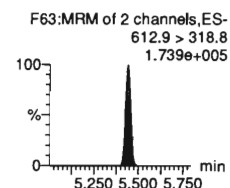
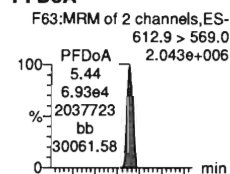
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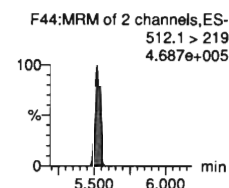
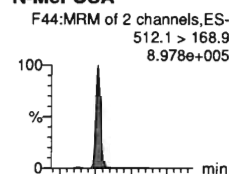
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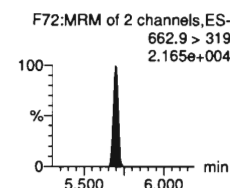
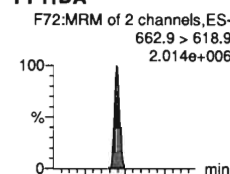
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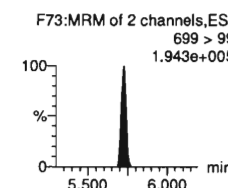
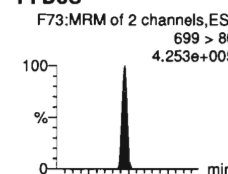
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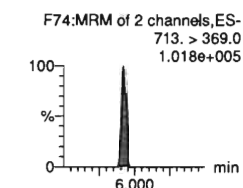
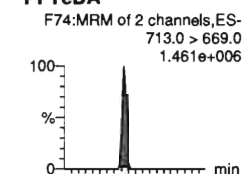
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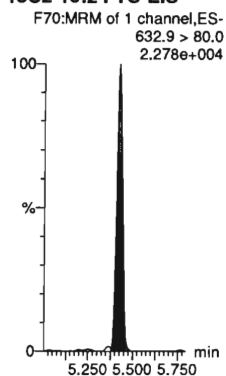
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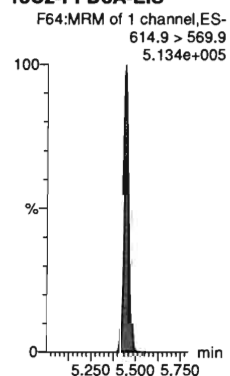
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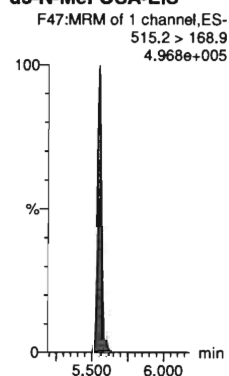
13C2-10:2 FTS-EIS



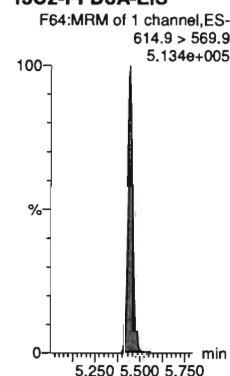
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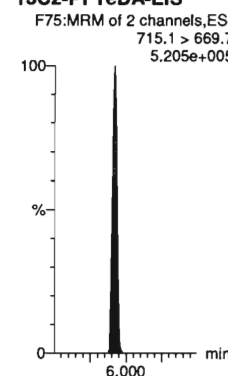
d3-N-MeFOSA-EIS



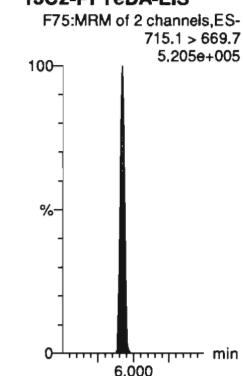
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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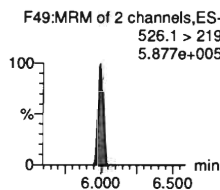
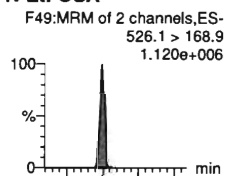
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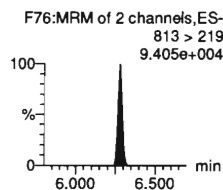
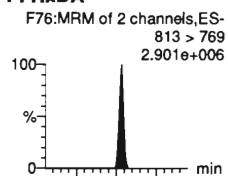
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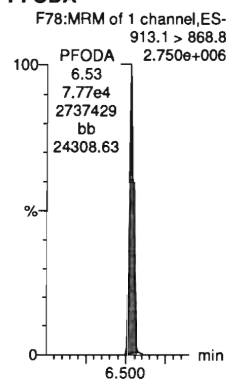
N-EtFOSA



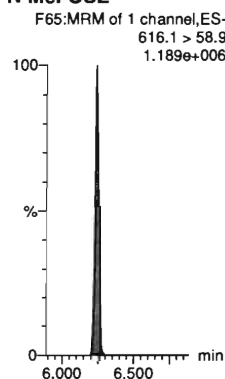
PFHxDA



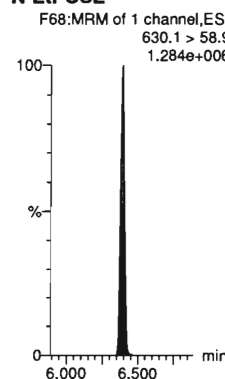
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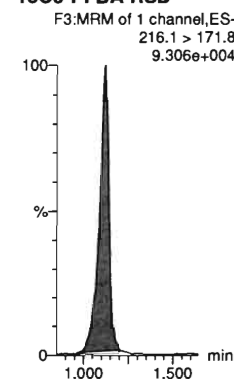
N-MeFOSE



N-EtFOSE



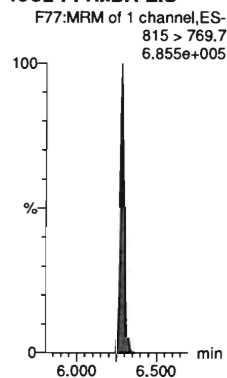
13C3-PFBA-RSD



d5-N-ETFOSA-EIS



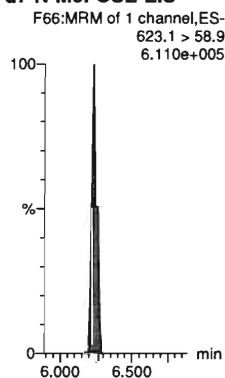
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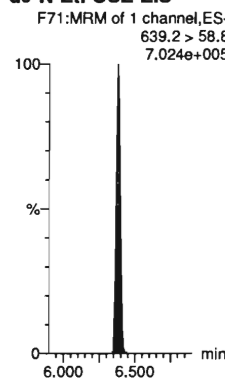
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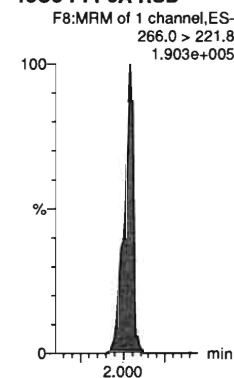
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

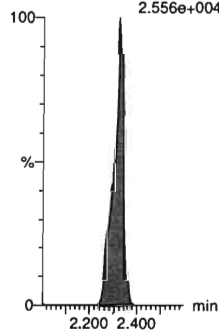
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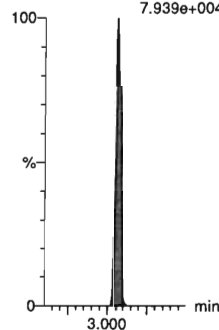
13C3-PFBS-RSD

F12:MRM of 1 channel,ES-
302.0 > 98.9
2.556e+004



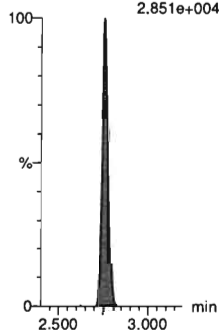
13C3-HFPO-DA-RSD

F10:MRM of 2 channels,ES-
287.0 > 168.9
7.939e+004



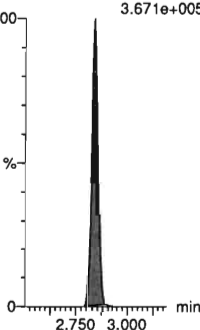
13C2-4:2 FTS-RSD

F17:MRM of 2 channels,ES-
329.0 > 80.8
2.851e+004



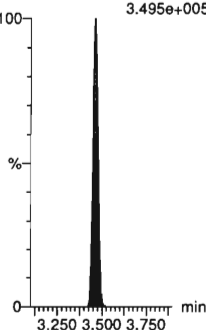
13C2-PFHxA-RSD

F14:MRM of 1 channel,ES-
315.0 > 270.0
3.671e+005



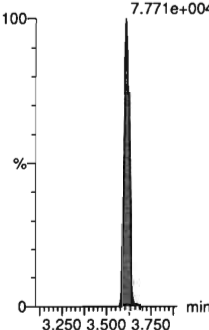
13C4-PFHpA-RSD

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.495e+005



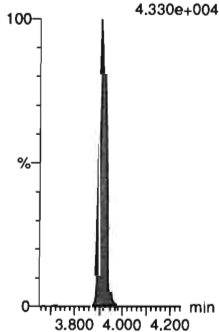
13C3-PFHxS-RSD

F24:MRM of 1 channel,ES-
402 > 80
7.771e+004



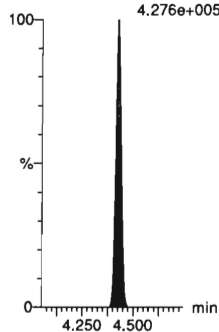
13C2-6:2 FTS-RSD

F30:MRM of 1 channel,ES-
429.0 > 79.7
4.330e+004



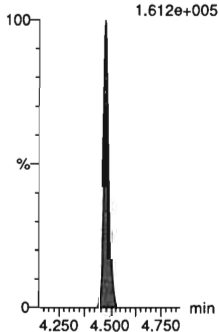
13C5-PFNA-RSD

F36:MRM of 1 channel,ES-
468.2 > 422.9
4.276e+005



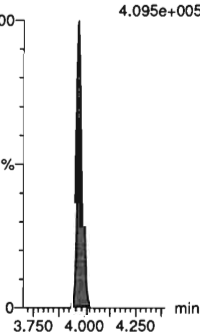
13C8-PFOSA-RSD

F42:MRM of 1 channel,ES-
506 > 78
1.612e+005



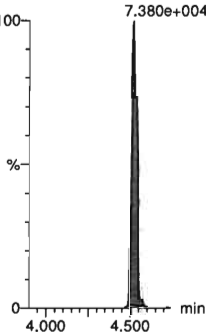
13C2-PFOA-RSD

F27:MRM of 1 channel,ES-
414.9 > 369.7
4.095e+005



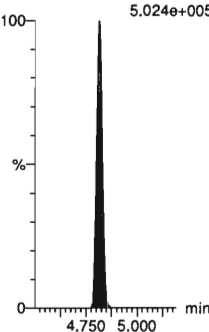
13C8-PFOS-RSD

F43:MRM of 1 channel,ES-
507.1 > 80
7.380e+004



13C2-PFDA-RSD

F46:MRM of 1 channel,ES-
515.1 > 469.9
5.024e+005



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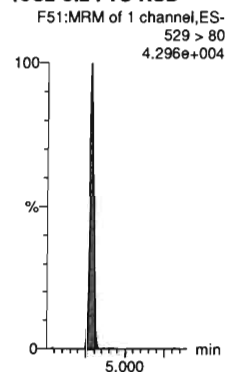
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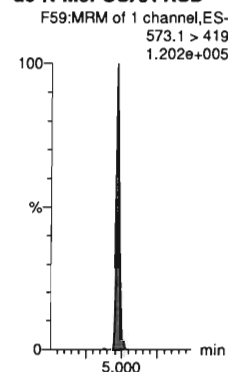
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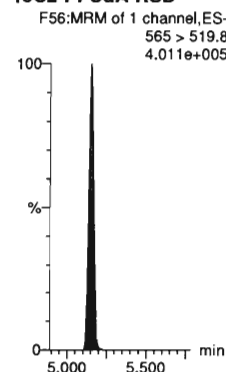
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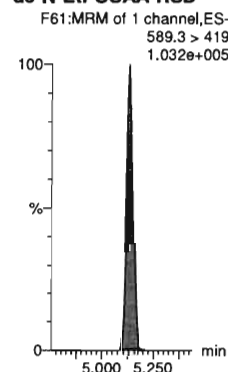
d3-N-MeFOSAA-RSD



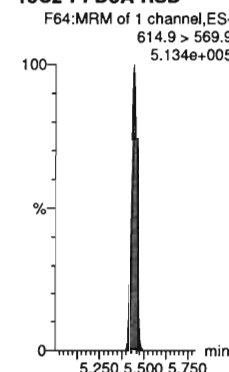
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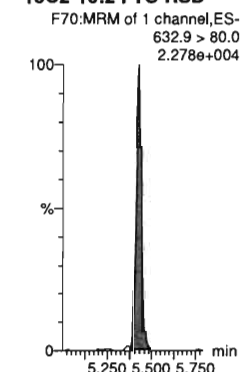
d5-N-EtFOSAA-RSD



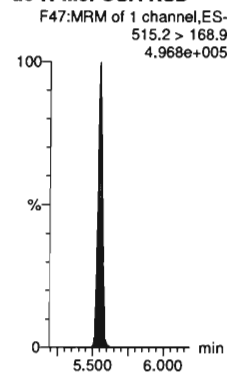
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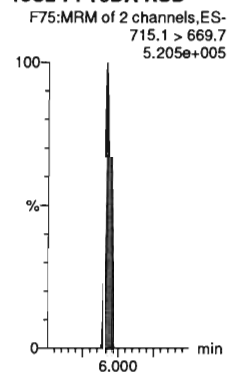
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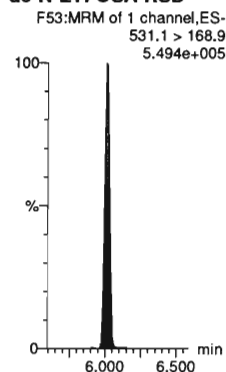
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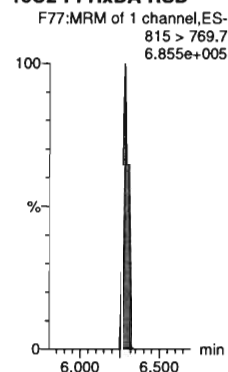
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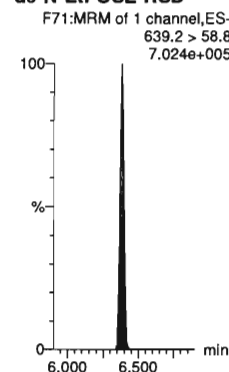
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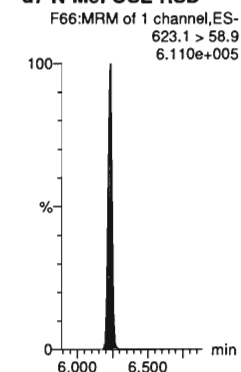
13C2-PFHxDA-RSD



d9-N-EtFOSE-RSD



d7-N-MeFOSE-RSD



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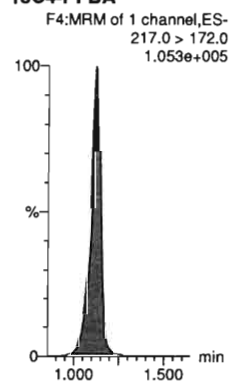
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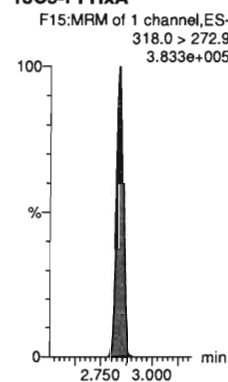
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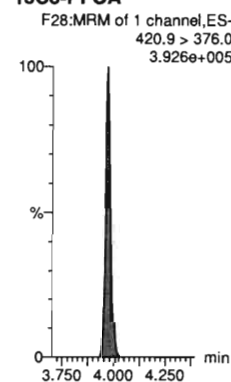
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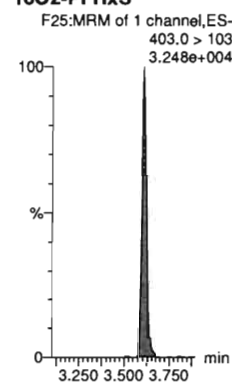
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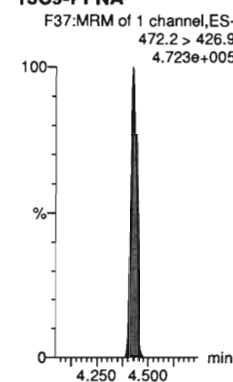
13C8-PFOA



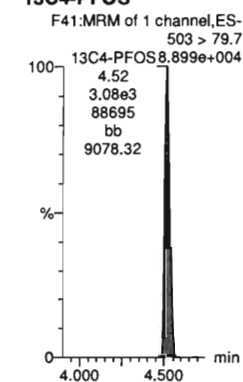
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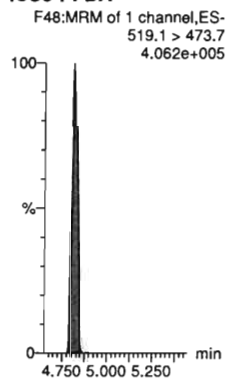
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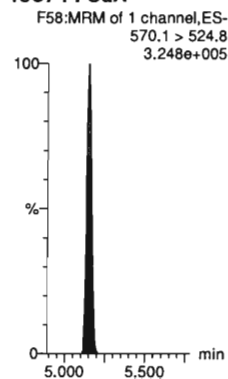
13C4-PFOS



13C6-PFDA



13C7-PFUDa



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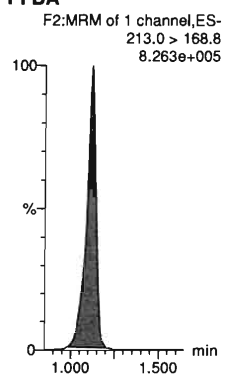
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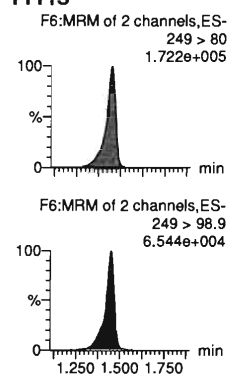
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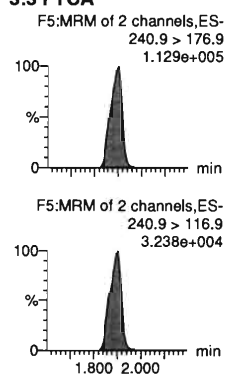
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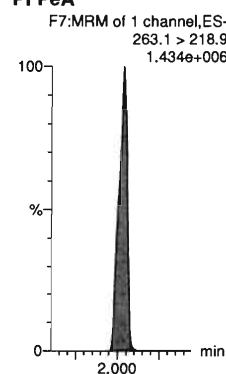
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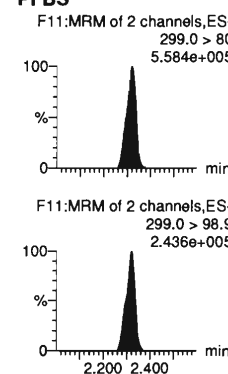
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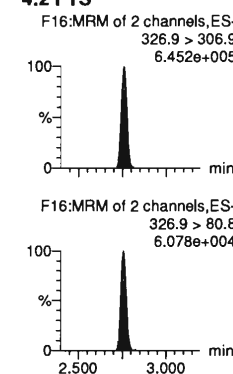
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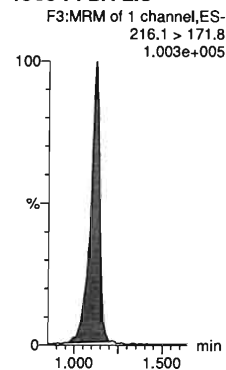
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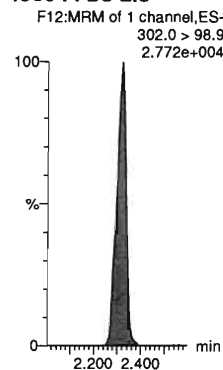
4:2 FTS



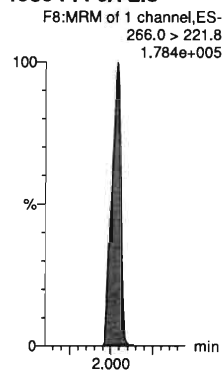
13C3-PFBA-EIS



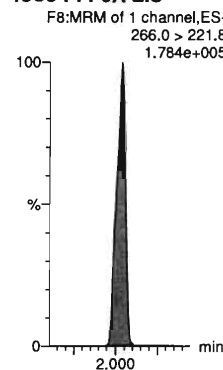
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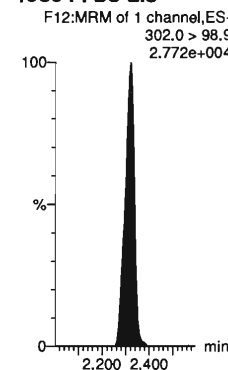
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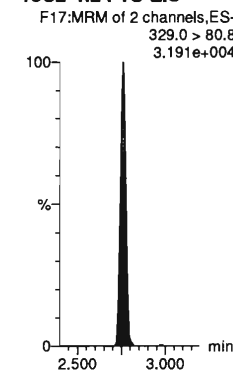
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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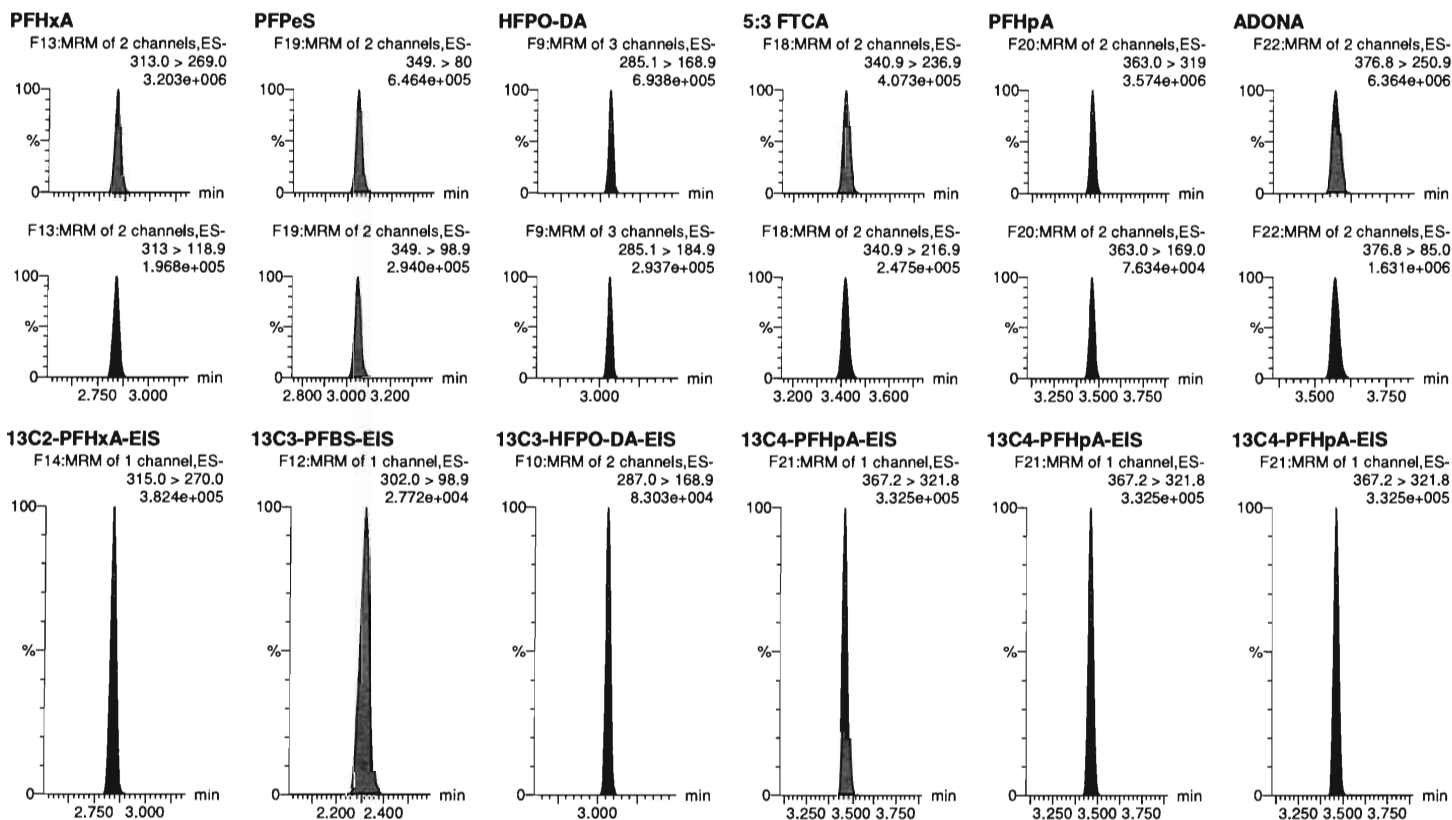
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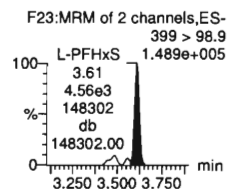
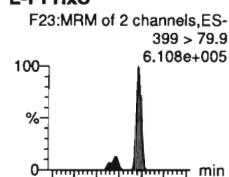
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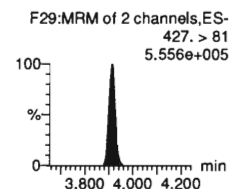
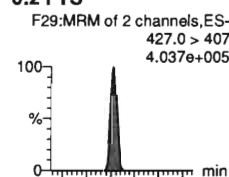
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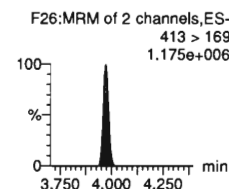
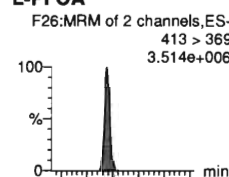
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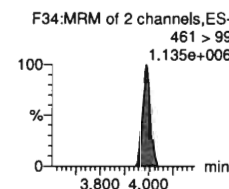
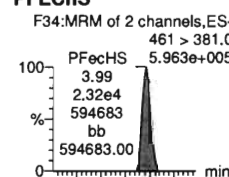
6:2 FTS



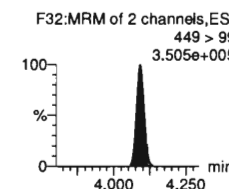
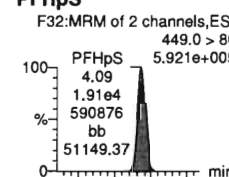
L-PFOA



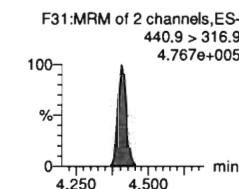
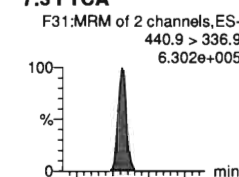
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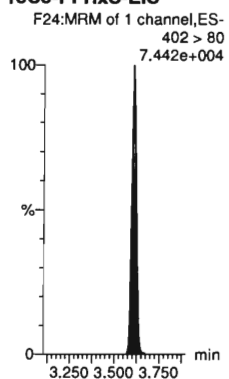
PFHpS



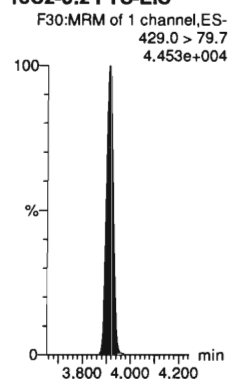
7:3 FTCA



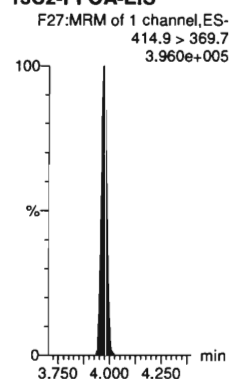
13C3-PFHxS-EIS



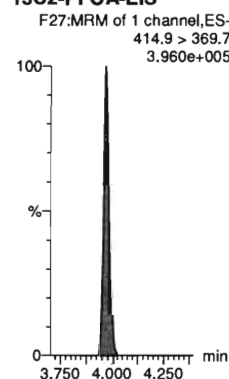
13C2-6:2 FTS-EIS



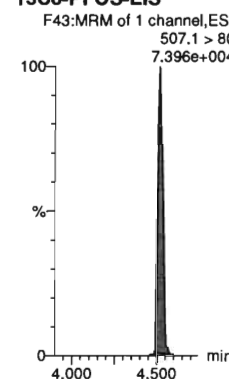
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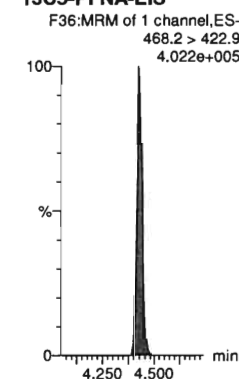
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS



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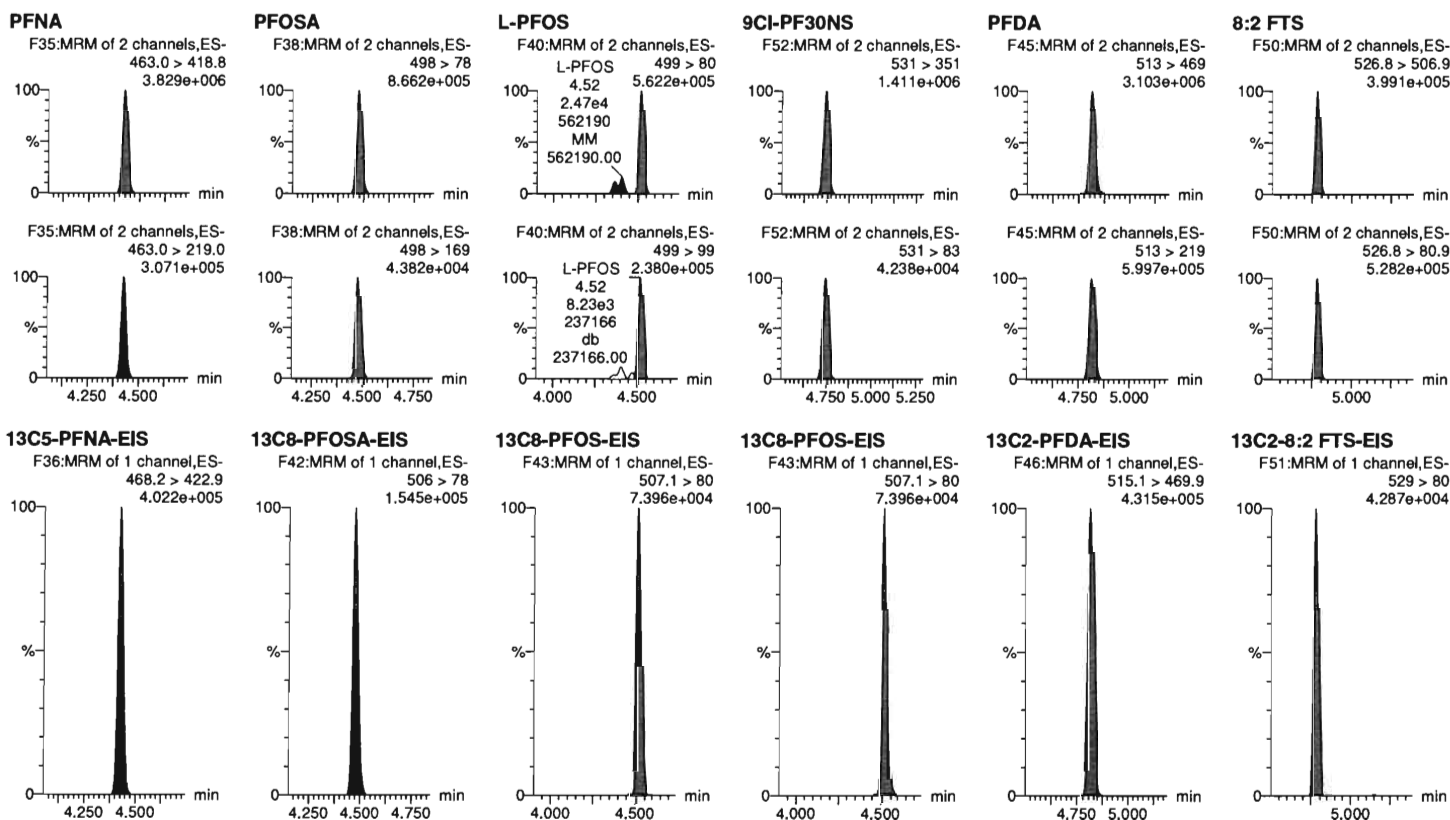
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Name: 200702P1-12, Date: 02-Jul-2020, Time: 11:11:17, ID: ST200702P1-8 PFC CS5 20F1908, Description: PFC CS5 20F1908



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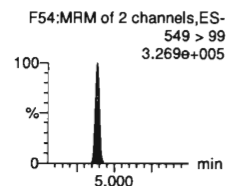
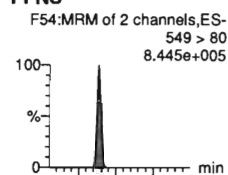
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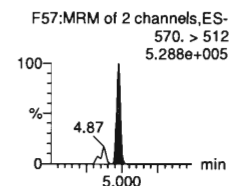
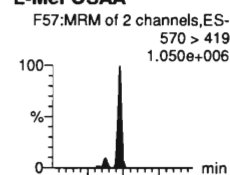
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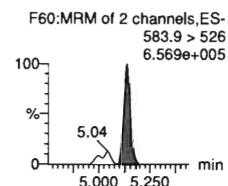
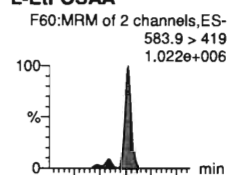
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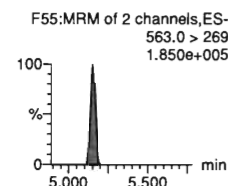
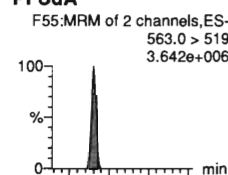
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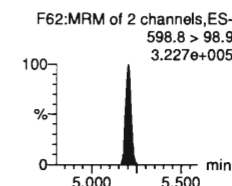
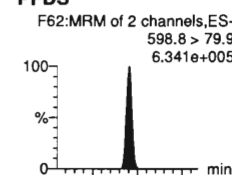
L-EtFOSAA



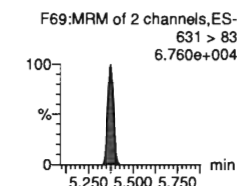
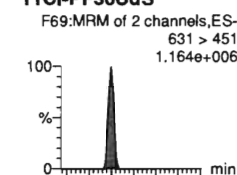
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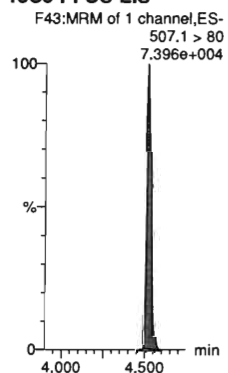
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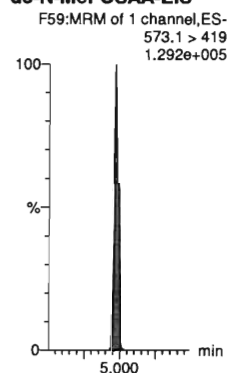
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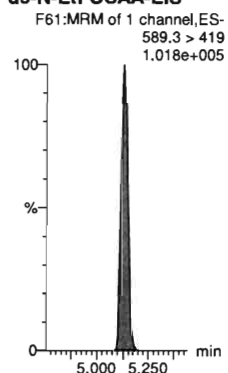
13C8-PFOS-EIS



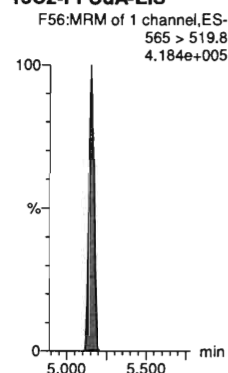
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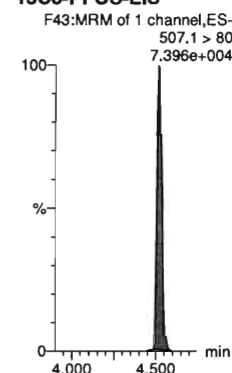
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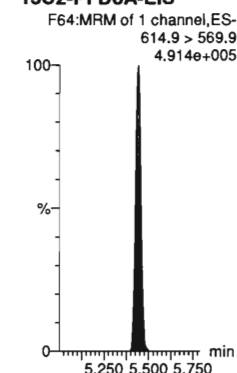
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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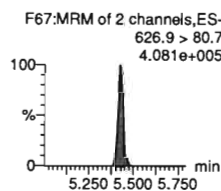
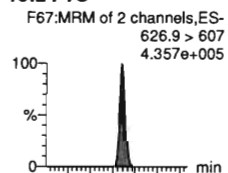
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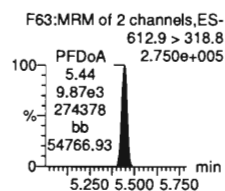
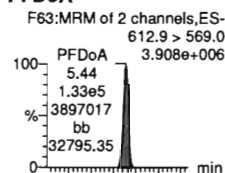
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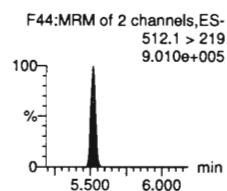
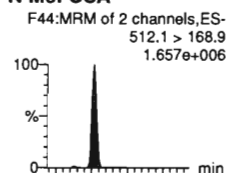
10:2 FTS



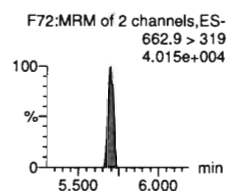
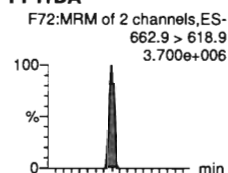
PFDaA



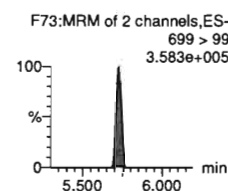
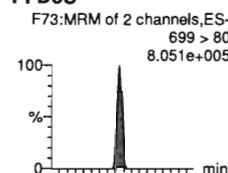
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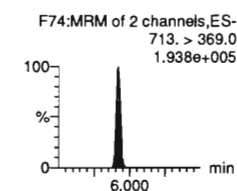
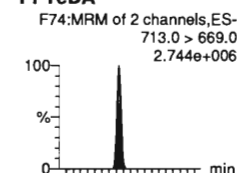
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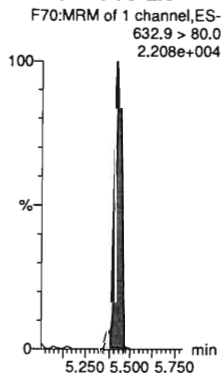
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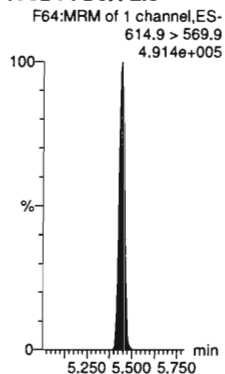
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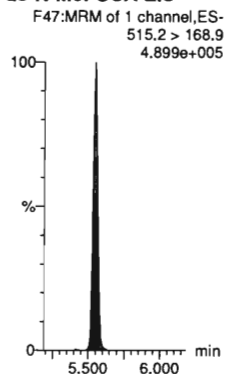
13C2-10:2 FTS-EIS



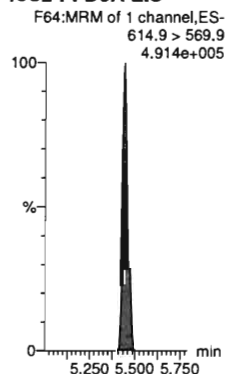
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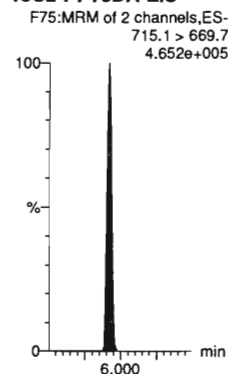
d3-N-MeFOSA-EIS



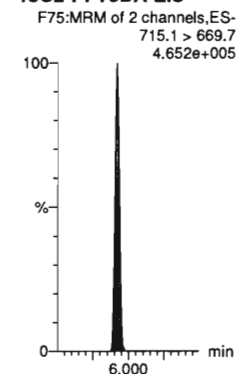
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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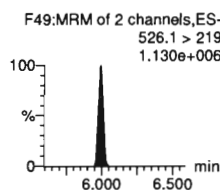
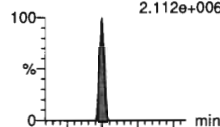
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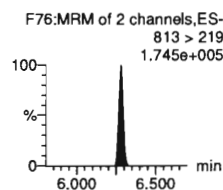
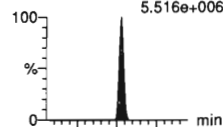
N-EtFOSA

F49:MRM of 2 channels,ES-
526.1 > 168.9
2.112e+006



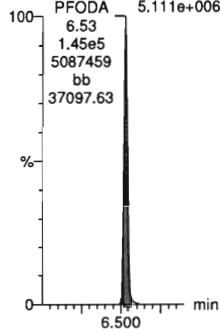
PFHxDA

F76:MRM of 2 channels,ES-
813 > 769
5.516e+006



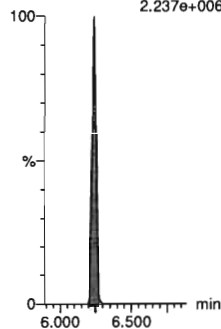
PFODA

F78:MRM of 1 channel,ES-
913.1 > 868.8
5.111e+006



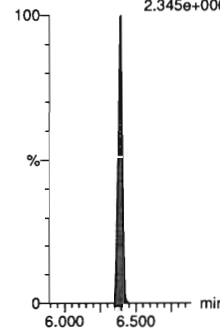
N-MeFOSE

F65:MRM of 1 channel,ES-
616.1 > 58.9
2.237e+006



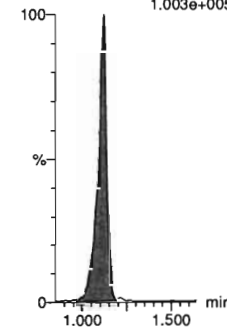
N-EtFOSE

F68:MRM of 1 channel,ES-
630.1 > 58.9
2.345e+006



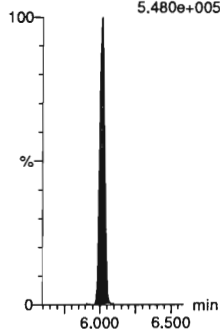
13C3-PFBA-RSD

F3:MRM of 1 channel,ES-
216.1 > 171.8
1.003e+005



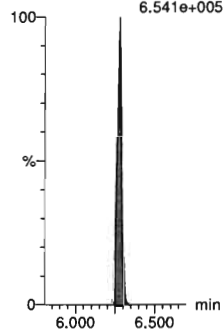
d5-N-ETFOSE-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.480e+005



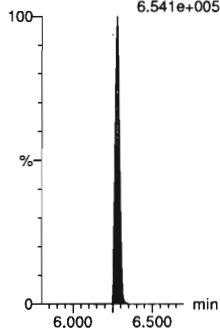
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F77:MRM of 1 channel,ES-
815 > 769.7
6.541e+005



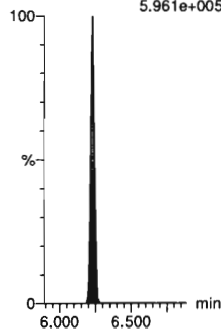
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F77:MRM of 1 channel,ES-
815 > 769.7
6.541e+005



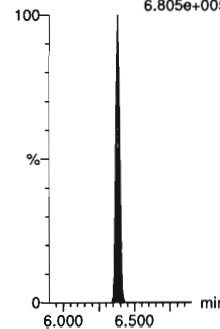
d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.961e+005



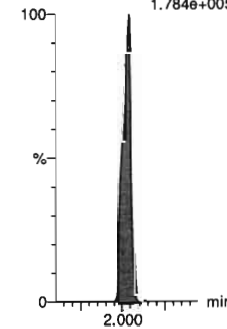
d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.805e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
1.784e+005



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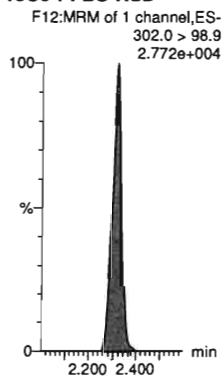
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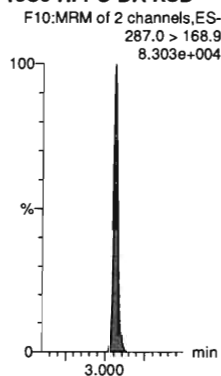
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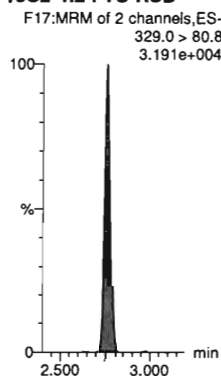
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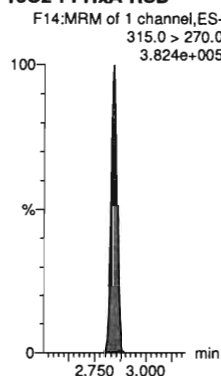
13C3-HFPO-DA-RSD



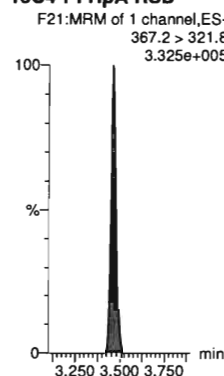
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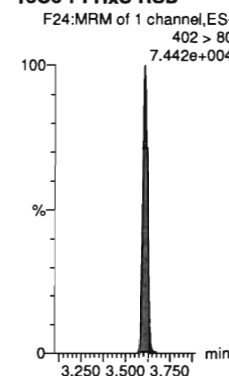
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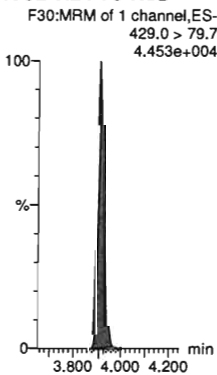
13C4-PFHpA-RSD



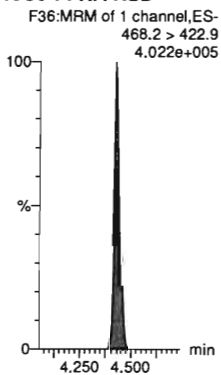
13C3-PFHxS-RSD



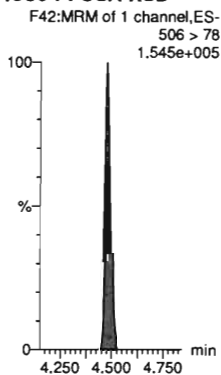
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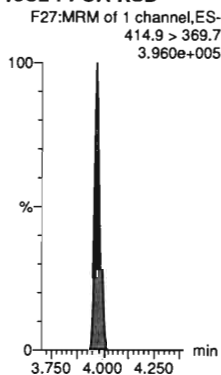
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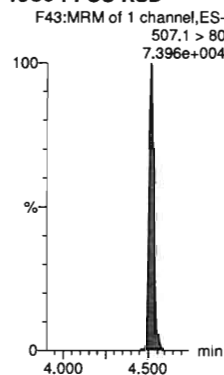
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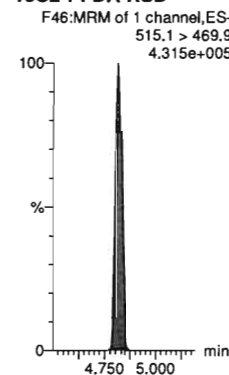
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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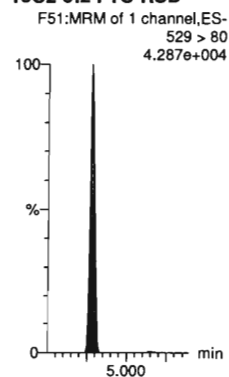
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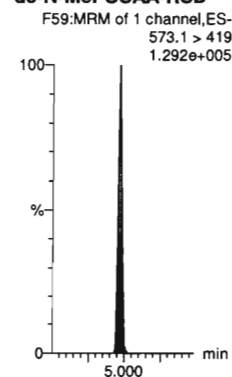
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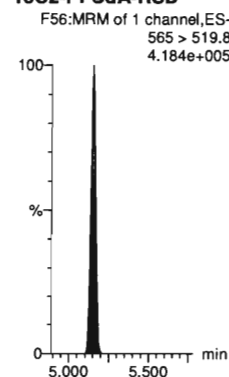
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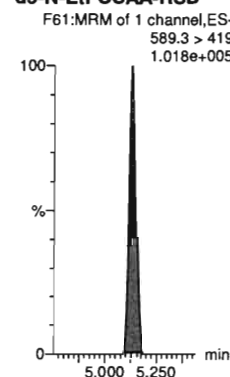
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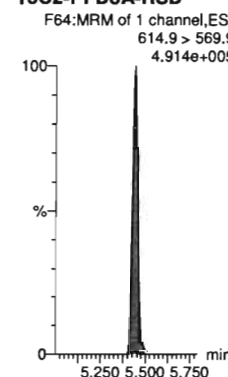
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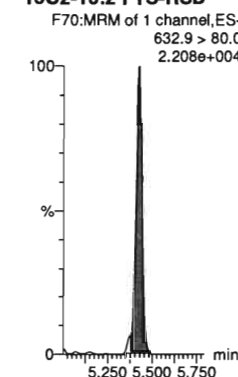
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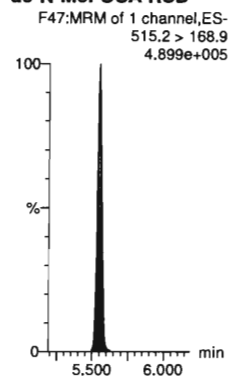
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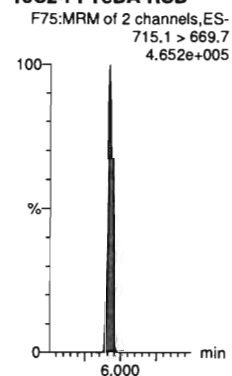
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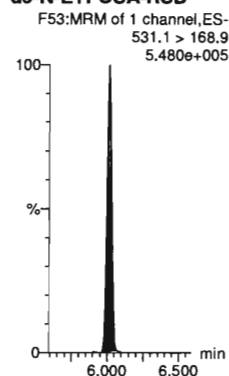
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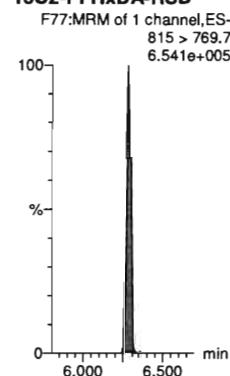
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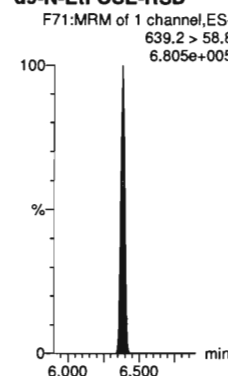
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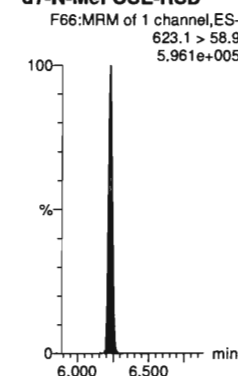
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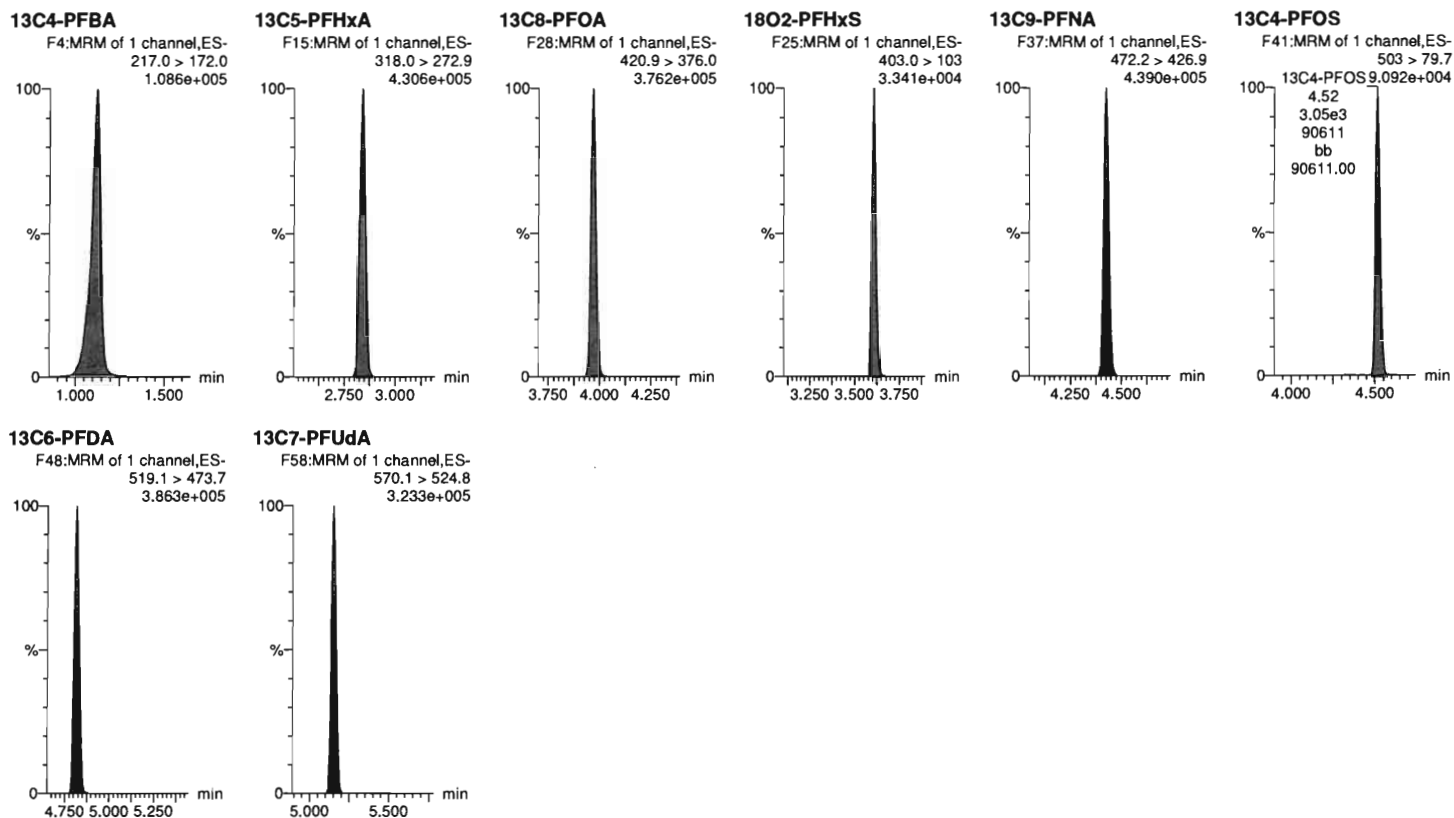
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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

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Name: 200702P1-12, Date: 02-Jul-2020, Time: 11:11:17, ID: ST200702P1-8 PFC CS5 20F1908, Description: PFC CS5 20F1908



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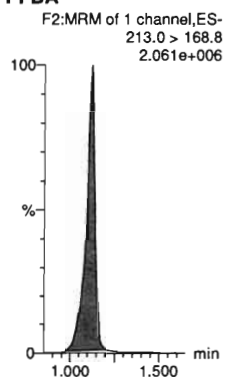
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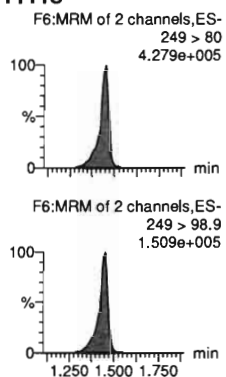
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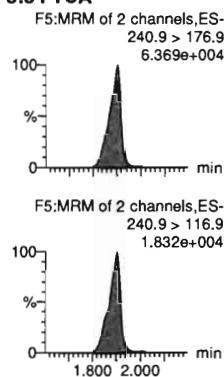
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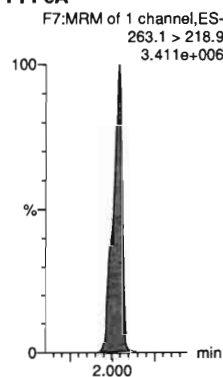
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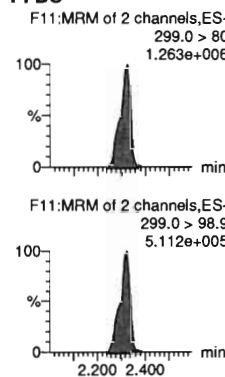
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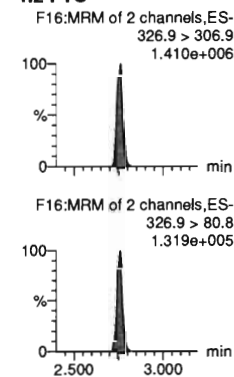
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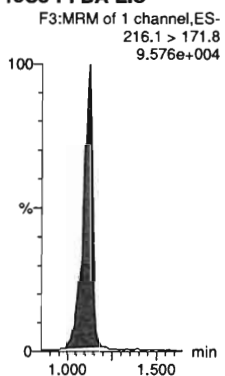
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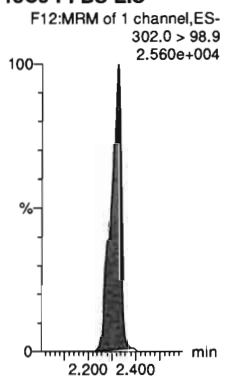
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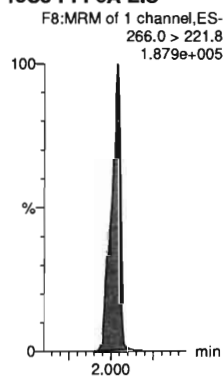
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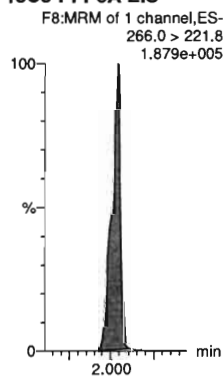
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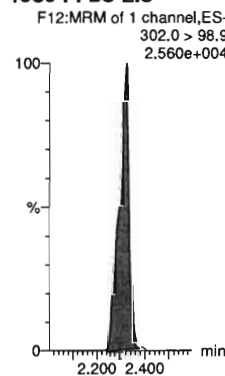
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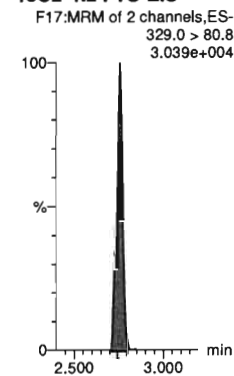
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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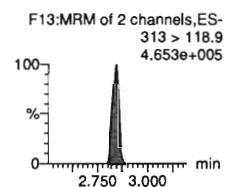
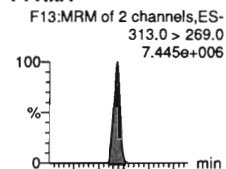
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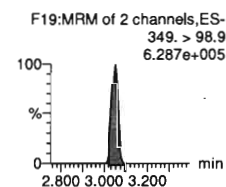
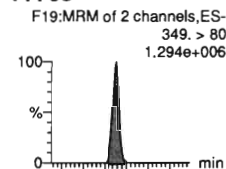
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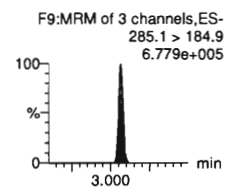
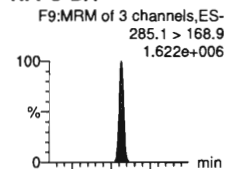
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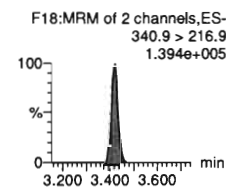
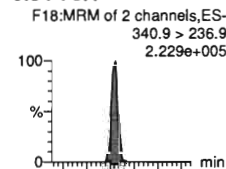
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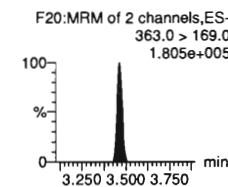
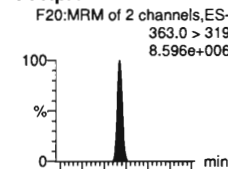
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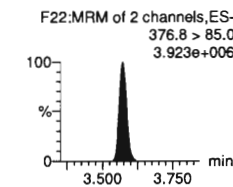
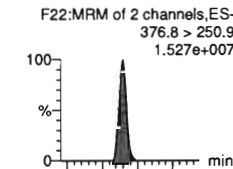
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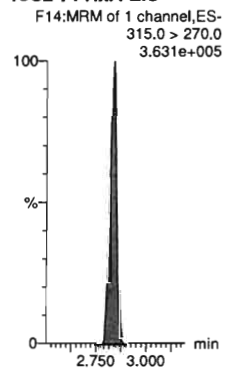
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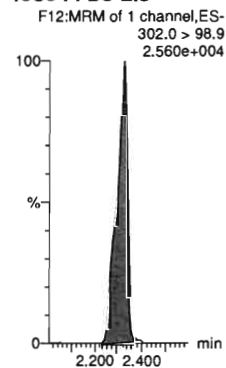
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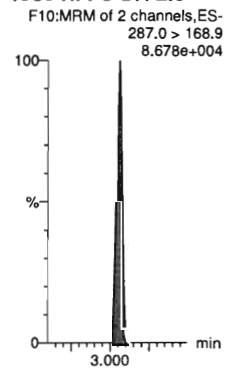
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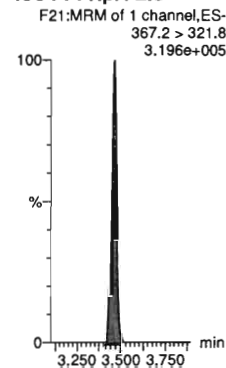
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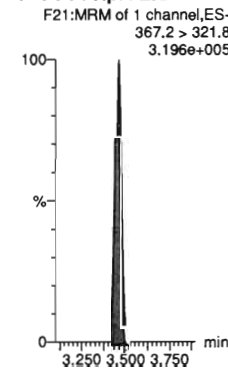
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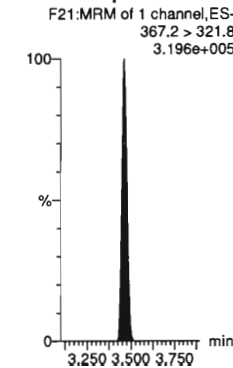
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13C4-PFHpA-EIS



13C4-PFHpA-EIS



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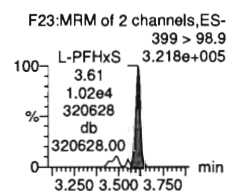
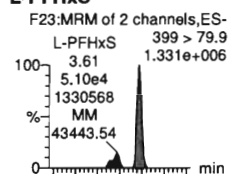
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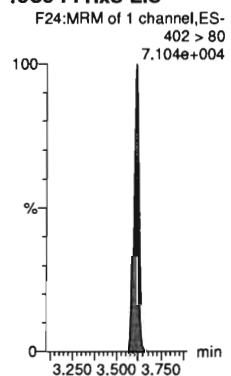
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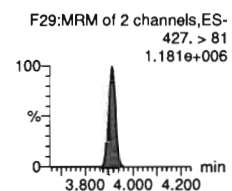
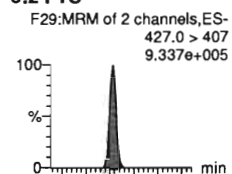
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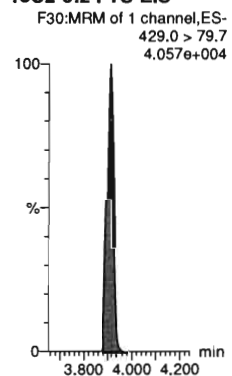
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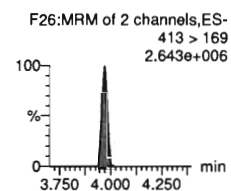
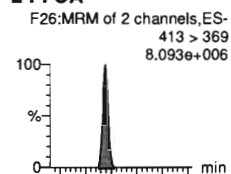
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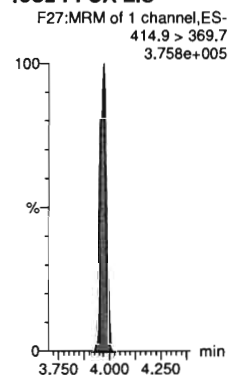
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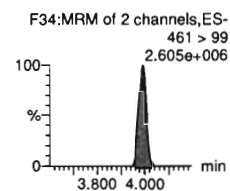
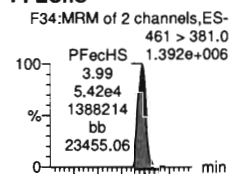
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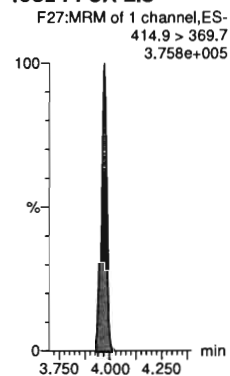
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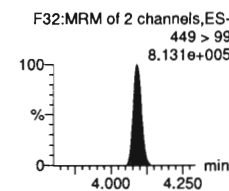
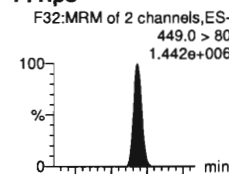
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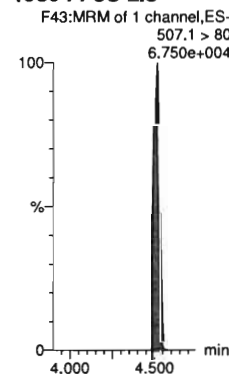
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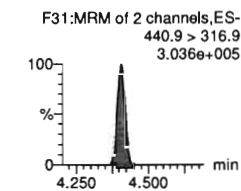
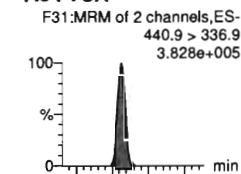
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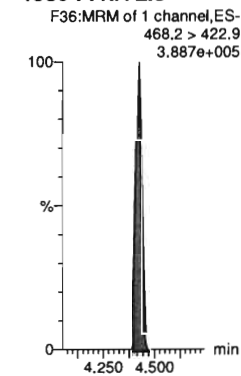
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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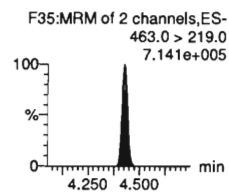
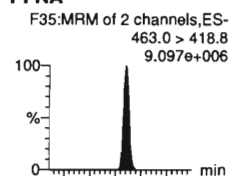
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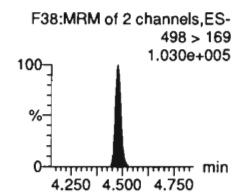
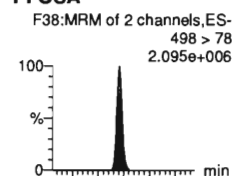
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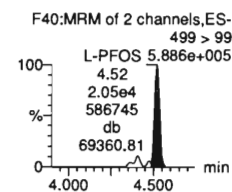
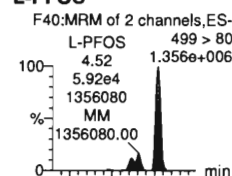
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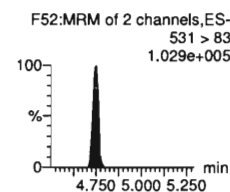
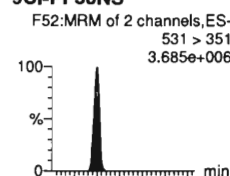
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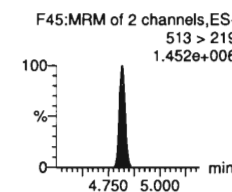
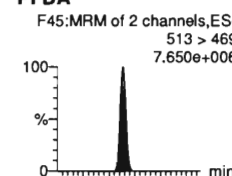
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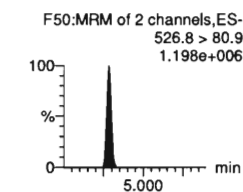
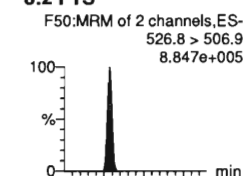
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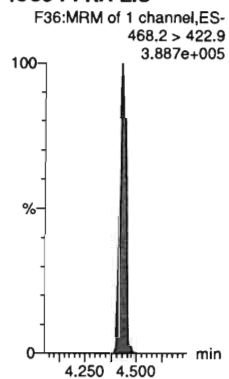
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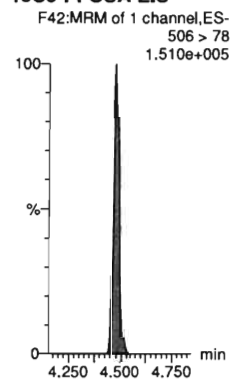
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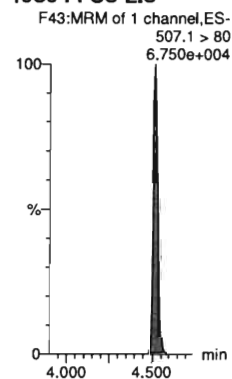
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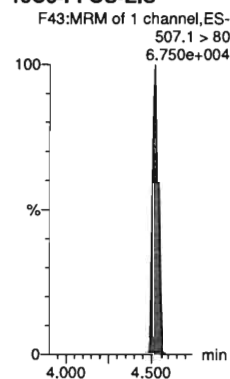
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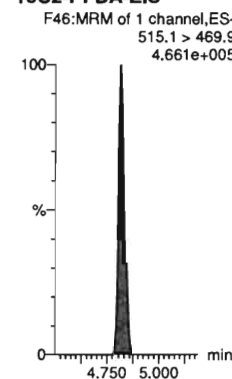
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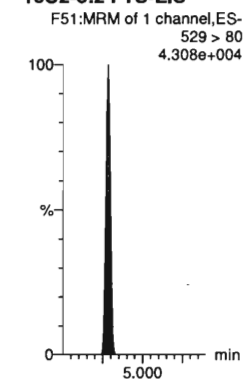
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS



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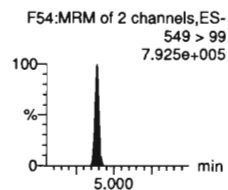
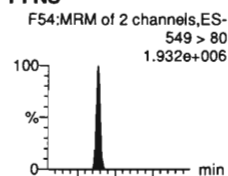
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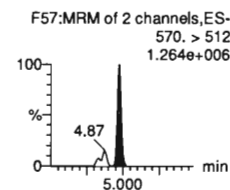
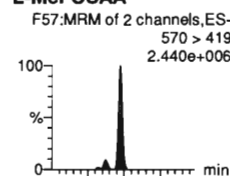
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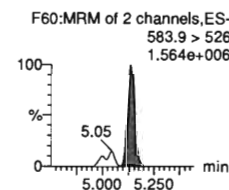
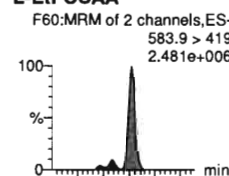
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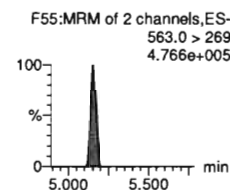
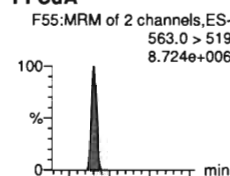
L-MeFOSAA



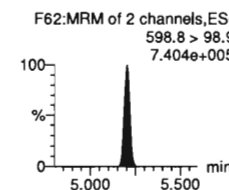
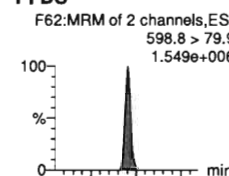
L-EtFOSAA



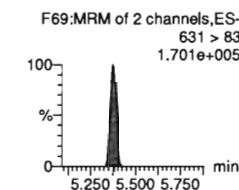
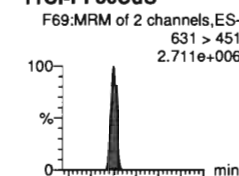
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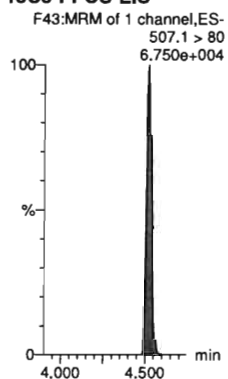
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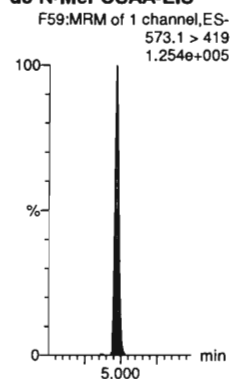
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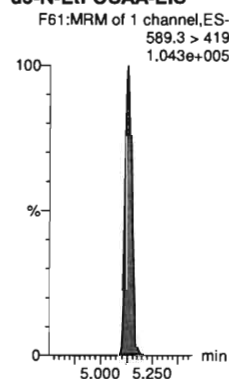
13C8-PFOS-EIS



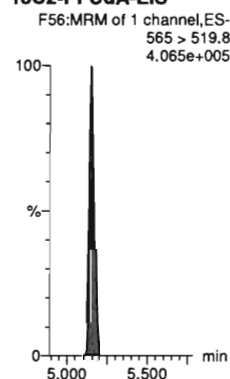
d3-N-MeFOSAA-EIS



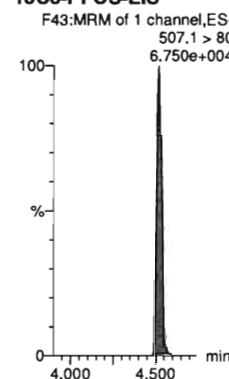
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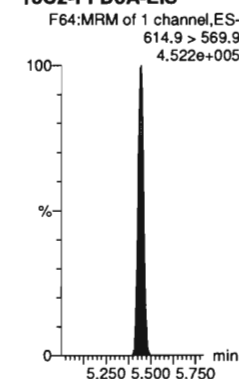
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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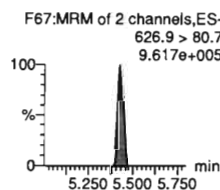
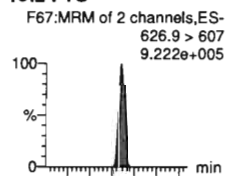
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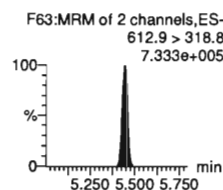
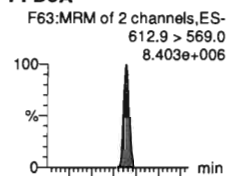
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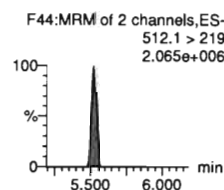
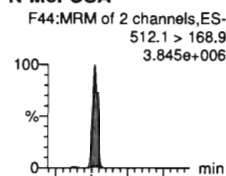
10:2 FTS



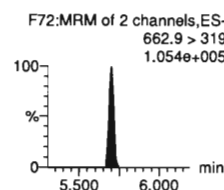
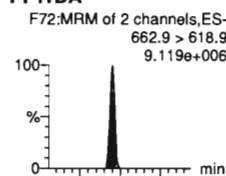
PFDaA



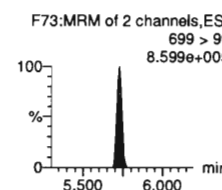
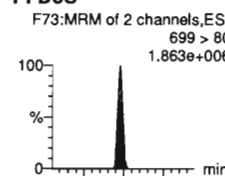
N-MeFOSA



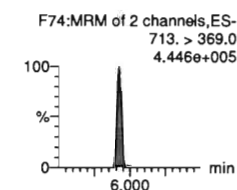
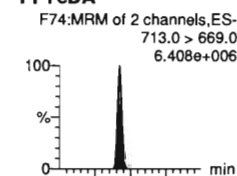
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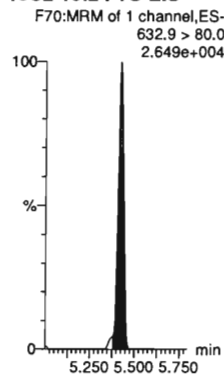
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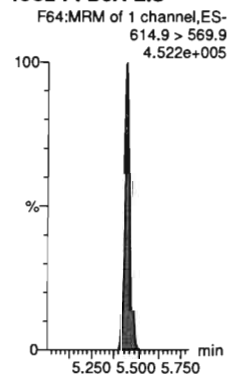
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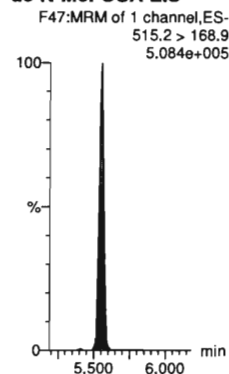
13C2-10:2 FTS-EIS



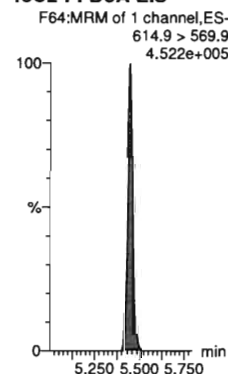
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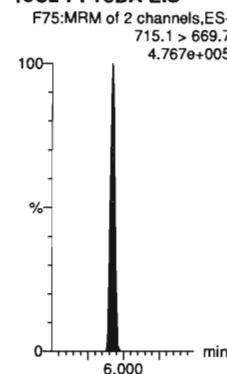
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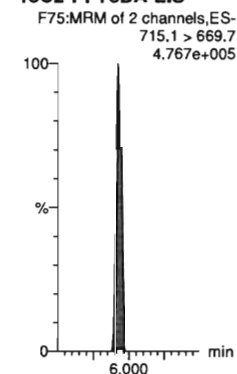
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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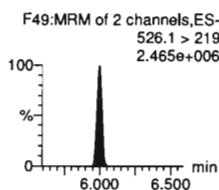
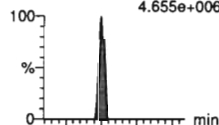
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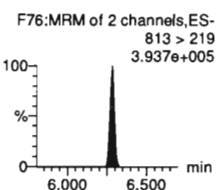
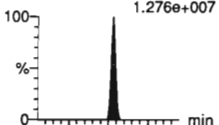
N-EtFOSA

F49:MRM of 2 channels,ES-
526.1 > 168.9
4.655e+006



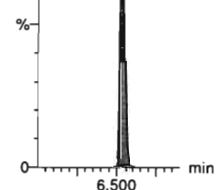
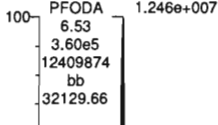
PFHxDA

F76:MRM of 2 channels,ES-
813 > 769
1.276e+007



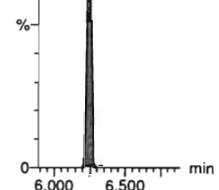
PFODA

F78:MRM of 1 channel,ES-
913.1 > 868.8
1.246e+007



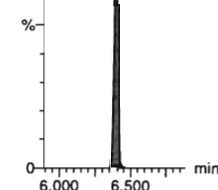
N-MeFOSE

F65:MRM of 1 channel,ES-
616.1 > 58.9
5.463e+006



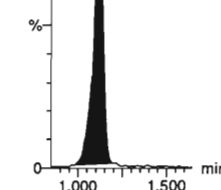
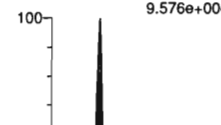
N-EtFOSE

F68:MRM of 1 channel,ES-
630.1 > 58.9
5.780e+006



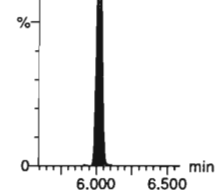
13C3-PFBA-RSD

F3:MRM of 1 channel,ES-
216.1 > 171.8
9.576e+004



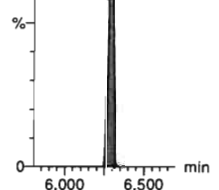
d5-N-ETFOSE-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.465e+005



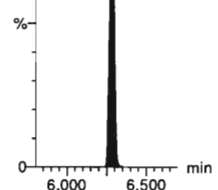
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
6.480e+005



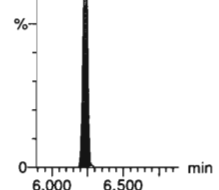
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
6.480e+005



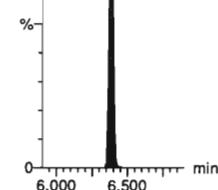
d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
6.117e+005



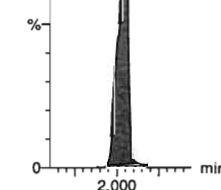
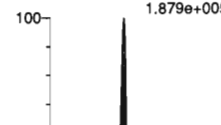
d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.667e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
1.879e+005



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

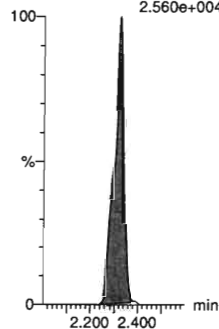
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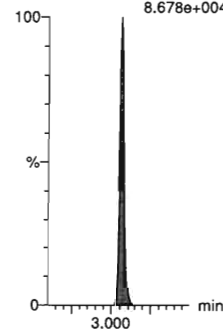
13C3-PFBS-RSD

F12:MRM of 1 channel,ES-
302.0 > 98.9
2.560e+004



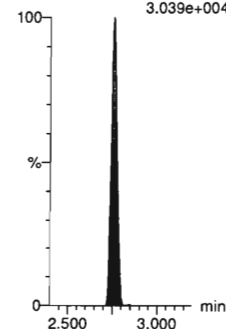
13C3-HFPO-DA-RSD

F10:MRM of 2 channels,ES-
287.0 > 168.9
8.678e+004



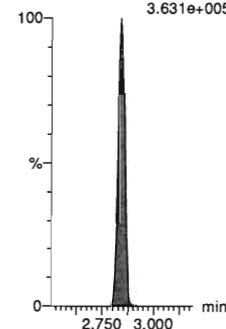
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F17:MRM of 2 channels,ES-
329.0 > 80.8
3.039e+004



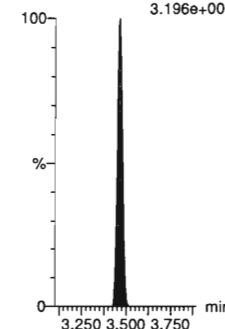
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F14:MRM of 1 channel,ES-
315.0 > 270.0
3.631e+005



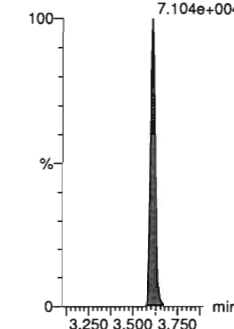
13C4-PFHpA-RSD

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.196e+005



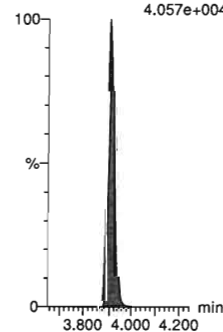
13C3-PFHxS-RSD

F24:MRM of 1 channel,ES-
402 > 80
7.104e+004



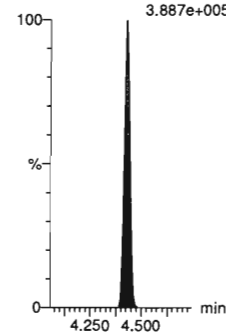
13C2-6:2 FTS-RSD

F30:MRM of 1 channel,ES-
429.0 > 79.7
4.057e+004



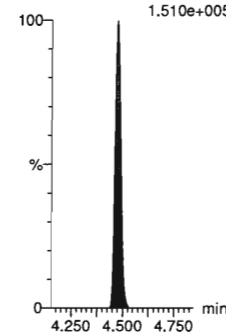
13C5-PFNA-RSD

F36:MRM of 1 channel,ES-
468.2 > 422.9
3.887e+005



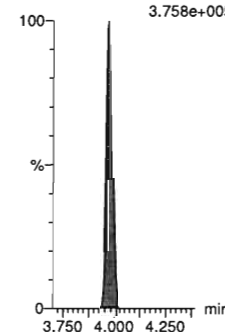
13C8-PFOSA-RSD

F42:MRM of 1 channel,ES-
506 > 78
1.510e+005



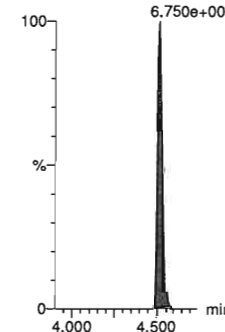
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F27:MRM of 1 channel,ES-
414.9 > 369.7
3.758e+005



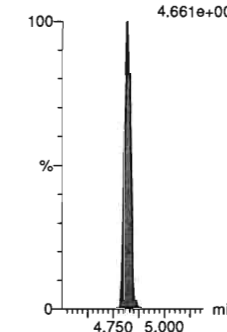
13C8-PFOS-RSD

F43:MRM of 1 channel,ES-
507.1 > 80
6.750e+004



13C2-PFDA-RSD

F46:MRM of 1 channel,ES-
515.1 > 469.9
4.661e+005



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

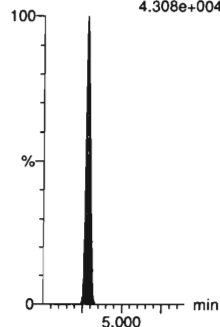
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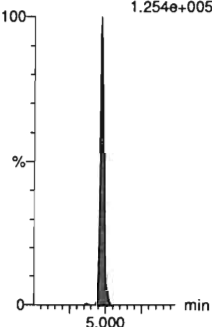
13C2-8:2 FTS-RSD

F51:MRM of 1 channel,ES-
529 > 80
4.308e+004



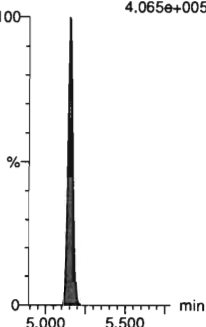
d3-N-MeFOSAA-RSD

F59:MRM of 1 channel,ES-
573.1 > 419
1.254e+005



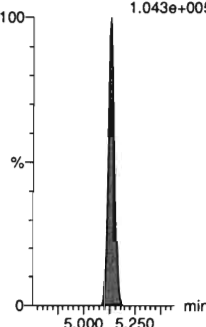
13C2-PFUdA-RSD

F56:MRM of 1 channel,ES-
565 > 519.8
4.065e+005



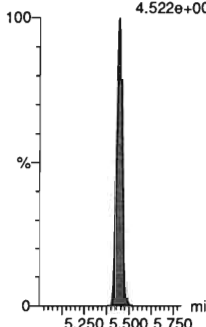
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F61:MRM of 1 channel,ES-
589.3 > 419
1.043e+005



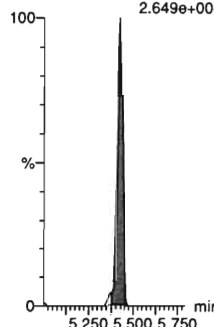
13C2-PFDoA-RSD

F64:MRM of 1 channel,ES-
614.9 > 569.9
4.522e+005



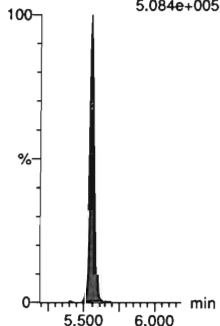
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F70:MRM of 1 channel,ES-
632.9 > 80.0
2.649e+004



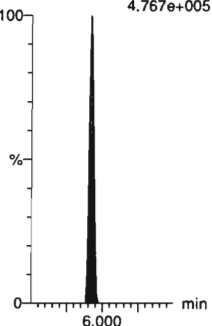
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F47:MRM of 1 channel,ES-
515.2 > 168.9
5.084e+005



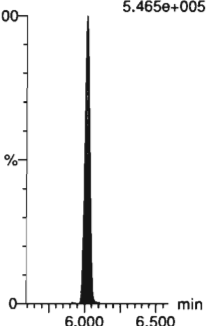
13C2-PFTeDA-RSD

F75:MRM of 2 channels,ES-
715.1 > 669.7
4.767e+005



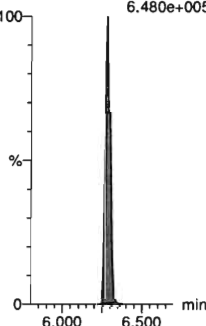
d5-N-ETFOSA-RSD

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.465e+005



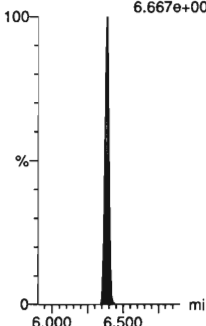
13C2-PFHxDA-RSD

F77:MRM of 1 channel,ES-
815 > 769.7
6.480e+005



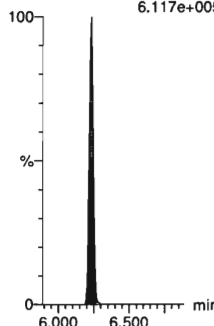
d9-N-EtFOSE-RSD

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.667e+005



d7-N-MeFOSE-RSD

F66:MRM of 1 channel,ES-
623.1 > 58.9
6.117e+005



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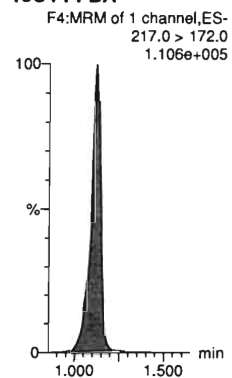
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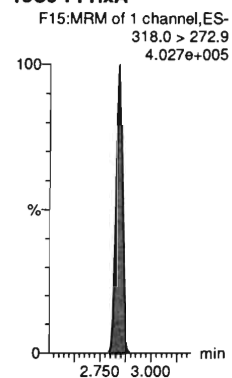
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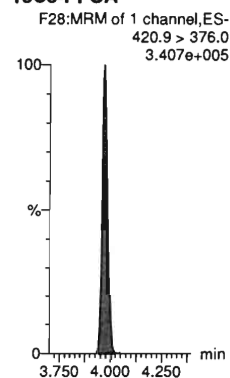
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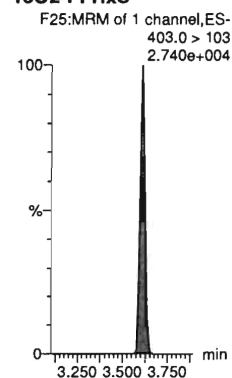
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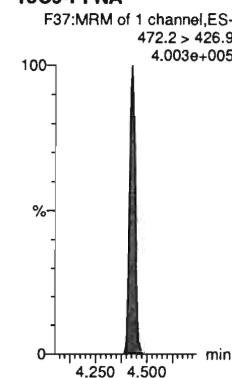
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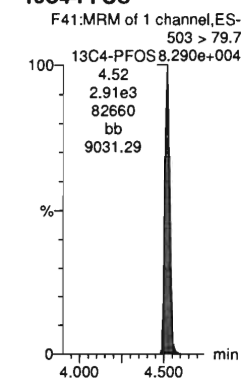
18O2-PFHxS



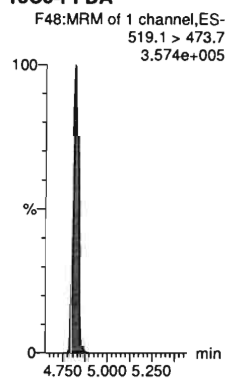
13C9-PFNA



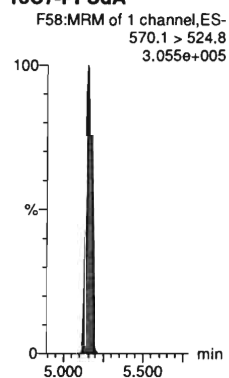
13C4-PFOS



13C6-PFDA



13C7-PFUDa



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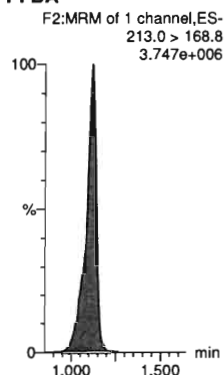
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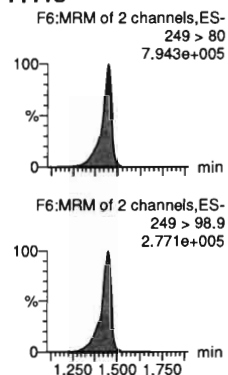
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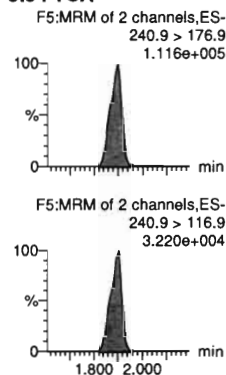
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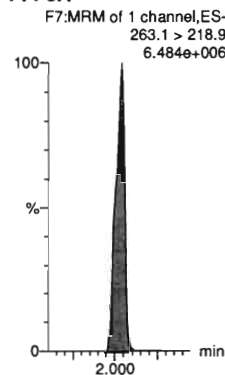
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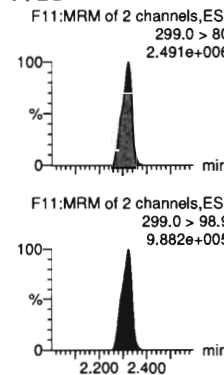
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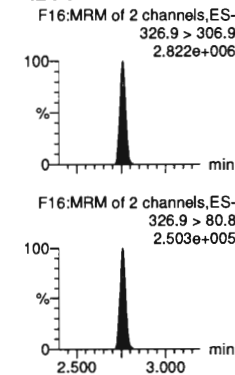
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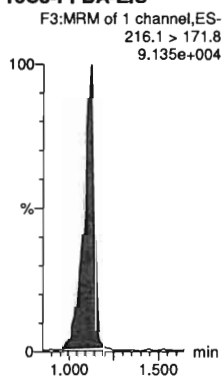
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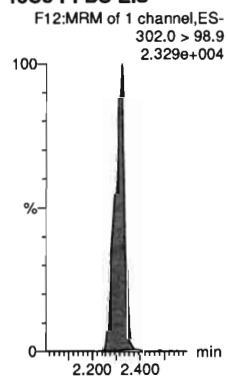
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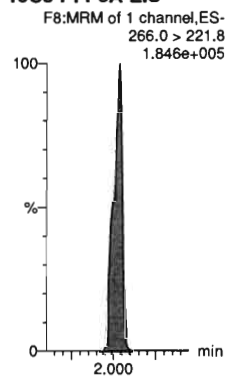
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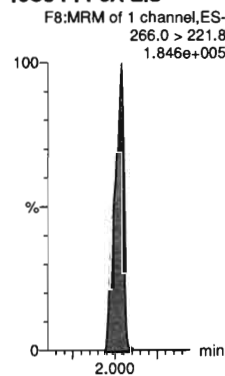
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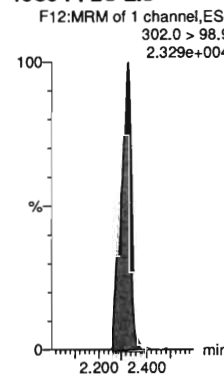
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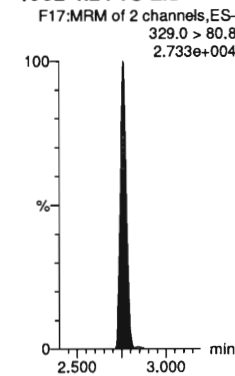
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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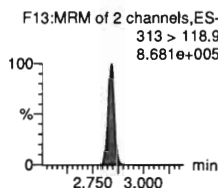
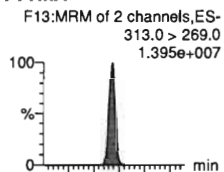
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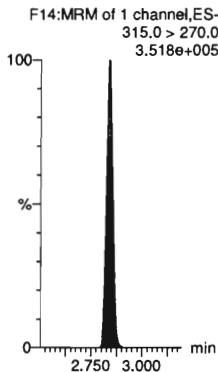
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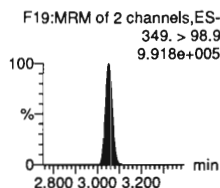
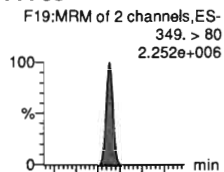
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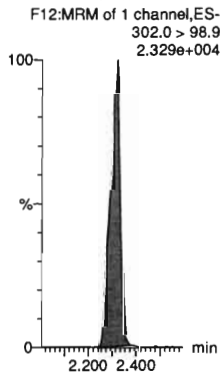
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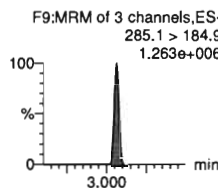
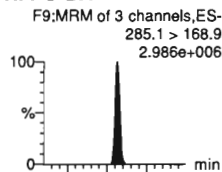
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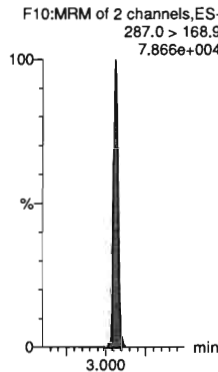
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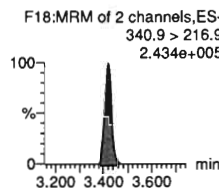
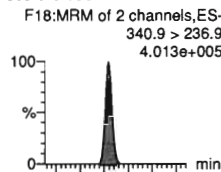
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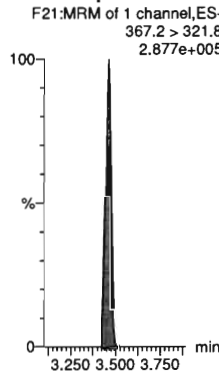
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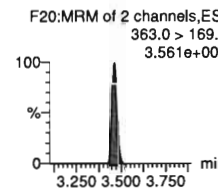
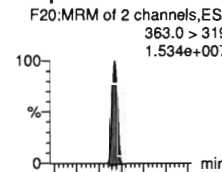
5:3 FTCA



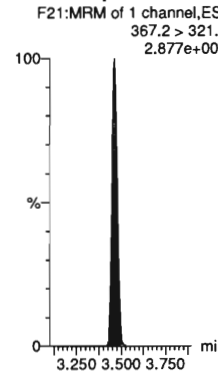
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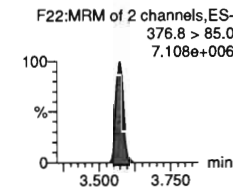
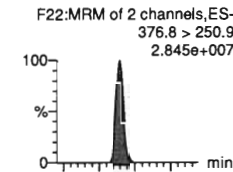
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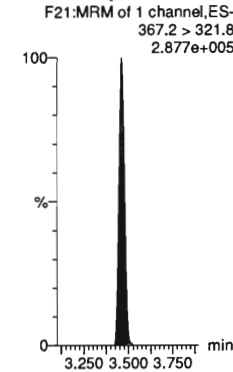
13C4-PFHpA-EIS



ADONA



13C4-PFHpA-EIS



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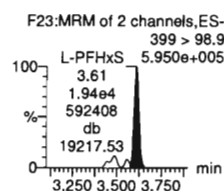
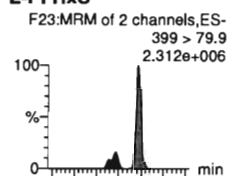
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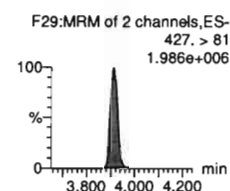
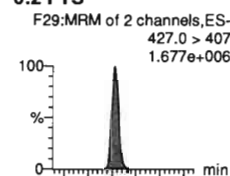
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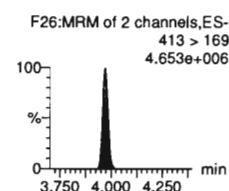
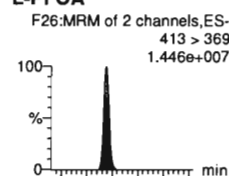
L-PFHxS



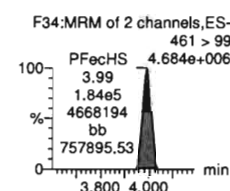
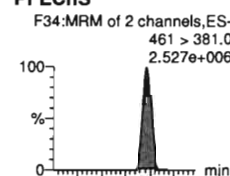
6:2 FTS



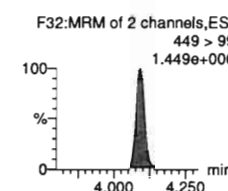
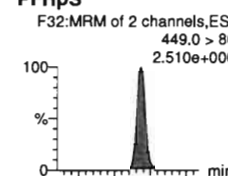
L-PFOA



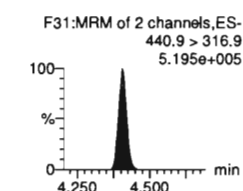
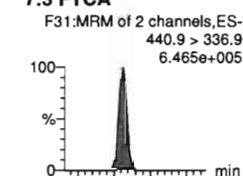
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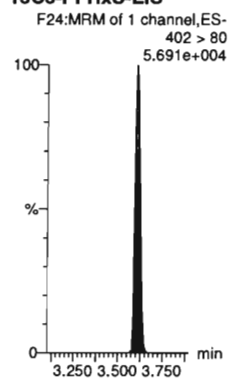
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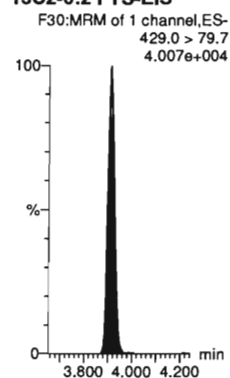
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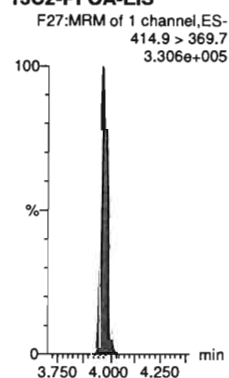
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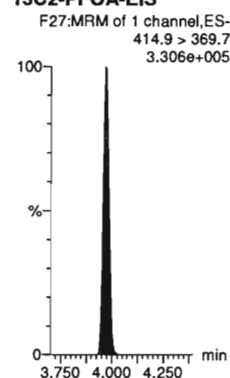
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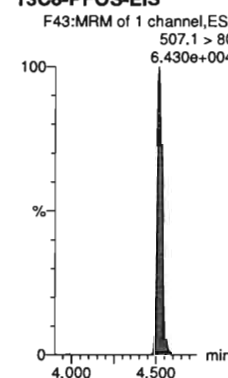
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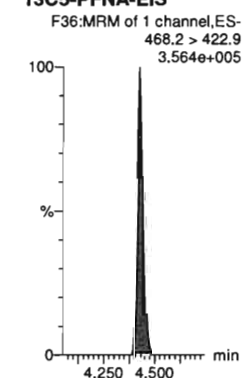
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS



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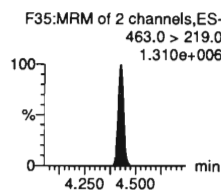
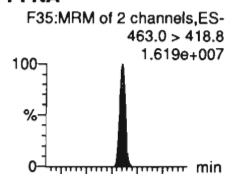
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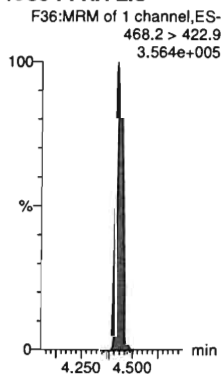
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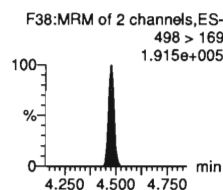
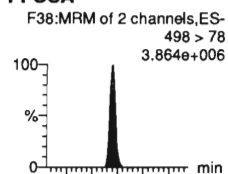
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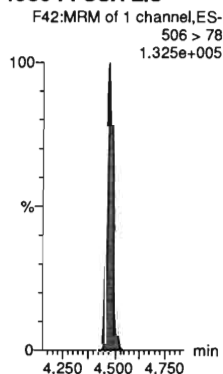
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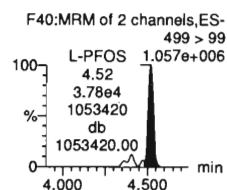
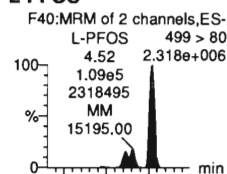
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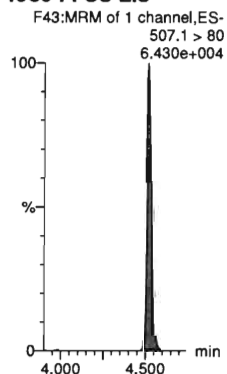
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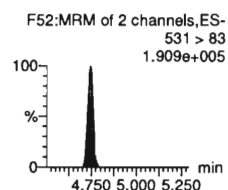
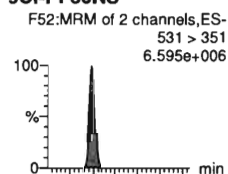
L-PFOS



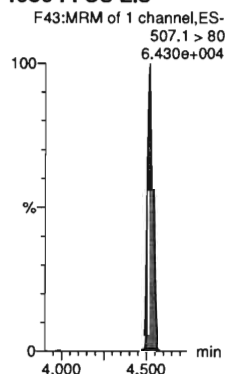
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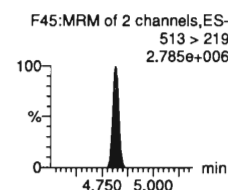
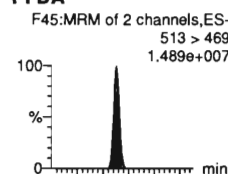
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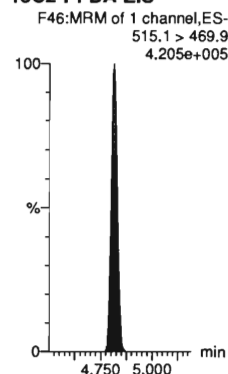
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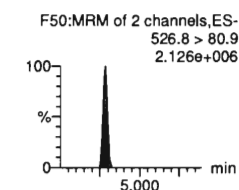
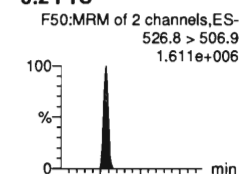
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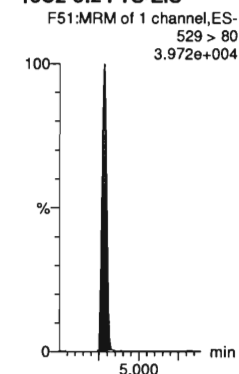
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-CRV.qld

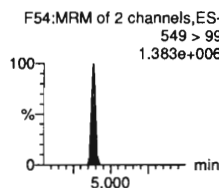
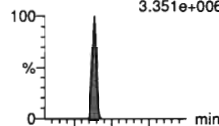
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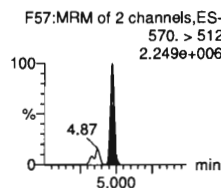
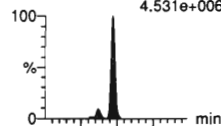
PFNS

F54:MRM of 2 channels,ES-
549 > 80
3.351e+006



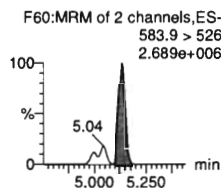
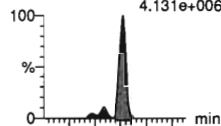
L-MeFOSAA

F57:MRM of 2 channels,ES-
570 > 419
4.531e+006



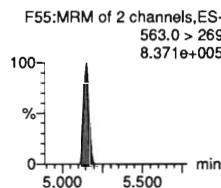
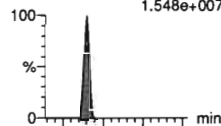
L-EtFOSAA

F60:MRM of 2 channels,ES-
583.9 > 419
4.131e+006



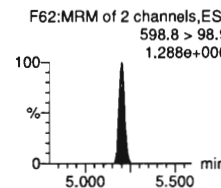
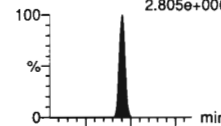
PFuDA

F55:MRM of 2 channels,ES-
563.0 > 519
1.548e+007



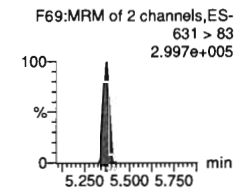
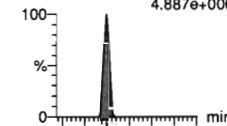
PFDS

F62:MRM of 2 channels,ES-
598.8 > 79.9
2.805e+006



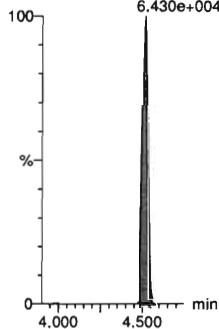
11Cl-PF30UdS

F69:MRM of 2 channels,ES-
631 > 451
4.887e+006



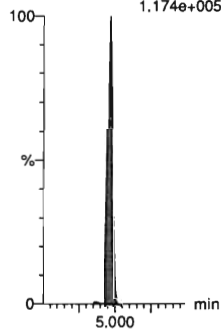
13C8-PFOS-EIS

F43:MRM of 1 channel,ES-
507.1 > 80
6.430e+004



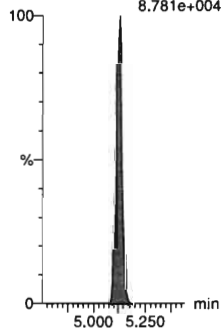
d3-N-MeFOSAA-EIS

F59:MRM of 1 channel,ES-
573.1 > 419
1.174e+005



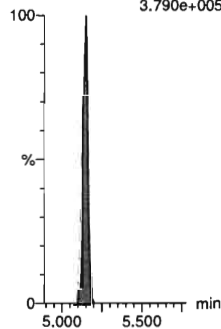
d5-N-EtFOSAA-EIS

F61:MRM of 1 channel,ES-
589.3 > 419
8.781e+004



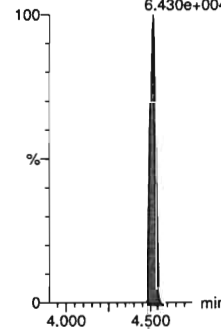
13C2-PFuDA-EIS

F56:MRM of 1 channel,ES-
565 > 519.8
3.790e+005



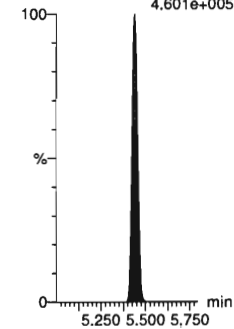
13C8-PFOS-EIS

F43:MRM of 1 channel,ES-
507.1 > 80
6.430e+004



13C2-PFDoA-EIS

F64:MRM of 1 channel,ES-
614.9 > 569.9
4.601e+005



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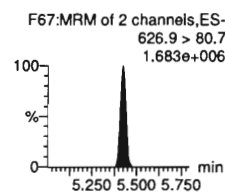
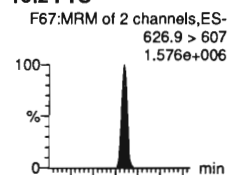
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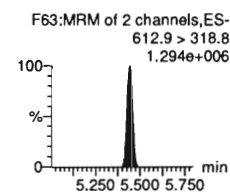
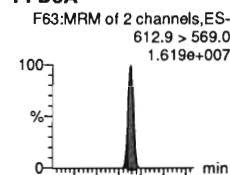
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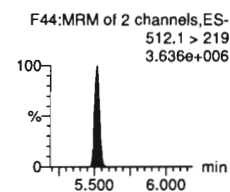
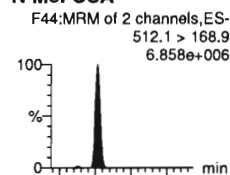
10:2 FTS



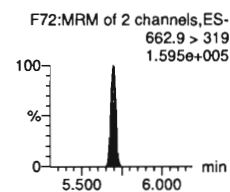
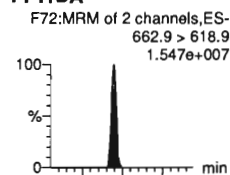
PFDaA



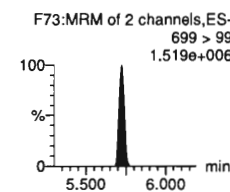
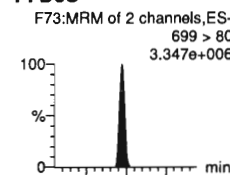
N-MeFOSA



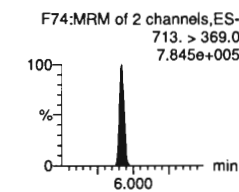
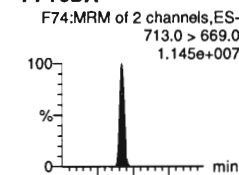
PFTrDA



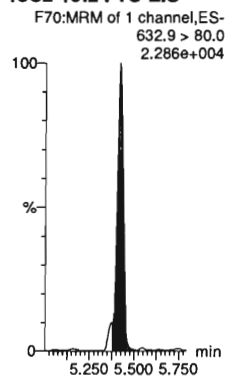
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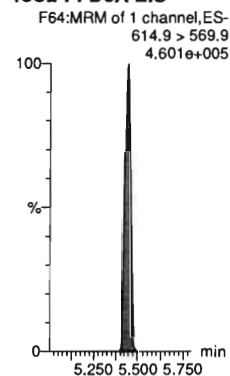
PFTeDA



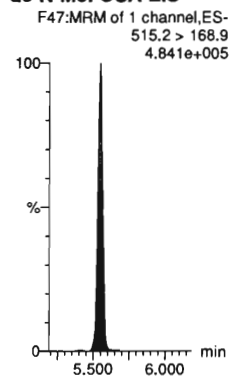
13C2-10:2 FTS-EIS



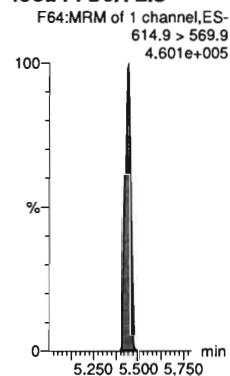
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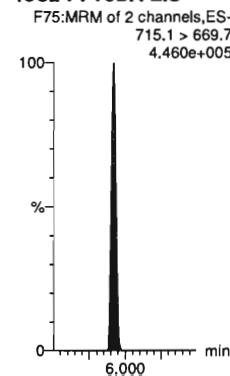
d3-N-MeFOSA-EIS



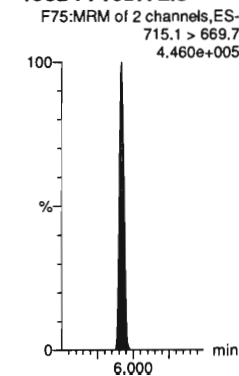
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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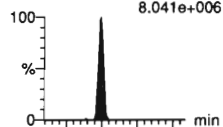
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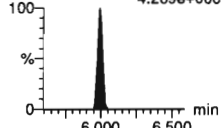
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N-EtFOSA

F49:MRM of 2 channels,ES-
526.1 > 168.9
8.041e+006

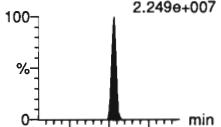


F49:MRM of 2 channels,ES-
526.1 > 219
4.289e+006

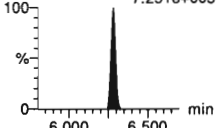


PFHxDA

F76:MRM of 2 channels,ES-
813 > 769
2.249e+007

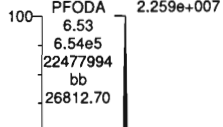


F76:MRM of 2 channels,ES-
813 > 219
7.251e+005

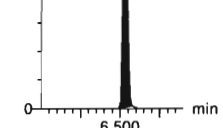


PFODA

F78:MRM of 1 channel,ES-
913.1 > 868.8
2.259e+007



F78:MRM of 1 channel,ES-
913.1 > 868.8
2.259e+007

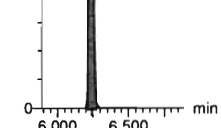


N-MeFOSE

F65:MRM of 1 channel,ES-
616.1 > 58.9
1.059e+007

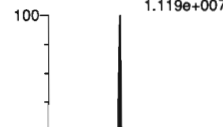


F65:MRM of 1 channel,ES-
616.1 > 58.9
1.059e+007

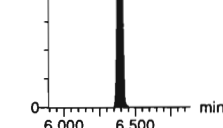


N-EtFOSE

F68:MRM of 1 channel,ES-
630.1 > 58.9
1.119e+007

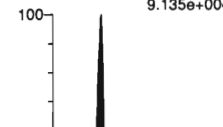


F68:MRM of 1 channel,ES-
630.1 > 58.9
1.119e+007

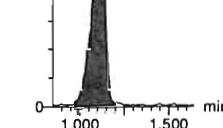


13C3-PFBA-RSD

F3:MRM of 1 channel,ES-
216.1 > 171.8
9.135e+004



F3:MRM of 1 channel,ES-
216.1 > 171.8
9.135e+004

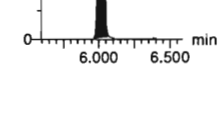


d5-N-ETFOSE-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.005e+005



F53:MRM of 1 channel,ES-
531.1 > 168.9
5.005e+005

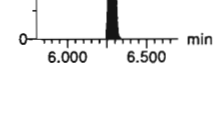


13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
6.021e+005



F77:MRM of 1 channel,ES-
815 > 769.7
6.021e+005

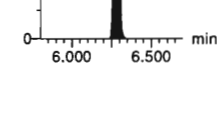


13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
6.021e+005



F77:MRM of 1 channel,ES-
815 > 769.7
6.021e+005

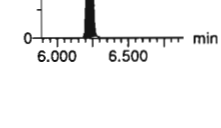


d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.771e+005



F66:MRM of 1 channel,ES-
623.1 > 58.9
5.771e+005

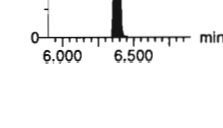


d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.376e+005

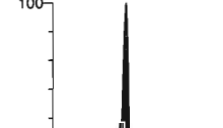


F71:MRM of 1 channel,ES-
639.2 > 58.8
6.376e+005

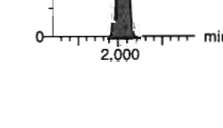


13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
1.846e+005



F8:MRM of 1 channel,ES-
266.0 > 221.8
1.846e+005



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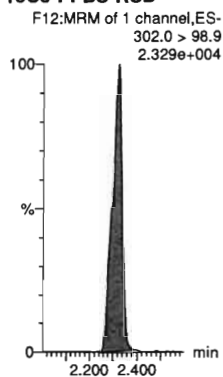
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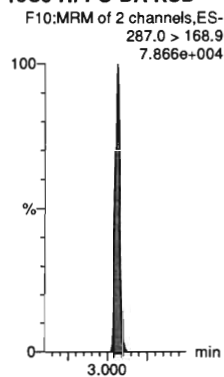
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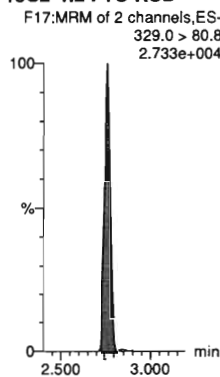
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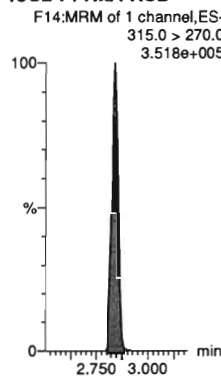
13C3-HFPO-DA-RSD



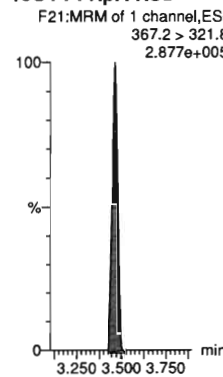
13C2-4:2 FTS-RSD



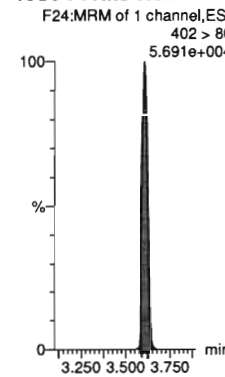
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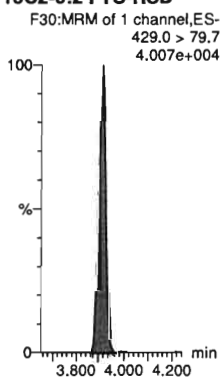
13C4-PFHpA-RSD



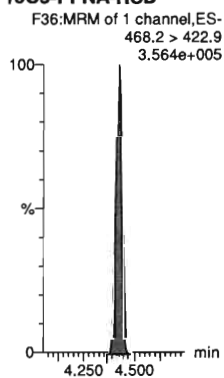
13C3-PFHxS-RSD



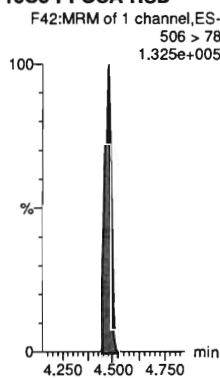
13C2-6:2 FTS-RSD



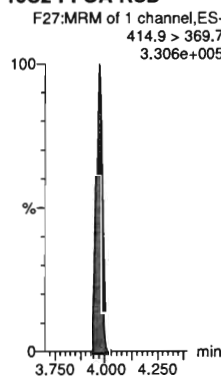
13C5-PFNA-RSD



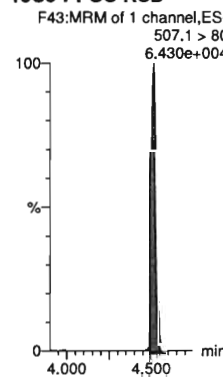
13C8-PFOSA-RSD



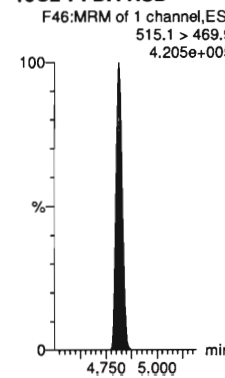
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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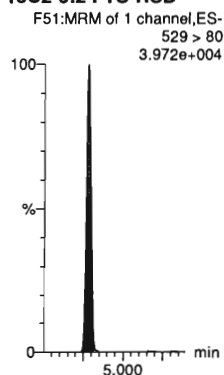
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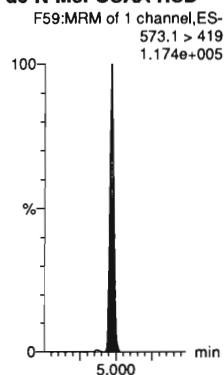
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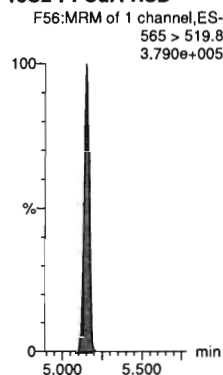
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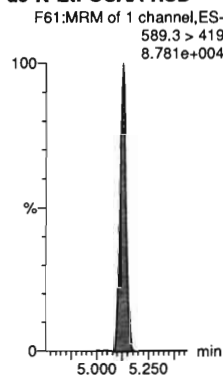
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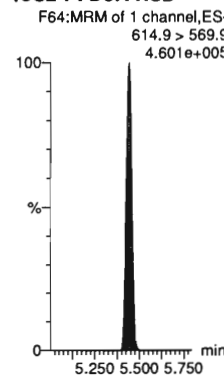
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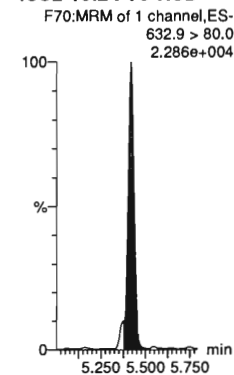
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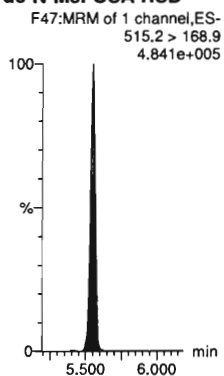
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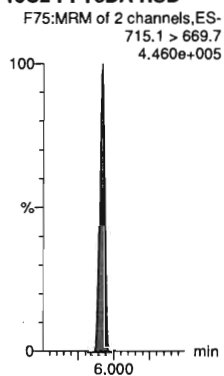
13C2-10:2 FTS-RSD



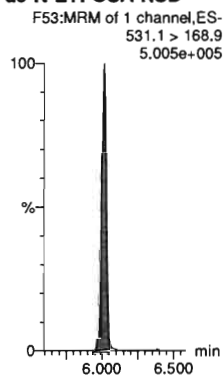
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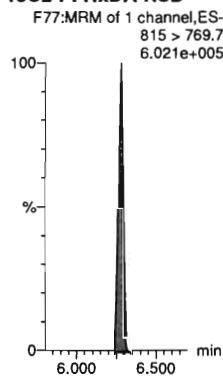
13C2-PFTeDA-RSD



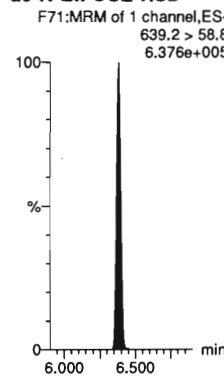
d5-N-ETFOSA-RSD



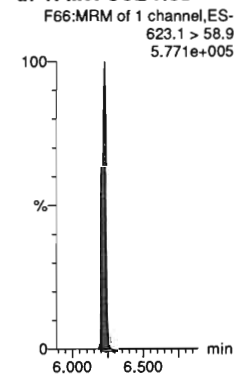
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d9-N-EtFOSE-RSD



d7-N-MeFOSE-RSD



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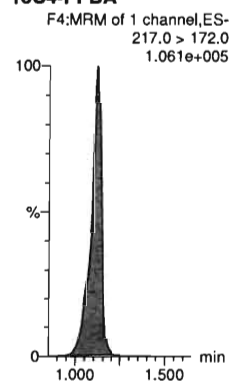
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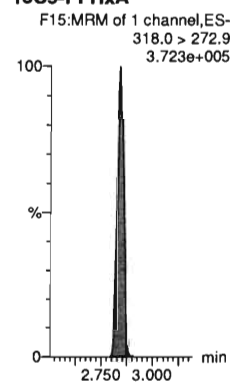
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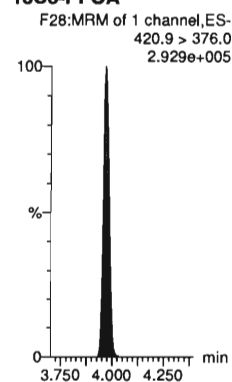
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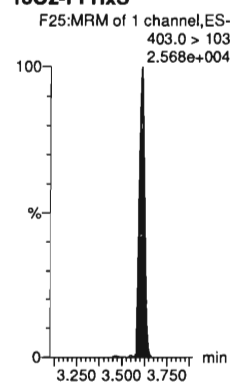
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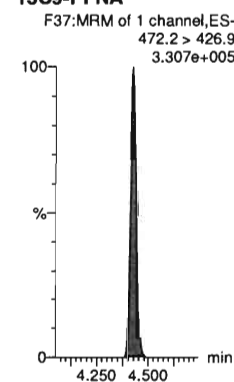
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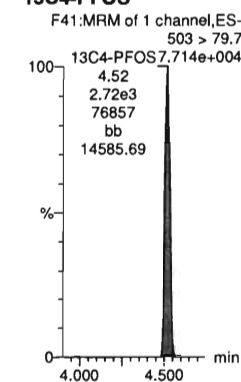
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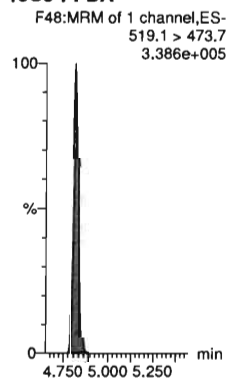
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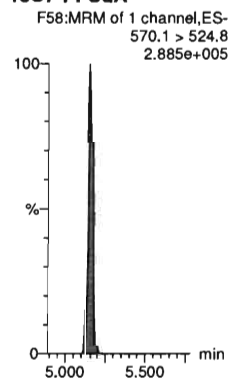
13C4-PFOS



13C6-PFDA



13C7-PFUDa



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Name: 200702P1-16, Date: 02-Jul-2020, Time: 11:53:18, ID: ICV200702P1-1 PFC ICV 20F1911, Description: PFC ICV 20F1911

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1 PFBA	213.0 > 168.8	4174.708	5212.559	1.00	1.12	10.011	10.000	9.52	95.2	NO		
2	2 PFPrS	249 > 80		1240.253	1.00			10.000		9	NO		YES
3	3 3:3 FTCA	240.9 > 176.9		10205.252	1.00			10.000		↓	NO		YES
4	4 PFPeA	263.1 > 218.9	7955.480	10205.252	1.00	2.04	9.744	10.000	10.3	103.4	NO		
5	5 PFBS	299.0 > 80	2230.484	1240.253	1.00	2.32	22.480	8.840	8.94	101.1	NO	2.439	NO
6	6 4:2 FTS	326.9 > 306.9	2490.793	1259.295	1.00	2.76	24.724	9.360	9.46	101.0	NO	11.790	YES
7	47 13C3-PFBA-EIS	216.1 > 171.8		5212.559	1.00	1.12	5212.559	12.500	11.4	91.3	NO		
8	51 13C3-PFBS-EIS	302.0 > 98.9		1240.253	1.00	2.32	1240.253	12.500	12.1	96.8	NO		
9	49 13C3-PFPeA-EIS	266.0 > 221.8		10205.252	1.00	2.04	10205.252	12.500	11.2	89.8	NO		
10	49 13C3-PFPeA-EIS	266.0 > 221.8		10205.252	1.00	2.04	10205.252	12.500	11.2	89.8	NO		
11	51 13C3-PFBS-EIS	302.0 > 98.9		1240.253	1.00	2.32	1240.253	12.500	12.1	96.8	NO		
12	55 13C2-4:2 FTS-EIS	329.0 > 80.8		1259.295	1.00	2.76	1259.295	12.500	12.2	97.3	NO		
13	-1												
14	7 PFHxA	313.0 > 269.0	11759.904	13652.319	1.00	2.84	10.767	10.000	10.5	105.0	NO	17.584	NO
15	8 PFPeS	349 > 80	2039.138	1240.253	1.00	3.05	20.552	9.360	9.91	105.9	NO	2.577	NO
16	9 HFPO-DA	285.1 > 168.9	2245.538	2991.153	1.00	3.06	9.384	10.000	9.55	95.5	NO	2.403	NO
17	10 5:3 FTCA	340.9 > 236.9		12620.304	1.00			10.000		Ⓢ	NO		YES
18	11 PFHpA	363.0 > 319	13629.903	12620.304	1.00	3.46	13.500	10.000	10.0	100.1	NO	40.797	YES
19	12 ADONA	376.8 > 250.9	20527.186	12620.304	1.00	3.57	20.332	9.440	9.39	99.5	NO	4.066	NO
20	57 13C2-PFHxA-EIS	315.0 > 270.0		13652.319	1.00	2.84	13652.319	12.500	12.6	101.0	NO		
21	51 13C3-PFBS-EIS	302.0 > 98.9		1240.253	1.00	2.32	1240.253	12.500	12.1	96.8	NO		
22	53 13C3-HFPO-DA-EIS	287.0 > 168.9		2991.153	1.00	3.06	2991.153	12.500	12.9	103.2	NO		
23	59 13C4-PFHpA-EIS	367.2 > 321.8		12620.304	1.00	3.46	12620.304	12.500	13.9	111.0	NO		
24	59 13C4-PFHpA-EIS	367.2 > 321.8		12620.304	1.00	3.46	12620.304	12.500	13.9	111.0	NO		
25	59 13C4-PFHpA-EIS	367.2 > 321.8		12620.304	1.00	3.46	12620.304	12.500	13.9	111.0	NO		
26	-1												
27	13 L-PFHxS	399 > 79.9	2017.001	2652.610	1.00	3.61	9.505	9.120	8.58	94.0	NO	3.983	YES
28	15 6:2 FTS	427.0 > 407	1296.693	1577.207	1.00	3.91	10.277	9.480	8.77	92.5	NO	0.732	NO
29	16 L-PFOA	413 > 369	11960.409	13730.243	1.00	3.97	10.889	10.000	9.87	98.7	NO	3.079	NO
30	18 PFecHS	461 > 381.0		13730.243	1.00			10.000		Ⓢ	NO		YES
31	19 PFHpS	449.0 > 80	2029.444	2818.473	1.00	4.09	9.001	9.520	9.14	96.1	NO	1.761	NO
32	20 7:3 FTCA	440.9 > 336.9		13861.972	1.00			10.000		Ⓢ	NO		YES
33	61 13C3-PFHxS-EIS	402 > 80		2652.610	1.00	3.61	2652.610	12.500	12.4	99.5	NO		
34	63 13C2-6:2 FTS-EIS	429.0 > 79.7		1577.207	1.00	3.91	1577.207	12.500	13.7	109.2	NO		
35	69 13C2-PFOA-EIS	414.9 > 369.7		13730.243	1.00	3.97	13730.243	12.500	13.0	104.3	NO		
36	69 13C2-PFOA-EIS	414.9 > 369.7		13730.243	1.00	3.97	13730.243	12.500	13.0	104.3	NO		

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Name: 200702P1-16, Date: 02-Jul-2020, Time: 11:53:18, ID: ICV200702P1-1 PFC ICV 20F1911, Description: PFC ICV 20F1911

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71 13C8-PFOS-EIS	507.1 > 80	2818.473		1.00	4.52	2818.473	12.500	14.5	116.2	NO		
38	65 13C5-PFNA-EIS	468.2 > 422.9	13861.972		1.00	4.43	13861.972	12.500	12.9	102.9	NO		
39	-1												
40	21 PFNA	463.0 > 418.8	12096.877	13861.972	1.00	4.43	10.908	10.000	9.30	93.0	NO	13.477	YES
41	22 PFOSA	498 > 78	2981.127	5388.322	1.00	4.48	6.916	10.000	10.2	101.8	NO	22.069	NO
42	23 L-PFOS	499 > 80	2218.323	2818.473	1.00	4.52	9.838	9.280	7.94	85.6	NO	2.573	NO
43	25 9CI-PF30NS	531 > 351	5250.567	2818.473	1.00	4.74	23.286	9.320	8.82	94.7	NO	44.253	YES
44	26 PFDA	513 > 469	11024.902	15588.146	1.00	4.82	8.841	10.000	10.4	103.8	NO	4.619	NO
45	27 8:2 FTS	526.8 > 506.9	1333.045	1422.865	1.00	4.78	11.711	9.600	9.10	94.8	NO	0.752	NO
46	65 13C5-PFNA-EIS	468.2 > 422.9	13861.972		1.00	4.43	13861.972	12.500	12.9	102.9	NO		
47	67 13C8-PFOSA-EIS	506 > 78	5388.322		1.00	4.48	5388.322	12.500	13.5	108.3	NO		
48	71 13C8-PFOS-EIS	507.1 > 80	2818.473		1.00	4.52	2818.473	12.500	14.5	116.2	NO		
49	71 13C8-PFOS-EIS	507.1 > 80	2818.473		1.00	4.52	2818.473	12.500	14.5	116.2	NO		
50	73 13C2-PFDA-EIS	515.1 > 469.9	15588.146		1.00	4.82	15588.146	12.500	12.0	95.9	NO		
51	75 13C2-8:2 FTS-EIS	529 > 80	1422.865		1.00	4.78	1422.865	12.500	13.7	109.5	NO		
52	-1												
53	28 PFNS	549 > 80	2485.768	2818.473	1.00	4.88	11.024	9.600	8.63	89.9	NO	2.608	NO
54	29 L-MeFOSAA	570 > 419	4059.192	3863.317	1.00	4.97	13.134	10.000	11.0	110.5	NO	1.797	NO
55	31 L-EtFOSAA	583.9 > 419	4353.626	4285.248	1.00	5.14	12.699	10.000	9.16	91.6	NO	1.379	NO
56	33 PFUdA	563.0 > 519	13708.202	15722.445	1.00	5.15	10.899	10.000	9.78	97.8	NO	20.772	NO
57	34 PFDS	598.8 > 79.9	2356.591	2818.473	1.00	5.20	10.452	9.640	8.91	92.4	NO	1.914	NO
58	35 11CI-PF30UdS	631 > 451	4042.019	17727.922	1.00	5.37	2.850	9.440	8.77	92.9	NO	14.605	NO
59	71 13C8-PFOS-EIS	507.1 > 80	2818.473		1.00	4.52	2818.473	12.500	14.5	116.2	NO		
60	77 d3-N-MeFOSAA-EIS	573.1 > 419	3863.317		1.00	4.97	3863.317	12.500	12.4	99.1	NO		
61	81 d5-N-EtFOSAA-EIS	589.3 > 419	4285.248		1.00	5.13	4285.248	12.500	13.2	105.7	NO		
62	79 13C2-PFUdA-EIS	565 > 519.8	15722.445		1.00	5.15	15722.445	12.500	11.8	94.5	NO		
63	71 13C8-PFOS-EIS	507.1 > 80	2818.473		1.00	4.52	2818.473	12.500	14.5	116.2	NO		
64	83 13C2-PFDaA-EIS	614.9 > 569.9	17727.922		1.00	5.44	17727.922	12.500	12.5	99.6	NO		
65	-1												
66	36 10:2 FTS	626.9 > 607		1103.646	1.00			10.000			NO		YES
67	37 PFDoA	612.9 > 569.0	13947.065	17727.922	1.00	5.44	9.834	10.000	9.98	99.8	NO	11.073	NO
68	38 N-MeFOSA	512.1 > 168.9		18578.057	1.00			9.600			NO		YES
69	39 PFTDA	662.9 > 618.9	14176.732	17727.922	1.00	5.70	9.996	10.000	9.38	93.8	NO	95.573	YES
70	40 PFDoS	699 > 80		18972.910	1.00			10.000			NO		YES
71	41 PFTeDA	713.0 > 669.0	10378.714	18972.910	1.00	5.92	6.838	10.000	10.2	102.1	NO	15.351	NO
72	85 13C2-10:2 FTS-EIS	632.9 > 80.0		1103.646	1.00	5.42	1103.646	12.500	11.7	93.2	NO		

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Name: 200702P1-16, Date: 02-Jul-2020, Time: 11:53:18, ID: ICV200702P1-1 PFC ICV 20F1911, Description: PFC ICV 20F1911

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83 13C2-PFDoA-EIS	614.9 > 569.9	17727.922		1.00	5.44	17727.922	12.500	12.5	99.6	NO		
74	87 d3-N-MeFOSA-EIS	515.2 > 168.9	18578.057		1.00	5.55	18578.057	149.200	148	99.2	NO		
75	83 13C2-PFDoA-EIS	614.9 > 569.9	17727.922		1.00	5.44	17727.922	12.500	12.5	99.6	NO		
76	89 13C2-PFTeDA-EIS	715.1 > 669.7	18972.910		1.00	5.92	18972.910	12.500	12.6	101.0	NO		
77	89 13C2-PFTeDA-EIS	715.1 > 669.7	18972.910		1.00	5.92	18972.910	12.500	12.6	101.0	NO		
78	-1												
79	42 N-EiFOSA	526.1 > 168.9		22326.449	1.00			9.600			NO		YES
80	43 PFHxDA	813 > 769		23340.604	1.00			10.000			NO		YES
81	44 PFODA	913.1 > 868.8		23340.604	1.00			10.000			NO		
82	45 N-MeFOSE	616.1 > 58.9		19897.285	1.00			9.600			NO		
83	46 N-EiFOSE	630.1 > 58.9		22972.689	1.00			9.600			NO		
84	48 13C3-PFBA-RSD	216.1 > 171.8	5212.559	6050.418	1.00	1.12	10.769	12.500	12.6	100.9	NO		
85	91 d5-N-ETFOSE-EIS	531.1 > 168.9	22326.449		1.00	6.01	22326.449	149.200	154	103.3	NO		
86	93 13C2-PFHxDA-EIS	815 > 769.7	23340.604		1.00	6.28	23340.604	12.500	13.0	103.8	NO		
87	93 13C2-PFHxDA-EIS	815 > 769.7	23340.604		1.00	6.28	23340.604	12.500	13.0	103.8	NO		
88	95 d7-N-MeFOSE-EIS	623.1 > 58.9	19897.285		1.00	6.23	19897.285	149.200	146	98.1	NO		
89	97 d9-N-EiFOSE-EIS	639.2 > 58.8	22972.689		1.00	6.38	22972.689	149.200	158	105.8	NO		
90	50 13C3-PFPeA-RSD	266.0 > 221.8	10279.509	15633.847	1.00	2.04	8.219	12.500	10.8	86.1	NO		
91	-1												
92	52 13C3-PFBS-RSD	302.0 > 98.9	1266.068	1027.411	1.00	2.32	15.404	12.500	12.0	96.0	NO		
93	54 13C3-HFOA-DA-RSD	287.0 > 168.9	2991.153	15633.847	1.00	3.06	2.392	12.500	12.3	98.7	NO		
94	56 13C2-4:2 FTS-RSD	329.0 > 80.8	1259.295	1027.411	1.00	2.76	15.321	12.500	12.5	99.7	NO		
95	58 13C2-PFHxA-RSD	315.0 > 270.0	13652.319	15633.847	1.00	2.84	10.916	12.500	12.2	97.8	NO		
96	60 13C4-PFHpA-RSD	367.2 > 321.8	12620.304	15633.847	1.00	3.46	10.091	12.500	13.2	105.2	NO		
97	62 13C3-PFHxS-RSD	402 > 80	2652.610	1027.411	1.00	3.61	32.273	12.500	12.6	101.0	NO		
98	64 13C2-6:2 FTS-RSD	429.0 > 79.7	1577.207	2978.829	1.00	3.91	6.618	12.500	14.0	112.0	NO		
99	66 13C5-PFNA-RSD	468.2 > 422.9	13861.972	14490.859	1.00	4.43	11.958	12.500	12.7	101.2	NO		
100	68 13C8-PFOA-RSD	506 > 78	5388.322	12342.549	1.00	4.48	5.457	12.500	13.2	105.6	NO		
101	70 13C2-PFOA-RSD	414.9 > 369.7	13730.243	12907.768	1.00	3.97	13.296	12.500	12.2	97.8	NO		
102	72 13C8-PFOS-RSD	507.1 > 80	2818.473	2978.829	1.00	4.52	11.827	12.500	14.0	111.6	NO		
103	74 13C2-PFDA-RSD	515.1 > 469.9	15588.146	12794.037	1.00	4.82	15.230	12.500	12.5	100.4	NO		
104	-1												
105	76 13C2-8:2 FTS-RSD	529 > 80	1422.865	2978.829	1.00	4.78	5.971	12.500	12.7	101.4	NO		
106	78 d3-N-MeFOSAA-RSD	573.1 > 419	3863.317	12342.549	1.00	4.97	3.913	12.500	11.8	94.7	NO		
107	80 13C2-PFUdA-RSD	565 > 519.8	15722.445	12342.549	1.00	5.15	15.923	12.500	12.4	99.2	NO		
108	82 d5-N-EiFOSAA-RSD	589.3 > 419	4285.248	12342.549	1.00	5.13	4.340	12.500	13.3	106.1	NO		

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Name: 200702P1-16, Date: 02-Jul-2020, Time: 11:53:18, ID: ICV200702P1-1 PFC ICV 20F1911, Description: PFC ICV 20F1911

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	84 13C2-PFDoA-RSD	614.9 > 569.9	17727.922	12794.037	1.00	5.44	17.320	12.500	12.9	103.5	NO		
110	86 13C2-10:2 FTS-RSD	632.9 > 80.0	1103.646	2978.829	1.00	5.42	4.631	12.500	13.4	107.5	NO		
111	88 d3-N-MeFOSA-RSD	515.2 > 168.9	18578.057	12342.549	1.00	5.55	18.815	149.200	146	97.8	NO		
112	90 13C2-PFTeDA-RSD	715.1 > 669.7	18972.910	12342.549	1.00	5.92	19.215	12.500	12.3	98.8	NO		
113	92 d5-N-ETFOSA-RSD	531.1 > 168.9	22326.449	12342.549	1.00	6.01	22.611	149.200	152	101.6	NO		
114	94 13C2-PFHxDA-RSD	815 > 769.7	23340.604	12342.549	1.00	6.28	23.638	12.500	12.8	102.1	NO		
115	96 d7-N-MeFOSE-RSD	623.1 > 58.9	19897.285	12342.549	1.00	6.23	20.151	149.200	145	96.9	NO		
116	98 d9-N-ElFOSE-RSD	639.2 > 58.8	22972.689	12342.549	1.00	6.38	23.266	149.200	153	102.6	NO		
117	-1												
118	99 13C4-PFBA	217.0 > 172.0	6050.418	6050.418	1.00	1.12	12.500	12.500	12.5	100.0	NO		
119	1... 13C5-PFHxA	318.0 > 272.9	15633.847	15633.847	1.00	2.84	12.500	12.500	12.5	100.0	NO		
120	1... 13C8-PFOA	420.9 > 376.0	12907.768	12907.768	1.00	3.97	12.500	12.500	12.5	100.0	NO		
121	1... 18O2-PFHxS	403.0 > 103	1027.411	1027.411	1.00	3.61	12.500	12.500	12.5	100.0	NO		
122	1... 13C9-PFNA	472.2 > 426.9	14490.859	14490.859	1.00	4.43	12.500	12.500	12.5	100.0	NO		
123	1... 13C4-PFOS	503 > 79.7	2978.829	2978.829	1.00	4.52	12.500	12.500	12.5	100.0	NO		
124	1... 13C6-PFDA	519.1 > 473.7	12794.037	12794.037	1.00	4.82	12.500	12.500	12.5	100.0	NO		
125	1... 13C7-PFUDa	570.1 > 524.8	12342.549	12342.549	1.00	5.15	12.500	12.500	12.5	100.0	NO		

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Dataset: D:\PFAS5.PRO\RESULTS\200702P1\200702P1-ICV.qld

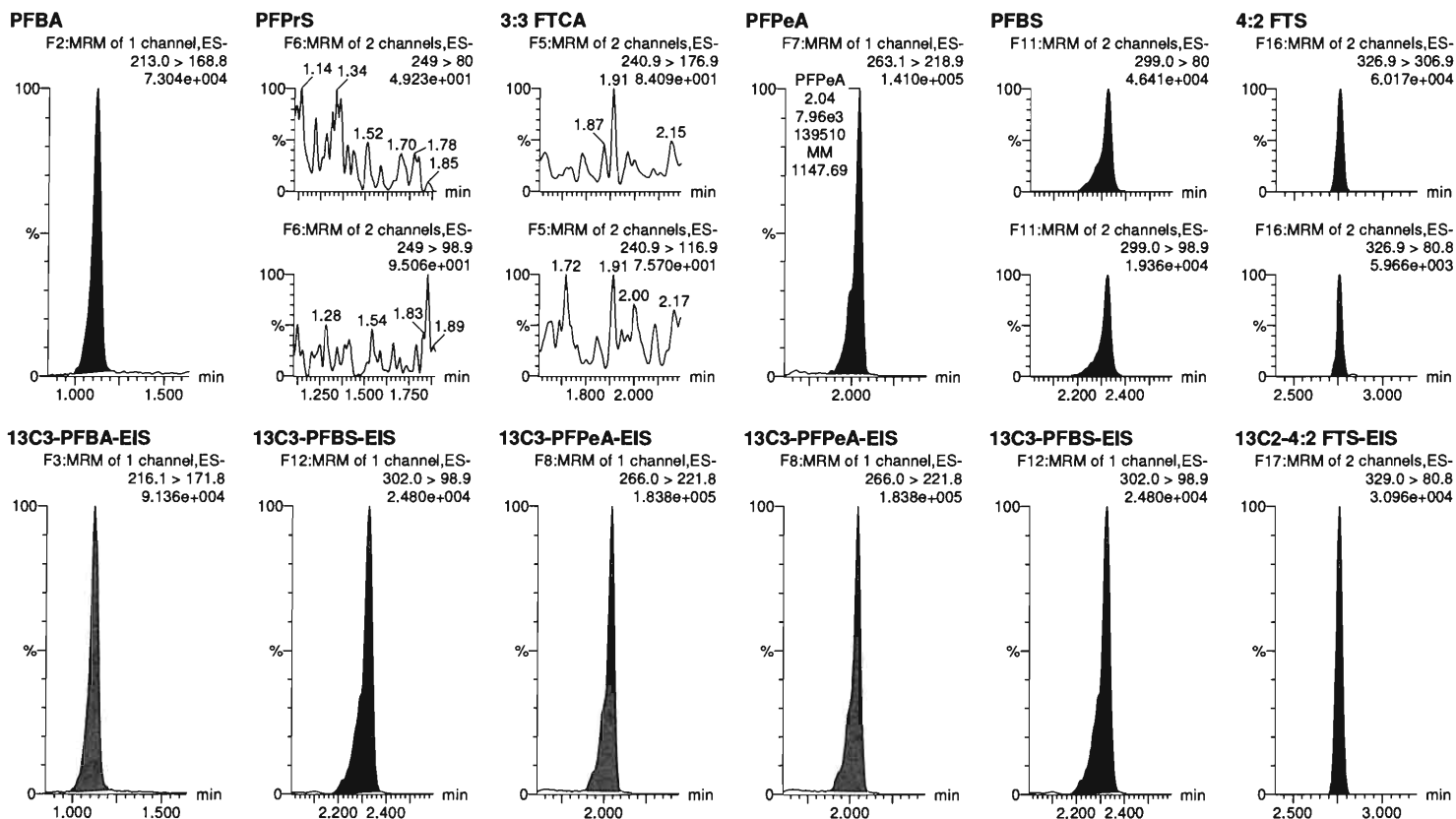
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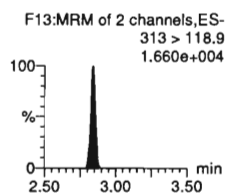
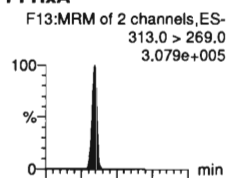
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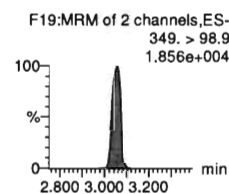
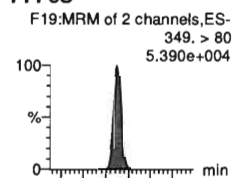
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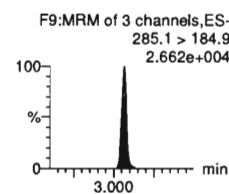
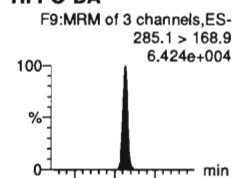
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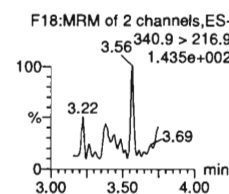
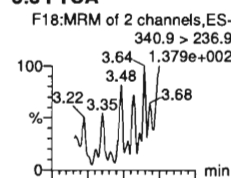
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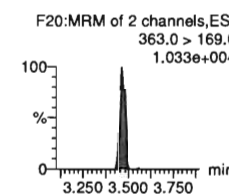
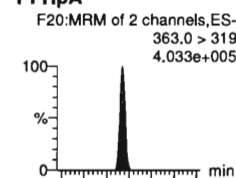
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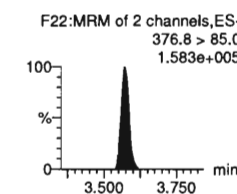
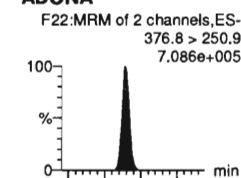
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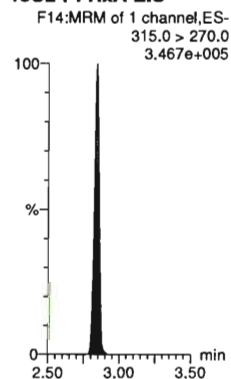
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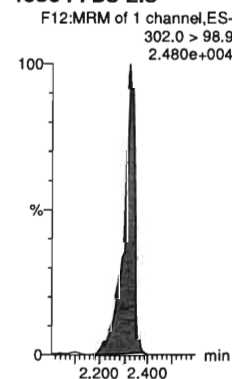
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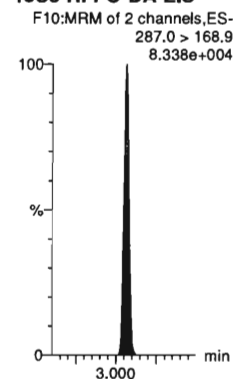
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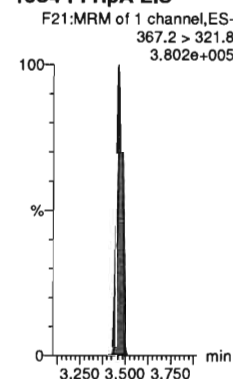
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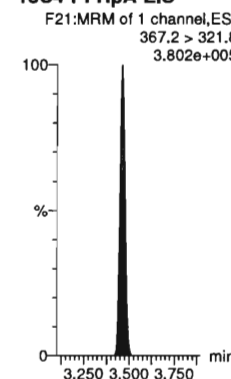
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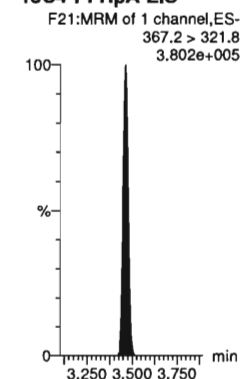
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13C4-PFHpA-EIS



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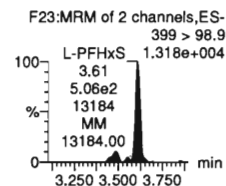
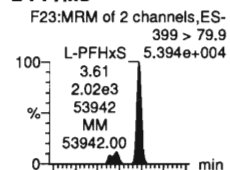
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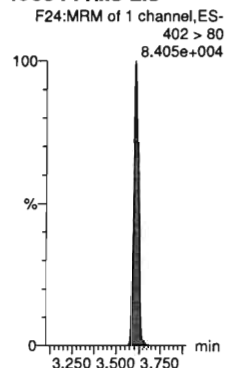
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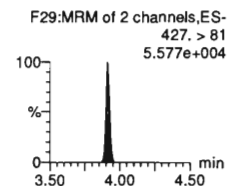
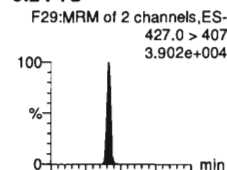
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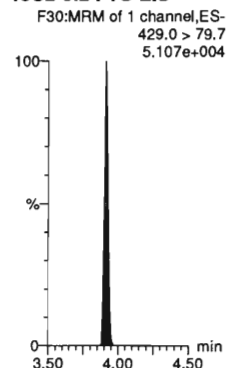
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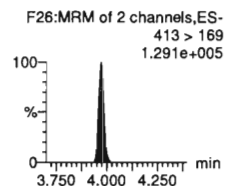
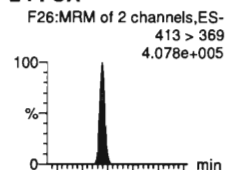
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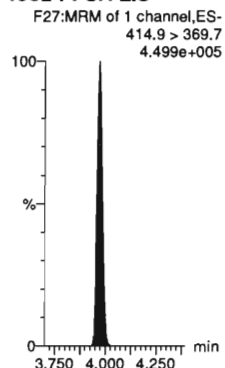
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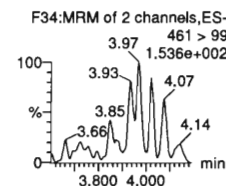
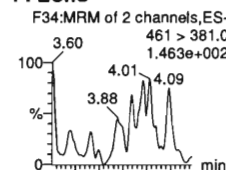
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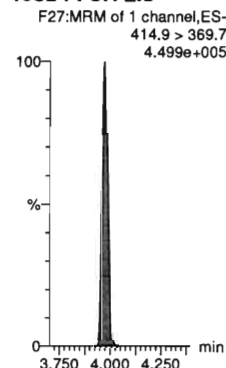
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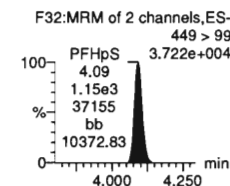
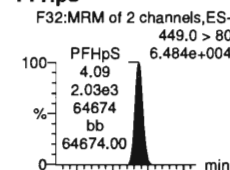
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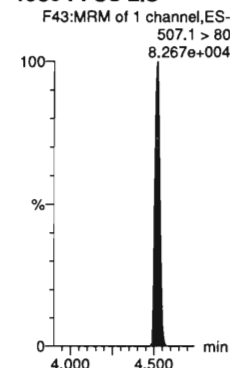
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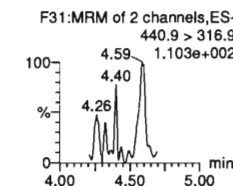
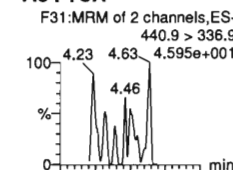
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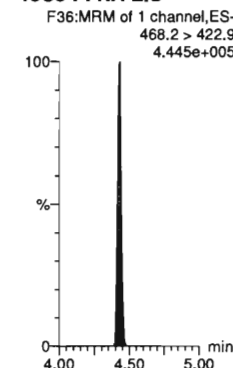
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7:3 FTCA



13C5-PFNA-EIS



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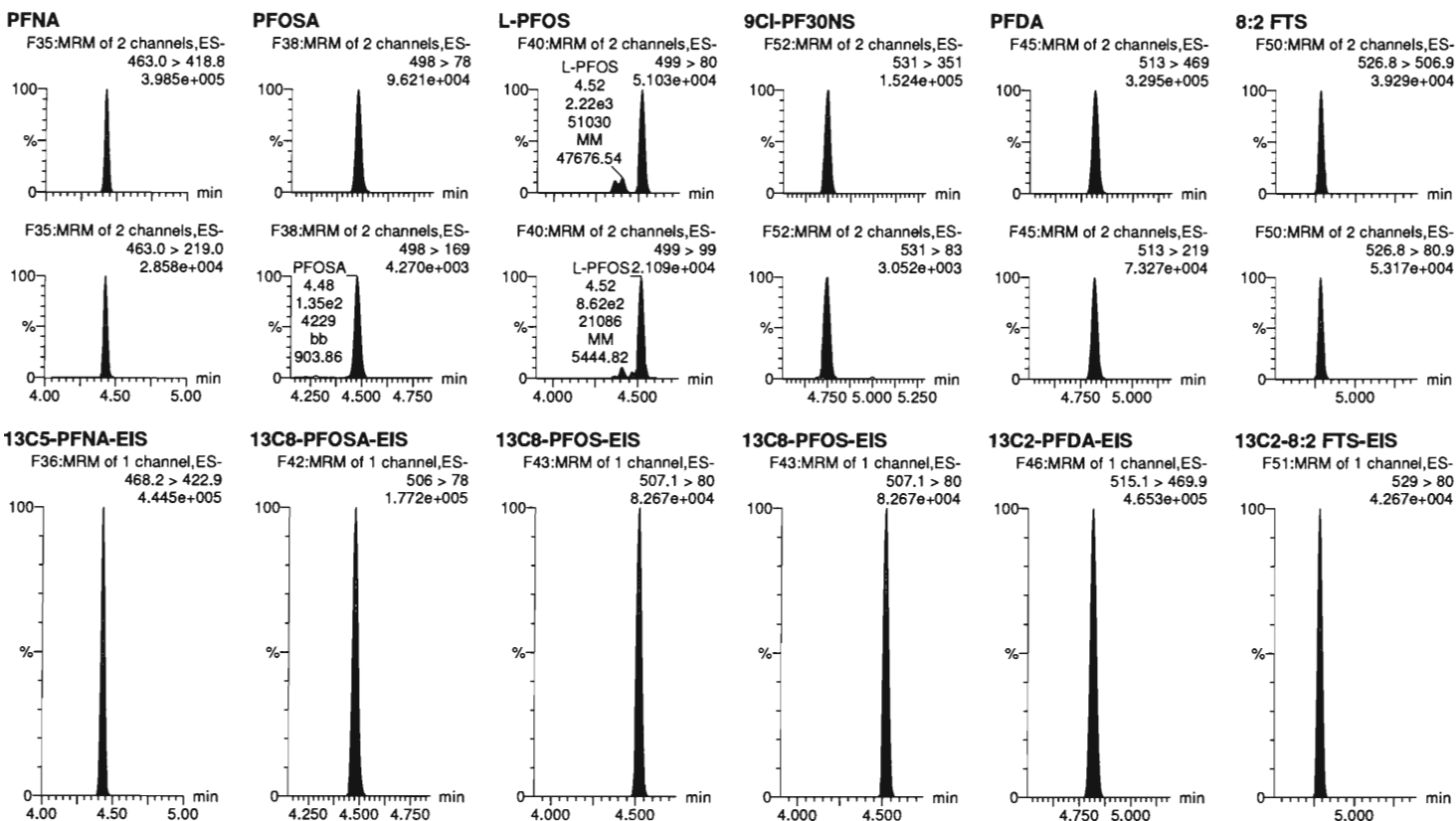
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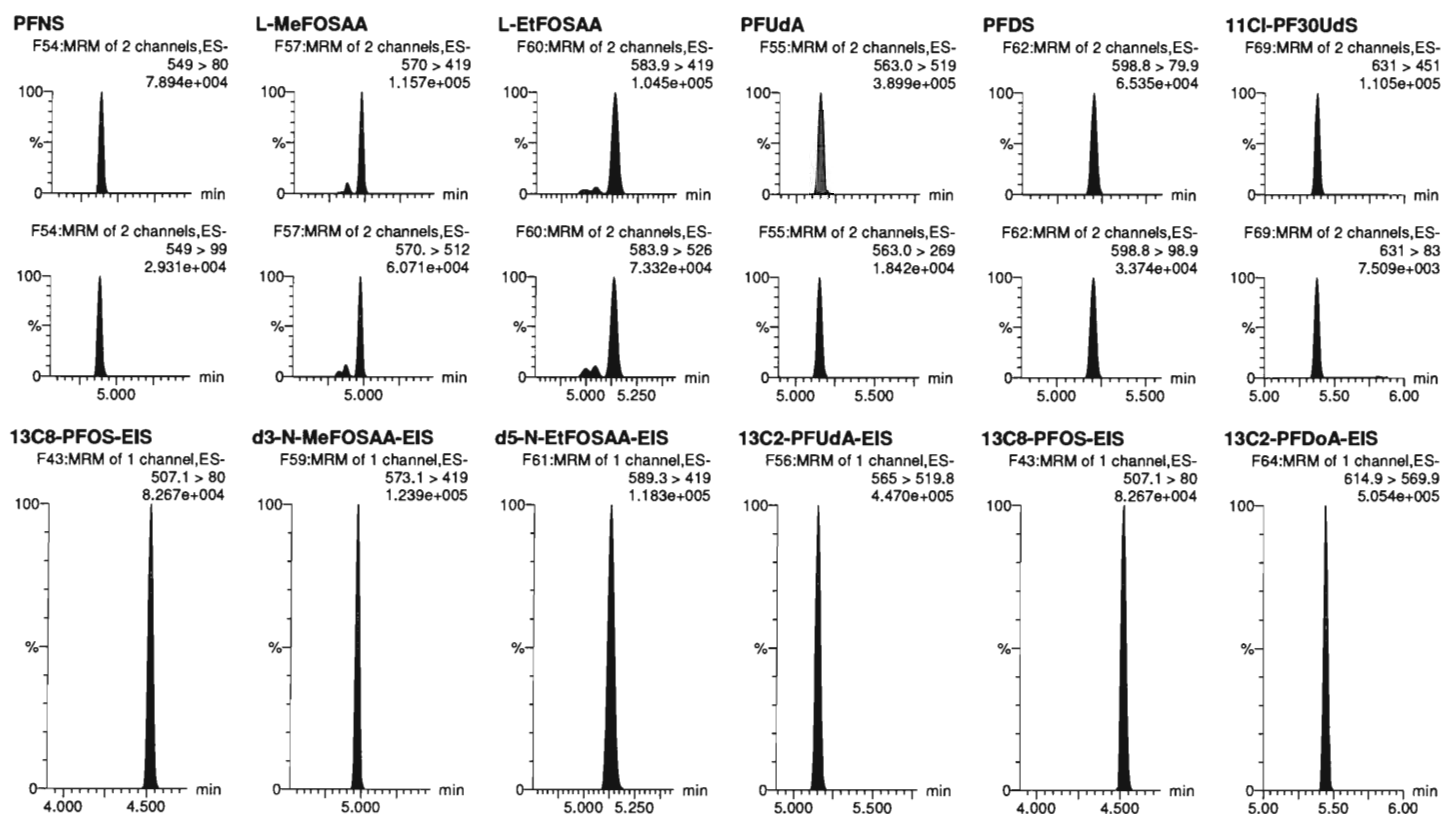
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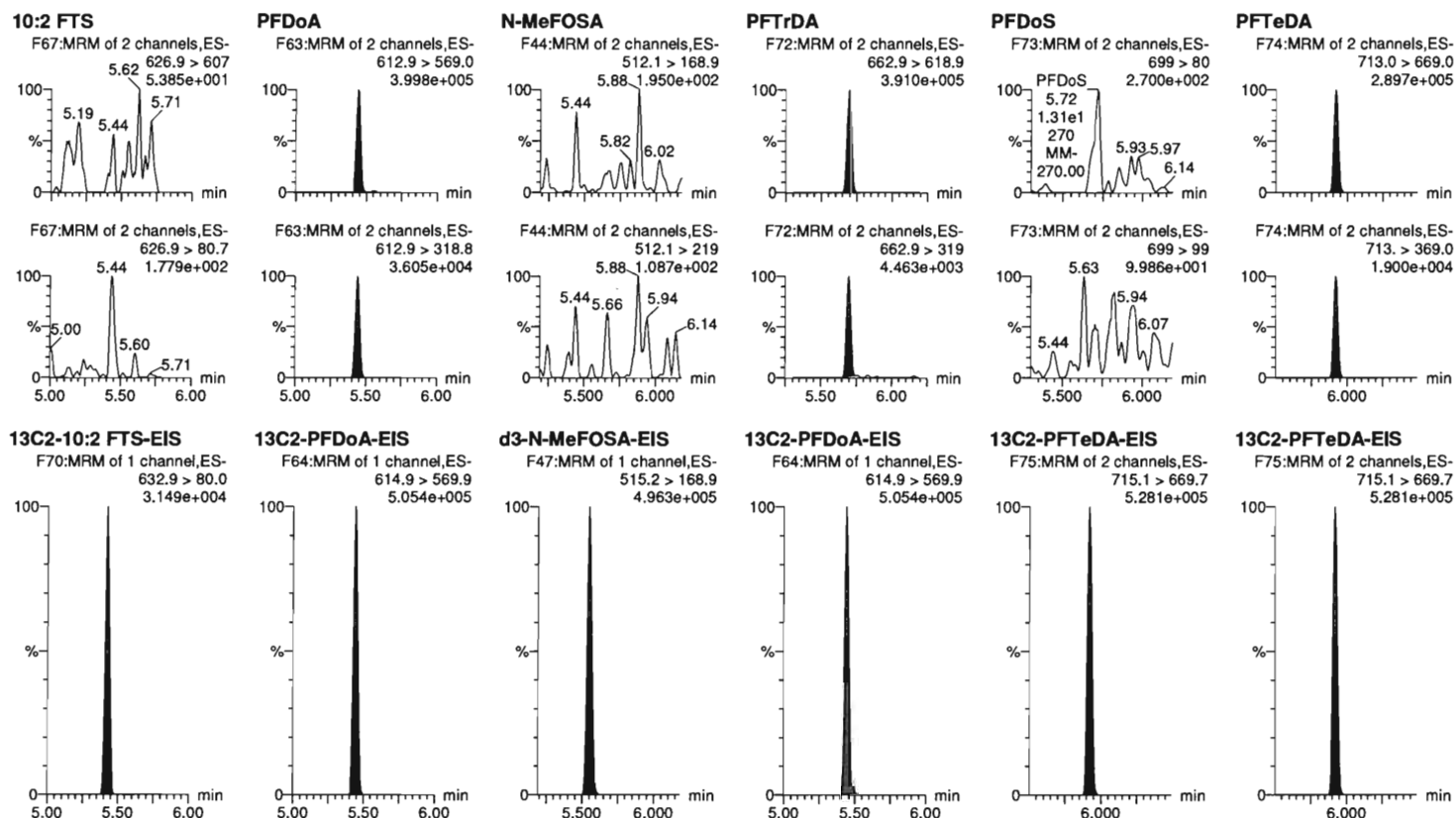
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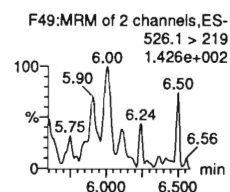
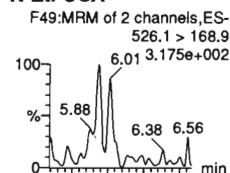
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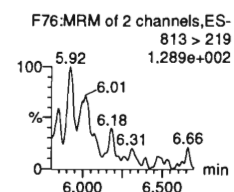
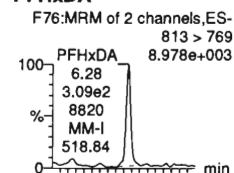
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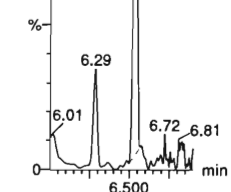
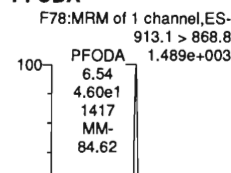
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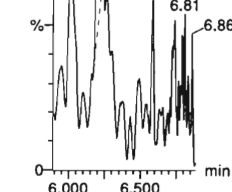
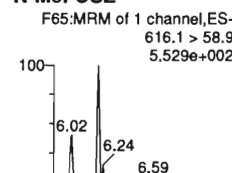
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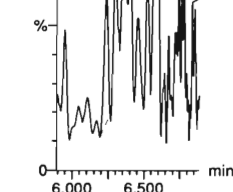
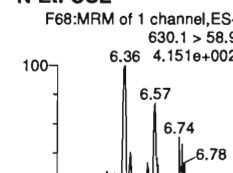
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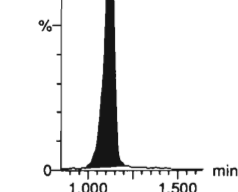
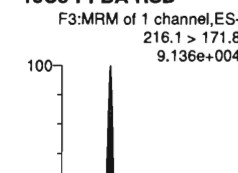
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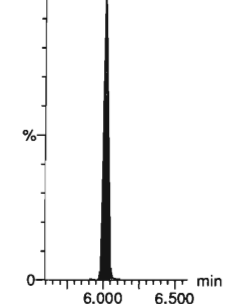
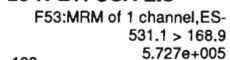
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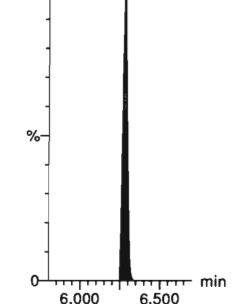
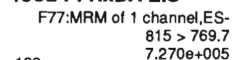
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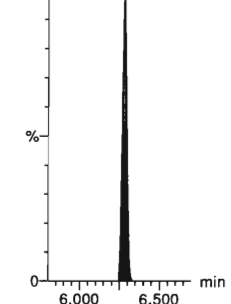
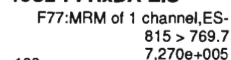
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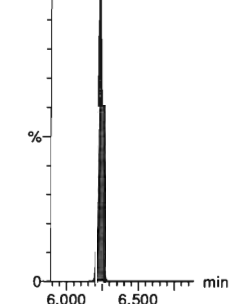
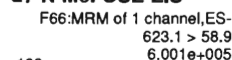
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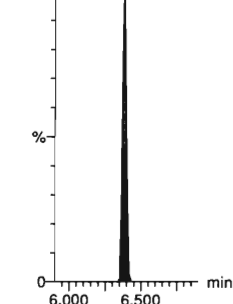
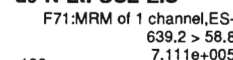
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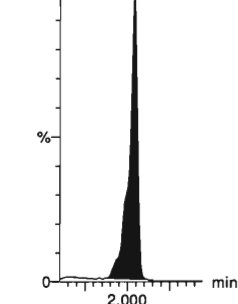
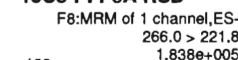
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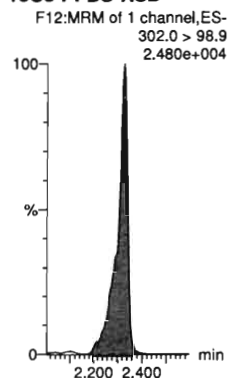
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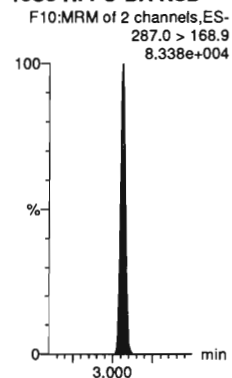
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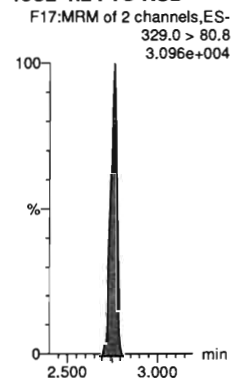
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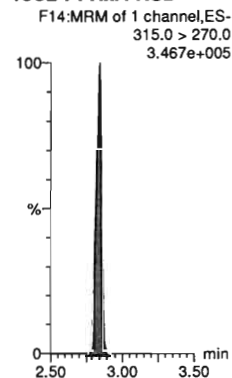
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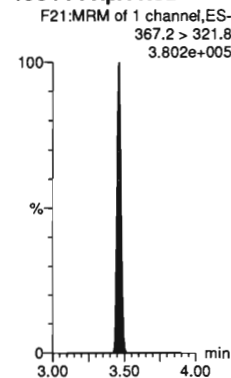
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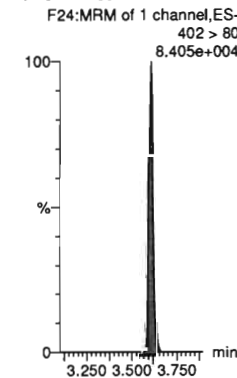
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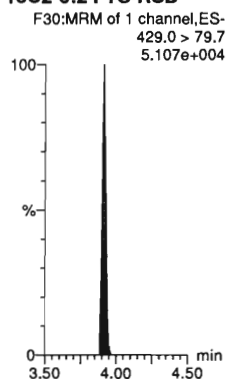
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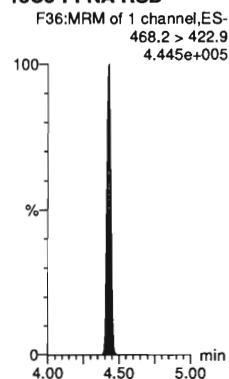
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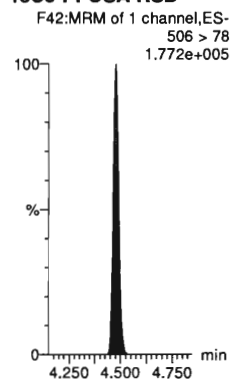
13C2-6:2 FTS-RSD



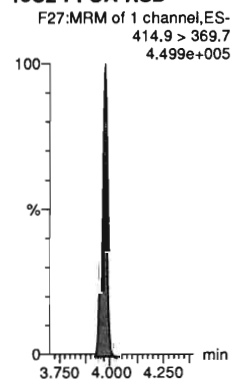
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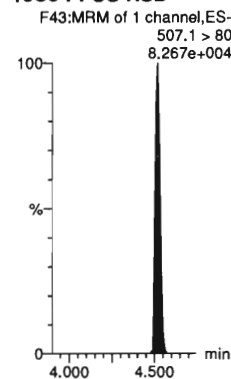
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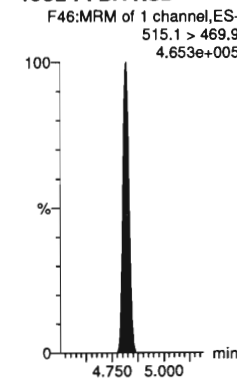
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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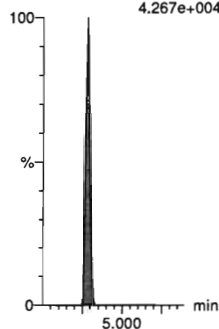
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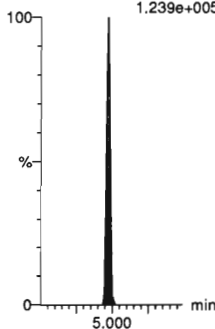
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F51:MRM of 1 channel,ES-
529 > 80
4.267e+004



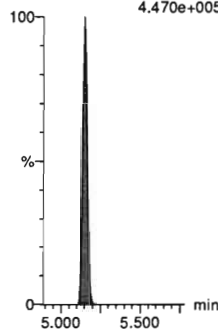
d3-N-MeFOSAA-RSD

F59:MRM of 1 channel,ES-
573.1 > 419
1.239e+005



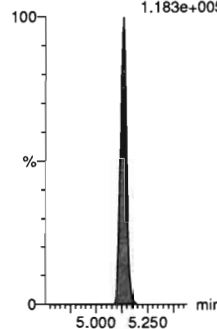
13C2-PFUDa-RSD

F56:MRM of 1 channel,ES-
565 > 519.8
4.470e+005



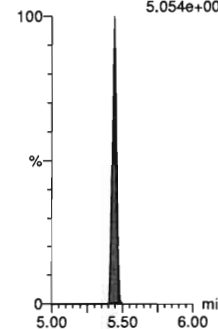
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F61:MRM of 1 channel,ES-
589.3 > 419
1.183e+005



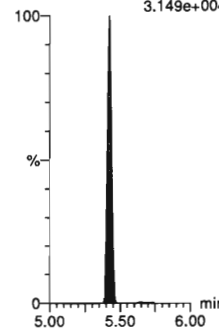
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F64:MRM of 1 channel,ES-
614.9 > 569.9
5.054e+005



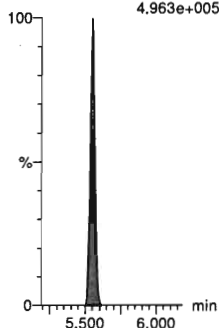
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F70:MRM of 1 channel,ES-
632.9 > 80.0
3.149e+004



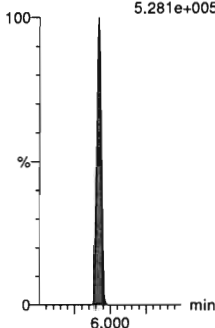
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F47:MRM of 1 channel,ES-
515.2 > 168.9
4.963e+005



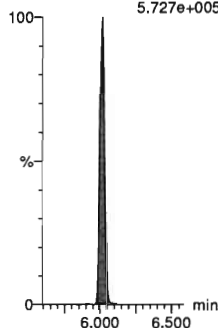
13C2-PFTeDA-RSD

F75:MRM of 2 channels,ES-
715.1 > 669.7
5.281e+005



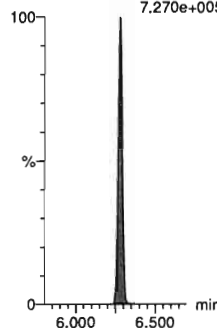
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F53:MRM of 1 channel,ES-
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5.727e+005



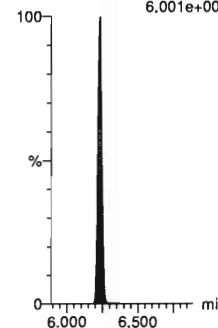
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F77:MRM of 1 channel,ES-
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7.270e+005



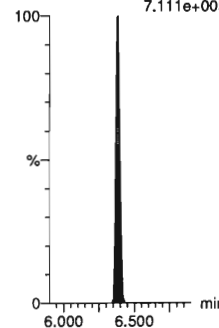
d7-N-MeFOSE-RSD

F66:MRM of 1 channel,ES-
623.1 > 58.9
6.001e+005



d9-N-EtFOSE-RSD

F71:MRM of 1 channel,ES-
639.2 > 58.8
7.111e+005



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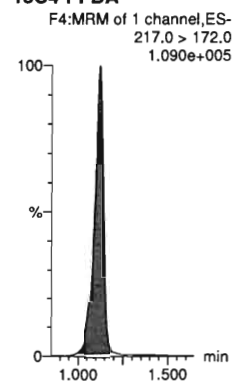
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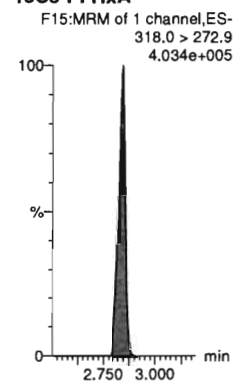
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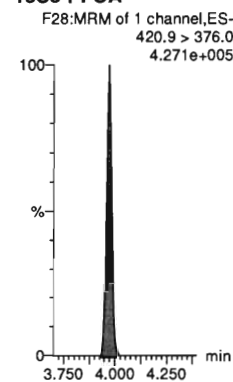
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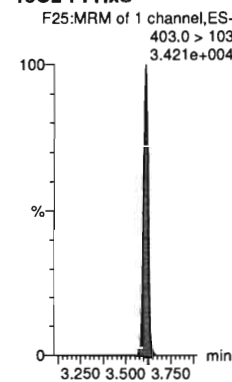
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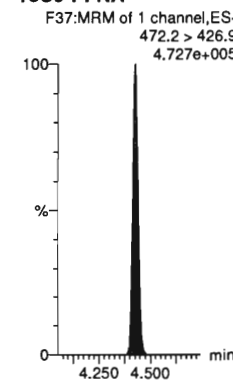
13C8-PFOA



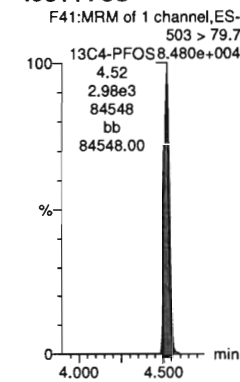
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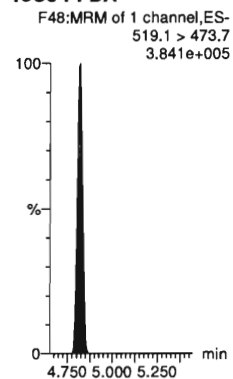
13C9-PFNA



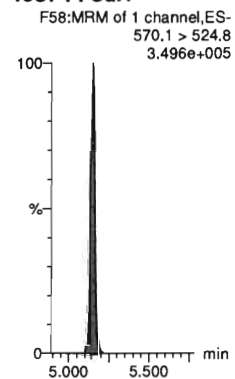
13C4-PFOS



13C6-PFDA



13C7-PFUDA



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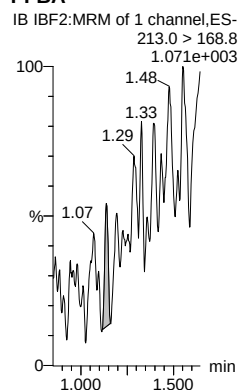
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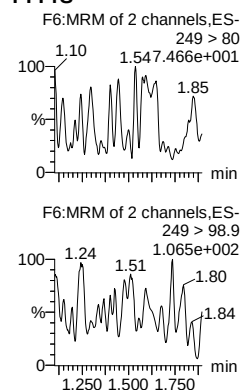
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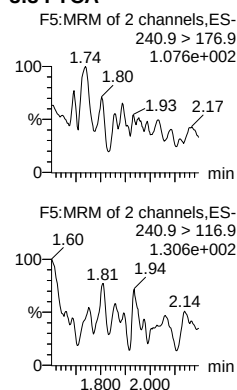
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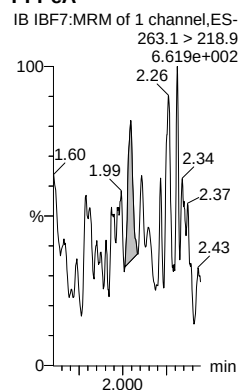
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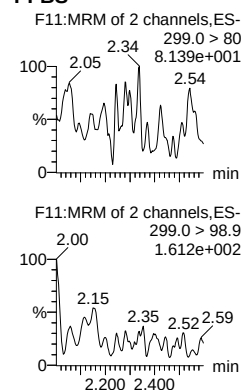
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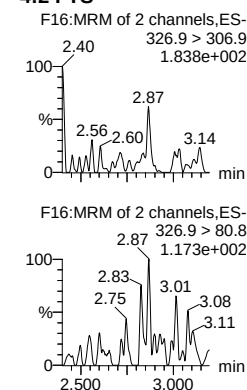
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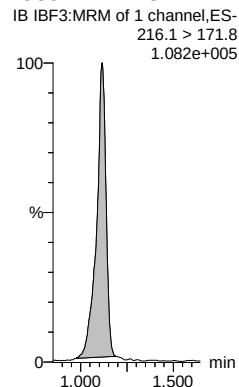
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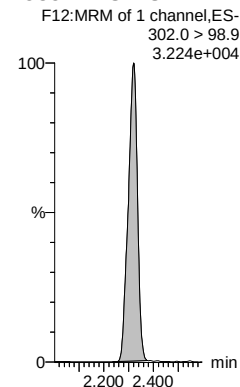
4:2 FTS



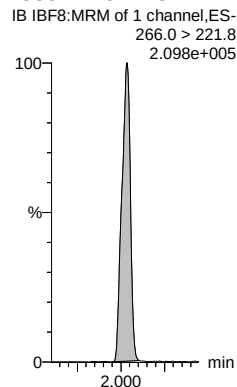
13C3-PFBA-EIS



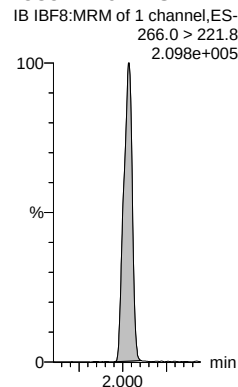
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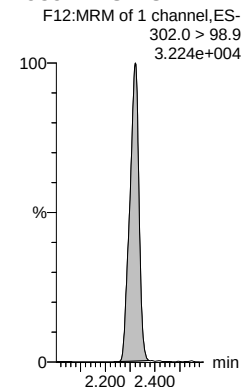
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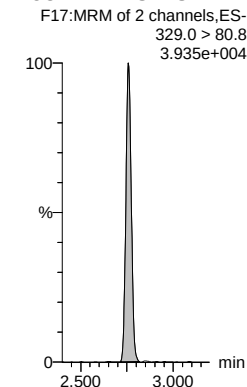
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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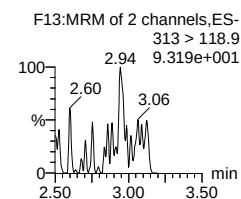
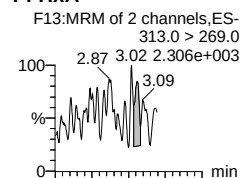
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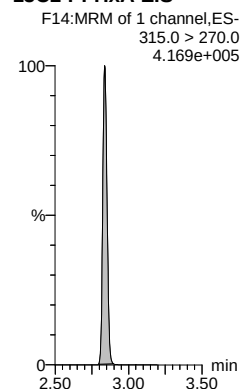
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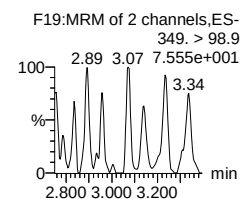
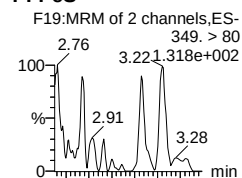
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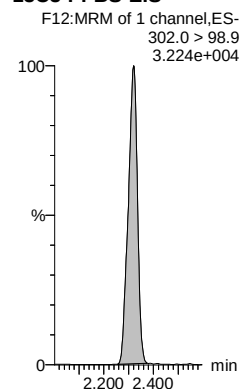
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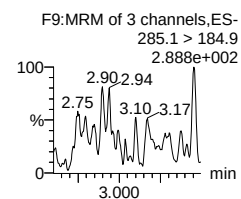
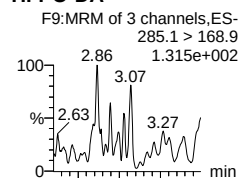
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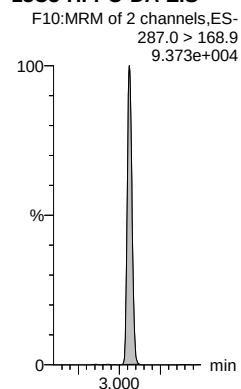
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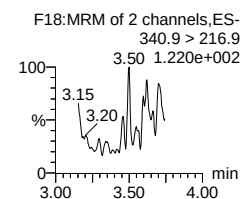
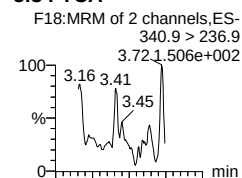
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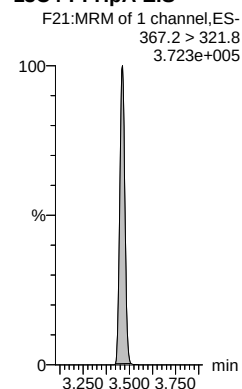
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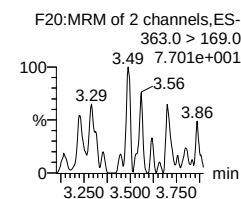
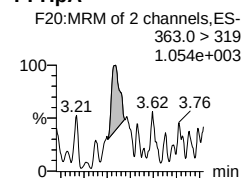
5:3 FTCA



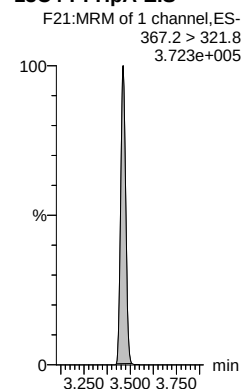
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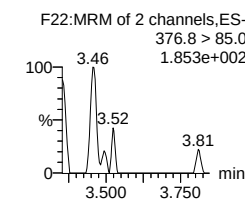
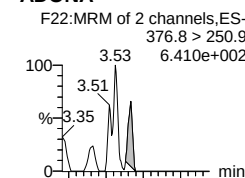
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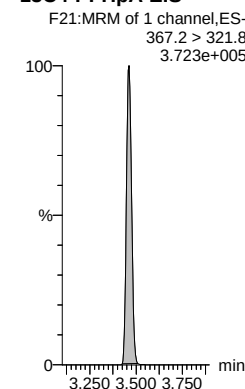
13C4-PFHpA-EIS



ADONA



13C4-PFHpA-EIS



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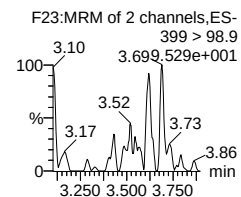
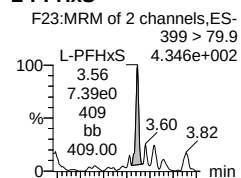
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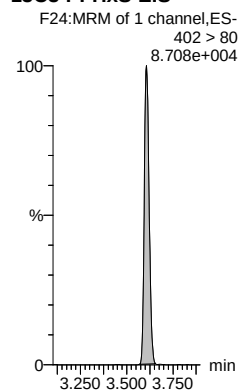
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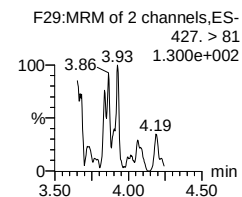
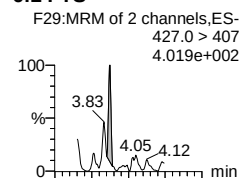
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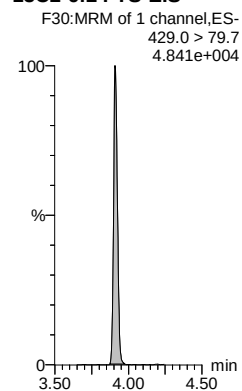
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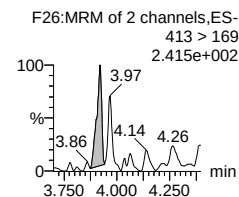
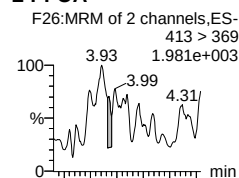
6:2 FTS



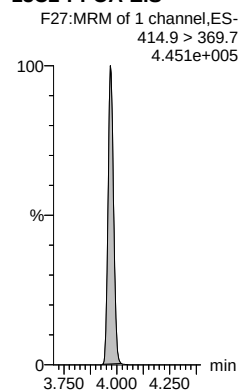
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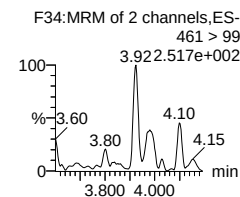
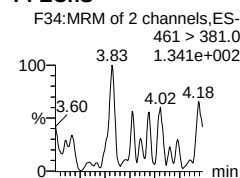
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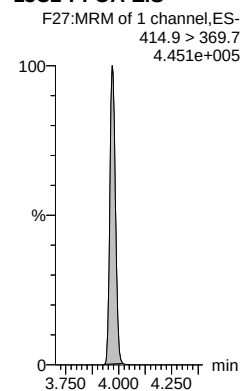
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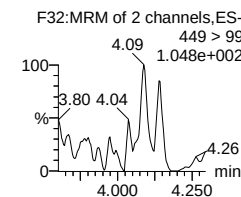
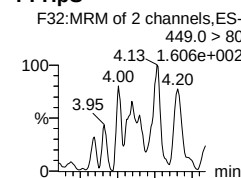
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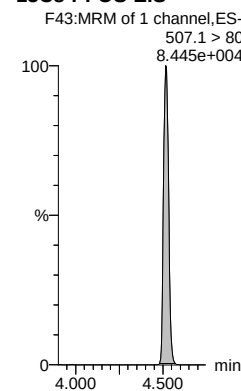
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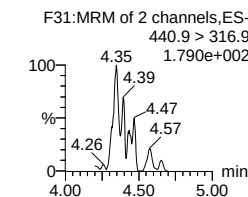
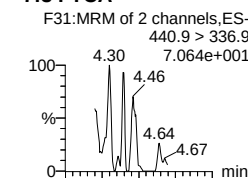
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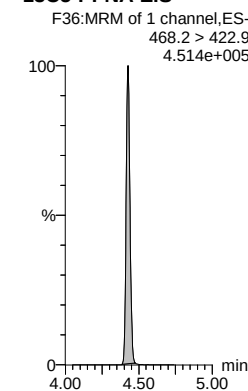
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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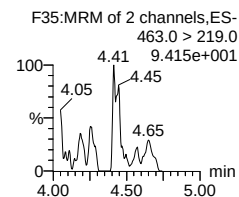
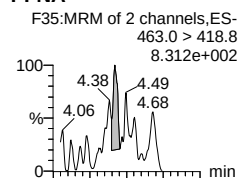
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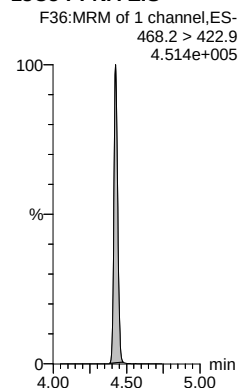
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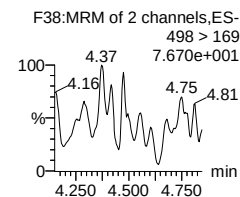
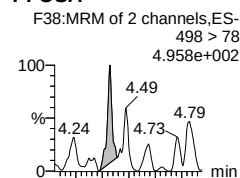
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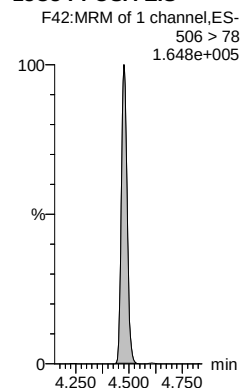
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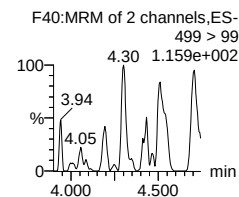
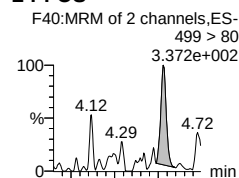
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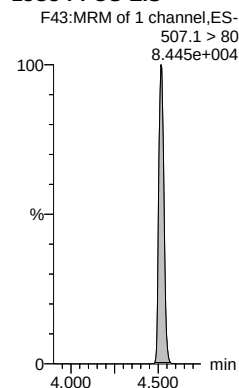
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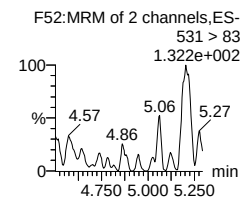
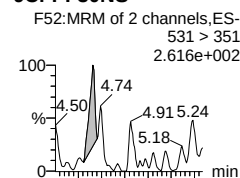
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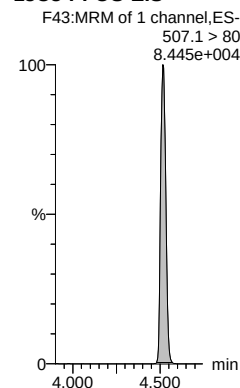
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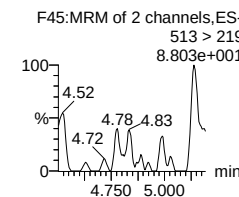
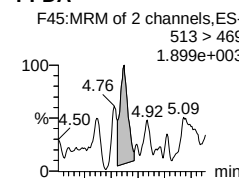
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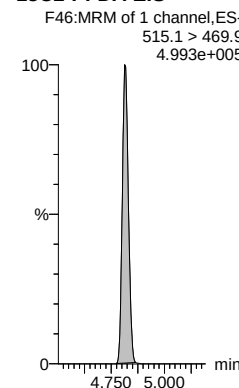
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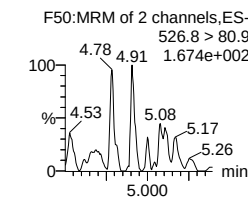
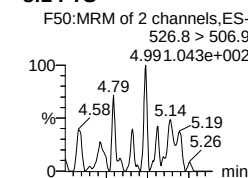
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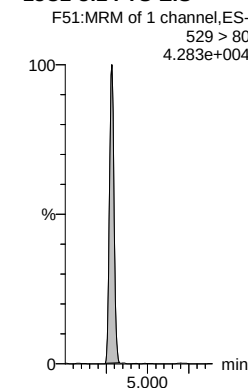
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8:2 FTS



13C2-8:2 FTS-EIS



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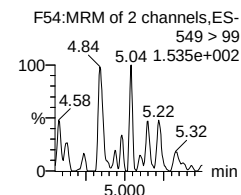
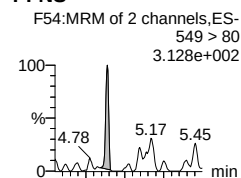
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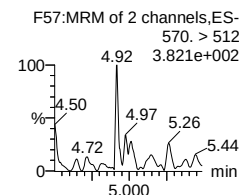
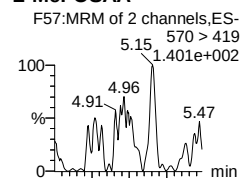
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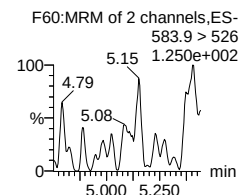
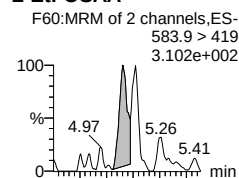
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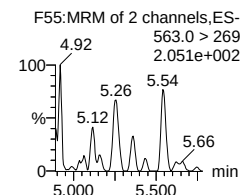
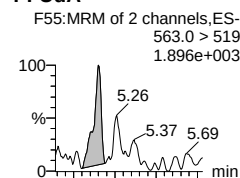
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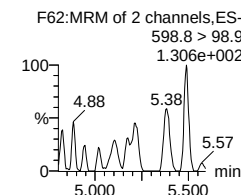
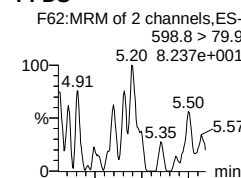
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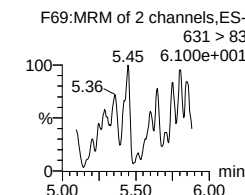
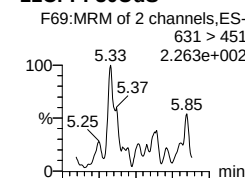
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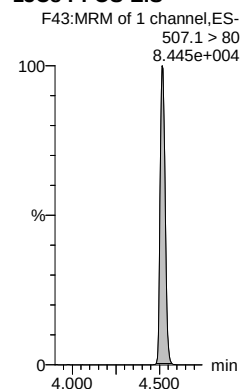
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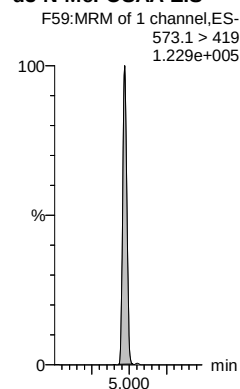
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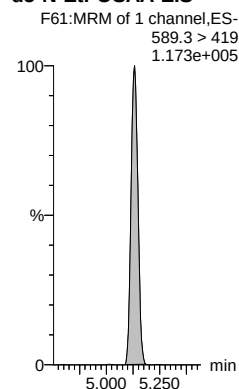
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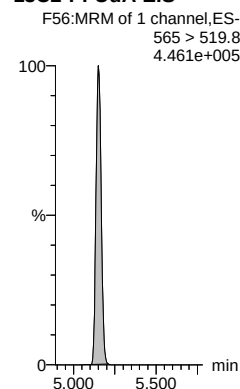
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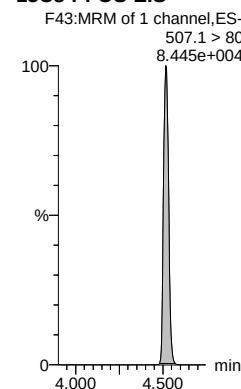
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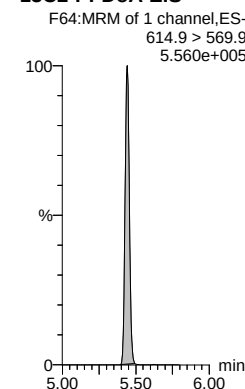
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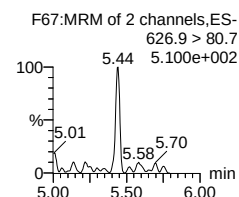
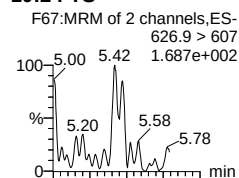
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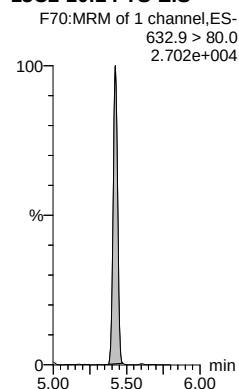
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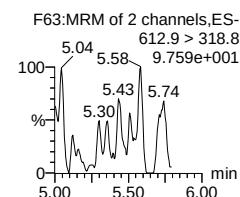
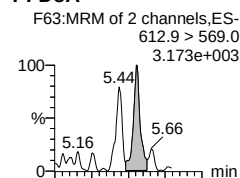
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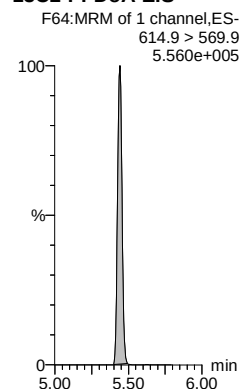
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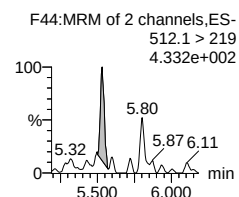
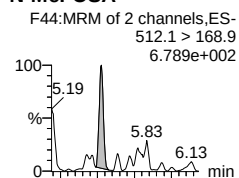
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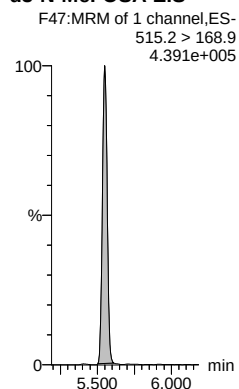
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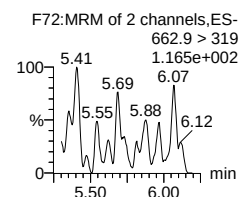
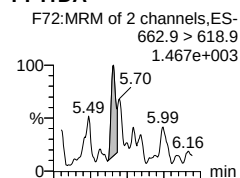
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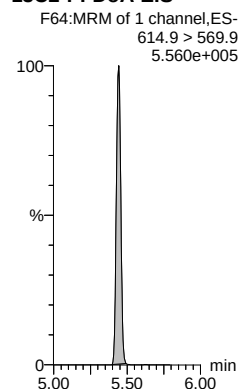
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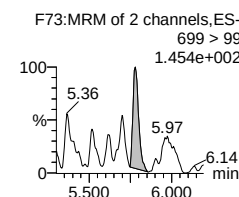
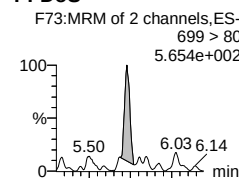
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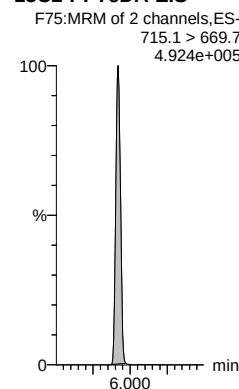
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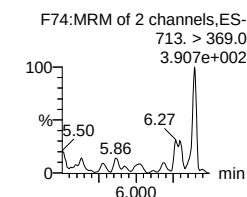
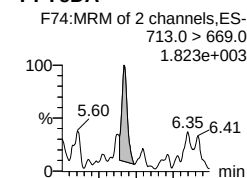
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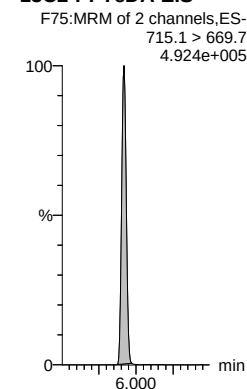
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13C2-PFTeDA-EIS



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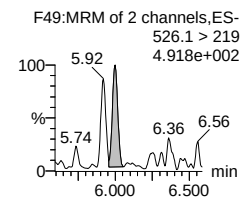
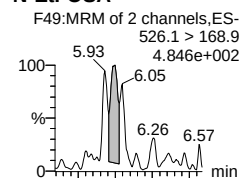
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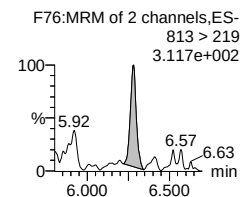
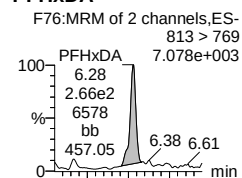
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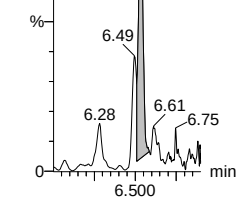
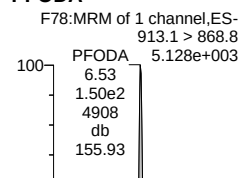
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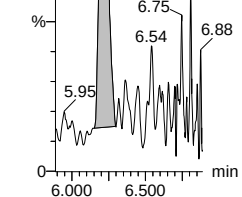
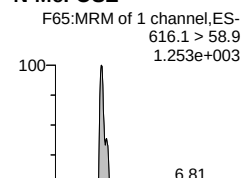
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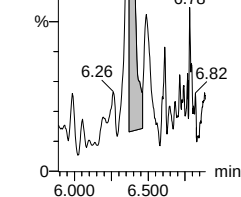
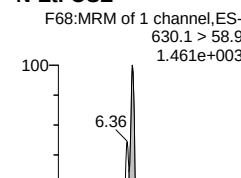
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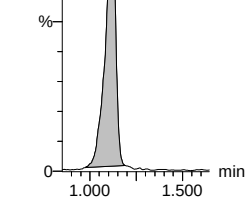
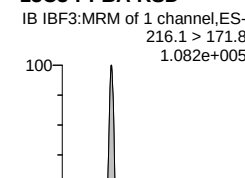
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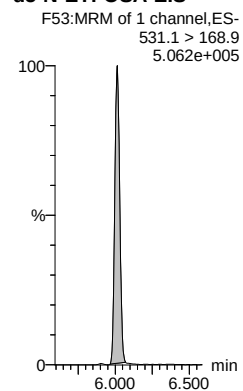
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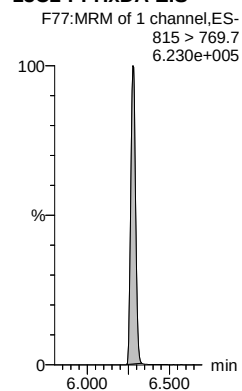
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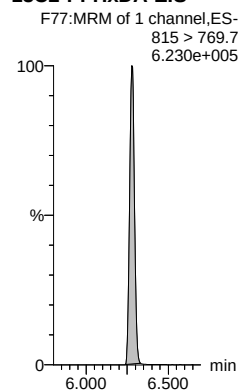
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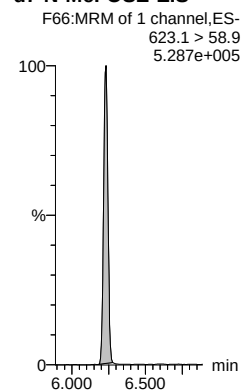
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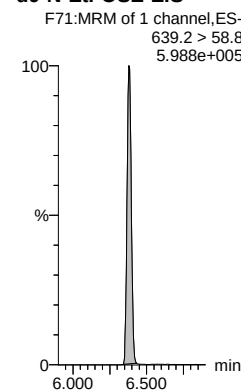
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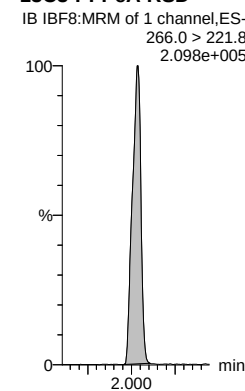
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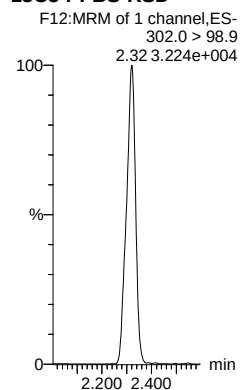
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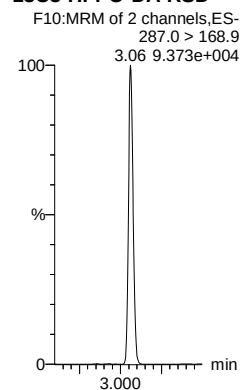
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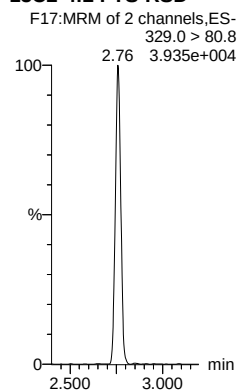
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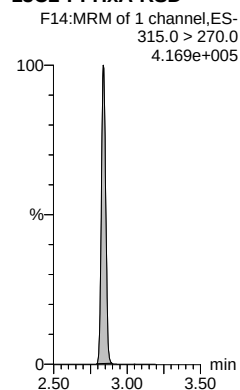
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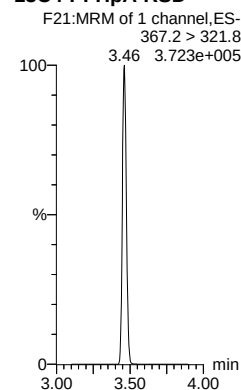
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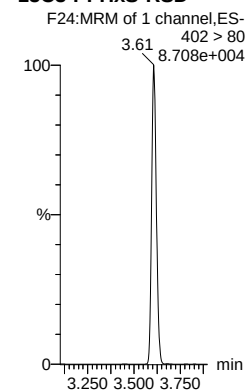
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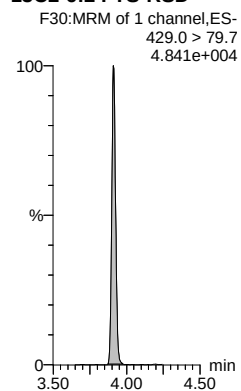
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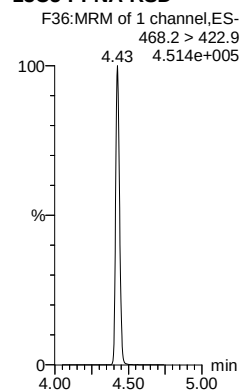
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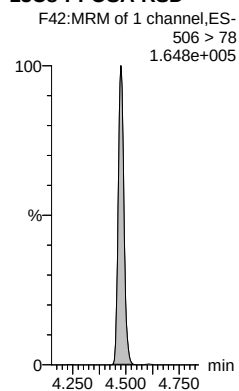
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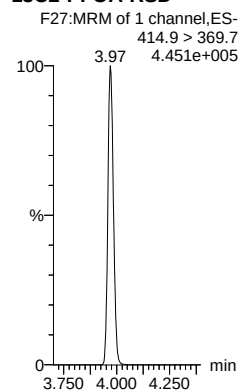
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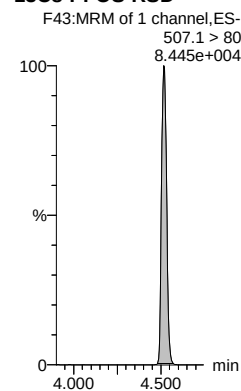
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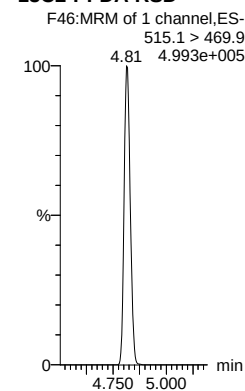
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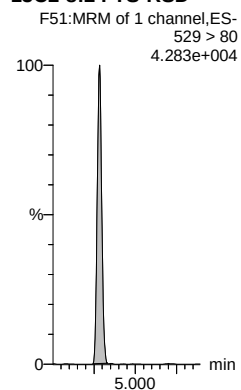
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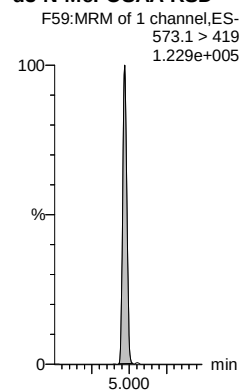
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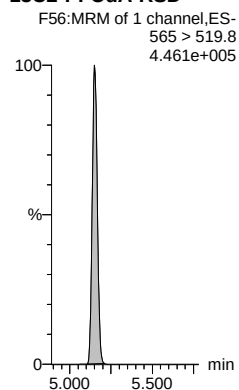
13C2-8:2 FTS-RSD



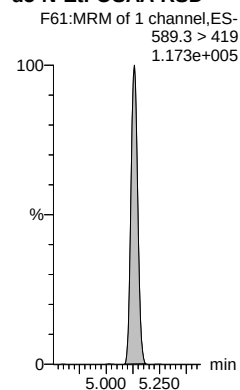
d3-N-MeFOSAA-RSD



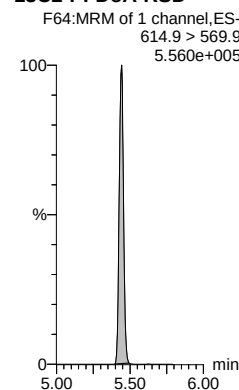
13C2-PFUDa-RSD



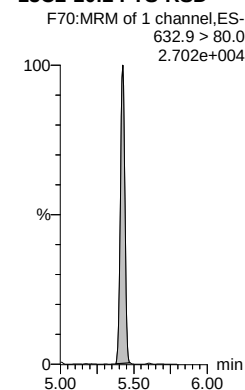
d5-N-EtFOSAA-RSD



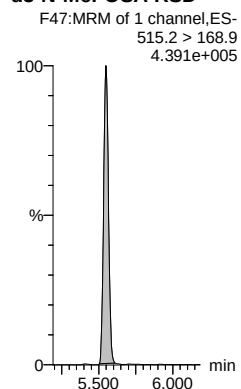
13C2-PFDoA-RSD



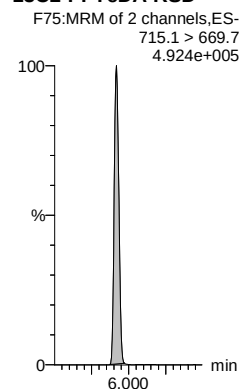
13C2-10:2 FTS-RSD



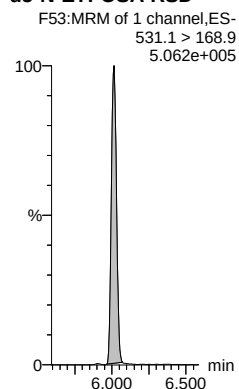
d3-N-MeFOSA-RSD



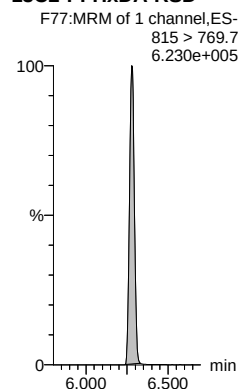
13C2-PFTeDA-RSD



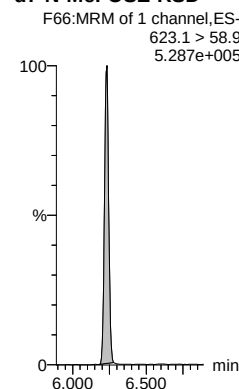
d5-N-ETFOSA-RSD



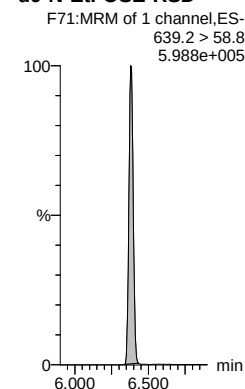
13C2-PFHxDA-RSD



d7-N-MeFOSE-RSD



d9-N-EtFOSE-RSD



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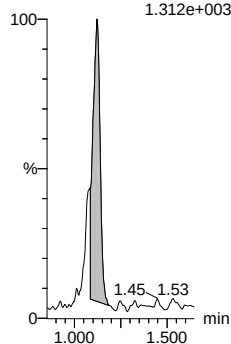
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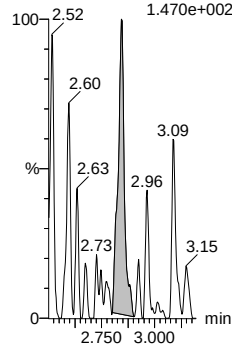
13C4-PFBA

IB IBF4:MRM of 1 channel,ES-
217.0 > 172.0
1.312e+003



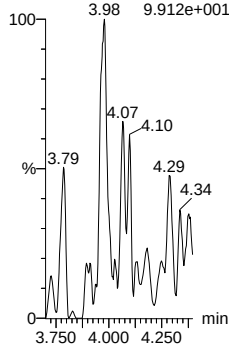
13C5-PFHxA

F15:MRM of 1 channel,ES-
318.0 > 272.9
1.470e+002



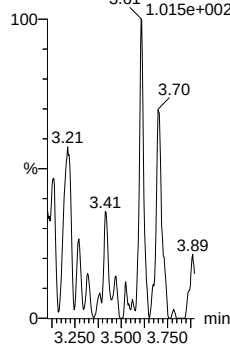
13C8-PFOA

F28:MRM of 1 channel,ES-
420.9 > 376.0
9.912e+001



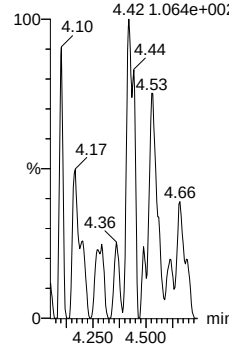
18O2-PFHxS

F25:MRM of 1 channel,ES-
403.0 > 103
1.015e+002



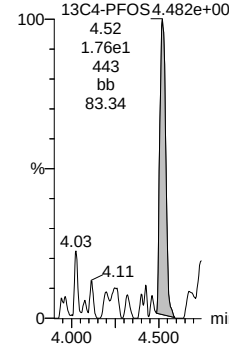
13C9-PFNA

F37:MRM of 1 channel,ES-
472.2 > 426.9
1.064e+002



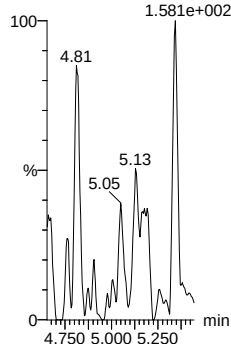
13C4-PFOS

F41:MRM of 1 channel,ES-
503 > 79.7
4.482e+002



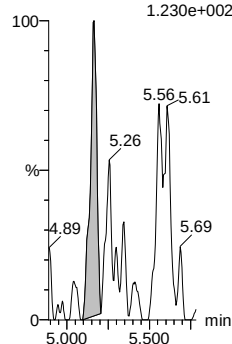
13C6-PFDA

F48:MRM of 1 channel,ES-
519.1 > 473.7
1.581e+002



13C7-PFUDa

F58:MRM of 1 channel,ES-
570.1 > 524.8
1.230e+002



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	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1 PFBA	213.0 > 168.8	9.032	6249.198	1.00	1.14	0.018						
2	2 PFPrS	249 > 80		1358.684	1.00								YES
3	3 3:3 FTCA	240.9 > 176.9		11664.176	1.00								YES
4	4 PFPeA	263.1 > 218.9	9.755	11664.176	1.00	2.04	0.010						
5	5 PFBS	299.0 > 80		1358.684	1.00								YES
6	6 4:2 FTS	326.9 > 306.9		1318.771	1.00								YES
7	47 13C3-PFBA-EIS	216.1 > 171.8	6249.198		1.00	1.12	6249.198	12.500	13.7	109.5			
8	51 13C3-PFBS-EIS	302.0 > 98.9	1358.684		1.00	2.32	1358.684	12.500	13.3	106.0			
9	49 13C3-PFPeA-EIS	266.0 > 221.8	11664.176		1.00	2.03	11664.176	12.500	12.8	102.7			
10	49 13C3-PFPeA-EIS	266.0 > 221.8	11664.176		1.00	2.03	11664.176	12.500	12.8	102.7			
11	51 13C3-PFBS-EIS	302.0 > 98.9	1358.684		1.00	2.32	1358.684	12.500	13.3	106.0			
12	55 13C2-4:2 FTS-EIS	329.0 > 80.8	1318.771		1.00	2.76	1318.771	12.500	12.7	101.9			
13	-1												
14	7 PFHxA	313.0 > 269.0	47.785	13769.273	1.00	3.06	0.043						YES
15	8 PFPeS	349.>80		1358.684	1.00								YES
16	9 HFPO-DA	285.1 > 168.9		3056.452	1.00								YES
17	10 5:3 FTCA	340.9 > 236.9		11771.928	1.00								YES
18	11 PFHpA	363.0 > 319	31.997	11771.928	1.00	3.42	0.034		0.00744				YES
19	12 ADONA	376.8 > 250.9	6.290	11771.928	1.00	3.58	0.007		0.0585				YES
20	57 13C2-PFHxA-EIS	315.0 > 270.0	13769.273		1.00	2.84	13769.273	12.500	12.7	101.9			
21	51 13C3-PFBS-EIS	302.0 > 98.9	1358.684		1.00	2.32	1358.684	12.500	13.3	106.0			
22	53 13C3-HFPO-DA-EIS	287.0 > 168.9	3056.452		1.00	3.06	3056.452	12.500	13.2	105.5			
23	59 13C4-PFHpA-EIS	367.2 > 321.8	11771.928		1.00	3.46	11771.928	12.500	12.9	103.5			
24	59 13C4-PFHpA-EIS	367.2 > 321.8	11771.928		1.00	3.46	11771.928	12.500	12.9	103.5			
25	59 13C4-PFHpA-EIS	367.2 > 321.8	11771.928		1.00	3.46	11771.928	12.500	12.9	103.5			
26	-1												
27	13 L-PFHxS	399 > 79.9	7.395	2625.496	1.00	3.56	0.035		0.0310				YES
28	15 6:2 FTS	427.0 > 407	6.582	1470.696	1.00	3.87	0.056		0.135				YES
29	16 L-PFOA	413 > 369	16.093	13373.703	1.00	3.96	0.015					2.608	NO
30	18 PFecHS	461 > 381.0		13373.703	1.00								YES
31	19 PFHpS	449.0 > 80		2775.516	1.00								YES
32	20 7:3 FTCA	440.9 > 336.9		13532.047	1.00								YES
33	61 13C3-PFHxS-EIS	402 > 80	2625.496		1.00	3.61	2625.496	12.500	12.3	98.5			
34	63 13C2-6:2 FTS-EIS	429.0 > 79.7	1470.696		1.00	3.91	1470.696	12.500	12.7	101.8			
35	69 13C2-PFOA-EIS	414.9 > 369.7	13373.703		1.00	3.97	13373.703	12.500	12.7	101.6			
36	69 13C2-PFOA-EIS	414.9 > 369.7	13373.703		1.00	3.97	13373.703	12.500	12.7	101.6			

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	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
38	65 13C5-PFNA-EIS	468.2 > 422.9	13532.047		1.00	4.43	13532.047	12.500	12.6	100.5	NO		
39	-1												
40	21 PFNA	463.0 > 418.8	24.124	13532.047	1.00	4.42	0.022		0.0148		NO		YES
41	22 PFOSA	498 > 78	11.394	5059.904	1.00	4.41	0.028		0.0199		NO		YES
42	23 L-PFOS	499 > 80	11.331	2775.516	1.00	4.53	0.051		0.0138		NO		YES
43	25 9CI-PF30NS	531 > 351	6.767	2775.516	1.00	4.70	0.030				NO		YES
44	26 PFDA	513 > 469	77.537	16498.447	1.00	4.81	0.059		0.0324		NO		YES
45	27 8:2 FTS	526.8 > 506.9		1351.971	1.00						NO		YES
46	65 13C5-PFNA-EIS	468.2 > 422.9	13532.047		1.00	4.43	13532.047	12.500	12.6	100.5	NO		
47	67 13C8-PFOSA-EIS	506 > 78	5059.904		1.00	4.47	5059.904	12.500	12.7	101.7	NO		
48	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
49	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
50	73 13C2-PFDA-EIS	515.1 > 469.9	16498.447		1.00	4.81	16498.447	12.500	12.7	101.5	NO		
51	75 13C2-8:2 FTS-EIS	529 > 80	1351.971		1.00	4.78	1351.971	12.500	13.0	104.0	NO		
52	-1												
53	28 PFNS	549 > 80	6.299	2775.516	1.00	4.89	0.028		0.0481		NO		YES
54	29 L-MeFOSAA	570 > 419		3822.817	1.00						NO		YES
55	31 L-EtFOSAA	583.9 > 419	12.938	4262.649	1.00	5.08	0.038		0.113		NO		YES
56	33 PFUdA	563.0 > 519	93.795	15898.801	1.00	5.15	0.074		0.0535		NO		YES
57	34 PFDS	598.8 > 79.9		2775.516	1.00						NO		YES
58	35 11CI-PF30UdS	631 > 451		18874.875	1.00						NO		YES
59	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
60	77 d3-N-MeFOSAA-EIS	573.1 > 419	3822.817		1.00	4.97	3822.817	12.500	12.3	98.1	NO		
61	81 d5-N-EtFOSAA-EIS	589.3 > 419	4262.649		1.00	5.13	4262.649	12.500	13.1	105.1	NO		
62	79 13C2-PFUdA-EIS	565 > 519.8	15898.801		1.00	5.15	15898.801	12.500	11.9	95.6	NO		
63	71 13C8-PFOS-EIS	507.1 > 80	2775.516		1.00	4.52	2775.516	12.500	14.3	114.4	NO		
64	83 13C2-PFDoA-EIS	614.9 > 569.9	18874.875		1.00	5.44	18874.875	12.500	13.3	106.0	NO		
65	-1												
66	36 10:2 FTS	626.9 > 607		962.137	1.00						NO		YES
67	37 PFDoA	612.9 > 569.0	166.326	18874.875	1.00	5.55	0.110		0.0632		NO		YES
68	38 N-MeFOSA	512.1 > 168.9	20.911	16015.051	1.00	5.53	0.195		0.0586		NO	1.883	NO
69	39 PFTrDA	662.9 > 618.9	44.254	18874.875	1.00	5.66	0.029				NO		YES
70	40 PFDoS	699 > 80	18.262	17704.652	1.00	5.73	0.013		0.125		NO	3.245	NO
71	41 PFTeDA	713.0 > 669.0	72.482	17704.652	1.00	5.92	0.051		0.0155		NO		YES
72	85 13C2-10:2 FTS-EIS	632.9 > 80.0	962.137		1.00	5.42	962.137	12.500	10.2	81.3	NO		

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	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83 13C2-PFDoA-EIS	614.9 > 569.9	18874.875		1.00	5.44	18874.875	12.500	13.3	106.0	NO		
74	87 d3-N-MeFOSA-EIS	515.2 > 168.9	16015.051		1.00	5.55	16015.051	149.200	128	85.5	NO		
75	83 13C2-PFDoA-EIS	614.9 > 569.9	18874.875		1.00	5.44	18874.875	12.500	13.3	106.0	NO		
76	89 13C2-PFTeDA-EIS	715.1 > 669.7	17704.652		1.00	5.92	17704.652	12.500	11.8	94.2	NO		
77	89 13C2-PFTeDA-EIS	715.1 > 669.7	17704.652		1.00	5.92	17704.652	12.500	11.8	94.2	NO		
78	-1												
79	42 N-EtFOSA	526.1 > 168.9	25.166	19620.338	1.00	6.00	0.191				NO	1.256	NO
80	43 PFHxDA	813 > 769	266.456	20568.559	1.00	6.28	0.162		0.0154		NO	21.411	NO
81	44 PFODA	913.1 > 868.8	150.465	20568.559	1.00	6.53	0.091		0.123		NO		
82	45 N-MeFOSE	616.1 > 58.9	74.470	17384.578	1.00	6.20	0.639		0.182		NO		
83	46 N-EtFOSE	630.1 > 58.9	55.655	19316.719	1.00	6.39	0.430		0.348		NO		
84	48 13C3-PFBA-RSD	216.1 > 171.8	6249.198	55.419	1.00	1.12	1409.534	12.500	1650	13203.6	YES		
85	91 d5-N-ETFOSA-EIS	531.1 > 168.9	19620.338		1.00	6.01	19620.338	149.200	135	90.8	NO		
86	93 13C2-PFHxDA-EIS	815 > 769.7	20568.559		1.00	6.28	20568.559	12.500	11.4	91.5	NO		
87	93 13C2-PFHxDA-EIS	815 > 769.7	20568.559		1.00	6.28	20568.559	12.500	11.4	91.5	NO		
88	95 d7-N-MeFOSE-EIS	623.1 > 58.9	17384.578		1.00	6.23	17384.578	149.200	128	85.7	NO		
89	97 d9-N-EtFOSE-EIS	639.2 > 58.8	19316.719		1.00	6.38	19316.719	149.200	133	89.0	NO		
90	50 13C3-PFPeA-RSD	266.0 > 221.8	11664.176	5.026	1.00	2.03	29009.590	12.500	38000	30390...	YES		
91	-1												
92	52 13C3-PFBS-RSD	302.0 > 98.9			1.00			12.500			NO		
93	54 13C3-HFPO-DA-RSD	287.0 > 168.9		5.026	1.00			12.500			NO		
94	56 13C2-4:2 FTS-RSD	329.0 > 80.8			1.00			12.500			NO		
95	58 13C2-PFHxA-RSD	315.0 > 270.0	13769.273	5.026	1.00	2.84	34245.108	12.500	38300	30668...	YES		
96	60 13C4-PFHpA-RSD	367.2 > 321.8		5.026	1.00			12.500			NO		
97	62 13C3-PFHxS-RSD	402 > 80			1.00			12.500			NO		
98	64 13C2-6:2 FTS-RSD	429.0 > 79.7	1470.696	17.595	1.00	3.91	1044.825	12.500	2210	17682.9	YES		
99	66 13C5-PFNA-RSD	468.2 > 422.9			1.00			12.500			NO		
100	68 13C8-PFOA-RSD	506 > 78	5059.904	5.603	1.00	4.47	11288.381	12.500	27300	21841...	YES		
101	70 13C2-PFOA-RSD	414.9 > 369.7			1.00			12.500			NO		
102	72 13C8-PFOS-RSD	507.1 > 80	2775.516	17.595	1.00	4.52	1971.807	12.500	2330	18608.9	YES		
103	74 13C2-PFDA-RSD	515.1 > 469.9			1.00			12.500			NO		
104	-1												
105	76 13C2-8:2 FTS-RSD	529 > 80	1351.971	17.595	1.00	4.78	960.480	12.500	2040	16317.9	YES		
106	78 d3-N-MeFOSAA-RSD	573.1 > 419	3822.817	5.603	1.00	4.97	8528.505	12.500	25800	20638...	YES		
107	80 13C2-PFUDa-RSD	565 > 519.8	15898.801	5.603	1.00	5.15	35469.394	12.500	27600	22092...	YES		
108	82 d5-N-EtFOSAA-RSD	589.3 > 419	4262.649	5.603	1.00	5.13	9509.747	12.500	29100	23249...	YES		

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	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	84	13C2-PFDoA-RSD	614.9 > 569.9	18874.875		1.00	5.44		12.500					
110	86	13C2-10:2 FTS-RSD	632.9 > 80.0	962.137	17.595	1.00	5.42	683.530	12.500	1980	15866.2	YES		
111	88	d3-N-MeFOSA-RSD	515.2 > 168.9	16015.051	5.603	1.00	5.55	35728.741	149.200	277000	18564...	YES		
112	90	13C2-PFTeDA-RSD	715.1 > 669.7	17704.652	5.603	1.00	5.92	39498.153	12.500	25400	20307...	YES		
113	92	d5-N-ETFOSA-RSD	531.1 > 168.9	19620.338	5.603	1.00	6.01	43771.948	149.200	293000	19659...	YES		
114	94	13C2-PFHxDA-RSD	815 > 769.7	20568.559	5.603	1.00	6.28	45887.380	12.500	24800	19814...	YES		
115	96	d7-N-MeFOSE-RSD	623.1 > 58.9	17384.578	5.603	1.00	6.23	38784.084	149.200	278000	18655...	YES		
116	98	d9-N-EtFOSE-RSD	639.2 > 58.8	19316.719	5.603	1.00	6.38	43094.590	149.200	284000	19013...	YES		
117	-1													
118	99	13C4-PFBA	217.0 > 172.0	55.419	55.419	1.00	1.12	12.500	12.500	12.5	100.0	NO		
119	1...	13C5-PFHxA	318.0 > 272.9	5.026	5.026	1.00	2.84	12.500	12.500	12.5	100.0	NO		
120	1...	13C8-PFOA	420.9 > 376.0			1.00			12.500			NO		
121	1...	18O2-PFHxS	403.0 > 103			1.00			12.500			NO		
122	1...	13C9-PFNA	472.2 > 426.9			1.00			12.500			NO		
123	1...	13C4-PFOS	503 > 79.7	17.595	17.595	1.00	4.52	12.500	12.500	12.5	100.0	NO		
124	1...	13C6-PFDA	519.1 > 473.7			1.00			12.500			NO		
125	1...	13C7-PFUDa	570.1 > 524.8	5.603	5.603	1.00	5.16	12.500	12.500	12.5	100.0	NO		

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

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High points
3:3 FTCA: 100
5:3 FTCA: 100
7:3 FTCA: 100
HFD-DH: 250

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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 08:33:50
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Compound name: PFBA

Correlation coefficient: $r = 0.999694$, $r^2 = 0.999388$

Calibration curve: $1.03125 * x + 0.0440308$

Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)

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

✓ FR 07/07/2020

1	200706P1-19	Standard	0.250	1.62	224.138	8928.727	0.314	0.3	4.6	NO	0.999	NO	MM
2	200706P1-20	Standard	0.500	1.63	361.015	8907.738	0.507	0.4	-10.3	NO	0.999	NO	MM
3	200706P1-21	Standard	1.000	1.62	709.130	8876.085	0.999	0.9	-7.4	NO	0.999	NO	MM
4	200706P1-22	Standard	2.000	1.62	1468.812	8766.956	2.094	2.0	-0.6	NO	0.999	NO	MM
5	200706P1-23	Standard	5.000	1.62	4013.645	9407.555	5.333	5.1	2.6	NO	0.999	NO	MM
6	200706P1-24	Standard	10.000	1.62	7317.820	8620.372	10.611	10.2	2.5	NO	0.999	NO	MM
7	200706P1-25	Standard	50.000	1.62	38762.715	8816.157	54.960	53.3	6.5	NO	0.999	NO	MM
8	200706P1-26	Standard	100.000	1.62	78662.734	9290.569	105.837	102.6	2.6	NO	0.999	NO	MM
9	200706P1-27	Standard	250.000	1.62	191600.359	9147.883	261.810	253.8	1.5	NO	0.999	NO	MM
10	200706P1-28	Standard	500.000	1.62	379082.063	9375.081	505.438	490.1	-2.0	NO	0.999	NO	MM

Compound name: PFPrS

Coefficient of Determination: $R^2 = 0.999729$

Calibration curve: $0.000149868 * x^2 + 1.33446 * x + -0.0189522$

Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	1.98	36.254	1430.774	0.317	0.3	0.6	NO	1.000	NO	MM
2	200706P1-20	Standard	0.500	1.97	66.678	1426.593	0.584	0.5	-9.6	NO	1.000	NO	MM
3	200706P1-21	Standard	1.000	1.96	126.238	1288.172	1.225	0.9	-6.8	NO	1.000	NO	MM
4	200706P1-22	Standard	2.000	1.97	309.717	1362.586	2.841	2.1	7.1	NO	1.000	NO	MM
5	200706P1-23	Standard	5.000	1.97	806.974	1453.176	6.941	5.2	4.3	NO	1.000	NO	MM
6	200706P1-24	Standard	10.000	1.97	1418.837	1300.054	13.642	10.2	2.3	NO	1.000	NO	MM
7	200706P1-25	Standard	50.000	1.97	7679.092	1359.451	70.608	52.6	5.2	NO	1.000	NO	MM
8	200706P1-26	Standard	100.000	1.97	15324.713	1462.386	130.991	97.1	-2.9	NO	1.000	NO	MM
9	200706P1-27	Standard	250.000	1.97	37135.824	1358.583	341.678	249.1	-0.4	NO	1.000	NO	MM
10	200706P1-28	Standard	500.000	1.96	72343.227	1281.324	705.747	500.7	0.1	NO	1.000	NO	MM

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Compound name: 3:3 FTCA

Coefficient of Determination: $R^2 = 0.999100$

Calibration curve: $-0.000123651 \cdot x^2 + 0.0842724 \cdot x + -0.00450239$

Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	2.45	16.831	12471.803	0.017	0.3	1.5	NO	0.999	NO	MM
2	200706P1-20	Standard	0.500	2.44	36.185	12358.682	0.037	0.5	-2.4	NO	0.999	NO	bb
3	200706P1-21	Standard	1.000	2.45	74.965	12332.146	0.076	1.0	-4.4	NO	0.999	NO	MM
4	200706P1-22	Standard	2.000	2.44	146.643	12447.334	0.147	1.8	-9.7	NO	0.999	NO	bb
5	200706P1-23	Standard	5.000	2.44	406.714	13036.096	0.390	4.7	-5.7	NO	0.999	NO	bb
6	200706P1-24	Standard	10.000	2.44	767.598	12020.107	0.798	9.7	-3.4	NO	0.999	NO	MM
7	200706P1-25	Standard	50.000	2.45	4122.975	12771.221	4.035	51.9	3.8	NO	0.999	NO	MM
8	200706P1-26	Standard	100.000	2.44	7452.707	13078.910	7.123	98.9	-1.1	NO	0.999	NO	bb
9	200706P1-27	Standard	250.000	2.44	4127.253	12597.564	4.095	52.7	-78.9	YES	0.999	NO	MMX
10	200706P1-28	Standard	500.000	2.44	7500.442	11987.368	7.821	110.9	-77.8	YES	0.999	NO	MMX

Compound name: PFPeA

Coefficient of Determination: $R^2 = 0.999942$

Calibration curve: $-4.09095e-005 \cdot x^2 + 0.926116 \cdot x + 0.00438806$

Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	2.60	238.196	12471.803	0.239	0.3	1.2	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	2.60	460.626	12358.682	0.466	0.5	-0.3	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	2.60	850.795	12332.146	0.862	0.9	-7.4	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	2.59	1880.688	12447.334	1.889	2.0	1.7	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	2.60	5018.948	13036.096	4.813	5.2	3.9	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	2.59	9078.976	12020.107	9.441	10.2	1.9	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	2.60	47747.203	12771.221	46.733	50.6	1.1	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	2.59	96911.305	13078.910	92.622	100.5	0.5	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	2.59	228499.891	12597.564	226.730	247.5	-1.0	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	2.59	435206.156	11987.368	453.817	501.1	0.2	NO	1.000	NO	bb

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Compound name: PFBS

Coefficient of Determination: $R^2 = 0.999832$

Calibration curve: $-0.000209368 * x^2 + 2.56013 * x + 0.0091719$

Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	2.87	67.622	1430.774	0.591	0.2	-9.1	NO	1.000	NO	MM
2	200706P1-20	Standard	0.500	2.87	145.417	1426.593	1.274	0.5	-1.2	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	2.87	250.462	1288.172	2.430	0.9	-5.4	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	2.87	595.881	1362.586	5.466	2.1	6.6	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	2.87	1584.747	1453.176	13.632	5.3	6.5	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	2.87	2727.353	1300.054	26.223	10.2	2.5	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	2.87	14348.611	1359.451	131.934	51.7	3.5	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	2.87	29385.908	1462.386	251.181	98.9	-1.1	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	2.87	67410.695	1358.583	620.230	247.3	-1.1	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	2.87	126203.414	1281.324	1231.182	501.5	0.3	NO	1.000	NO	bb

Compound name: 4:2 FTS

Coefficient of Determination: $R^2 = 0.999612$

Calibration curve: $-0.00110944 * x^2 + 2.87043 * x + -0.114307$

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	3.31	61.119	1271.797	0.601	0.2	-0.4	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	3.31	123.574	1275.190	1.211	0.5	-7.6	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	3.31	282.822	1294.699	2.731	1.0	-0.9	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	3.31	597.155	1286.646	5.801	2.1	3.1	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	3.31	1471.553	1387.692	13.255	4.7	-6.7	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	3.31	2754.299	1261.296	27.296	9.6	-4.2	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	3.31	14316.868	1305.578	137.074	48.7	-2.6	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	3.30	27991.281	1218.574	287.132	104.3	4.3	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	3.30	60501.387	1180.548	640.607	246.7	-1.3	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	3.31	109654.984	1181.993	1159.641	501.1	0.2	NO	1.000	NO	bb

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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

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Compound name: PFHxA

Correlation coefficient: $r = 0.999727$, $r^2 = 0.999454$

Calibration curve: $1.03548 * x + 0.0754497$

Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	3.38	431.505	14936.540	0.361	0.3	10.4	NO	0.999	NO	bb
2	200706P1-20	Standard	0.500	3.39	599.944	14827.862	0.506	0.4	-16.9	NO	0.999	NO	bb
3	200706P1-21	Standard	1.000	3.39	1380.920	14195.111	1.216	1.1	10.1	NO	0.999	NO	bb
4	200706P1-22	Standard	2.000	3.39	2554.808	14182.590	2.252	2.1	5.1	NO	0.999	NO	bb
5	200706P1-23	Standard	5.000	3.39	6792.274	15680.674	5.415	5.2	3.1	NO	0.999	NO	MM
6	200706P1-24	Standard	10.000	3.39	12631.318	13629.407	11.585	11.1	11.1	NO	0.999	NO	bb
7	200706P1-25	Standard	50.000	3.39	63029.477	14633.210	53.841	51.9	3.8	NO	0.999	NO	bb
8	200706P1-26	Standard	100.000	3.39	125325.680	14554.702	107.633	103.9	3.9	NO	0.999	NO	bb
9	200706P1-27	Standard	250.000	3.39	294457.438	14243.385	258.416	249.5	-0.2	NO	0.999	NO	bb
10	200706P1-28	Standard	500.000	3.39	566684.250	13865.558	510.874	493.3	-1.3	NO	0.999	NO	bb

Compound name: PFPeS

Coefficient of Determination: $R^2 = 0.999616$

Calibration curve: $-0.000388732 * x^2 + 2.09219 * x + -0.0212532$

Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	3.57	46.266	1430.774	0.404	0.2	-18.7	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	3.57	120.203	1426.593	1.053	0.5	2.7	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	3.57	248.538	1288.172	2.412	1.2	16.3	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	3.57	412.033	1362.586	3.780	1.8	-9.1	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	3.57	1295.522	1453.176	11.144	5.3	6.8	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	3.57	2134.522	1300.054	20.523	9.8	-1.6	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	3.57	11848.764	1359.451	108.948	52.6	5.2	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	3.57	23990.066	1462.386	205.059	99.9	-0.1	NO	1.000	NO	MM
9	200706P1-27	Standard	250.000	3.57	53147.805	1358.583	489.000	244.9	-2.0	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	3.57	97715.898	1281.324	953.271	502.6	0.5	NO	1.000	NO	MM

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Compound name: HFPO-DA

Coefficient of Determination: $R^2 = 0.999787$

Calibration curve: $-0.00042067 * x^2 + 1.01205 * x + -0.0211231$

Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	3.58	39.732	2996.421	0.166	0.2	-26.1	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	3.59	133.603	3291.715	0.507	0.5	4.5	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	3.59	284.533	3299.751	1.078	1.1	8.6	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	3.59	479.142	2848.392	2.103	2.1	5.0	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	3.59	1296.487	3231.837	5.015	5.0	-0.3	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	3.59	2324.764	2853.265	10.185	10.1	1.3	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	3.59	12478.461	3226.841	48.339	48.8	-2.5	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	3.59	24613.289	3134.820	98.145	101.3	1.3	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	3.59	57722.828	3186.079	226.465	249.7	-0.1	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	3.59	110444.586	3076.034	448.811	586.4	17.3	NO	1.000	NO	bbX

Compound name: 5:3 FTCA

Coefficient of Determination: $R^2 = 0.999294$

Calibration curve: $-0.000279748 * x^2 + 0.179933 * x + -0.0070197$

Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	3.92	44.897	12966.955	0.043	0.3	11.9	NO	0.999	NO	bb
2	200706P1-20	Standard	0.500	3.93	71.677	12233.538	0.073	0.4	-10.7	NO	0.999	NO	bb
3	200706P1-21	Standard	1.000	3.92	161.051	12536.285	0.161	0.9	-6.7	NO	0.999	NO	bb
4	200706P1-22	Standard	2.000	3.92	342.720	12763.619	0.336	1.9	-4.5	NO	0.999	NO	bb
5	200706P1-23	Standard	5.000	3.92	881.611	12970.818	0.850	4.8	-4.1	NO	0.999	NO	bb
6	200706P1-24	Standard	10.000	3.92	1668.424	12289.430	1.697	9.6	-3.9	NO	0.999	NO	bb
7	200706P1-25	Standard	50.000	3.92	8728.139	12769.633	8.544	51.7	3.3	NO	0.999	NO	bb
8	200706P1-26	Standard	100.000	3.92	15605.692	12943.463	15.071	99.1	-0.9	NO	0.999	NO	bb
9	200706P1-27	Standard	250.000	3.92	8733.977	11840.771	9.220	56.2	-77.5	YES	0.999	NO	bbX
10	200706P1-28	Standard	500.000	3.92	16260.669	11650.135	17.447	119.0	-76.2	YES	0.999	NO	bbX

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Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.999869$

Calibration curve: $-0.000182594 \cdot x^2 + 1.3002 \cdot x + 0.0362384$

Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	3.99	418.160	12966.955	0.403	0.3	12.9	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	3.99	658.920	12233.538	0.673	0.5	-2.0	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	3.98	1310.164	12536.285	1.306	1.0	-2.3	NO	1.000	NO	MM
4	200706P1-22	Standard	2.000	3.98	2635.286	12763.619	2.581	2.0	-2.1	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	3.98	6939.015	12970.818	6.687	5.1	2.4	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	3.98	12993.593	12289.430	13.216	10.2	1.5	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	3.98	67866.617	12769.633	66.434	51.4	2.9	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	3.98	129715.906	12943.463	125.272	97.7	-2.3	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	3.98	297924.625	11840.771	314.511	250.7	0.3	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	3.98	563375.000	11650.135	604.473	500.0	-0.0	NO	1.000	NO	bb

Compound name: ADONA

Coefficient of Determination: $R^2 = 0.999933$

Calibration curve: $-0.000211186 \cdot x^2 + 2.1692 \cdot x + 0.077206$

Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.10	554.163	12966.955	0.534	0.2	-15.7	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	4.10	1238.257	12233.538	1.265	0.5	9.5	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	4.10	2290.803	12536.285	2.284	1.0	1.8	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	4.10	4434.866	12763.619	4.343	2.0	-1.6	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	4.10	11838.877	12970.818	11.409	5.2	4.5	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	4.10	21671.572	12289.430	22.043	10.1	1.4	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	4.10	112033.008	12769.633	109.667	50.8	1.5	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	4.10	219256.641	12943.463	211.745	98.5	-1.5	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	4.09	501761.875	11840.771	529.697	250.3	0.1	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	4.09	961901.500	11650.135	1032.071	500.1	0.0	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:02:28 Pacific Daylight Time

Compound name: L-PFHxS

Coefficient of Determination: $R^2 = 0.998975$

Calibration curve: $-1.6968e-005 * x^2 + 1.09268 * x + 0.0771315$

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.13	72.119	2847.260	0.317	0.2	-12.3	NO	0.999	NO	MM
2	200706P1-20	Standard	0.500	4.13	145.439	2779.479	0.654	0.5	5.6	NO	0.999	NO	MM
3	200706P1-21	Standard	1.000	4.13	249.120	2651.918	1.174	1.0	0.4	NO	0.999	NO	MM
4	200706P1-22	Standard	2.000	4.13	541.163	2816.980	2.401	2.1	6.4	NO	0.999	NO	MM
5	200706P1-23	Standard	5.000	4.13	1349.779	3217.580	5.244	4.7	-5.4	NO	0.999	NO	MM
6	200706P1-24	Standard	10.000	4.13	2401.274	2751.402	10.909	9.9	-0.9	NO	0.999	NO	MM
7	200706P1-25	Standard	50.000	4.13	12677.968	2742.332	57.788	52.9	5.7	NO	0.999	NO	MM
8	200706P1-26	Standard	100.000	4.13	24617.160	2706.095	113.712	104.2	4.2	NO	0.999	NO	MM
9	200706P1-27	Standard	250.000	4.13	54337.816	2614.377	259.803	238.6	-4.6	NO	0.999	NO	MM
10	200706P1-28	Standard	500.000	4.13	108657.328	2482.339	547.152	504.6	0.9	NO	0.999	NO	MM

Compound name: 6:2 FTS

Coefficient of Determination: $R^2 = 0.997712$

Calibration curve: $-0.000191359 * x^2 + 1.14566 * x + 0.00198468$

Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.46	32.399	1614.767	0.251	0.2	-13.1	NO	0.998	NO	bb
2	200706P1-20	Standard	0.500	4.45	79.715	1610.712	0.619	0.5	7.7	NO	0.998	NO	bb
3	200706P1-21	Standard	1.000	4.46	131.763	1404.711	1.173	1.0	2.2	NO	0.998	NO	bb
4	200706P1-22	Standard	2.000	4.45	272.289	1542.265	2.207	1.9	-3.7	NO	0.998	NO	bb
5	200706P1-23	Standard	5.000	4.45	750.350	1637.135	5.729	5.0	0.1	NO	0.998	NO	bb
6	200706P1-24	Standard	10.000	4.45	1442.196	1609.265	11.202	9.8	-2.1	NO	0.998	NO	bb
7	200706P1-25	Standard	50.000	4.45	7648.623	1440.831	66.356	58.5	17.0	NO	0.998	NO	bb
8	200706P1-26	Standard	100.000	4.45	13593.849	1590.387	106.844	94.8	-5.2	NO	0.998	NO	bb
9	200706P1-27	Standard	250.000	4.45	31713.313	1483.970	267.132	243.0	-2.8	NO	0.998	NO	bb
10	200706P1-28	Standard	500.000	4.45	62559.508	1478.616	528.869	504.1	0.8	NO	0.998	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:02:28 Pacific Daylight Time

Compound name: L-PFOA

Coefficient of Determination: $R^2 = 0.999173$

Calibration curve: $-0.000202972 * x^2 + 1.13013 * x + 0.0543225$

Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.51	402.750	14231.127	0.354	0.3	6.0	NO	0.999	NO	bb
2	200706P1-20	Standard	0.500	4.51	746.570	14540.555	0.642	0.5	4.0	NO	0.999	NO	MM
3	200706P1-21	Standard	1.000	4.51	1359.390	14506.504	1.171	1.0	-1.1	NO	0.999	NO	bb
4	200706P1-22	Standard	2.000	4.51	2821.796	14455.132	2.440	2.1	5.6	NO	0.999	NO	bb
5	200706P1-23	Standard	5.000	4.51	7101.591	14986.464	5.923	5.2	4.0	NO	0.999	NO	bb
6	200706P1-24	Standard	10.000	4.51	12739.101	14430.539	11.035	9.7	-2.7	NO	0.999	NO	bb
7	200706P1-25	Standard	50.000	4.51	64434.711	14123.512	57.028	50.9	1.8	NO	0.999	NO	bb
8	200706P1-26	Standard	100.000	4.50	125726.648	13491.245	116.489	105.0	5.0	NO	0.999	NO	bb
9	200706P1-27	Standard	250.000	4.50	279348.875	13468.371	259.264	239.7	-4.1	NO	0.999	NO	bb
10	200706P1-28	Standard	500.000	4.50	516969.813	12462.934	518.507	504.5	0.9	NO	0.999	NO	bb

Compound name: PFecHS

Coefficient of Determination: $R^2 = 0.999583$

Calibration curve: $-1.03658e-005 * x^2 + 0.226457 * x + -0.0088356$

Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.52	50.094	14231.127	0.044	0.2	-6.7	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	4.52	101.628	14540.555	0.087	0.4	-15.0	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	4.52	253.716	14506.504	0.219	1.0	0.4	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	4.52	534.832	14455.132	0.462	2.1	4.1	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	4.52	1394.911	14986.464	1.163	5.2	3.6	NO	1.000	NO	bd
6	200706P1-24	Standard	10.000	4.52	2494.757	14430.539	2.161	9.6	-4.1	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	4.52	12767.402	14123.512	11.300	50.1	0.1	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	4.52	25309.250	13491.245	23.450	104.1	4.1	NO	1.000	NO	MM
9	200706P1-27	Standard	250.000	4.52	58804.926	13468.371	54.577	243.8	-2.5	NO	1.000	NO	MM
10	200706P1-28	Standard	500.000	4.52	110806.039	12462.934	111.136	502.3	0.5	NO	1.000	NO	bb

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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:02:28 Pacific Daylight Time

Compound name: PFHpS

Coefficient of Determination: $R^2 = 0.999887$

Calibration curve: $-0.000106932 * x^2 + 0.973986 * x + 0.00516936$

Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.61	53.117	2884.344	0.230	0.2	-7.6	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	4.61	138.128	2845.779	0.607	0.6	23.5	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	4.61	218.210	3008.333	0.907	0.9	-7.4	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	4.61	453.914	2875.965	1.973	2.0	1.0	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	4.61	1119.986	3118.928	4.489	4.6	-7.9	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	4.61	2148.840	2818.869	9.529	9.8	-2.1	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	4.61	11341.566	2950.445	48.050	49.6	-0.8	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	4.61	21786.094	2787.149	97.708	101.4	1.4	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	4.61	50363.949	2663.154	236.392	249.5	-0.2	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	4.61	94909.617	2577.664	460.250	500.0	-0.0	NO	1.000	NO	bb

Compound name: 7:3 FTCA

Coefficient of Determination: $R^2 = 0.999371$

Calibration curve: $-0.000492227 * x^2 + 0.313584 * x + 0.000408564$

Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.93	111.070	14827.067	0.094	0.3	19.0	NO	0.999	NO	bb
2	200706P1-20	Standard	0.500	4.93	194.742	15608.248	0.156	0.5	-0.7	NO	0.999	NO	bb
3	200706P1-21	Standard	1.000	4.93	314.573	15269.105	0.258	0.8	-17.9	NO	0.999	NO	bb
4	200706P1-22	Standard	2.000	4.93	719.897	14161.967	0.635	2.0	1.6	NO	0.999	NO	bb
5	200706P1-23	Standard	5.000	4.93	2008.997	15977.628	1.572	5.1	1.0	NO	0.999	NO	bb
6	200706P1-24	Standard	10.000	4.93	3579.841	15164.249	2.951	9.6	-4.5	NO	0.999	NO	bb
7	200706P1-25	Standard	50.000	4.93	18687.814	15860.334	14.728	51.1	2.1	NO	0.999	NO	bb
8	200706P1-26	Standard	100.000	4.93	32013.811	15209.911	26.310	99.4	-0.6	NO	0.999	NO	bb
9	200706P1-27	Standard	250.000	4.93	17797.135	14402.273	15.446	53.8	-78.5	YES	0.999	NO	bbX
10	200706P1-28	Standard	500.000	4.93	30134.631	13593.457	27.711	106.0	-78.8	YES	0.999	NO	bbX

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

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Compound name: PFNA

Coefficient of Determination: $R^2 = 0.999826$

Calibration curve: $-9.83022e-005 * x^2 + 1.11707 * x + 0.0195168$

Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.94	353.683	14827.067	0.298	0.2	-0.2	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	4.94	686.247	15608.248	0.550	0.5	-5.1	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	4.94	1390.156	15269.105	1.138	1.0	0.1	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	4.94	2837.898	14161.967	2.505	2.2	11.3	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	4.94	6815.411	15977.628	5.332	4.8	-4.8	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	4.94	13724.298	15164.249	11.313	10.1	1.2	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	4.94	68681.820	15860.334	54.130	48.6	-2.7	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	4.94	133434.094	15209.911	109.660	99.0	-1.0	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	4.94	319612.250	14402.273	277.397	254.0	1.6	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	4.94	578770.500	13593.457	532.214	496.3	-0.3	NO	1.000	NO	bb

Compound name: PFOSA

Coefficient of Determination: $R^2 = 0.999934$

Calibration curve: $-5.74782e-005 * x^2 + 0.690246 * x + 0.00511601$

Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	4.99	104.279	7350.009	0.177	0.2	-0.2	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	4.99	185.141	7155.503	0.323	0.5	-7.8	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	4.99	396.909	6949.531	0.714	1.0	2.7	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	4.99	820.227	7224.200	1.419	2.0	2.5	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	4.98	2290.898	7949.741	3.602	5.2	4.3	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	4.99	3983.124	7142.181	6.971	10.1	1.0	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	4.99	20044.924	7268.384	34.473	50.1	0.3	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	4.99	39994.836	7226.727	69.179	101.1	1.1	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	4.99	90138.398	6740.430	167.160	247.3	-1.1	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	4.99	168738.094	6362.523	331.508	501.2	0.2	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time
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Compound name: L-PFOS

Coefficient of Determination: $R^2 = 0.999703$

Calibration curve: $-0.000187013 \cdot x^2 + 1.27905 \cdot x + -0.0944633$

Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.02	53.010	2884.344	0.230	0.3	1.4	NO	1.000	NO	MM
2	200706P1-20	Standard	0.500	5.02	112.943	2845.779	0.496	0.5	-7.7	NO	1.000	NO	MM
3	200706P1-21	Standard	1.000	5.02	242.326	3008.333	1.007	0.9	-13.9	NO	1.000	NO	MM
4	200706P1-22	Standard	2.000	5.02	569.359	2875.965	2.475	2.0	0.5	NO	1.000	NO	MM
5	200706P1-23	Standard	5.000	5.02	1445.085	3118.928	5.792	4.6	-7.9	NO	1.000	NO	MM
6	200706P1-24	Standard	10.000	5.02	2835.026	2818.869	12.572	9.9	-0.8	NO	1.000	NO	MM
7	200706P1-25	Standard	50.000	5.02	14350.122	2950.445	60.796	47.9	-4.1	NO	1.000	NO	MM
8	200706P1-26	Standard	100.000	5.02	28907.240	2787.149	129.645	103.0	3.0	NO	1.000	NO	MM
9	200706P1-27	Standard	250.000	5.02	65694.383	2663.154	308.349	250.3	0.1	NO	1.000	NO	MM
10	200706P1-28	Standard	500.000	5.02	122082.406	2577.664	592.021	499.4	-0.1	NO	1.000	NO	MM

Compound name: 9CI-PF3ONS

Coefficient of Determination: $R^2 = 0.999799$

Calibration curve: $-0.000316616 \cdot x^2 + 2.84896 \cdot x + 0.0165096$

Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.24	199.800	2884.344	0.866	0.3	19.3	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	5.24	286.510	2845.779	1.258	0.4	-12.8	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	5.23	691.518	3008.333	2.873	1.0	0.3	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	5.24	1367.717	2875.965	5.945	2.1	4.1	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	5.23	3352.800	3118.928	13.437	4.7	-5.7	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	5.23	6173.412	2818.869	27.375	9.6	-3.9	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	5.24	33013.273	2950.445	139.866	49.4	-1.3	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	5.23	61952.328	2787.149	277.848	98.6	-1.4	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	5.23	150274.875	2663.154	705.343	254.8	1.9	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	5.23	276304.250	2577.664	1339.897	497.8	-0.4	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time
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Compound name: PFDA

Coefficient of Determination: $R^2 = 0.999933$

Calibration curve: $-0.000101556 * x^2 + 0.846184 * x + 0.0441258$

Response type: Internal Std (Ref 73), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.31	370.801	18137.861	0.256	0.2	-0.1	NO	1.000	NO	MM
2	200706P1-20	Standard	0.500	5.31	761.356	19338.936	0.492	0.5	5.9	NO	1.000	NO	MM
3	200706P1-21	Standard	1.000	5.31	1374.172	18429.492	0.932	1.0	4.9	NO	1.000	NO	MM
4	200706P1-22	Standard	2.000	5.31	2759.825	19687.527	1.752	2.0	1.0	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	5.31	7278.292	19663.701	4.627	5.4	8.4	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	5.31	12883.442	18643.387	8.638	10.2	1.7	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	5.31	66944.820	19964.771	41.914	49.8	-0.4	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	5.31	132335.688	19861.670	83.286	99.6	-0.4	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	5.31	314015.188	19146.473	205.009	249.7	-0.1	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	5.31	582916.063	18310.025	397.949	500.3	0.1	NO	1.000	NO	bb

Compound name: 8:2 FTS

Coefficient of Determination: $R^2 = 0.998921$

Calibration curve: $-0.000876709 * x^2 + 1.37036 * x + -0.084038$

Response type: Internal Std (Ref 75), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.29	19.813	1541.506	0.161	0.2	-28.6	NO	0.999	NO	bb
2	200706P1-20	Standard	0.500	5.29	101.800	1580.063	0.805	0.6	29.9	NO	0.999	NO	bb
3	200706P1-21	Standard	1.000	5.29	163.951	1512.862	1.355	1.1	5.1	NO	0.999	NO	bb
4	200706P1-22	Standard	2.000	5.29	297.397	1542.955	2.409	1.8	-8.9	NO	0.999	NO	bb
5	200706P1-23	Standard	5.000	5.29	644.510	1469.703	5.482	4.1	-18.6	NO	0.999	NO	bb
6	200706P1-24	Standard	10.000	5.29	1466.993	1379.408	13.294	9.8	-1.8	NO	0.999	NO	bb
7	200706P1-25	Standard	50.000	5.29	7679.081	1477.570	64.964	49.0	-2.0	NO	0.999	NO	bb
8	200706P1-26	Standard	100.000	5.29	13518.479	1351.704	125.013	97.4	-2.6	NO	0.999	NO	bb
9	200706P1-27	Standard	250.000	5.29	34192.176	1433.317	298.191	261.4	4.5	NO	0.999	NO	bb
10	200706P1-28	Standard	500.000	5.29	57850.203	1567.050	461.458	491.1	-1.8	NO	0.999	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:02:28 Pacific Daylight Time

Compound name: PFNS

Coefficient of Determination: $R^2 = 0.999393$

Calibration curve: $-0.000161375 \cdot x^2 + 1.33537 \cdot x + -0.0984438$

Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.37	43.194	2884.344	0.187	0.2	-14.4	NO	0.999	NO	bb
2	200706P1-20	Standard	0.500	5.37	107.916	2845.779	0.474	0.4	-14.3	NO	0.999	NO	bb
3	200706P1-21	Standard	1.000	5.37	283.382	3008.333	1.177	1.0	-4.4	NO	0.999	NO	bb
4	200706P1-22	Standard	2.000	5.37	662.211	2875.965	2.878	2.2	11.5	NO	0.999	NO	bb
5	200706P1-23	Standard	5.000	5.37	1595.811	3118.928	6.396	4.9	-2.7	NO	0.999	NO	bb
6	200706P1-24	Standard	10.000	5.37	2824.457	2818.869	12.525	9.5	-5.4	NO	0.999	NO	bb
7	200706P1-25	Standard	50.000	5.37	15054.567	2950.445	63.781	48.1	-3.8	NO	0.999	NO	bb
8	200706P1-26	Standard	100.000	5.37	30957.924	2787.149	138.842	105.4	5.4	NO	0.999	NO	bb
9	200706P1-27	Standard	250.000	5.37	67847.297	2663.154	318.454	245.9	-1.7	NO	0.999	NO	bb
10	200706P1-28	Standard	500.000	5.37	129647.547	2577.664	628.707	501.2	0.2	NO	0.999	NO	bb

Compound name: L-MeFOSAA

Coefficient of Determination: $R^2 = 0.999777$

Calibration curve: $-0.000326513 \cdot x^2 + 1.22499 \cdot x + -0.0565243$

Response type: Internal Std (Ref 77), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.46	71.988	4408.401	0.204	0.2	-14.9	NO	1.000	NO	MM
2	200706P1-20	Standard	0.500	5.46	224.694	4346.208	0.646	0.6	14.8	NO	1.000	NO	MM
3	200706P1-21	Standard	1.000	5.46	360.872	4230.765	1.066	0.9	-8.3	NO	1.000	NO	MM
4	200706P1-22	Standard	2.000	5.46	790.665	4359.749	2.267	1.9	-5.1	NO	1.000	NO	MM
5	200706P1-23	Standard	5.000	5.46	2062.203	4489.936	5.741	4.7	-5.2	NO	1.000	NO	MM
6	200706P1-24	Standard	10.000	5.46	4063.961	4139.533	12.272	10.1	0.9	NO	1.000	NO	MM
7	200706P1-25	Standard	50.000	5.46	20269.383	4321.417	58.631	48.5	-2.9	NO	1.000	NO	MM
8	200706P1-26	Standard	100.000	5.46	41898.453	4277.929	122.426	102.8	2.8	NO	1.000	NO	MM
9	200706P1-27	Standard	250.000	5.46	94387.063	4146.951	284.507	248.8	-0.5	NO	1.000	NO	MM
10	200706P1-28	Standard	500.000	5.46	179868.844	4234.389	530.976	500.2	0.0	NO	1.000	NO	MM

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:07:57 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 08:33:50
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Compound name: L-EtFOSAA

Coefficient of Determination: $R^2 = 0.999878$

Calibration curve: $-0.000317928 * x^2 + 1.39659 * x + -0.0635925$

Response type: Internal Std (Ref 81), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.62	84.529	3974.848	0.266	0.2	-5.6	NO	1.000	NO	MM
2	200706P1-20	Standard	0.500	5.62	239.245	4387.888	0.682	0.5	6.7	NO	1.000	NO	MM
3	200706P1-21	Standard	1.000	5.61	432.019	4370.321	1.236	0.9	-6.9	NO	1.000	NO	MM
4	200706P1-22	Standard	2.000	5.62	918.698	4172.910	2.752	2.0	0.8	NO	1.000	NO	MM
5	200706P1-23	Standard	5.000	5.61	2404.692	4350.434	6.909	5.0	-0.0	NO	1.000	NO	MM
6	200706P1-24	Standard	10.000	5.61	4571.777	3924.268	14.563	10.5	5.0	NO	1.000	NO	MM
7	200706P1-25	Standard	50.000	5.62	23885.766	4351.004	68.621	49.7	-0.5	NO	1.000	NO	MM
8	200706P1-26	Standard	100.000	5.61	46426.203	4188.651	138.548	101.6	1.6	NO	1.000	NO	MM
9	200706P1-27	Standard	250.000	5.61	105011.930	4036.783	325.172	246.7	-1.3	NO	1.000	NO	MM
10	200706P1-28	Standard	500.000	5.61	187964.344	3787.376	620.365	501.5	0.3	NO	1.000	NO	MM

Compound name: PFUdA

Coefficient of Determination: $R^2 = 0.999582$

Calibration curve: $-0.000302944 * x^2 + 1.10094 * x + 0.0188328$

Response type: Internal Std (Ref 79), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.63	461.576	18683.264	0.309	0.3	5.4	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	5.63	937.633	19852.086	0.590	0.5	3.8	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	5.63	1553.115	18480.219	1.051	0.9	-6.3	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	5.63	3505.071	19143.811	2.289	2.1	3.1	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	5.63	9315.438	20906.857	5.570	5.0	1.0	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	5.63	15562.638	19766.689	9.841	8.9	-10.6	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	5.63	84420.508	19028.625	55.456	51.1	2.1	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	5.63	167107.594	18950.932	110.224	103.0	3.0	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	5.63	374620.313	18632.748	251.318	244.7	-2.1	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	5.63	640302.250	16795.816	476.534	502.2	0.4	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:07:57 Pacific Daylight Time

Compound name: PFDS

Coefficient of Determination: $R^2 = 0.999869$

Calibration curve: $-0.000337564 \cdot x^2 + 1.29291 \cdot x + -0.129711$

Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.67	32.038	2884.344	0.139	0.2	-16.9	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	5.67	121.310	2845.779	0.533	0.5	2.5	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	5.67	326.817	3008.333	1.358	1.2	15.1	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	5.67	587.988	2875.965	2.556	2.1	3.9	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	5.67	1529.713	3118.928	6.131	4.8	-3.0	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	5.67	2892.042	2818.869	12.824	10.0	0.5	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	5.67	14611.049	2950.445	61.902	48.6	-2.8	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	5.67	28054.248	2787.149	125.820	100.0	0.0	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	5.67	64957.836	2663.154	304.891	252.6	1.0	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	5.67	115615.516	2577.664	560.660	498.7	-0.3	NO	1.000	NO	bb

Compound name: 11Cl-PF30UdS

Correlation coefficient: $r = 0.999153$, $r^2 = 0.998308$

Calibration curve: $0.257476 \cdot x + 0.00892294$

Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.83	118.626	22810.775	0.065	0.2	-12.9	NO	0.998	NO	bb
2	200706P1-20	Standard	0.500	5.83	272.501	25244.645	0.135	0.5	-2.1	NO	0.998	NO	bb
3	200706P1-21	Standard	1.000	5.83	462.737	24211.764	0.239	0.9	-10.7	NO	0.998	NO	bb
4	200706P1-22	Standard	2.000	5.83	1046.674	24340.117	0.538	2.1	2.7	NO	0.998	NO	bb
5	200706P1-23	Standard	5.000	5.83	2744.988	25408.879	1.350	5.2	4.2	NO	0.998	NO	bb
6	200706P1-24	Standard	10.000	5.83	5078.613	23356.371	2.718	10.5	5.2	NO	0.998	NO	bb
7	200706P1-25	Standard	50.000	5.83	26426.852	23355.100	14.144	54.9	9.8	NO	0.998	NO	bb
8	200706P1-26	Standard	100.000	5.83	51772.281	24096.184	26.857	104.3	4.3	NO	0.998	NO	bb
9	200706P1-27	Standard	250.000	5.83	118299.969	22303.783	66.300	257.5	3.0	NO	0.998	NO	bb
10	200706P1-28	Standard	500.000	5.83	212004.250	21320.014	124.299	482.7	-3.5	NO	0.998	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:07:57 Pacific Daylight Time

Compound name: 10:2 FTS

Correlation coefficient: $r = 0.998475$, $r^2 = 0.996952$

Calibration curve: $1.81347 * x + 0.168501$

Response type: Internal Std (Ref 85), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.90	73.153	1299.524	0.704	0.3	18.0	NO	0.997	NO	bb
2	200706P1-20	Standard	0.500	5.90	106.562	1409.232	0.945	0.4	-14.3	NO	0.997	NO	bb
3	200706P1-21	Standard	1.000	5.89	216.690	1381.627	1.960	1.0	-1.2	NO	0.997	NO	bb
4	200706P1-22	Standard	2.000	5.89	381.125	1355.605	3.514	1.8	-7.8	NO	0.997	NO	bb
5	200706P1-23	Standard	5.000	5.90	1091.328	1274.760	10.701	5.8	16.2	NO	0.997	NO	bb
6	200706P1-24	Standard	10.000	5.89	2124.764	1357.960	19.558	10.7	6.9	NO	0.997	NO	bb
7	200706P1-25	Standard	50.000	5.90	10322.251	1263.989	102.080	56.2	12.4	NO	0.997	NO	bb
8	200706P1-26	Standard	100.000	5.89	18470.209	1154.229	200.028	110.2	10.2	NO	0.997	NO	bb
9	200706P1-27	Standard	250.000	5.89	40601.520	1113.270	455.881	251.3	0.5	NO	0.997	NO	bb
10	200706P1-28	Standard	500.000	5.89	66252.156	949.242	872.435	481.0	-3.8	NO	0.997	NO	bb

Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.999844$

Calibration curve: $-0.000264449 * x^2 + 0.982944 * x + 0.00539633$

Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	5.90	505.708	22810.775	0.277	0.3	10.6	NO	1.000	NO	db
2	200706P1-20	Standard	0.500	5.90	1033.096	25244.645	0.512	0.5	3.0	NO	1.000	NO	db
3	200706P1-21	Standard	1.000	5.90	1840.692	24211.764	0.950	1.0	-3.8	NO	1.000	NO	MM
4	200706P1-22	Standard	2.000	5.90	3658.658	24340.117	1.879	1.9	-4.6	NO	1.000	NO	MM
5	200706P1-23	Standard	5.000	5.90	9857.521	25408.879	4.849	4.9	-1.3	NO	1.000	NO	MM
6	200706P1-24	Standard	10.000	5.90	17716.777	23356.371	9.482	9.7	-3.3	NO	1.000	NO	MM
7	200706P1-25	Standard	50.000	5.90	93610.125	23355.100	50.102	51.7	3.4	NO	1.000	NO	MM
8	200706P1-26	Standard	100.000	5.90	180757.547	24096.184	93.769	98.0	-2.0	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	5.90	410882.656	22303.783	230.276	251.3	0.5	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	5.90	724978.313	21320.014	425.057	499.6	-0.1	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:07:57 Pacific Daylight Time

Compound name: N-MeFOSA

Coefficient of Determination: $R^2 = 0.999940$

Calibration curve: $-7.96999e-005 * x^2 + 1.12175 * x + 0.0605427$

Response type: Internal Std (Ref 87), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	1.250	5.81	171.562	20355.828	1.257	1.1	-14.6	NO	1.000	NO	bb
2	200706P1-20	Standard	2.500	5.81	429.880	20279.811	3.163	2.8	10.6	NO	1.000	NO	bb
3	200706P1-21	Standard	5.000	5.82	799.827	20965.770	5.692	5.0	0.4	NO	1.000	NO	bb
4	200706P1-22	Standard	10.000	5.82	1629.668	20813.816	11.682	10.4	3.7	NO	1.000	NO	bb
5	200706P1-23	Standard	25.000	5.82	4178.511	21672.008	28.767	25.6	2.5	NO	1.000	NO	bb
6	200706P1-24	Standard	50.000	5.82	7871.369	20647.168	56.880	50.8	1.7	NO	1.000	NO	bb
7	200706P1-25	Standard	250.000	5.82	39017.539	21174.100	274.931	249.5	-0.2	NO	1.000	NO	bb
8	200706P1-26	Standard	500.000	5.82	74542.289	20387.346	545.520	504.3	0.9	NO	1.000	NO	bb
9	200706P1-27	Standard	1250.000	5.81	159620.969	18792.607	1267.278	1238.7	-0.9	NO	1.000	NO	bb
10	200706P1-28	Standard	2500.000	5.81	275508.969	17789.584	2310.675	2506.0	0.2	NO	1.000	NO	bb

Compound name: PFTrDA

Coefficient of Determination: $R^2 = 0.999936$

Calibration curve: $-0.000414303 * x^2 + 1.04415 * x + 0.00171537$

Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	6.14	468.496	22810.775	0.257	0.2	-2.3	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	6.14	1152.923	25244.645	0.571	0.5	9.0	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	6.14	1977.301	24211.764	1.021	1.0	-2.4	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	6.14	3935.513	24340.117	2.021	1.9	-3.2	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	6.14	10632.552	25408.879	5.231	5.0	0.4	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	6.14	19007.156	23356.371	10.172	9.8	-2.2	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	6.14	97115.727	23355.100	51.978	50.8	1.6	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	6.14	190868.766	24096.184	99.014	98.7	-1.3	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	6.14	421501.438	22303.783	236.228	251.3	0.5	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	6.14	713175.125	21320.014	418.137	499.4	-0.1	NO	1.000	NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

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Compound name: PFDoS

Coefficient of Determination: $R^2 = 0.999610$

Calibration curve: $-4.68396e-005 * x^2 + 0.17052 * x + -0.00392295$

Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	6.16	79.862	23296.811	0.043	0.3	9.7	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	6.16	176.105	25347.914	0.087	0.5	6.5	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	6.16	283.332	24321.422	0.146	0.9	-12.3	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	6.16	567.318	23906.566	0.297	1.8	-11.8	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	6.16	1829.969	25577.697	0.894	5.3	5.5	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	6.16	3312.936	23822.789	1.738	10.2	2.5	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	6.16	16284.360	24780.746	8.214	48.9	-2.3	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	6.16	32384.986	23560.986	17.181	103.7	3.7	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	6.16	72912.734	23364.986	39.007	245.3	-1.9	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	6.16	128623.484	21788.924	73.789	502.0	0.4	NO	1.000	NO	bb

Compound name: PFTeDA

Correlation coefficient: $r = 0.999411$, $r^2 = 0.998822$

Calibration curve: $0.656798 * x + 0.0803604$

Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	6.34	414.867	23296.811	0.223	0.2	-13.4	NO	0.999	NO	MM
2	200706P1-20	Standard	0.500	6.34	773.273	25347.914	0.381	0.5	-8.4	NO	0.999	NO	MM
3	200706P1-21	Standard	1.000	6.34	1385.224	24321.422	0.712	1.0	-3.8	NO	0.999	NO	bb
4	200706P1-22	Standard	2.000	6.34	2799.478	23906.566	1.464	2.1	5.3	NO	0.999	NO	MM
5	200706P1-23	Standard	5.000	6.34	7070.250	25577.697	3.455	5.1	2.8	NO	0.999	NO	bb
6	200706P1-24	Standard	10.000	6.34	13621.163	23822.789	7.147	10.8	7.6	NO	0.999	NO	bb
7	200706P1-25	Standard	50.000	6.34	68093.477	24780.746	34.348	52.2	4.3	NO	0.999	NO	bb
8	200706P1-26	Standard	100.000	6.34	132185.453	23560.986	70.129	106.7	6.7	NO	0.999	NO	bb
9	200706P1-27	Standard	250.000	6.33	312192.125	23364.986	167.019	254.2	1.7	NO	0.999	NO	bb
10	200706P1-28	Standard	500.000	6.33	556678.000	21788.924	319.358	486.1	-2.8	NO	0.999	NO	bb

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Compound name: N-EtFOSA

Coefficient of Determination: $R^2 = 0.999747$

Calibration curve: $-6.96201e-005 * x^2 + 1.16259 * x + -0.107454$

Response type: Internal Std (Ref 91), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	1.250	6.19	187.912	23217.701	1.208	1.1	-9.5	NO	1.000	NO	bb
2	200706P1-20	Standard	2.500	6.19	457.506	23650.156	2.886	2.6	3.0	NO	1.000	NO	bb
3	200706P1-21	Standard	5.000	6.19	938.745	23147.498	6.051	5.3	6.0	NO	1.000	NO	bb
4	200706P1-22	Standard	10.000	6.19	1790.665	23462.338	11.387	9.9	-1.1	NO	1.000	NO	bb
5	200706P1-23	Standard	25.000	6.19	4815.911	24914.057	28.841	24.9	-0.3	NO	1.000	NO	bb
6	200706P1-24	Standard	50.000	6.19	8962.970	23161.109	57.738	49.9	-0.2	NO	1.000	NO	bb
7	200706P1-25	Standard	250.000	6.19	45685.664	23538.484	289.581	253.0	1.2	NO	1.000	NO	bb
8	200706P1-26	Standard	500.000	6.19	86995.922	22448.846	578.194	513.2	2.6	NO	1.000	NO	bb
9	200706P1-27	Standard	1250.000	6.19	189637.125	21512.914	1315.203	1220.6	-2.4	NO	1.000	NO	bb
10	200706P1-28	Standard	2500.000	6.19	324338.656	19492.205	2482.599	2514.0	0.6	NO	1.000	NO	bb

Compound name: PFHxDA

Coefficient of Determination: $R^2 = 0.999789$

Calibration curve: $-0.000190466 * x^2 + 1.03254 * x + 0.163583$

Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	6.63	799.401	25406.275	0.393	0.2	-11.0	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	6.63	1483.510	27130.332	0.684	0.5	0.7	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	6.63	2491.544	26103.717	1.193	1.0	-0.3	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	6.63	4777.866	26556.000	2.249	2.0	1.0	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	6.63	12350.689	27161.623	5.684	5.4	7.0	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	6.63	22227.100	26370.029	10.536	10.1	0.6	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	6.63	109164.680	26053.225	52.376	51.0	2.1	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	6.63	217865.219	26467.854	102.891	101.4	1.4	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	6.63	492183.344	25481.225	241.444	244.7	-2.1	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	6.63	902398.125	23953.805	470.905	502.5	0.5	NO	1.000	NO	bb

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Compound name: PFODA

Coefficient of Determination: $R^2 = 0.999877$

Calibration curve: $-8.33174e-005 * x^2 + 0.828517 * x + 0.0120589$

Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	0.250	6.85	450.793	25406.275	0.222	0.3	1.3	NO	1.000	NO	bb
2	200706P1-20	Standard	0.500	6.84	896.249	27130.332	0.413	0.5	-3.2	NO	1.000	NO	bb
3	200706P1-21	Standard	1.000	6.84	1791.579	26103.717	0.858	1.0	2.1	NO	1.000	NO	bb
4	200706P1-22	Standard	2.000	6.84	3588.470	26556.000	1.689	2.0	1.2	NO	1.000	NO	bb
5	200706P1-23	Standard	5.000	6.84	9227.053	27161.623	4.246	5.1	2.3	NO	1.000	NO	bb
6	200706P1-24	Standard	10.000	6.84	17499.887	26370.029	8.295	10.0	0.1	NO	1.000	NO	bb
7	200706P1-25	Standard	50.000	6.85	89170.227	26053.225	42.783	51.9	3.8	NO	1.000	NO	bb
8	200706P1-26	Standard	100.000	6.84	171890.313	26467.854	81.179	99.0	-1.0	NO	1.000	NO	bb
9	200706P1-27	Standard	250.000	6.84	408207.031	25481.225	200.249	247.9	-0.9	NO	1.000	NO	bb
10	200706P1-28	Standard	500.000	6.84	755594.000	23953.805	394.297	501.1	0.2	NO	1.000	NO	bb

Compound name: N-MeFOSE

Correlation coefficient: $r = 0.999753$, $r^2 = 0.999506$

Calibration curve: $1.10054 * x + 0.364944$

Response type: Internal Std (Ref 95), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	1.250	6.34	195.169	20481.053	1.422	1.0	-23.2	NO	1.000	NO	MM
2	200706P1-20	Standard	2.500	6.34	439.277	20843.604	3.144	2.5	1.0	NO	1.000	NO	bb
3	200706P1-21	Standard	5.000	6.34	818.329	20414.760	5.981	5.1	2.1	NO	1.000	NO	bb
4	200706P1-22	Standard	10.000	6.34	1592.070	20055.193	11.844	10.4	4.3	NO	1.000	NO	MM
5	200706P1-23	Standard	25.000	6.34	4282.778	22627.299	28.240	25.3	1.3	NO	1.000	NO	bb
6	200706P1-24	Standard	50.000	6.34	7981.183	20102.832	59.235	53.5	7.0	NO	1.000	NO	bb
7	200706P1-25	Standard	250.000	6.35	40518.207	20711.023	291.889	264.9	6.0	NO	1.000	NO	bb
8	200706P1-26	Standard	500.000	6.34	79844.242	20885.109	570.395	518.0	3.6	NO	1.000	NO	bb
9	200706P1-27	Standard	1250.000	6.34	188797.938	20707.771	1360.294	1235.7	-1.1	NO	1.000	NO	bb
10	200706P1-28	Standard	2500.000	6.34	353058.344	19318.008	2726.798	2477.4	-0.9	NO	1.000	NO	bb

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Compound name: N-EtFOSE

Correlation coefficient: $r = 0.999137$, $r^2 = 0.998274$

Calibration curve: $1.00495 * x + 0.335204$

Response type: Internal Std (Ref 97), Area * (IS Conc. / IS Area)

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

1	200706P1-19	Standard	1.250	6.49	207.125	22385.490	1.380	1.0	-16.8	NO	0.998	NO	bb
2	200706P1-20	Standard	2.500	6.49	430.853	22515.381	2.855	2.5	0.3	NO	0.998	NO	bb
3	200706P1-21	Standard	5.000	6.49	806.541	22580.791	5.329	5.0	-0.6	NO	0.998	NO	bb
4	200706P1-22	Standard	10.000	6.49	1687.779	21905.441	11.496	11.1	11.1	NO	0.998	NO	bb
5	200706P1-23	Standard	25.000	6.49	4436.875	23437.969	28.244	27.8	11.1	NO	0.998	NO	bb
6	200706P1-24	Standard	50.000	6.49	8060.291	22186.262	54.205	53.6	7.2	NO	0.998	NO	bb
7	200706P1-25	Standard	250.000	6.49	41995.930	22694.074	276.098	274.4	9.8	NO	0.998	NO	bb
8	200706P1-26	Standard	500.000	6.49	84331.070	23318.145	539.588	536.6	7.3	NO	0.998	NO	bb
9	200706P1-27	Standard	1250.000	6.49	196343.016	23270.990	1258.837	1252.3	0.2	NO	0.998	NO	bb
10	200706P1-28	Standard	2500.000	6.49	382750.500	23386.736	2441.827	2429.5	-2.8	NO	0.998	NO	bb

Compound name: 13C3-PFBA-EIS

Response Factor: 689.63

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	1.63	8928.727	8928.727	12.9	3.6	NO		NO	MMX
2	200706P1-20	Standard	12.500	1.62	8907.738	8907.738	12.9	3.3	NO		NO	MMX
3	200706P1-21	Standard	12.500	1.62	8876.085	8876.085	12.9	3.0	NO		NO	MMX
4	200706P1-22	Standard	12.500	1.62	8766.956	8766.956	12.7	1.7	NO		NO	MMX
5	200706P1-23	Standard	12.500	1.62	9407.555	9407.555	13.6	9.1	NO		NO	MMX
6	200706P1-24	Standard	12.500	1.62	8620.372	8620.372	12.5	0.0	NO		NO	MM
7	200706P1-25	Standard	12.500	1.62	8816.157	8816.157	12.8	2.3	NO		NO	MMX
8	200706P1-26	Standard	12.500	1.62	9290.569	9290.569	13.5	7.8	NO		NO	MMX
9	200706P1-27	Standard	12.500	1.62	9147.883	9147.883	13.3	6.1	NO		NO	MMX
10	200706P1-28	Standard	12.500	1.62	9375.081	9375.081	13.6	8.8	NO		NO	MMX

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Compound name: 13C3-PFBA-RSD

Response Factor: 0.854301

RRF SD: 0.0333349, Relative SD: 3.90201

Response type: Internal Std (Ref 99), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	1.63	9004.832	9571.630	11.760	13.8	10.1	NO	NO	MM
2	200706P1-20	Standard	12.500	1.62	8792.936	10495.767	10.472	12.3	-1.9	NO	NO	MM
3	200706P1-21	Standard	12.500	1.62	8849.034	10322.609	10.716	12.5	0.3	NO	NO	MM
4	200706P1-22	Standard	12.500	1.62	8712.763	10427.793	10.444	12.2	-2.2	NO	NO	MM
5	200706P1-23	Standard	12.500	1.62	9389.854	10992.993	10.677	12.5	-0.0	NO	NO	MM
6	200706P1-24	Standard	12.500	1.62	8525.373	10121.277	10.529	12.3	-1.4	NO	NO	MM
7	200706P1-25	Standard	12.500	1.62	8712.147	10409.653	10.462	12.2	-2.0	NO	NO	MM
8	200706P1-26	Standard	12.500	1.62	9265.158	10665.174	10.859	12.7	1.7	NO	NO	MM
9	200706P1-27	Standard	12.500	1.62	8912.315	10876.274	10.243	12.0	-4.1	NO	NO	MM
10	200706P1-28	Standard	12.500	1.62	9235.906	10864.321	10.626	12.4	-0.5	NO	NO	MM

Compound name: 13C3-PFPeA-EIS

Response Factor: 961.609

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	2.60	12471.803	12471.803	13.0	3.8	NO	NO	MMX
2	200706P1-20	Standard	12.500	2.60	12358.682	12358.682	12.9	2.8	NO	NO	MMX
3	200706P1-21	Standard	12.500	2.59	12332.146	12332.146	12.8	2.6	NO	NO	MMX
4	200706P1-22	Standard	12.500	2.59	12447.334	12447.334	12.9	3.6	NO	NO	MMX
5	200706P1-23	Standard	12.500	2.60	13036.096	13036.096	13.6	8.5	NO	NO	MMX
6	200706P1-24	Standard	12.500	2.59	12020.107	12020.107	12.5	0.0	NO	NO	MM
7	200706P1-25	Standard	12.500	2.59	12771.221	12771.221	13.3	6.2	NO	NO	MMX
8	200706P1-26	Standard	12.500	2.59	13078.910	13078.910	13.6	8.8	NO	NO	MMX
9	200706P1-27	Standard	12.500	2.59	12597.564	12597.564	13.1	4.8	NO	NO	MMX
10	200706P1-28	Standard	12.500	2.59	11987.368	11987.368	12.5	-0.3	NO	NO	MMX

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Compound name: 13C3-PFPeA-RSD

Response Factor: 0.751613

RRF SD: 0.0255308, Relative SD: 3.39681

Response type: Internal Std (Ref 101), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	2.60	12294.415	15792.443	9.731	12.9	3.6	NO	NO	bb
2	200706P1-20	Standard	12.500	2.60	12221.346	16933.953	9.021	12.0	-4.0	NO	NO	bb
3	200706P1-21	Standard	12.500	2.59	12213.532	16418.008	9.299	12.4	-1.0	NO	NO	bb
4	200706P1-22	Standard	12.500	2.59	12291.335	16457.064	9.336	12.4	-0.6	NO	NO	bb
5	200706P1-23	Standard	12.500	2.60	12950.499	18353.051	8.820	11.7	-6.1	NO	NO	bb
6	200706P1-24	Standard	12.500	2.59	11947.754	15564.020	9.596	12.8	2.1	NO	NO	bb
7	200706P1-25	Standard	12.500	2.59	12611.794	17166.877	9.183	12.2	-2.3	NO	NO	bb
8	200706P1-26	Standard	12.500	2.59	12776.837	16410.266	9.732	12.9	3.6	NO	NO	bb
9	200706P1-27	Standard	12.500	2.59	12498.843	16063.282	9.726	12.9	3.5	NO	NO	bb
10	200706P1-28	Standard	12.500	2.59	11893.112	15638.367	9.506	12.6	1.2	NO	NO	bb

Compound name: 13C3-PFBS-EIS

Response Factor: 104.004

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	2.87	1430.774	1430.774	13.8	10.1	NO	NO	bbX
2	200706P1-20	Standard	12.500	2.87	1426.593	1426.593	13.7	9.7	NO	NO	bbX
3	200706P1-21	Standard	12.500	2.87	1288.172	1288.172	12.4	-0.9	NO	NO	bbX
4	200706P1-22	Standard	12.500	2.87	1362.586	1362.586	13.1	4.8	NO	NO	bbX
5	200706P1-23	Standard	12.500	2.87	1453.176	1453.176	14.0	11.8	NO	NO	bbX
6	200706P1-24	Standard	12.500	2.87	1300.054	1300.054	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	2.87	1359.451	1359.451	13.1	4.6	NO	NO	bbX
8	200706P1-26	Standard	12.500	2.87	1462.386	1462.386	14.1	12.5	NO	NO	bbX
9	200706P1-27	Standard	12.500	2.87	1358.583	1358.583	13.1	4.5	NO	NO	bbX
10	200706P1-28	Standard	12.500	2.87	1281.324	1281.324	12.3	-1.4	NO	NO	bbX

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Compound name: 13C3-PFBS-RSD

Response Factor: 1.22602

RRF SD: 0.060142, Relative SD: 4.90549

Response type: Internal Std (Ref 102), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	2.87	1430.774	1112.618	16.074	13.1	4.9	NO	NO	bb
2	200706P1-20	Standard	12.500	2.87	1426.593	1135.557	15.704	12.8	2.5	NO	NO	bb
3	200706P1-21	Standard	12.500	2.87	1288.172	1029.912	15.634	12.8	2.0	NO	NO	bb
4	200706P1-22	Standard	12.500	2.87	1362.586	1172.076	14.532	11.9	-5.2	NO	NO	bb
5	200706P1-23	Standard	12.500	2.87	1453.176	1315.580	13.807	11.3	-9.9	NO	NO	bb
6	200706P1-24	Standard	12.500	2.87	1300.054	1066.013	15.244	12.4	-0.5	NO	NO	bb
7	200706P1-25	Standard	12.500	2.87	1359.451	1118.342	15.195	12.4	-0.8	NO	NO	bb
8	200706P1-26	Standard	12.500	2.87	1462.386	1109.793	16.471	13.4	7.5	NO	NO	bb
9	200706P1-27	Standard	12.500	2.87	1358.583	1116.404	15.212	12.4	-0.7	NO	NO	bb
10	200706P1-28	Standard	12.500	2.87	1281.324	1041.527	15.378	12.5	0.3	NO	NO	bb

Compound name: 13C3-HFPO-DA-EIS

Response Factor: 228.261

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	3.59	2996.421	2996.421	13.1	5.0	NO	NO	bbX
2	200706P1-20	Standard	12.500	3.59	3291.715	3291.715	14.4	15.4	NO	NO	bbX
3	200706P1-21	Standard	12.500	3.59	3299.751	3299.751	14.5	15.6	NO	NO	bbX
4	200706P1-22	Standard	12.500	3.59	2848.392	2848.392	12.5	-0.2	NO	NO	bbX
5	200706P1-23	Standard	12.500	3.59	3231.837	3231.837	14.2	13.3	NO	NO	bbX
6	200706P1-24	Standard	12.500	3.59	2853.265	2853.265	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	3.59	3226.841	3226.841	14.1	13.1	NO	NO	bbX
8	200706P1-26	Standard	12.500	3.59	3134.820	3134.820	13.7	9.9	NO	NO	bbX
9	200706P1-27	Standard	12.500	3.59	3186.079	3186.079	14.0	11.7	NO	NO	bbX
10	200706P1-28	Standard	12.500	3.59	3076.034	3076.034	13.5	7.8	NO	NO	bbX

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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

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Compound name: 13C3-HFPO-DA-RSD

Response Factor: 0.189164

RRF SD: 0.00929102, Relative SD: 4.91161

Response type: Internal Std (Ref 101), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	3.59	2996.421	15792.443	2.372	12.5	0.3	NO	NO	bb
2	200706P1-20	Standard	12.500	3.59	3291.715	16933.953	2.430	12.8	2.8	NO	NO	bb
3	200706P1-21	Standard	12.500	3.59	3299.751	16418.008	2.512	13.3	6.2	NO	NO	bb
4	200706P1-22	Standard	12.500	3.59	2848.392	16457.064	2.164	11.4	-8.5	NO	NO	bb
5	200706P1-23	Standard	12.500	3.59	3231.837	18353.051	2.201	11.6	-6.9	NO	NO	bb
6	200706P1-24	Standard	12.500	3.59	2853.265	15564.020	2.292	12.1	-3.1	NO	NO	bb
7	200706P1-25	Standard	12.500	3.59	3226.841	17166.877	2.350	12.4	-0.6	NO	NO	bb
8	200706P1-26	Standard	12.500	3.59	3134.820	16410.266	2.388	12.6	1.0	NO	NO	bb
9	200706P1-27	Standard	12.500	3.59	3186.079	16063.282	2.479	13.1	4.9	NO	NO	bb
10	200706P1-28	Standard	12.500	3.59	3076.034	15638.367	2.459	13.0	4.0	NO	NO	bb

Compound name: 13C2-4:2 FTS-EIS

Response Factor: 100.904

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	3.31	1271.797	1271.797	12.6	0.8	NO	NO	bbX
2	200706P1-20	Standard	12.500	3.31	1275.190	1275.190	12.6	1.1	NO	NO	bbX
3	200706P1-21	Standard	12.500	3.31	1294.699	1294.699	12.8	2.6	NO	NO	bbX
4	200706P1-22	Standard	12.500	3.31	1286.646	1286.646	12.8	2.0	NO	NO	bbX
5	200706P1-23	Standard	12.500	3.31	1387.692	1387.692	13.8	10.0	NO	NO	bbX
6	200706P1-24	Standard	12.500	3.31	1261.296	1261.296	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	3.31	1305.578	1305.578	12.9	3.5	NO	NO	bbX
8	200706P1-26	Standard	12.500	3.30	1218.574	1218.574	12.1	-3.4	NO	NO	bbX
9	200706P1-27	Standard	12.500	3.30	1180.548	1180.548	11.7	-6.4	NO	NO	bbX
10	200706P1-28	Standard	12.500	3.30	1181.993	1181.993	11.7	-6.3	NO	NO	bbX

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Compound name: 13C2-4:2 FTS-RSD

Response Factor: 1.13166

RRF SD: 0.0610809, Relative SD: 5.39744

Response type: Internal Std (Ref 102), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	3.31	1271.797	1112.618	14.288	12.6	1.0	NO	NO	bb
2	200706P1-20	Standard	12.500	3.31	1275.190	1135.557	14.037	12.4	-0.8	NO	NO	bb
3	200706P1-21	Standard	12.500	3.31	1294.699	1029.912	15.714	13.9	11.1	NO	NO	bb
4	200706P1-22	Standard	12.500	3.31	1286.646	1172.076	13.722	12.1	-3.0	NO	NO	bb
5	200706P1-23	Standard	12.500	3.31	1387.692	1315.580	13.185	11.7	-6.8	NO	NO	bb
6	200706P1-24	Standard	12.500	3.31	1261.296	1066.013	14.790	13.1	4.6	NO	NO	bb
7	200706P1-25	Standard	12.500	3.31	1305.578	1118.342	14.593	12.9	3.2	NO	NO	bb
8	200706P1-26	Standard	12.500	3.30	1218.574	1109.793	13.725	12.1	-3.0	NO	NO	bb
9	200706P1-27	Standard	12.500	3.30	1180.548	1116.404	13.218	11.7	-6.6	NO	NO	bb
10	200706P1-28	Standard	12.500	3.30	1181.993	1041.527	14.186	12.5	0.3	NO	NO	bb

Compound name: 13C2-PFHxA-EIS

Response Factor: 1090.35

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	3.38	14936.540	14936.540	13.7	9.6	NO	NO	bbX
2	200706P1-20	Standard	12.500	3.39	14827.862	14827.862	13.6	8.8	NO	NO	bbX
3	200706P1-21	Standard	12.500	3.39	14195.111	14195.111	13.0	4.2	NO	NO	bbX
4	200706P1-22	Standard	12.500	3.39	14182.590	14182.590	13.0	4.1	NO	NO	bbX
5	200706P1-23	Standard	12.500	3.39	15680.674	15680.674	14.4	15.1	NO	NO	bbX
6	200706P1-24	Standard	12.500	3.39	13629.407	13629.407	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	3.39	14633.210	14633.210	13.4	7.4	NO	NO	bbX
8	200706P1-26	Standard	12.500	3.39	14554.702	14554.702	13.3	6.8	NO	NO	bbX
9	200706P1-27	Standard	12.500	3.39	14243.385	14243.385	13.1	4.5	NO	NO	bbX
10	200706P1-28	Standard	12.500	3.39	13865.558	13865.558	12.7	1.7	NO	NO	bbX

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Compound name: 13C2-PFHxA-RSD

Response Factor: 0.87906

RRF SD: 0.0268355, Relative SD: 3.05275

Response type: Internal Std (Ref 101), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	3.38	14936.540	15792.443	11.823	13.4	7.6	NO	NO	bb
2	200706P1-20	Standard	12.500	3.39	14827.862	16933.953	10.945	12.5	-0.4	NO	NO	bb
3	200706P1-21	Standard	12.500	3.39	14195.111	16418.008	10.808	12.3	-1.6	NO	NO	bb
4	200706P1-22	Standard	12.500	3.39	14182.590	16457.064	10.772	12.3	-2.0	NO	NO	bb
5	200706P1-23	Standard	12.500	3.39	15680.674	18353.051	10.680	12.1	-2.8	NO	NO	bb
6	200706P1-24	Standard	12.500	3.39	13629.407	15564.020	10.946	12.5	-0.4	NO	NO	bb
7	200706P1-25	Standard	12.500	3.39	14633.210	17166.877	10.655	12.1	-3.0	NO	NO	bb
8	200706P1-26	Standard	12.500	3.39	14554.702	16410.266	11.087	12.6	0.9	NO	NO	bb
9	200706P1-27	Standard	12.500	3.39	14243.385	16063.282	11.084	12.6	0.9	NO	NO	bb
10	200706P1-28	Standard	12.500	3.39	13865.558	15638.367	11.083	12.6	0.9	NO	NO	bb

Compound name: 13C4-PFHpA-EIS

Response Factor: 983.154

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	3.98	12966.955	12966.955	13.2	5.5	NO	NO	bbX
2	200706P1-20	Standard	12.500	3.98	12233.538	12233.538	12.4	-0.5	NO	NO	bbX
3	200706P1-21	Standard	12.500	3.98	12536.285	12536.285	12.8	2.0	NO	NO	bbX
4	200706P1-22	Standard	12.500	3.98	12763.619	12763.619	13.0	3.9	NO	NO	bbX
5	200706P1-23	Standard	12.500	3.98	12970.818	12970.818	13.2	5.5	NO	NO	bbX
6	200706P1-24	Standard	12.500	3.98	12289.430	12289.430	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	3.98	12769.633	12769.633	13.0	3.9	NO	NO	bbX
8	200706P1-26	Standard	12.500	3.98	12943.463	12943.463	13.2	5.3	NO	NO	bbX
9	200706P1-27	Standard	12.500	3.98	11840.771	11840.771	12.0	-3.7	NO	NO	bbX
10	200706P1-28	Standard	12.500	3.98	11650.135	11650.135	11.8	-5.2	NO	NO	bbX

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Compound name: 13C4-PFHpA-RSD

Response Factor: 0.75937

RRF SD: 0.03487, Relative SD: 4.59197

Response type: Internal Std (Ref 101), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	3.98	12966.955	15792.443	10.264	13.5	8.1	NO	NO	bb
2	200706P1-20	Standard	12.500	3.98	12233.538	16933.953	9.030	11.9	-4.9	NO	NO	bb
3	200706P1-21	Standard	12.500	3.98	12536.285	16418.008	9.545	12.6	0.6	NO	NO	bb
4	200706P1-22	Standard	12.500	3.98	12763.619	16457.064	9.695	12.8	2.1	NO	NO	bb
5	200706P1-23	Standard	12.500	3.98	12970.818	18353.051	8.834	11.6	-6.9	NO	NO	bb
6	200706P1-24	Standard	12.500	3.98	12289.430	15564.020	9.870	13.0	4.0	NO	NO	bb
7	200706P1-25	Standard	12.500	3.98	12769.633	17166.877	9.298	12.2	-2.0	NO	NO	bb
8	200706P1-26	Standard	12.500	3.98	12943.463	16410.266	9.859	13.0	3.9	NO	NO	bb
9	200706P1-27	Standard	12.500	3.98	11840.771	16063.282	9.214	12.1	-2.9	NO	NO	bb
10	200706P1-28	Standard	12.500	3.98	11650.135	15638.367	9.312	12.3	-1.9	NO	NO	bb

Compound name: 13C3-PFHxS-EIS

Response Factor: 220.112

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	4.13	2847.260	2847.260	12.9	3.5	NO	NO	bbX
2	200706P1-20	Standard	12.500	4.13	2779.479	2779.479	12.6	1.0	NO	NO	bbX
3	200706P1-21	Standard	12.500	4.13	2651.918	2651.918	12.0	-3.6	NO	NO	bbX
4	200706P1-22	Standard	12.500	4.13	2816.980	2816.980	12.8	2.4	NO	NO	bbX
5	200706P1-23	Standard	12.500	4.13	3217.580	3217.580	14.6	16.9	NO	NO	bbX
6	200706P1-24	Standard	12.500	4.13	2751.402	2751.402	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	4.13	2742.332	2742.332	12.5	-0.3	NO	NO	bbX
8	200706P1-26	Standard	12.500	4.13	2706.095	2706.095	12.3	-1.6	NO	NO	bbX
9	200706P1-27	Standard	12.500	4.13	2614.377	2614.377	11.9	-5.0	NO	NO	bbX
10	200706P1-28	Standard	12.500	4.13	2482.339	2482.339	11.3	-9.8	NO	NO	bbX

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Compound name: 13C3-PFHxS-RSD

Response Factor: 2.46275

RRF SD: 0.0826774, Relative SD: 3.35712

Response type: Internal Std (Ref 102), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	4.13	2847.260	1112.618	31.988	13.0	3.9	NO	NO	bb
2	200706P1-20	Standard	12.500	4.13	2779.479	1135.557	30.596	12.4	-0.6	NO	NO	bb
3	200706P1-21	Standard	12.500	4.13	2651.918	1029.912	32.186	13.1	4.6	NO	NO	bb
4	200706P1-22	Standard	12.500	4.13	2816.980	1172.076	30.043	12.2	-2.4	NO	NO	bb
5	200706P1-23	Standard	12.500	4.13	3217.580	1315.580	30.572	12.4	-0.7	NO	NO	bb
6	200706P1-24	Standard	12.500	4.13	2751.402	1066.013	32.263	13.1	4.8	NO	NO	bb
7	200706P1-25	Standard	12.500	4.13	2742.332	1118.342	30.652	12.4	-0.4	NO	NO	bb
8	200706P1-26	Standard	12.500	4.13	2706.095	1109.793	30.480	12.4	-1.0	NO	NO	bb
9	200706P1-27	Standard	12.500	4.13	2614.377	1116.404	29.272	11.9	-4.9	NO	NO	bb
10	200706P1-28	Standard	12.500	4.13	2482.339	1041.527	29.792	12.1	-3.2	NO	NO	bb

Compound name: 13C2-6:2 FTS-EIS

Response Factor: 128.741

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	4.45	1614.767	1614.767	12.5	0.3	NO	NO	bbX
2	200706P1-20	Standard	12.500	4.45	1610.712	1610.712	12.5	0.1	NO	NO	bbX
3	200706P1-21	Standard	12.500	4.45	1404.711	1404.711	10.9	-12.7	NO	NO	bbX
4	200706P1-22	Standard	12.500	4.45	1542.265	1542.265	12.0	-4.2	NO	NO	bbX
5	200706P1-23	Standard	12.500	4.45	1637.135	1637.135	12.7	1.7	NO	NO	bbX
6	200706P1-24	Standard	12.500	4.45	1609.265	1609.265	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	4.45	1440.831	1440.831	11.2	-10.5	NO	NO	bbX
8	200706P1-26	Standard	12.500	4.45	1590.387	1590.387	12.4	-1.2	NO	NO	bbX
9	200706P1-27	Standard	12.500	4.45	1483.970	1483.970	11.5	-7.8	NO	NO	bbX
10	200706P1-28	Standard	12.500	4.45	1478.616	1478.616	11.5	-8.1	NO	NO	bbX

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Compound name: 13C2-6:2 FTS-RSD

Response Factor: 0.472755

RRF SD: 0.0294663, Relative SD: 6.2329

Response type: Internal Std (Ref 105), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	4.45	1614.767	3112.113	6.486	13.7	9.8	NO	NO	bb
2	200706P1-20	Standard	12.500	4.45	1610.712	3516.579	5.725	12.1	-3.1	NO	NO	bb
3	200706P1-21	Standard	12.500	4.45	1404.711	3143.465	5.586	11.8	-5.5	NO	NO	bb
4	200706P1-22	Standard	12.500	4.45	1542.265	3349.641	5.755	12.2	-2.6	NO	NO	bb
5	200706P1-23	Standard	12.500	4.45	1637.135	3463.788	5.908	12.5	-0.0	NO	NO	bb
6	200706P1-24	Standard	12.500	4.45	1609.265	3222.088	6.243	13.2	5.6	NO	NO	bb
7	200706P1-25	Standard	12.500	4.45	1440.831	3410.395	5.281	11.2	-10.6	NO	NO	bb
8	200706P1-26	Standard	12.500	4.45	1590.387	3432.673	5.791	12.3	-2.0	NO	NO	bb
9	200706P1-27	Standard	12.500	4.45	1483.970	3113.743	5.957	12.6	0.8	NO	NO	bb
10	200706P1-28	Standard	12.500	4.45	1478.616	2905.585	6.361	13.5	7.6	NO	NO	bb

Compound name: 13C5-PFNA-EIS

Response Factor: 1213.14

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	4.94	14827.067	14827.067	12.2	-2.2	NO	NO	bbX
2	200706P1-20	Standard	12.500	4.94	15608.248	15608.248	12.9	2.9	NO	NO	bbX
3	200706P1-21	Standard	12.500	4.94	15269.105	15269.105	12.6	0.7	NO	NO	bbX
4	200706P1-22	Standard	12.500	4.94	14161.967	14161.967	11.7	-6.6	NO	NO	bbX
5	200706P1-23	Standard	12.500	4.94	15977.628	15977.628	13.2	5.4	NO	NO	bbX
6	200706P1-24	Standard	12.500	4.94	15164.249	15164.249	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	4.94	15860.334	15860.334	13.1	4.6	NO	NO	bbX
8	200706P1-26	Standard	12.500	4.94	15209.911	15209.911	12.5	0.3	NO	NO	bbX
9	200706P1-27	Standard	12.500	4.94	14402.273	14402.273	11.9	-5.0	NO	NO	bbX
10	200706P1-28	Standard	12.500	4.94	13593.457	13593.457	11.2	-10.4	NO	NO	bbX

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Compound name: 13C5-PFNA-RSD

Response Factor: 0.941081

RRF SD: 0.0326164, Relative SD: 3.46585

Response type: Internal Std (Ref 104), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	4.94	14827.067	14826.541	12.500	13.3	6.3	NO	NO	bb
2	200706P1-20	Standard	12.500	4.94	15608.248	16698.430	11.684	12.4	-0.7	NO	NO	bb
3	200706P1-21	Standard	12.500	4.94	15269.105	16406.395	11.634	12.4	-1.1	NO	NO	bb
4	200706P1-22	Standard	12.500	4.94	14161.967	16149.805	10.961	11.6	-6.8	NO	NO	bb
5	200706P1-23	Standard	12.500	4.94	15977.628	17268.395	11.566	12.3	-1.7	NO	NO	bb
6	200706P1-24	Standard	12.500	4.94	15164.249	15863.199	11.949	12.7	1.6	NO	NO	bb
7	200706P1-25	Standard	12.500	4.94	15860.334	16381.950	12.102	12.9	2.9	NO	NO	bb
8	200706P1-26	Standard	12.500	4.94	15209.911	15859.456	11.988	12.7	1.9	NO	NO	bb
9	200706P1-27	Standard	12.500	4.94	14402.273	15578.559	11.556	12.3	-1.8	NO	NO	bb
10	200706P1-28	Standard	12.500	4.94	13593.457	14529.391	11.695	12.4	-0.6	NO	NO	bb

Compound name: 13C8-PFOSA-EIS

Response Factor: 571.374

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	4.99	7350.009	7350.009	12.9	2.9	NO	NO	bbX
2	200706P1-20	Standard	12.500	4.99	7155.503	7155.503	12.5	0.2	NO	NO	bbX
3	200706P1-21	Standard	12.500	4.99	6949.531	6949.531	12.2	-2.7	NO	NO	bbX
4	200706P1-22	Standard	12.500	4.99	7224.200	7224.200	12.6	1.1	NO	NO	bbX
5	200706P1-23	Standard	12.500	4.99	7949.741	7949.741	13.9	11.3	NO	NO	bbX
6	200706P1-24	Standard	12.500	4.98	7142.181	7142.181	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	4.99	7268.384	7268.384	12.7	1.8	NO	NO	bbX
8	200706P1-26	Standard	12.500	4.99	7226.727	7226.727	12.6	1.2	NO	NO	bbX
9	200706P1-27	Standard	12.500	4.99	6740.430	6740.430	11.8	-5.6	NO	NO	bbX
10	200706P1-28	Standard	12.500	4.98	6362.523	6362.523	11.1	-10.9	NO	NO	bbX

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Compound name: 13C8-PFOSA-RSD

Response Factor: 0.486256

RRF SD: 0.0261204, Relative SD: 5.37173

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	4.99	7350.009	14039.590	6.544	13.5	7.7	NO	NO	bb
2	200706P1-20	Standard	12.500	4.99	7155.503	15869.678	5.636	11.6	-7.3	NO	NO	bb
3	200706P1-21	Standard	12.500	4.99	6949.531	14615.809	5.944	12.2	-2.2	NO	NO	bb
4	200706P1-22	Standard	12.500	4.99	7224.200	14751.563	6.122	12.6	0.7	NO	NO	bb
5	200706P1-23	Standard	12.500	4.99	7949.741	15184.211	6.544	13.5	7.7	NO	NO	bb
6	200706P1-24	Standard	12.500	4.98	7142.181	14215.874	6.280	12.9	3.3	NO	NO	bb
7	200706P1-25	Standard	12.500	4.99	7268.384	15481.095	5.869	12.1	-3.4	NO	NO	bb
8	200706P1-26	Standard	12.500	4.99	7226.727	15001.885	6.022	12.4	-0.9	NO	NO	bb
9	200706P1-27	Standard	12.500	4.99	6740.430	14984.139	5.623	11.6	-7.5	NO	NO	bb
10	200706P1-28	Standard	12.500	4.98	6362.523	12829.642	6.199	12.7	2.0	NO	NO	bb

Compound name: 13C2-PFOA-EIS

Response Factor: 1154.44

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	4.51	14231.127	14231.127	12.3	-1.4	NO	NO	bbX
2	200706P1-20	Standard	12.500	4.51	14540.555	14540.555	12.6	0.8	NO	NO	bbX
3	200706P1-21	Standard	12.500	4.51	14506.504	14506.504	12.6	0.5	NO	NO	bbX
4	200706P1-22	Standard	12.500	4.51	14455.132	14455.132	12.5	0.2	NO	NO	bbX
5	200706P1-23	Standard	12.500	4.51	14986.464	14986.464	13.0	3.9	NO	NO	bbX
6	200706P1-24	Standard	12.500	4.51	14430.539	14430.539	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	4.51	14123.512	14123.512	12.2	-2.1	NO	NO	bbX
8	200706P1-26	Standard	12.500	4.51	13491.245	13491.245	11.7	-6.5	NO	NO	bbX
9	200706P1-27	Standard	12.500	4.50	13468.371	13468.371	11.7	-6.7	NO	NO	bbX
10	200706P1-28	Standard	12.500	4.50	12462.934	12462.934	10.8	-13.6	NO	NO	bbX

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Compound name: 13C2-PFOA-RSD

Response Factor: 1.09364

RRF SD: 0.0333738, Relative SD: 3.05162

Response type: Internal Std (Ref 103), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	4.51	14231.127	12519.366	14.209	13.0	3.9	NO	NO	bb
2	200706P1-20	Standard	12.500	4.51	14540.555	13839.076	13.134	12.0	-3.9	NO	NO	bb
3	200706P1-21	Standard	12.500	4.51	14506.504	13084.422	13.859	12.7	1.4	NO	NO	bb
4	200706P1-22	Standard	12.500	4.51	14455.132	13029.019	13.868	12.7	1.4	NO	NO	bb
5	200706P1-23	Standard	12.500	4.51	14986.464	14240.478	13.155	12.0	-3.8	NO	NO	bb
6	200706P1-24	Standard	12.500	4.51	14430.539	13030.224	13.843	12.7	1.3	NO	NO	bb
7	200706P1-25	Standard	12.500	4.51	14123.512	13296.607	13.277	12.1	-2.9	NO	NO	bb
8	200706P1-26	Standard	12.500	4.51	13491.245	12409.222	13.590	12.4	-0.6	NO	NO	bb
9	200706P1-27	Standard	12.500	4.50	13468.371	12509.283	13.458	12.3	-1.6	NO	NO	bb
10	200706P1-28	Standard	12.500	4.50	12462.934	10884.975	14.312	13.1	4.7	NO	NO	bb

Compound name: 13C6-PFOS-EIS

Response Factor: 225.51

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.02	2884.344	2884.344	12.8	2.3	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.02	2845.779	2845.779	12.6	1.0	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.02	3008.333	3008.333	13.3	6.7	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.02	2875.965	2875.965	12.8	2.0	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.02	3118.928	3118.928	13.8	10.6	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.02	2818.869	2818.869	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.02	2950.445	2950.445	13.1	4.7	NO	NO	bbX
8	200706P1-26	Standard	12.500	5.02	2787.149	2787.149	12.4	-1.1	NO	NO	bbX
9	200706P1-27	Standard	12.500	5.02	2663.154	2663.154	11.8	-5.5	NO	NO	bbX
10	200706P1-28	Standard	12.500	5.02	2577.664	2577.664	11.4	-8.6	NO	NO	bbX

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Compound name: 13C8-PFOS-RSD

Response Factor: 0.874647

RRF SD: 0.0462578, Relative SD: 5.28874

Response type: Internal Std (Ref 105), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.02	2884.344	3112.113	11.585	13.2	6.0	NO	NO	bb
2	200706P1-20	Standard	12.500	5.02	2845.779	3516.579	10.116	11.6	-7.5	NO	NO	bb
3	200706P1-21	Standard	12.500	5.02	3008.333	3143.465	11.963	13.7	9.4	NO	NO	bb
4	200706P1-22	Standard	12.500	5.02	2875.965	3349.641	10.732	12.3	-1.8	NO	NO	bb
5	200706P1-23	Standard	12.500	5.02	3118.928	3463.788	11.255	12.9	2.9	NO	NO	bb
6	200706P1-24	Standard	12.500	5.02	2818.869	3222.088	10.936	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.02	2950.445	3410.395	10.814	12.4	-1.1	NO	NO	bb
8	200706P1-26	Standard	12.500	5.02	2787.149	3432.673	10.149	11.6	-7.2	NO	NO	bb
9	200706P1-27	Standard	12.500	5.02	2663.154	3113.743	10.691	12.2	-2.2	NO	NO	bb
10	200706P1-28	Standard	12.500	5.02	2577.664	2905.585	11.089	12.7	1.4	NO	NO	bb

Compound name: 13C2-PFDA-EIS

Response Factor: 1491.47

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.31	18137.861	18137.861	12.2	-2.7	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.31	19338.936	19338.936	13.0	3.7	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.31	18429.492	18429.492	12.4	-1.1	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.31	19687.527	19687.527	13.2	5.6	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.31	19663.701	19663.701	13.2	5.5	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.31	18643.387	18643.387	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.31	19964.771	19964.771	13.4	7.1	NO	NO	bbX
8	200706P1-26	Standard	12.500	5.31	19861.670	19861.670	13.3	6.5	NO	NO	bbX
9	200706P1-27	Standard	12.500	5.31	19146.473	19146.473	12.8	2.7	NO	NO	bbX
10	200706P1-28	Standard	12.500	5.31	18310.025	18310.025	12.3	-1.8	NO	NO	bbX

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Compound name: 13C2-PFDA-RSD

Response Factor: 1.25394

RRF SD: 0.0652637, Relative SD: 5.20471

Response type: Internal Std (Ref 106), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.31	18137.861	14024.693	16.166	12.9	3.1	NO	NO	bb
2	200706P1-20	Standard	12.500	5.31	19338.936	16270.641	14.857	11.8	-5.2	NO	NO	bb
3	200706P1-21	Standard	12.500	5.31	18429.492	15005.021	15.353	12.2	-2.1	NO	NO	bb
4	200706P1-22	Standard	12.500	5.31	19687.527	15649.067	15.726	12.5	0.3	NO	NO	bb
5	200706P1-23	Standard	12.500	5.31	19663.701	16678.373	14.737	11.8	-6.0	NO	NO	bb
6	200706P1-24	Standard	12.500	5.31	18643.387	13685.886	17.028	13.6	8.6	NO	NO	bb
7	200706P1-25	Standard	12.500	5.31	19964.771	15985.261	15.612	12.5	-0.4	NO	NO	bb
8	200706P1-26	Standard	12.500	5.31	19861.670	16564.369	14.988	12.0	-4.4	NO	NO	bb
9	200706P1-27	Standard	12.500	5.31	19146.473	15629.832	15.312	12.2	-2.3	NO	NO	bb
10	200706P1-28	Standard	12.500	5.31	18310.025	13493.237	16.962	13.5	8.2	NO	NO	bb

Compound name: 13C2-8:2 FTS-EIS

Response Factor: 110.353

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.29	1541.506	1541.506	14.0	11.8	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.29	1580.063	1580.063	14.3	14.5	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.29	1512.862	1512.862	13.7	9.7	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.29	1542.955	1542.955	14.0	11.9	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.29	1469.703	1469.703	13.3	6.5	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.29	1379.408	1379.408	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.29	1477.570	1477.570	13.4	7.1	NO	NO	bbX
8	200706P1-26	Standard	12.500	5.29	1351.704	1351.704	12.2	-2.0	NO	NO	bbX
9	200706P1-27	Standard	12.500	5.29	1433.317	1433.317	13.0	3.9	NO	NO	bbX
10	200706P1-28	Standard	12.500	5.29	1567.050	1567.050	14.2	13.6	NO	NO	bbX

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Compound name: 13C2-8:2 FTS-RSD

Response Factor: 0.456564

RRF SD: 0.0413402, Relative SD: 9.05463

Response type: Internal Std (Ref 105), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.29	1541.506	3112.113	6.192	13.6	8.5	NO	NO	bb
2	200706P1-20	Standard	12.500	5.29	1580.063	3516.579	5.616	12.3	-1.6	NO	NO	bb
3	200706P1-21	Standard	12.500	5.29	1512.862	3143.465	6.016	13.2	5.4	NO	NO	bb
4	200706P1-22	Standard	12.500	5.29	1542.955	3349.641	5.758	12.6	0.9	NO	NO	bb
5	200706P1-23	Standard	12.500	5.29	1469.703	3463.788	5.304	11.6	-7.1	NO	NO	bb
6	200706P1-24	Standard	12.500	5.29	1379.408	3222.088	5.351	11.7	-6.2	NO	NO	bb
7	200706P1-25	Standard	12.500	5.29	1477.570	3410.395	5.416	11.9	-5.1	NO	NO	bb
8	200706P1-26	Standard	12.500	5.29	1351.704	3432.673	4.922	10.8	-13.8	NO	NO	bb
9	200706P1-27	Standard	12.500	5.29	1433.317	3113.743	5.754	12.6	0.8	NO	NO	bb
10	200706P1-28	Standard	12.500	5.29	1567.050	2905.585	6.742	14.8	18.1	NO	NO	bb

Compound name: d3-N-MeFOSAA-EIS

Response Factor: 331.163

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.46	4408.401	4408.401	13.3	6.5	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.46	4346.208	4346.208	13.1	5.0	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.46	4230.765	4230.765	12.8	2.2	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.46	4359.749	4359.749	13.2	5.3	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.46	4489.936	4489.936	13.6	8.5	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.45	4139.533	4139.533	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.46	4321.417	4321.417	13.0	4.4	NO	NO	bbX
8	200706P1-26	Standard	12.500	5.46	4277.929	4277.929	12.9	3.3	NO	NO	bbX
9	200706P1-27	Standard	12.500	5.45	4146.951	4146.951	12.5	0.2	NO	NO	bbX
10	200706P1-28	Standard	12.500	5.45	4234.389	4234.389	12.8	2.3	NO	NO	bbX

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Compound name: d3-N-MeFOSAA-RSD

Response Factor: 0.293087

RRF SD: 0.0174045, Relative SD: 5.93836

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.46	4408.401	14039.590	3.925	13.4	7.1	NO	NO	bb
2	200706P1-20	Standard	12.500	5.46	4346.208	15869.678	3.423	11.7	-6.6	NO	NO	bb
3	200706P1-21	Standard	12.500	5.46	4230.765	14615.809	3.618	12.3	-1.2	NO	NO	bb
4	200706P1-22	Standard	12.500	5.46	4359.749	14751.563	3.694	12.6	0.8	NO	NO	bb
5	200706P1-23	Standard	12.500	5.46	4489.936	15184.211	3.696	12.6	0.9	NO	NO	bb
6	200706P1-24	Standard	12.500	5.45	4139.533	14215.874	3.640	12.4	-0.6	NO	NO	bb
7	200706P1-25	Standard	12.500	5.46	4321.417	15481.095	3.489	11.9	-4.8	NO	NO	bb
8	200706P1-26	Standard	12.500	5.46	4277.929	15001.885	3.564	12.2	-2.7	NO	NO	bb
9	200706P1-27	Standard	12.500	5.45	4146.951	14984.139	3.459	11.8	-5.6	NO	NO	bb
10	200706P1-28	Standard	12.500	5.45	4234.389	12829.642	4.126	14.1	12.6	NO	NO	bb

Compound name: 13C2-PFUDa-EIS

Response Factor: 1581.34

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.63	18683.264	18683.264	11.8	-5.5	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.63	19852.086	19852.086	12.6	0.4	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.63	18480.219	18480.219	11.7	-6.5	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.63	19143.811	19143.811	12.1	-3.2	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.63	20906.857	20906.857	13.2	5.8	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.63	19766.689	19766.689	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.63	19028.625	19028.625	12.0	-3.7	NO	NO	bbX
8	200706P1-26	Standard	12.500	5.63	18950.932	18950.932	12.0	-4.1	NO	NO	bbX
9	200706P1-27	Standard	12.500	5.63	18632.748	18632.748	11.8	-5.7	NO	NO	bbX
10	200706P1-28	Standard	12.500	5.63	16795.816	16795.816	10.6	-15.0	NO	NO	bbX

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Compound name: 13C2-PFUDa-RSD

Response Factor: 1.29562

RRF SD: 0.0559514, Relative SD: 4.31849

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.63	18683.264	14039.590	16.634	12.8	2.7	NO	NO	bb
2	200706P1-20	Standard	12.500	5.63	19852.086	15869.678	15.637	12.1	-3.4	NO	NO	bb
3	200706P1-21	Standard	12.500	5.63	18480.219	14615.809	15.805	12.2	-2.4	NO	NO	bb
4	200706P1-22	Standard	12.500	5.63	19143.811	14751.563	16.222	12.5	0.2	NO	NO	bb
5	200706P1-23	Standard	12.500	5.63	20906.857	15184.211	17.211	13.3	6.3	NO	NO	bb
6	200706P1-24	Standard	12.500	5.63	19766.689	14215.874	17.381	13.4	7.3	NO	NO	bb
7	200706P1-25	Standard	12.500	5.63	19028.625	15481.095	15.364	11.9	-5.1	NO	NO	bb
8	200706P1-26	Standard	12.500	5.63	18950.932	15001.885	15.790	12.2	-2.5	NO	NO	bb
9	200706P1-27	Standard	12.500	5.63	18632.748	14984.139	15.544	12.0	-4.0	NO	NO	bb
10	200706P1-28	Standard	12.500	5.63	16795.816	12829.642	16.364	12.6	1.0	NO	NO	bb

Compound name: d5-N-EtFOSAA-EIS

Response Factor: 313.941

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.61	3974.848	3974.848	12.7	1.3	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.61	4387.888	4387.888	14.0	11.8	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.61	4370.321	4370.321	13.9	11.4	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.61	4172.910	4172.910	13.3	6.3	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.61	4350.434	4350.434	13.9	10.9	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.61	3924.268	3924.268	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.61	4351.004	4351.004	13.9	10.9	NO	NO	bbX
8	200706P1-26	Standard	12.500	5.61	4188.651	4188.651	13.3	6.7	NO	NO	bbX
9	200706P1-27	Standard	12.500	5.60	4036.783	4036.783	12.9	2.9	NO	NO	bbX
10	200706P1-28	Standard	12.500	5.60	3787.376	3787.376	12.1	-3.5	NO	NO	bbX

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Compound name: d5-N-EtFOSAA-RSD

Response Factor: 0.282893

RRF SD: 0.00889003, Relative SD: 3.14254

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.61	3974.848	14039.590	3.539	12.5	0.1	NO	NO	bb
2	200706P1-20	Standard	12.500	5.61	4387.888	15869.678	3.456	12.2	-2.3	NO	NO	bb
3	200706P1-21	Standard	12.500	5.61	4370.321	14615.809	3.738	13.2	5.7	NO	NO	bb
4	200706P1-22	Standard	12.500	5.61	4172.910	14751.563	3.536	12.5	-0.0	NO	NO	bb
5	200706P1-23	Standard	12.500	5.61	4350.434	15184.211	3.581	12.7	1.3	NO	NO	bb
6	200706P1-24	Standard	12.500	5.61	3924.268	14215.874	3.451	12.2	-2.4	NO	NO	bb
7	200706P1-25	Standard	12.500	5.61	4351.004	15481.095	3.513	12.4	-0.7	NO	NO	bb
8	200706P1-26	Standard	12.500	5.61	4188.651	15001.885	3.490	12.3	-1.3	NO	NO	bb
9	200706P1-27	Standard	12.500	5.60	4036.783	14984.139	3.368	11.9	-4.8	NO	NO	bb
10	200706P1-28	Standard	12.500	5.60	3787.376	12829.642	3.690	13.0	4.4	NO	NO	bb

Compound name: 13C2-PFDoA-EIS

Response Factor: 1868.51

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.90	22810.775	22810.775	12.2	-2.3	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.90	25244.645	25244.645	13.5	8.1	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.90	24211.764	24211.764	13.0	3.7	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.90	24340.117	24340.117	13.0	4.2	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.90	25408.879	25408.879	13.6	8.8	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.90	23356.371	23356.371	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.90	23355.100	23355.100	12.5	-0.0	NO	NO	bbX
8	200706P1-26	Standard	12.500	5.90	24096.184	24096.184	12.9	3.2	NO	NO	bbX
9	200706P1-27	Standard	12.500	5.90	22303.783	22303.783	11.9	-4.5	NO	NO	bbX
10	200706P1-28	Standard	12.500	5.90	21320.014	21320.014	11.4	-8.7	NO	NO	bbX

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Compound name: 13C2-PFDoA-RSD

Response Factor: 1.54998

RRF SD: 0.0870364, Relative SD: 5.61531

Response type: Internal Std (Ref 106), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.90	22810.775	14024.693	20.331	13.1	4.9	NO	NO	bb
2	200706P1-20	Standard	12.500	5.90	25244.645	16270.641	19.394	12.5	0.1	NO	NO	bb
3	200706P1-21	Standard	12.500	5.90	24211.764	15005.021	20.170	13.0	4.1	NO	NO	bb
4	200706P1-22	Standard	12.500	5.90	24340.117	15649.067	19.442	12.5	0.3	NO	NO	bb
5	200706P1-23	Standard	12.500	5.90	25408.879	16678.373	19.043	12.3	-1.7	NO	NO	bb
6	200706P1-24	Standard	12.500	5.90	23356.371	13685.886	21.333	13.8	10.1	NO	NO	bb
7	200706P1-25	Standard	12.500	5.90	23355.100	15985.261	18.263	11.8	-5.7	NO	NO	bb
8	200706P1-26	Standard	12.500	5.90	24096.184	16564.369	18.184	11.7	-6.1	NO	NO	bb
9	200706P1-27	Standard	12.500	5.90	22303.783	15629.832	17.838	11.5	-7.9	NO	NO	bb
10	200706P1-28	Standard	12.500	5.90	21320.014	13493.237	19.751	12.7	1.9	NO	NO	bb

Compound name: 13C2-10:2 FTS-EIS

Response Factor: 108.637

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.89	1299.524	1299.524	12.0	-4.3	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.89	1409.232	1409.232	13.0	3.8	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.89	1381.627	1381.627	12.7	1.7	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.89	1355.605	1355.605	12.5	-0.2	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.89	1274.760	1274.760	11.7	-6.1	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.89	1357.960	1357.960	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.89	1263.989	1263.989	11.6	-6.9	NO	NO	MMX
8	200706P1-26	Standard	12.500	5.89	1154.229	1154.229	10.6	-15.0	NO	NO	MMX
9	200706P1-27	Standard	12.500	5.89	1113.270	1113.270	10.2	-18.0	NO	NO	MMX
10	200706P1-28	Standard	12.500	5.89	949.242	949.242	8.7	-30.1	YES	NO	MMX

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Compound name: 13C2-10:2 FTS-RSD

Response Factor: 0.383921

RRF SD: 0.038237, Relative SD: 9.95958

Response type: Internal Std (Ref 105), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.89	1299.524	3112.113	5.220	13.6	8.8	NO	NO	bb
2	200706P1-20	Standard	12.500	5.89	1409.232	3516.579	5.009	13.0	4.4	NO	NO	bb
3	200706P1-21	Standard	12.500	5.89	1381.627	3143.465	5.494	14.3	14.5	NO	NO	bb
4	200706P1-22	Standard	12.500	5.89	1355.605	3349.641	5.059	13.2	5.4	NO	NO	bb
5	200706P1-23	Standard	12.500	5.89	1274.760	3463.788	4.600	12.0	-4.1	NO	NO	bb
6	200706P1-24	Standard	12.500	5.89	1357.960	3222.088	5.268	13.7	9.8	NO	NO	bb
7	200706P1-25	Standard	12.500	5.89	1250.593	3410.395	4.584	11.9	-4.5	NO	NO	bb
8	200706P1-26	Standard	12.500	5.89	1157.615	3432.673	4.215	11.0	-12.2	NO	NO	MM
9	200706P1-27	Standard	12.500	5.89	1113.269	3113.743	4.469	11.6	-6.9	NO	NO	MM
10	200706P1-28	Standard	12.500	5.89	946.437	2905.585	4.072	10.6	-15.2	NO	NO	db

Compound name: d3-N-MeFOSA-EIS

Response Factor: 138.386

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	149.200	5.84	20355.828	20355.828	147.1	-1.4	NO	NO	bbX
2	200706P1-20	Standard	149.200	5.84	20279.811	20279.811	146.5	-1.8	NO	NO	bbX
3	200706P1-21	Standard	149.200	5.84	20965.770	20965.770	151.5	1.5	NO	NO	bbX
4	200706P1-22	Standard	149.200	5.84	20813.816	20813.816	150.4	0.8	NO	NO	bbX
5	200706P1-23	Standard	149.200	5.84	21672.008	21672.008	156.6	5.0	NO	NO	bbX
6	200706P1-24	Standard	149.200	5.84	20647.168	20647.168	149.2	0.0	NO	NO	bb
7	200706P1-25	Standard	149.200	5.84	21174.100	21174.100	153.0	2.6	NO	NO	bbX
8	200706P1-26	Standard	149.200	5.84	20387.346	20387.346	147.3	-1.3	NO	NO	bbX
9	200706P1-27	Standard	149.200	5.84	18792.607	18792.607	135.8	-9.0	NO	NO	bbX
10	200706P1-28	Standard	149.200	5.84	17789.584	17789.584	128.6	-13.8	NO	NO	bbX

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Compound name: d3-N-MeFOSA-RSD

Response Factor: 0.115787

RRF SD: 0.00580031, Relative SD: 5.00945

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	149.200	5.84	20355.828	14039.590	18.124	156.5	4.9	NO	NO	bb
2	200706P1-20	Standard	149.200	5.84	20279.811	15869.678	15.974	138.0	-7.5	NO	NO	bb
3	200706P1-21	Standard	149.200	5.84	20965.770	14615.809	17.931	154.9	3.8	NO	NO	bb
4	200706P1-22	Standard	149.200	5.84	20813.816	14751.563	17.637	152.3	2.1	NO	NO	bb
5	200706P1-23	Standard	149.200	5.84	21672.008	15184.211	17.841	154.1	3.3	NO	NO	bb
6	200706P1-24	Standard	149.200	5.84	20647.168	14215.874	18.155	156.8	5.1	NO	NO	bb
7	200706P1-25	Standard	149.200	5.84	21174.100	15481.095	17.097	147.7	-1.0	NO	NO	bb
8	200706P1-26	Standard	149.200	5.84	20387.346	15001.885	16.987	146.7	-1.7	NO	NO	bb
9	200706P1-27	Standard	149.200	5.84	18792.607	14984.139	15.677	135.4	-9.3	NO	NO	bb
10	200706P1-28	Standard	149.200	5.84	17789.584	12829.642	17.333	149.7	0.3	NO	NO	bb

Compound name: 13C2-PFTeDA-EIS

Response Factor: 1905.82

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	6.34	23296.811	23296.811	12.2	-2.2	NO	NO	bbX
2	200706P1-20	Standard	12.500	6.34	25347.914	25347.914	13.3	6.4	NO	NO	bbX
3	200706P1-21	Standard	12.500	6.34	24321.422	24321.422	12.8	2.1	NO	NO	bbX
4	200706P1-22	Standard	12.500	6.34	23906.566	23906.566	12.5	0.4	NO	NO	bbX
5	200706P1-23	Standard	12.500	6.33	25577.697	25577.697	13.4	7.4	NO	NO	bbX
6	200706P1-24	Standard	12.500	6.33	23822.789	23822.789	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	6.34	24780.746	24780.746	13.0	4.0	NO	NO	bbX
8	200706P1-26	Standard	12.500	6.34	23560.986	23560.986	12.4	-1.1	NO	NO	bbX
9	200706P1-27	Standard	12.500	6.33	23364.986	23364.986	12.3	-1.9	NO	NO	bbX
10	200706P1-28	Standard	12.500	6.33	21788.924	21788.924	11.4	-8.5	NO	NO	bbX

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Compound name: 13C2-PFTeDA-RSD

Response Factor: 1.63304

RRF SD: 0.0496816, Relative SD: 3.04227

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	6.34	23296.811	14039.590	20.742	12.7	1.6	NO	NO	bb
2	200706P1-20	Standard	12.500	6.34	25347.914	15869.678	19.966	12.2	-2.2	NO	NO	bb
3	200706P1-21	Standard	12.500	6.34	24321.422	14615.809	20.801	12.7	1.9	NO	NO	bb
4	200706P1-22	Standard	12.500	6.34	23906.566	14751.563	20.258	12.4	-0.8	NO	NO	bb
5	200706P1-23	Standard	12.500	6.33	25577.697	15184.211	21.056	12.9	3.2	NO	NO	bb
6	200706P1-24	Standard	12.500	6.33	23822.789	14215.874	20.947	12.8	2.6	NO	NO	bb
7	200706P1-25	Standard	12.500	6.34	24780.746	15481.095	20.009	12.3	-2.0	NO	NO	bb
8	200706P1-26	Standard	12.500	6.34	23560.986	15001.885	19.632	12.0	-3.8	NO	NO	bb
9	200706P1-27	Standard	12.500	6.33	23364.986	14984.139	19.491	11.9	-4.5	NO	NO	bb
10	200706P1-28	Standard	12.500	6.33	21788.924	12829.642	21.229	13.0	4.0	NO	NO	bb

Compound name: d5-N-ETFOSA-EIS

Response Factor: 155.235

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	149.200	6.21	23217.701	23217.701	149.6	0.2	NO	NO	bbX
2	200706P1-20	Standard	149.200	6.21	23650.156	23650.156	152.4	2.1	NO	NO	bbX
3	200706P1-21	Standard	149.200	6.21	23147.498	23147.498	149.1	-0.1	NO	NO	bbX
4	200706P1-22	Standard	149.200	6.21	23462.338	23462.338	151.1	1.3	NO	NO	bbX
5	200706P1-23	Standard	149.200	6.21	24914.057	24914.057	160.5	7.6	NO	NO	bbX
6	200706P1-24	Standard	149.200	6.21	23161.109	23161.109	149.2	0.0	NO	NO	bb
7	200706P1-25	Standard	149.200	6.21	23538.484	23538.484	151.6	1.6	NO	NO	bbX
8	200706P1-26	Standard	149.200	6.21	22448.846	22448.846	144.6	-3.1	NO	NO	bbX
9	200706P1-27	Standard	149.200	6.21	21512.914	21512.914	138.6	-7.1	NO	NO	bbX
10	200706P1-28	Standard	149.200	6.21	19492.205	19492.205	125.6	-15.8	NO	NO	bbX

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Compound name: d5-N-ETFOSA-RSD

Response Factor: 0.130363

RRF SD: 0.0061827, Relative SD: 4.74267

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	149.200	6.21	23217.701	14039.590	20.672	158.6	6.3	NO	NO	bb
2	200706P1-20	Standard	149.200	6.21	23650.156	15869.678	18.628	142.9	-4.2	NO	NO	bb
3	200706P1-21	Standard	149.200	6.21	23147.498	14615.809	19.797	151.9	1.8	NO	NO	bb
4	200706P1-22	Standard	149.200	6.21	23462.338	14751.563	19.881	152.5	2.2	NO	NO	bb
5	200706P1-23	Standard	149.200	6.21	24914.057	15184.211	20.510	157.3	5.4	NO	NO	bb
6	200706P1-24	Standard	149.200	6.21	23161.109	14215.874	20.366	156.2	4.7	NO	NO	bb
7	200706P1-25	Standard	149.200	6.21	23538.484	15481.095	19.006	145.8	-2.3	NO	NO	bb
8	200706P1-26	Standard	149.200	6.21	22448.846	15001.885	18.705	143.5	-3.8	NO	NO	bb
9	200706P1-27	Standard	149.200	6.21	21512.914	14984.139	17.946	137.7	-7.7	NO	NO	bb
10	200706P1-28	Standard	149.200	6.21	19492.205	12829.642	18.991	145.7	-2.4	NO	NO	bb

Compound name: 13C2-PFHxDA-EIS

Response Factor: 2109.6

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	6.63	25406.275	25406.275	12.0	-3.7	NO	NO	bbX
2	200706P1-20	Standard	12.500	6.63	27130.332	27130.332	12.9	2.9	NO	NO	bbX
3	200706P1-21	Standard	12.500	6.63	26103.717	26103.717	12.4	-1.0	NO	NO	bbX
4	200706P1-22	Standard	12.500	6.63	26556.000	26556.000	12.6	0.7	NO	NO	bbX
5	200706P1-23	Standard	12.500	6.63	27161.623	27161.623	12.9	3.0	NO	NO	bbX
6	200706P1-24	Standard	12.500	6.63	26370.029	26370.029	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	6.63	26053.225	26053.225	12.3	-1.2	NO	NO	bbX
8	200706P1-26	Standard	12.500	6.63	26467.854	26467.854	12.5	0.4	NO	NO	bbX
9	200706P1-27	Standard	12.500	6.63	25481.225	25481.225	12.1	-3.4	NO	NO	bbX
10	200706P1-28	Standard	12.500	6.63	23953.805	23953.805	11.4	-9.2	NO	NO	bbX

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Compound name: 13C2-PFHxDA-RSD

Response Factor: 1.7764

RRF SD: 0.0627321, Relative SD: 3.53142

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	6.63	25406.275	14039.590	22.620	12.7	1.9	NO	NO	bb
2	200706P1-20	Standard	12.500	6.63	27130.332	15869.678	21.370	12.0	-3.8	NO	NO	bb
3	200706P1-21	Standard	12.500	6.63	26103.717	14615.809	22.325	12.6	0.5	NO	NO	bb
4	200706P1-22	Standard	12.500	6.63	26556.000	14751.563	22.503	12.7	1.3	NO	NO	bb
5	200706P1-23	Standard	12.500	6.63	27161.623	15184.211	22.360	12.6	0.7	NO	NO	bb
6	200706P1-24	Standard	12.500	6.63	26370.029	14215.874	23.187	13.1	4.4	NO	NO	bb
7	200706P1-25	Standard	12.500	6.63	26053.225	15481.095	21.036	11.8	-5.3	NO	NO	bb
8	200706P1-26	Standard	12.500	6.63	26467.854	15001.885	22.054	12.4	-0.7	NO	NO	bb
9	200706P1-27	Standard	12.500	6.63	25481.225	14984.139	21.257	12.0	-4.3	NO	NO	bb
10	200706P1-28	Standard	12.500	6.63	23953.805	12829.642	23.338	13.1	5.1	NO	NO	bb

Compound name: d7-N-MeFOSE-EIS

Response Factor: 134.737

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	149.200	6.33	20481.053	20481.053	152.0	1.9	NO	NO	bbX
2	200706P1-20	Standard	149.200	6.33	20843.604	20843.604	154.7	3.7	NO	NO	bbX
3	200706P1-21	Standard	149.200	6.33	20414.760	20414.760	151.5	1.6	NO	NO	bbX
4	200706P1-22	Standard	149.200	6.33	20055.193	20055.193	148.8	-0.2	NO	NO	bbX
5	200706P1-23	Standard	149.200	6.33	22627.299	22627.299	167.9	12.6	NO	NO	bbX
6	200706P1-24	Standard	149.200	6.33	20102.832	20102.832	149.2	0.0	NO	NO	bb
7	200706P1-25	Standard	149.200	6.34	20711.023	20711.023	153.7	3.0	NO	NO	bbX
8	200706P1-26	Standard	149.200	6.34	20885.109	20885.109	155.0	3.9	NO	NO	bbX
9	200706P1-27	Standard	149.200	6.34	20707.771	20707.771	153.7	3.0	NO	NO	bbX
10	200706P1-28	Standard	149.200	6.33	19318.008	19318.008	143.4	-3.9	NO	NO	bbX

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Compound name: d7-N-MeFOSE-RSD

Response Factor: 0.118964

RRF SD: 0.00547466, Relative SD: 4.60196

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	149.200	6.33	20625.156	14039.590	18.363	154.4	3.5	NO	NO	MM
2	200706P1-20	Standard	149.200	6.33	21038.611	15869.678	16.571	139.3	-6.6	NO	NO	MM
3	200706P1-21	Standard	149.200	6.33	20577.102	14615.809	17.598	147.9	-0.9	NO	NO	MM
4	200706P1-22	Standard	149.200	6.33	20244.988	14751.563	17.155	144.2	-3.3	NO	NO	MM
5	200706P1-23	Standard	149.200	6.33	22883.443	15184.211	18.838	158.4	6.1	NO	NO	MM
6	200706P1-24	Standard	149.200	6.33	20361.439	14215.874	17.904	150.5	0.9	NO	NO	MM
7	200706P1-25	Standard	149.200	6.34	20966.053	15481.095	16.929	142.3	-4.6	NO	NO	MM
8	200706P1-26	Standard	149.200	6.34	21032.818	15001.885	17.525	147.3	-1.3	NO	NO	MM
9	200706P1-27	Standard	149.200	6.34	20971.070	14984.139	17.494	147.1	-1.4	NO	NO	MM
10	200706P1-28	Standard	149.200	6.33	19619.432	12829.642	19.115	160.7	7.7	NO	NO	MM

Compound name: d9-N-EtFOSE-EIS

Response Factor: 148.701

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	149.200	6.48	22385.490	22385.490	150.5	0.9	NO	NO	bbX
2	200706P1-20	Standard	149.200	6.48	22515.381	22515.381	151.4	1.5	NO	NO	bbX
3	200706P1-21	Standard	149.200	6.48	22580.791	22580.791	151.9	1.8	NO	NO	bbX
4	200706P1-22	Standard	149.200	6.48	21905.441	21905.441	147.3	-1.3	NO	NO	bbX
5	200706P1-23	Standard	149.200	6.48	23437.969	23437.969	157.6	5.6	NO	NO	bbX
6	200706P1-24	Standard	149.200	6.48	22186.262	22186.262	149.2	0.0	NO	NO	bb
7	200706P1-25	Standard	149.200	6.48	22694.074	22694.074	152.6	2.3	NO	NO	bbX
8	200706P1-26	Standard	149.200	6.48	23318.145	23318.145	156.8	5.1	NO	NO	bbX
9	200706P1-27	Standard	149.200	6.48	23270.990	23270.990	156.5	4.9	NO	NO	bbX
10	200706P1-28	Standard	149.200	6.48	23386.736	23386.736	157.3	5.4	NO	NO	bbX

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Compound name: d9-N-EtFOSE-RSD

Response Factor: 0.131719

RRF SD: 0.00914172, Relative SD: 6.94031

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	149.200	6.48	22589.941	14039.590	20.113	152.7	2.3	NO	NO	MM
2	200706P1-20	Standard	149.200	6.48	22768.420	15869.678	17.934	136.2	-8.7	NO	NO	MM
3	200706P1-21	Standard	149.200	6.48	22925.510	14615.809	19.607	148.9	-0.2	NO	NO	MM
4	200706P1-22	Standard	149.200	6.48	22139.848	14751.563	18.761	142.4	-4.5	NO	NO	MM
5	200706P1-23	Standard	149.200	6.48	23738.180	15184.211	19.542	148.4	-0.6	NO	NO	MM
6	200706P1-24	Standard	149.200	6.48	22478.828	14215.874	19.766	150.1	0.6	NO	NO	MM
7	200706P1-25	Standard	149.200	6.48	22952.611	15481.095	18.533	140.7	-5.7	NO	NO	MM
8	200706P1-26	Standard	149.200	6.48	23540.660	15001.885	19.615	148.9	-0.2	NO	NO	MM
9	200706P1-27	Standard	149.200	6.48	23510.197	14984.139	19.613	148.9	-0.2	NO	NO	MM
10	200706P1-28	Standard	149.200	6.48	23651.098	12829.642	23.043	174.9	17.3	NO	NO	MM

Compound name: 13C4-PFBA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 99), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	1.62	9571.630	9571.630	12.500	12.5	0.0	NO	NO	MM
2	200706P1-20	Standard	12.500	1.62	10495.767	10495.767	12.500	12.5	0.0	NO	NO	MM
3	200706P1-21	Standard	12.500	1.62	10322.609	10322.609	12.500	12.5	0.0	NO	NO	MM
4	200706P1-22	Standard	12.500	1.62	10427.793	10427.793	12.500	12.5	0.0	NO	NO	MM
5	200706P1-23	Standard	12.500	1.62	10992.993	10992.993	12.500	12.5	0.0	NO	NO	MM
6	200706P1-24	Standard	12.500	1.62	10121.277	10121.277	12.500	12.5	0.0	NO	NO	MM
7	200706P1-25	Standard	12.500	1.62	10409.653	10409.653	12.500	12.5	0.0	NO	NO	MM
8	200706P1-26	Standard	12.500	1.62	10665.174	10665.174	12.500	12.5	0.0	NO	NO	MM
9	200706P1-27	Standard	12.500	1.62	10876.274	10876.274	12.500	12.5	0.0	NO	NO	MM
10	200706P1-28	Standard	12.500	1.62	10864.321	10864.321	12.500	12.5	0.0	NO	NO	MM

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Compound name: 13C2-FOUEA-EIS

Response Factor: 1951.29

RRF SD: 0, Relative SD: 0

Response type: External Std, Area

Curve type: RF

1	200706P1-19	Standard	12.500	5.01	23514.066	23514.066	12.1	-3.6	NO	NO	bbX
2	200706P1-20	Standard	12.500	5.01	25451.172	25451.172	13.0	4.3	NO	NO	bbX
3	200706P1-21	Standard	12.500	5.01	23973.270	23973.270	12.3	-1.7	NO	NO	bbX
4	200706P1-22	Standard	12.500	5.01	25472.313	25472.313	13.1	4.4	NO	NO	bbX
5	200706P1-23	Standard	12.500	5.01	26638.104	26638.104	13.7	9.2	NO	NO	bbX
6	200706P1-24	Standard	12.500	5.00	24391.166	24391.166	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.01	25232.289	25232.289	12.9	3.4	NO	NO	bbX
8	200706P1-26	Standard	12.500	5.01	22912.313	22912.313	11.7	-6.1	NO	NO	bbX
9	200706P1-27	Standard	12.500	5.00	23091.492	23091.492	11.8	-5.3	NO	NO	bbX
10	200706P1-28	Standard	12.500	5.00	19672.584	19672.584	10.1	-19.3	NO	NO	bbX

Compound name: 13C5-PFHxA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 101), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	3.38	15792.443	15792.443	12.500	12.5	0.0	NO	NO	bb
2	200706P1-20	Standard	12.500	3.39	16933.953	16933.953	12.500	12.5	0.0	NO	NO	bb
3	200706P1-21	Standard	12.500	3.39	16418.008	16418.008	12.500	12.5	0.0	NO	NO	bb
4	200706P1-22	Standard	12.500	3.39	16457.064	16457.064	12.500	12.5	0.0	NO	NO	bb
5	200706P1-23	Standard	12.500	3.39	18353.051	18353.051	12.500	12.5	0.0	NO	NO	bb
6	200706P1-24	Standard	12.500	3.39	15564.020	15564.020	12.500	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	3.39	17166.877	17166.877	12.500	12.5	0.0	NO	NO	bb
8	200706P1-26	Standard	12.500	3.39	16410.266	16410.266	12.500	12.5	0.0	NO	NO	bb
9	200706P1-27	Standard	12.500	3.39	16063.282	16063.282	12.500	12.5	0.0	NO	NO	bb
10	200706P1-28	Standard	12.500	3.39	15638.367	15638.367	12.500	12.5	0.0	NO	NO	bb

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Compound name: 18O2-PFHxS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 102), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	4.13	1112.618	1112.618	12.500	12.5	0.0	NO	NO	bb
2	200706P1-20	Standard	12.500	4.13	1135.557	1135.557	12.500	12.5	0.0	NO	NO	bb
3	200706P1-21	Standard	12.500	4.13	1029.912	1029.912	12.500	12.5	0.0	NO	NO	bb
4	200706P1-22	Standard	12.500	4.13	1172.076	1172.076	12.500	12.5	0.0	NO	NO	bb
5	200706P1-23	Standard	12.500	4.13	1315.580	1315.580	12.500	12.5	0.0	NO	NO	bb
6	200706P1-24	Standard	12.500	4.13	1066.013	1066.013	12.500	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	4.13	1118.342	1118.342	12.500	12.5	0.0	NO	NO	bb
8	200706P1-26	Standard	12.500	4.13	1109.793	1109.793	12.500	12.5	0.0	NO	NO	bb
9	200706P1-27	Standard	12.500	4.13	1116.404	1116.404	12.500	12.5	0.0	NO	NO	bb
10	200706P1-28	Standard	12.500	4.13	1041.527	1041.527	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 103), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	4.51	12519.366	12519.366	12.500	12.5	0.0	NO	NO	bb
2	200706P1-20	Standard	12.500	4.51	13839.076	13839.076	12.500	12.5	0.0	NO	NO	bb
3	200706P1-21	Standard	12.500	4.51	13084.422	13084.422	12.500	12.5	0.0	NO	NO	bb
4	200706P1-22	Standard	12.500	4.51	13029.019	13029.019	12.500	12.5	0.0	NO	NO	bb
5	200706P1-23	Standard	12.500	4.51	14240.478	14240.478	12.500	12.5	0.0	NO	NO	bb
6	200706P1-24	Standard	12.500	4.51	13030.224	13030.224	12.500	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	4.51	13296.607	13296.607	12.500	12.5	0.0	NO	NO	bb
8	200706P1-26	Standard	12.500	4.50	12409.222	12409.222	12.500	12.5	0.0	NO	NO	bb
9	200706P1-27	Standard	12.500	4.50	12509.283	12509.283	12.500	12.5	0.0	NO	NO	bb
10	200706P1-28	Standard	12.500	4.50	10884.975	10884.975	12.500	12.5	0.0	NO	NO	bb

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Compound name: 13C9-PFNA

Response Factor: 1

RRF SD: 7.40149e-017, Relative SD: 7.40149e-015

Response type: Internal Std (Ref 104), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	4.94	14826.541	14826.541	12.500	12.5	0.0	NO	NO	bb
2	200706P1-20	Standard	12.500	4.94	16698.430	16698.430	12.500	12.5	0.0	NO	NO	bb
3	200706P1-21	Standard	12.500	4.94	16406.395	16406.395	12.500	12.5	0.0	NO	NO	bb
4	200706P1-22	Standard	12.500	4.94	16149.805	16149.805	12.500	12.5	0.0	NO	NO	bb
5	200706P1-23	Standard	12.500	4.94	17268.395	17268.395	12.500	12.5	0.0	NO	NO	bb
6	200706P1-24	Standard	12.500	4.94	15863.199	15863.199	12.500	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	4.94	16381.950	16381.950	12.500	12.5	0.0	NO	NO	bb
8	200706P1-26	Standard	12.500	4.94	15859.456	15859.456	12.500	12.5	0.0	NO	NO	bb
9	200706P1-27	Standard	12.500	4.94	15578.559	15578.559	12.500	12.5	0.0	NO	NO	bb
10	200706P1-28	Standard	12.500	4.94	14529.391	14529.391	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 105), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.02	3112.113	3112.113	12.500	12.5	0.0	NO	NO	bb
2	200706P1-20	Standard	12.500	5.02	3516.579	3516.579	12.500	12.5	0.0	NO	NO	bb
3	200706P1-21	Standard	12.500	5.02	3143.465	3143.465	12.500	12.5	0.0	NO	NO	bb
4	200706P1-22	Standard	12.500	5.02	3349.641	3349.641	12.500	12.5	0.0	NO	NO	bb
5	200706P1-23	Standard	12.500	5.02	3463.788	3463.788	12.500	12.5	0.0	NO	NO	bb
6	200706P1-24	Standard	12.500	5.02	3222.088	3222.088	12.500	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.02	3410.395	3410.395	12.500	12.5	0.0	NO	NO	bb
8	200706P1-26	Standard	12.500	5.02	3432.673	3432.673	12.500	12.5	0.0	NO	NO	bb
9	200706P1-27	Standard	12.500	5.02	3113.743	3113.743	12.500	12.5	0.0	NO	NO	bb
10	200706P1-28	Standard	12.500	5.02	2905.585	2905.585	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 106), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.31	14024.693	14024.693	12.500	12.5	0.0	NO	NO	bb
2	200706P1-20	Standard	12.500	5.31	16270.641	16270.641	12.500	12.5	0.0	NO	NO	bb
3	200706P1-21	Standard	12.500	5.31	15005.021	15005.021	12.500	12.5	0.0	NO	NO	bb
4	200706P1-22	Standard	12.500	5.31	15649.067	15649.067	12.500	12.5	0.0	NO	NO	bb
5	200706P1-23	Standard	12.500	5.31	16678.373	16678.373	12.500	12.5	0.0	NO	NO	bb
6	200706P1-24	Standard	12.500	5.31	13685.886	13685.886	12.500	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.31	15985.261	15985.261	12.500	12.5	0.0	NO	NO	bb
8	200706P1-26	Standard	12.500	5.31	16564.369	16564.369	12.500	12.5	0.0	NO	NO	bb
9	200706P1-27	Standard	12.500	5.31	15629.832	15629.832	12.500	12.5	0.0	NO	NO	bb
10	200706P1-28	Standard	12.500	5.31	13493.237	13493.237	12.500	12.5	0.0	NO	NO	bb

Compound name: 13C7-PFUDa

Response Factor: 1

RRF SD: 3.70074e-017, Relative SD: 3.70074e-015

Response type: Internal Std (Ref 107), Area * (IS Conc. / IS Area)

Curve type: RF

1	200706P1-19	Standard	12.500	5.63	14039.590	14039.590	12.500	12.5	0.0	NO	NO	bb
2	200706P1-20	Standard	12.500	5.63	15869.678	15869.678	12.500	12.5	0.0	NO	NO	bb
3	200706P1-21	Standard	12.500	5.63	14615.809	14615.809	12.500	12.5	0.0	NO	NO	bb
4	200706P1-22	Standard	12.500	5.63	14751.563	14751.563	12.500	12.5	0.0	NO	NO	bb
5	200706P1-23	Standard	12.500	5.63	15184.211	15184.211	12.500	12.5	0.0	NO	NO	bb
6	200706P1-24	Standard	12.500	5.63	14215.874	14215.874	12.500	12.5	0.0	NO	NO	bb
7	200706P1-25	Standard	12.500	5.63	15481.095	15481.095	12.500	12.5	0.0	NO	NO	bb
8	200706P1-26	Standard	12.500	5.63	15001.885	15001.885	12.500	12.5	0.0	NO	NO	bb
9	200706P1-27	Standard	12.500	5.63	14984.139	14984.139	12.500	12.5	0.0	NO	NO	bb
10	200706P1-28	Standard	12.500	5.63	12829.642	12829.642	12.500	12.5	0.0	NO	NO	bb

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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 08:33:50
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Name: 200706P1-19, **Date:** 06-Jul-2020, **Time:** 13:13:57, **ID:** ST200706P1-1 **PFC CS-2 20F1901, Description:** PFC CS-2 20F1901

1	PFBA	47	0.9994	NO
2	PFPtS	51	0.9997	NO
3	3:3 FTCA	49	0.9991	NO
4	PFPeA	49	0.9999	NO
5	PFBS	51	0.9998	NO
6	4:2 FTS	55	0.9996	NO
7	PFHxA	57	0.9995	NO
8	PFPeS	51	0.9996	NO
9	HFPO-DA	53	0.9998	NO
10	5:3 FTCA	59	0.9993	NO
11	PFHpA	59	0.9999	NO
12	ADONA	59	0.9999	NO
13	L-PFHxS	61	0.9990	NO
15	6:2 FTS	63	0.9977	NO
16	L-PFOA	69	0.9992	NO
18	PFecHS	69	0.9996	NO
19	PFHpS	71	0.9999	NO
20	7:3 FTCA	65	0.9994	NO
21	PFNA	65	0.9998	NO
22	PFOSA	67	0.9999	NO
23	L-PFOS	71	0.9997	NO
25	9CI-PF30NS	71	0.9998	NO
26	PFDA	73	0.9999	NO
27	8:2 FTS	75	0.9989	NO
28	PFNS	71	0.9994	NO
29	L-MeFOSAA	77	0.9998	NO

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:07:57 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 08:33:50

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Name: 200706P1-19, **Date:** 06-Jul-2020, **Time:** 13:13:57, **ID:** ST200706P1-1 **PFC CS-2 20F1901, Description:** PFC CS-2 20F1901

31	L-EtFOSAA	81	0.9999	NO	
33	PFUdA	79	0.9996	NO	
34	PFDS	71	0.9999	NO	
35	11Cl-PF30UdS	83	0.9983	NO	
36	10:2 FTS	85	0.9970	NO	
37	PFDaA	83	0.9998	NO	
38	N-MeFOSA	87	0.9999	NO	
39	PFTTrDA	83	0.9999	NO	
40	PFDoS	89	0.9996	NO	
41	PFTeDA	89	0.9988	NO	
42	N-EtFOSA	91	0.9997	NO	
43	PFHxDA	93	0.9998	NO	
44	PFODA	93	0.9999	NO	
45	N-MeFOSE	95	0.9995	NO	
46	N-EtFOSE	97	0.9983	NO	
47	13C3-PFBA-EIS			NO	0.000
48	13C3-PFBA-RSD	99		NO	3.902
49	13C3-PFPeA-EIS			NO	0.000
50	13C3-PFPeA-RSD	101		NO	3.397
51	13C3-PFBS-EIS			NO	0.000
52	13C3-PFBS-RSD	102		NO	4.905
53	13C3-HFPO-DA-EIS			NO	0.000
54	13C3-HFPO-DA-RSD	101		NO	4.912
55	13C2-4:2 FTS-EIS			NO	0.000
56	13C2-4:2 FTS-RSD	102		NO	5.397
57	13C2-PFHxA-EIS			NO	0.000
58	13C2-PFHxA-RSD	101		NO	3.053
59	13C4-PFHpA-EIS			NO	0.000
60	13C4-PFHpA-RSD	101		NO	4.592
61	13C3-PFHxS-EIS			NO	0.000
62	13C3-PFHxS-RSD	102		NO	3.357
63	13C2-6:2 FTS-EIS			NO	0.000

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

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Name: 200706P1-19, Date: 06-Jul-2020, Time: 13:13:57, ID: ST200706P1-1 PFC CS-2 20F1901, Description: PFC CS-2 20F1901

64	13C2-6:2 FTS-RSD	105	NO	6.233
65	13C5-PFNA-EIS		NO	0.000
66	13C5-PFNA-RSD	104	NO	3.466
67	13C8-PFOSA-EIS		NO	0.000
68	13C8-PFOSA-RSD	107	NO	5.372
69	13C2-PFOA-EIS		NO	0.000
70	13C2-PFOA-RSD	103	NO	3.052
71	13C8-PFOS-EIS		NO	0.000
72	13C8-PFOS-RSD	105	NO	5.289
73	13C2-PFDA-EIS		NO	0.000
74	13C2-PFDA-RSD	106	NO	5.205
75	13C2-8:2 FTS-EIS		NO	0.000
76	13C2-8:2 FTS-RSD	105	NO	9.055
77	d3-N-MeFOSAA-EIS		NO	0.000
78	d3-N-MeFOSAA-RSD	107	NO	5.938
79	13C2-PFUDa-EIS		NO	0.000
80	13C2-PFUDa-RSD	107	NO	4.318
81	d5-N-EtFOSAA-EIS		NO	0.000
82	d5-N-EtFOSAA-RSD	107	NO	3.143
83	13C2-PFDoA-EIS		NO	0.000
84	13C2-PFDoA-RSD	106	NO	5.615
85	13C2-10:2 FTS-EIS		NO	0.000
86	13C2-10:2 FTS-RSD	105	NO	9.960
87	d3-N-MeFOSA-EIS		NO	0.000
88	d3-N-MeFOSA-RSD	107	NO	5.009
89	13C2-PFTeDA-EIS		NO	0.000
90	13C2-PFTeDA-RSD	107	NO	3.042
91	d5-N-ETFOSA-EIS		NO	0.000
92	d5-N-ETFOSA-RSD	107	NO	4.743
93	13C2-PFHxDA-EIS		NO	0.000
94	13C2-PFHxDA-RSD	107	NO	3.531
95	d7-N-MeFOSE-EIS		NO	0.000
96	d7-N-MeFOSE-RSD	107	NO	4.602
97	d9-N-EtFOSE-EIS		NO	0.000
98	d9-N-EtFOSE-RSD	107	NO	6.940
99	13C4-PFBA	99	NO	0.000

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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:07:57 Pacific Daylight Time

Name: 200706P1-19, Date: 06-Jul-2020, Time: 13:13:57, ID: ST200706P1-1 PFC CS-2 20F1901, Description: PFC CS-2 20F1901

1...	13C2-FOUEA-EIS		NO	0.000
1...	13C5-PFHxA	101	NO	0.000
1...	18O2-PFHxS	102	NO	0.000
1...	13C8-PFOA	103	NO	0.000
1...	13C9-PFNA	104	NO	0.000
1...	13C4-PFOS	105	NO	0.000
1...	13C6-PFDA	106	NO	0.000
1...	13C7-PFUDa	107	NO	0.000

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:14:38 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:15:00 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 09:14:35

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Name: 200706P1-24, Date: 06-Jul-2020, Time: 14:06:27, ID: ST200706P1-6 PFC CS3 20F1906, Description: PFC CS3 20F1906

1 PFBA	1.62	1.62			
2 PFPrS	1.81	1.97	2.684	2.684	NO
3 3:3 FTCA	2.43	2.44	3.536	3.536	NO
4 PFPeA	2.59	2.59			
5 PFBS	2.87	2.87	2.400	2.400	NO
6 4:2 FTS	3.31	3.31	11.507	11.507	NO
7 PFHxA	3.39	3.39	16.343	16.343	NO
8 PFPeS	3.80	3.57	1.941	1.941	NO
9 HFPO-DA	3.59	3.59	2.253	2.253	NO
10 5:3 FTCA	3.94	3.92	1.715	1.715	NO
11 PFHpA	3.98	3.98	53.515	53.515	NO
12 ADONA	4.08	4.10	3.855	3.855	NO
13 L-PFHxS	4.13	4.13	4.017	4.017	NO
15 6:2 FTS	4.45	4.45	0.844	0.844	NO
16 L-PFOA	4.51	4.51	3.193	3.193	NO
18 PFecHS	4.52	4.52	0.538	0.538	NO
19 PFHpS	4.56	4.61	1.736	1.736	NO
20 7:3 FTCA	4.85	4.93	1.270	1.270	NO
21 PFNA	4.94	4.94	14.123	14.123	NO
22 PFOSA	4.98	4.99	20.977	20.977	NO
23 L-PFOS	5.02	5.02	2.598	2.598	NO
25 9CI-PF3ONS	5.24	5.23	38.597	38.597	NO
26 PFDA	5.31	5.31	5.220	5.220	NO
27 8:2 FTS	5.29	5.29	0.833	0.833	NO
28 PFNS	5.39	5.37	2.459	2.459	NO
29 L-MeFOSAA	5.45	5.46	1.779	1.779	NO

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:14:38 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:15:18 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 09:14:35

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Name: 200706P1-24, Date: 06-Jul-2020, Time: 14:06:27, ID: ST200706P1-6 PFC CS3 20F1906, Description: PFC CS3 20F1906

31	L-EtFOSAA	5.61	5.61	1.390	1.390	NO
33	PFUdA	5.63	5.63	20.067	20.067	NO
34	PFDS	5.78	5.67	2.265	2.265	NO
35	11Cl-PF30UdS	5.83	5.83	17.809	17.809	NO
36	10:2 FTS	5.89	5.89	1.054	1.054	NO
37	PFDoA	5.90	5.90	12.755	12.755	NO
38	N-MeFOSA	5.83	5.82	1.955	1.955	NO
39	PFTrDA	6.16	6.14	116.572	116.572	NO
40	PFDoS	6.13	6.16	2.251	2.251	NO
41	PFTeDA	6.33	6.34	14.405	14.405	NO
42	N-EtFOSA	6.19	6.19	1.875	1.875	NO
43	PFHxDA	6.63	6.63	32.756	32.756	NO
44	PFODA	6.85	6.84			
45	N-MeFOSE	6.33	6.34			
46	N-EtFOSE	6.48	6.49			

Quantify Compound Summary Report **MassLynx V4.2 SCN977**
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Dataset: Untitled

Last Altered: Tuesday, July 07, 2020 09:16:38 Pacific Daylight Time
Printed: Tuesday, July 07, 2020 09:16:52 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 08:33:50
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Compound name: PFBA

1	200706P1-19	ST200706P1-1 PFC CS-2 20F1901	06-Jul-20	13:13:57
2	200706P1-20	ST200706P1-2 PFC CS-1 20F1902	06-Jul-20	13:24:27
3	200706P1-21	ST200706P1-3 PFC CS0 20F1903	06-Jul-20	13:34:57
4	200706P1-22	ST200706P1-4 PFC CS1 20F1904	06-Jul-20	13:45:26
5	200706P1-23	ST200706P1-5 PFC CS2 20F1905	06-Jul-20	13:55:58
6	200706P1-24	ST200706P1-6 PFC CS3 20F1906	06-Jul-20	14:06:27
7	200706P1-25	ST200706P1-7 PFC CS4 20F1907	06-Jul-20	14:16:59
8	200706P1-26	ST200706P1-8 PFC CS5 20F1908	06-Jul-20	14:27:27
9	200706P1-27	ST200706P1-9 PFC CS6 20F1909	06-Jul-20	14:37:59
10	200706P1-28	ST200706P1-10 PFC CS7 20F1910	06-Jul-20	14:48:28
11	200706P1-29	IB	06-Jul-20	14:58:58
12	200706P1-30	ICV200706P1-1 PFC ICV 20F1911	06-Jul-20	15:09:30
13	200706P1-31	IB	06-Jul-20	15:19:59

Quantify Calibration Report MassLynx V4.2 SCN977

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFA5_80C_070620.mdb 07 Jul 2020 08:33:50

Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFA5_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

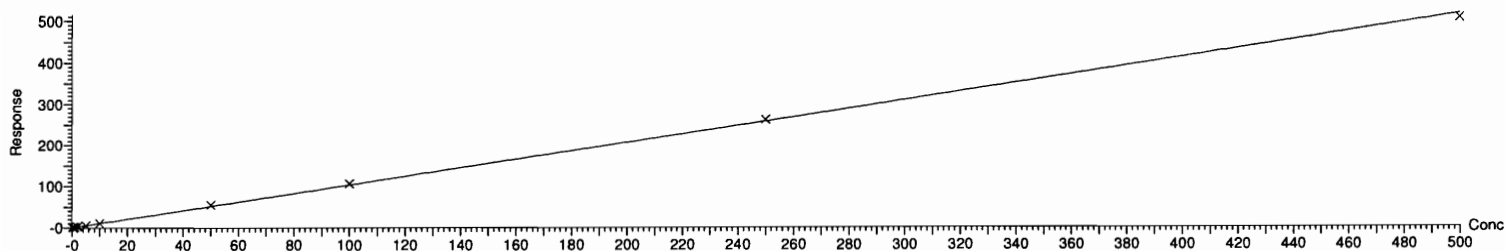
Compound name: PFBA

Correlation coefficient: $r = 0.999694$, $r^2 = 0.999388$

Calibration curve: $1.03125 * x + 0.0440308$

Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)

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



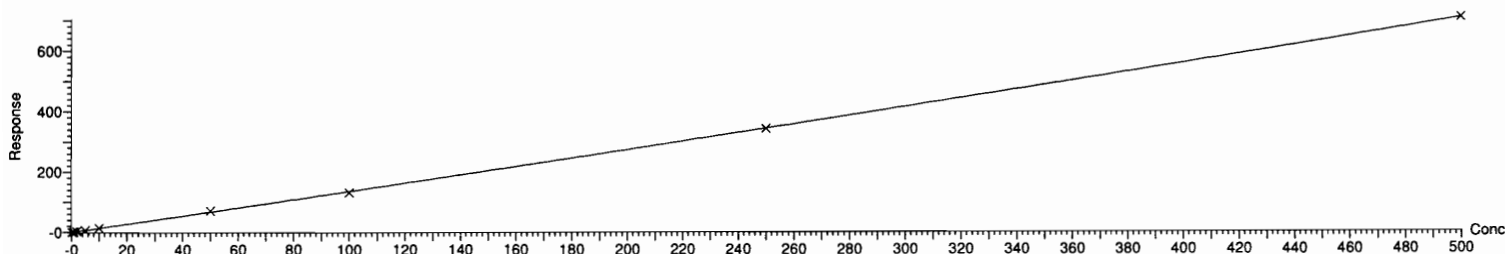
Compound name: PFPrS

Coefficient of Determination: $R^2 = 0.999729$

Calibration curve: $0.000149868 * x^2 + 1.33446 * x + -0.0189522$

Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)

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



Quantify Calibration Report **MassLynx V4.2 SCN977**
Vista Analytical Laboratory Q1

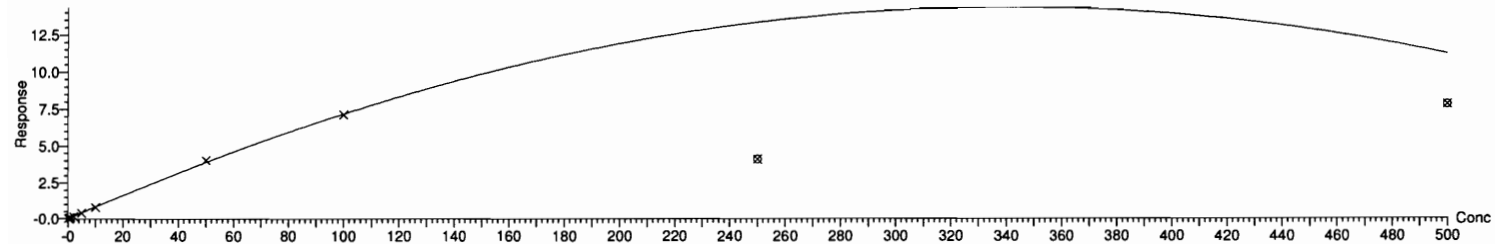
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

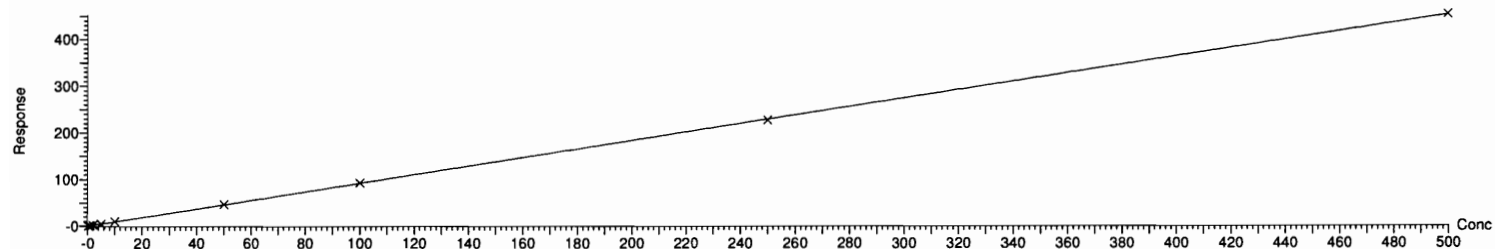
Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

Compound name: 3:3 FTCA
Coefficient of Determination: $R^2 = 0.999100$
Calibration curve: $-0.000123651 * x^2 + 0.0842724 * x + -0.00450239$
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: PFPeA
Coefficient of Determination: $R^2 = 0.999942$
Calibration curve: $-4.09095e-005 * x^2 + 0.926116 * x + 0.00438806$
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

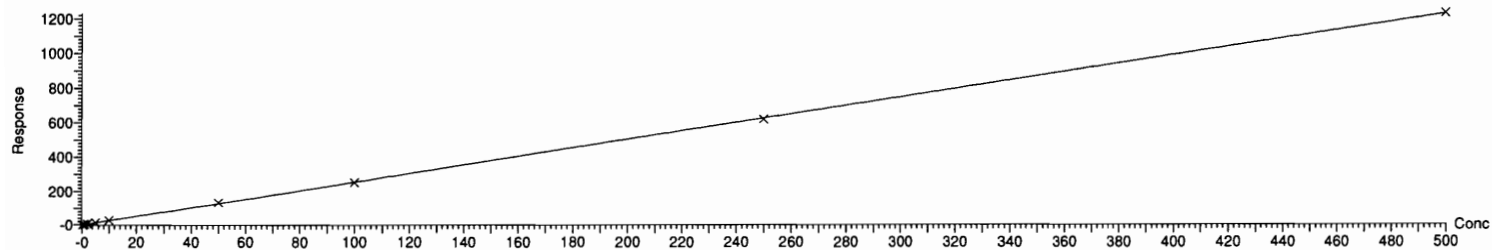
Compound name: PFBS

Coefficient of Determination: $R^2 = 0.999832$

Calibration curve: $-0.000209368 * x^2 + 2.56013 * x + 0.0091719$

Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)

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



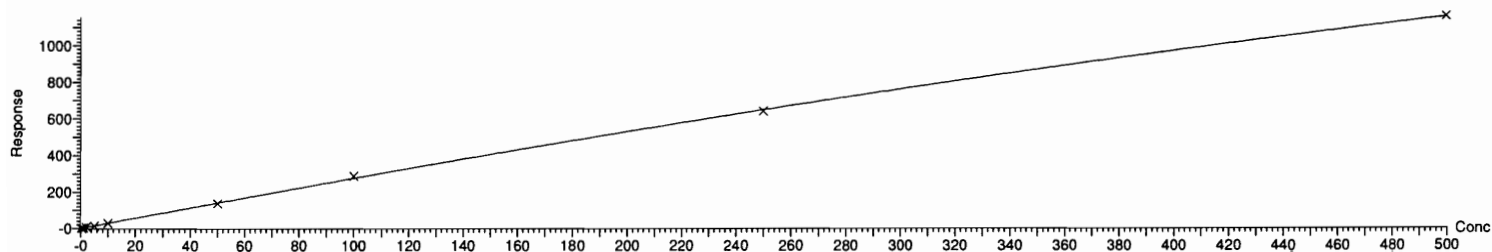
Compound name: 4:2 FTS

Coefficient of Determination: $R^2 = 0.999612$

Calibration curve: $-0.00110944 * x^2 + 2.87043 * x + -0.114307$

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

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



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

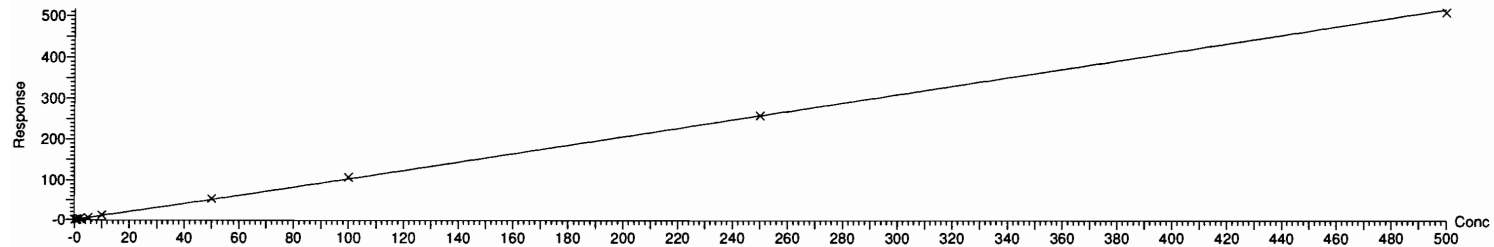
Compound name: PFHxA

Correlation coefficient: $r = 0.999727$, $r^2 = 0.999454$

Calibration curve: $1.03548 * x + 0.0754497$

Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)

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



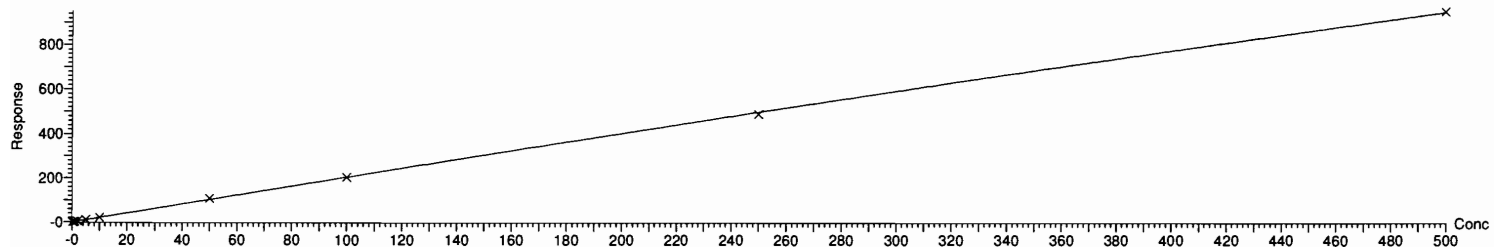
Compound name: PFPeS

Coefficient of Determination: $R^2 = 0.999616$

Calibration curve: $-0.000388732 * x^2 + 2.09219 * x + -0.0212532$

Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)

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



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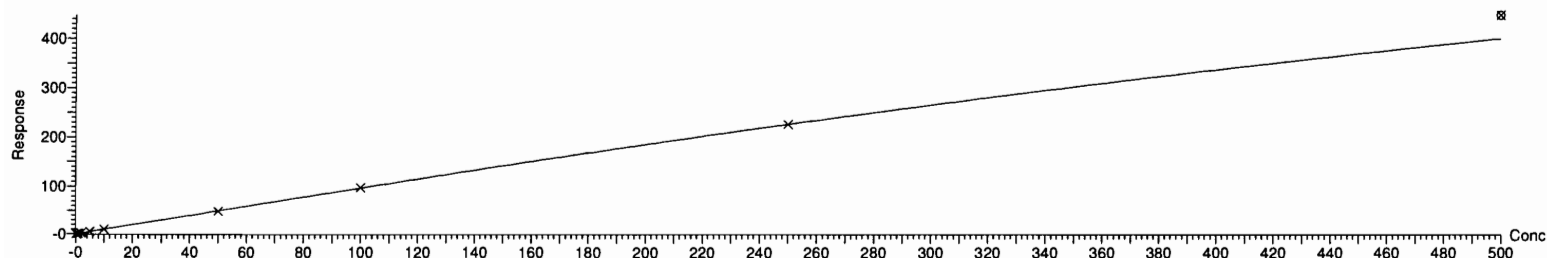
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

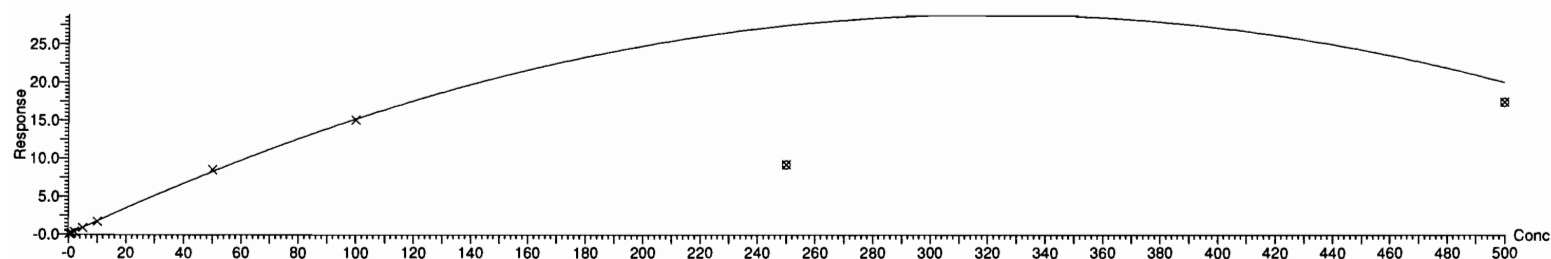
Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

Compound name: HFPO-DA
Coefficient of Determination: $R^2 = 0.999787$
Calibration curve: $-0.00042067 * x^2 + 1.01205 * x + -0.0211231$
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: 5:3 FTCA
Coefficient of Determination: $R^2 = 0.999294$
Calibration curve: $-0.000279748 * x^2 + 0.179933 * x + -0.0070197$
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



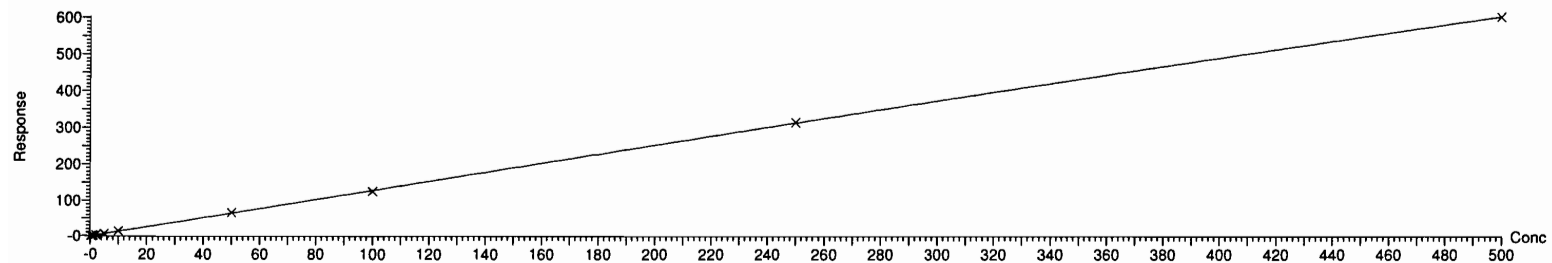
Quantify Calibration Report **MassLynx V4.2 SCN977**
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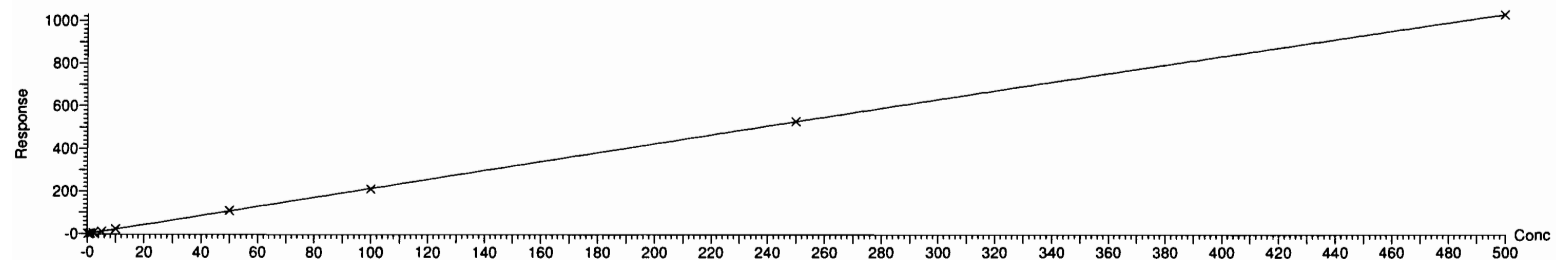
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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time
Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

Compound name: PFHpA
Coefficient of Determination: $R^2 = 0.999869$
Calibration curve: $-0.000182594 \cdot x^2 + 1.3002 \cdot x + 0.0362384$
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: ADONA
Coefficient of Determination: $R^2 = 0.999933$
Calibration curve: $-0.000211186 \cdot x^2 + 2.1692 \cdot x + 0.077206$
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

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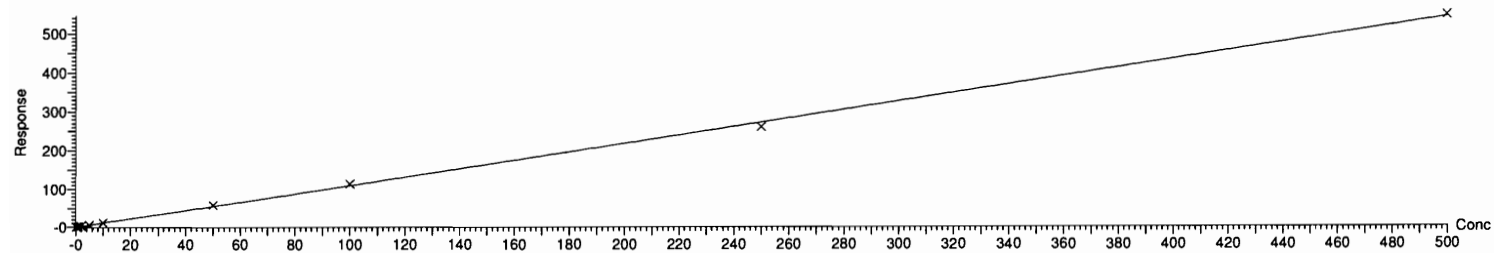
Compound name: L-PFHxS

Coefficient of Determination: $R^2 = 0.998975$

Calibration curve: $-1.6968e-005 * x^2 + 1.09268 * x + 0.0771315$

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

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



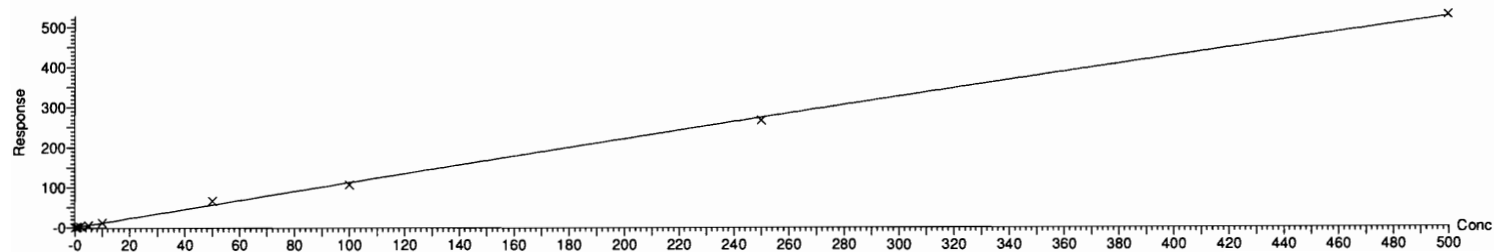
Compound name: 6:2 FTS

Coefficient of Determination: $R^2 = 0.997712$

Calibration curve: $-0.000191359 * x^2 + 1.14566 * x + 0.00198468$

Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)

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



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

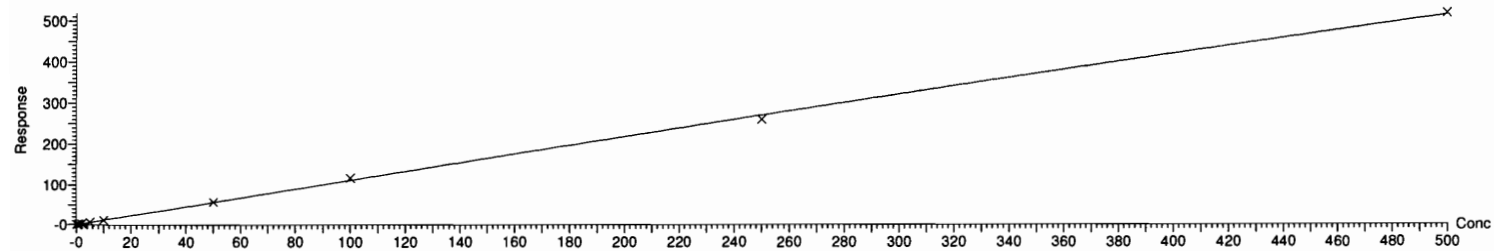
Compound name: L-PFOA

Coefficient of Determination: $R^2 = 0.999173$

Calibration curve: $-0.000202972 * x^2 + 1.13013 * x + 0.0543225$

Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)

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



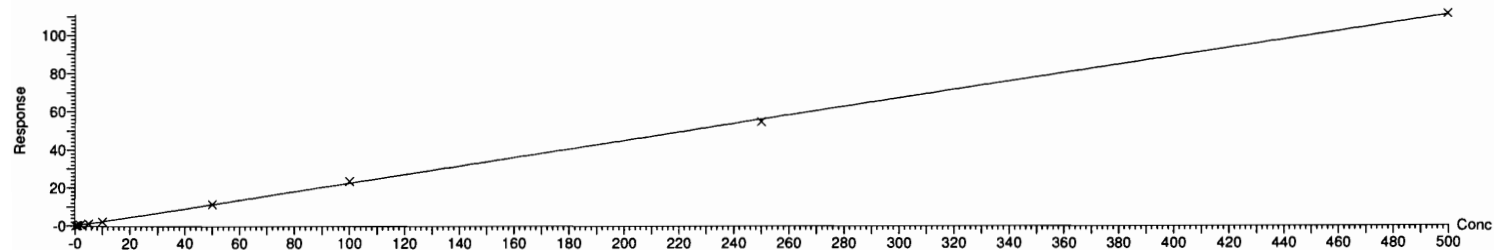
Compound name: PFecHS

Coefficient of Determination: $R^2 = 0.999583$

Calibration curve: $-1.03658e-005 * x^2 + 0.226457 * x + -0.0088356$

Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)

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



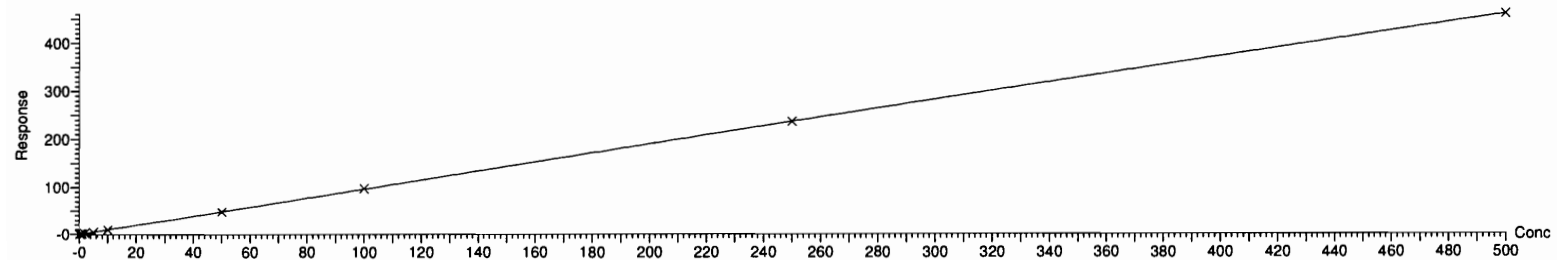
Quantify Calibration Report **MassLynx V4.2 SCN977**
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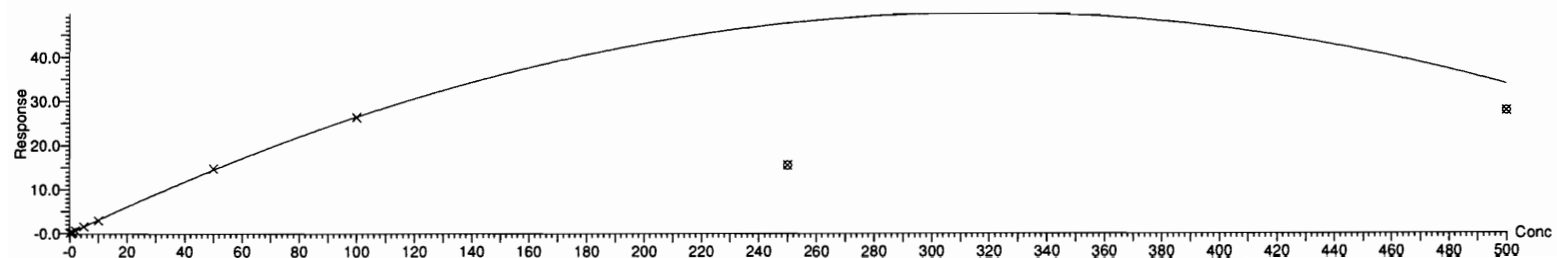
Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time
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Compound name: PFHpS
Coefficient of Determination: $R^2 = 0.999887$
Calibration curve: $-0.000106932 * x^2 + 0.973986 * x + 0.00516936$
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: 7:3 FTCA
Coefficient of Determination: $R^2 = 0.999371$
Calibration curve: $-0.000492227 * x^2 + 0.313584 * x + 0.000408564$
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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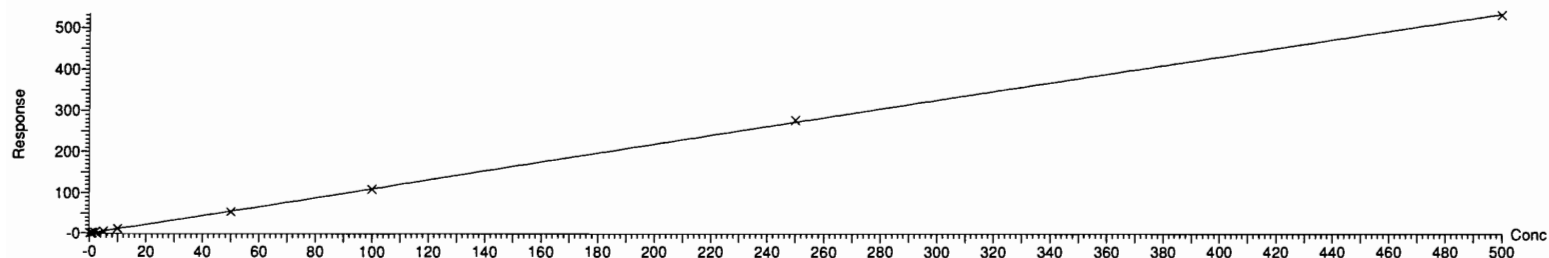
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

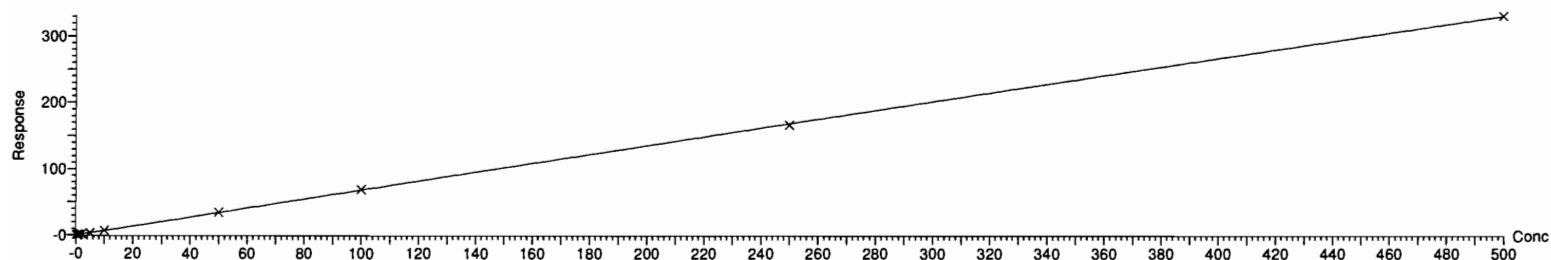
Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

Compound name: PFNA
Coefficient of Determination: $R^2 = 0.999826$
Calibration curve: $-9.83022e-005 * x^2 + 1.11707 * x + 0.0195168$
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: PFOSA
Coefficient of Determination: $R^2 = 0.999934$
Calibration curve: $-5.74782e-005 * x^2 + 0.690246 * x + 0.00511601$
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

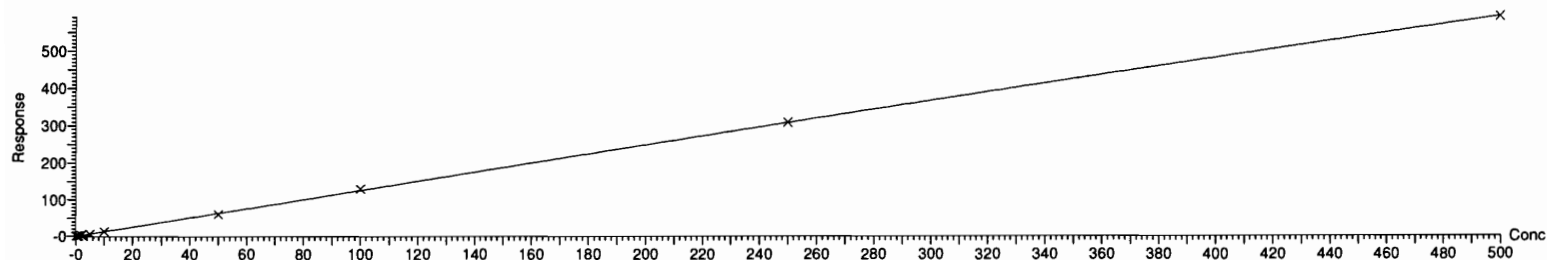
Compound name: L-PFOS

Coefficient of Determination: $R^2 = 0.999703$

Calibration curve: $-0.000187013 \cdot x^2 + 1.27905 \cdot x + -0.0944633$

Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)

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



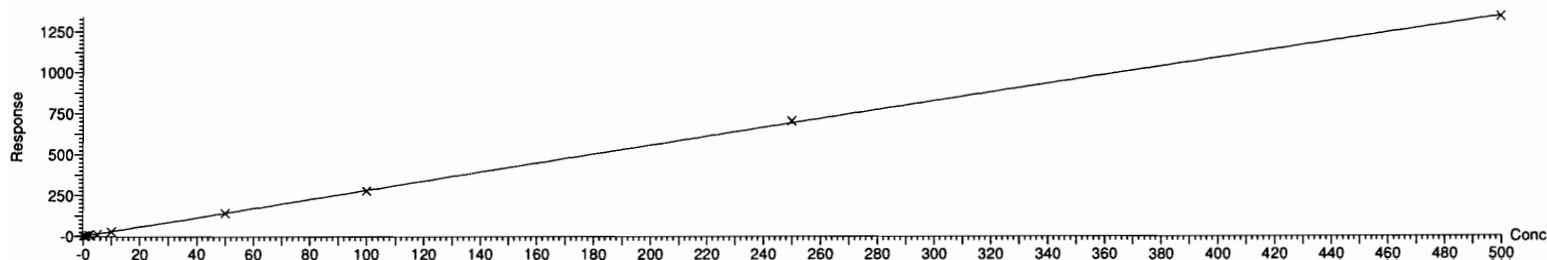
Compound name: 9CI-PF30NS

Coefficient of Determination: $R^2 = 0.999799$

Calibration curve: $-0.000316616 \cdot x^2 + 2.84896 \cdot x + 0.0165096$

Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)

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



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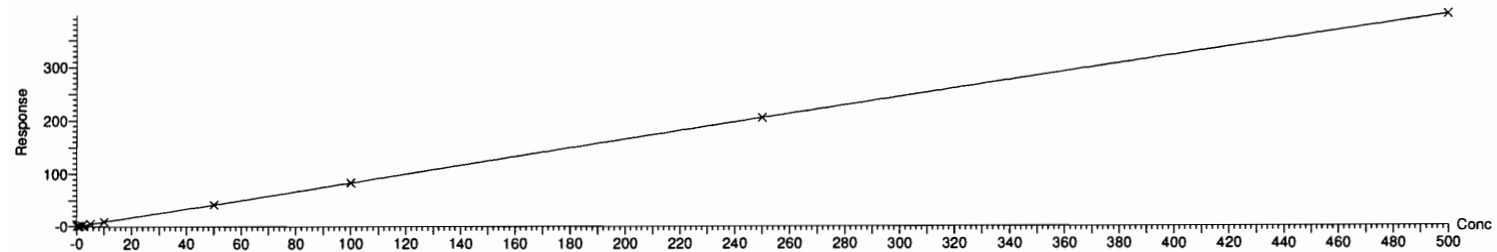
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

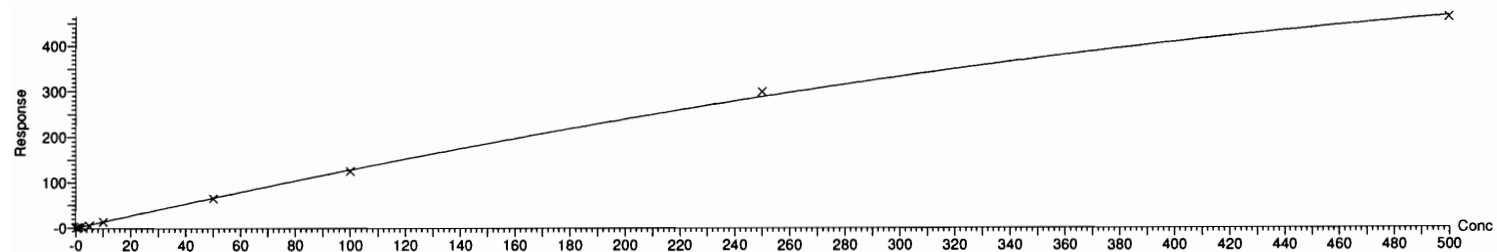
Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:21 Pacific Daylight Time

Compound name: PFDA
Coefficient of Determination: $R^2 = 0.999933$
Calibration curve: $-0.000101556 * x^2 + 0.846184 * x + 0.0441258$
Response type: Internal Std (Ref 73), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: 8:2 FTS
Coefficient of Determination: $R^2 = 0.998921$
Calibration curve: $-0.000876709 * x^2 + 1.37036 * x + -0.084038$
Response type: Internal Std (Ref 75), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

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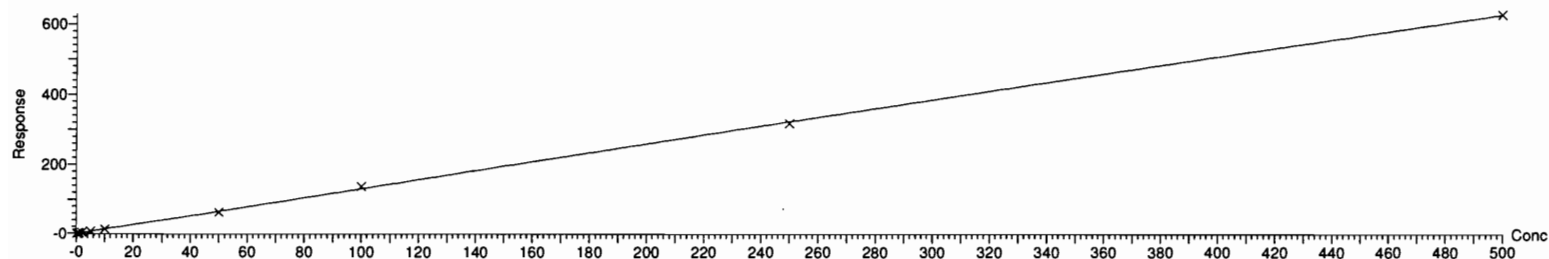
Compound name: PFNS

Coefficient of Determination: $R^2 = 0.999393$

Calibration curve: $-0.000161375 * x^2 + 1.33537 * x + -0.0984438$

Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)

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



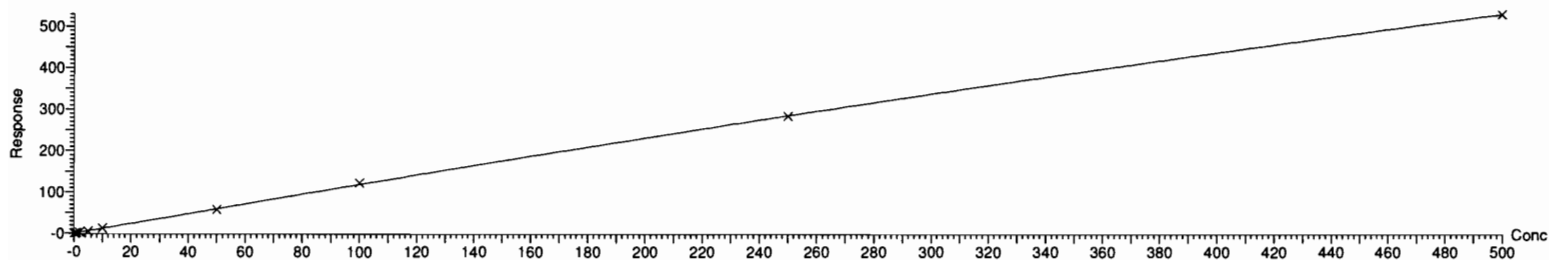
Compound name: L-MeFOSAA

Coefficient of Determination: $R^2 = 0.999777$

Calibration curve: $-0.000326513 * x^2 + 1.22499 * x + -0.0565243$

Response type: Internal Std (Ref 77), Area * (IS Conc. / IS Area)

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



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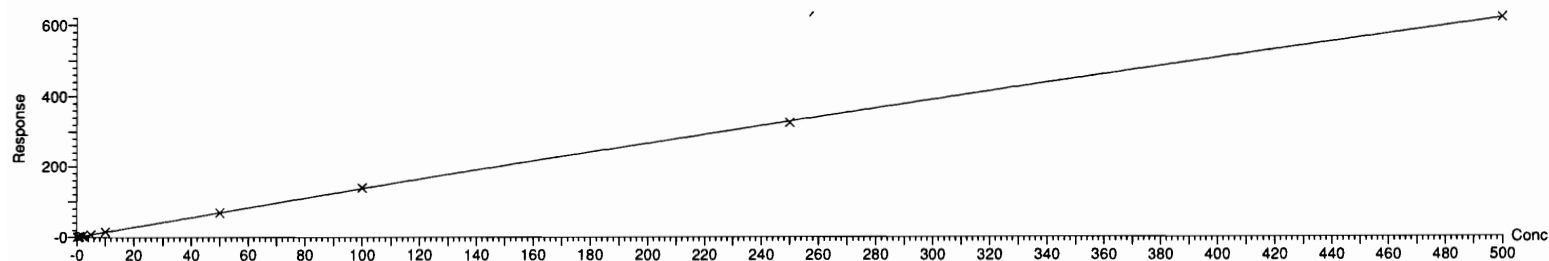
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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

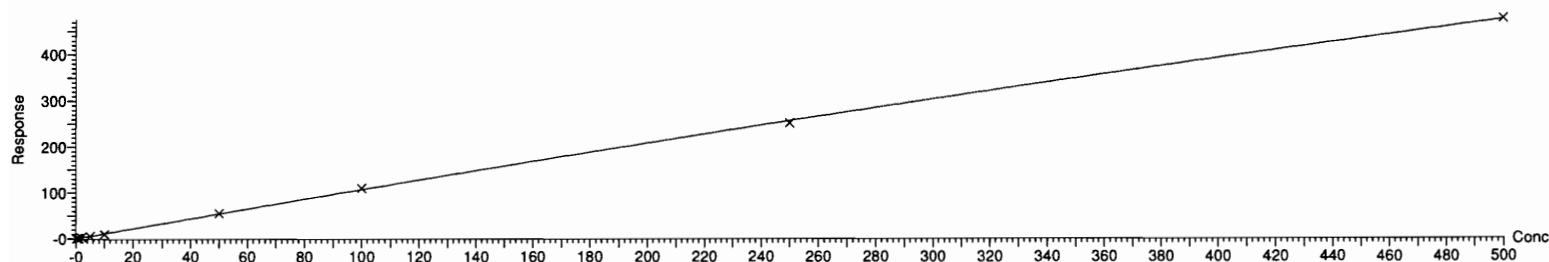
Printed: Tuesday, July 07, 2020 09:13:54 Pacific Daylight Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 08:33:50
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_07-06-20.cdb 07 Jul 2020 09:00:31

Compound name: L-EtFOSAA
Coefficient of Determination: $R^2 = 0.999878$
Calibration curve: $-0.000317928 * x^2 + 1.39659 * x + -0.0635925$
Response type: Internal Std (Ref 81), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: PFUdA
Coefficient of Determination: $R^2 = 0.999582$
Calibration curve: $-0.000302944 * x^2 + 1.10094 * x + 0.0188328$
Response type: Internal Std (Ref 79), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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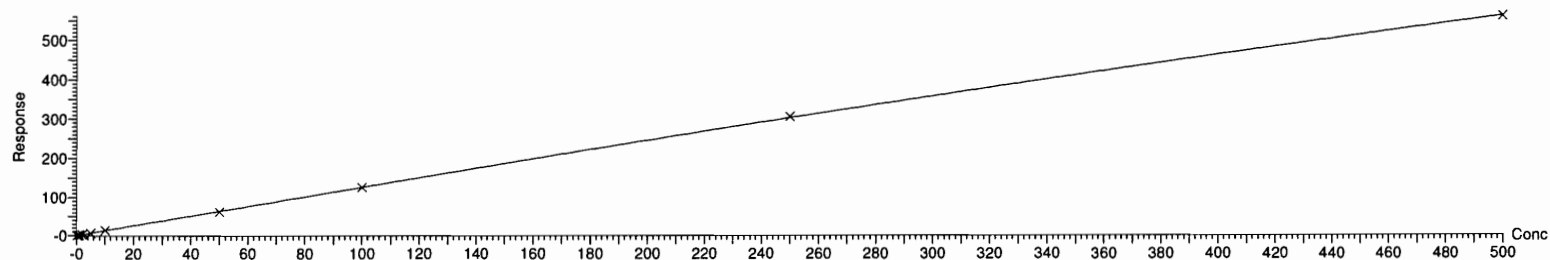
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

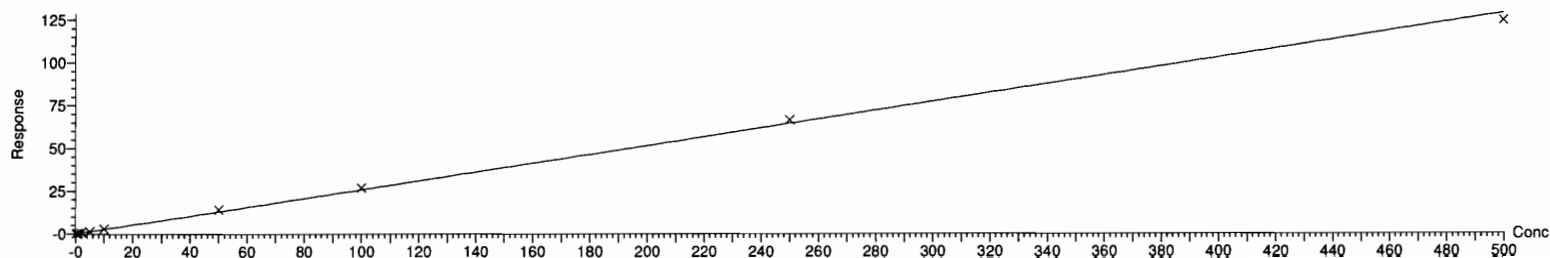
Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

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Compound name: PFDS
Coefficient of Determination: $R^2 = 0.999869$
Calibration curve: $-0.000337564 \cdot x^2 + 1.29291 \cdot x + -0.129711$
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: 11Cl-PF30UdS
Correlation coefficient: $r = 0.999153$, $r^2 = 0.998308$
Calibration curve: $0.257476 \cdot x + 0.00892294$
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



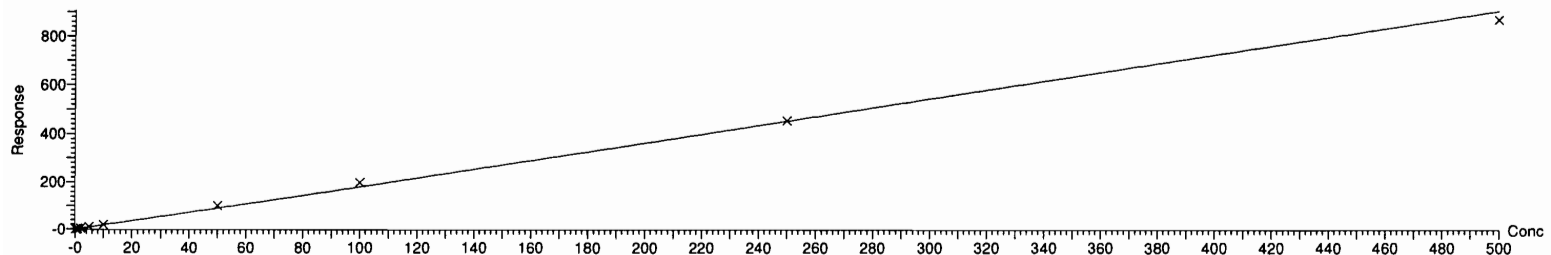
Quantify Calibration Report **MassLynx V4.2 SCN977**
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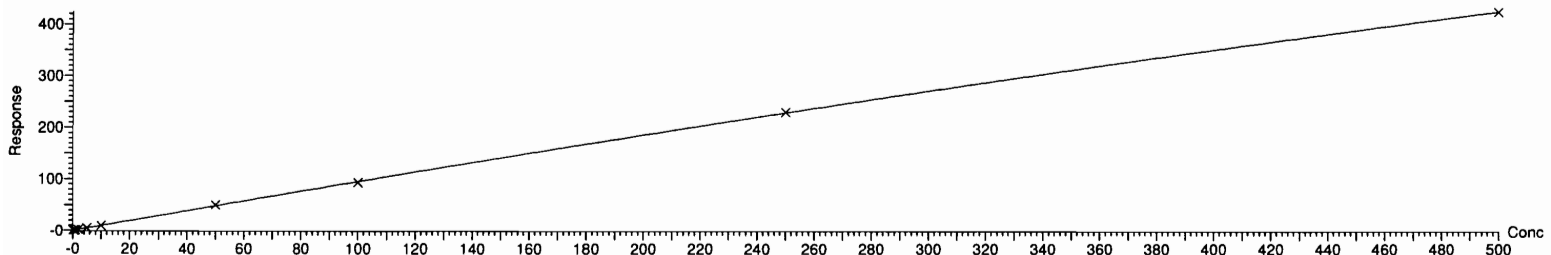
Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time
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Compound name: 10:2 FTS
Correlation coefficient: $r = 0.998475$, $r^2 = 0.996952$
Calibration curve: $1.81347 * x + 0.168501$
Response type: Internal Std (Ref 85), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: PFDoA
Coefficient of Determination: $R^2 = 0.999844$
Calibration curve: $-0.000264449 * x^2 + 0.982944 * x + 0.00539633$
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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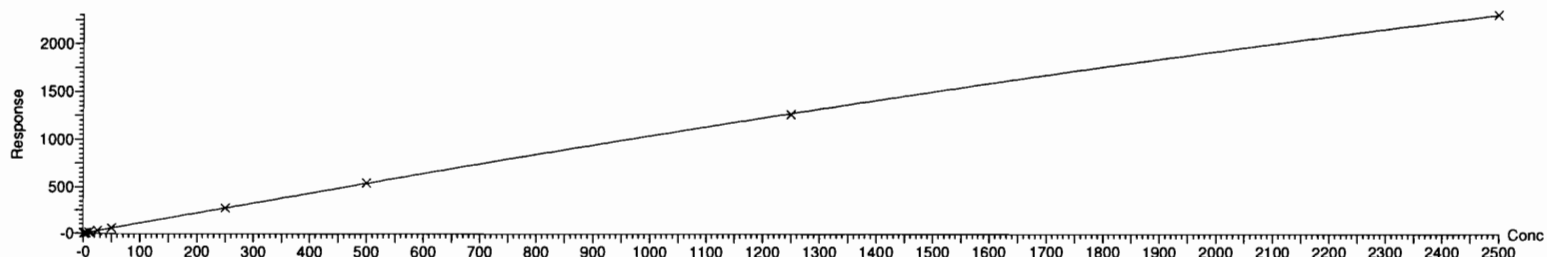
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

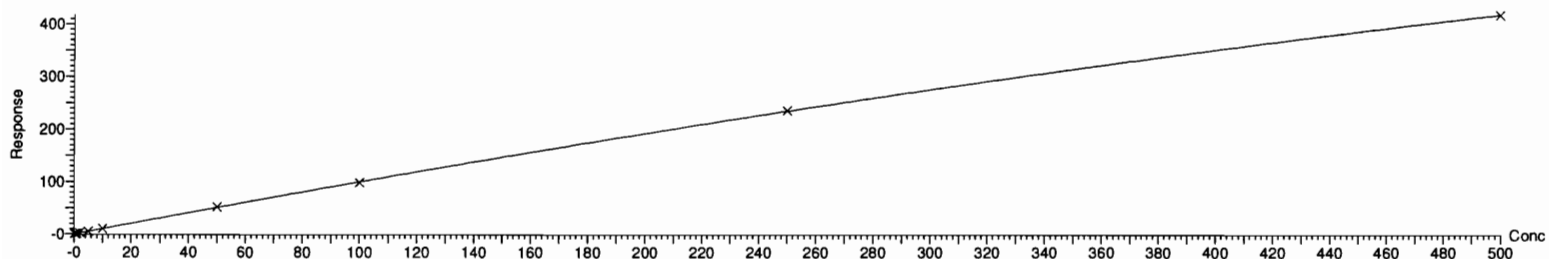
Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:54 Pacific Daylight Time

Compound name: N-MeFOSA
Coefficient of Determination: $R^2 = 0.999940$
Calibration curve: $-7.96999\text{e-}005 * x^2 + 1.12175 * x + 0.0605427$
Response type: Internal Std (Ref 87), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: PFTTrDA
Coefficient of Determination: $R^2 = 0.999936$
Calibration curve: $-0.000414303 * x^2 + 1.04415 * x + 0.00171537$
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:54 Pacific Daylight Time

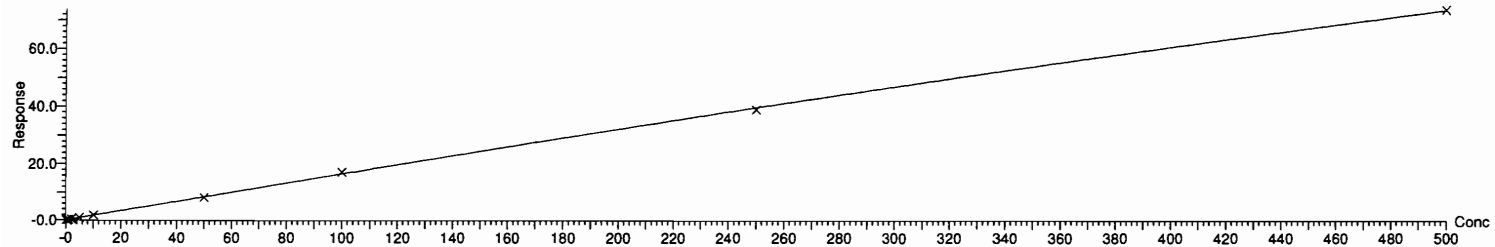
Compound name: PFDoS

Coefficient of Determination: $R^2 = 0.999610$

Calibration curve: $-4.68396e-005 * x^2 + 0.17052 * x + -0.00392295$

Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)

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



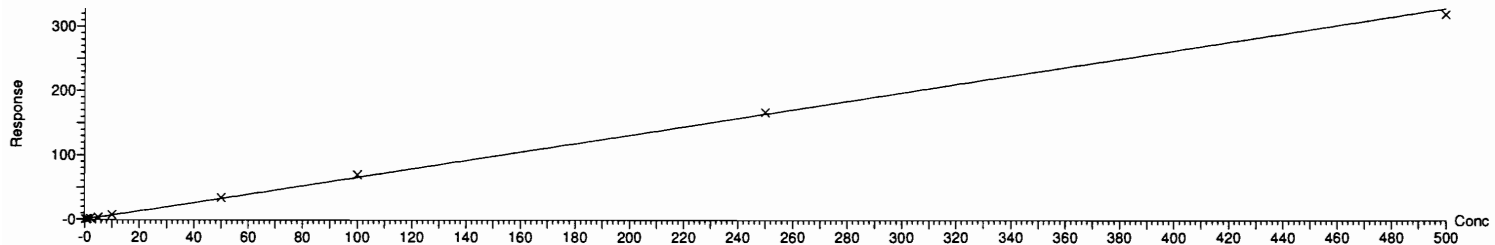
Compound name: PFTeDA

Correlation coefficient: $r = 0.999411$, $r^2 = 0.998822$

Calibration curve: $0.656798 * x + 0.0803604$

Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)

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



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:54 Pacific Daylight Time

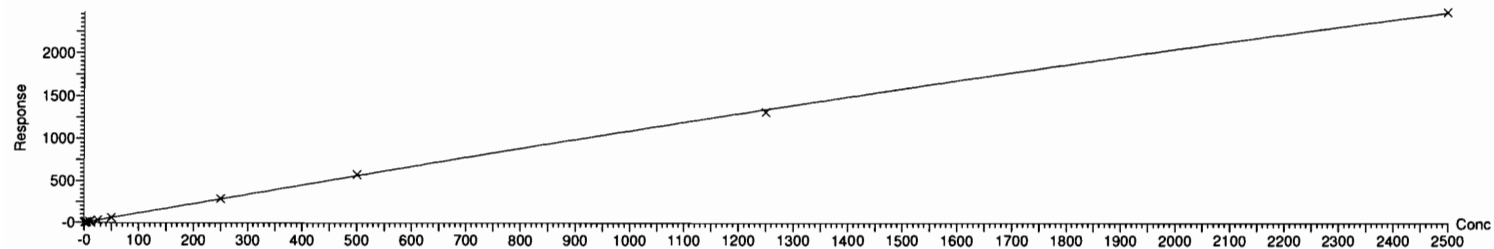
Compound name: N-EtFOSA

Coefficient of Determination: $R^2 = 0.999747$

Calibration curve: $-6.96201\text{e-}005 * x^2 + 1.16259 * x + -0.107454$

Response type: Internal Std (Ref 91), Area * (IS Conc. / IS Area)

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



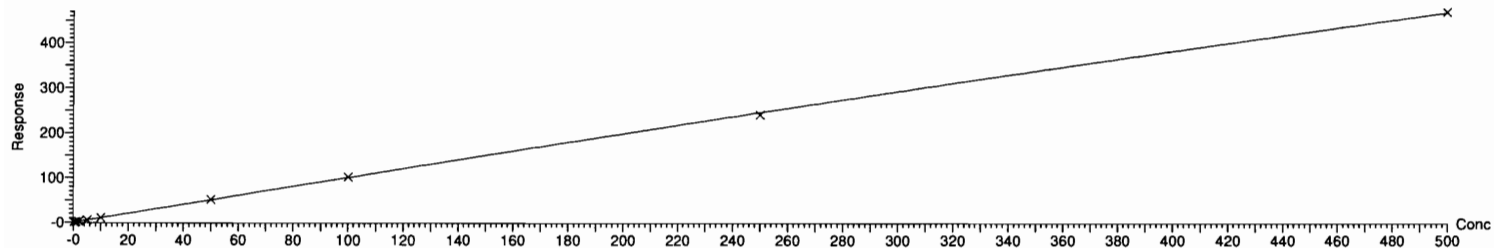
Compound name: PFHxDA

Coefficient of Determination: $R^2 = 0.999789$

Calibration curve: $-0.000190466 * x^2 + 1.03254 * x + 0.163583$

Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)

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



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:13:54 Pacific Daylight Time

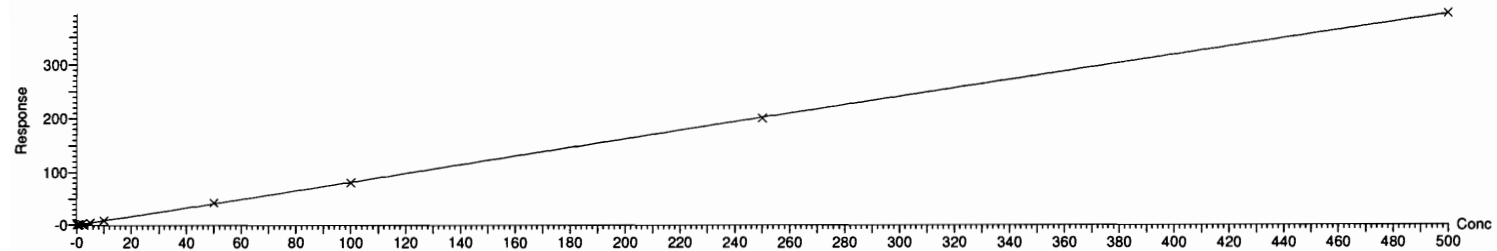
Compound name: PFODA

Coefficient of Determination: $R^2 = 0.999877$

Calibration curve: $-8.33174e-005 * x^2 + 0.828517 * x + 0.0120589$

Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)

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



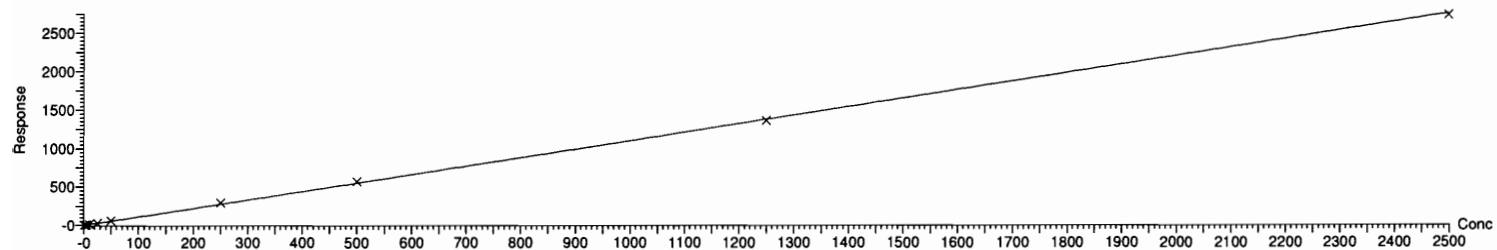
Compound name: N-MeFOSE

Correlation coefficient: $r = 0.999753$, $r^2 = 0.999506$

Calibration curve: $1.10054 * x + 0.364944$

Response type: Internal Std (Ref 95), Area * (IS Conc. / IS Area)

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



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Printed: Tuesday, July 07, 2020 09:13:54 Pacific Daylight Time

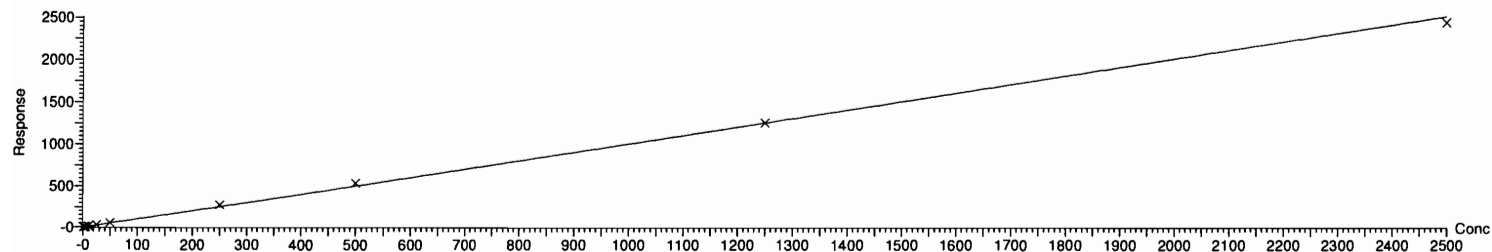
Compound name: N-EtFOSE

Correlation coefficient: $r = 0.999137$, $r^2 = 0.998274$

Calibration curve: $1.00495 * x + 0.335204$

Response type: Internal Std (Ref 97), Area * (IS Conc. / IS Area)

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



Quantify Sample Report
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 08:33:52 Pacific Daylight Time

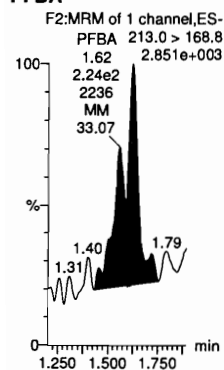
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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_070620.mdb 07 Jul 2020 08:33:50

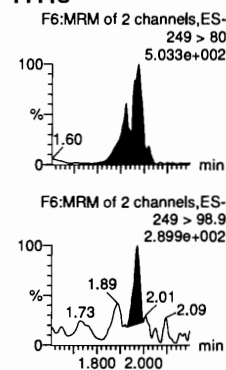
Calibration: 07 Jul 2020 08:33:21

Name: 200706P1-19, Date: 06-Jul-2020, Time: 13:13:57, ID: ST200706P1-1 PFC CS-2 20F1901, Description: PFC CS-2 20F1901

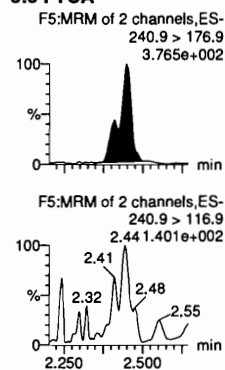
PFBA



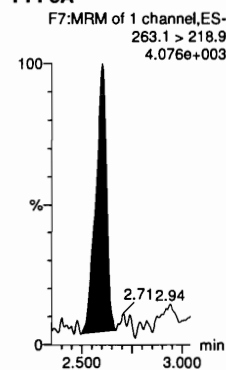
PFPrS



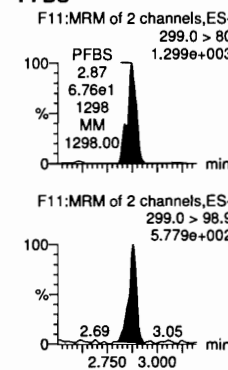
3:3 FTCA



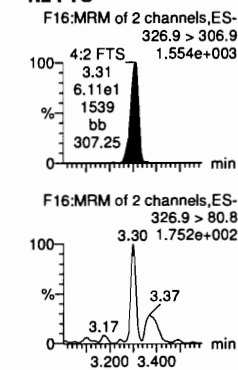
PFPeA



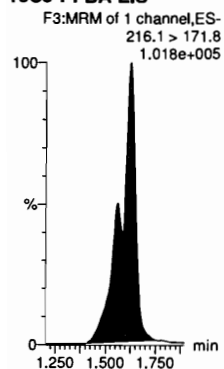
PFBS



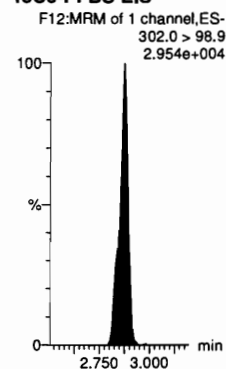
4:2 FTS



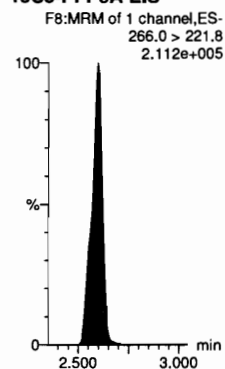
13C3-PFBA-EIS



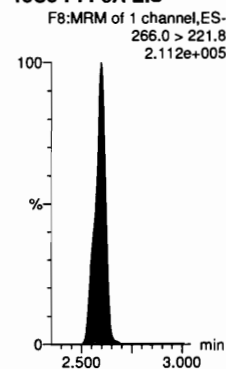
13C3-PFBS-EIS



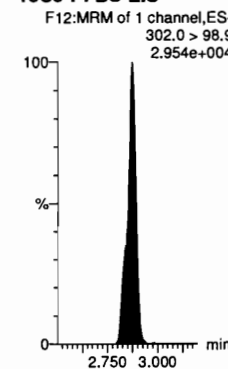
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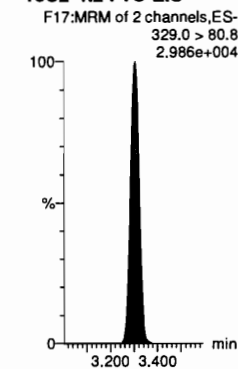
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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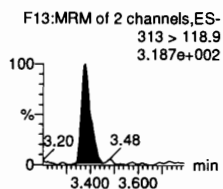
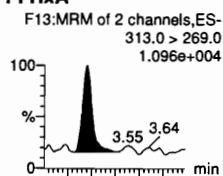
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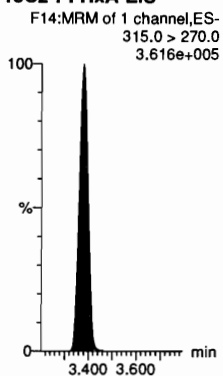
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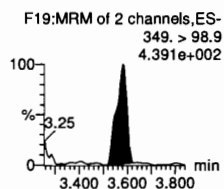
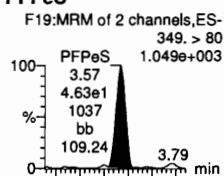
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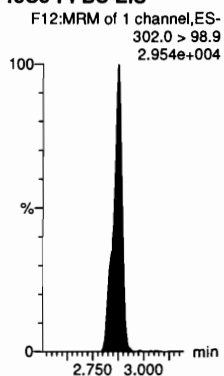
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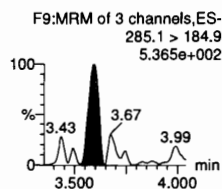
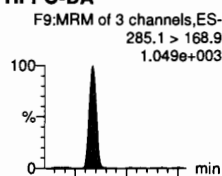
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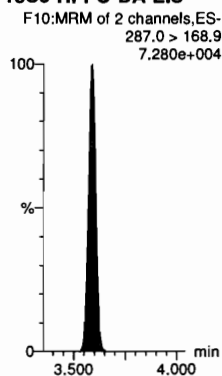
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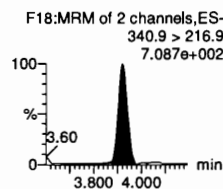
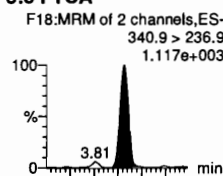
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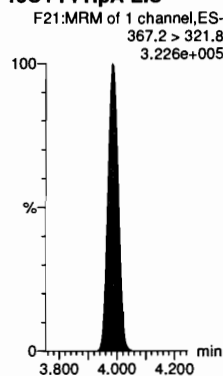
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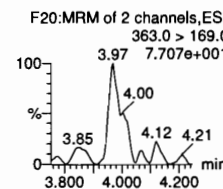
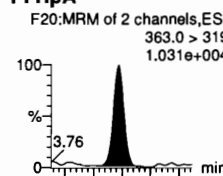
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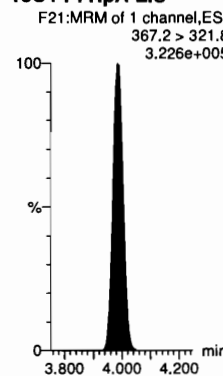
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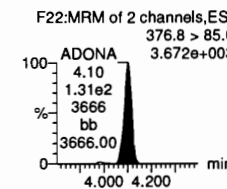
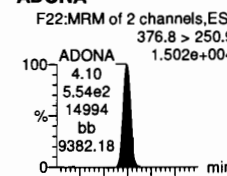
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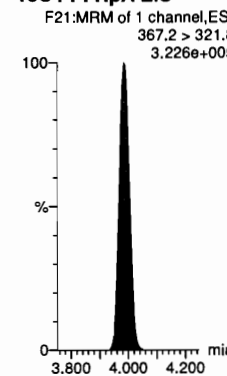
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13C4-PFHpA-EIS



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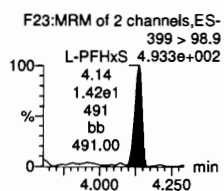
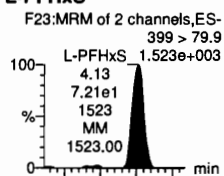
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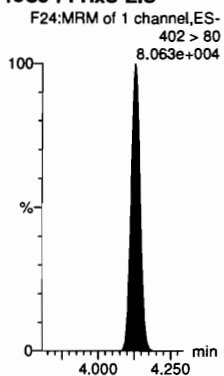
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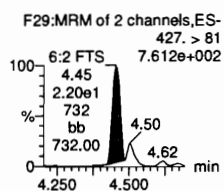
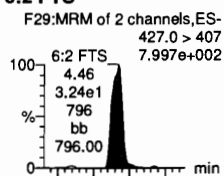
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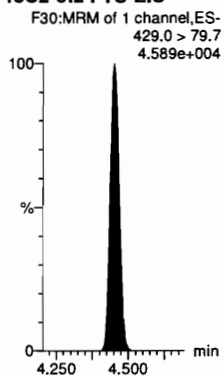
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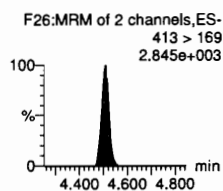
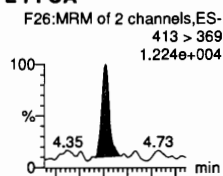
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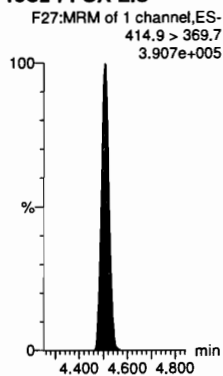
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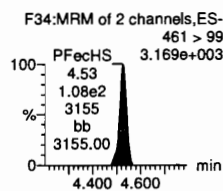
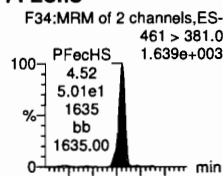
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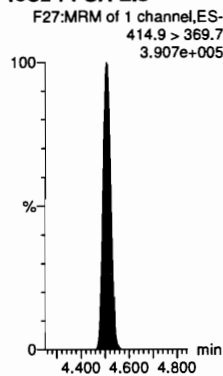
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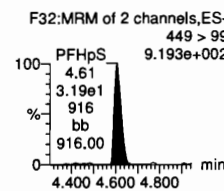
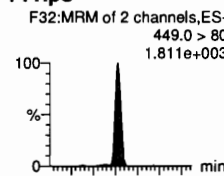
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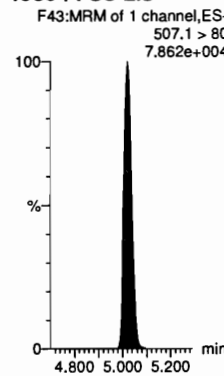
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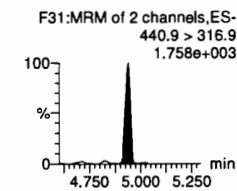
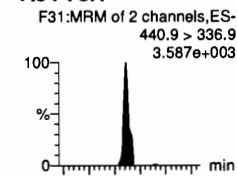
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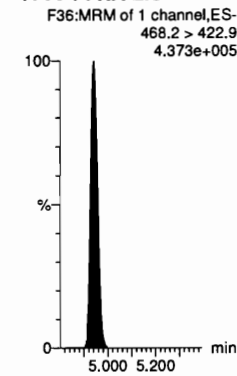
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7:3 FTCA



13C5-PFNA-EIS



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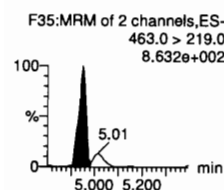
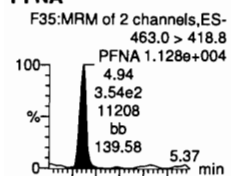
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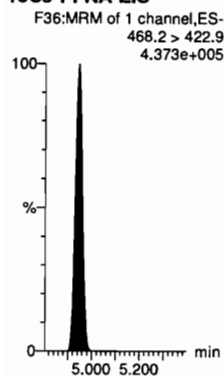
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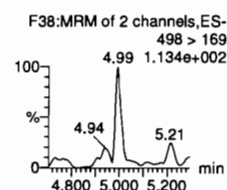
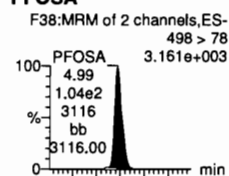
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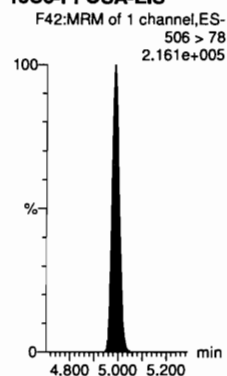
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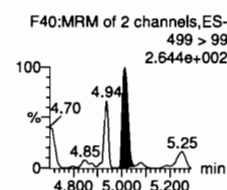
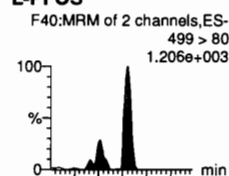
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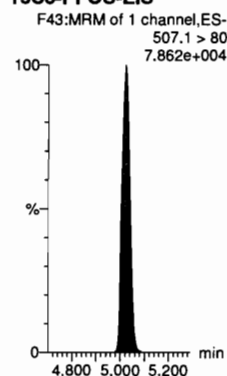
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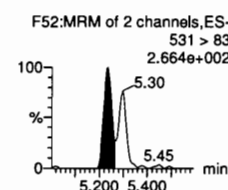
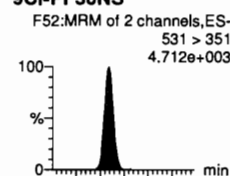
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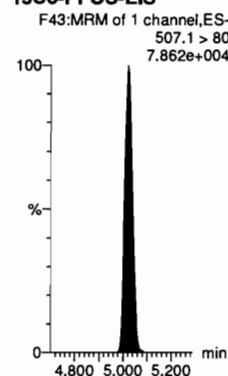
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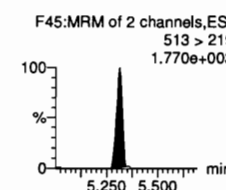
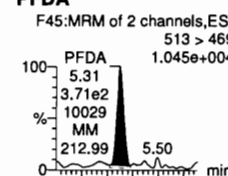
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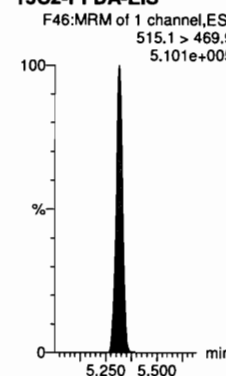
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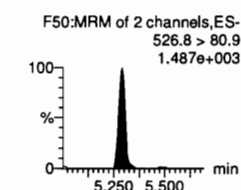
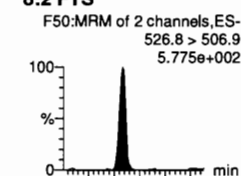
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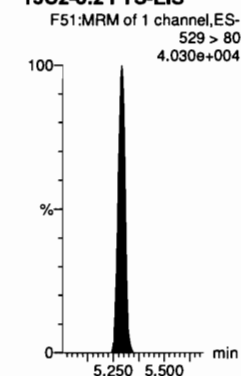
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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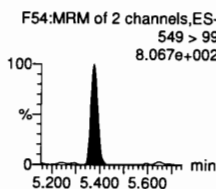
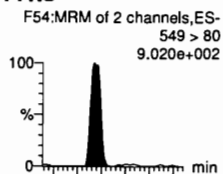
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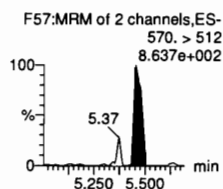
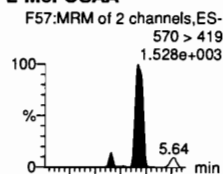
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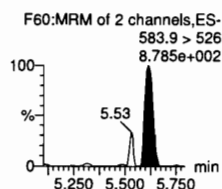
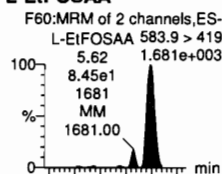
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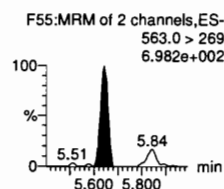
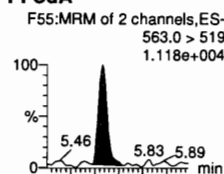
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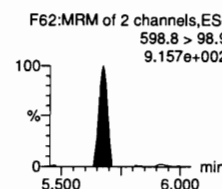
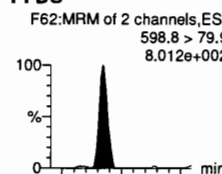
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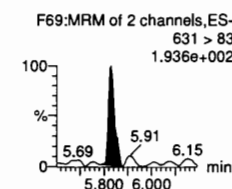
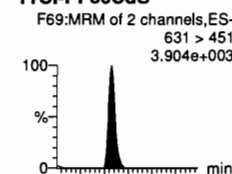
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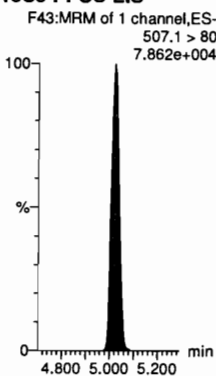
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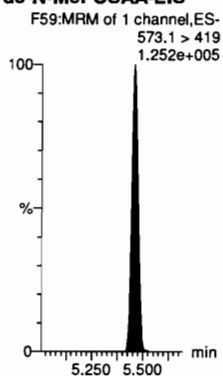
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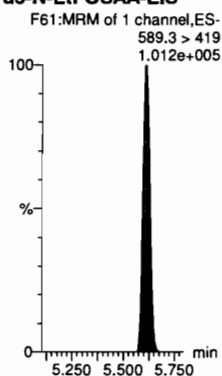
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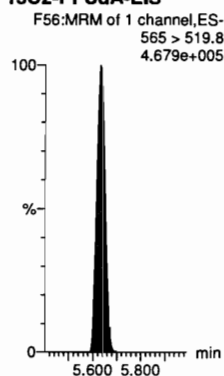
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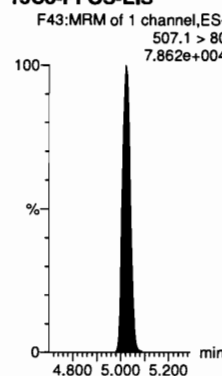
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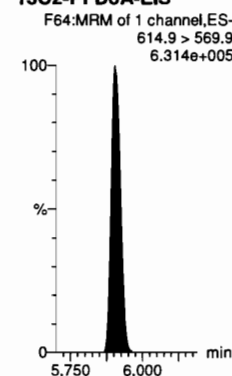
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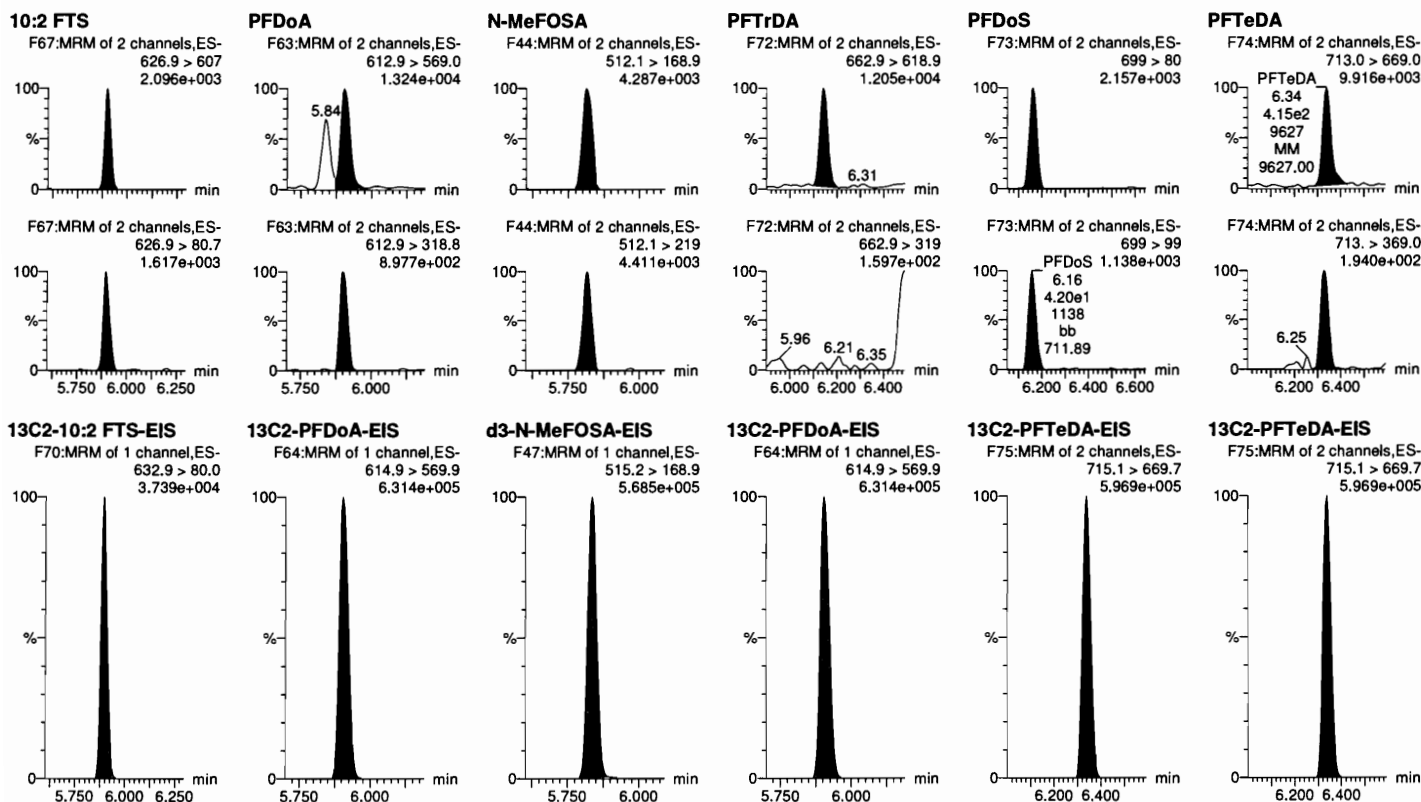
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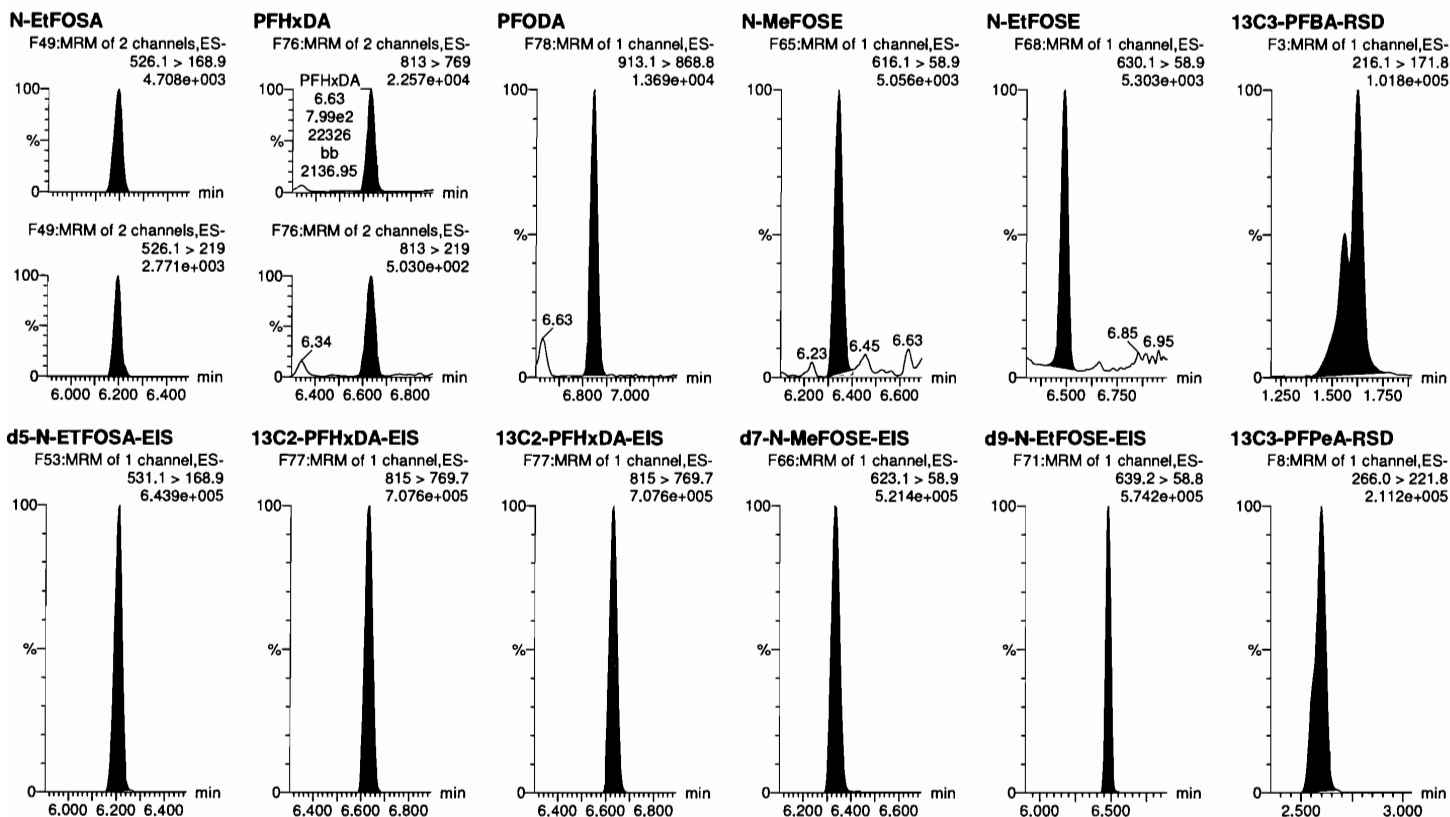
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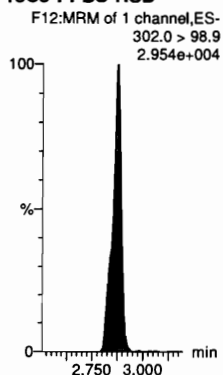
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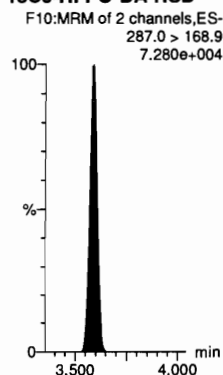
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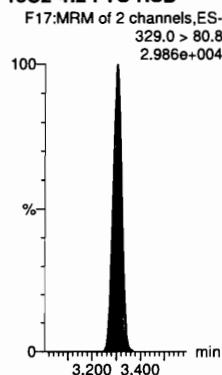
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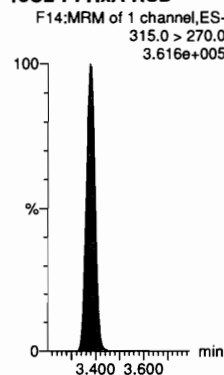
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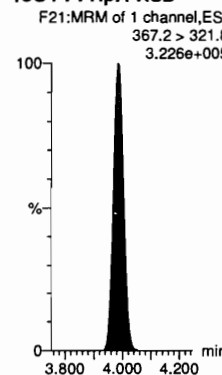
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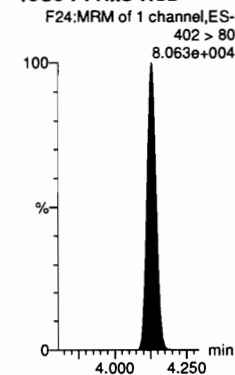
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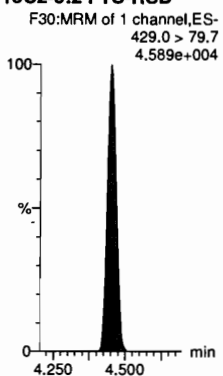
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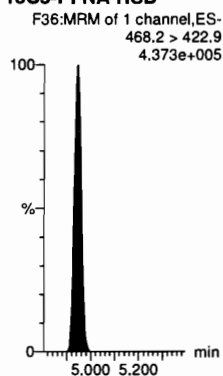
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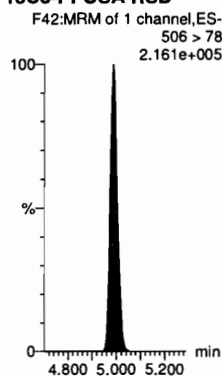
13C2-6:2 FTS-RSD



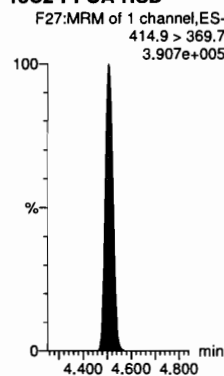
13C5-PFNA-RSD



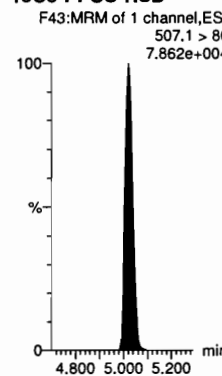
13C8-PFOSA-RSD



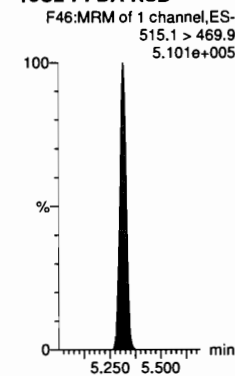
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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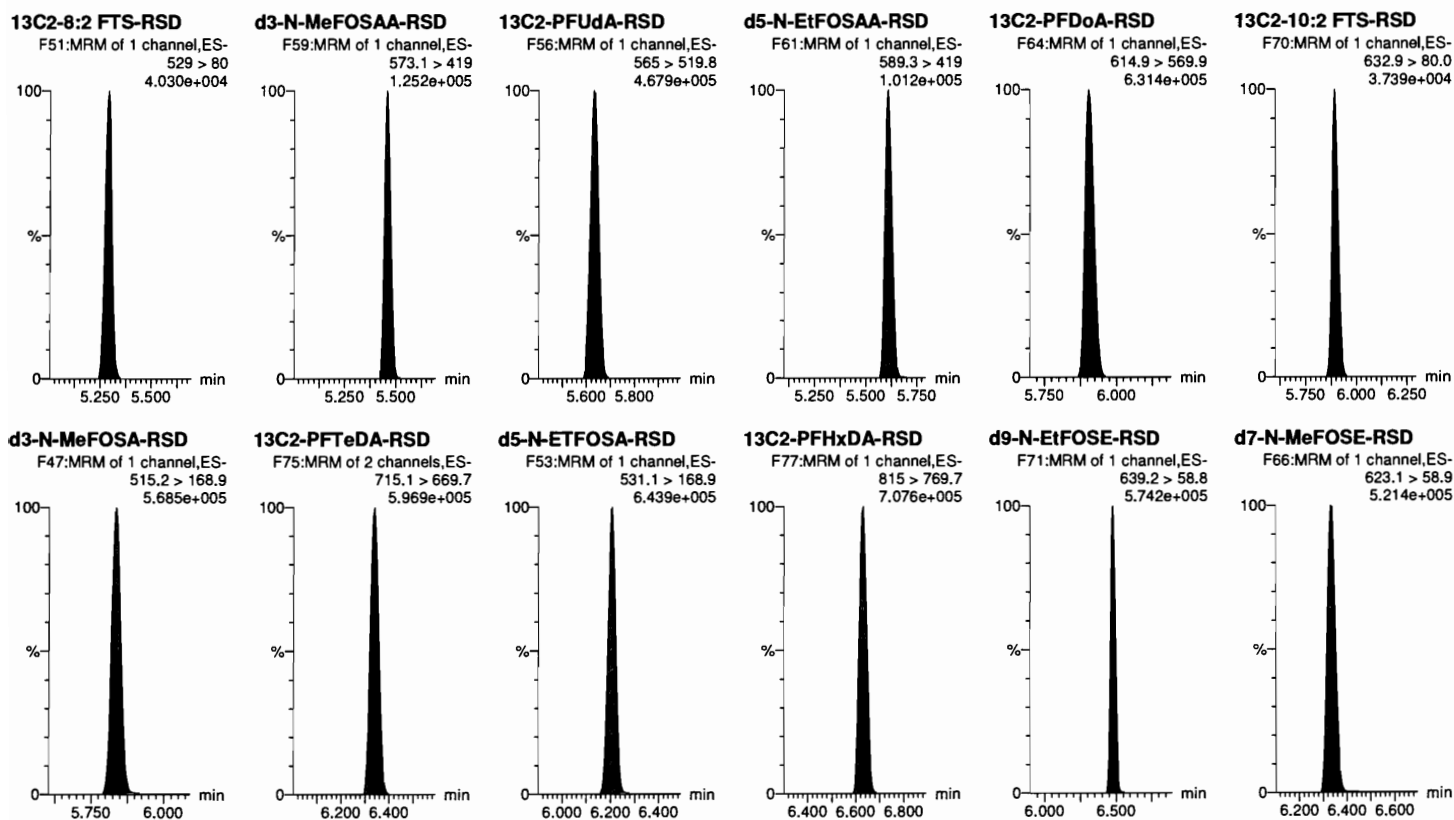
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Printed: Tuesday, July 07, 2020 08:34:06 Pacific Daylight Time

Name: 200706P1-19, Date: 06-Jul-2020, Time: 13:13:57, ID: ST200706P1-1 PFC CS-2 20F1901, Description: PFC CS-2 20F1901



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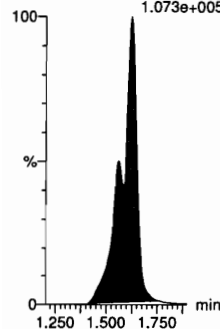
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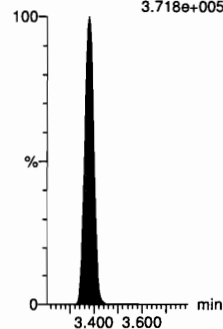
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F4:MRM of 1 channel,ES-
217.0 > 172.0
1.073e+005



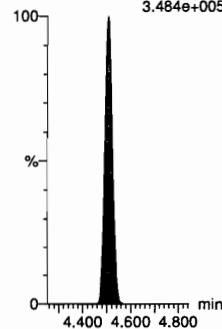
13C5-PFHxA

F15:MRM of 1 channel,ES-
318.0 > 272.9
3.718e+005



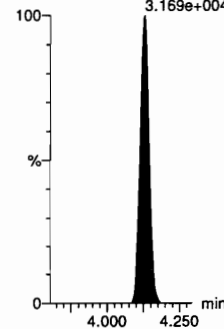
13C8-PFOA

F28:MRM of 1 channel,ES-
420.9 > 376.0
3.484e+005



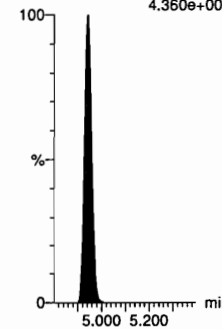
18O2-PFHxS

F25:MRM of 1 channel,ES-
403.0 > 103
3.169e+004



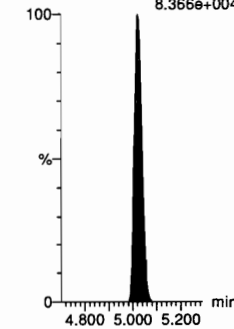
13C9-PFNA

F37:MRM of 1 channel,ES-
472.2 > 426.9
4.360e+005



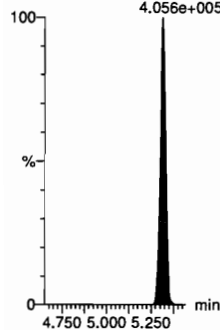
13C4-PFOS

F41:MRM of 1 channel,ES-
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8.366e+004



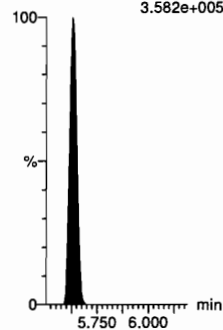
13C6-PFDA

F48:MRM of 1 channel,ES-
519.1 > 473.7
4.056e+005



13C7-PFUDa

F58:MRM of 1 channel,ES-
570.1 > 524.8
3.582e+005



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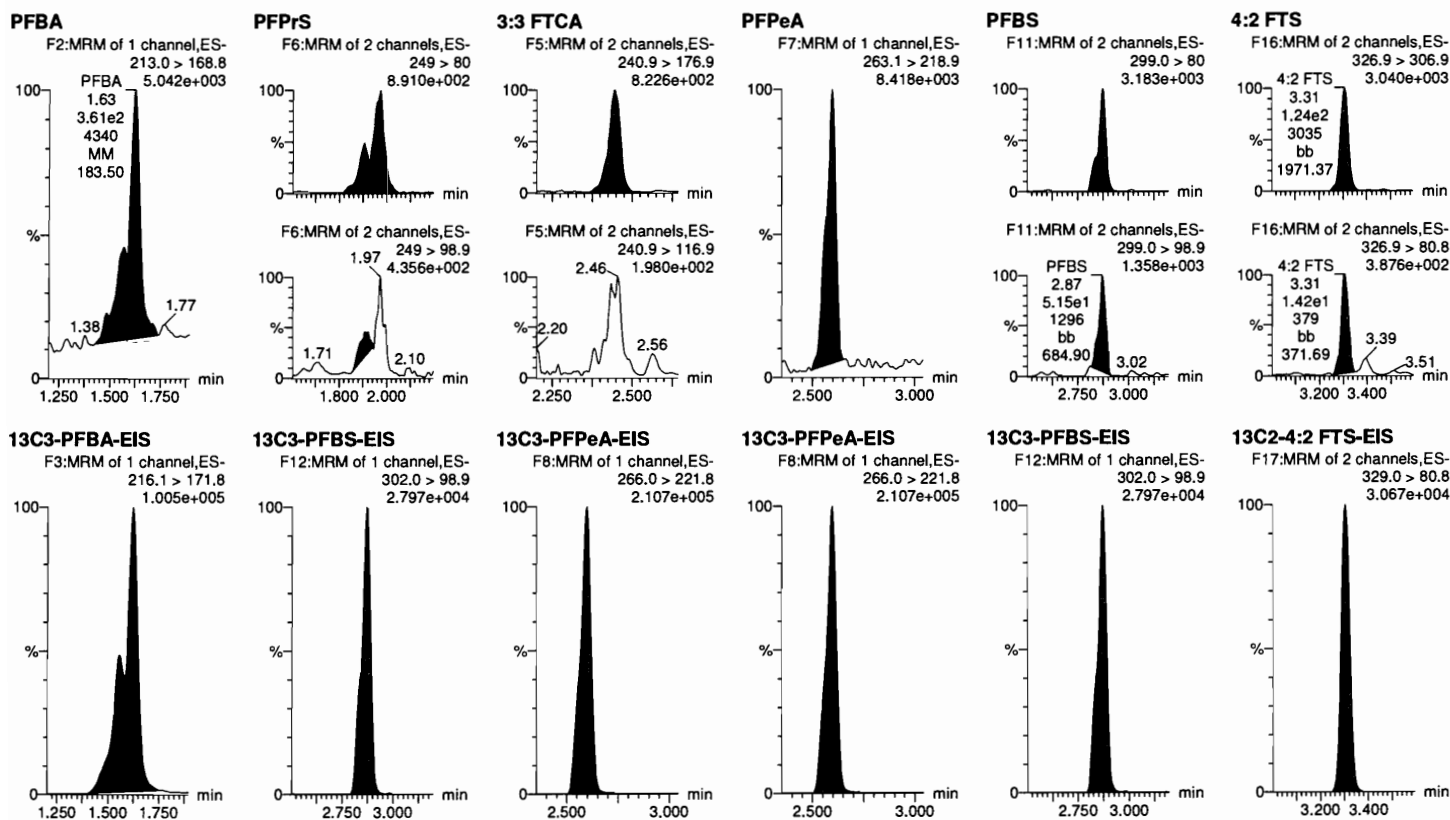
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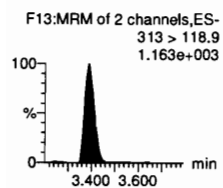
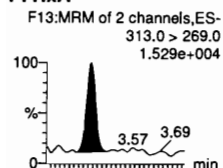
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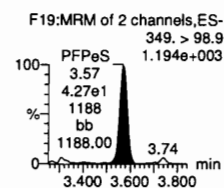
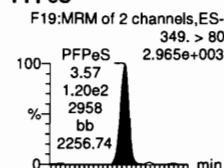
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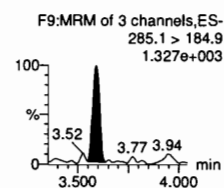
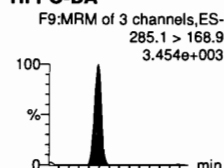
PFHxA



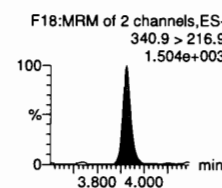
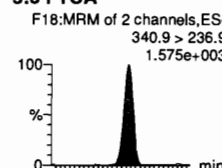
PFPeS



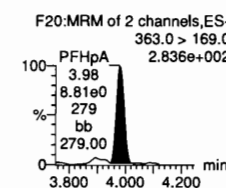
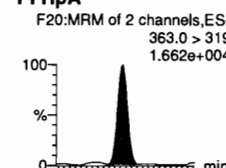
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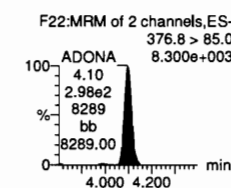
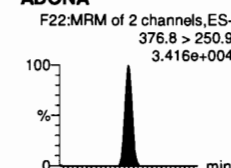
5:3 FTCA



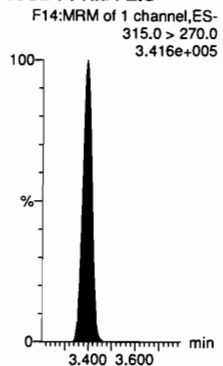
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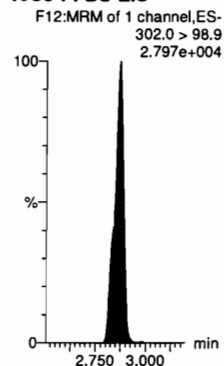
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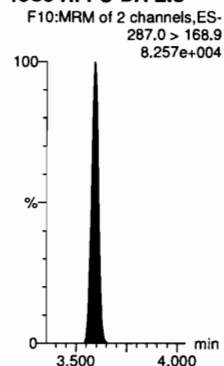
13C2-PFHxA-EIS



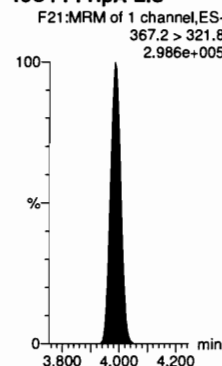
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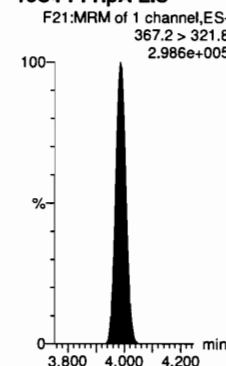
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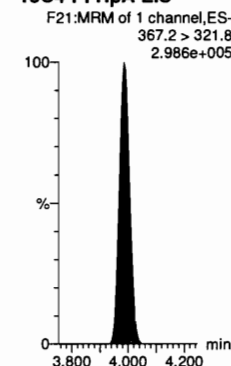
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS



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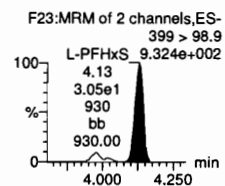
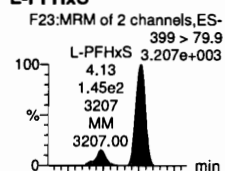
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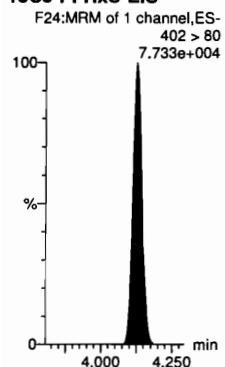
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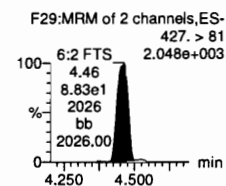
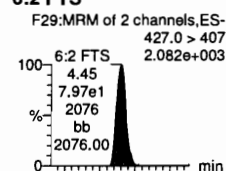
L-PFHxS



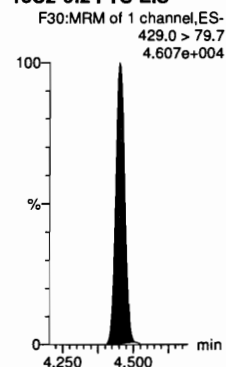
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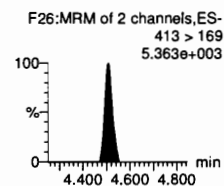
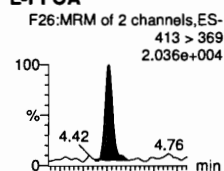
6:2 FTS



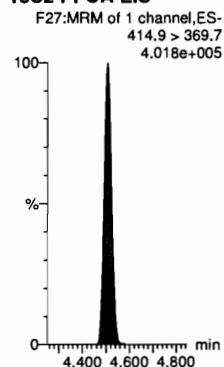
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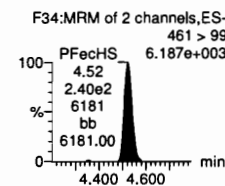
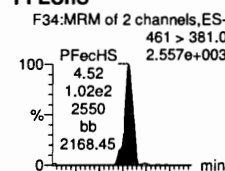
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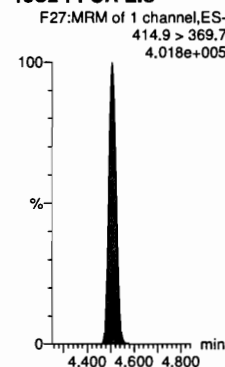
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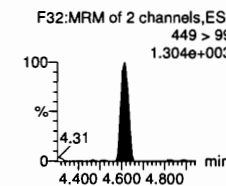
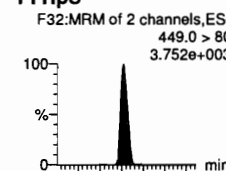
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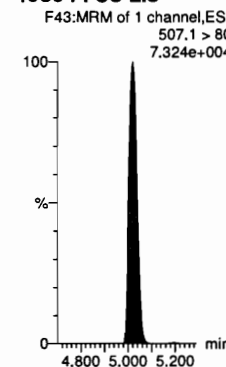
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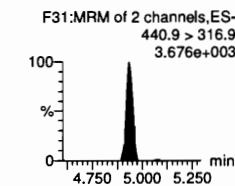
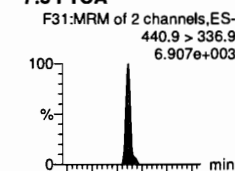
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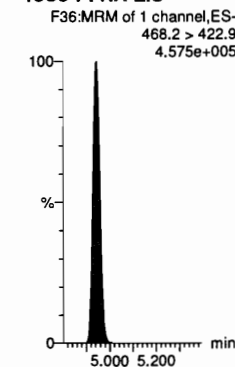
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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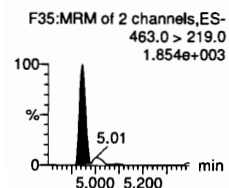
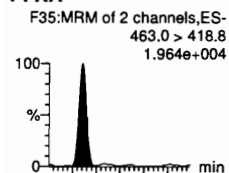
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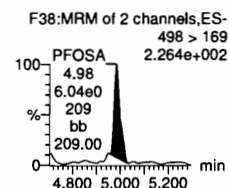
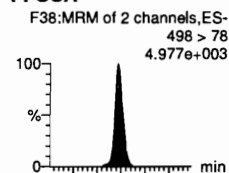
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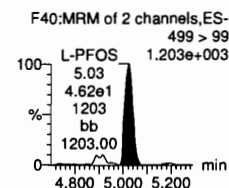
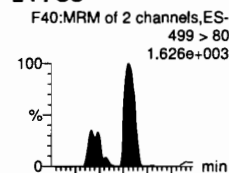
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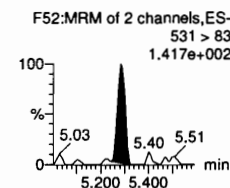
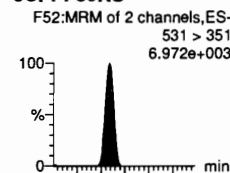
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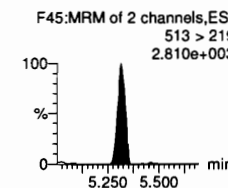
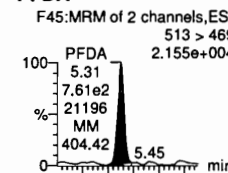
L-PFOS



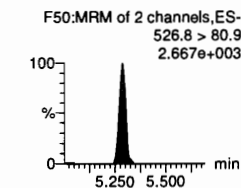
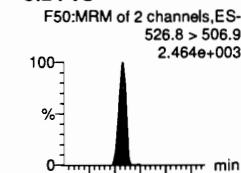
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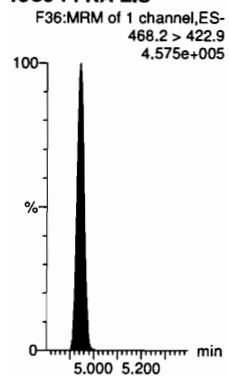
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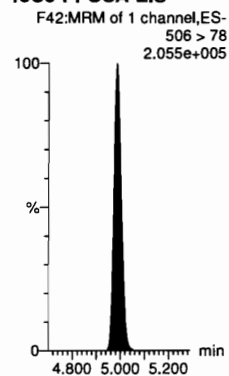
8:2 FTS



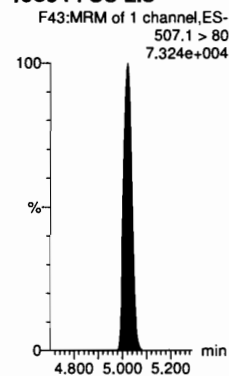
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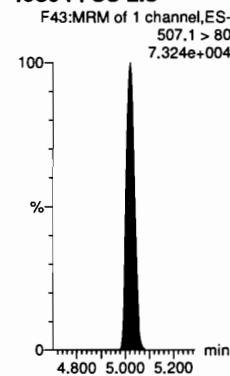
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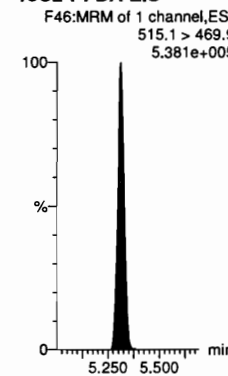
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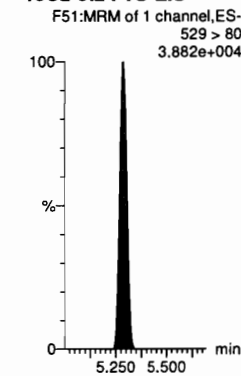
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS



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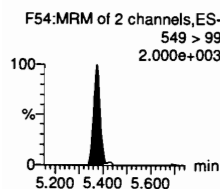
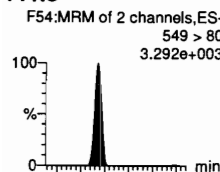
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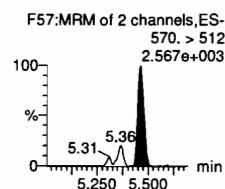
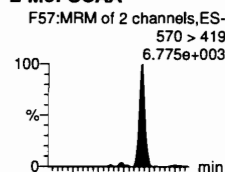
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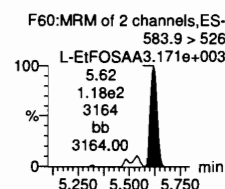
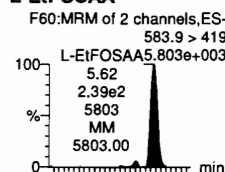
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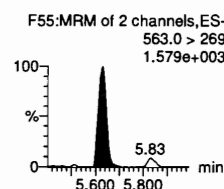
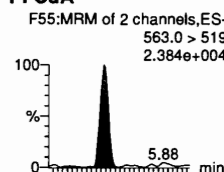
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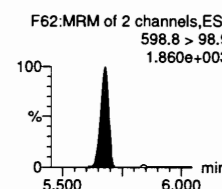
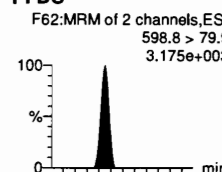
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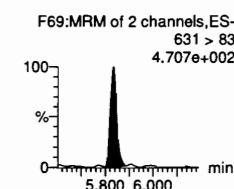
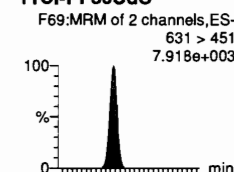
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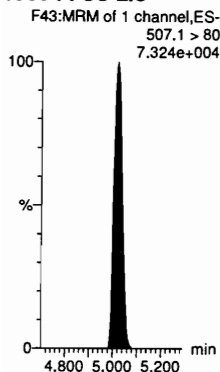
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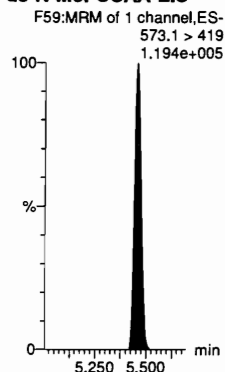
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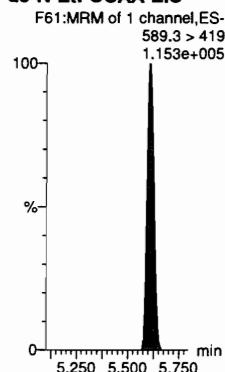
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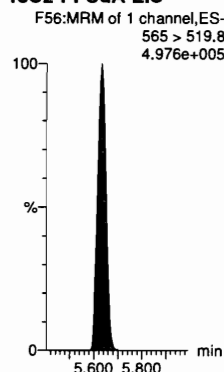
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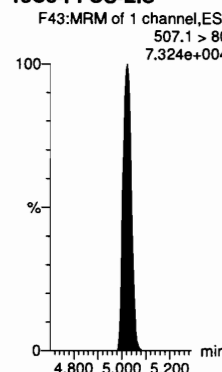
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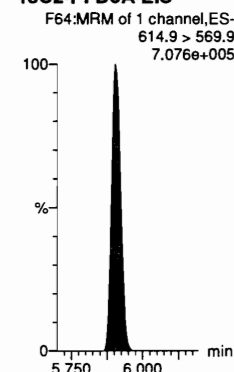
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDdA-EIS



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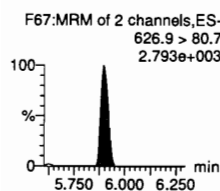
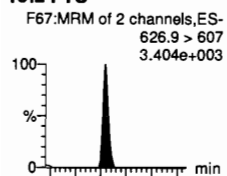
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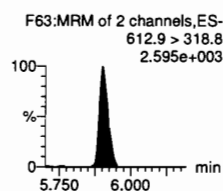
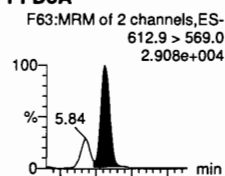
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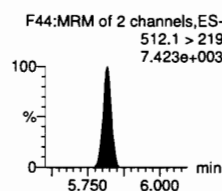
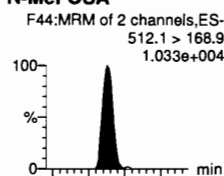
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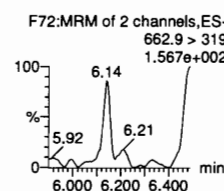
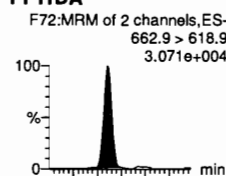
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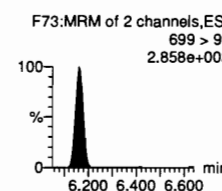
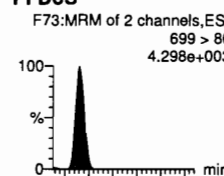
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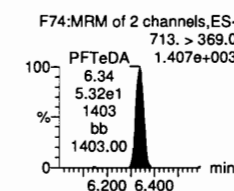
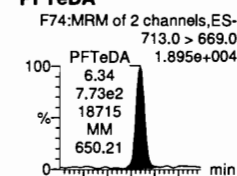
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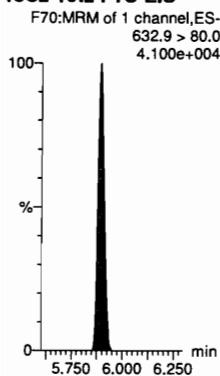
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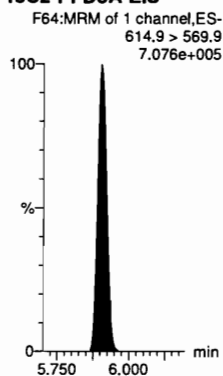
PFTeDA



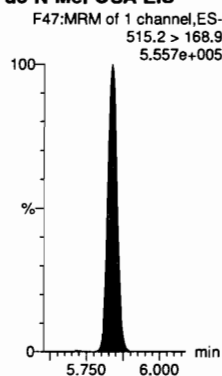
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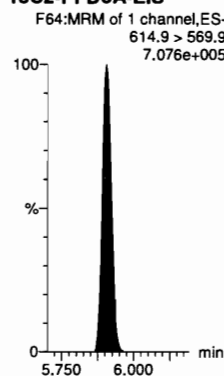
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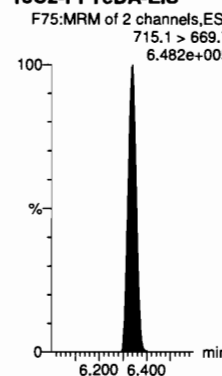
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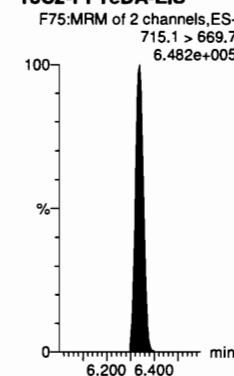
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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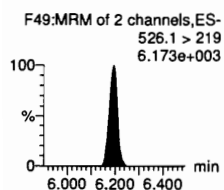
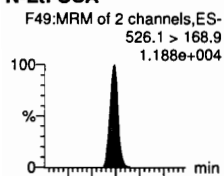
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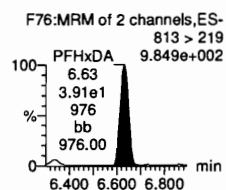
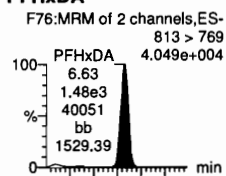
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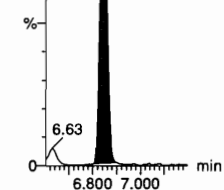
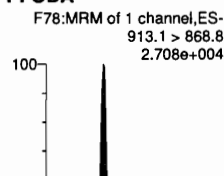
N-EtFOSA



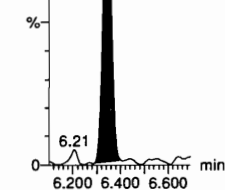
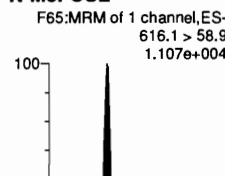
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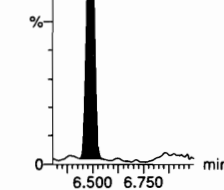
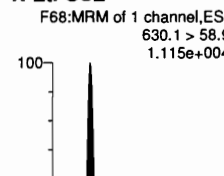
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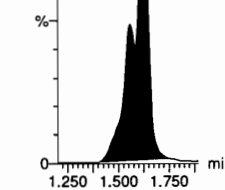
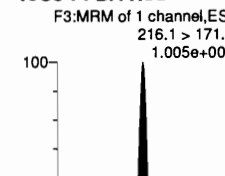
N-MeFOSE



N-EtFOSE

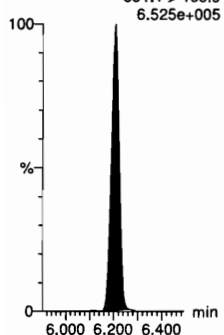


13C3-PFBA-RSD



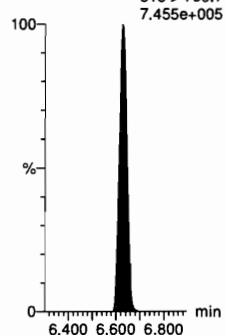
d5-N-ETFOSA-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
6.525e+005



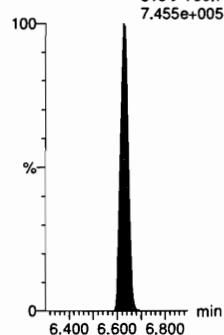
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
7.455e+005



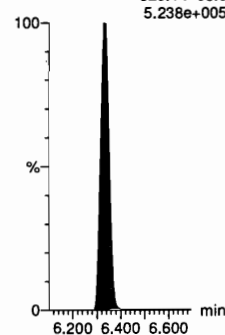
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
7.455e+005



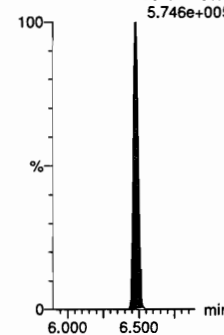
d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.238e+005



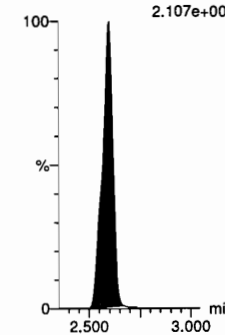
d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
5.746e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
2.107e+005



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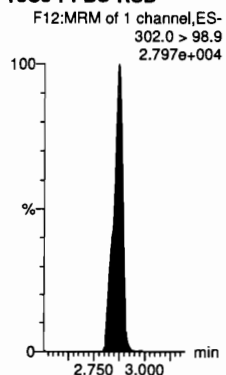
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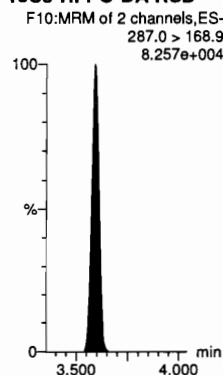
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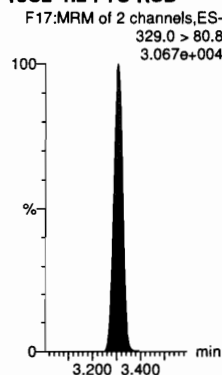
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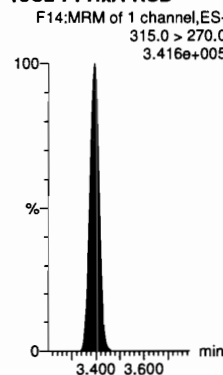
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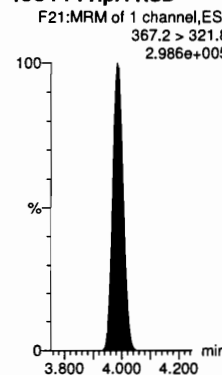
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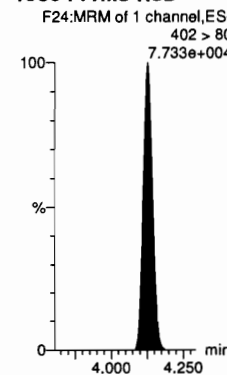
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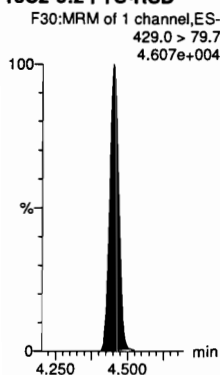
13C4-PFHpA-RSD



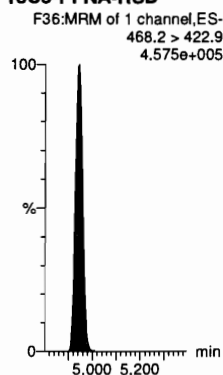
13C3-PFHxS-RSD



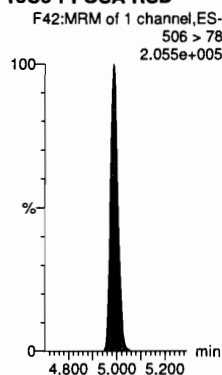
13C2-6:2 FTS-RSD



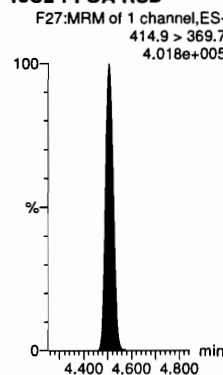
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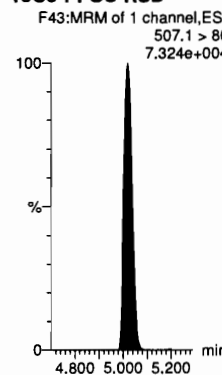
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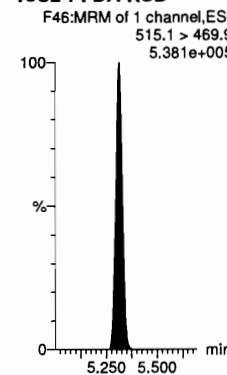
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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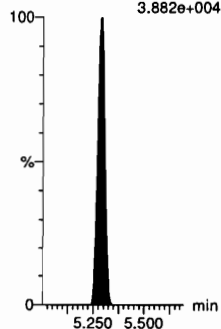
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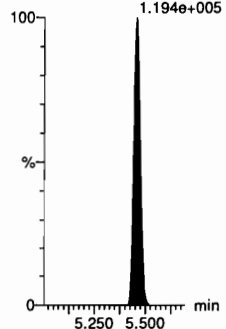
13C2-8:2 FTS-RSD

F51:MRM of 1 channel,ES-
529 > 80
3.882e+004



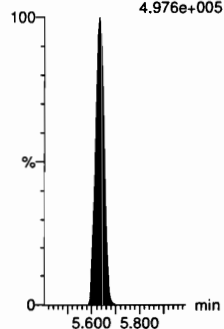
d3-N-MeFOSAA-RSD

F59:MRM of 1 channel,ES-
573.1 > 419
1.194e+005



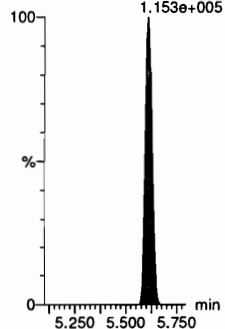
13C2-PFUdA-RSD

F56:MRM of 1 channel,ES-
565 > 519.8
4.976e+005



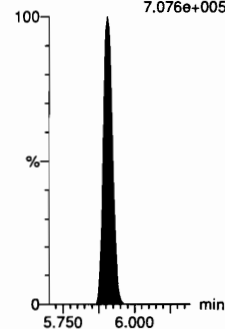
d5-N-EtFOSAA-RSD

F61:MRM of 1 channel,ES-
589.3 > 419
1.153e+005



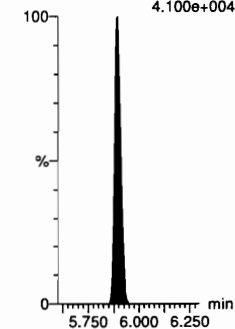
13C2-PFDoA-RSD

F64:MRM of 1 channel,ES-
614.9 > 569.9
7.076e+005



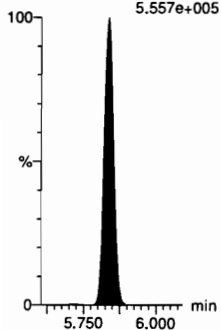
13C2-10:2 FTS-RSD

F70:MRM of 1 channel,ES-
632.9 > 80.0
4.100e+004



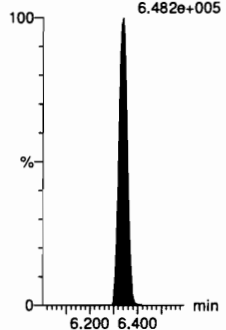
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F47:MRM of 1 channel,ES-
515.2 > 168.9
5.557e+005



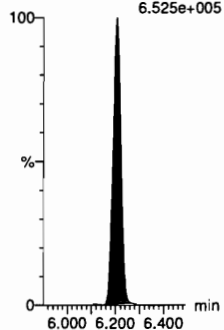
13C2-PFTeDA-RSD

F75:MRM of 2 channels,ES-
715.1 > 669.7
6.482e+005



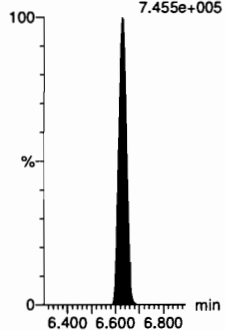
d5-N-ETFOSA-RSD

F53:MRM of 1 channel,ES-
531.1 > 168.9
6.525e+005



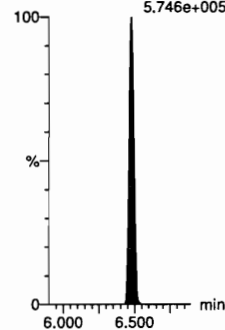
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F77:MRM of 1 channel,ES-
815 > 769.7
7.455e+005



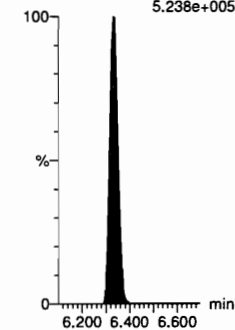
d9-N-EtFOSE-RSD

F71:MRM of 1 channel,ES-
639.2 > 58.8
5.746e+005



d7-N-MeFOSE-RSD

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.238e+005



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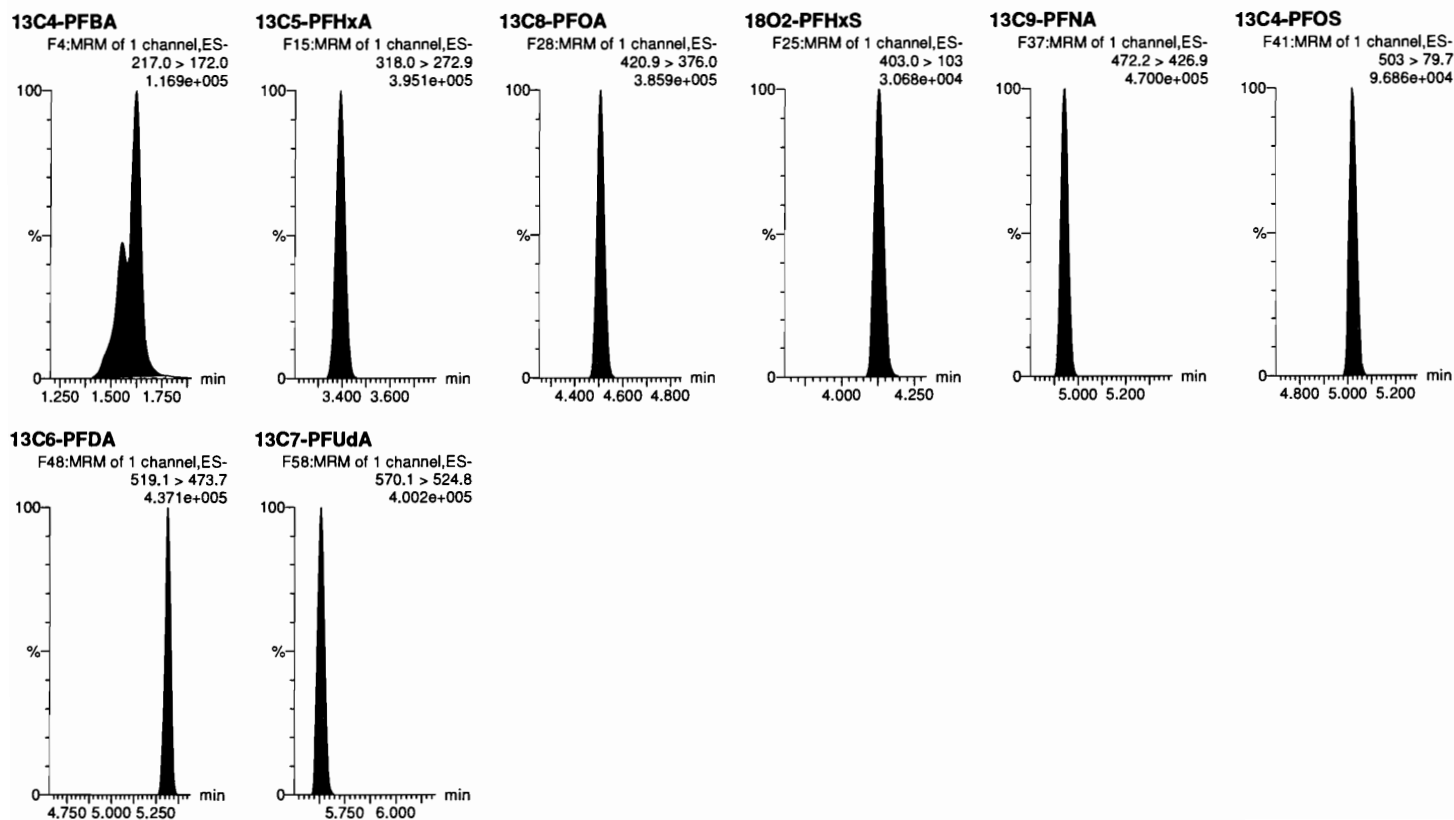
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Last Altered: Tuesday, July 07, 2020 09:00:31 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 09:00:57 Pacific Daylight Time

Name: 200706P1-20, Date: 06-Jul-2020, Time: 13:24:27, ID: ST200706P1-2 PFC CS-1 20F1902, Description: PFC CS-1 20F1902



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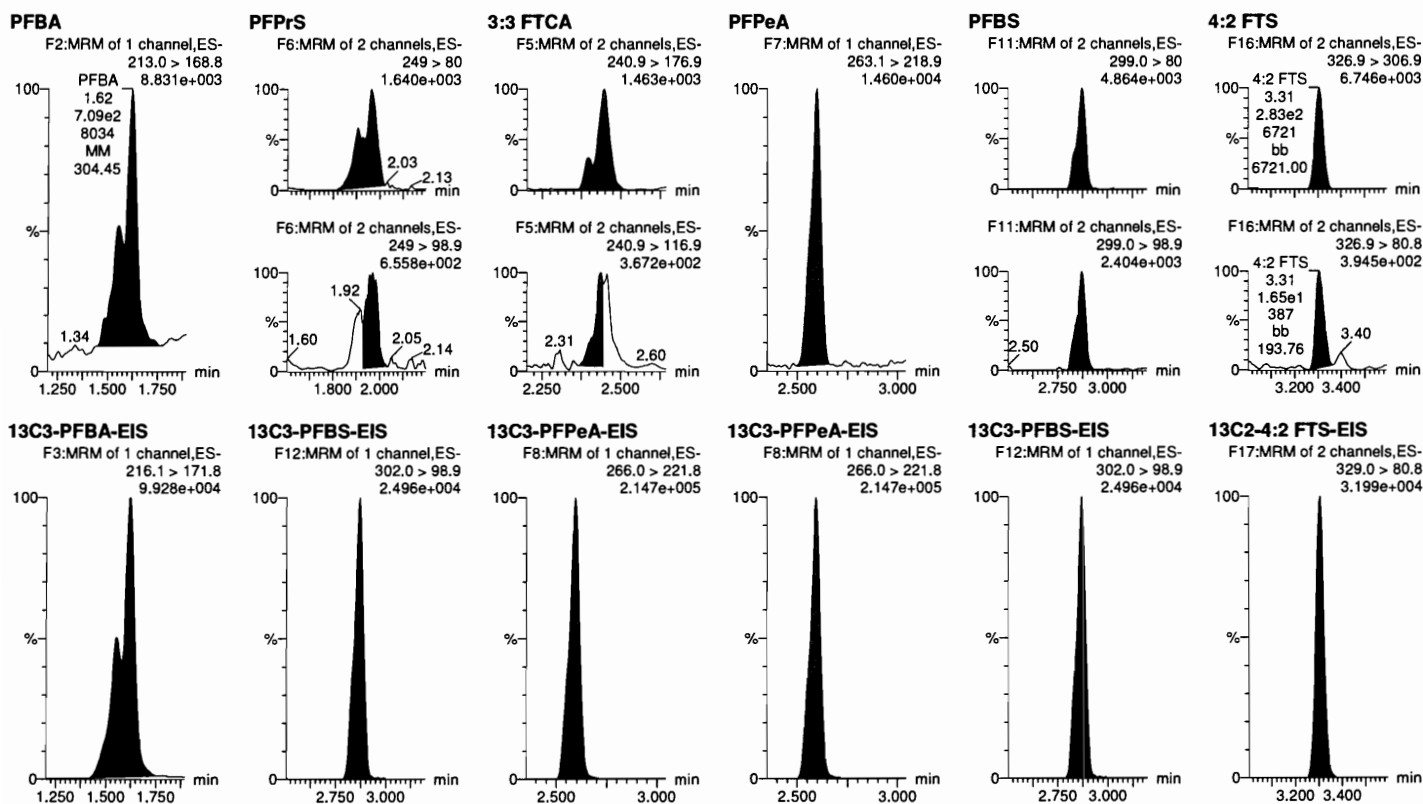
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Last Altered: Tuesday, July 07, 2020 08:33:52 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 08:34:06 Pacific Daylight Time

Name: 200706P1-21, Date: 06-Jul-2020, Time: 13:34:57, ID: ST200706P1-3 PFC CS0 20F1903, Description: PFC CS0 20F1903



Quantify Sample Report
Vista Analytical Laboratory

MassLynx V4.2 SCN977

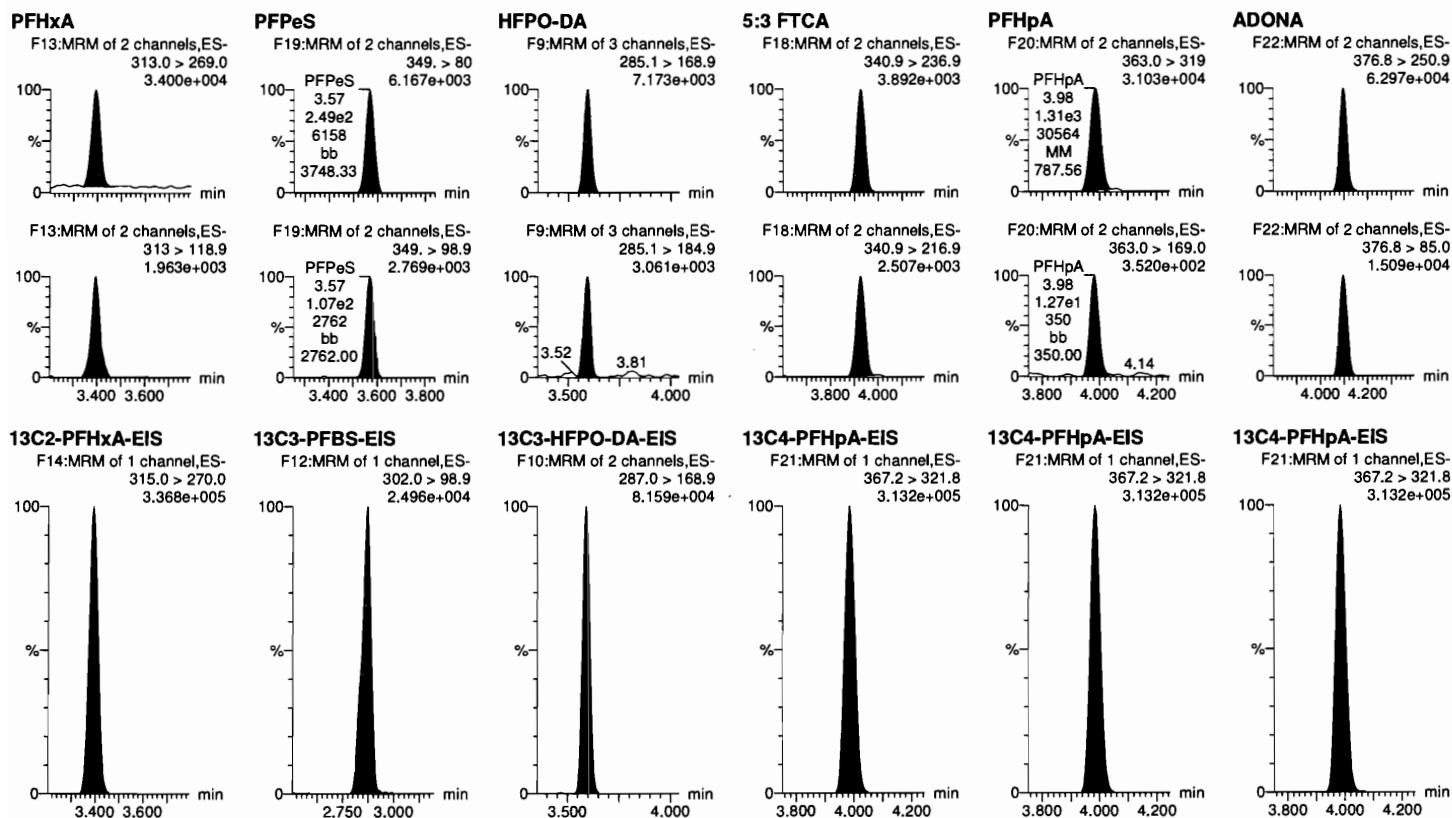
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Last Altered: Tuesday, July 07, 2020 08:33:52 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 08:34:06 Pacific Daylight Time

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Quantify Sample Report
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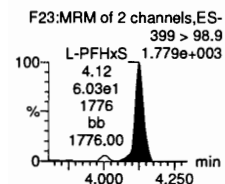
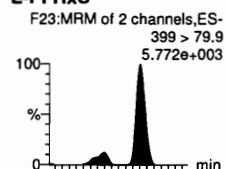
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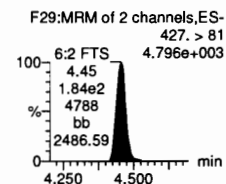
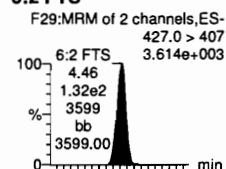
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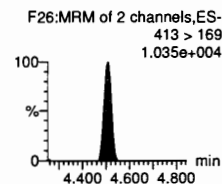
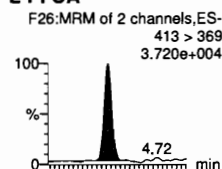
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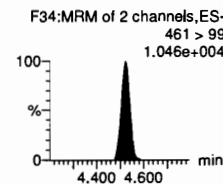
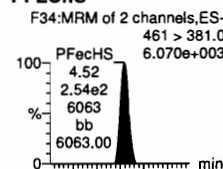
6:2 FTS



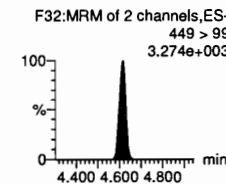
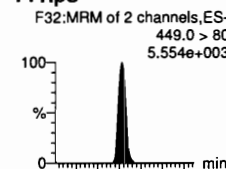
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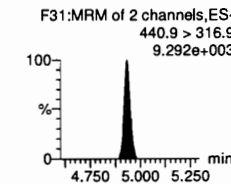
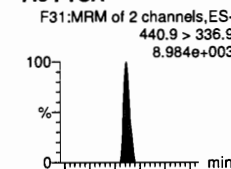
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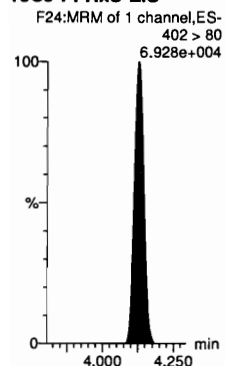
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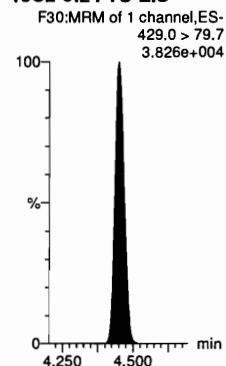
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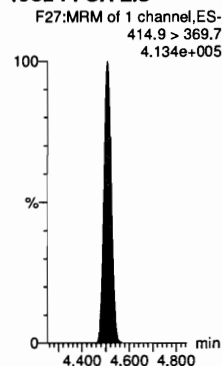
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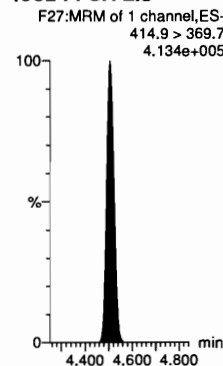
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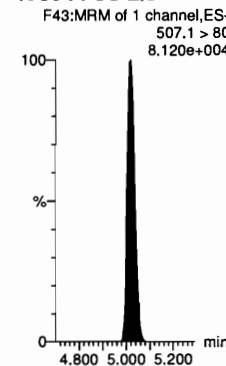
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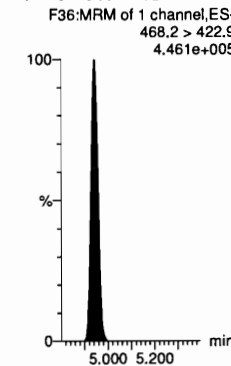
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13C8-PFOS-EIS



13C5-PFNA-EIS



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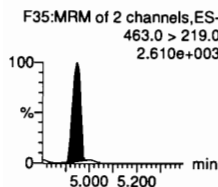
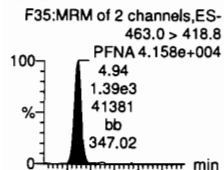
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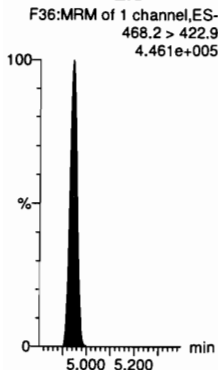
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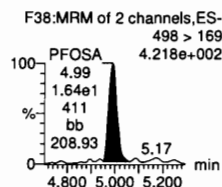
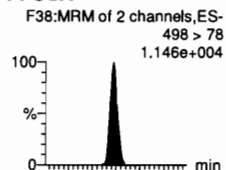
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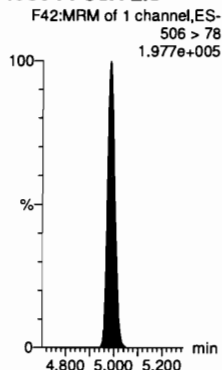
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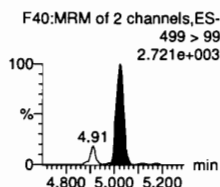
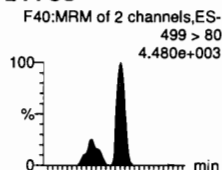
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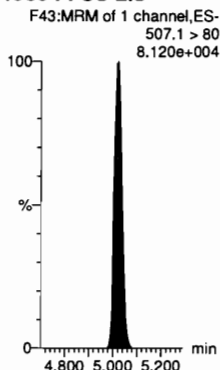
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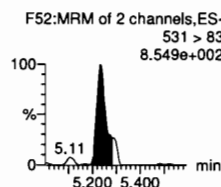
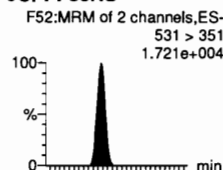
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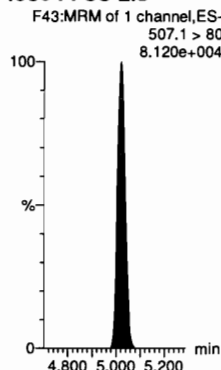
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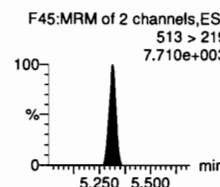
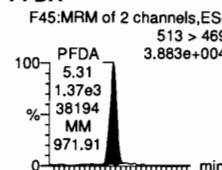
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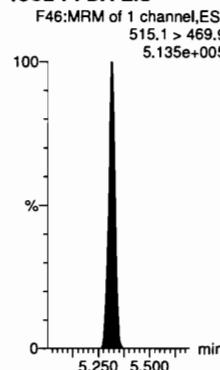
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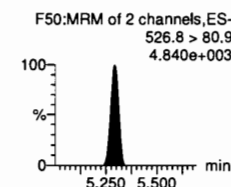
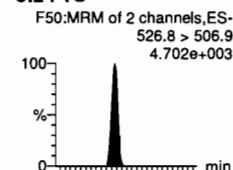
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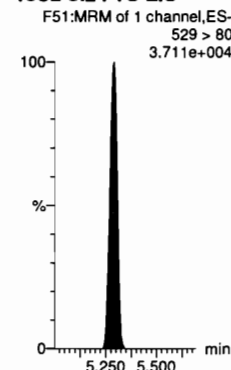
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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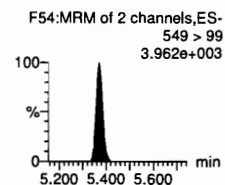
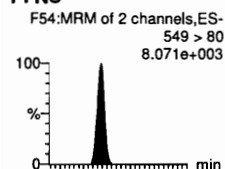
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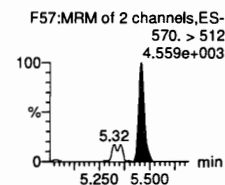
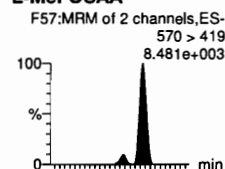
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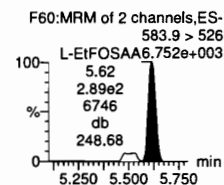
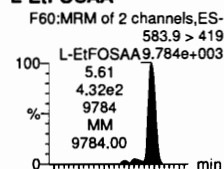
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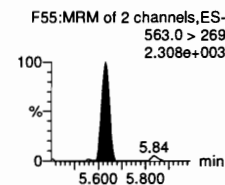
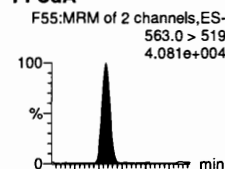
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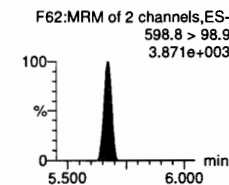
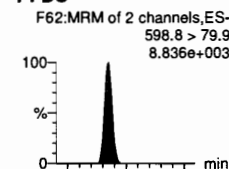
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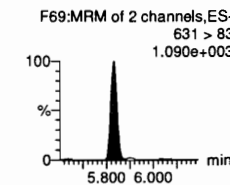
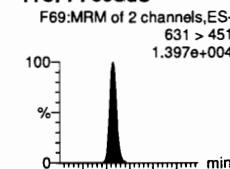
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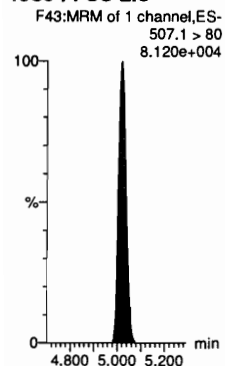
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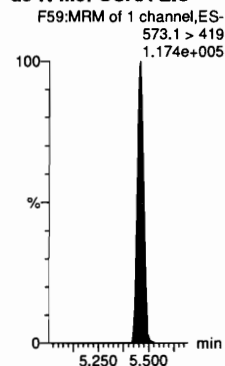
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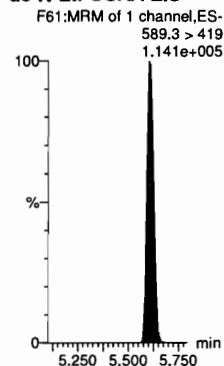
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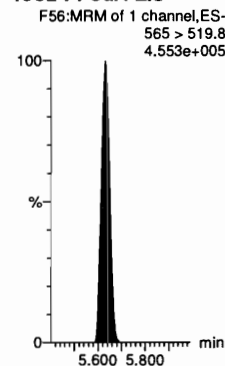
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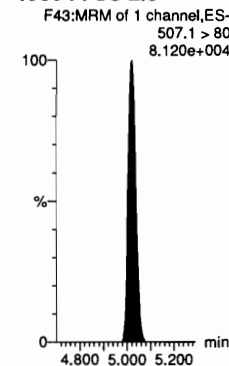
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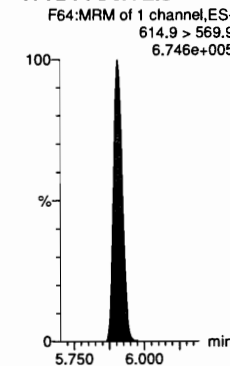
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13C8-PFOS-EIS



13C2-PFDoA-EIS



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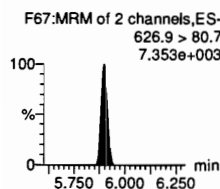
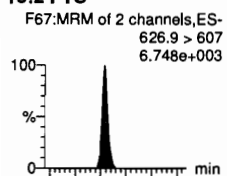
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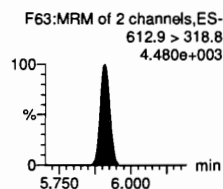
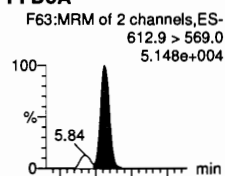
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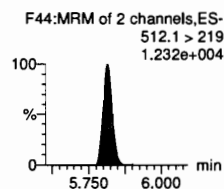
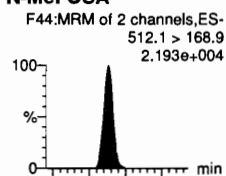
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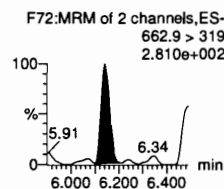
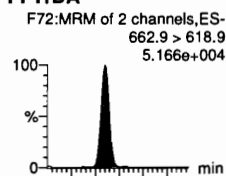
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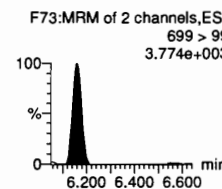
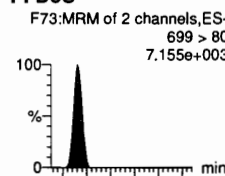
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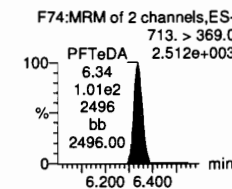
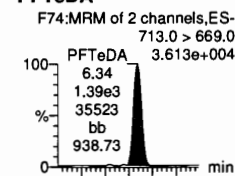
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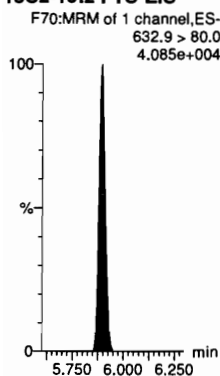
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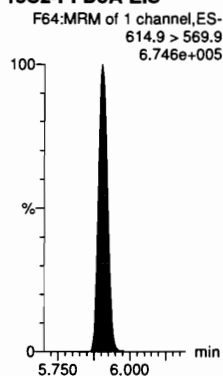
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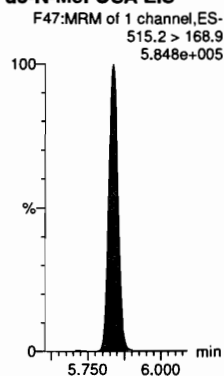
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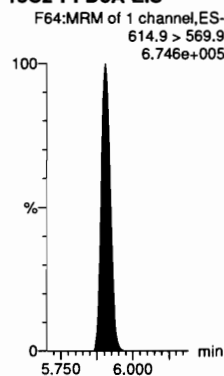
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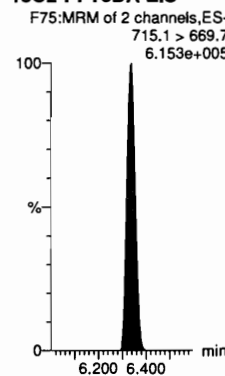
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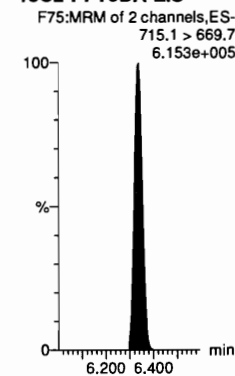
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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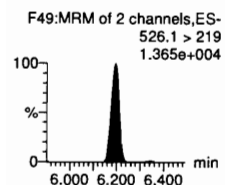
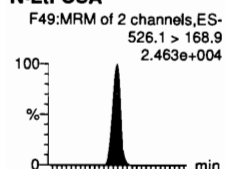
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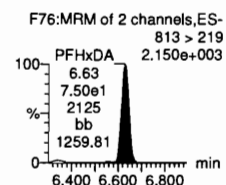
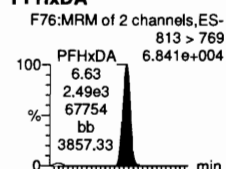
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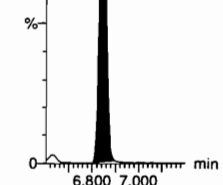
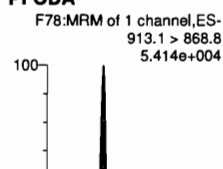
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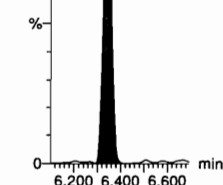
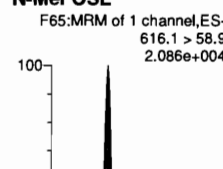
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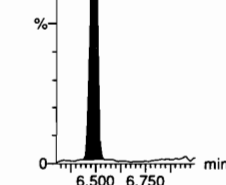
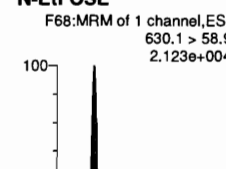
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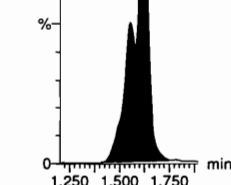
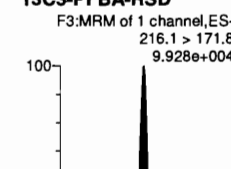
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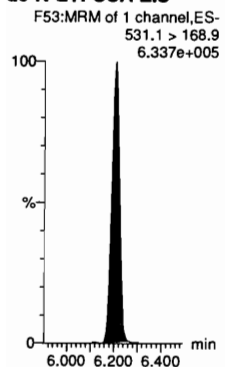
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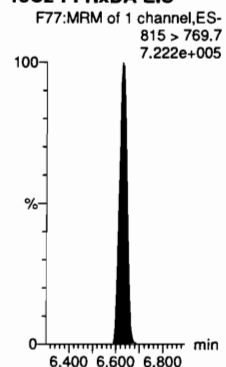
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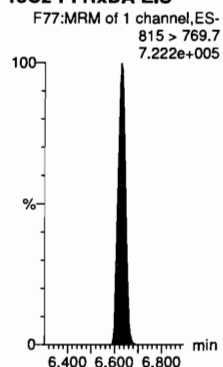
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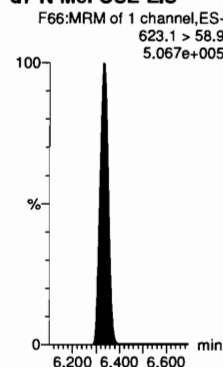
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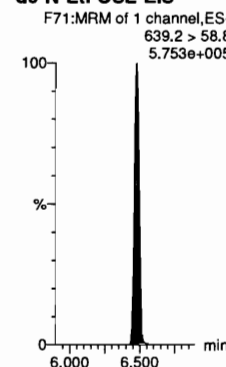
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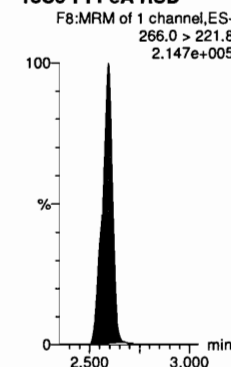
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPa-RSD



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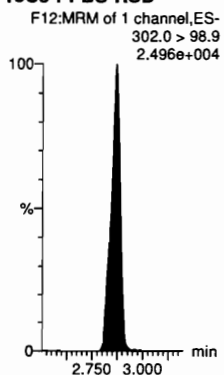
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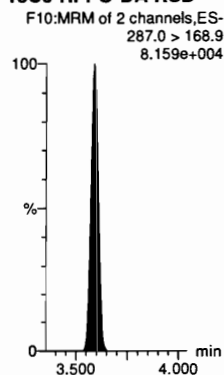
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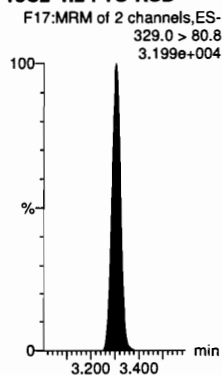
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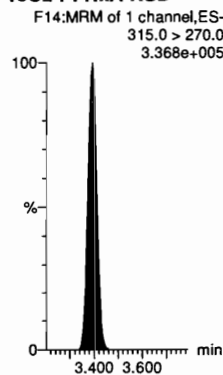
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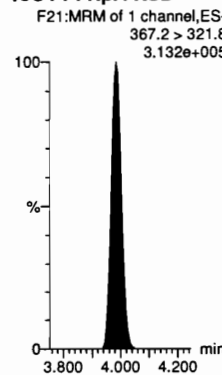
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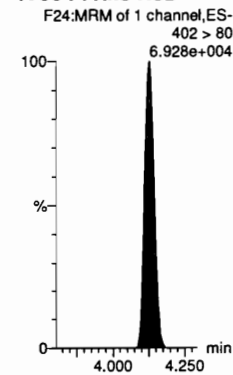
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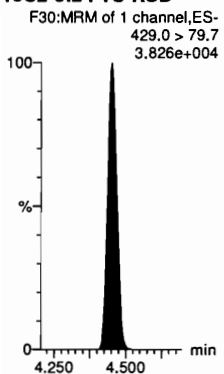
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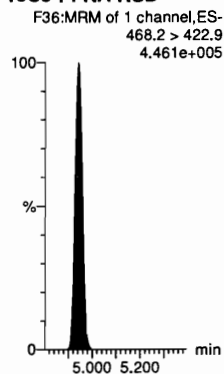
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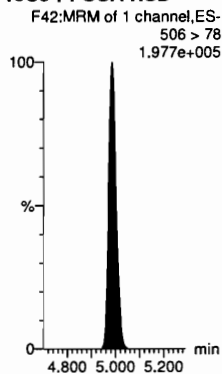
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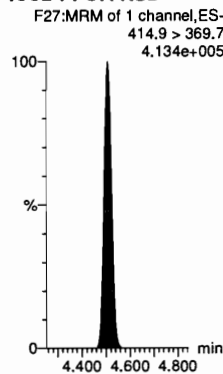
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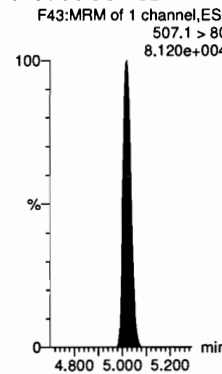
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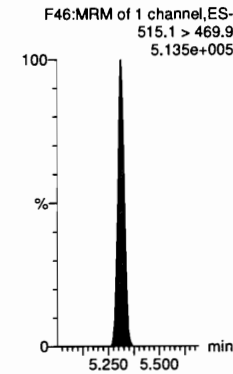
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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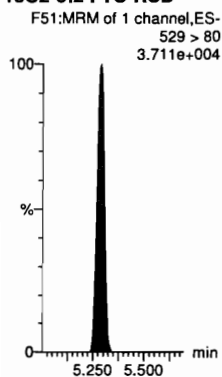
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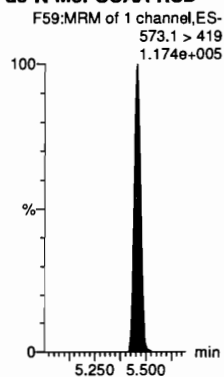
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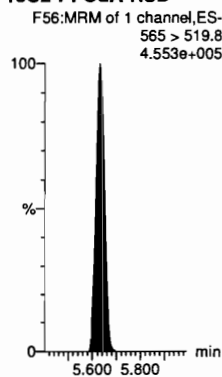
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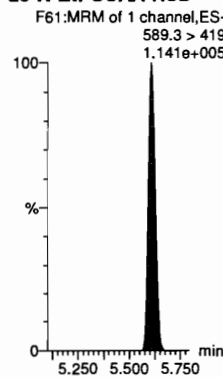
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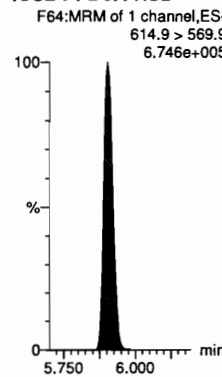
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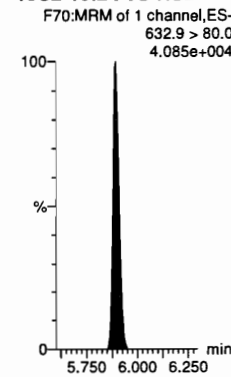
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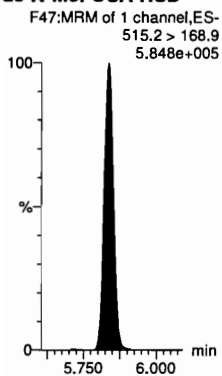
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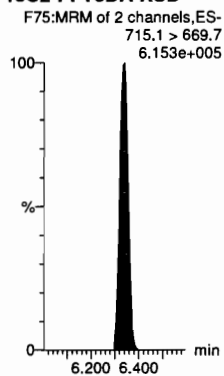
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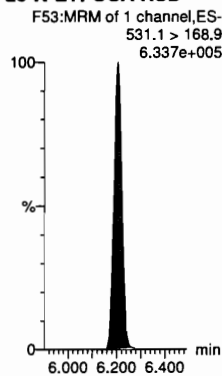
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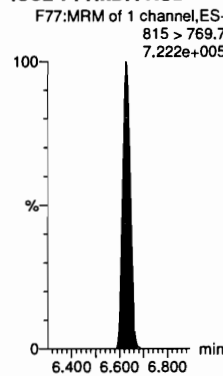
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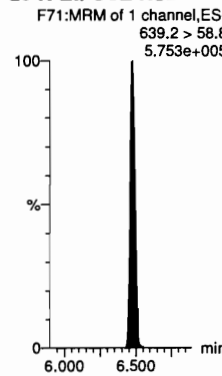
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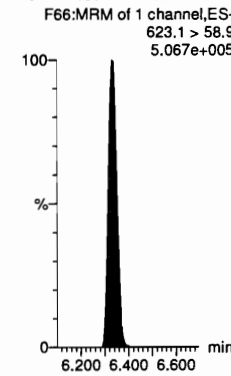
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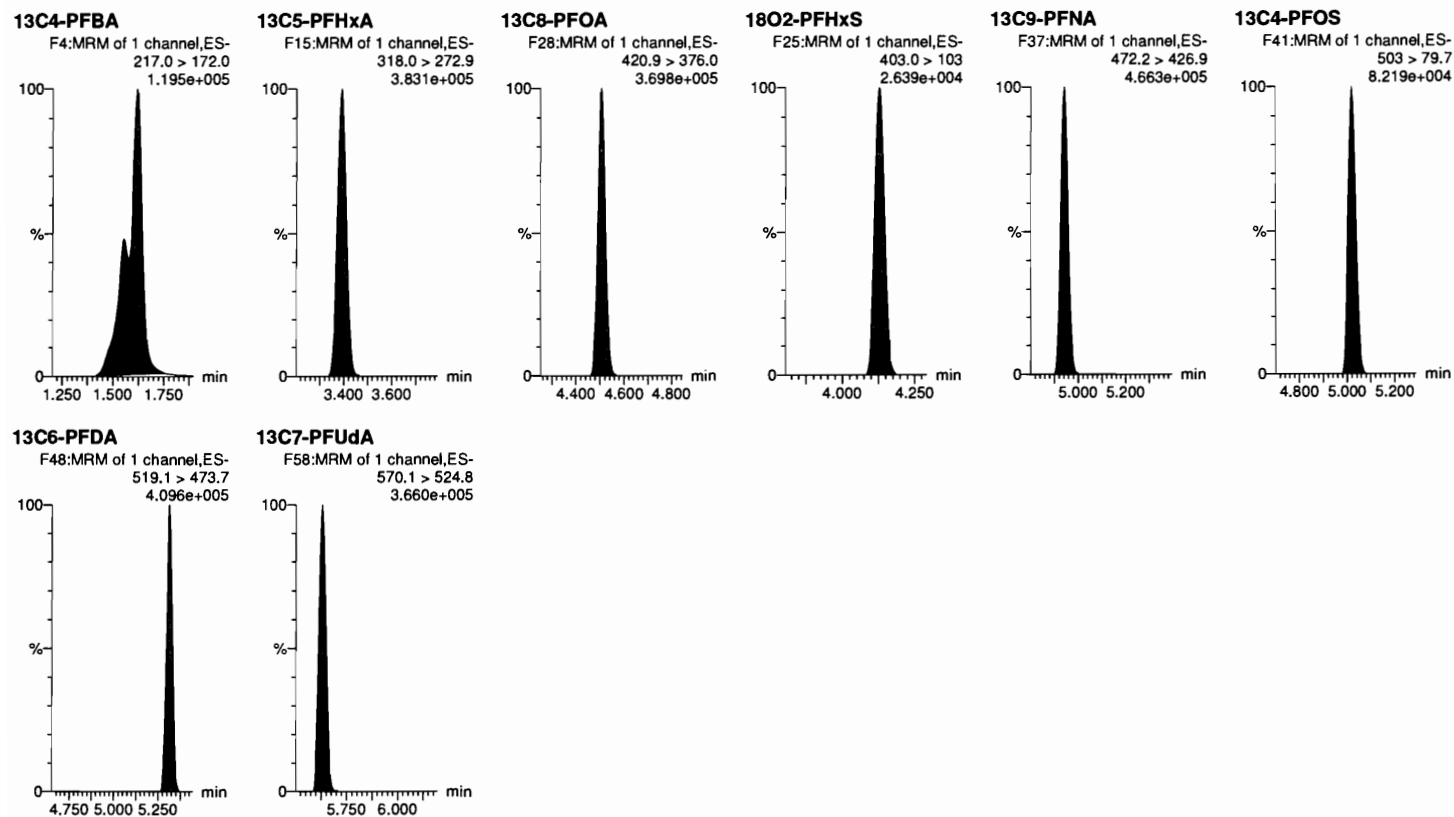
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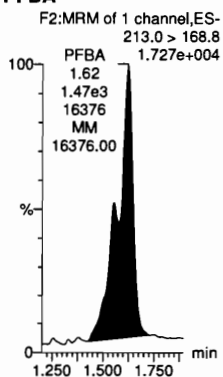
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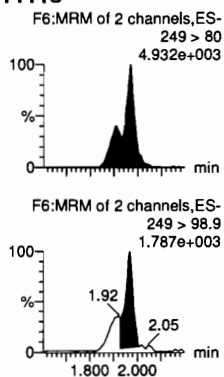
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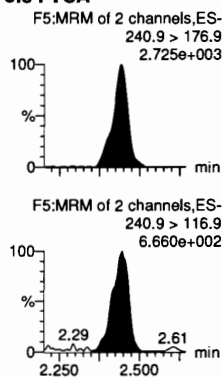
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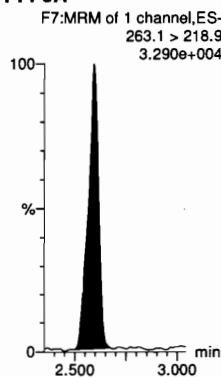
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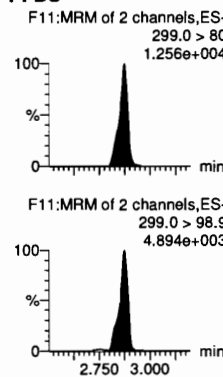
3:3 FTCA



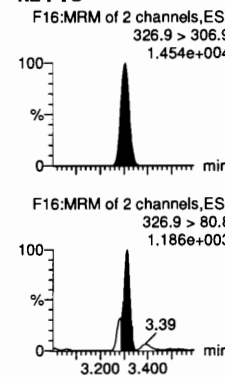
PFPeA



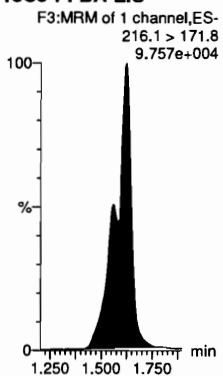
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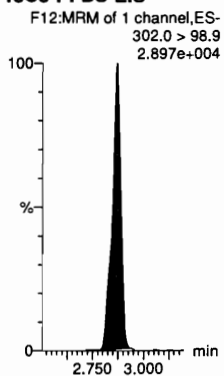
4:2 FTS



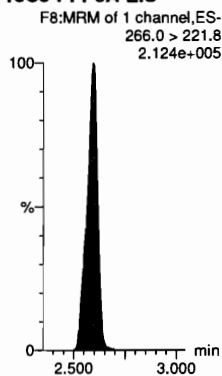
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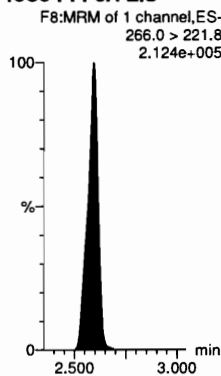
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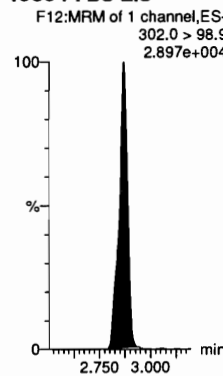
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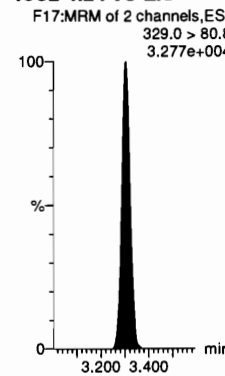
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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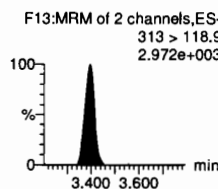
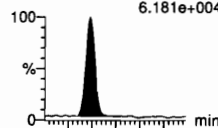
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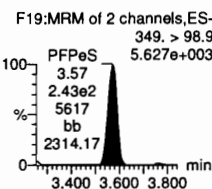
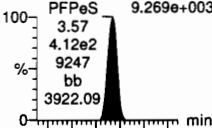
PFHxA

F13:MRM of 2 channels,ES-
313.0 > 269.0
6.181e+004



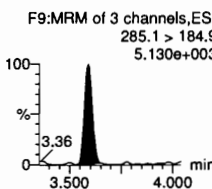
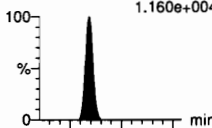
PFPeS

F19:MRM of 2 channels,ES-
349. > 80
9.269e+003



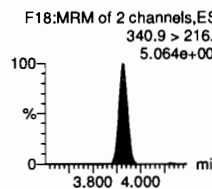
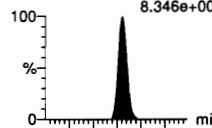
HFPO-DA

F9:MRM of 3 channels,ES-
285.1 > 168.9
1.160e+004



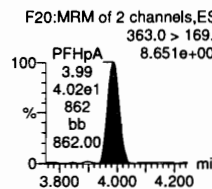
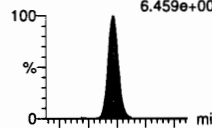
5:3 FTCA

F18:MRM of 2 channels,ES-
340.9 > 236.9
8.346e+003



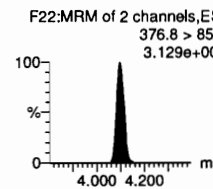
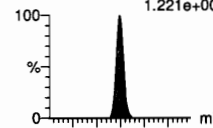
PFHpA

F20:MRM of 2 channels,ES-
363.0 > 319
6.459e+004



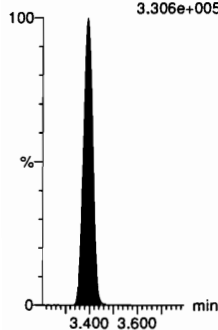
ADONA

F22:MRM of 2 channels,ES-
376.8 > 250.9
1.221e+005



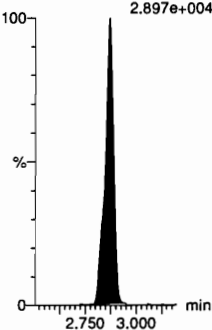
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F14:MRM of 1 channel,ES-
315.0 > 270.0
3.306e+005



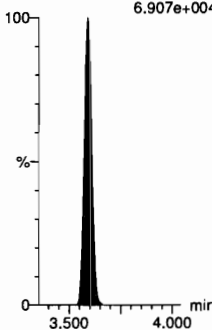
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F12:MRM of 1 channel,ES-
302.0 > 98.9
2.897e+004



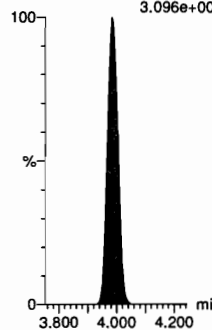
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F10:MRM of 2 channels,ES-
287.0 > 168.9
6.907e+004



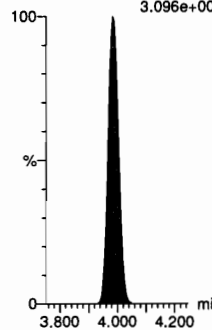
13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.096e+005



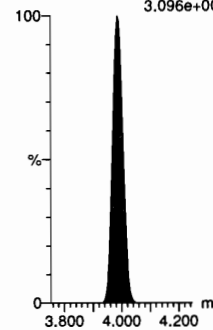
13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.096e+005



13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.096e+005



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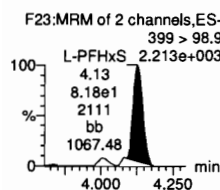
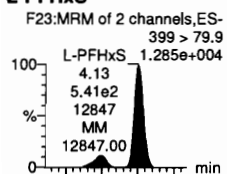
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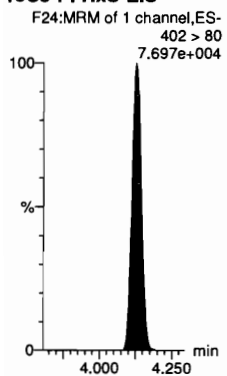
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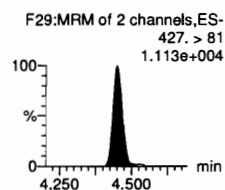
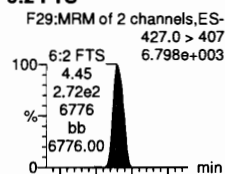
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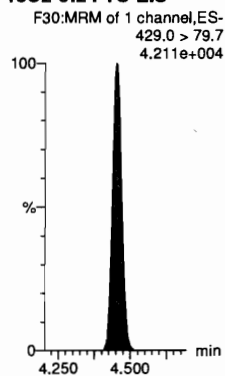
13C3-PFHxS-EIS



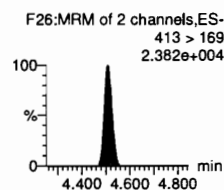
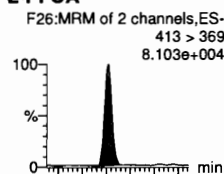
6:2 FTS



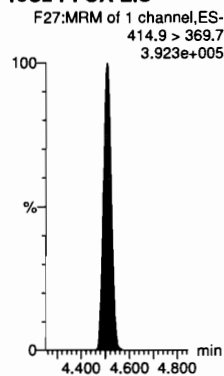
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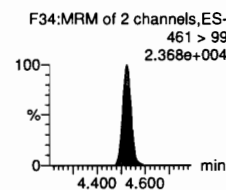
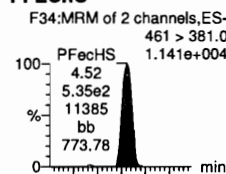
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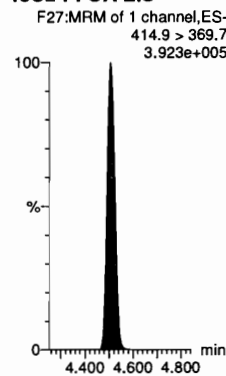
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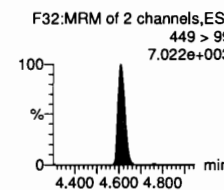
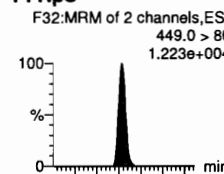
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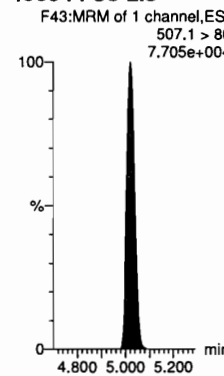
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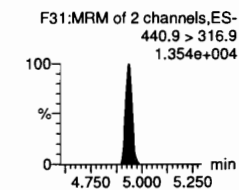
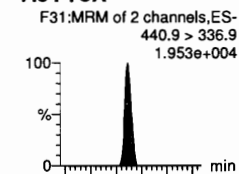
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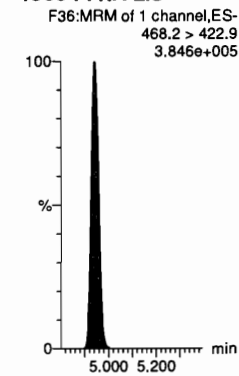
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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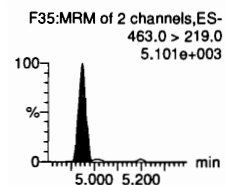
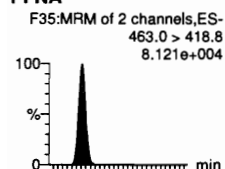
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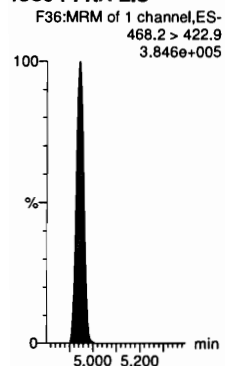
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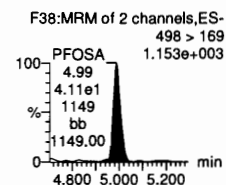
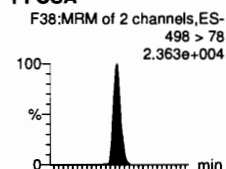
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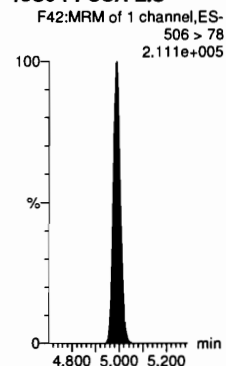
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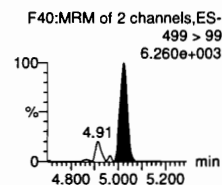
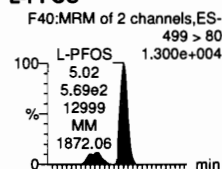
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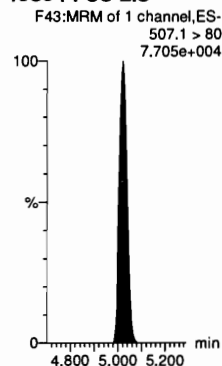
13C8-PFOSA-EIS



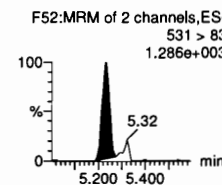
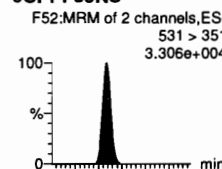
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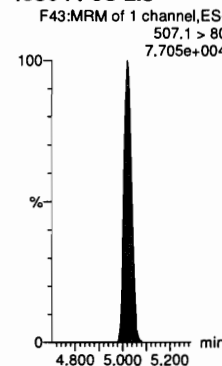
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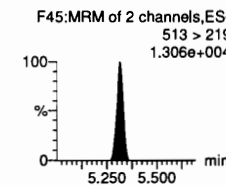
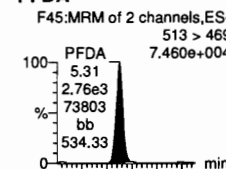
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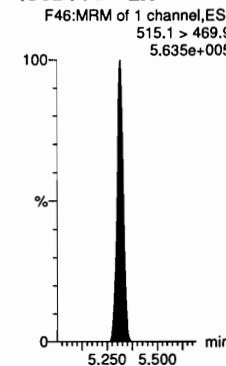
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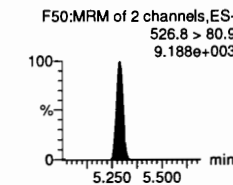
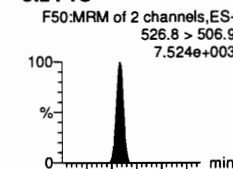
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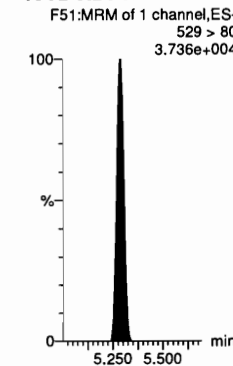
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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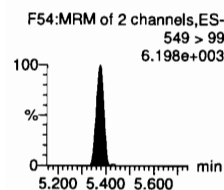
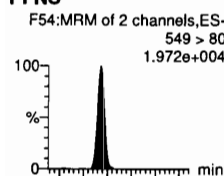
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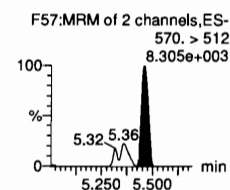
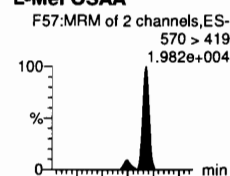
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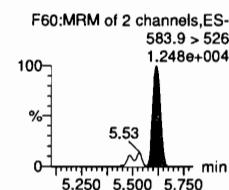
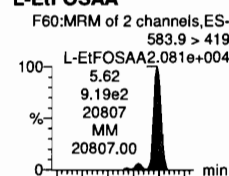
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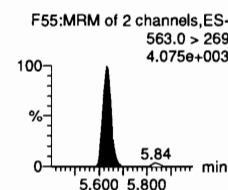
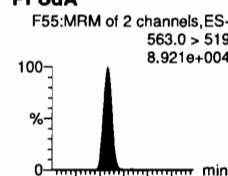
L-MeFOSAA



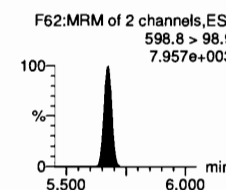
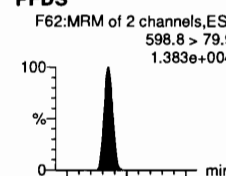
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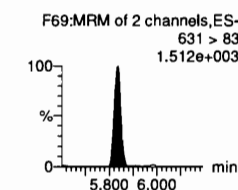
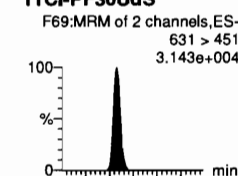
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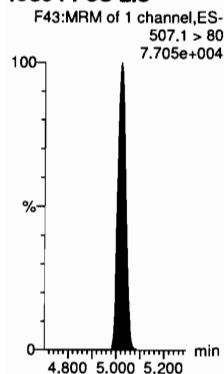
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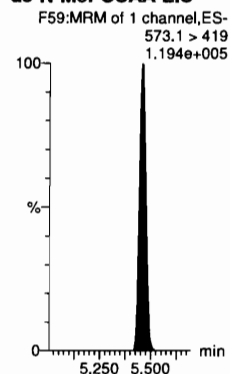
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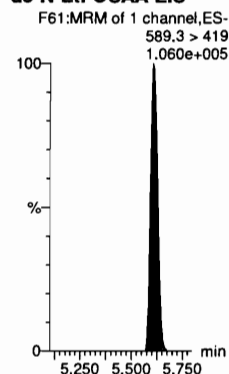
13C8-PFOS-EIS



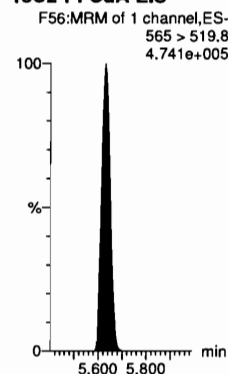
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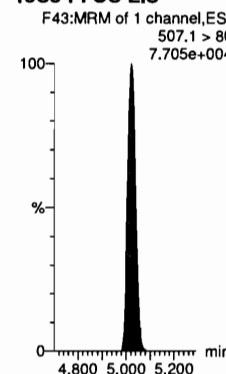
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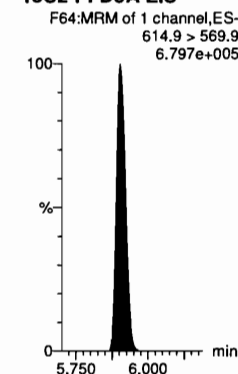
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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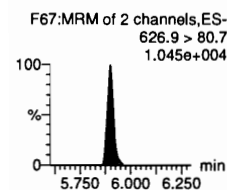
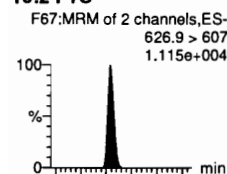
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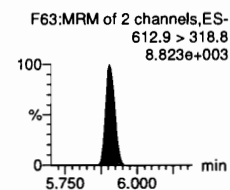
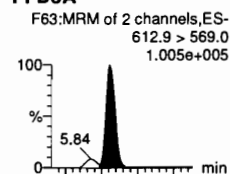
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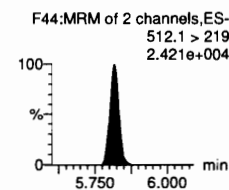
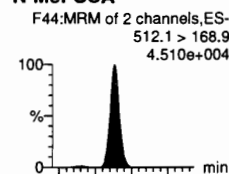
10:2 FTS



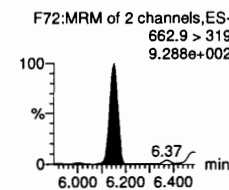
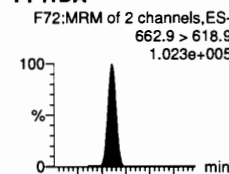
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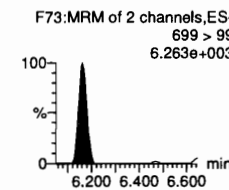
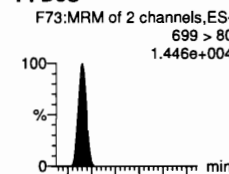
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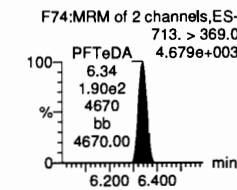
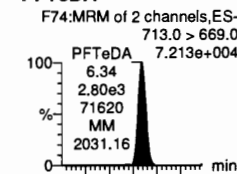
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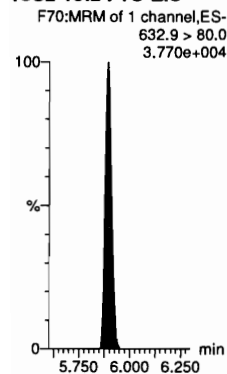
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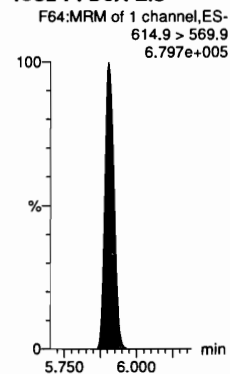
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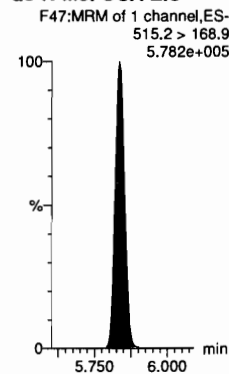
13C2-10:2 FTS-EIS



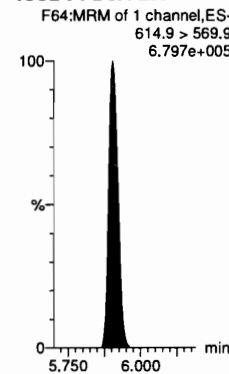
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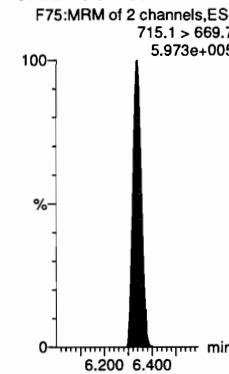
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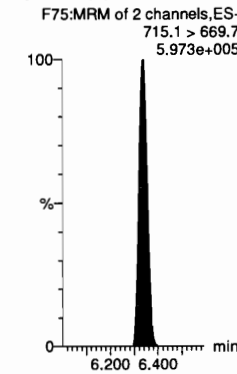
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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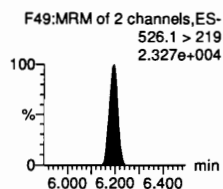
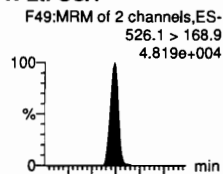
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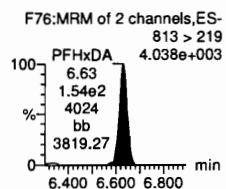
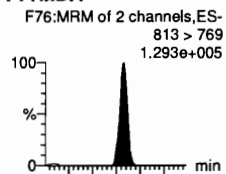
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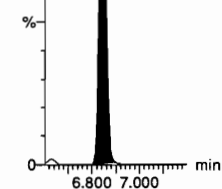
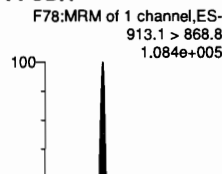
N-EtFOSA



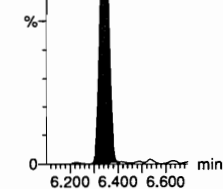
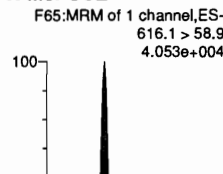
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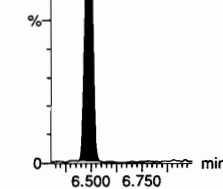
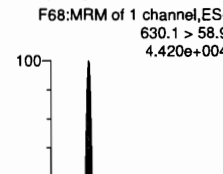
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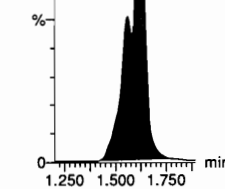
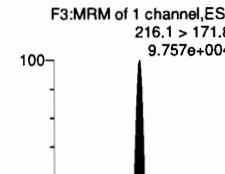
N-MeFOSE



N-EtFOSE

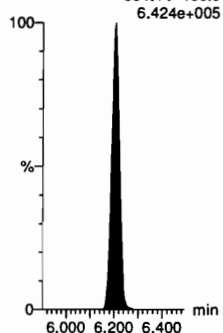


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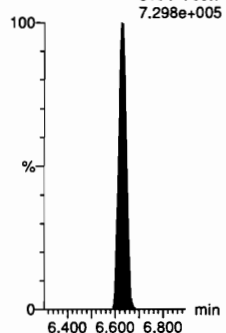
d5-N-ETFOSA-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
6.424e+005



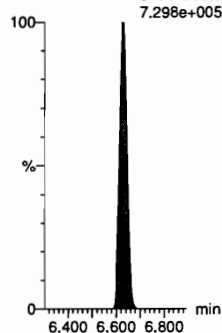
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F77:MRM of 1 channel,ES-
815 > 769.7
7.298e+005



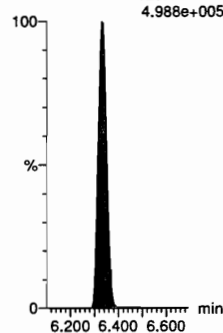
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
7.298e+005



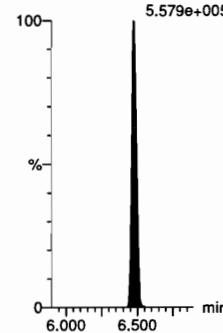
d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
4.988e+005



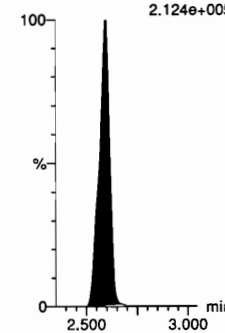
d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
5.579e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
2.124e+005



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

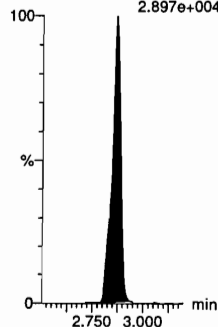
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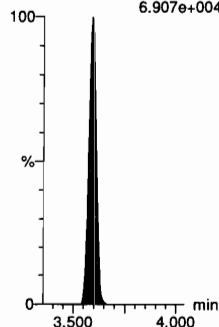
13C3-PFBS-RSD

F12:MRM of 1 channel,ES-
302.0 > 98.9
2.897e+004



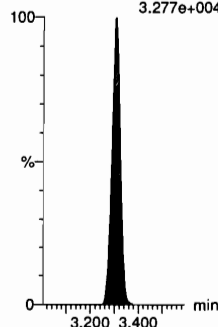
13C3-HFPO-DA-RSD

F10:MRM of 2 channels,ES-
287.0 > 168.9
6.907e+004



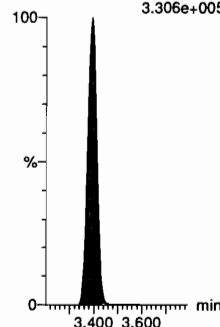
13C2-4:2 FTS-RSD

F17:MRM of 2 channels,ES-
329.0 > 80.8
3.277e+004



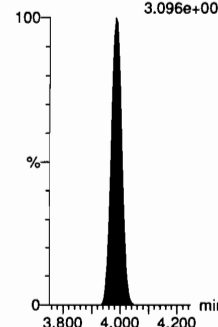
13C2-PFHxA-RSD

F14:MRM of 1 channel,ES-
315.0 > 270.0
3.306e+005



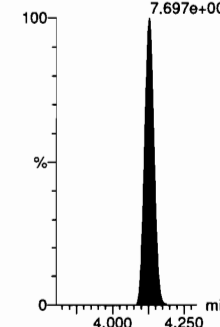
13C4-PFHpA-RSD

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.096e+005



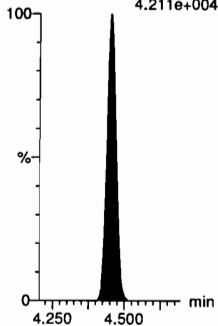
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F24:MRM of 1 channel,ES-
402 > 80
7.697e+004



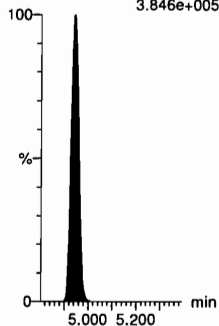
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F30:MRM of 1 channel,ES-
429.0 > 79.7
4.211e+004



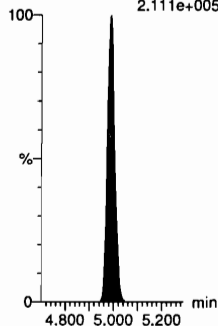
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F36:MRM of 1 channel,ES-
468.2 > 422.9
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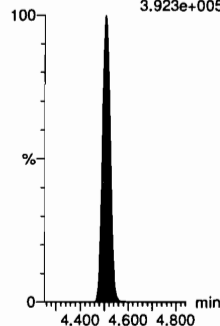
13C8-PFOA-RSD

F42:MRM of 1 channel,ES-
506 > 78
2.111e+005



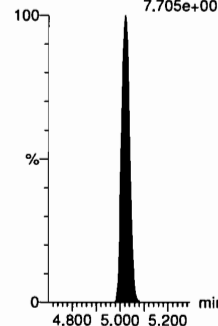
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F27:MRM of 1 channel,ES-
414.9 > 369.7
3.923e+005



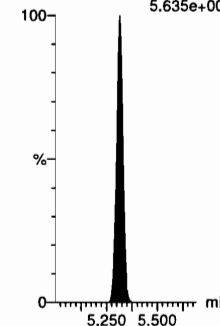
13C8-PFOS-RSD

F43:MRM of 1 channel,ES-
507.1 > 80
7.705e+004



13C2-PFDA-RSD

F46:MRM of 1 channel,ES-
515.1 > 469.9
5.635e+005



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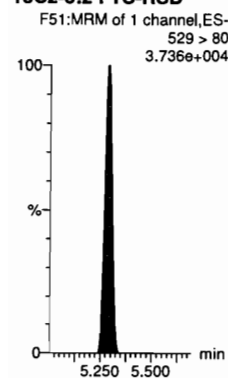
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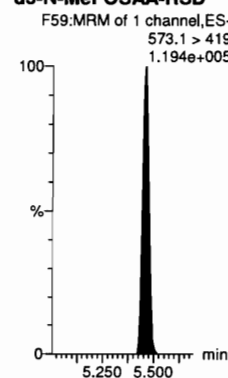
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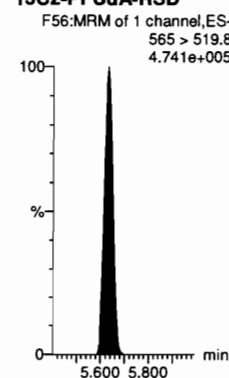
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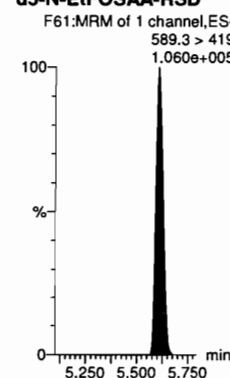
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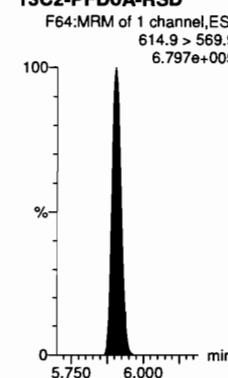
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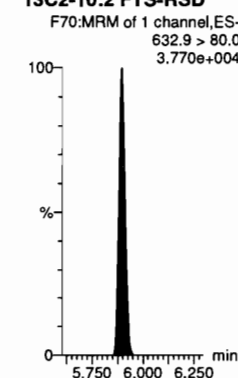
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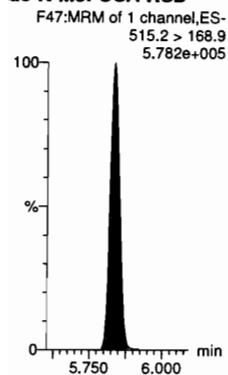
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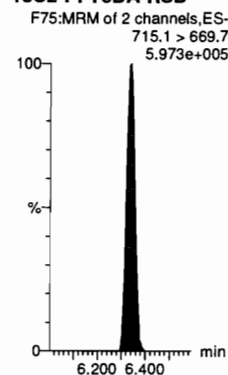
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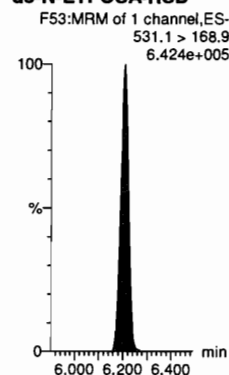
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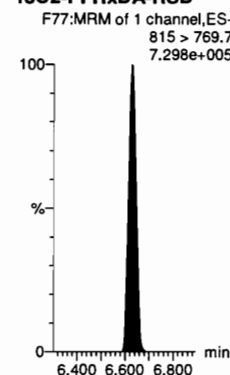
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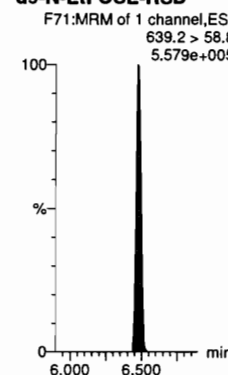
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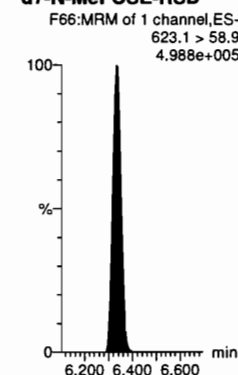
13C2-PFHxDA-RSD



d9-N-EtFOSE-RSD



d7-N-MeFOSE-RSD



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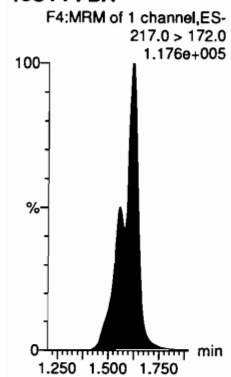
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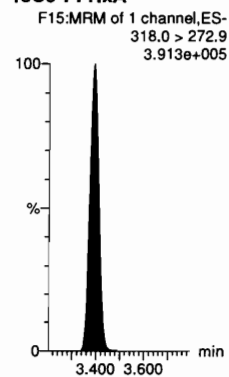
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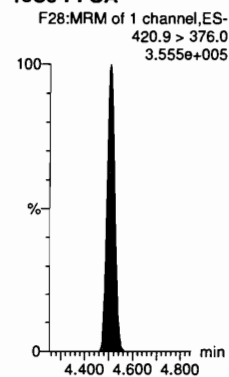
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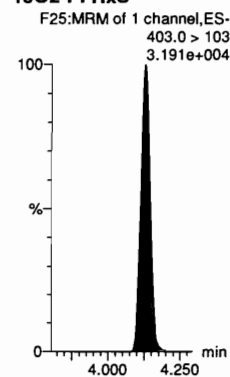
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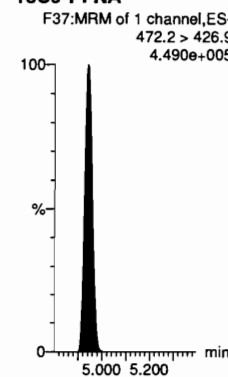
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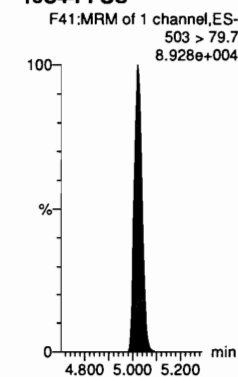
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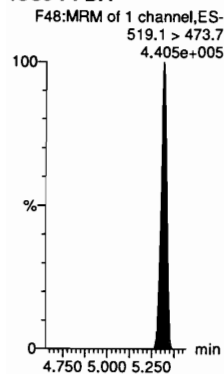
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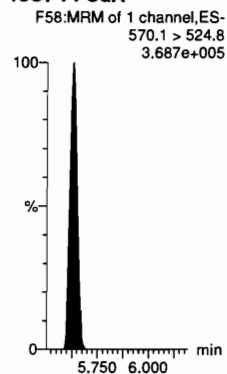
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13C6-PFDA



13C7-PFUDa



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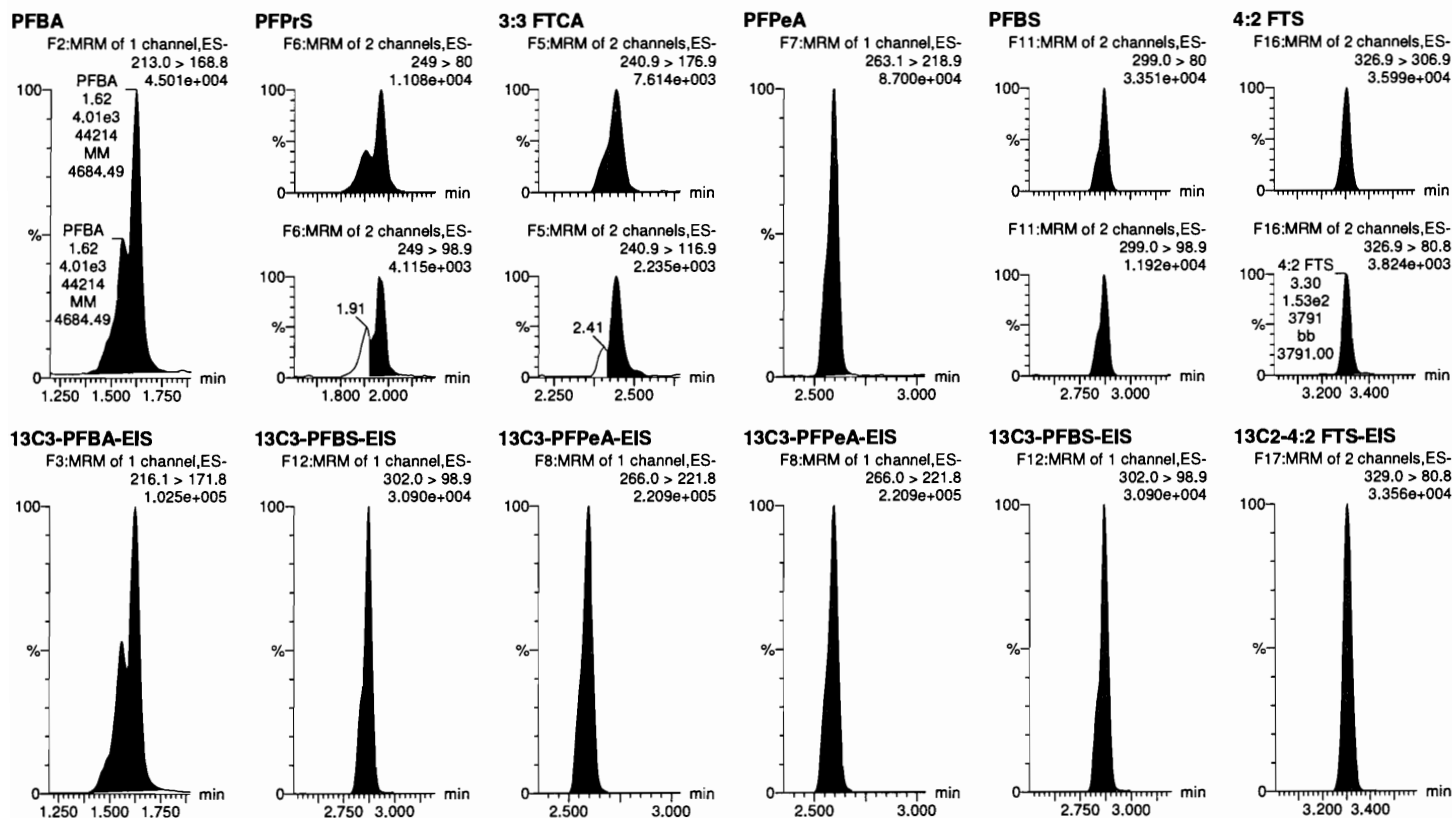
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Name: 200706P1-23, Date: 06-Jul-2020, Time: 13:55:58, ID: ST200706P1-5 PFC CS2 20F1905, Description: PFC CS2 20F1905



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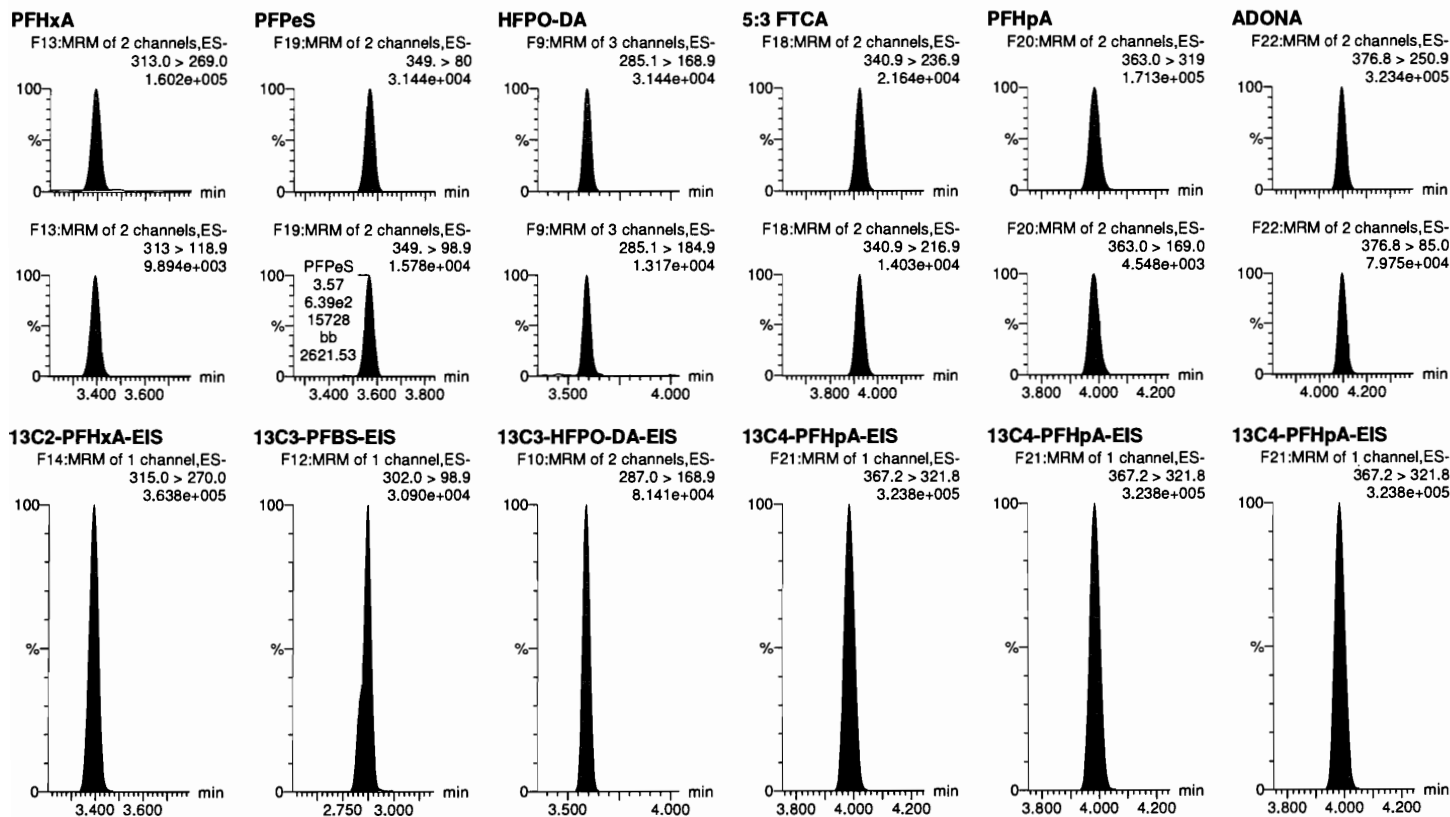
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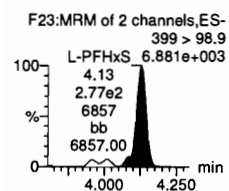
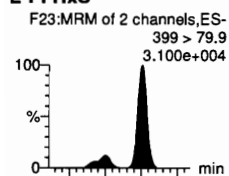
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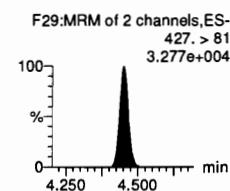
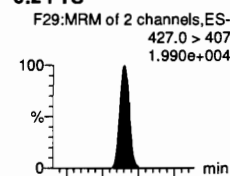
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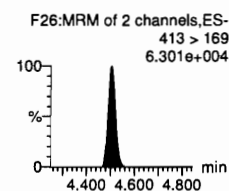
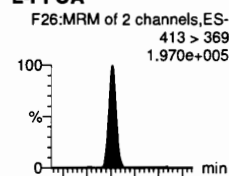
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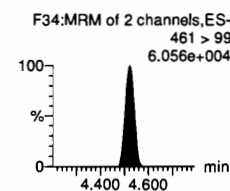
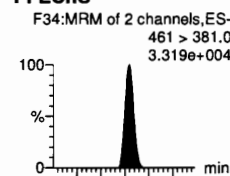
6:2 FTS



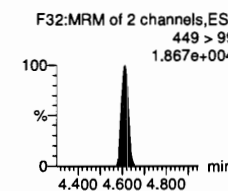
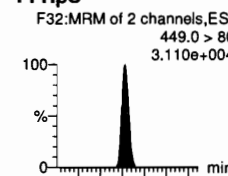
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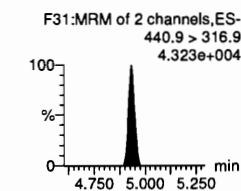
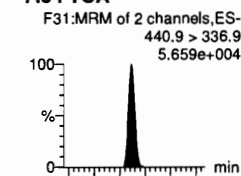
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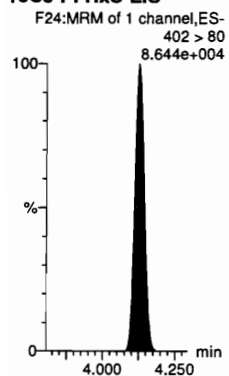
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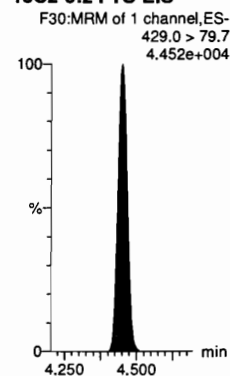
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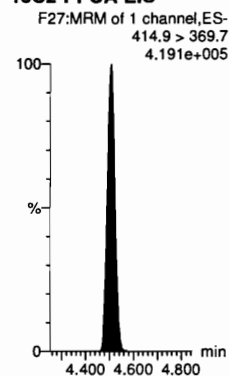
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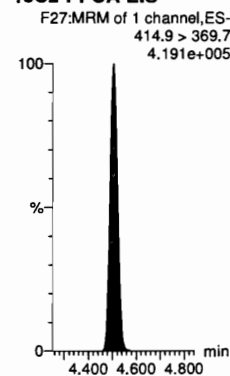
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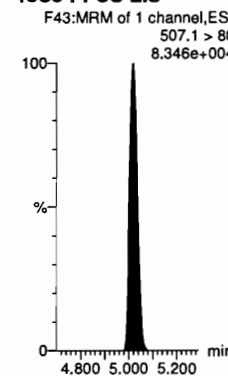
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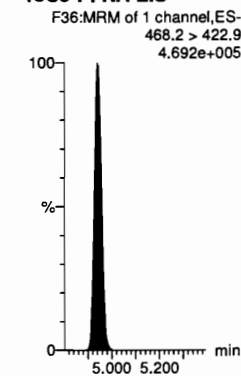
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13C8-PFOS-EIS



13C5-PFNA-EIS



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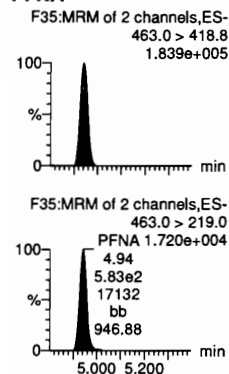
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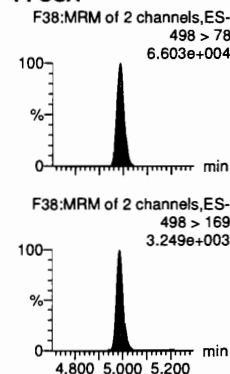
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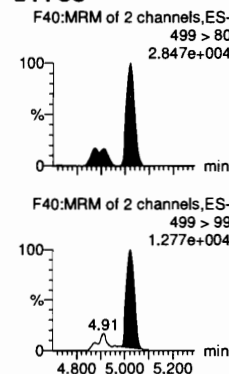
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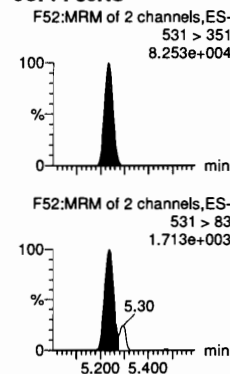
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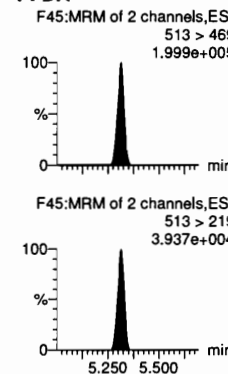
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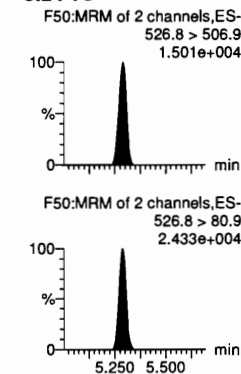
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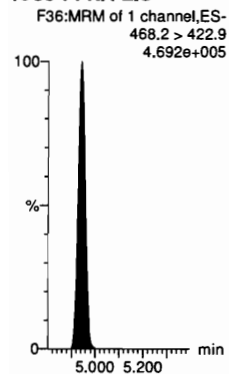
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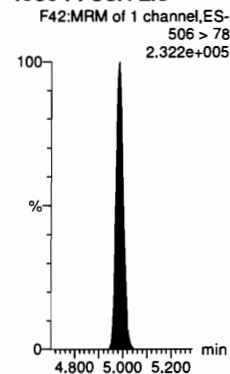
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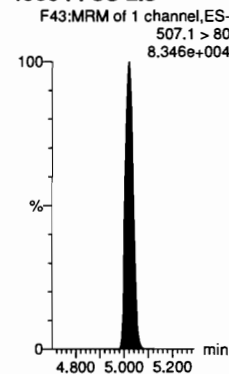
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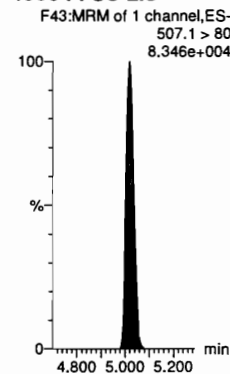
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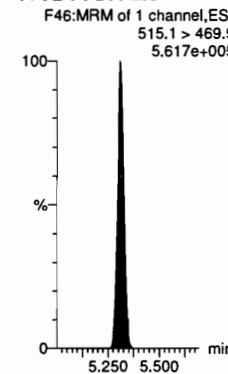
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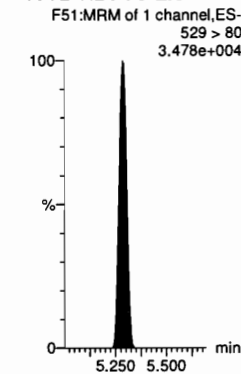
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS



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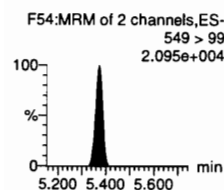
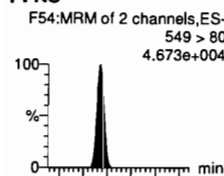
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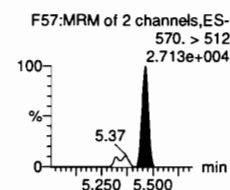
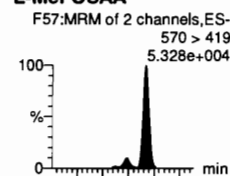
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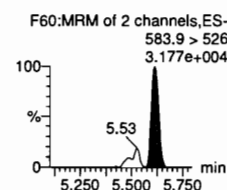
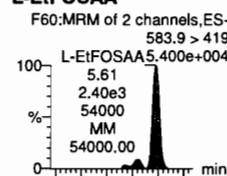
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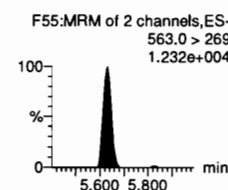
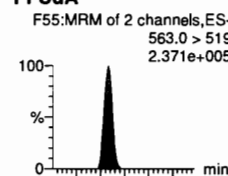
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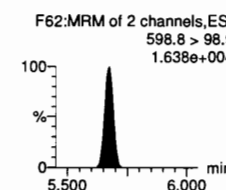
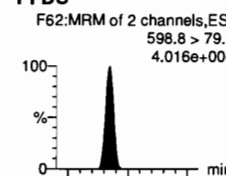
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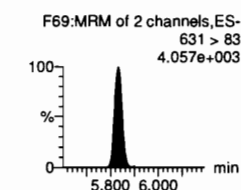
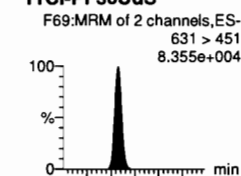
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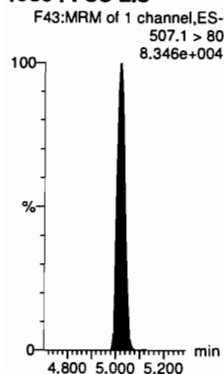
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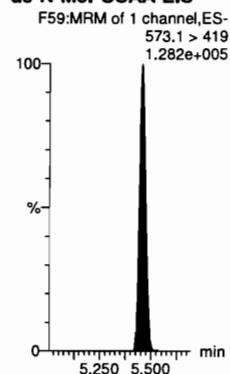
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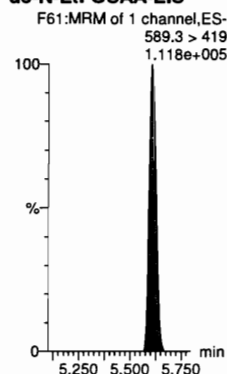
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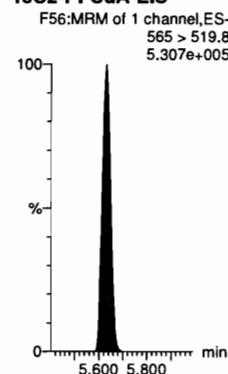
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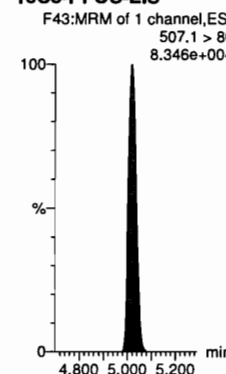
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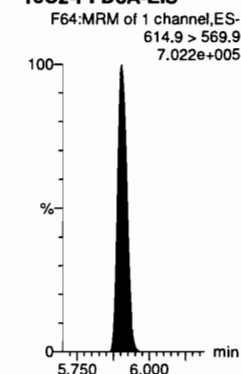
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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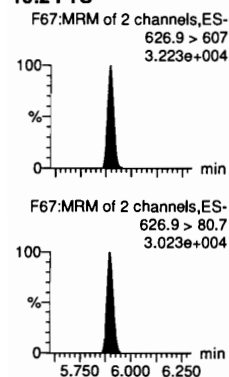
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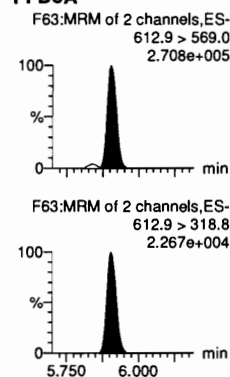
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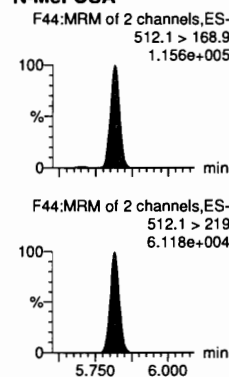
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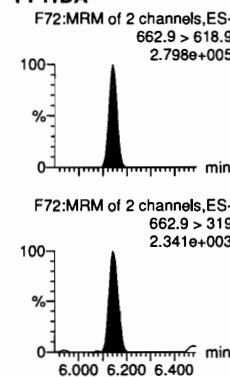
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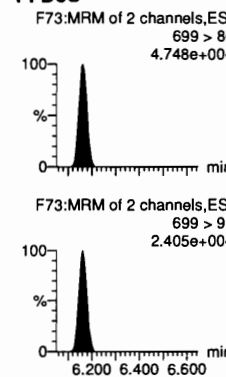
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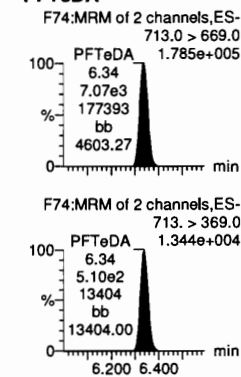
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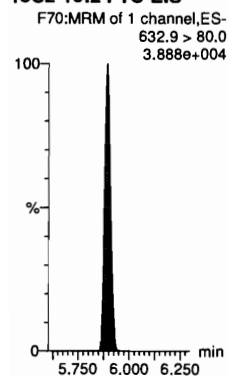
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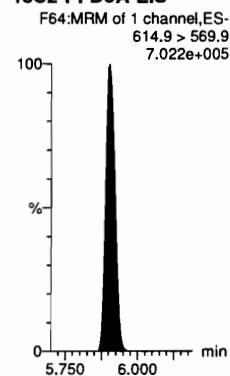
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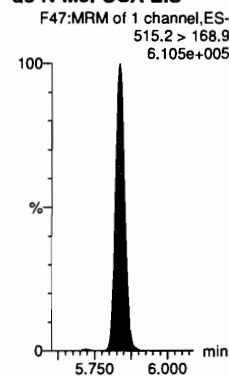
13C2-10:2 FTS-EIS



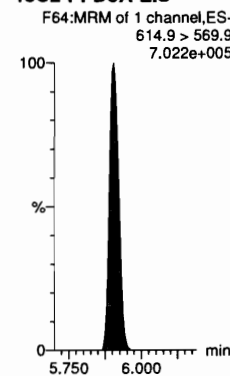
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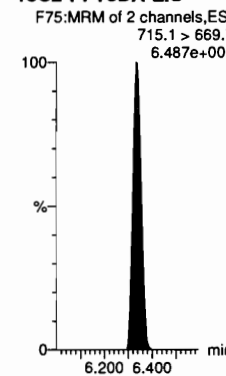
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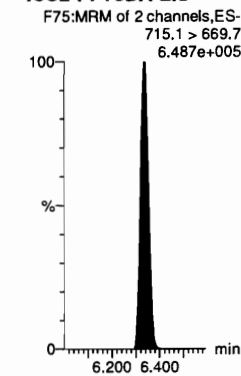
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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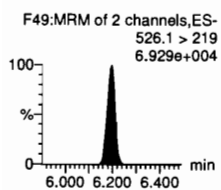
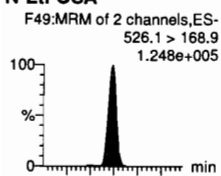
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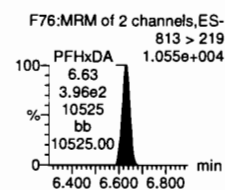
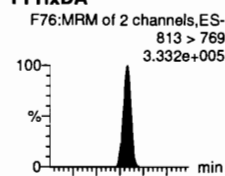
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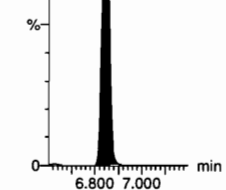
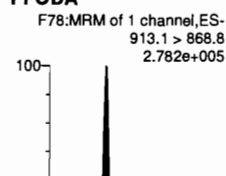
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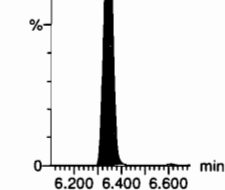
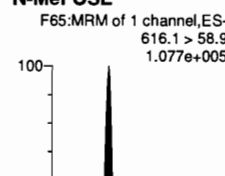
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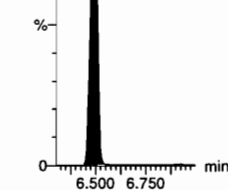
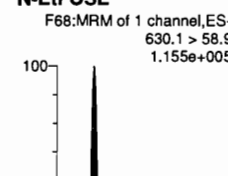
PFODA



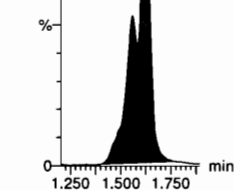
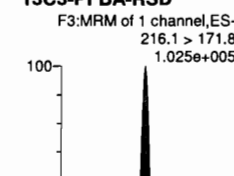
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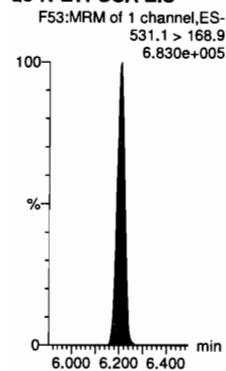
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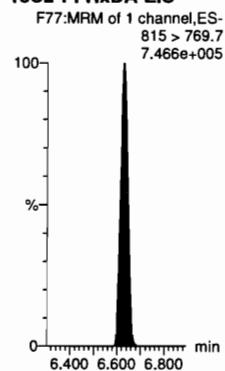
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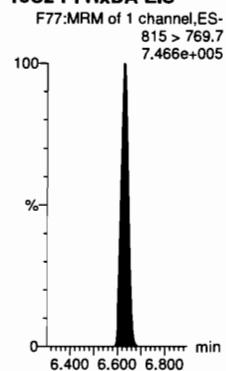
d5-N-EtFOSA-EIS



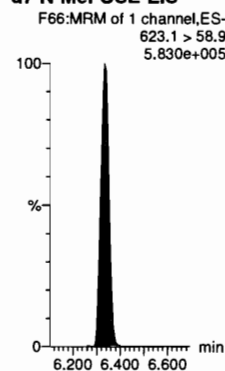
13C2-PFHxDA-EIS



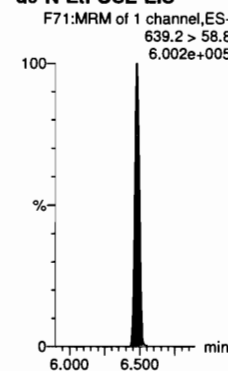
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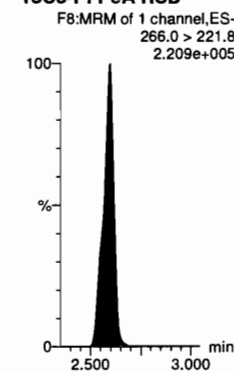
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD



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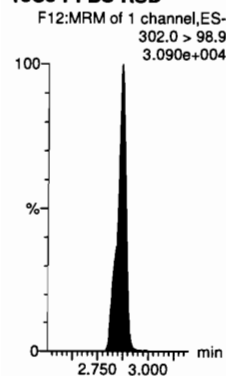
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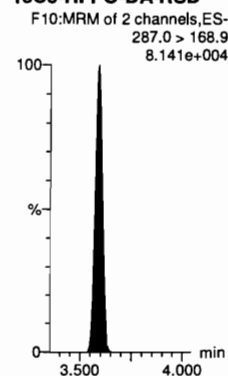
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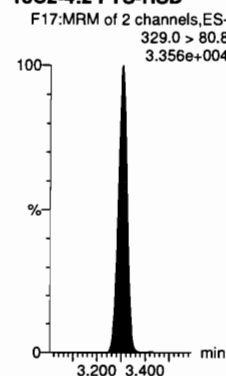
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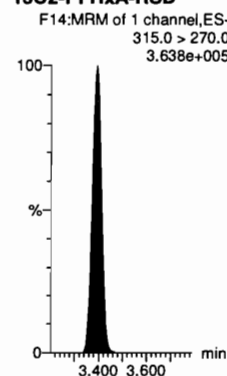
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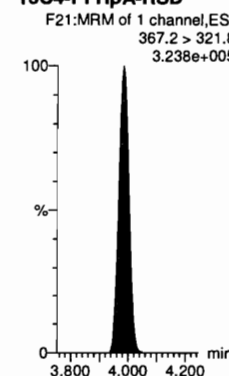
13C2-4:2 FTS-RSD



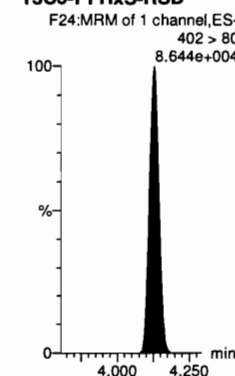
13C2-PFHxA-RSD



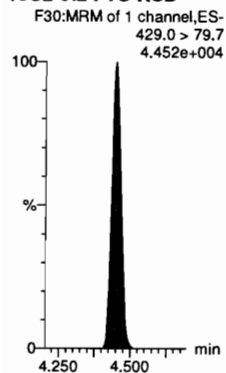
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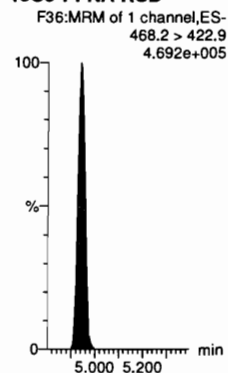
13C3-PFHxS-RSD



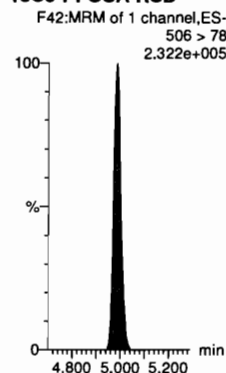
13C2-6:2 FTS-RSD



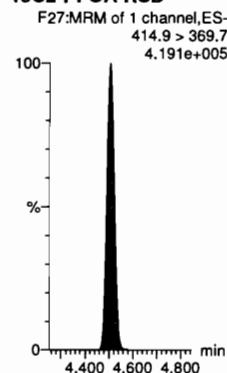
13C5-PFNA-RSD



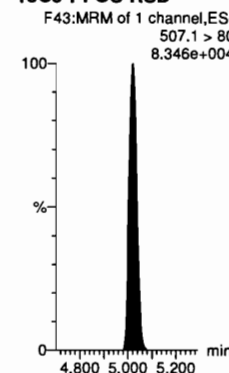
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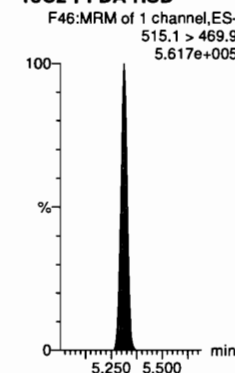
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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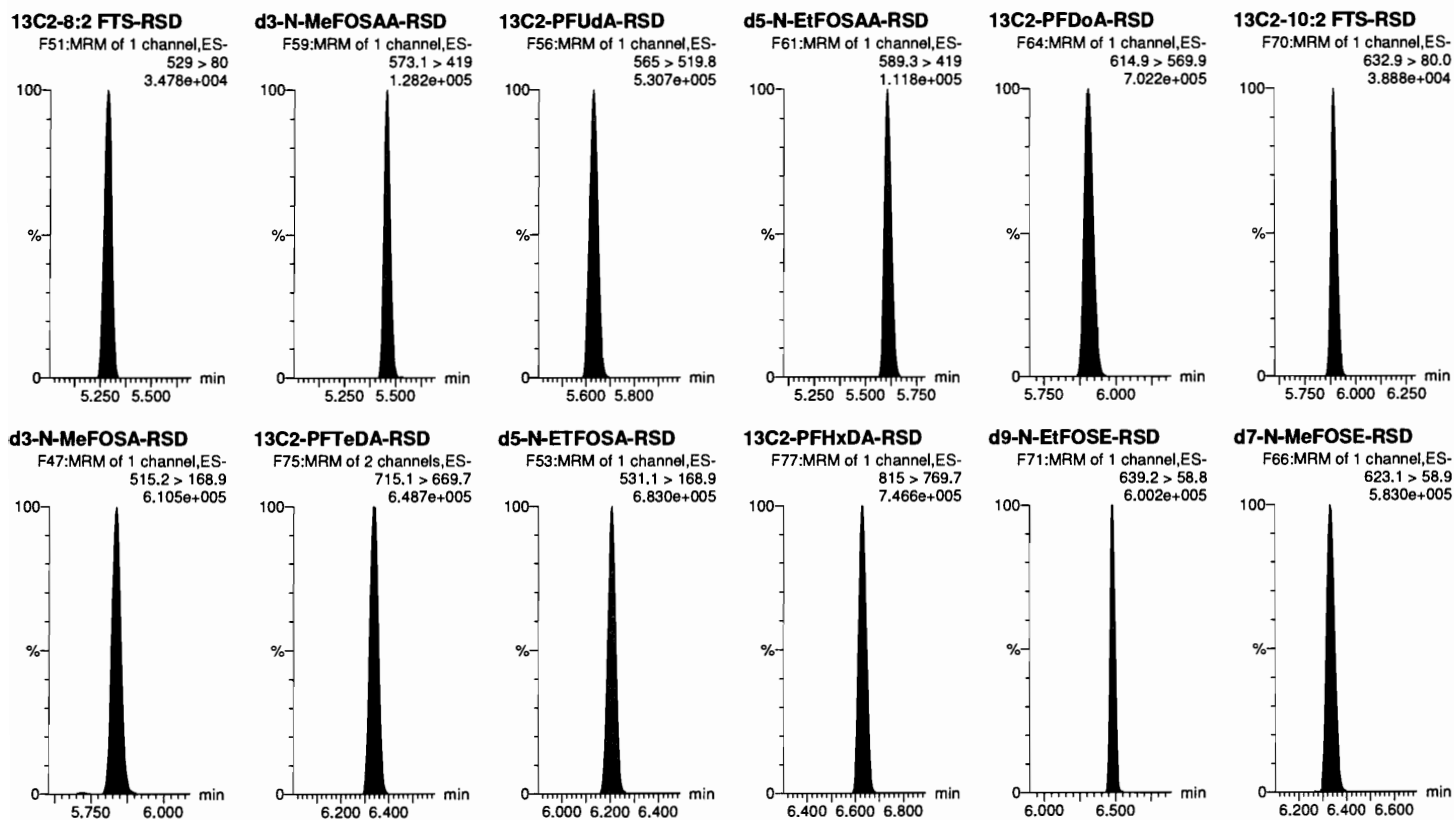
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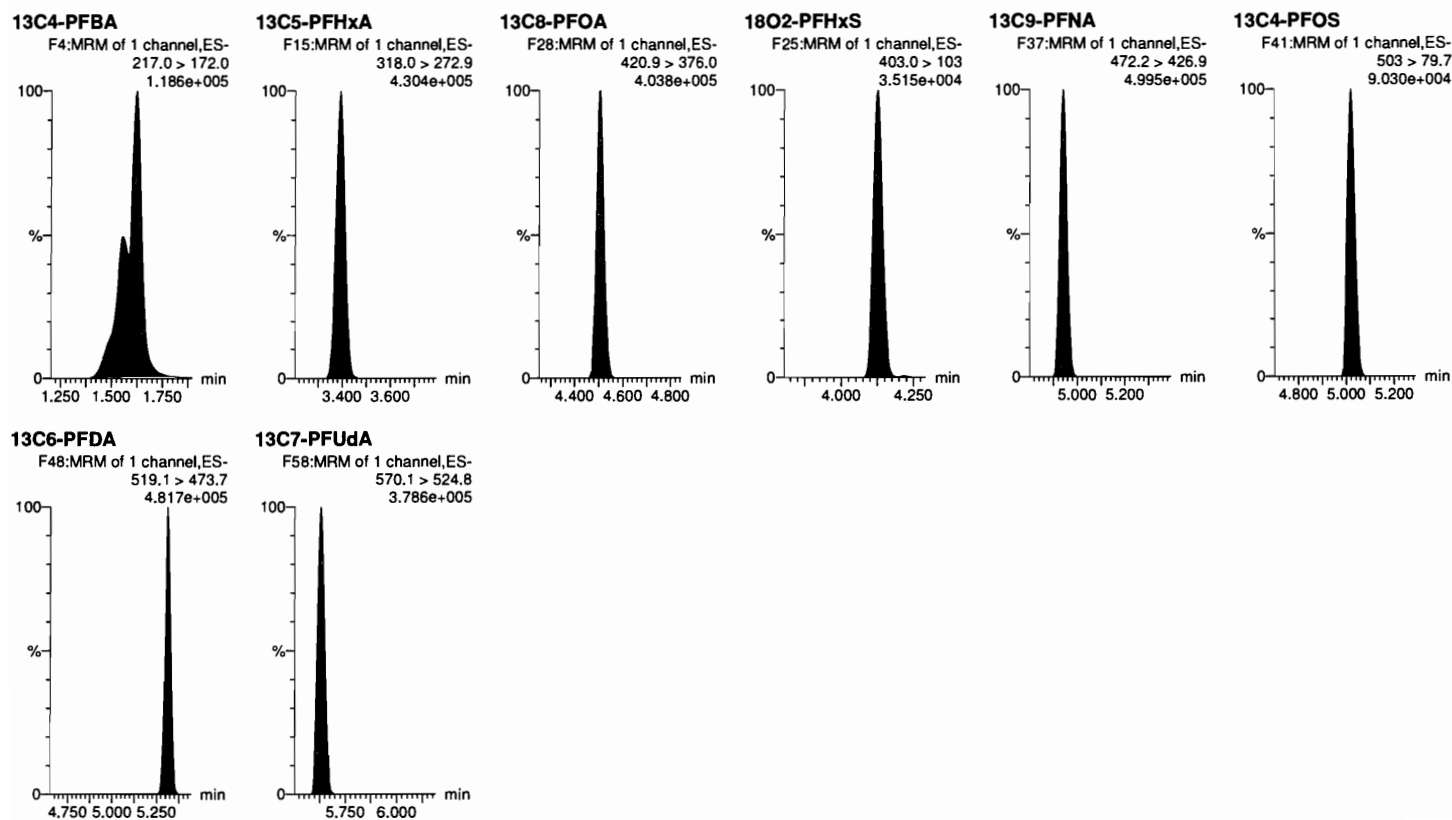
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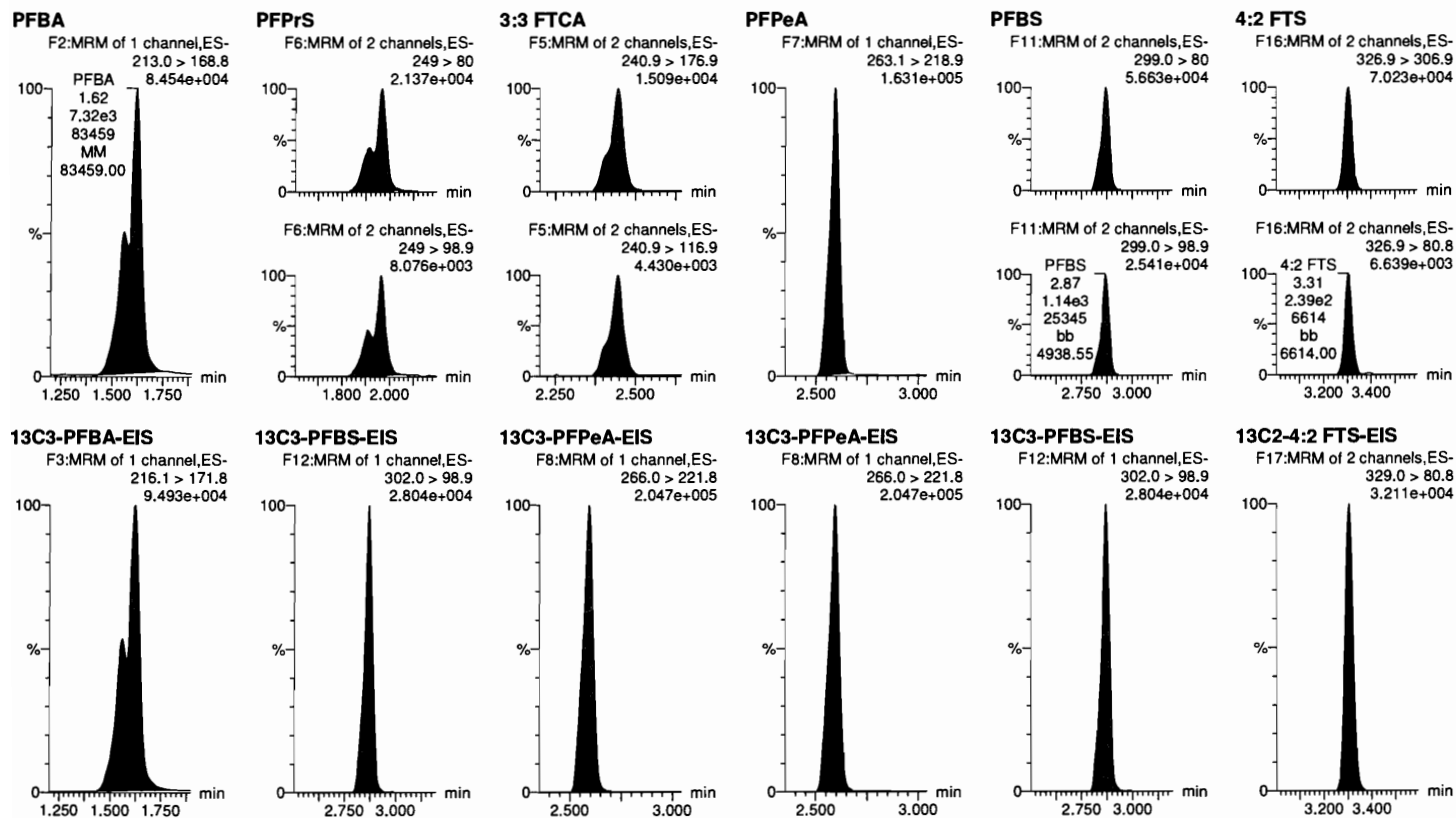
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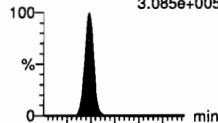
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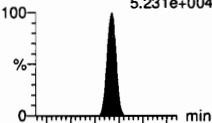
PFHxA

F13:MRM of 2 channels,ES-
313.0 > 269.0
3.085e+005



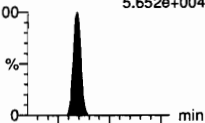
PFPeS

F19:MRM of 2 channels,ES-
349. > 80
5.231e+004



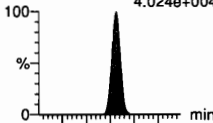
HFPO-DA

F9:MRM of 3 channels,ES-
285.1 > 168.9
5.652e+004



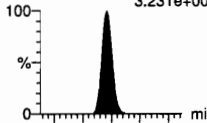
5:3 FTCA

F18:MRM of 2 channels,ES-
340.9 > 236.9
4.024e+004



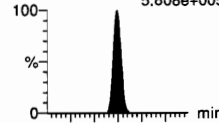
PFHpA

F20:MRM of 2 channels,ES-
363.0 > 319
3.231e+005

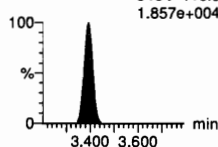


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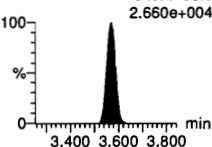
F22:MRM of 2 channels,ES-
376.8 > 250.9
5.808e+005



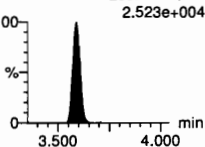
F13:MRM of 2 channels,ES-
313 > 118.9
1.857e+004



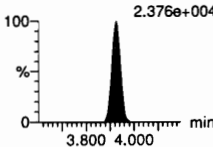
F19:MRM of 2 channels,ES-
349. > 98.9
2.660e+004



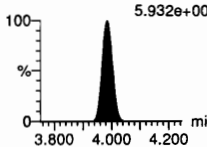
F9:MRM of 3 channels,ES-
285.1 > 184.9
2.523e+004



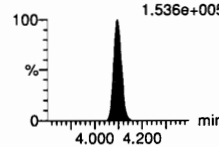
F18:MRM of 2 channels,ES-
340.9 > 216.9
2.376e+004



F20:MRM of 2 channels,ES-
363.0 > 169.0
5.932e+003

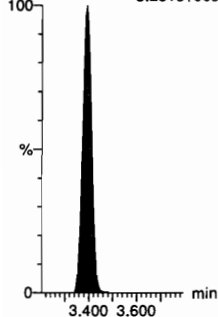


F22:MRM of 2 channels,ES-
376.8 > 85.0
1.536e+005



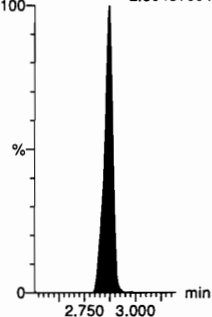
13C2-PFHxA-EIS

F14:MRM of 1 channel,ES-
315.0 > 270.0
3.281e+005



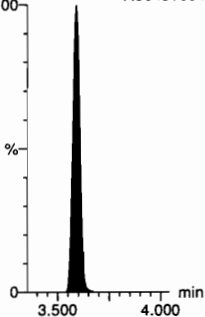
13C3-PFBS-EIS

F12:MRM of 1 channel,ES-
302.0 > 98.9
2.804e+004



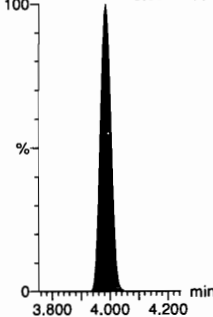
13C3-HFPO-DA-EIS

F10:MRM of 2 channels,ES-
287.0 > 168.9
7.304e+004



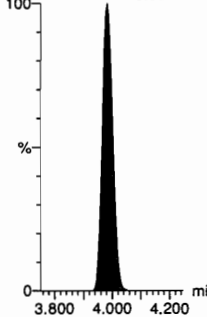
13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.007e+005



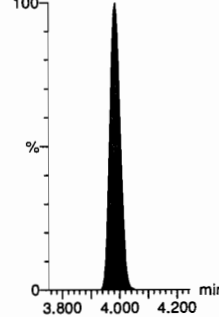
13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.007e+005



13C4-PFHpA-EIS

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.007e+005



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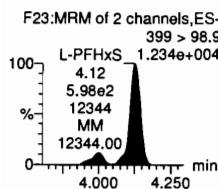
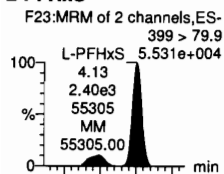
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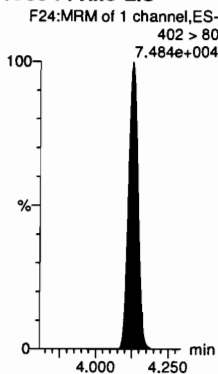
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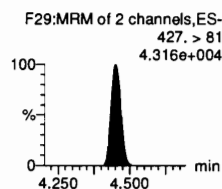
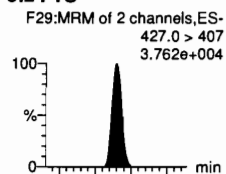
L-PFHxS



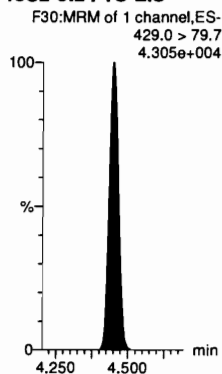
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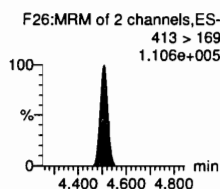
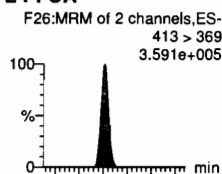
6:2 FTS



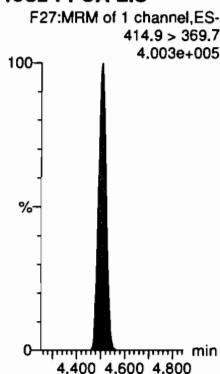
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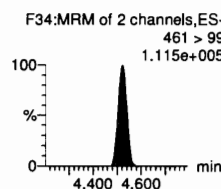
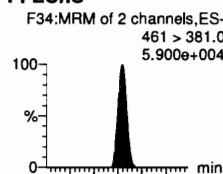
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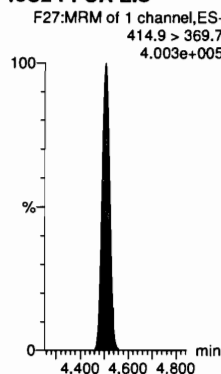
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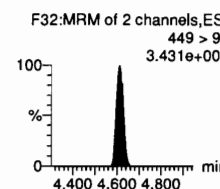
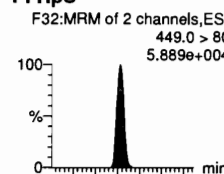
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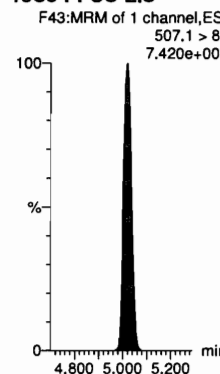
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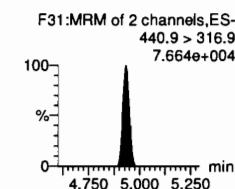
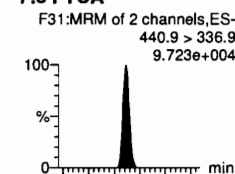
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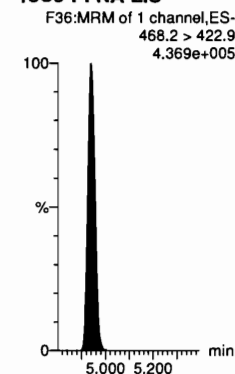
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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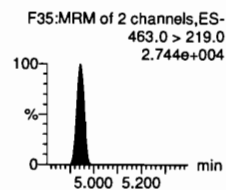
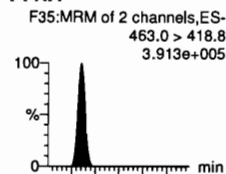
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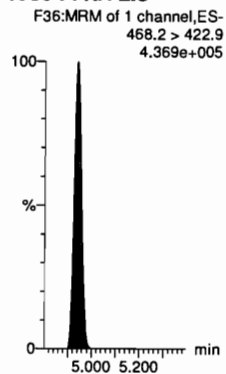
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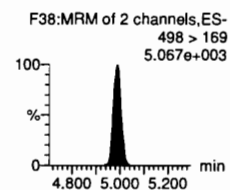
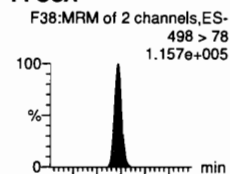
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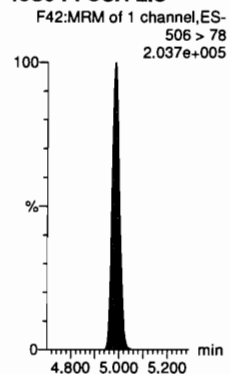
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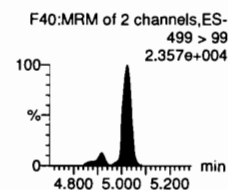
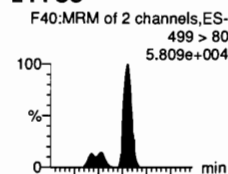
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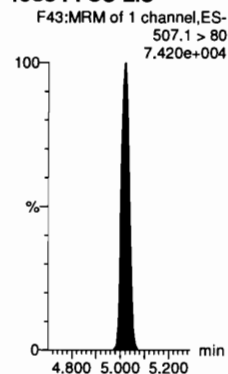
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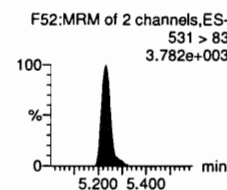
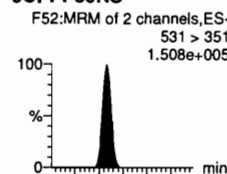
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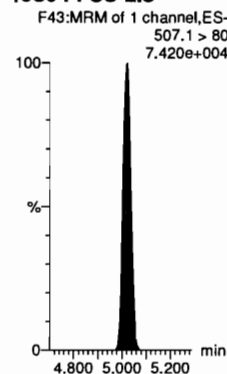
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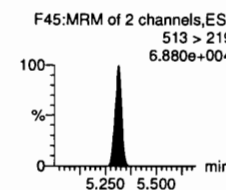
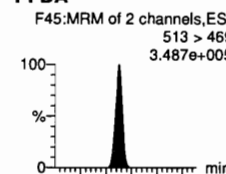
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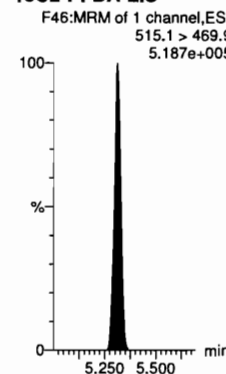
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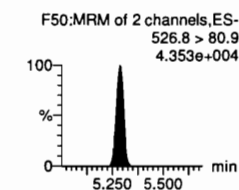
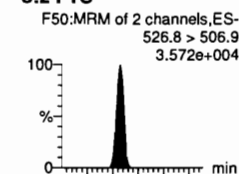
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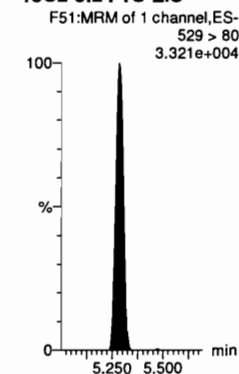
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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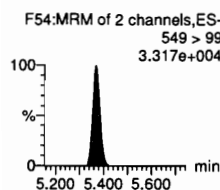
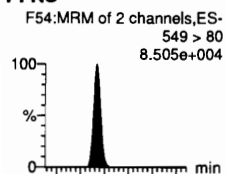
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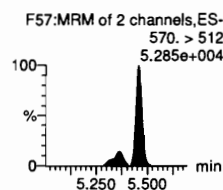
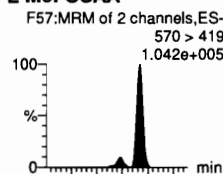
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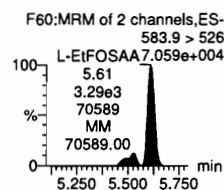
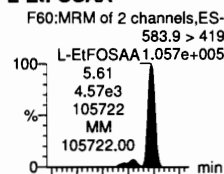
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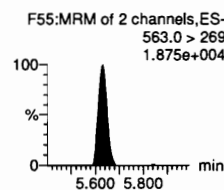
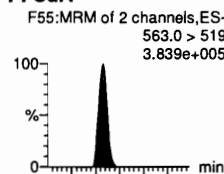
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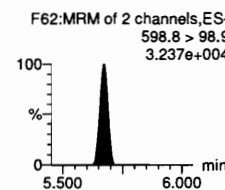
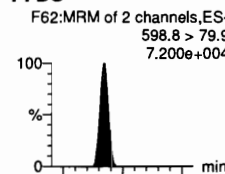
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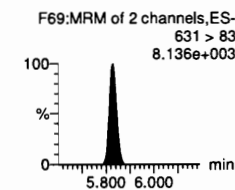
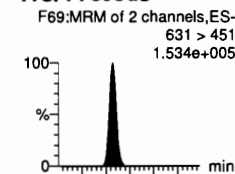
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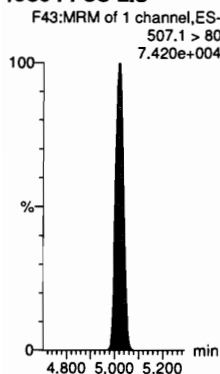
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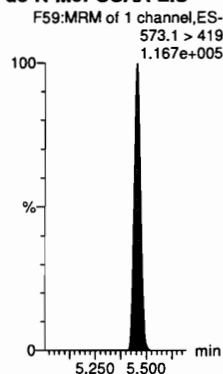
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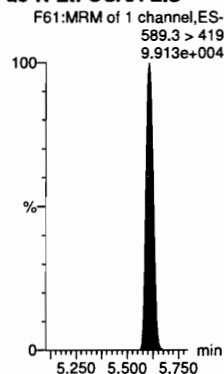
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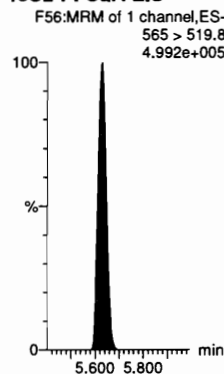
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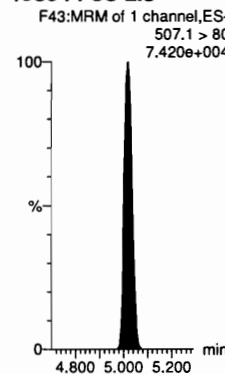
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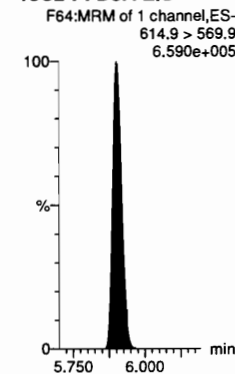
13C2-PFuDA-EIS



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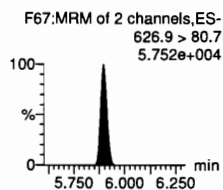
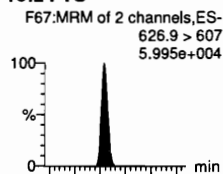
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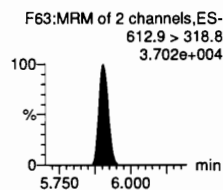
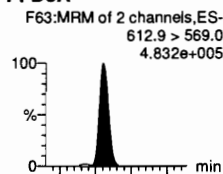
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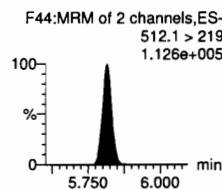
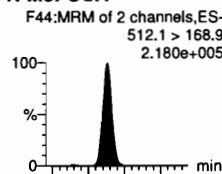
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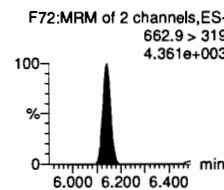
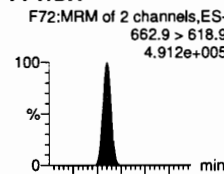
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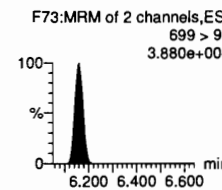
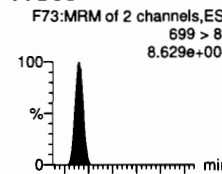
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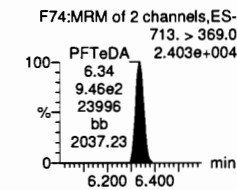
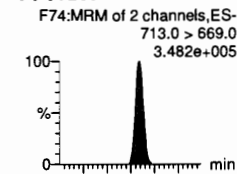
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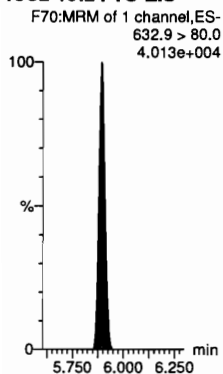
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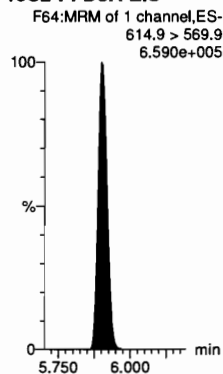
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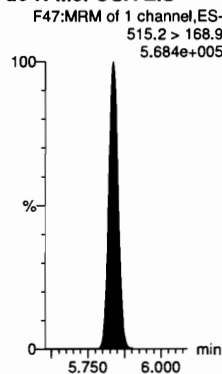
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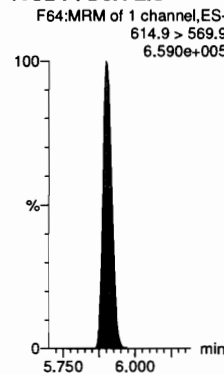
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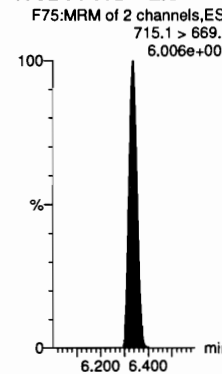
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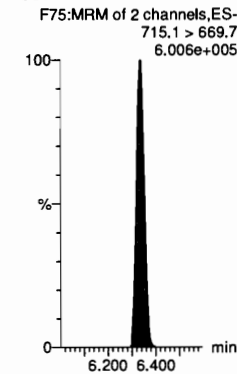
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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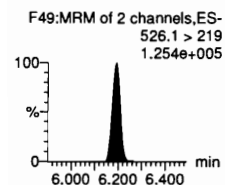
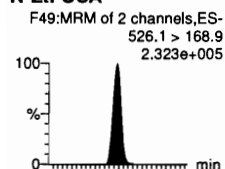
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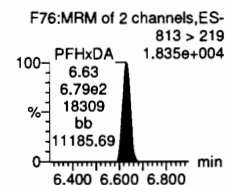
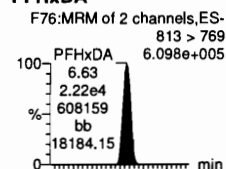
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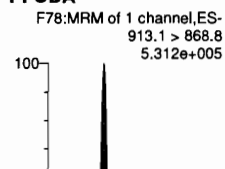
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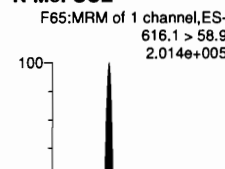
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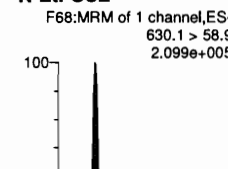
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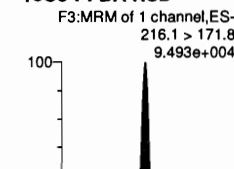
N-MeFOSE



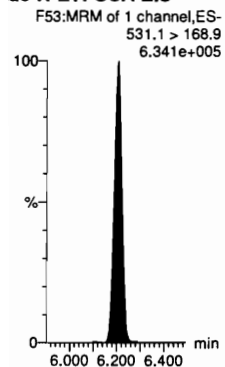
N-EtFOSE



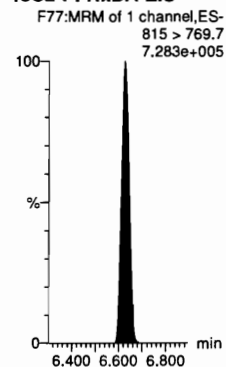
13C3-PFBA-RSD



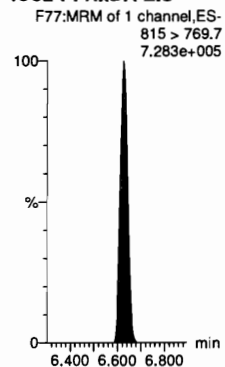
d5-N-ETFOSA-EIS



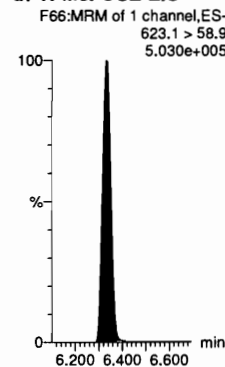
13C2-PFHxDA-EIS



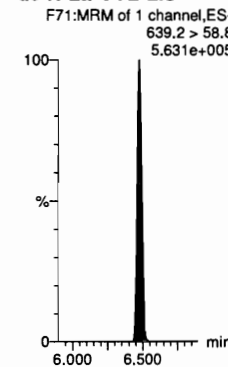
13C2-PFHxDA-EIS



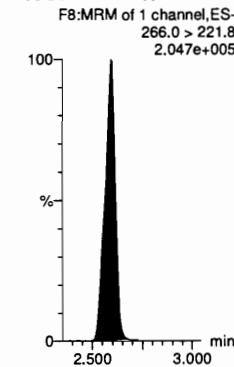
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

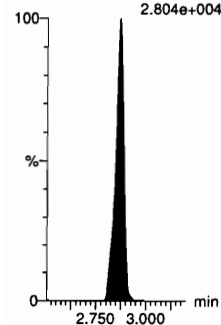
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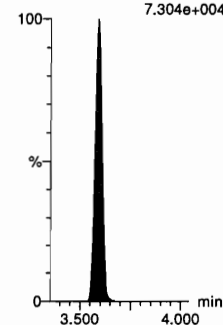
13C3-PFBS-RSD

F12:MRM of 1 channel,ES-
302.0 > 98.9
2.804e+004



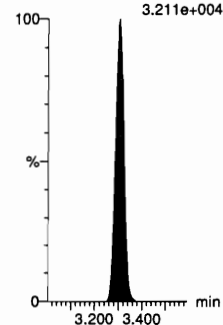
13C3-HFPO-DA-RSD

F10:MRM of 2 channels,ES-
287.0 > 168.9
7.304e+004



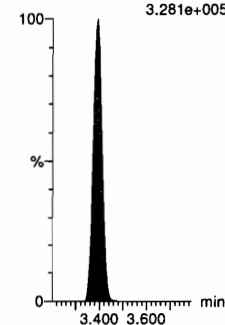
13C2-4:2 FTS-RSD

F17:MRM of 2 channels,ES-
329.0 > 80.8
3.211e+004



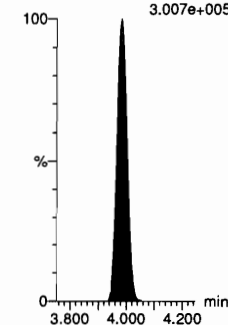
13C2-PFHxA-RSD

F14:MRM of 1 channel,ES-
315.0 > 270.0
3.281e+005



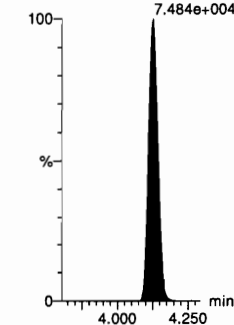
13C4-PFHpA-RSD

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.007e+005



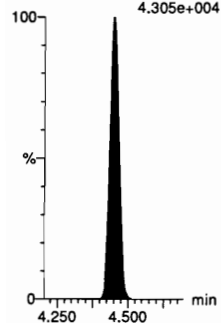
13C3-PFHxS-RSD

F24:MRM of 1 channel,ES-
402 > 80
7.484e+004



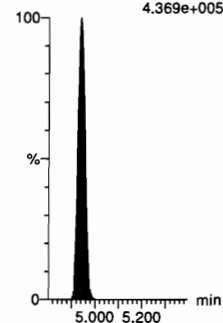
13C2-6:2 FTS-RSD

F30:MRM of 1 channel,ES-
429.0 > 79.7
4.305e+004



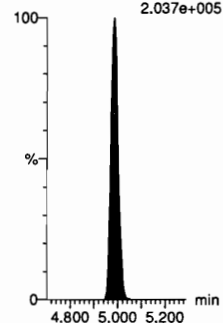
13C5-PFNA-RSD

F36:MRM of 1 channel,ES-
468.2 > 422.9
4.369e+005



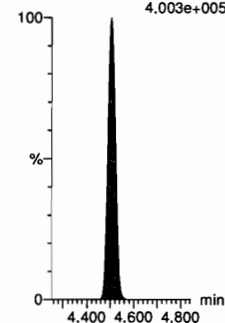
13C8-PFOSA-RSD

F42:MRM of 1 channel,ES-
506 > 78
2.037e+005



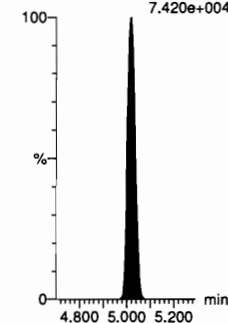
13C2-PFOA-RSD

F27:MRM of 1 channel,ES-
414.9 > 369.7
4.003e+005



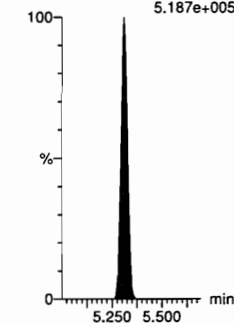
13C8-PFOS-RSD

F43:MRM of 1 channel,ES-
507.1 > 80
7.420e+004



13C2-PFDA-RSD

F46:MRM of 1 channel,ES-
515.1 > 469.9
5.187e+005



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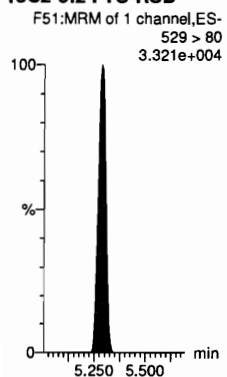
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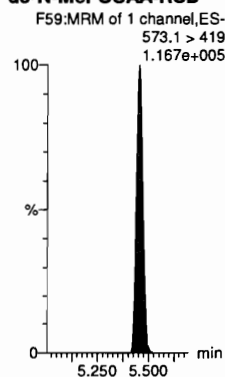
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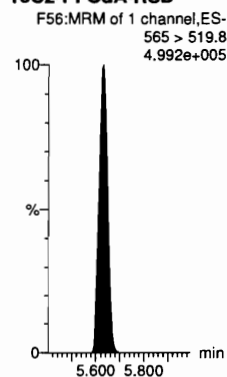
13C2-8:2 FTS-RSD



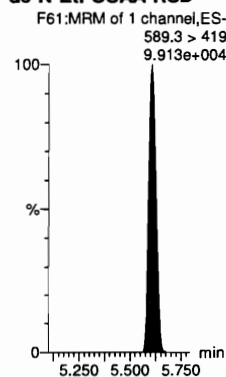
d3-N-MeFOSAA-RSD



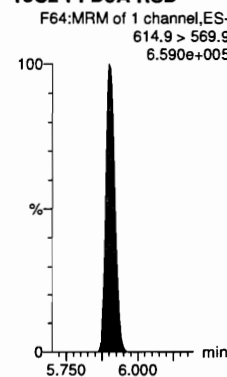
13C2-PFUDa-RSD



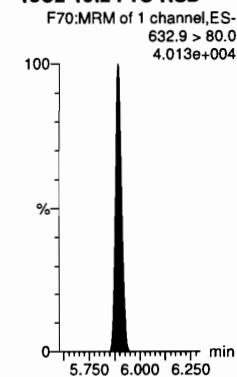
d5-N-EtFOSAA-RSD



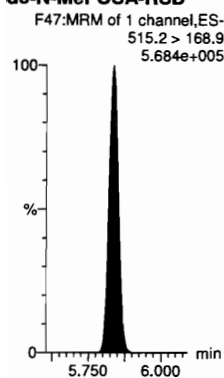
13C2-PFDoA-RSD



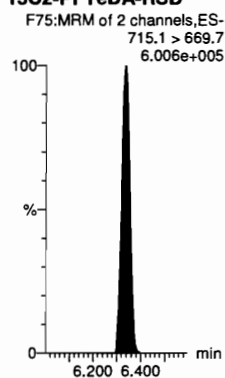
13C2-10:2 FTS-RSD



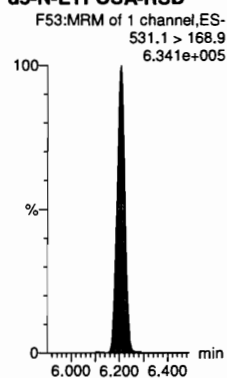
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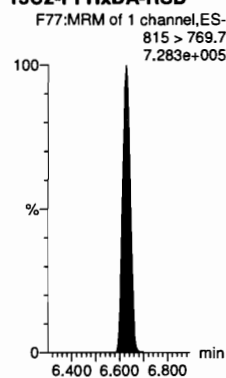
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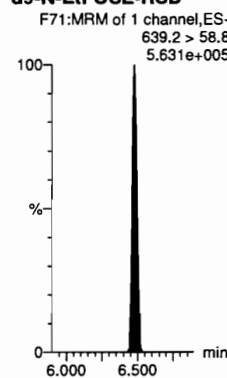
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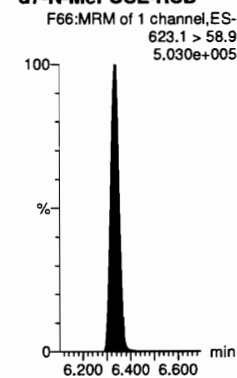
13C2-PFHxDA-RSD



d9-N-EtFOSE-RSD



d7-N-MeFOSE-RSD



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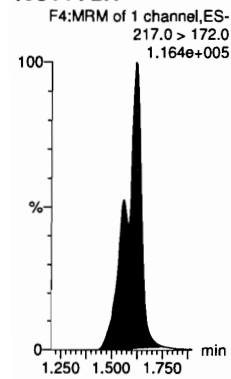
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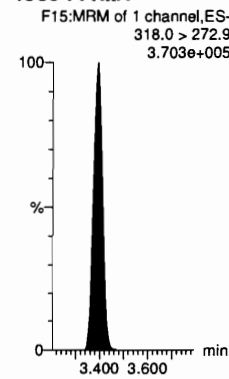
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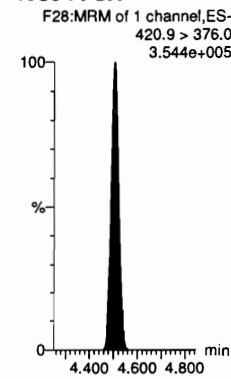
13C4-PFBA



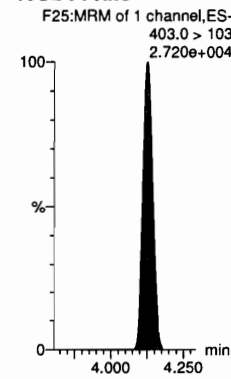
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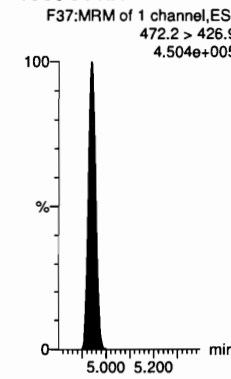
13C8-PFOA



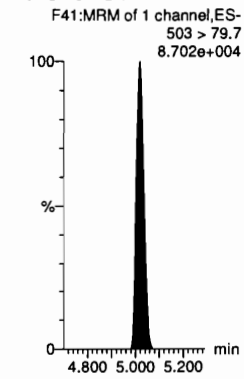
18O2-PFHxS



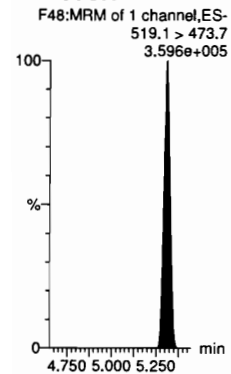
13C9-PFNA



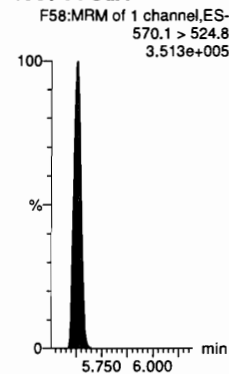
13C4-PFOS



13C6-PFDA



13C7-PFUDa



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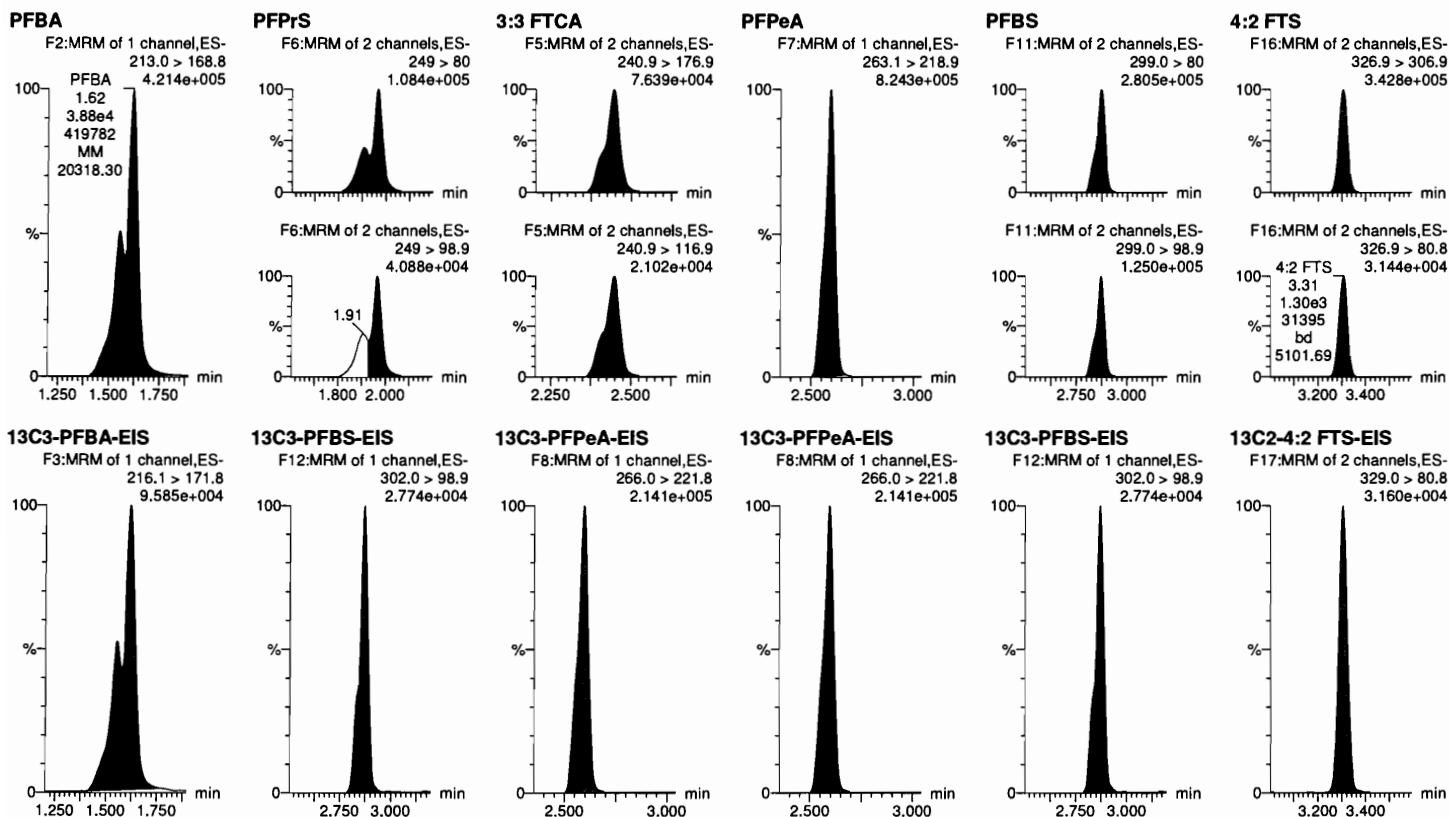
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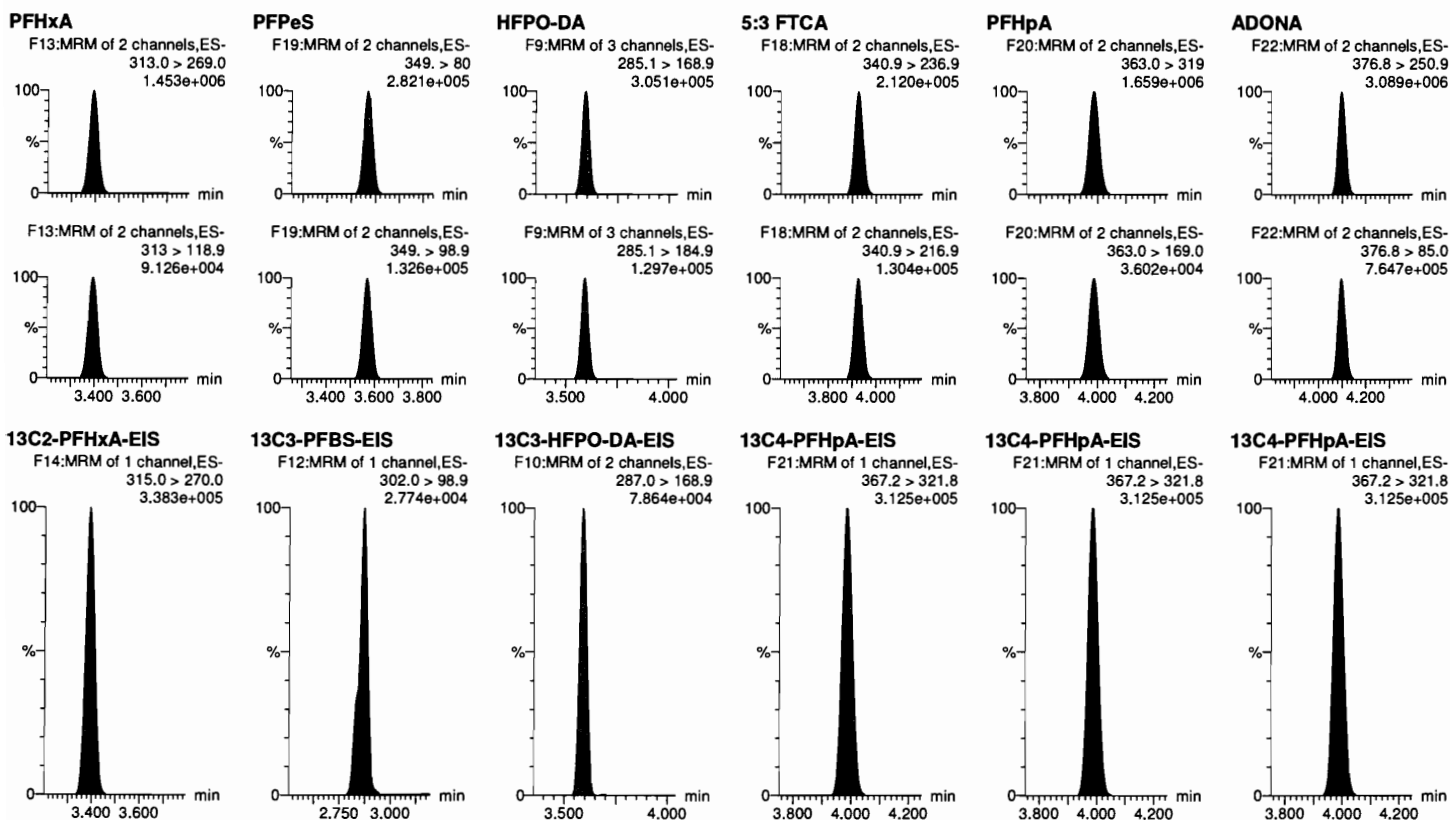
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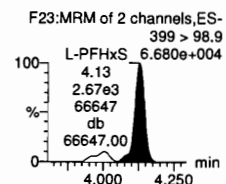
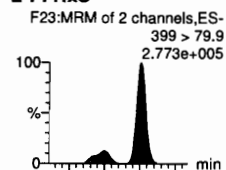
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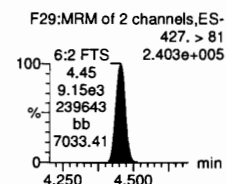
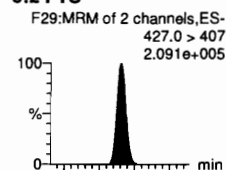
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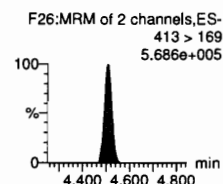
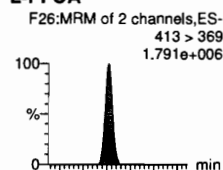
L-PFHxS



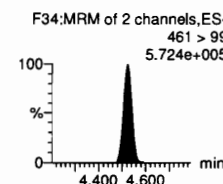
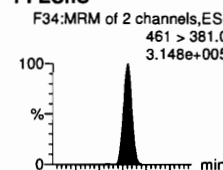
6:2 FTS



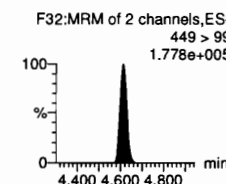
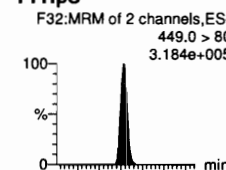
L-PFOA



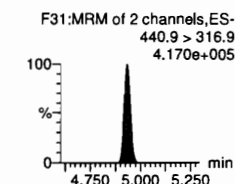
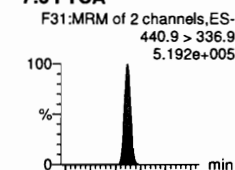
PFEChS



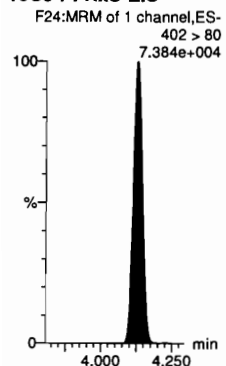
PFHpS



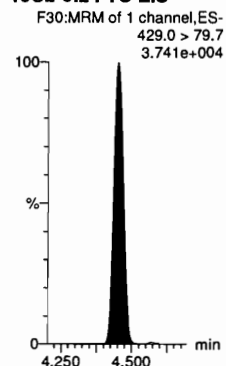
7:3 FTCA



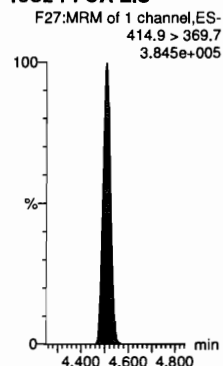
13C3-PFHxS-EIS



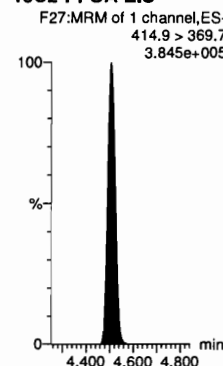
13C2-6:2 FTS-EIS



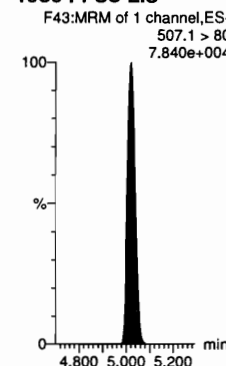
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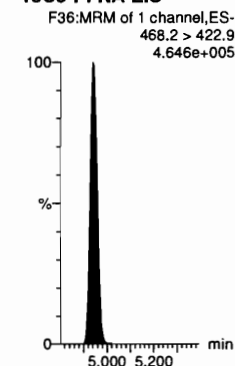
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS



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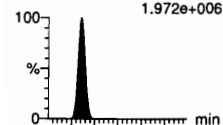
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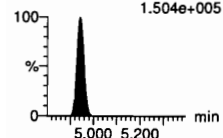
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PFNA

F35:MRM of 2 channels,ES-
463.0 > 418.8
1.972e+006

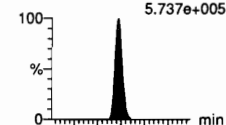


F35:MRM of 2 channels,ES-
463.0 > 219.0
1.504e+005

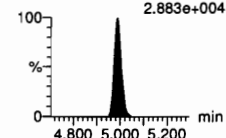


PFOSA

F38:MRM of 2 channels,ES-
498 > 78
5.737e+005

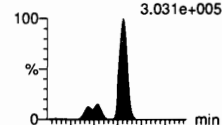


F38:MRM of 2 channels,ES-
498 > 169
2.883e+004

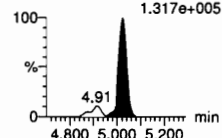


L-PFOS

F40:MRM of 2 channels,ES-
499 > 80
3.031e+005

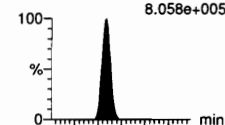


F40:MRM of 2 channels,ES-
499 > 99
1.317e+005

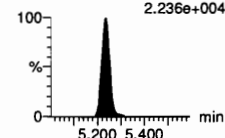


9CI-PF30NS

F52:MRM of 2 channels,ES-
531 > 351
8.058e+005

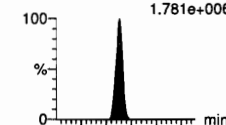


F52:MRM of 2 channels,ES-
531 > 83
2.236e+004

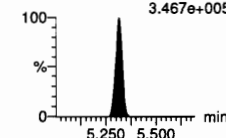


PFDA

F45:MRM of 2 channels,ES-
513 > 469
1.781e+006

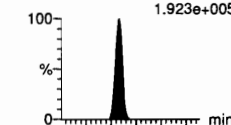


F45:MRM of 2 channels,ES-
513 > 219
3.467e+005

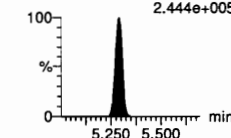


8:2 FTS

F50:MRM of 2 channels,ES-
526.8 > 506.9
1.923e+005

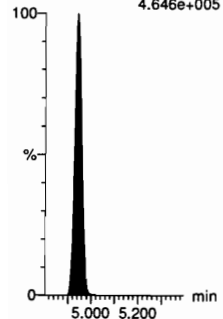


F50:MRM of 2 channels,ES-
526.8 > 80.9
2.444e+005



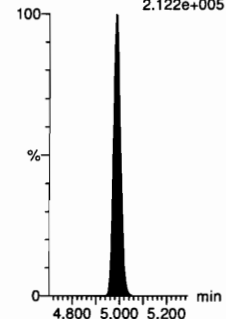
13C5-PFNA-EIS

F36:MRM of 1 channel,ES-
468.2 > 422.9
4.646e+005



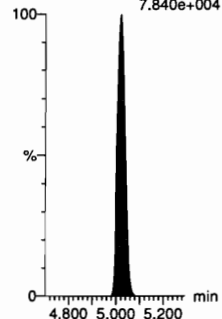
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F42:MRM of 1 channel,ES-
506 > 78
2.122e+005



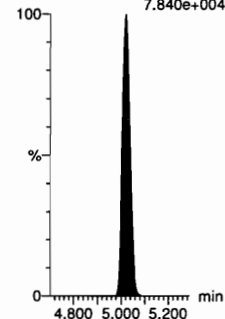
13C8-PFOS-EIS

F43:MRM of 1 channel,ES-
507.1 > 80
7.840e+004



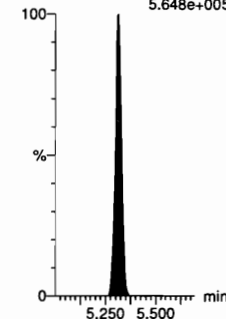
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F43:MRM of 1 channel,ES-
507.1 > 80
7.840e+004



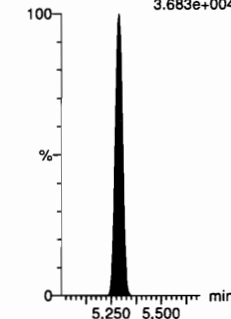
13C2-PFDA-EIS

F46:MRM of 1 channel,ES-
515.1 > 469.9
5.648e+005



13C2-8:2 FTS-EIS

F51:MRM of 1 channel,ES-
529 > 80
3.683e+004



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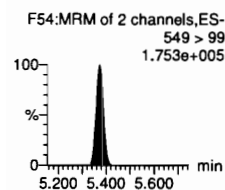
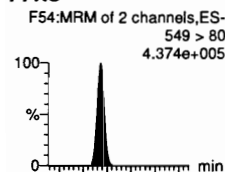
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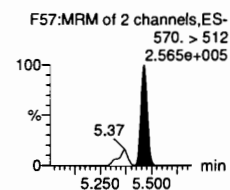
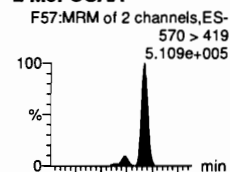
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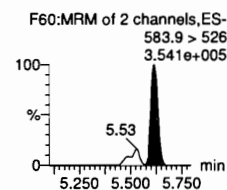
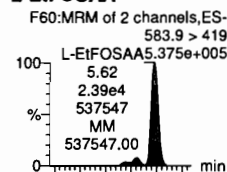
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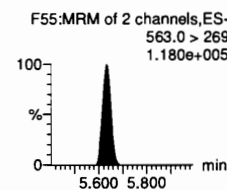
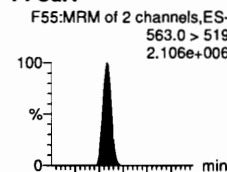
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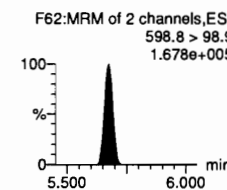
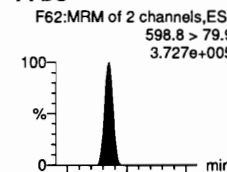
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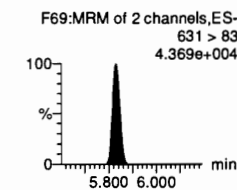
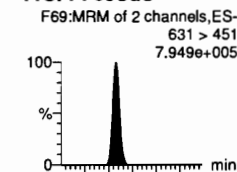
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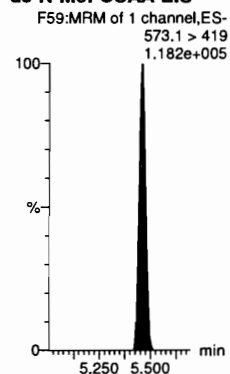
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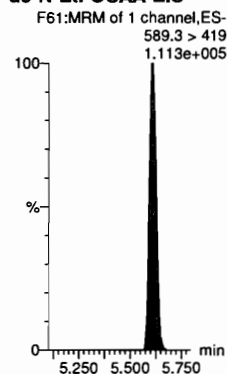
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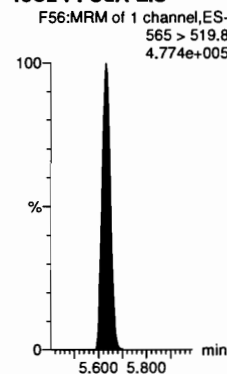
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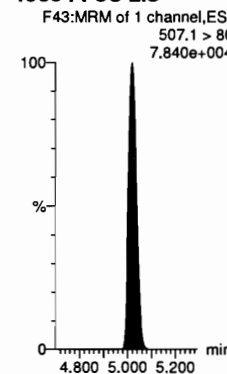
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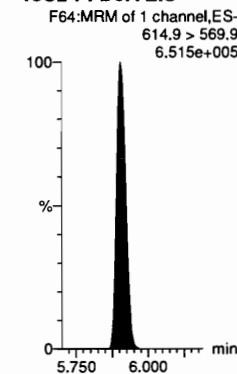
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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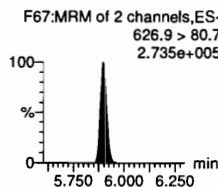
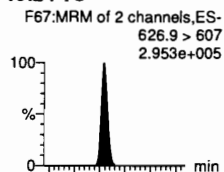
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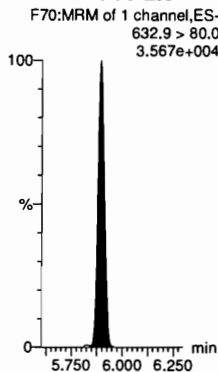
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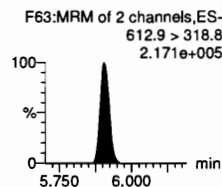
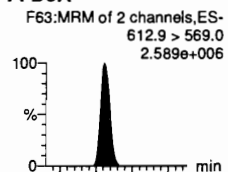
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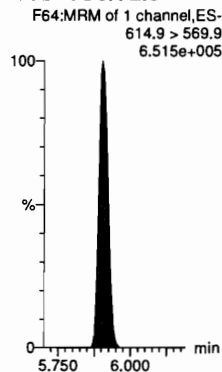
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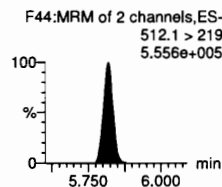
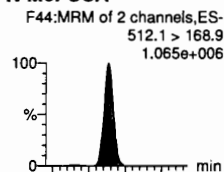
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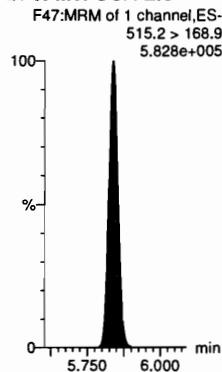
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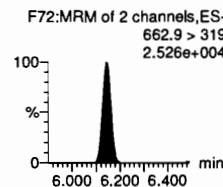
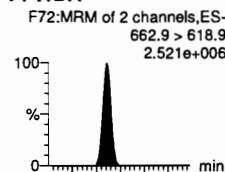
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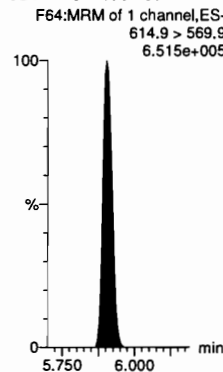
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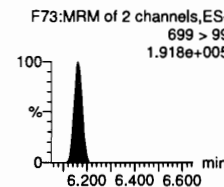
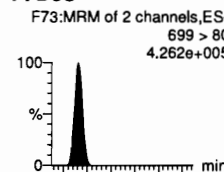
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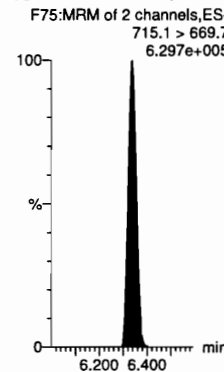
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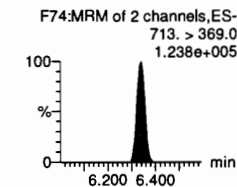
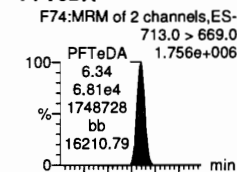
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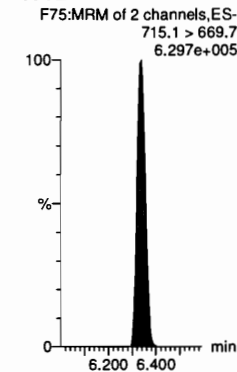
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PFTeDA



13C2-PFTeDA-EIS



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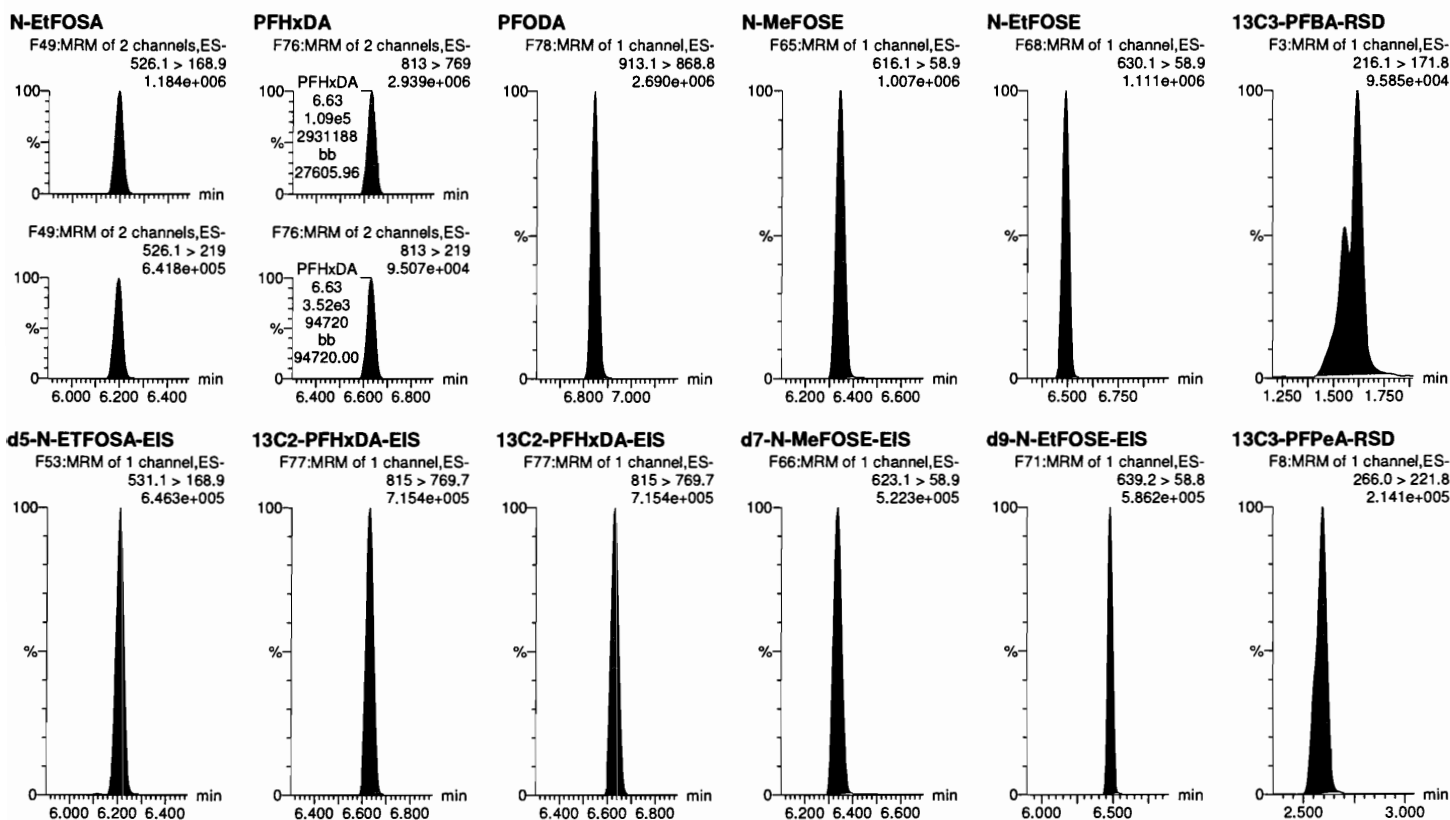
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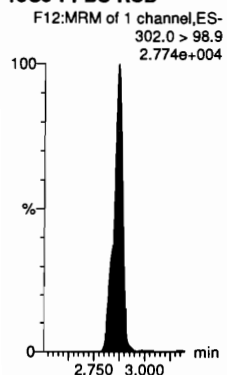
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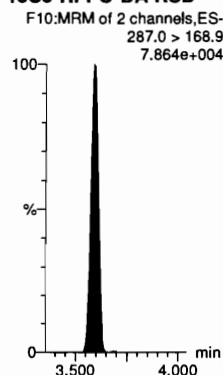
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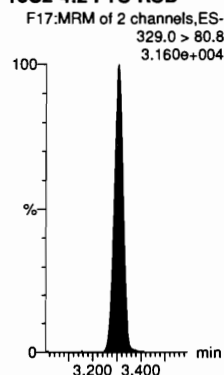
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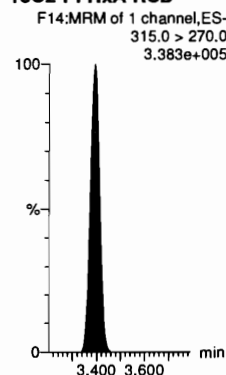
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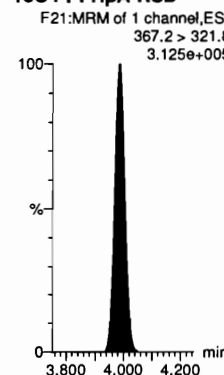
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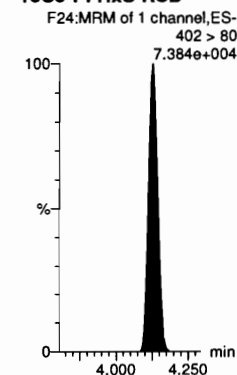
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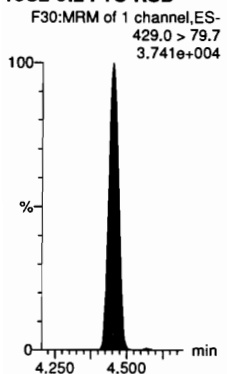
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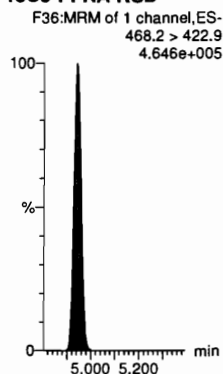
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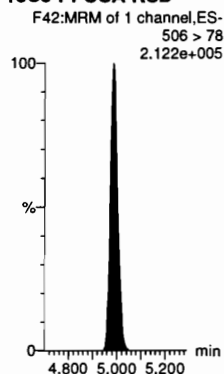
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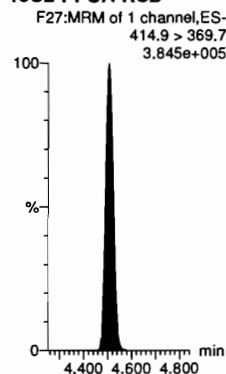
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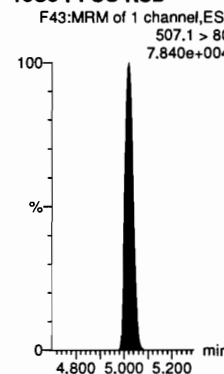
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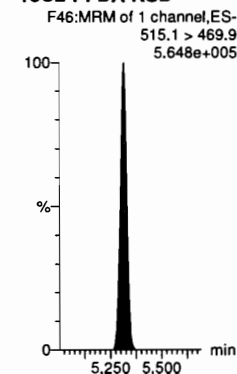
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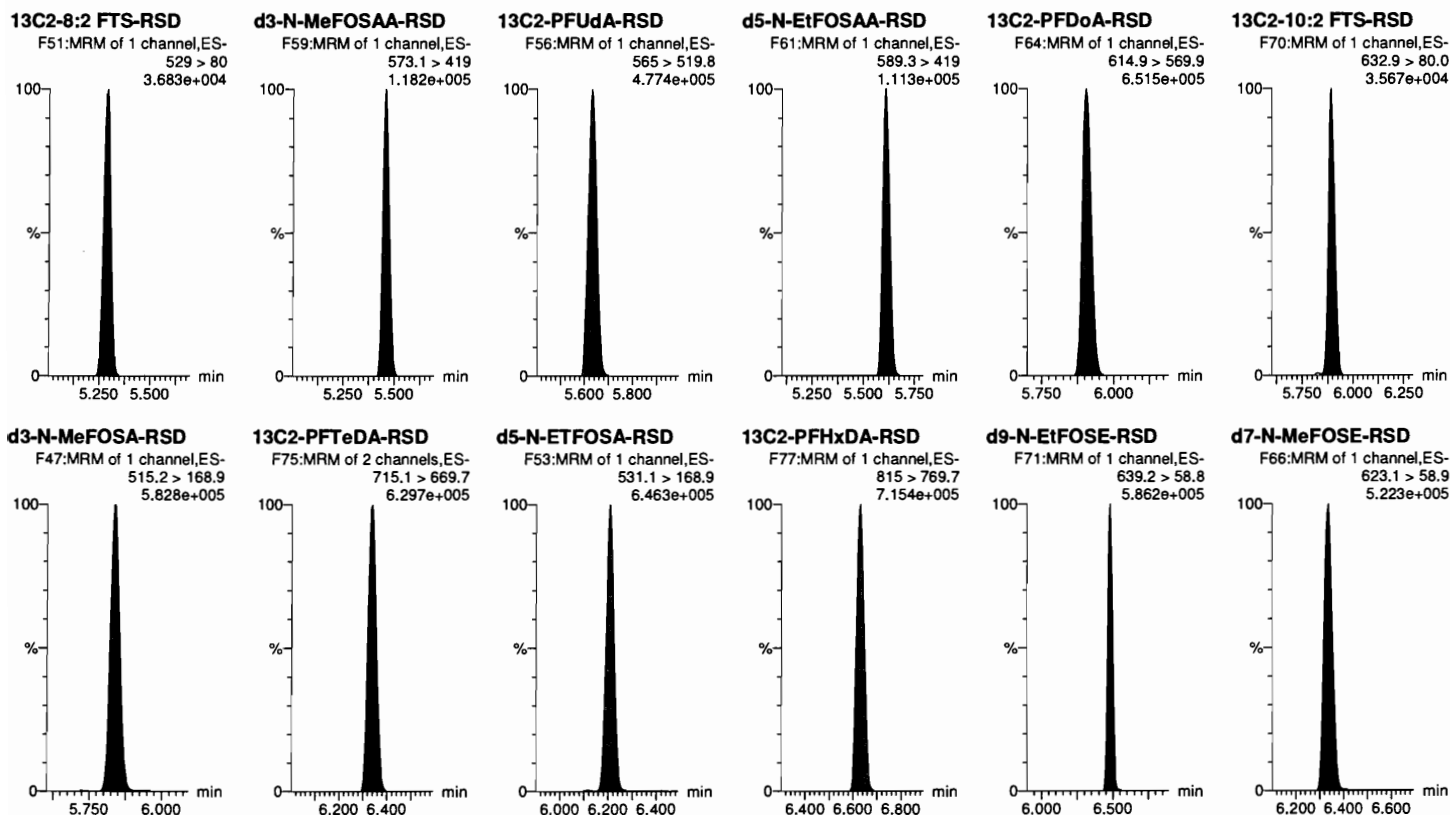
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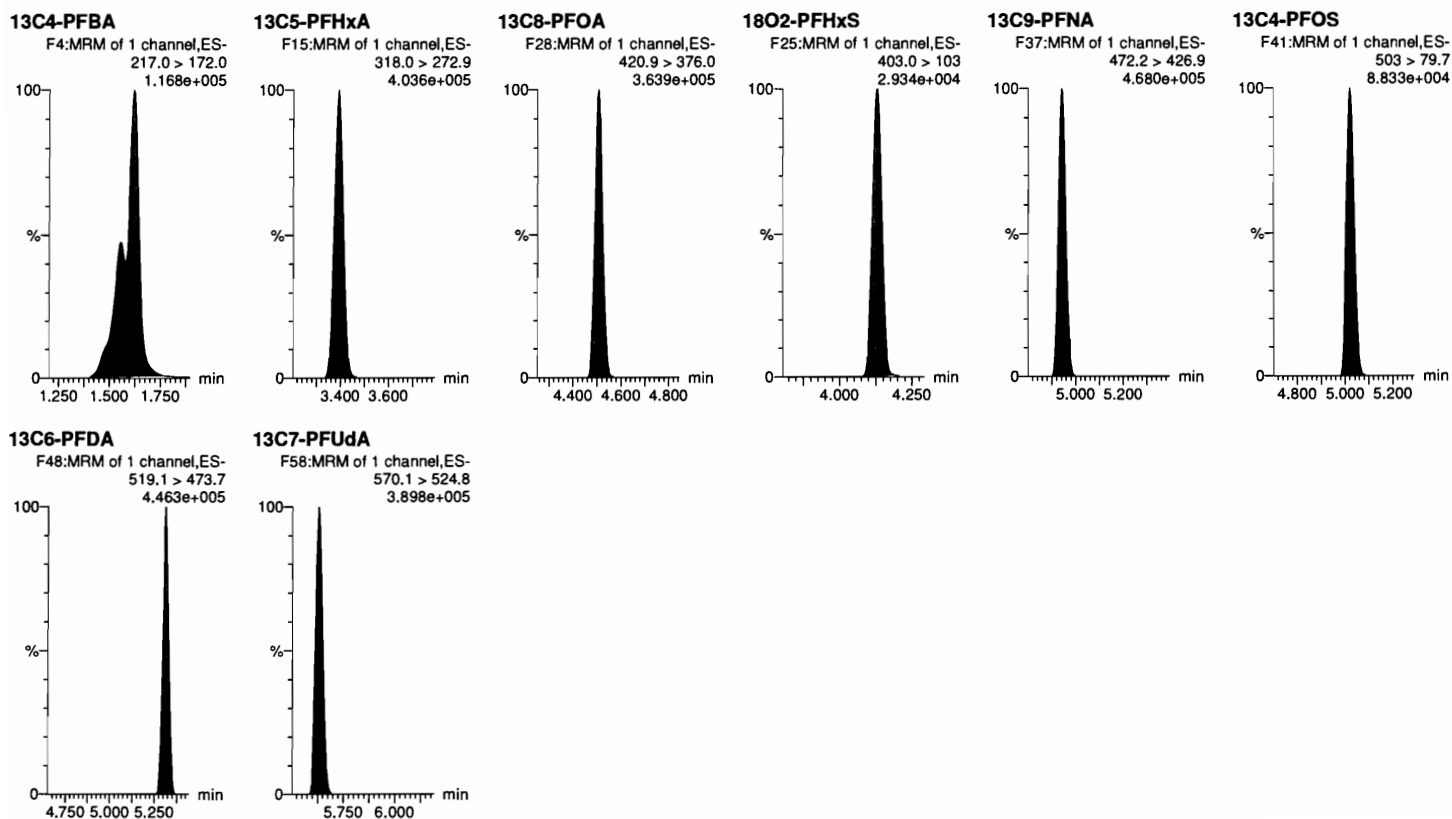
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Quantify Sample Report
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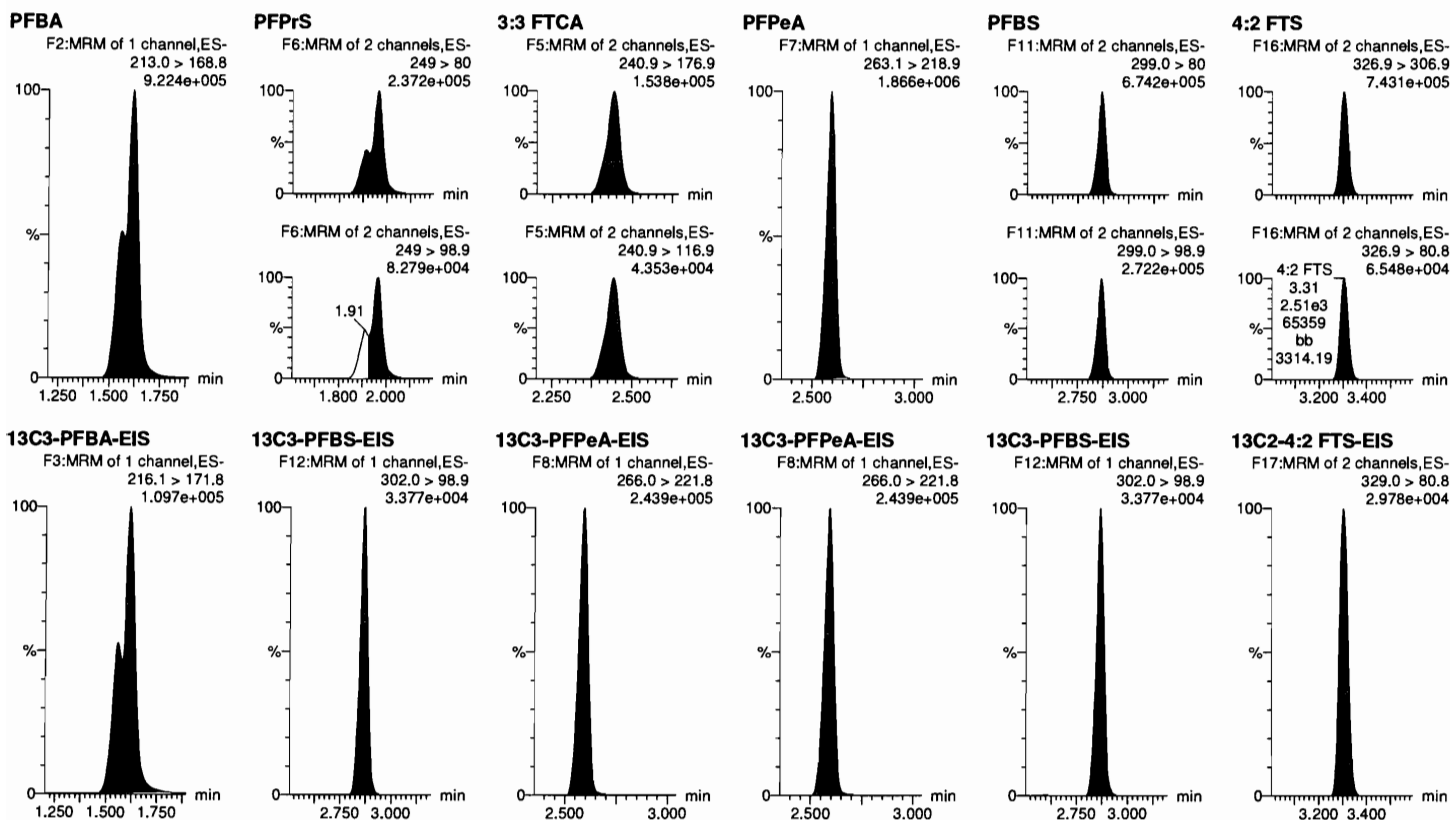
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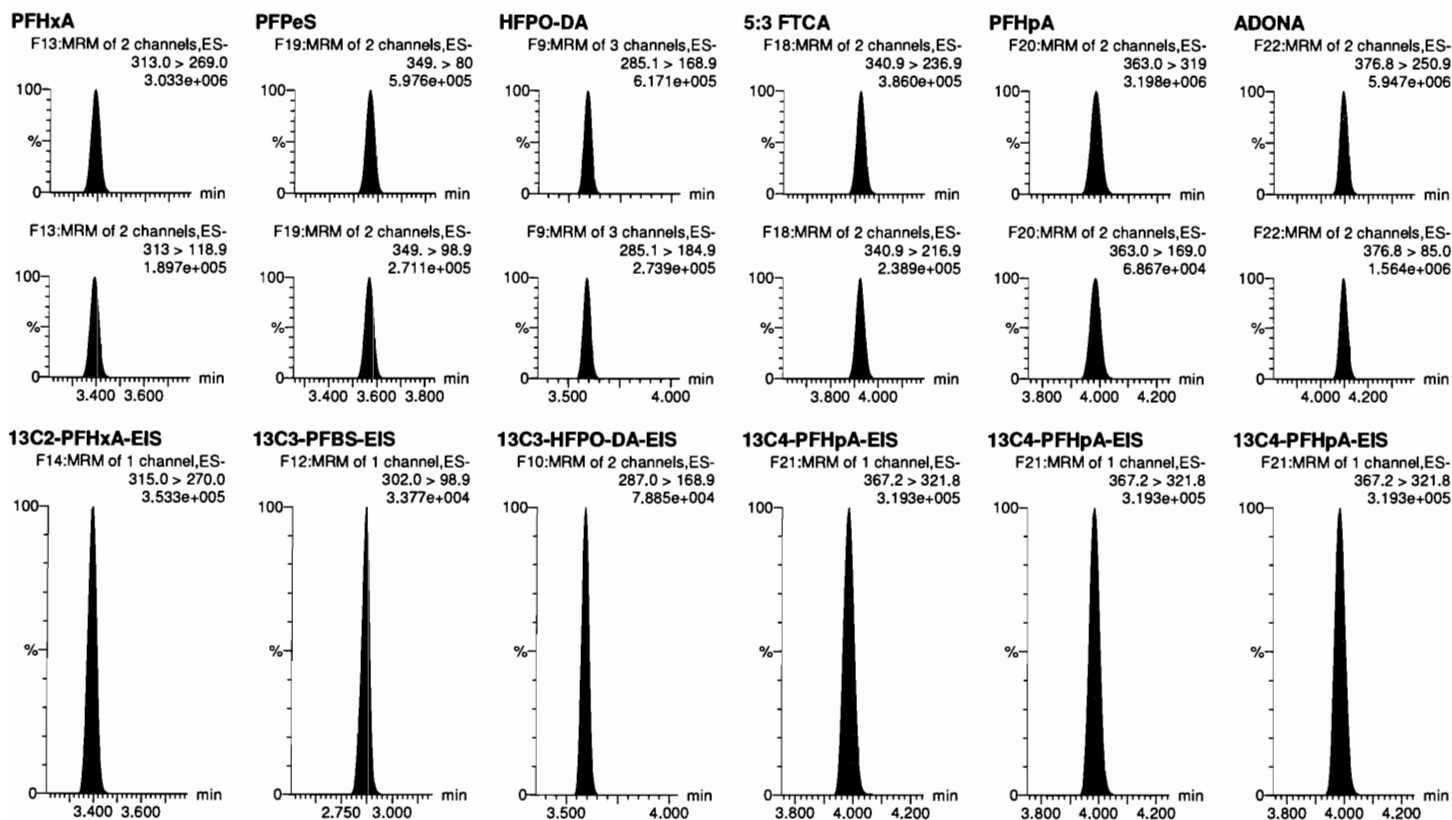
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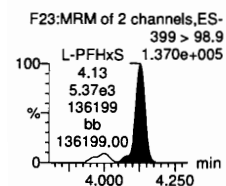
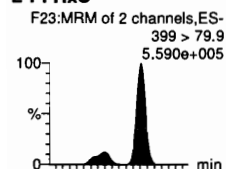
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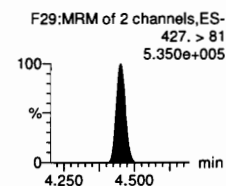
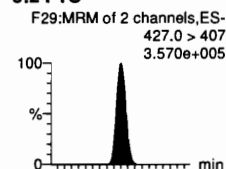
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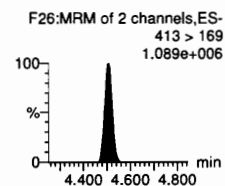
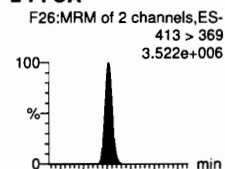
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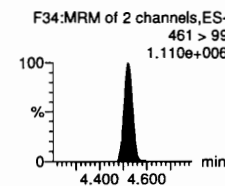
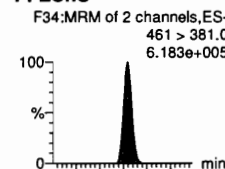
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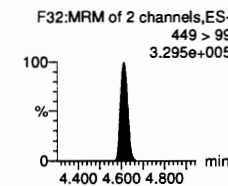
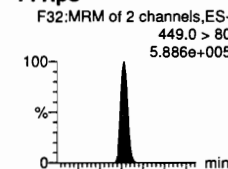
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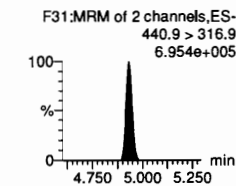
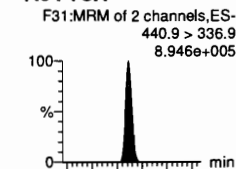
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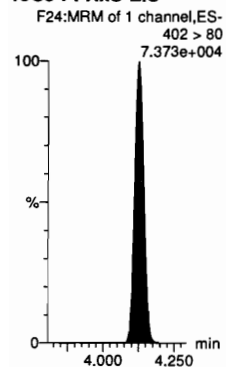
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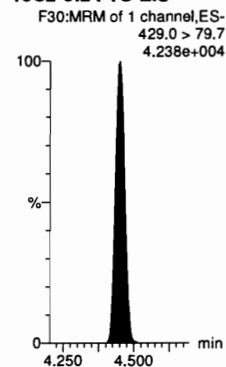
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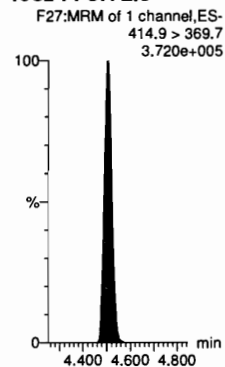
13C3-PFHxS-EIS



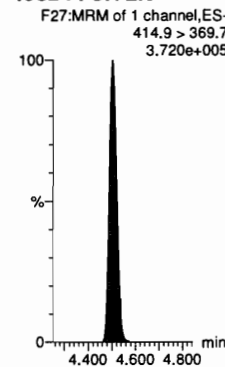
13C2-6:2 FTS-EIS



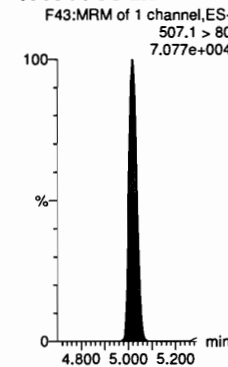
13C2-PFOA-EIS



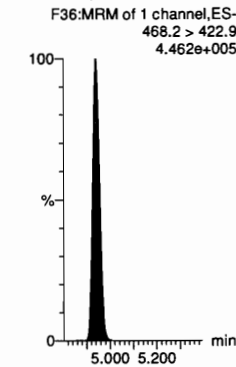
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13C8-PFOS-EIS



13C5-PFNA-EIS



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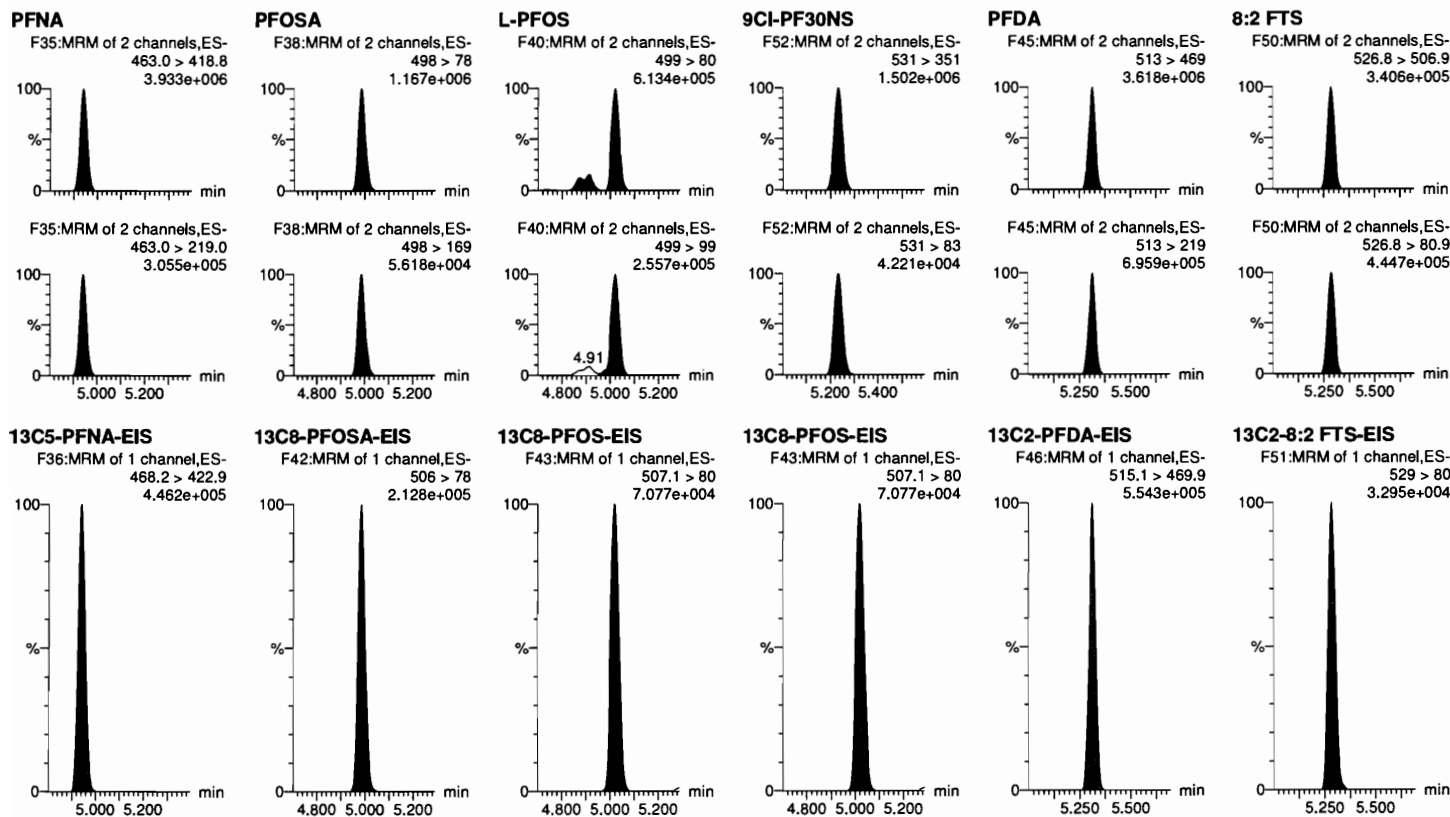
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 08:33:52 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 08:34:06 Pacific Daylight Time

Name: 200706P1-26, Date: 06-Jul-2020, Time: 14:27:27, ID: ST200706P1-8 PFC CS5 20F1908, Description: PFC CS5 20F1908



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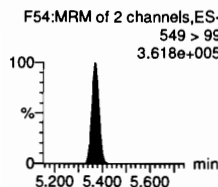
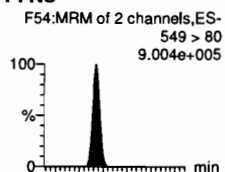
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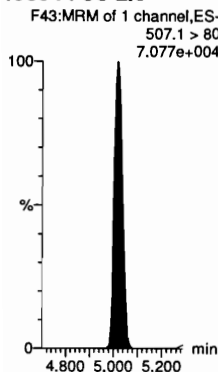
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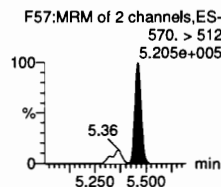
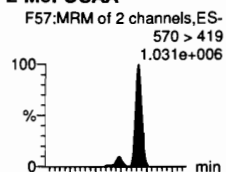
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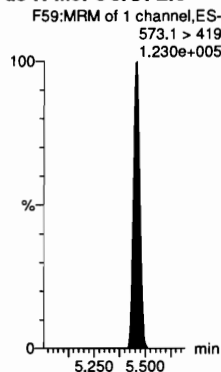
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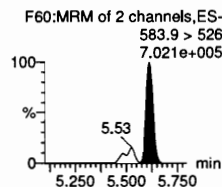
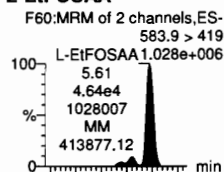
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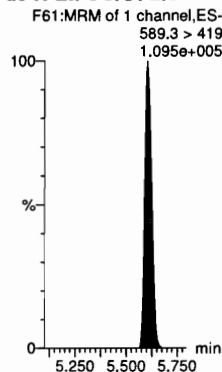
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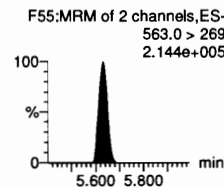
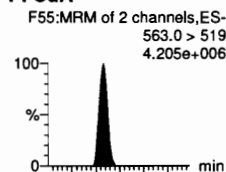
L-EtFOSAA



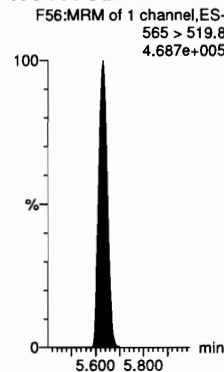
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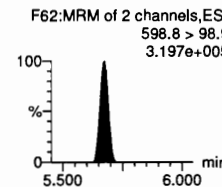
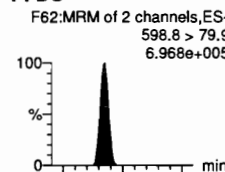
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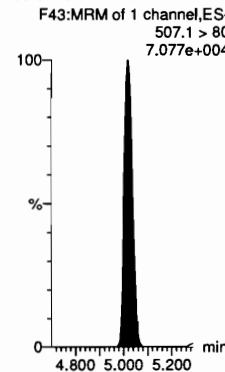
13C2-PFUdA-EIS



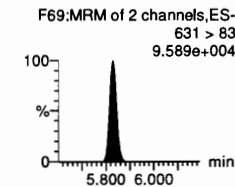
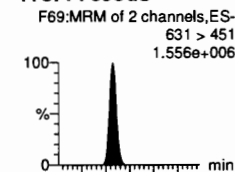
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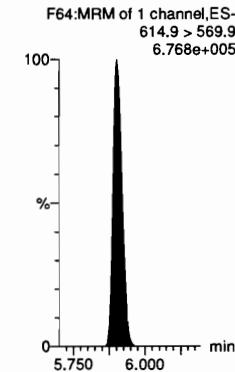
13C8-PFOS-EIS



11Cl-PF30UdS



13C2-PFDoA-EIS



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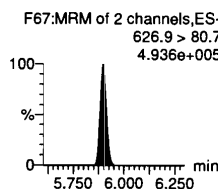
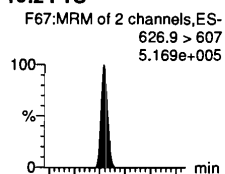
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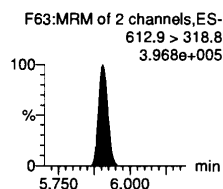
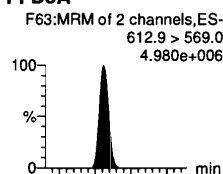
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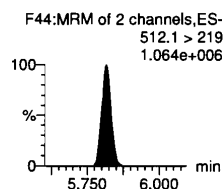
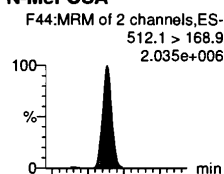
10:2 FTS



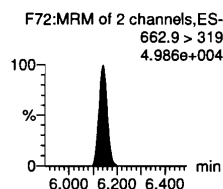
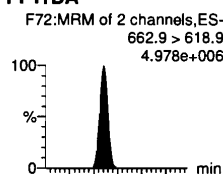
PFDaA



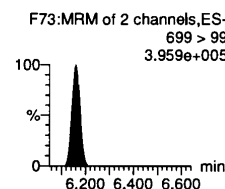
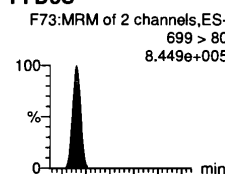
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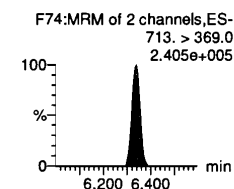
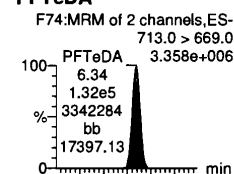
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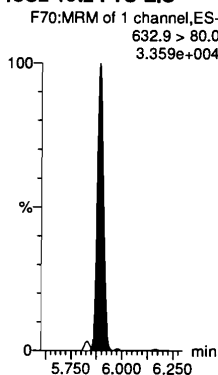
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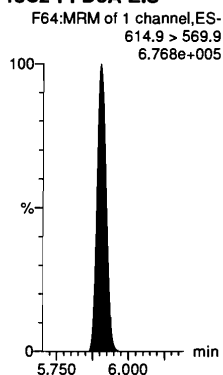
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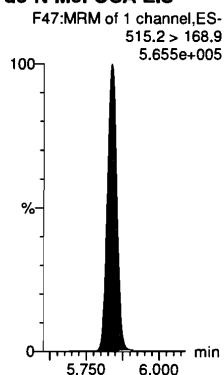
13C2-10:2 FTS-EIS



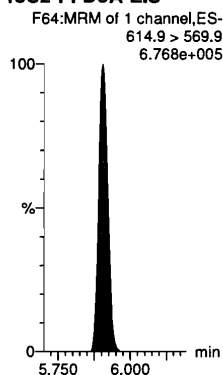
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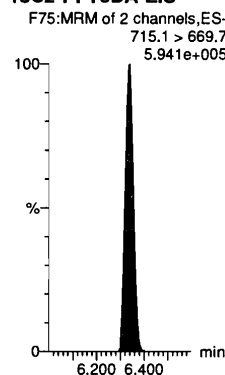
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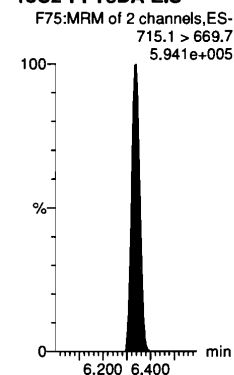
13C2-PFDaA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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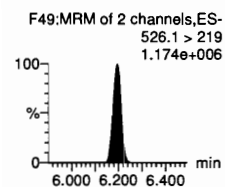
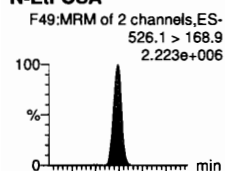
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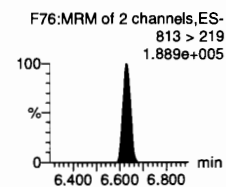
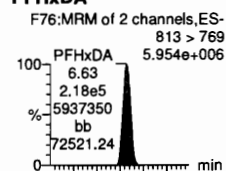
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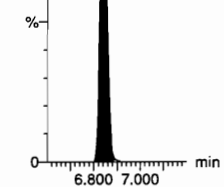
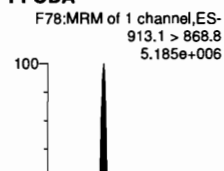
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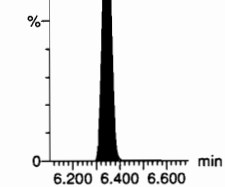
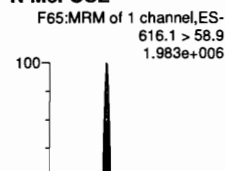
PFHxDA



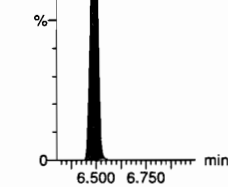
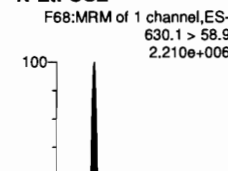
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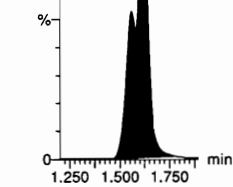
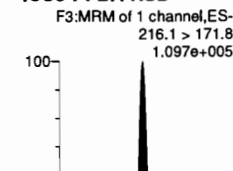
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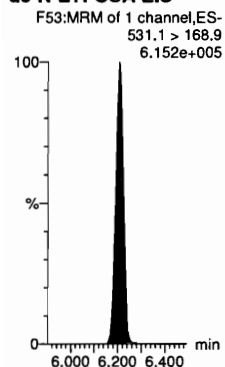
N-EtFOSE



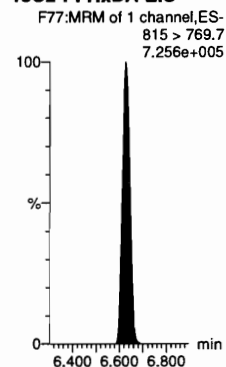
13C3-PFBA-RSD



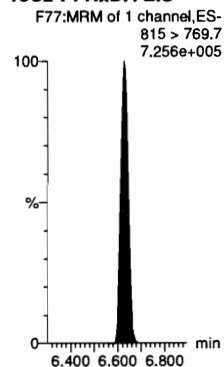
d5-N-ETFOSA-EIS



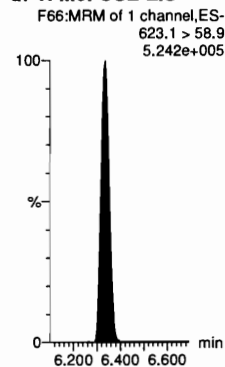
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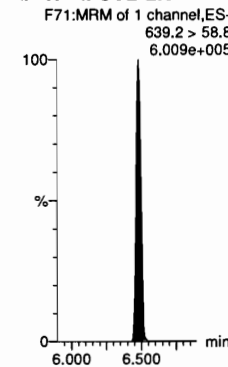
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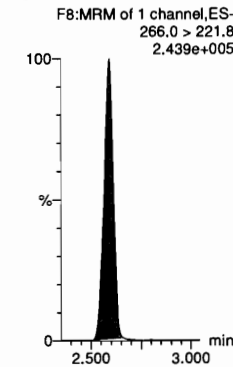
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD



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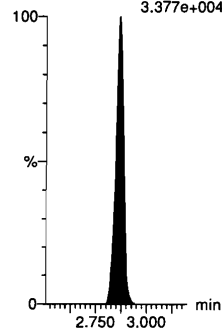
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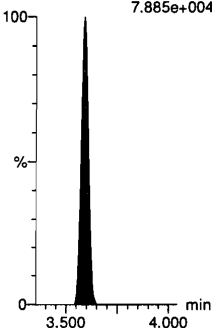
13C3-PFBS-RSD

F12:MRM of 1 channel,ES-
302.0 > 98.9
3.377e+004



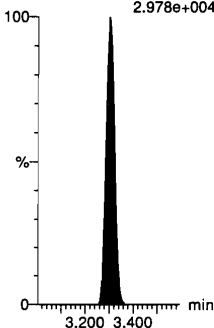
13C3-HFPO-DA-RSD

F10:MRM of 2 channels,ES-
287.0 > 168.9
7.885e+004



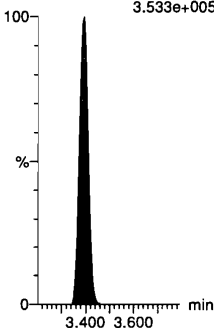
13C2-4:2 FTS-RSD

F17:MRM of 2 channels,ES-
329.0 > 80.8
2.978e+004



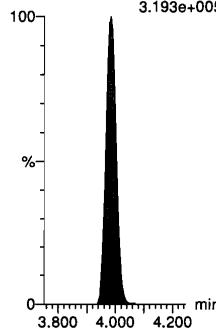
13C2-PFHxA-RSD

F14:MRM of 1 channel,ES-
315.0 > 270.0
3.533e+005



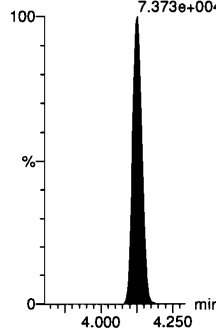
13C4-PFHpA-RSD

F21:MRM of 1 channel,ES-
367.2 > 321.8
3.193e+005



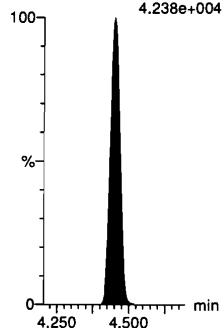
13C3-PFHxS-RSD

F24:MRM of 1 channel,ES-
402 > 80
7.373e+004



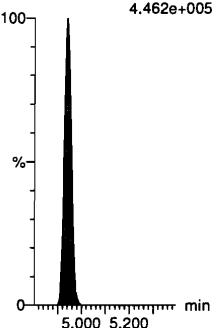
13C2-6:2 FTS-RSD

F30:MRM of 1 channel,ES-
429.0 > 79.7
4.238e+004



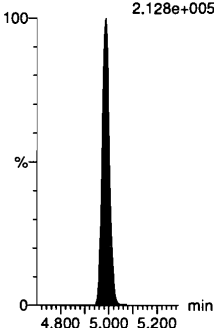
13C5-PFNA-RSD

F36:MRM of 1 channel,ES-
468.2 > 422.9
4.462e+005



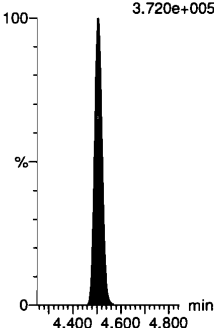
13C8-PFOSA-RSD

F42:MRM of 1 channel,ES-
506 > 78
2.128e+005



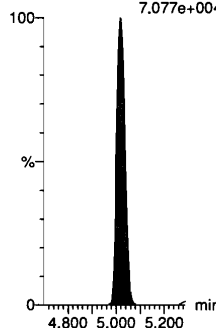
13C2-PFOA-RSD

F27:MRM of 1 channel,ES-
414.9 > 369.7
3.720e+005



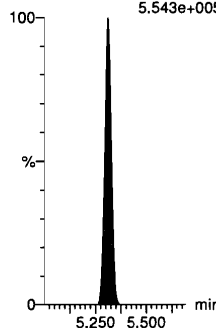
13C8-PFOS-RSD

F43:MRM of 1 channel,ES-
507.1 > 80
7.077e+004



13C2-PFDA-RSD

F46:MRM of 1 channel,ES-
515.1 > 469.9
5.543e+005



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

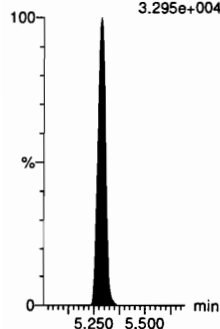
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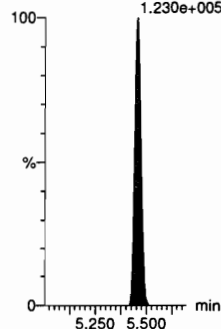
13C2-8:2 FTS-RSD

F51:MRM of 1 channel,ES-
529 > 80
3.295e+004



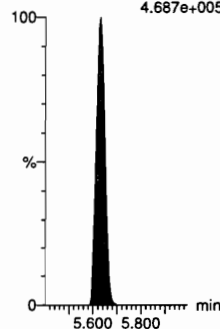
d3-N-MeFOSAA-RSD

F59:MRM of 1 channel,ES-
573.1 > 419
1.230e+005



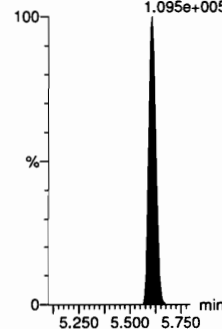
13C2-PFUDa-RSD

F56:MRM of 1 channel,ES-
565 > 519.8
4.687e+005



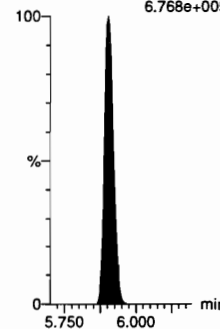
d5-N-EtFOSAA-RSD

F61:MRM of 1 channel,ES-
589.3 > 419
1.095e+005



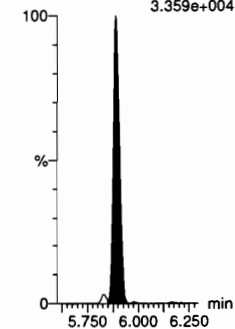
13C2-PFDoA-RSD

F64:MRM of 1 channel,ES-
614.9 > 569.9
6.768e+005



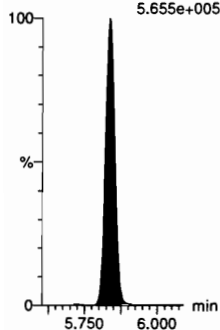
13C2-10:2 FTS-RSD

F70:MRM of 1 channel,ES-
632.9 > 80.0
3.359e+004



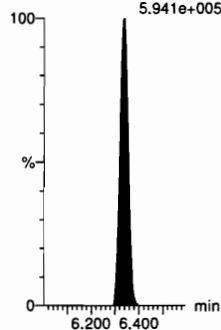
d3-N-MeFOSA-RSD

F47:MRM of 1 channel,ES-
515.2 > 168.9
5.655e+005



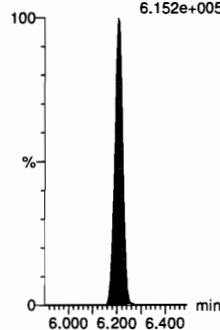
13C2-PFTeDA-RSD

F75:MRM of 2 channels,ES-
715.1 > 669.7
5.941e+005



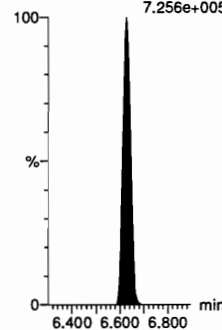
d5-N-ETFOSA-RSD

F53:MRM of 1 channel,ES-
531.1 > 168.9
6.152e+005



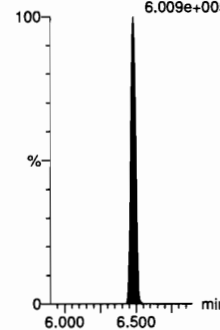
13C2-PFHxDA-RSD

F77:MRM of 1 channel,ES-
815 > 769.7
7.256e+005



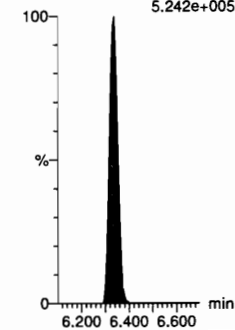
d9-N-EtFOSE-RSD

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.009e+005



d7-N-MeFOSE-RSD

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.242e+005



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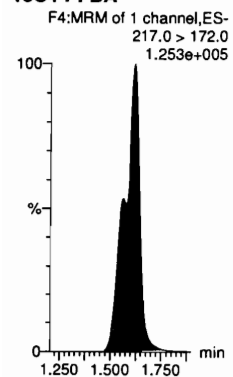
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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

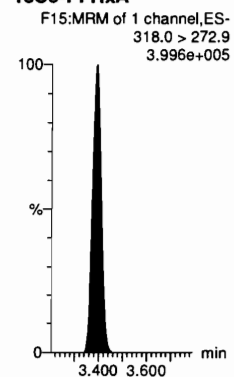
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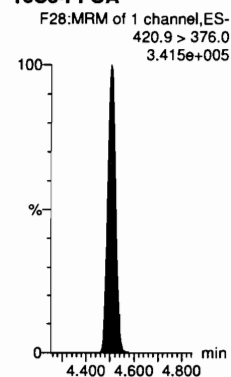
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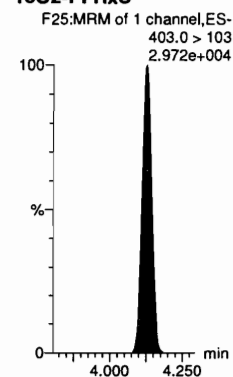
13C5-PFHxA



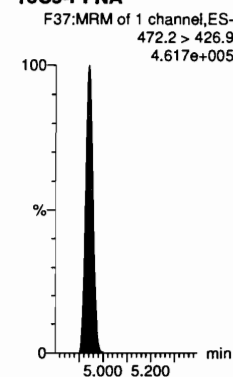
13C8-PFOA



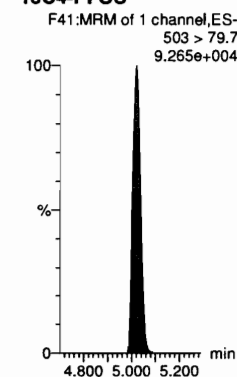
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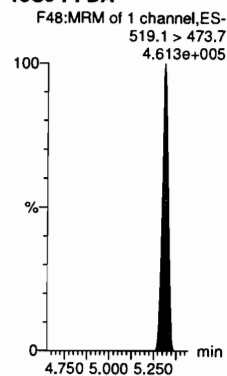
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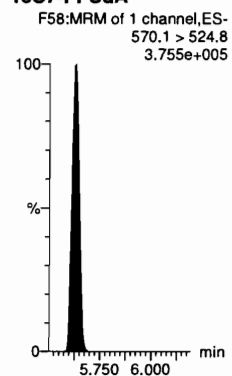
13C4-PFOS



13C6-PFDA



13C7-PFUDa



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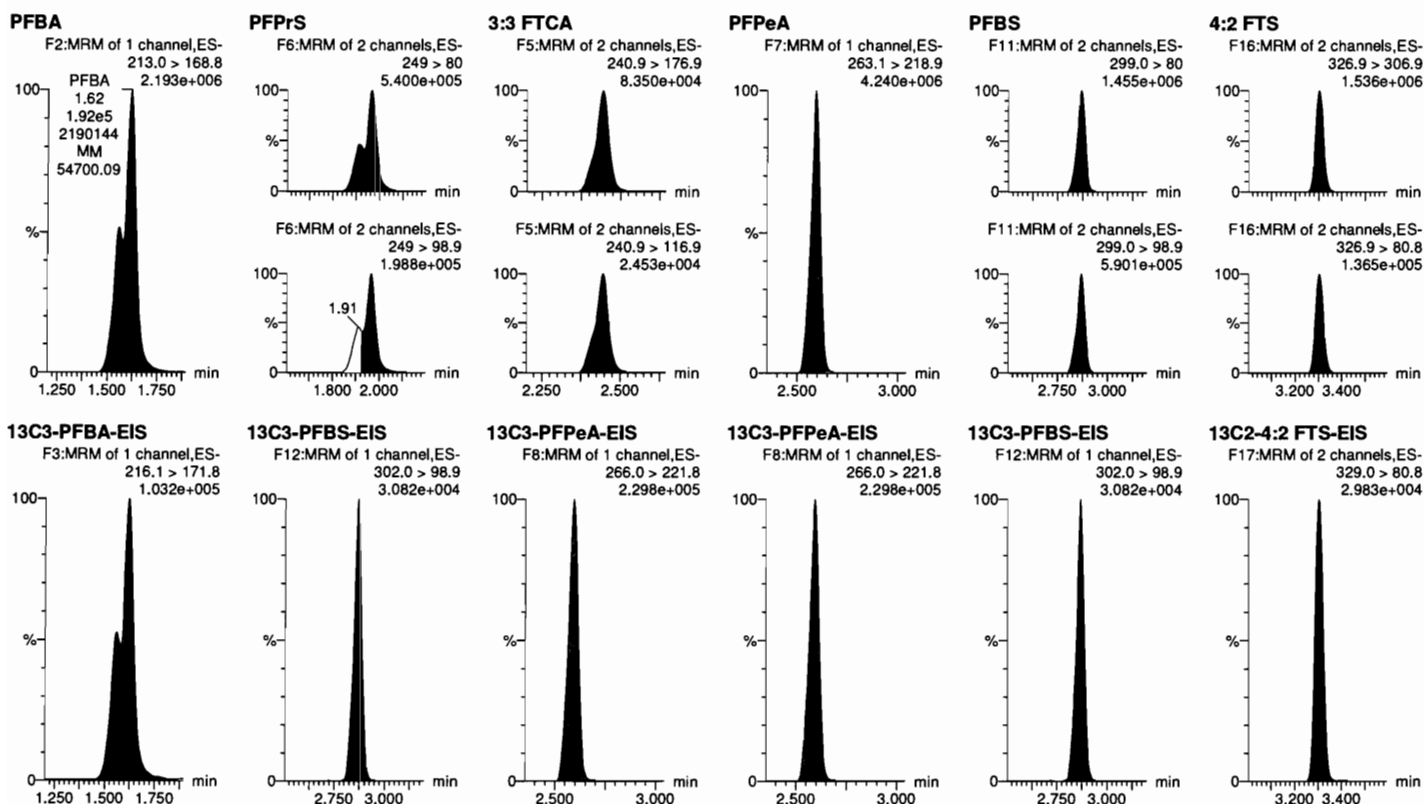
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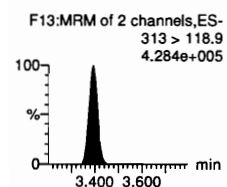
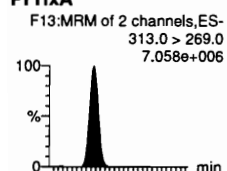
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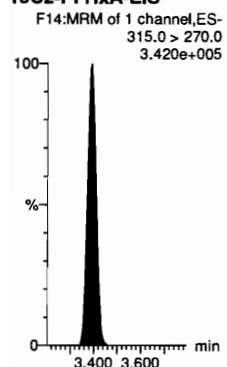
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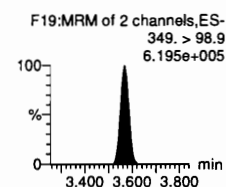
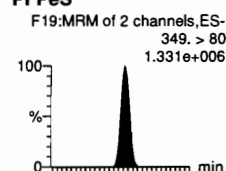
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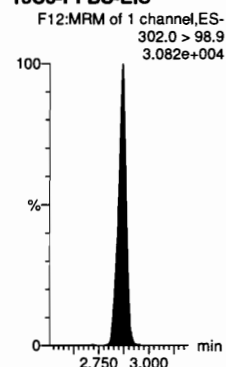
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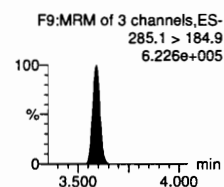
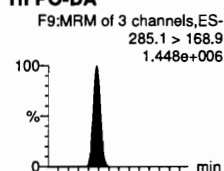
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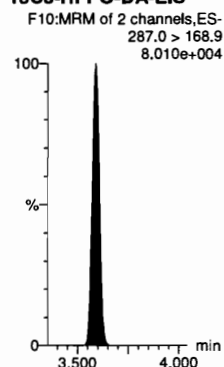
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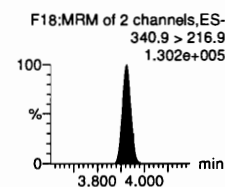
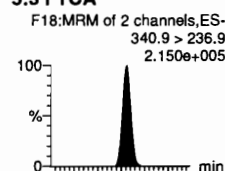
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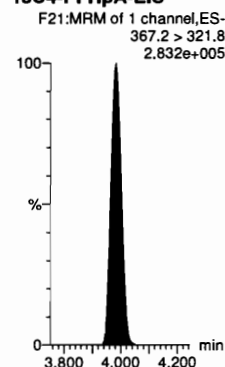
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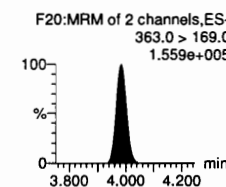
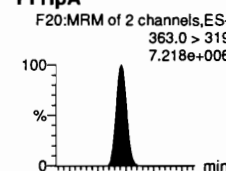
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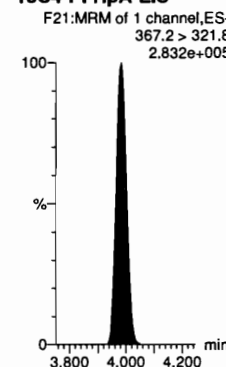
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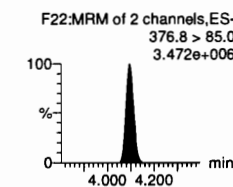
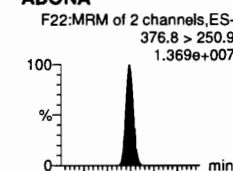
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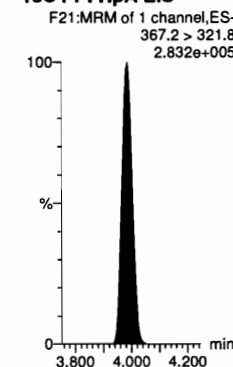
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ADONA



13C4-PFHpA-EIS



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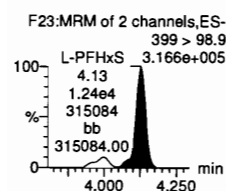
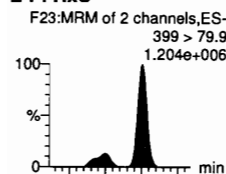
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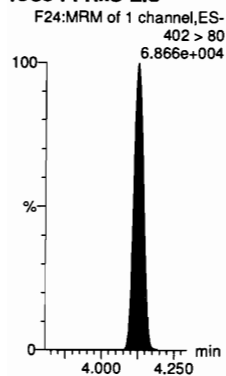
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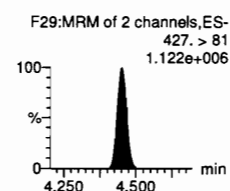
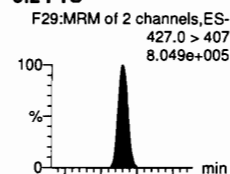
L-PFHxS



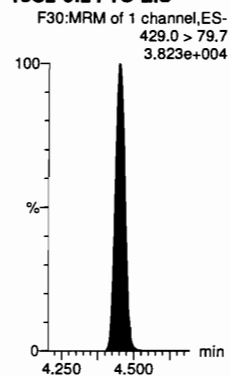
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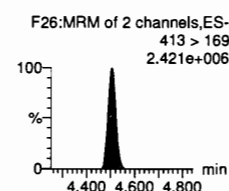
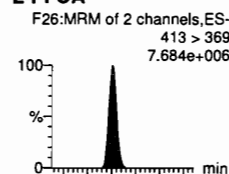
6:2 FTS



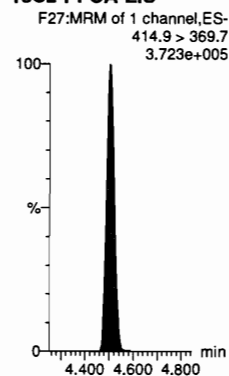
13C2-6:2 FTS-EIS



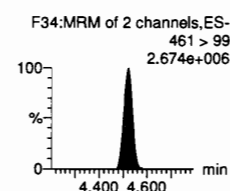
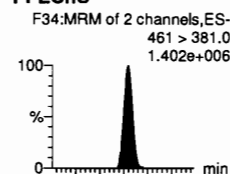
L-PFOA



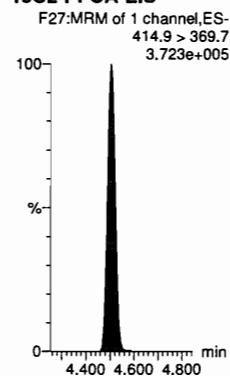
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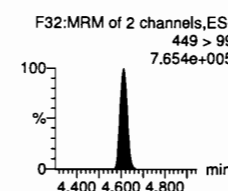
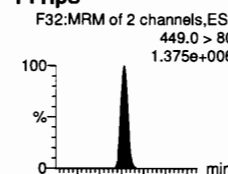
PFEChS



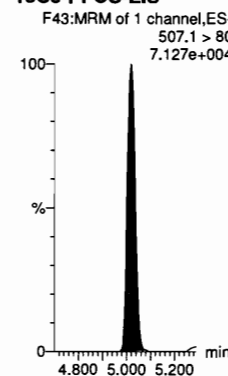
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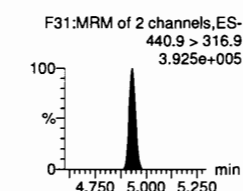
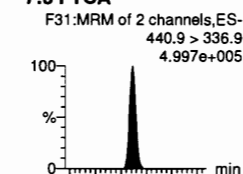
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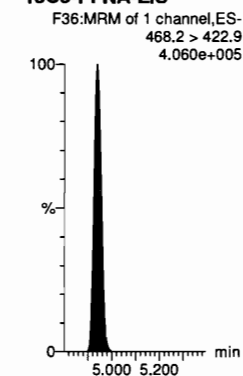
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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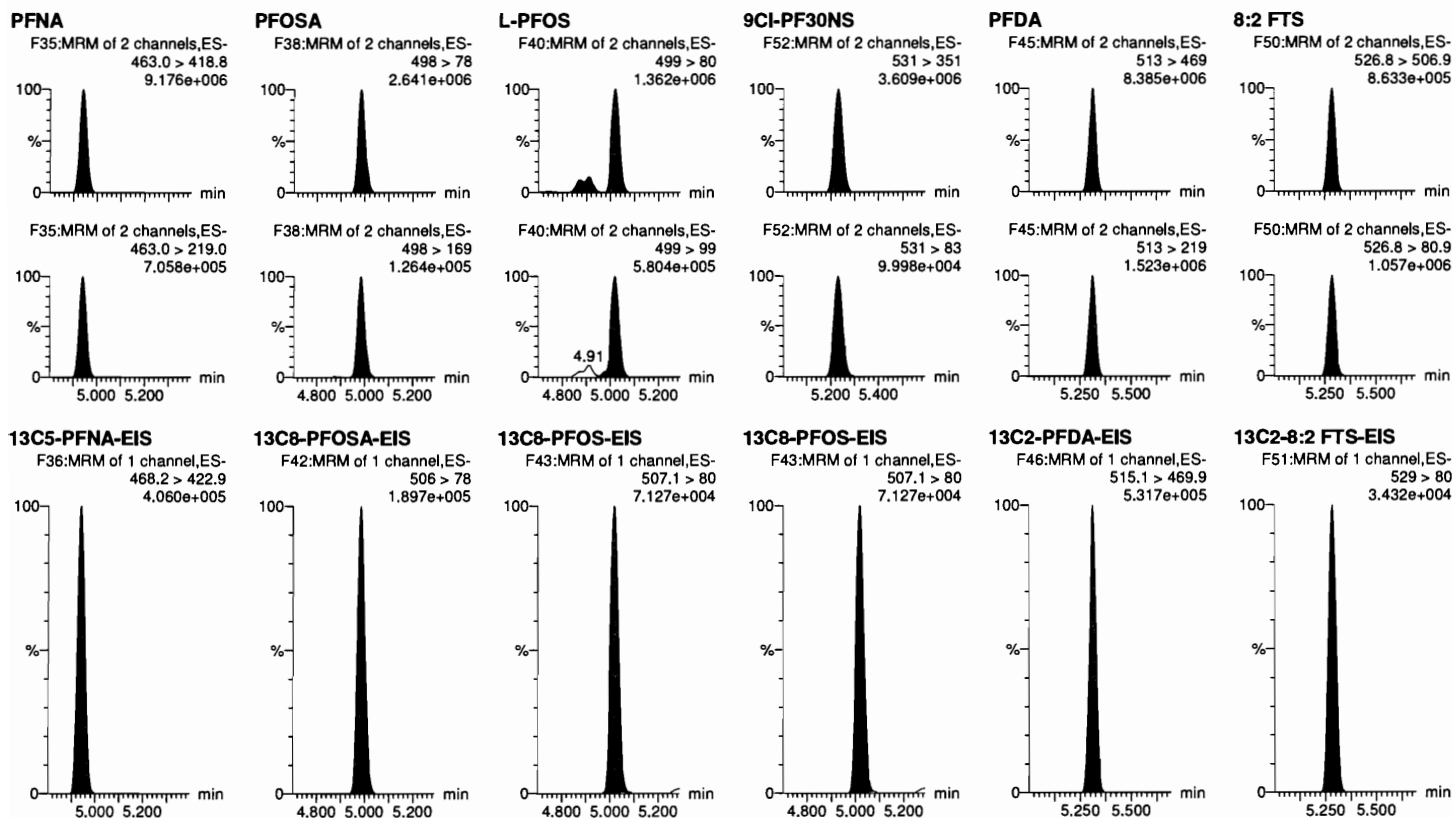
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Name: 200706P1-27, Date: 06-Jul-2020, Time: 14:37:59, ID: ST200706P1-9 PFC CS6 20F1909, Description: PFC CS6 20F1909



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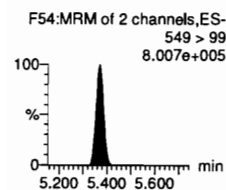
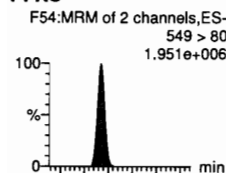
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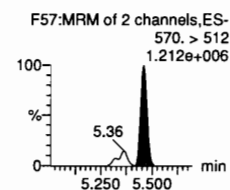
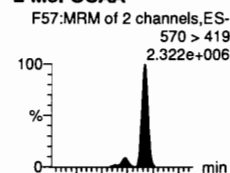
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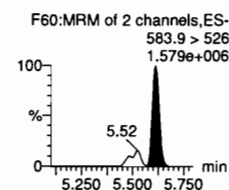
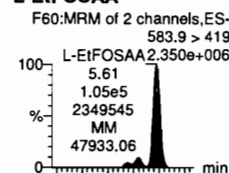
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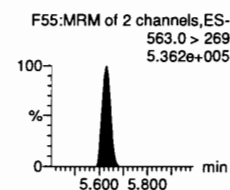
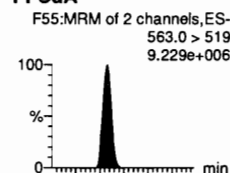
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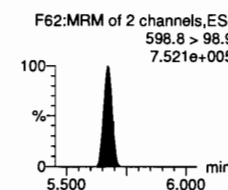
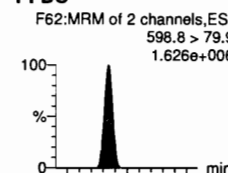
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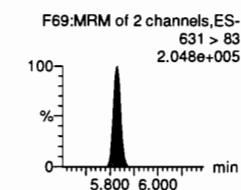
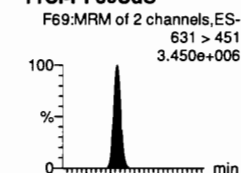
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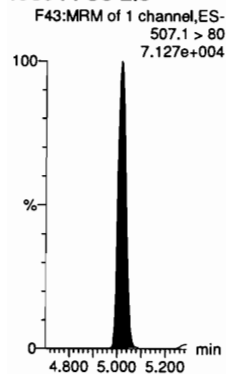
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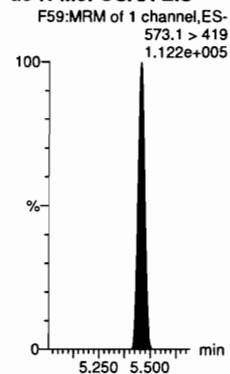
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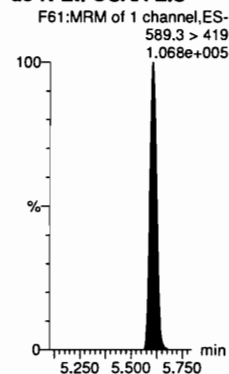
13C8-PFOS-EIS



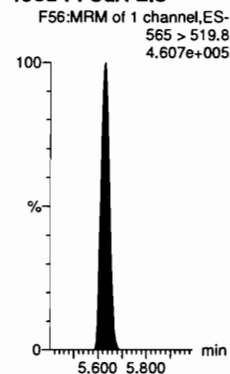
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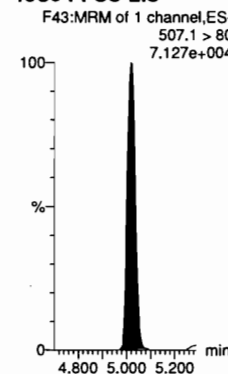
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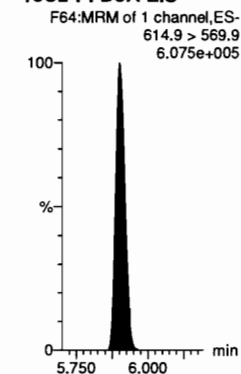
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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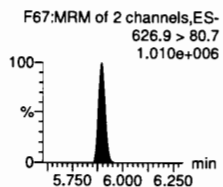
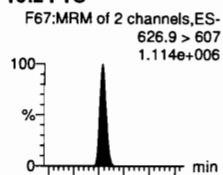
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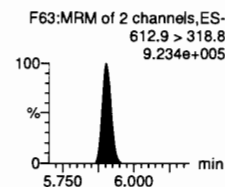
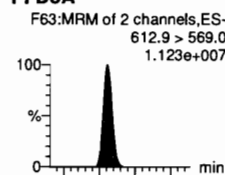
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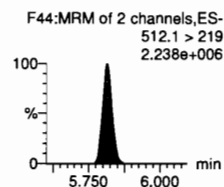
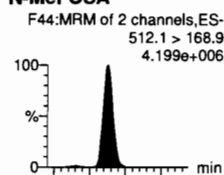
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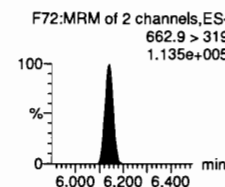
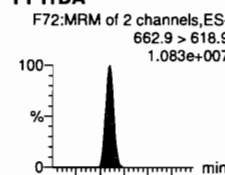
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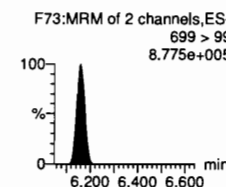
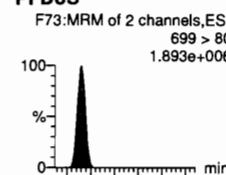
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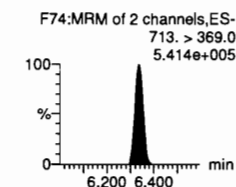
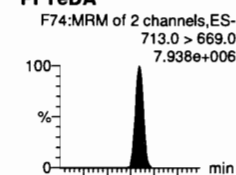
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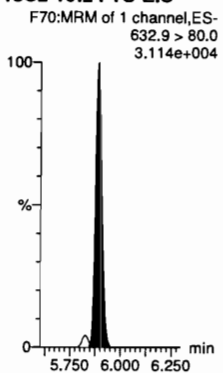
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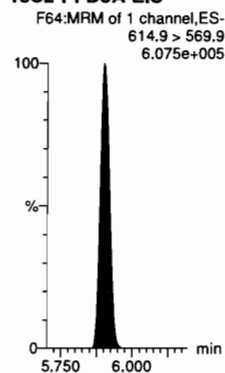
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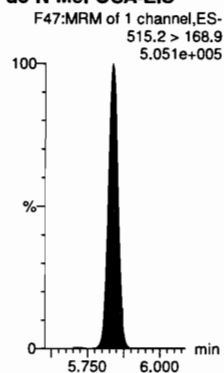
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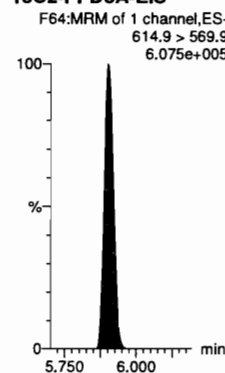
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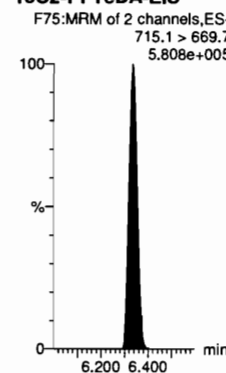
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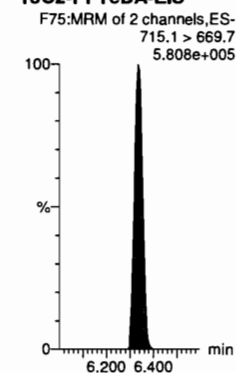
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13C2-PFTeDA-EIS



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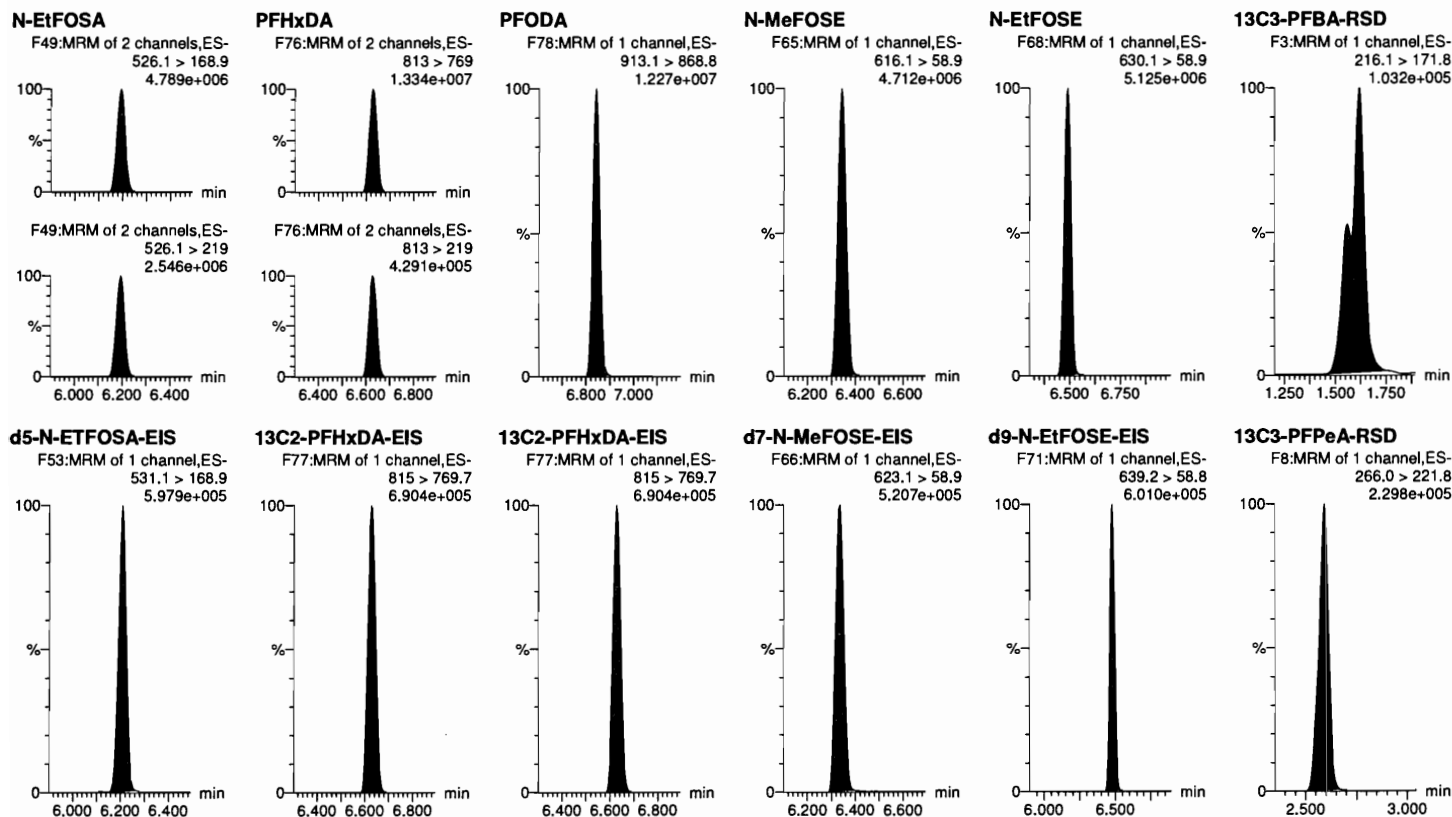
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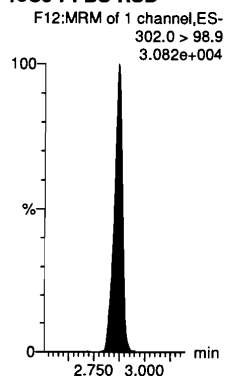
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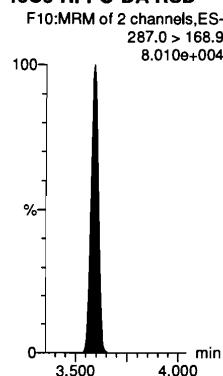
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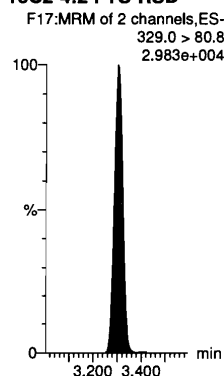
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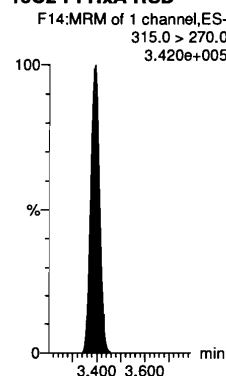
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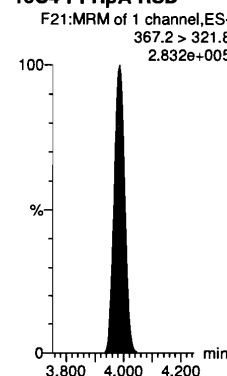
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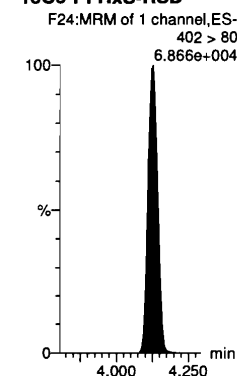
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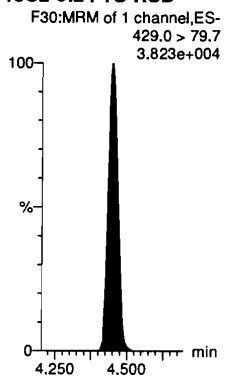
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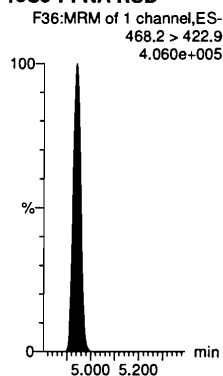
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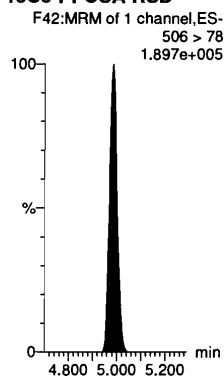
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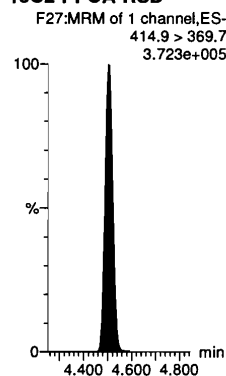
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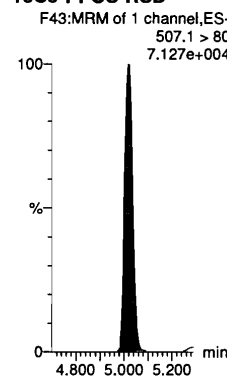
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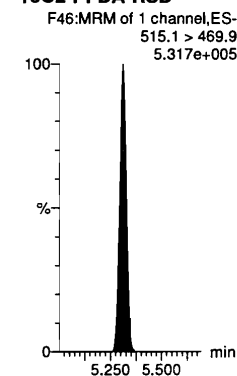
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13C8-PFOS-RSD



13C2-PFDA-RSD



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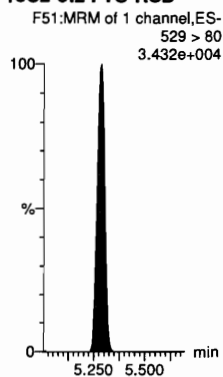
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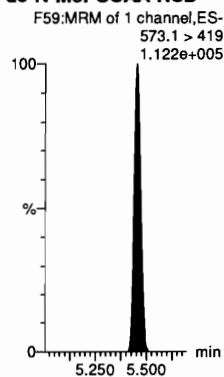
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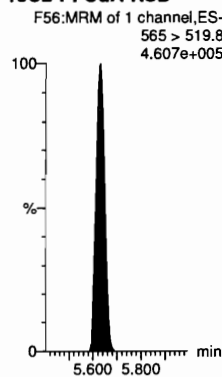
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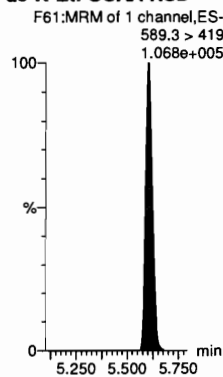
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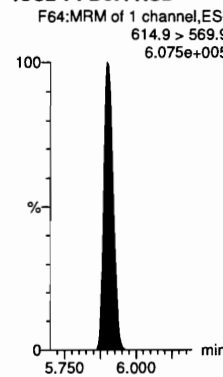
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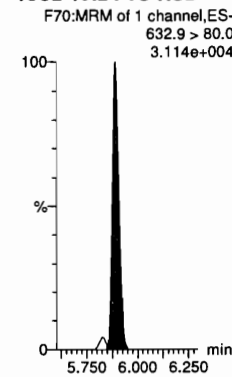
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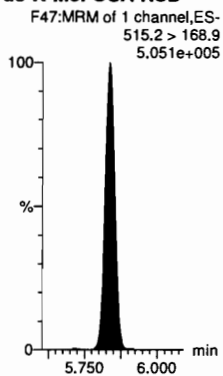
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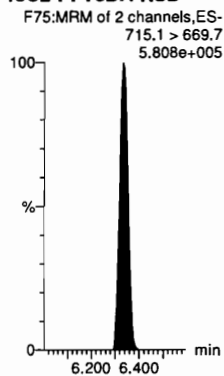
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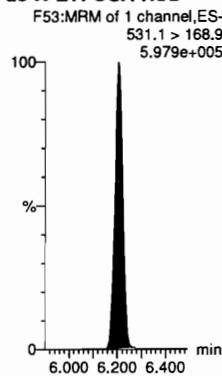
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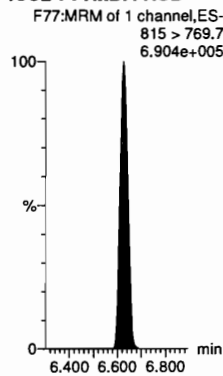
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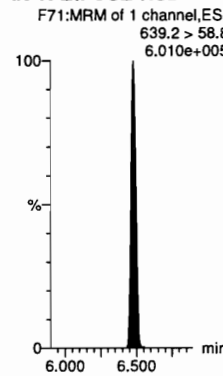
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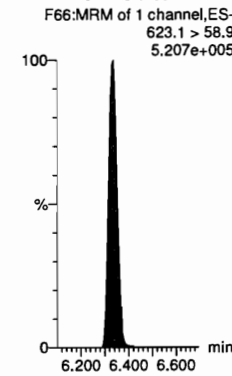
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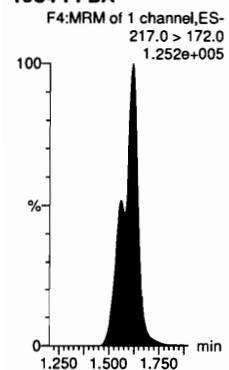
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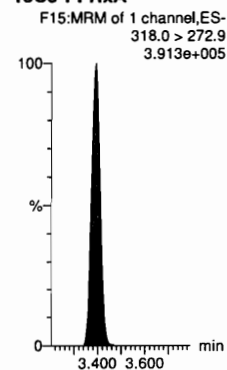
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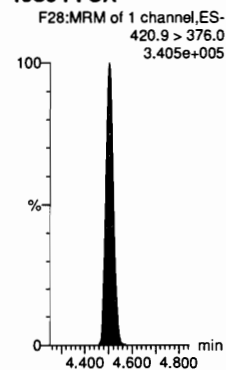
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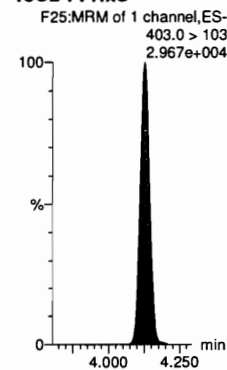
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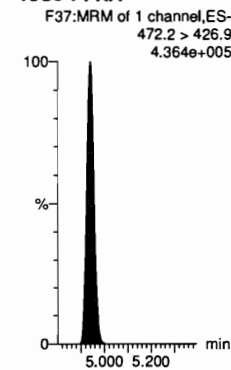
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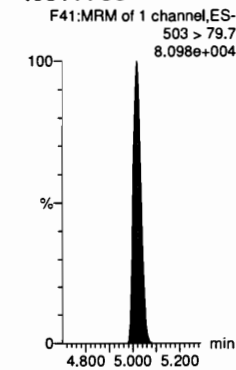
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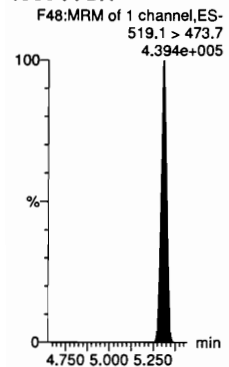
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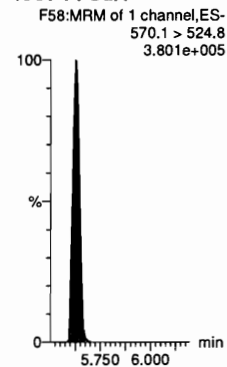
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13C6-PFDA



13C7-PFUDa



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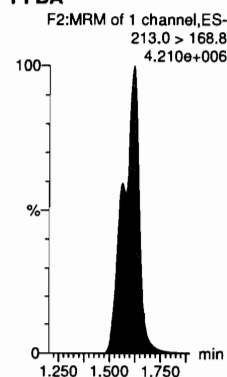
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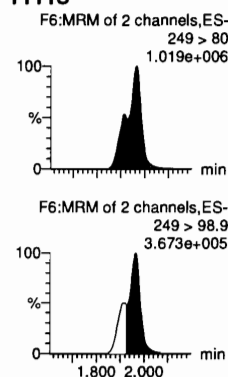
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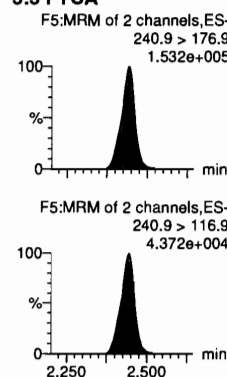
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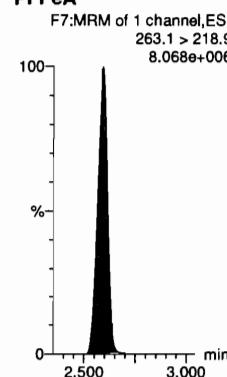
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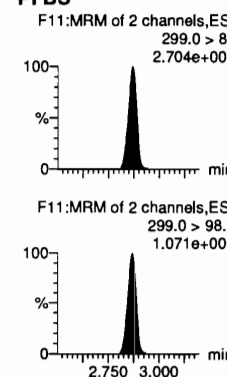
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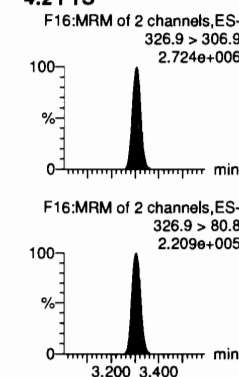
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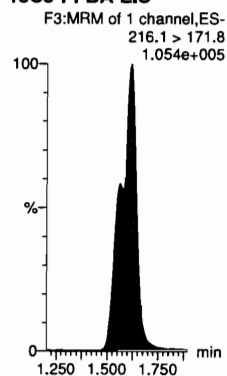
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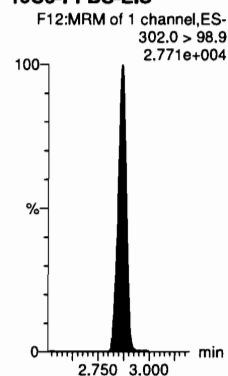
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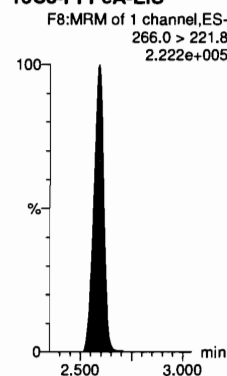
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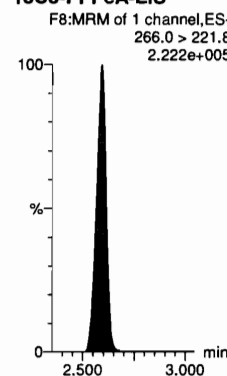
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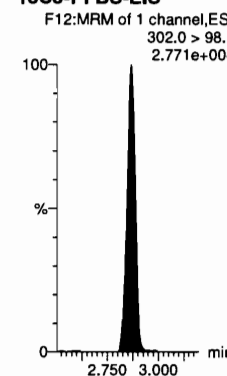
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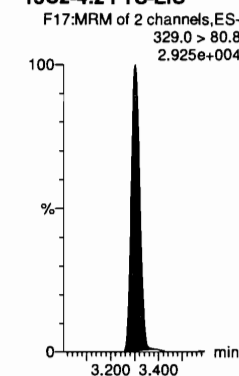
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



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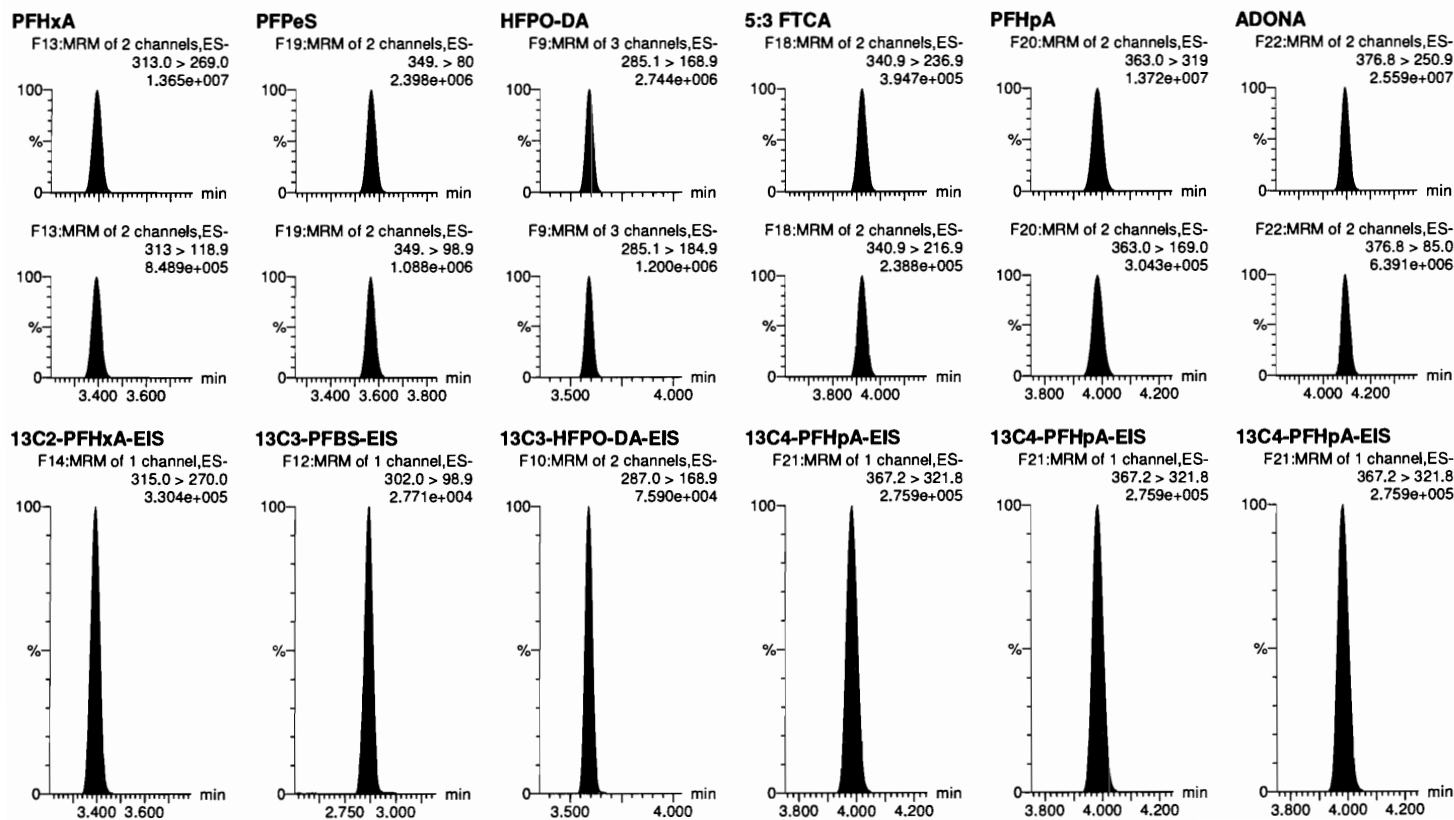
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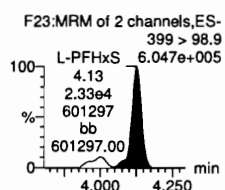
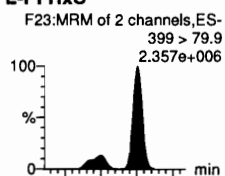
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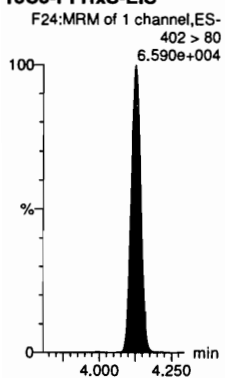
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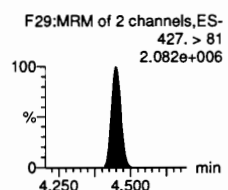
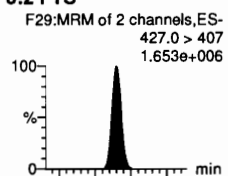
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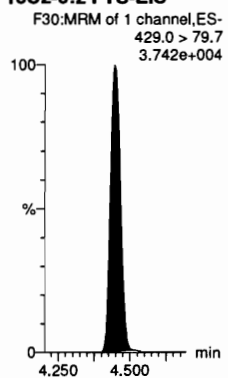
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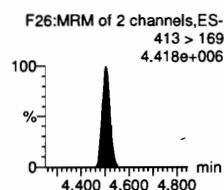
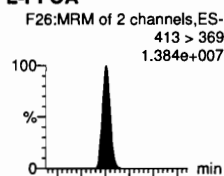
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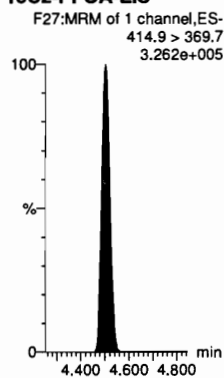
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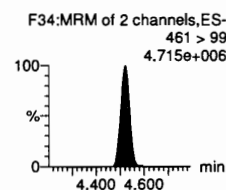
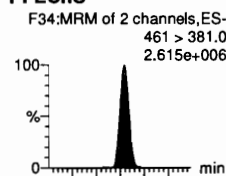
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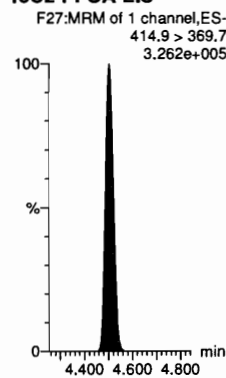
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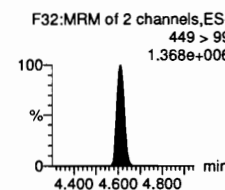
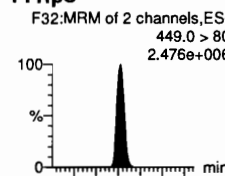
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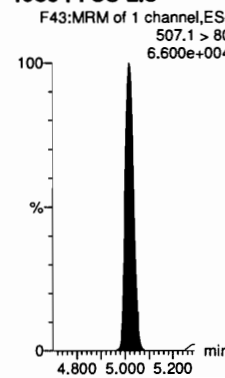
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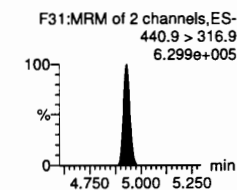
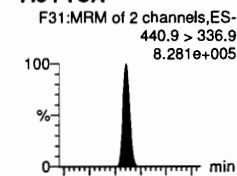
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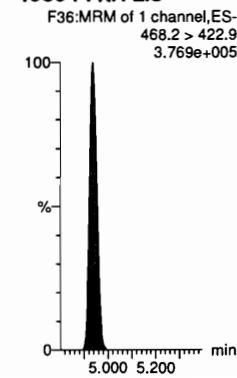
13C8-PFOS-EIS



7:3 FTCA



13C5-PFNA-EIS



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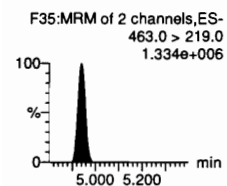
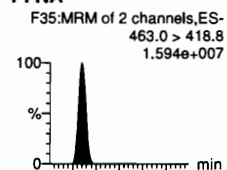
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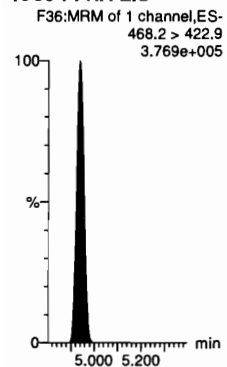
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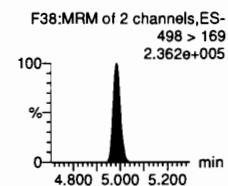
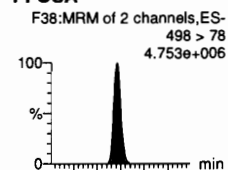
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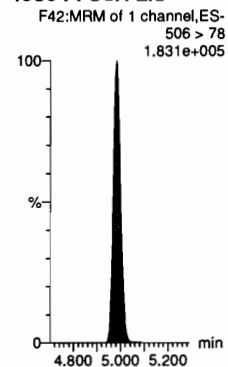
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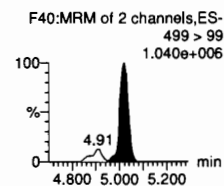
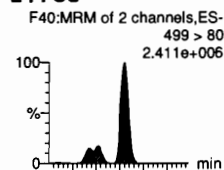
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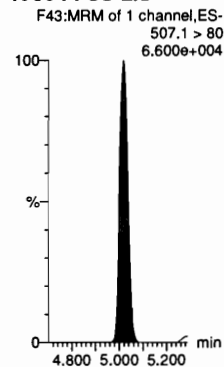
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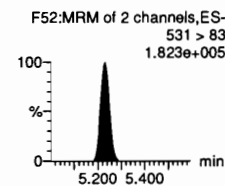
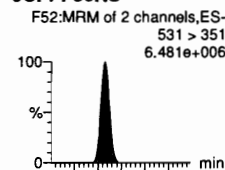
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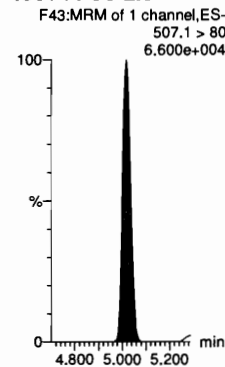
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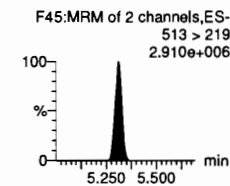
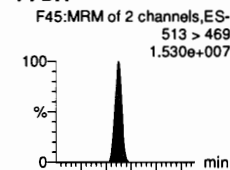
9CI-PF3ONS



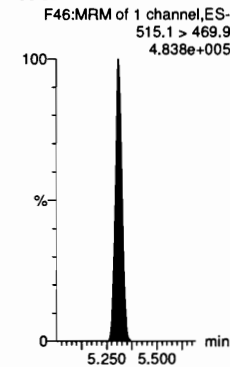
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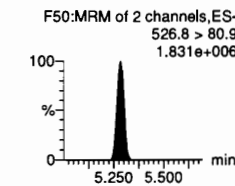
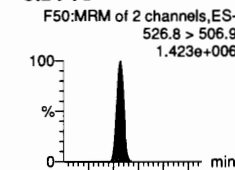
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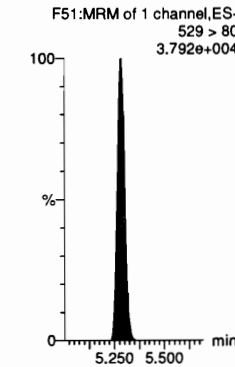
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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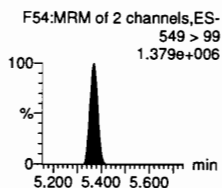
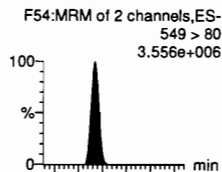
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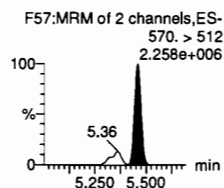
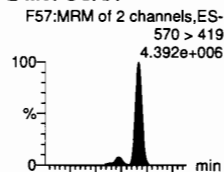
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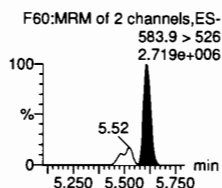
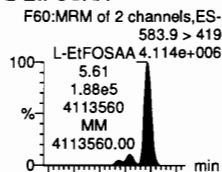
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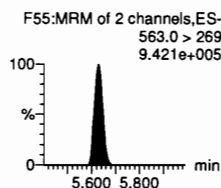
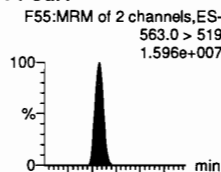
L-MeFOSAA



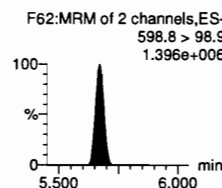
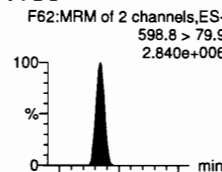
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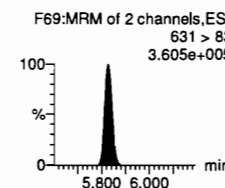
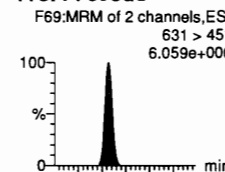
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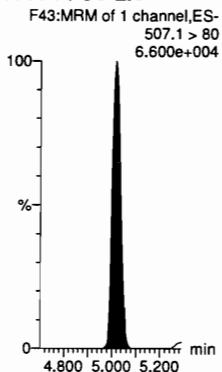
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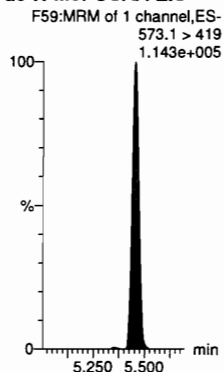
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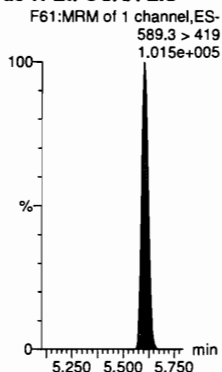
13C8-PFOS-EIS



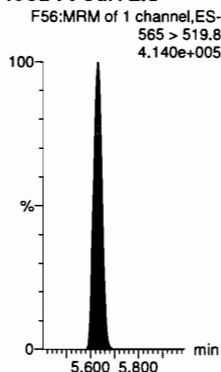
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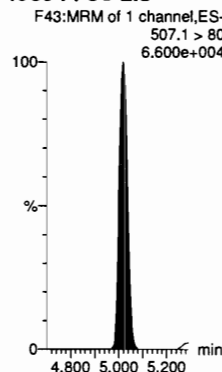
d5-N-EtFOSAA-EIS



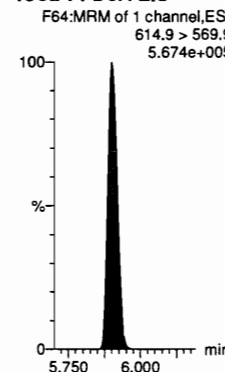
13C2-PFuDA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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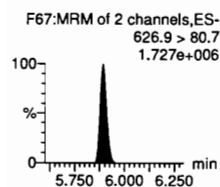
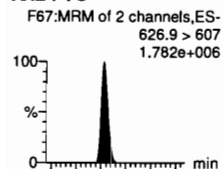
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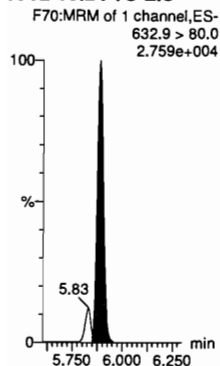
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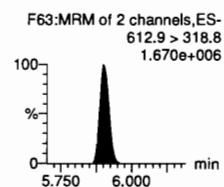
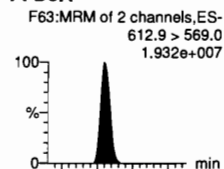
10:2 FTS



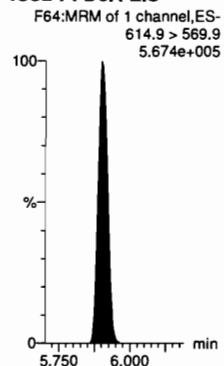
13C2-10:2 FTS-EIS



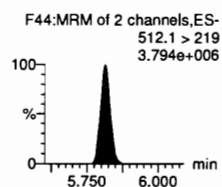
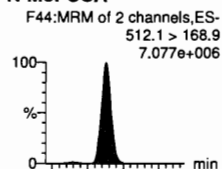
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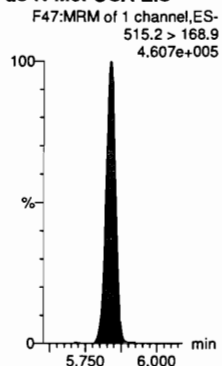
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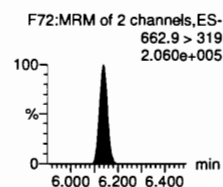
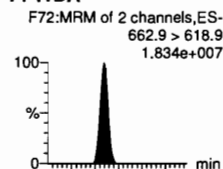
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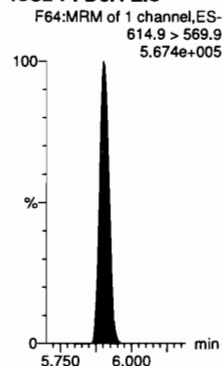
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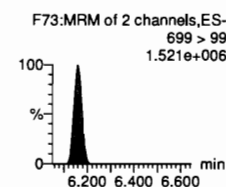
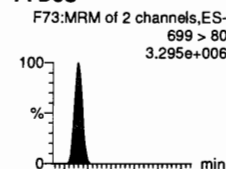
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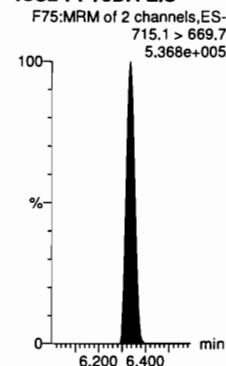
13C2-PFTrDA-EIS



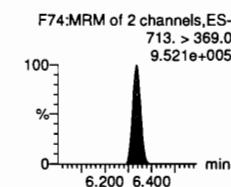
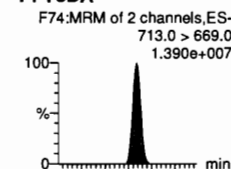
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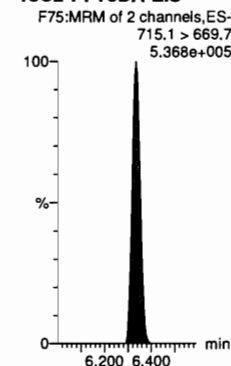
13C2-PFTeDA-EIS



PFTeDA



13C2-PFTeDA-EIS



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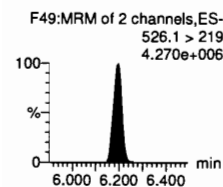
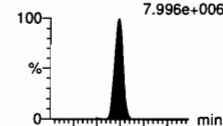
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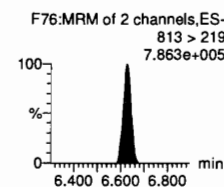
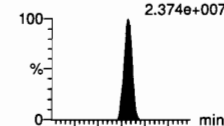
N-EtFOSA

F49:MRM of 2 channels,ES-
526.1 > 168.9
7.996e+006



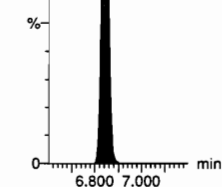
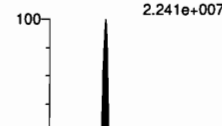
PFHxDA

F76:MRM of 2 channels,ES-
813 > 769
2.374e+007



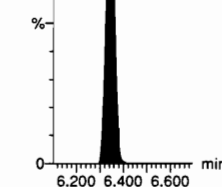
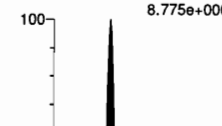
PFODA

F78:MRM of 1 channel,ES-
913.1 > 868.8
2.241e+007



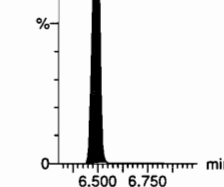
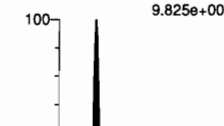
N-MeFOSE

F65:MRM of 1 channel,ES-
616.1 > 58.9
8.775e+006



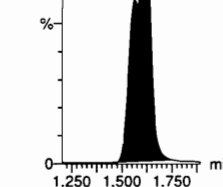
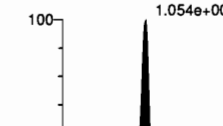
N-EtFOSE

F68:MRM of 1 channel,ES-
630.1 > 58.9
9.825e+006



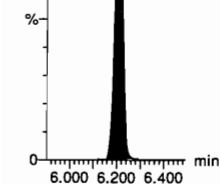
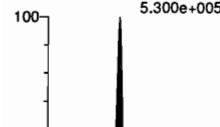
13C3-PFBA-RSD

F3:MRM of 1 channel,ES-
216.1 > 171.8
1.054e+005



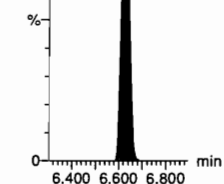
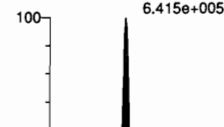
d5-N-ETFOSE-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
5.300e+005



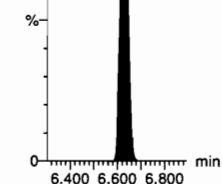
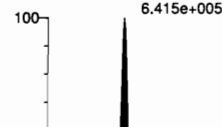
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
6.415e+005



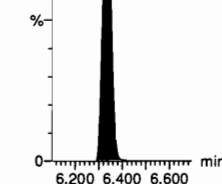
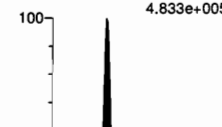
13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
6.415e+005



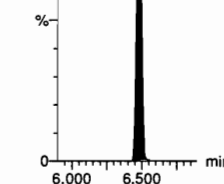
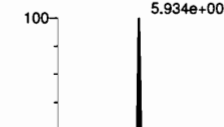
d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
4.833e+005



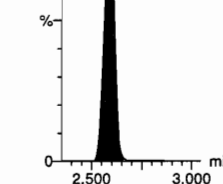
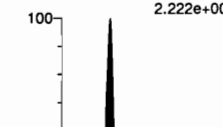
d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
5.934e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
2.222e+005



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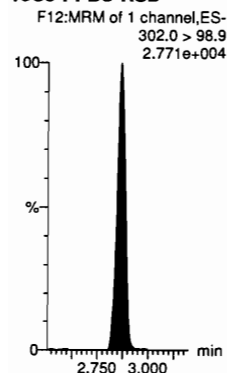
Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-CRV.qld

Last Altered: Tuesday, July 07, 2020 08:33:52 Pacific Daylight Time

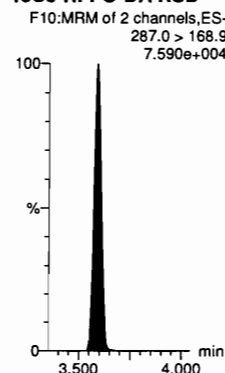
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Name: 200706P1-28, Date: 06-Jul-2020, Time: 14:48:28, ID: ST200706P1-10 PFC CS7 20F1910, Description: PFC CS7 20F1910

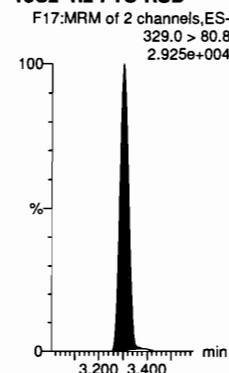
13C3-PFBS-RSD



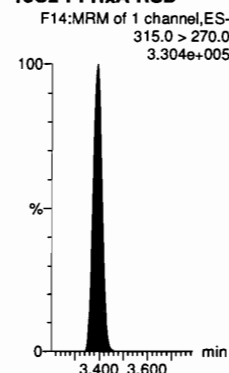
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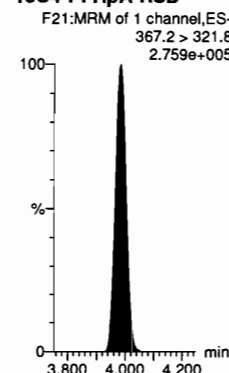
13C2-4:2 FTS-RSD



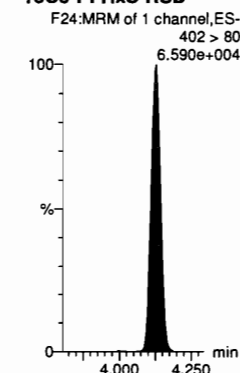
13C2-PFHxA-RSD



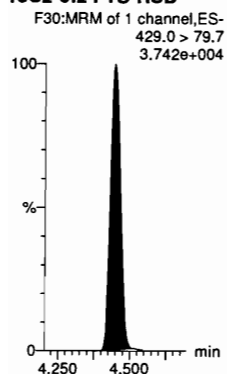
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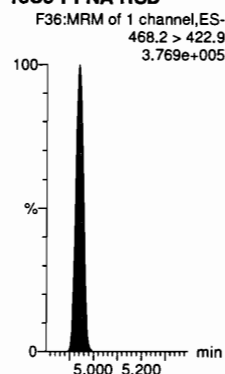
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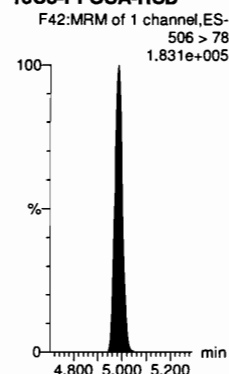
13C2-6:2 FTS-RSD



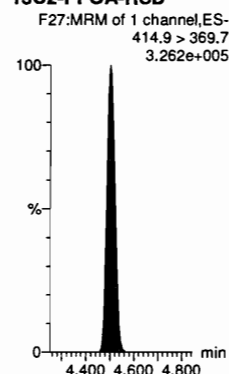
13C5-PFNA-RSD



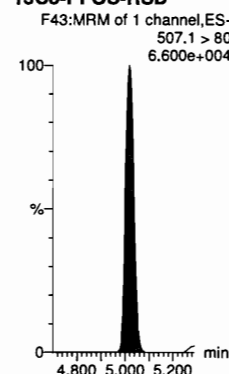
13C8-PFOA-RSD



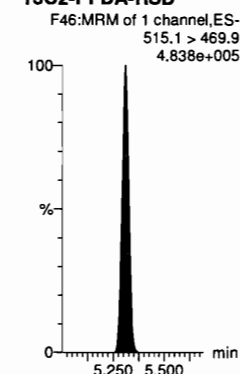
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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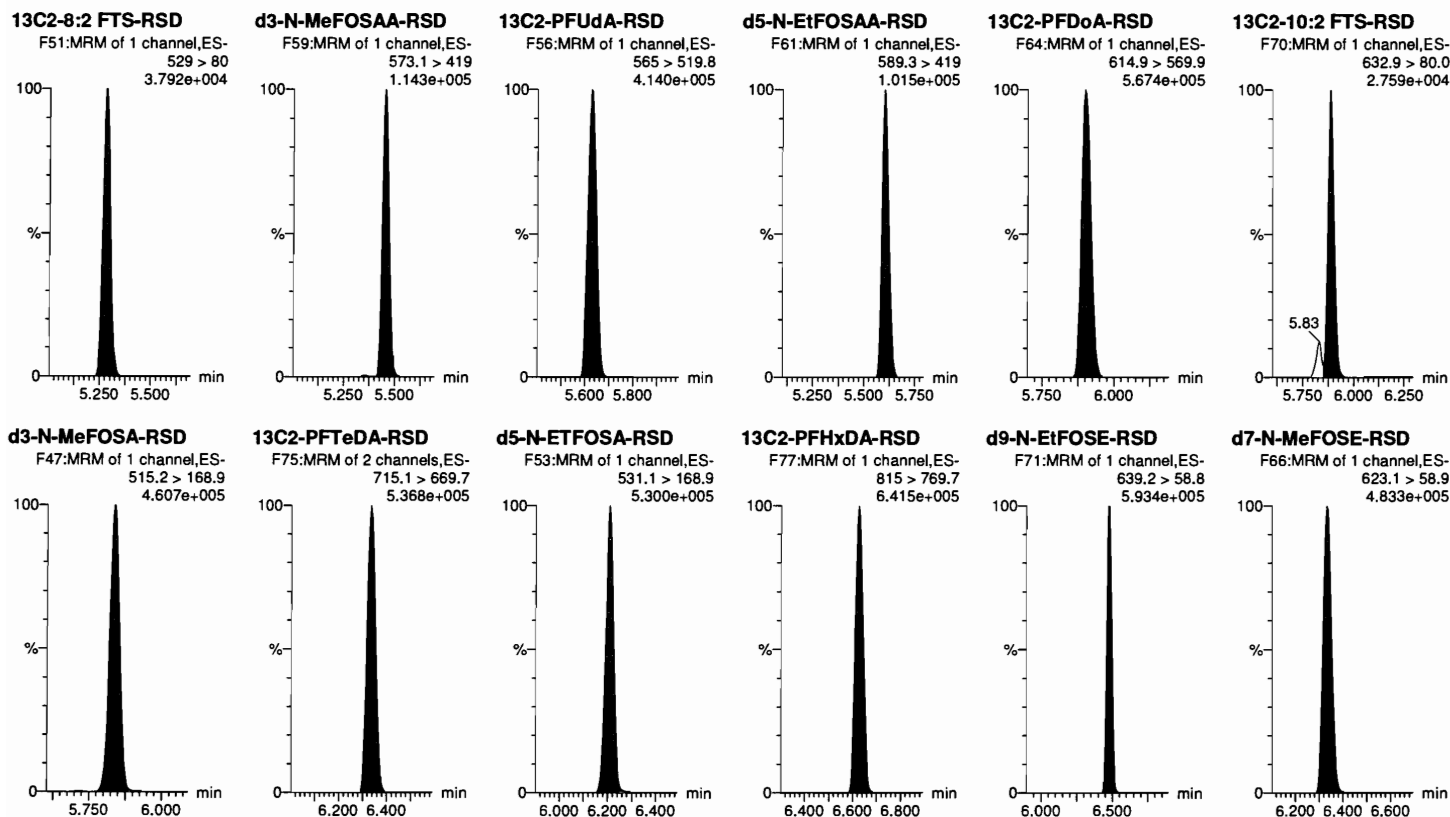
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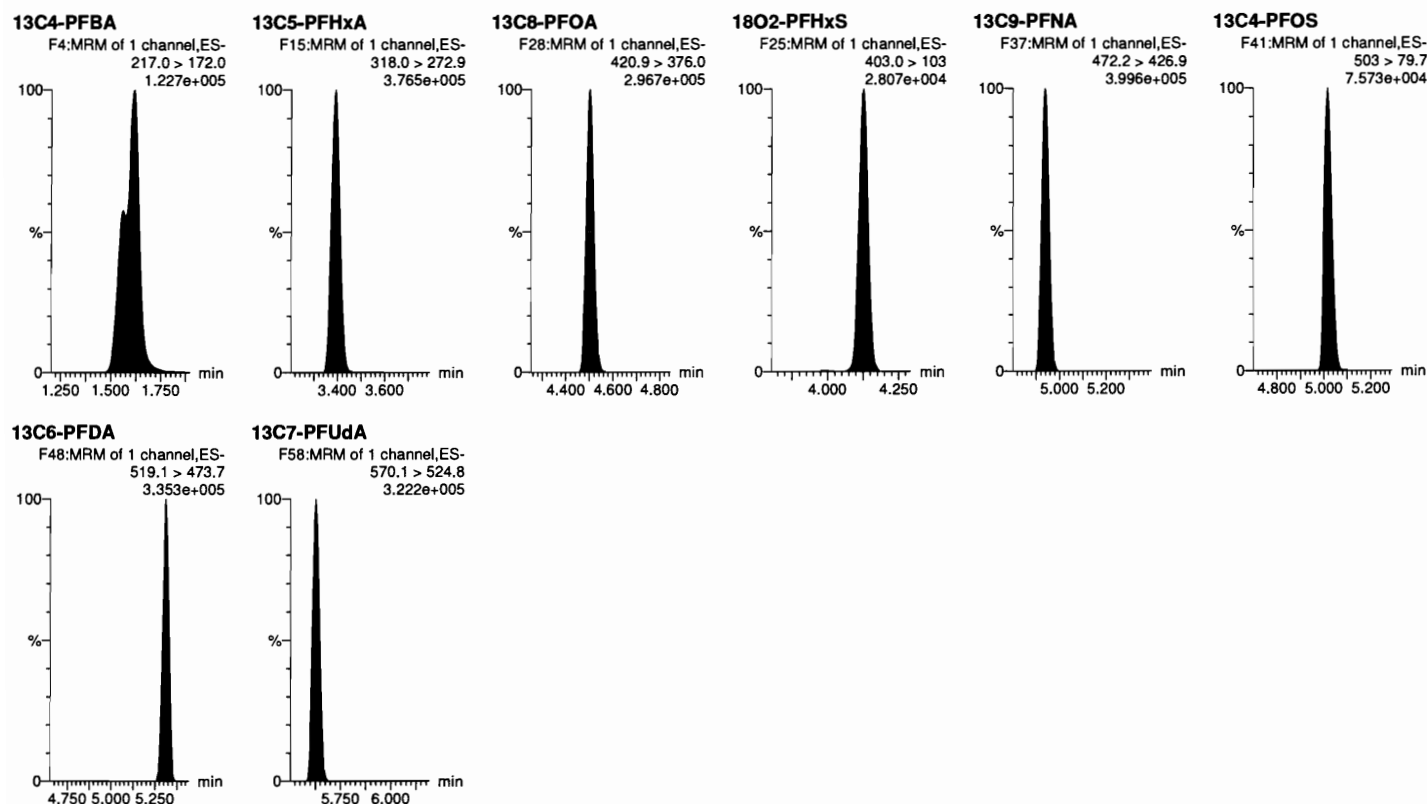
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Name: 200706P1-28, Date: 06-Jul-2020, Time: 14:48:28, ID: ST200706P1-10 PFC CS7 20F1910, Description: PFC CS7 20F1910



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(A) Not in IUV

Name: 200706P1-30, Date: 06-Jul-2020, Time: 15:09:30, ID: ICV200706P1-1 PFC ICV 20F1911, Description: PFC ICV 20F1911

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1 PFBA	213.0 > 168.8	7637.761	9273.287	1.00	1.62	10.295	10.000	9.94	99.4	NO		
2 PFPrS	249 > 80		1400.722	1.00			10.000		99.4	NO		YES
3 3:3 FTCA	240.9 > 176.9		12917.687	1.00			10.000		99.4	NO		YES
4 PFPeA	263.1 > 218.9	9448.687	12917.687	1.00	2.59	9.143	10.000	9.87	98.7	NO		
5 PFBS	299.0 > 80	2542.181	1400.722	1.00	2.87	22.686	8.840	8.86	100.3	NO	2.562	NO
6 4:2 FTS	326.9 > 306.9	2732.158	1249.773	1.00	3.30	27.327	9.360	9.60	102.5	NO	12.644	YES
47 13C3-PFBA-EIS	216.1 > 171.8	9273.287		1.00	1.62	9273.287	12.500	13.4	107.6	NO		
51 13C3-PFBS-EIS	302.0 > 98.9	1400.722		1.00	2.87	1400.722	12.500	13.5	107.7	NO		
49 13C3-PFPeA-EIS	266.0 > 221.8	12917.687		1.00	2.59	12917.687	12.500	13.4	107.5	NO		
49 13C3-PFPeA-EIS	266.0 > 221.8	12917.687		1.00	2.59	12917.687	12.500	13.4	107.5	NO		
51 13C3-PFBS-EIS	302.0 > 98.9	1400.722		1.00	2.87	1400.722	12.500	13.5	107.7	NO		
55 13C2-4:2 FTS-EIS	329.0 > 80.8	1249.773		1.00	3.30	1249.773	12.500	12.4	99.1	NO		
-1												
7 PFHxA	313.0 > 269.0	13120.925	15191.044	1.00	3.39	10.797	10.000	10.4	103.5	NO	16.937	NO
8 PFPeS	349 > 80	2075.482	1400.722	1.00	3.57	18.522	9.360	8.88	94.8	NO	2.131	NO
9 HFPO-DA	285.1 > 168.9	2366.653	3122.345	1.00	3.59	9.475	10.000	9.42	94.2	NO	2.344	NO
10 5:3 FTCA	340.9 > 236.9		13511.702	1.00			10.000		99.4	NO		YES
11 PFHpA	363.0 > 319	12932.703	13511.702	1.00	3.98	11.964	10.000	9.19	91.9	NO	49.714	YES
12 ADONA	376.8 > 250.9	21905.752	13511.702	1.00	4.09	20.266	9.440	9.32	98.7	NO	3.932	NO
57 13C2-PFHxA-EIS	315.0 > 270.0	15191.044		1.00	3.39	15191.044	12.500	13.9	111.5	NO		
51 13C3-PFBS-EIS	302.0 > 98.9	1400.722		1.00	2.87	1400.722	12.500	13.5	107.7	NO		
53 13C3-HFPO-DA-EIS	287.0 > 168.9	3122.345		1.00	3.59	3122.345	12.500	13.7	109.4	NO		
59 13C4-PFHpA-EIS	367.2 > 321.8	13511.702		1.00	3.98	13511.702	12.500	13.7	109.9	NO		
59 13C4-PFHpA-EIS	367.2 > 321.8	13511.702		1.00	3.98	13511.702	12.500	13.7	109.9	NO		
59 13C4-PFHpA-EIS	367.2 > 321.8	13511.702		1.00	3.98	13511.702	12.500	13.7	109.9	NO		
-1												
13 L-PFHxS	399 > 79.9	2123.308	2940.244	1.00	4.13	9.027	9.120	8.19	89.8	NO	4.427	YES
15 6:2 FTS	427.0 > 407	1446.478	1628.024	1.00	4.45	11.106	9.480	9.71	102.4	NO	0.797	NO
16 L-PFOA	413 > 369	13363.650	14523.533	1.00	4.50	11.502	10.000	10.1	101.5	NO	3.241	NO
18 PFecHS	461 > 381.0		14523.533	1.00			10.000		99.4	NO		YES
19 PFHpS	449.0 > 80	2116.452	2891.132	1.00	4.61	9.151	9.520	9.40	98.7	NO	1.727	NO
20 7:3 FTCA	440.9 > 336.9		15540.856	1.00			10.000		99.4	NO		YES
61 13C3-PFHxS-EIS	402 > 80	2940.244		1.00	4.13	2940.244	12.500	13.4	106.9	NO		
63 13C2-6:2 FTS-EIS	429.0 > 79.7	1628.024		1.00	4.45	1628.024	12.500	12.6	101.2	NO		
69 13C2-PFOA-EIS	414.9 > 369.7	14523.533		1.00	4.50	14523.533	12.500	12.6	100.6	NO		
69 13C2-PFOA-EIS	414.9 > 369.7	14523.533		1.00	4.50	14523.533	12.500	12.6	100.6	NO		

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Name: 200706P1-30, Date: 06-Jul-2020, Time: 15:09:30, ID: ICV200706P1-1 PFC ICV 20F1911, Description: PFC ICV 20F1911

71 13C8-PFOS-EIS	507.1 > 80	2891.132		1.00	5.02	2891.132	12.500	12.8	102.6	NO		
65 13C5-PFNA-EIS	468.2 > 422.9	15540.856		1.00	4.94	15540.856	12.500	12.8	102.5	NO		
-1												
21 PFNA	463.0 > 418.8	14000.723	15540.856	1.00	4.94	11.261	10.000	10.1	100.7	NO	12.466	YES
22 PFOSA	498 > 78	4099.178	7420.505	1.00	4.99	6.905	10.000	10.0	100.0	NO	21.394	NO
23 L-PFOS	499 > 80	2687.035	2891.132	1.00	5.02	11.618	9.280	9.17	98.8	NO	2.714	NO
25 9CI-PF3ONS	531 > 351	6303.713	2891.132	1.00	5.23	27.255	9.320	9.57	102.7	NO	48.336	YES
26 PFDA	513 > 469	14017.704	19932.547	1.00	5.31	8.791	10.000	10.3	103.5	NO	5.237	NO
27 8:2 FTS	526.8 > 506.9	1555.169	1598.607	1.00	5.29	12.160	9.600	8.99	93.6	NO	0.874	NO
65 13C5-PFNA-EIS	468.2 > 422.9	15540.856		1.00	4.94	15540.856	12.500	12.8	102.5	NO		
67 13C8-PFOSA-EIS	506 > 78	7420.505		1.00	4.98	7420.505	12.500	13.0	103.9	NO		
71 13C8-PFOS-EIS	507.1 > 80	2891.132		1.00	5.02	2891.132	12.500	12.8	102.6	NO		
71 13C8-PFOS-EIS	507.1 > 80	2891.132		1.00	5.02	2891.132	12.500	12.8	102.6	NO		
73 13C2-PFDA-EIS	515.1 > 469.9	19932.547		1.00	5.31	19932.547	12.500	13.4	106.9	NO		
75 13C2-8:2 FTS-EIS	529 > 80	1598.607		1.00	5.29	1598.607	12.500	14.5	115.9	NO		
-1												
28 PFNS	549 > 80	2828.414	2891.132	1.00	5.36	12.229	9.600	9.24	96.3	NO	2.459	NO
29 L-MeFOSAA	570 > 419	4003.342	4460.954	1.00	5.46	11.218	10.000	9.23	92.3	NO	1.898	NO
31 L-EtFOSAA	583.9 > 419	4751.072	4230.890	1.00	5.61	14.037	10.000	10.1	101.2	NO	1.276	NO
33 PFUDa	563.0 > 519	17390.951	19378.582	1.00	5.63	11.218	10.000	10.2	102.0	NO	19.374	NO
34 PFDS	598.8 > 79.9	2700.801	2891.132	1.00	5.67	11.677	9.640	9.15	95.0	NO	2.404	NO
35 11CI-PF30UdS	631 > 451	4975.652	23715.557	1.00	5.82	2.623	9.440	10.2	107.5	NO	15.431	NO
71 13C8-PFOS-EIS	507.1 > 80	2891.132		1.00	5.02	2891.132	12.500	12.8	102.6	NO		
77 d3-N-MeFOSAA-EIS	573.1 > 419	4460.954		1.00	5.45	4460.954	12.500	13.5	107.8	NO		
81 d5-N-EtFOSAA-EIS	589.3 > 419	4230.890		1.00	5.60	4230.890	12.500	13.5	107.8	NO		
79 13C2-PFUDa-EIS	565 > 519.8	19378.582		1.00	5.63	19378.582	12.500	12.3	98.0	NO		
71 13C8-PFOS-EIS	507.1 > 80	2891.132		1.00	5.02	2891.132	12.500	12.8	102.6	NO		
83 13C2-PFDoA-EIS	614.9 > 569.9	23715.557		1.00	5.90	23715.557	12.500	12.7	101.5	NO		
-1												
36 10:2 FTS	626.9 > 607		1332.675	1.00			10.000		93.6	NO		YES
37 PFDoA	612.9 > 569.0	17418.283	23715.557	1.00	5.90	9.181	10.000	9.36	93.6	NO	11.504	NO
38 N-MeFOSA	512.1 > 168.9		21351.840	1.00			9.600		98.4	NO		YES
39 PFTrDA	662.9 > 618.9	19418.045	23715.557	1.00	6.13	10.235	10.000	9.84	98.4	NO	108.370	YES
40 PFDoS	699 > 80		24306.963	1.00			10.000		105.0	NO		YES
41 PFTeDA	713.0 > 669.0	13569.787	24306.963	1.00	6.33	6.978	10.000	10.5	105.0	NO	14.243	NO
85 13C2-10:2 FTS-EIS	632.9 > 80.0	1332.675		1.00	5.89	1332.675	12.500	12.3	98.1	NO		

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83	13C2-PFDoA-EIS	614.9 > 569.9	23715.557	1.00	5.90	23715.557	12.500	12.7	101.5	NO	
87	d3-N-MeFOSA-EIS	515.2 > 168.9	21351.840	1.00	5.84	21351.840	149.200	154	103.4	NO	
83	13C2-PFDoA-EIS	614.9 > 569.9	23715.557	1.00	5.90	23715.557	12.500	12.7	101.5	NO	
89	13C2-PFTeDA-EIS	715.1 > 669.7	24306.963	1.00	6.33	24306.963	12.500	12.8	102.0	NO	
89	13C2-PFTeDA-EIS	715.1 > 669.7	24306.963	1.00	6.33	24306.963	12.500	12.8	102.0	NO	
-1											
42	N-EiFOSA	526.1 > 168.9	23592.137	1.00			9.600			NO	YES
43	PFHxDA	813 > 769	26509.676	1.00			10.000			NO	YES
44	PFODA	913.1 > 868.8	26509.676	1.00			10.000			NO	
45	N-MeFOSE	616.1 > 58.9	21004.094	1.00			9.600			NO	
46	N-EiFOSE	630.1 > 58.9	24464.982	1.00			9.600			NO	
48	13C3-PFBA-RSD	216.1 > 171.8	9272.683	1.00	1.62	10.779	12.500	12.6	100.9	NO	
91	d5-N-ETFOSA-EIS	531.1 > 168.9	23592.137	1.00	6.21	23592.137	149.200	152	101.9	NO	
93	13C2-PFHxDA-EIS	815 > 769.7	26509.676	1.00	6.63	26509.676	12.500	12.6	100.5	NO	
93	13C2-PFHxDA-EIS	815 > 769.7	26509.676	1.00	6.63	26509.676	12.500	12.6	100.5	NO	
95	d7-N-MeFOSE-EIS	623.1 > 58.9	21004.094	1.00	6.34	21004.094	149.200	156	104.5	NO	
97	d9-N-EiFOSE-EIS	639.2 > 58.8	24464.982	1.00	6.48	24464.982	149.200	165	110.3	NO	
50	13C3-PFPeA-RSD	266.0 > 221.8	13089.568	15683.965	1.00	2.59	10.432	12.500	13.9	111.0	NO
-1											
52	13C3-PFBS-RSD	302.0 > 98.9	1400.722	1063.464	1.00	2.87	16.464	12.500	13.4	107.4	NO
54	13C3-HFOA-DA-RSD	287.0 > 168.9	3122.345	15683.965	1.00	3.59	2.488	12.500	13.2	105.2	NO
56	13C2-4:2 FTS-RSD	329.0 > 80.8	1249.773	1063.464	1.00	3.30	14.690	12.500	13.0	103.8	NO
58	13C2-PFHxA-RSD	315.0 > 270.0	15191.044	15683.965	1.00	3.39	12.107	12.500	13.8	110.2	NO
60	13C4-PFHpA-RSD	367.2 > 321.8	13511.702	15683.965	1.00	3.98	10.769	12.500	14.2	113.4	NO
62	13C3-PFHxS-RSD	402 > 80	2940.244	1063.464	1.00	4.13	34.560	12.500	14.0	112.3	NO
64	13C2-6:2 FTS-RSD	429.0 > 79.7	1628.024	3325.066	1.00	4.45	6.120	12.500	12.9	103.6	NO
66	13C5-PFNA-RSD	468.2 > 422.9	15540.856	16546.383	1.00	4.94	11.740	12.500	12.5	99.8	NO
68	13C8-PFOA-RSD	506 > 78	7420.505	15619.884	1.00	4.98	5.938	12.500	12.2	97.7	NO
70	13C2-PFOA-RSD	414.9 > 369.7	14523.533	13675.684	1.00	4.50	13.275	12.500	12.1	97.1	NO
72	13C8-PFOS-RSD	507.1 > 80	2884.835	3325.066	1.00	5.02	10.845	12.500	12.4	99.2	NO
74	13C2-PFDA-RSD	515.1 > 469.9	19932.547	16557.969	1.00	5.31	15.048	12.500	12.0	96.0	NO
-1											
76	13C2-8:2 FTS-RSD	529 > 80	1598.607	3325.066	1.00	5.29	6.010	12.500	13.2	105.3	NO
78	d3-N-MeFOSAA-RSD	573.1 > 419	4460.954	15619.884	1.00	5.45	3.570	12.500	12.2	97.4	NO
80	13C2-PFUDa-RSD	565 > 519.8	19378.582	15619.884	1.00	5.63	15.508	12.500	12.0	95.8	NO
82	d5-N-EiFOSAA-RSD	589.3 > 419	4230.890	15619.884	1.00	5.60	3.386	12.500	12.0	95.7	NO

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Name: 200706P1-30, Date: 06-Jul-2020, Time: 15:09:30, ID: ICV200706P1-1 PFC ICV 20F1911, Description: PFC ICV 20F1911

		Area	IS Area	Wt/Vol	Peak Response	Std Dev	Peak Response	Std Dev	Peak Response	Std Dev	Peak Response	Std Dev
84	13C2-PFDoA-RSD	614.9 > 569.9	23715.557	16557.969	1.00	5.90	17.903	12.500	11.6	92.4	NO	
86	13C2-10:2 FTS-RSD	632.9 > 80.0	1332.675	3325.066	1.00	5.89	5.010	12.500	13.0	104.4	NO	
88	d3-N-MeFOSA-RSD	515.2 > 168.9	21351.840	15619.884	1.00	5.84	17.087	149.200	148	98.9	NO	
90	13C2-PFTeDA-RSD	715.1 > 669.7	24306.963	15619.884	1.00	6.33	19.452	12.500	11.9	95.3	NO	
92	d5-N-ETFOSA-RSD	531.1 > 168.9	23592.137	15619.884	1.00	6.21	18.880	149.200	145	97.1	NO	
94	13C2-PFHxDA-RSD	815 > 769.7	26509.676	15619.884	1.00	6.63	21.215	12.500	11.9	95.5	NO	
96	d7-N-MeFOSE-RSD	623.1 > 58.9	21004.094	15619.884	1.00	6.34	16.809	149.200	141	94.7	NO	
98	d9-N-EtFOSE-RSD	639.2 > 58.8	24464.982	15619.884	1.00	6.48	19.578	149.200	149	99.6	NO	
-1												
99	13C4-PFBA	217.0 > 172.0	10752.734	10752.734	1.00	1.62	12.500	12.500	12.5	100.0	NO	
1...	13C5-PFHxA	318.0 > 272.9	15683.965	15683.965	1.00	3.39	12.500	12.500	12.5	100.0	NO	
1...	13C8-PFOA	420.9 > 376.0	13675.684	13675.684	1.00	4.50	12.500	12.500	12.5	100.0	NO	
1...	18O2-PFHxS	403.0 > 103	1063.464	1063.464	1.00	4.12	12.500	12.500	12.5	100.0	NO	
1...	13C9-PFNA	472.2 > 426.9	16546.383	16546.383	1.00	4.94	12.500	12.500	12.5	100.0	NO	
1...	13C4-PFOS	503 > 79.7	3325.066	3325.066	1.00	5.02	12.500	12.500	12.5	100.0	NO	
1...	13C6-PFDA	519.1 > 473.7	16557.969	16557.969	1.00	5.31	12.500	12.500	12.5	100.0	NO	
1...	13C7-PFUDa	570.1 > 524.8	15619.884	15619.884	1.00	5.63	12.500	12.500	12.5	100.0	NO	

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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-ICV.qld

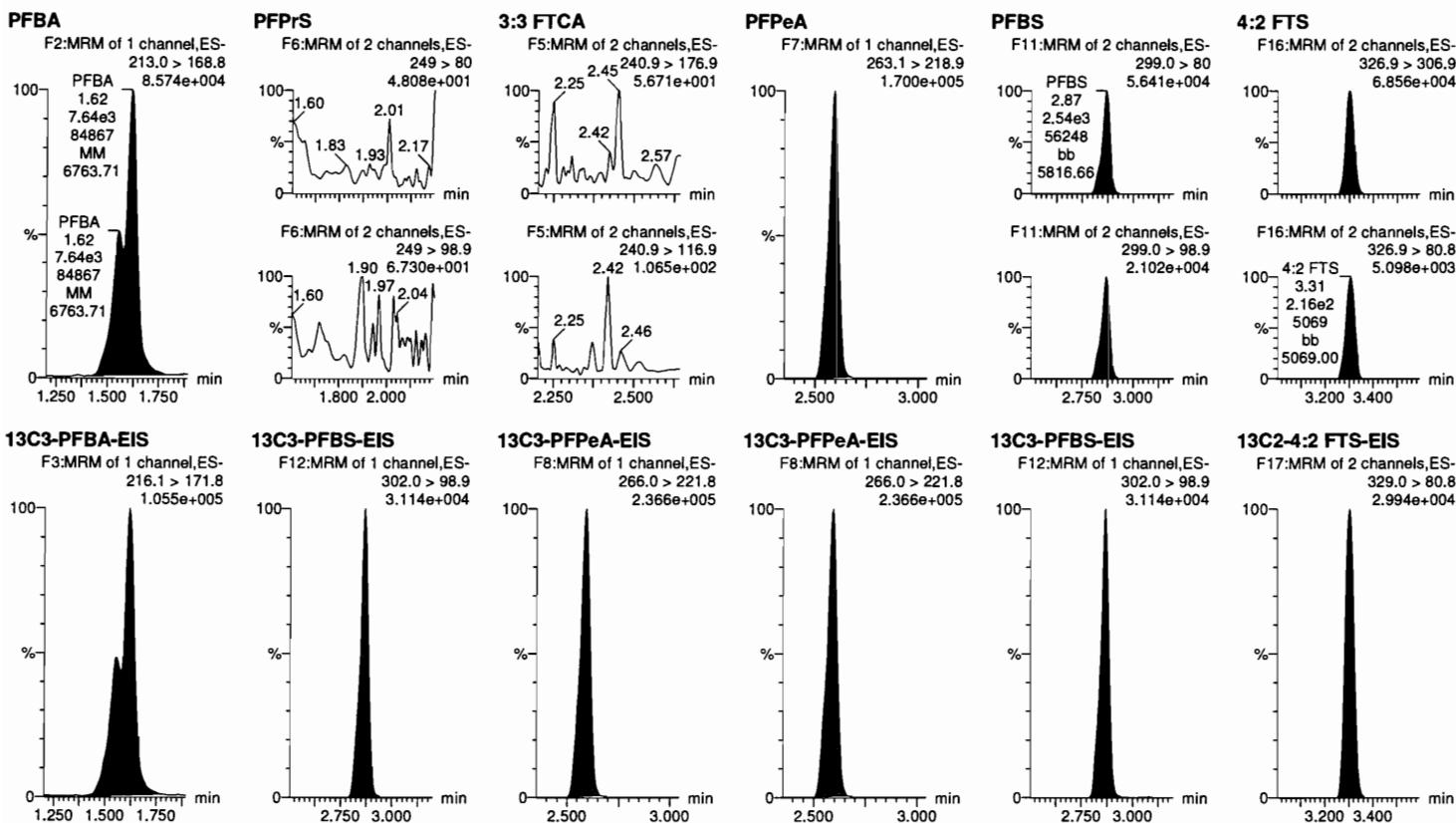
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Printed: Tuesday, July 07, 2020 09:42:05 Pacific Daylight Time

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Name: 200706P1-30, Date: 06-Jul-2020, Time: 15:09:30, ID: ICV200706P1-1 PFC ICV 20F1911, Description: PFC ICV 20F1911



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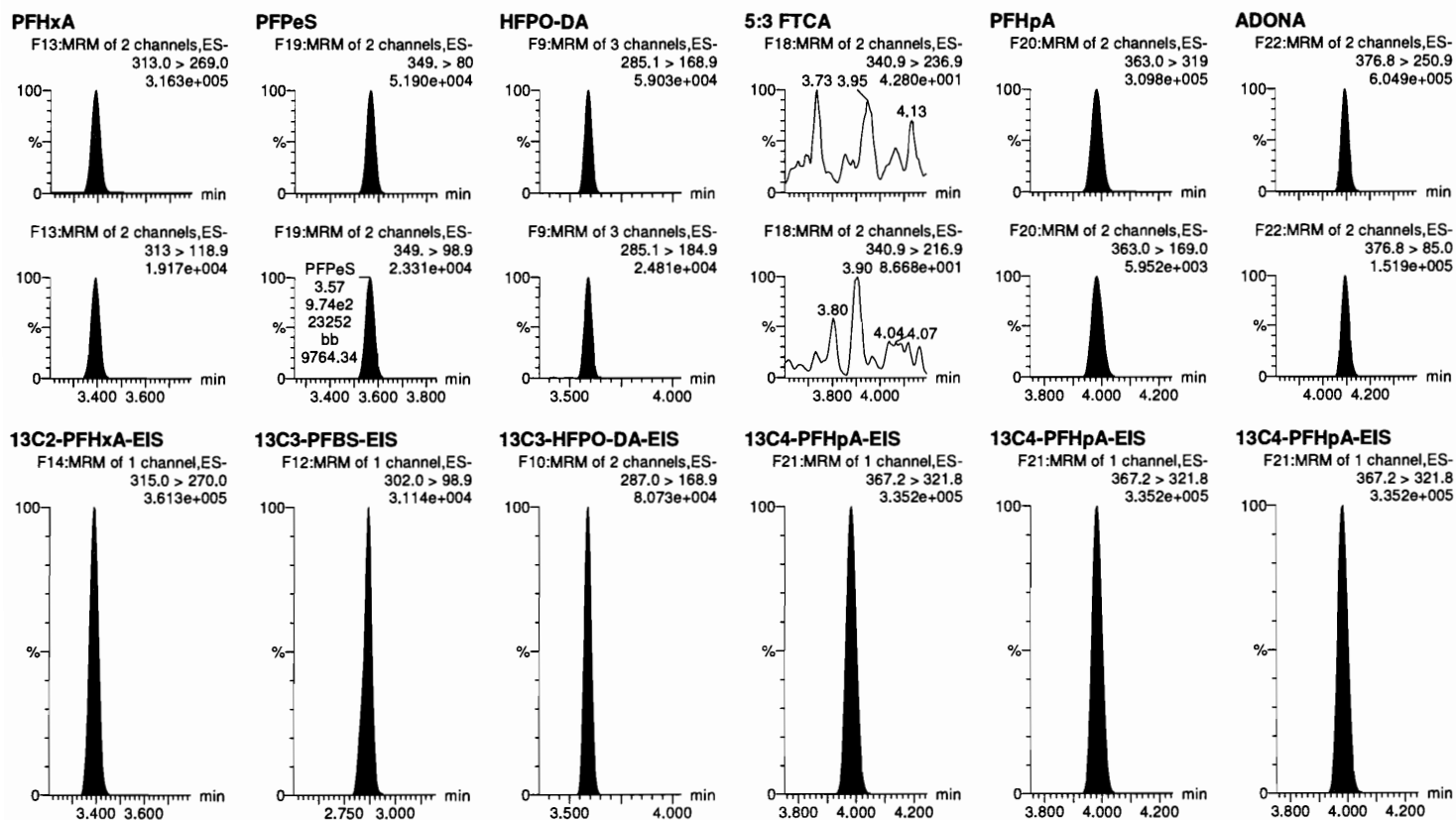
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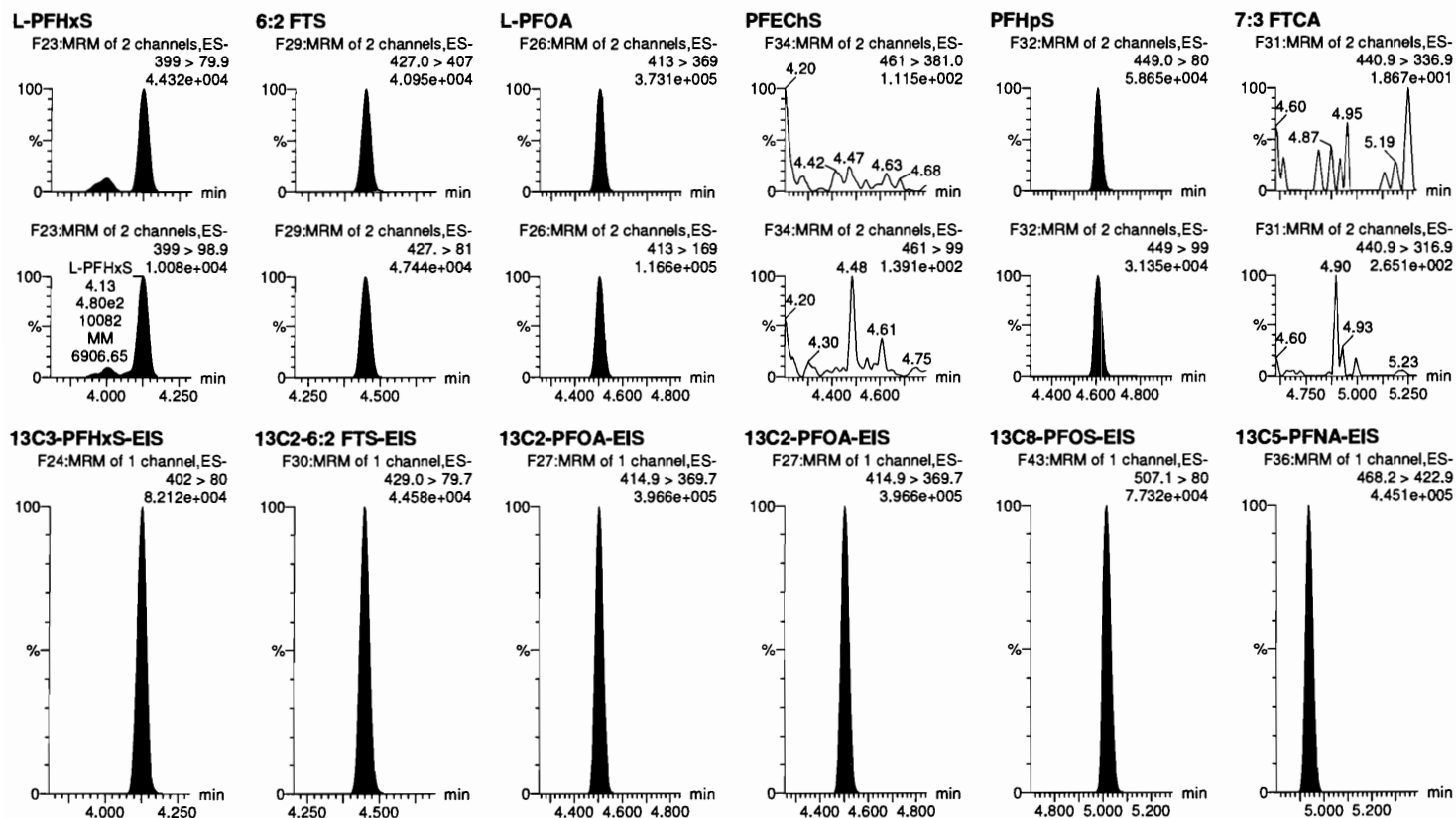
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MassLynx V4.2 SCN977

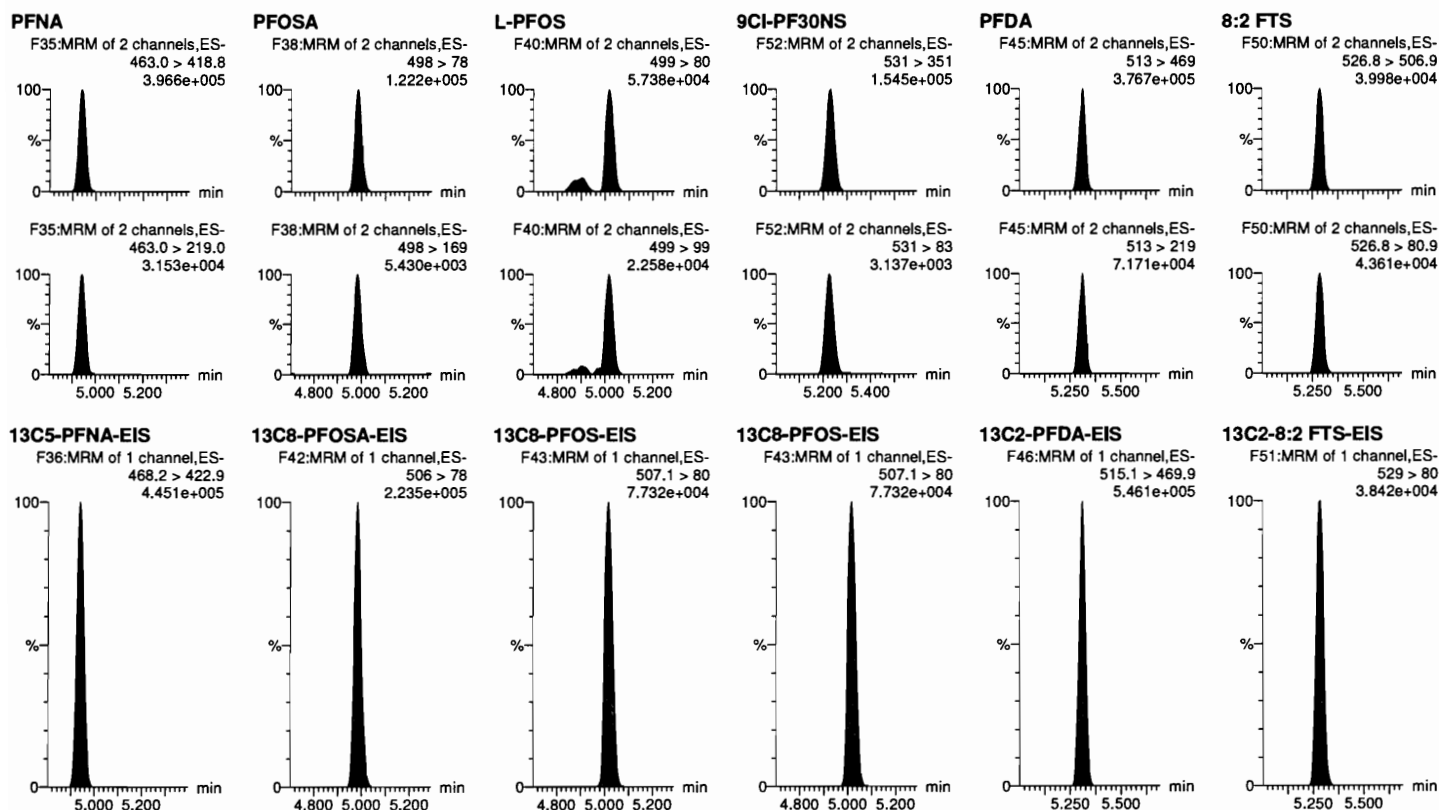
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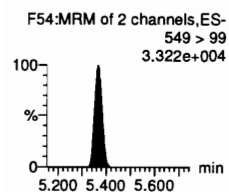
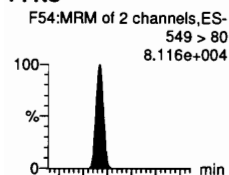
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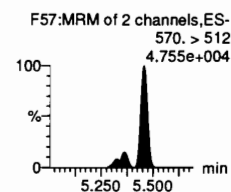
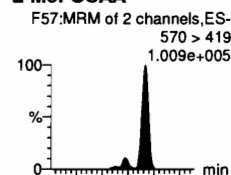
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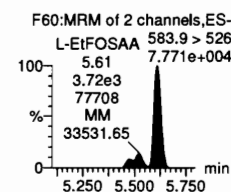
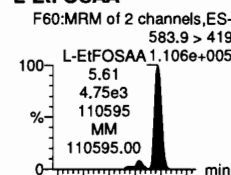
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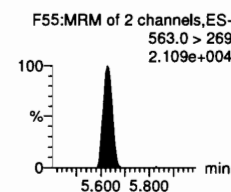
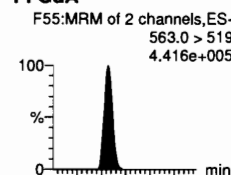
L-MeFOSAA



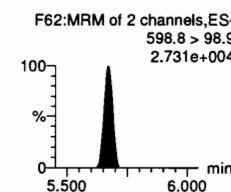
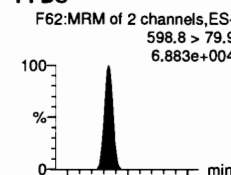
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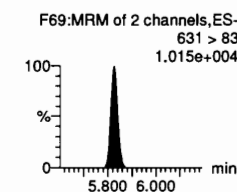
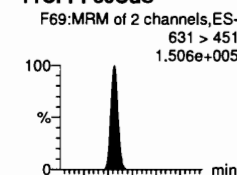
PFUdA



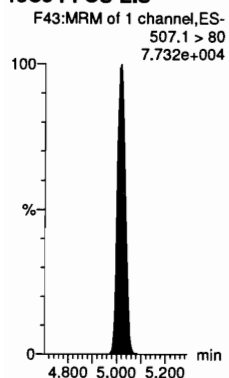
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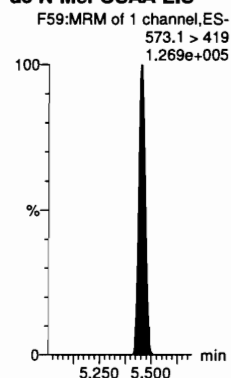
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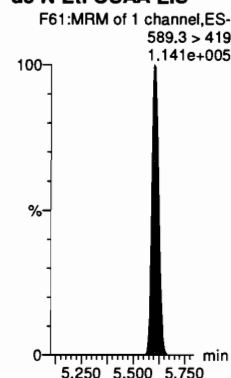
13C8-PFOS-EIS



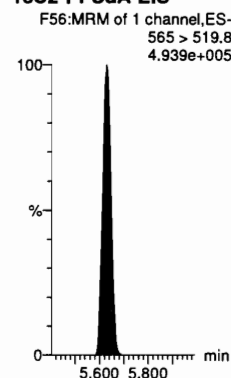
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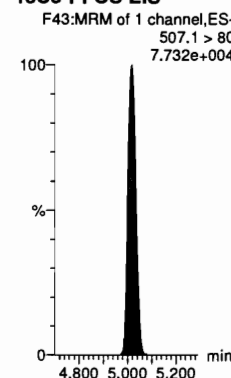
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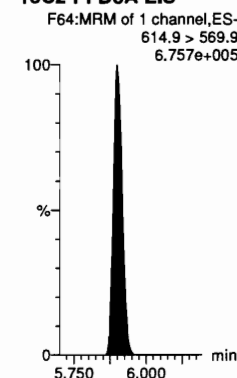
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



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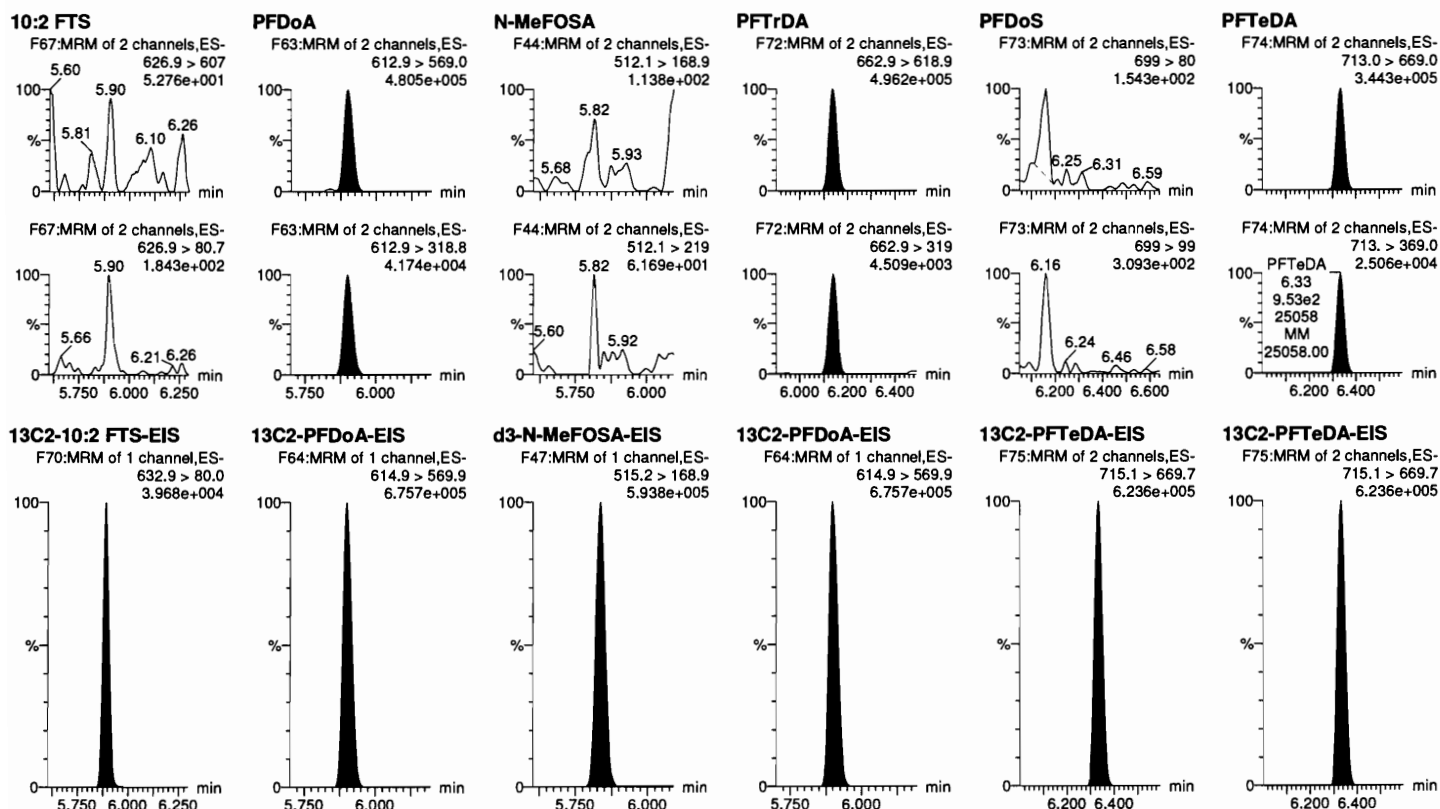
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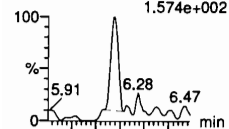
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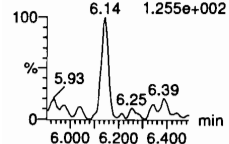
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N-EtFOSA

F49:MRM of 2 channels,ES-
526.1 > 168.9
1.574e+002

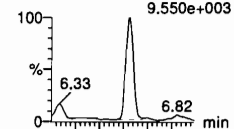


F49:MRM of 2 channels,ES-
526.1 > 219
1.255e+002

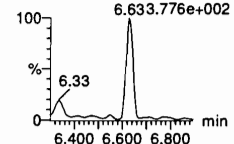


PFHxDA

F76:MRM of 2 channels,ES-
813 > 769
9.550e+003

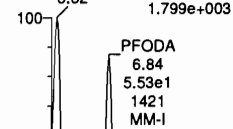


F76:MRM of 2 channels,ES-
813 > 219
6.633.776e+002

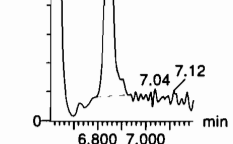


PFODA

F78:MRM of 1 channel,ES-
913.1 > 868.8
1.799e+003

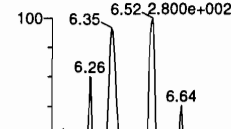


F78:MRM of 1 channel,ES-
913.1 > 769.7
7.306e+005

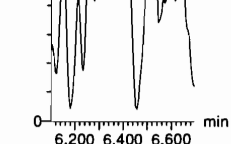


N-MeFOSE

F65:MRM of 1 channel,ES-
616.1 > 58.9
2.800e+002

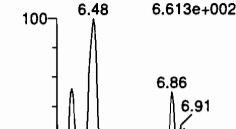


F65:MRM of 1 channel,ES-
623.1 > 58.9
5.322e+005

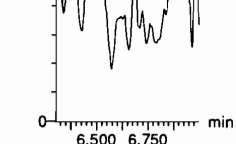


N-EtFOSE

F68:MRM of 1 channel,ES-
630.1 > 58.9
6.613e+002

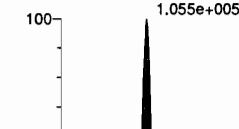


F68:MRM of 1 channel,ES-
639.2 > 58.8
6.308e+005



13C3-PFBA-RSD

F3:MRM of 1 channel,ES-
216.1 > 171.8
1.055e+005



d5-N-ETFOSA-EIS

F53:MRM of 1 channel,ES-
531.1 > 168.9
6.410e+005



13C2-PFHxDA-EIS

F77:MRM of 1 channel,ES-
815 > 769.7
7.306e+005



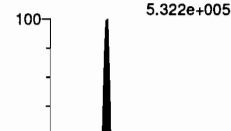
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F77:MRM of 1 channel,ES-
815 > 769.7
7.306e+005



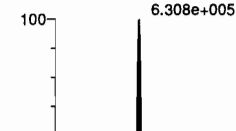
d7-N-MeFOSE-EIS

F66:MRM of 1 channel,ES-
623.1 > 58.9
5.322e+005



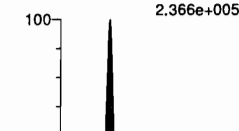
d9-N-EtFOSE-EIS

F71:MRM of 1 channel,ES-
639.2 > 58.8
6.308e+005



13C3-PFPeA-RSD

F8:MRM of 1 channel,ES-
266.0 > 221.8
2.366e+005



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Dataset: D:\PFAS5.PRO\RESULTS\200706P1\200706P1-ICV.qld

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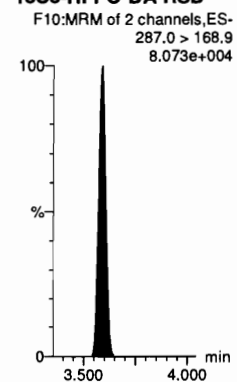
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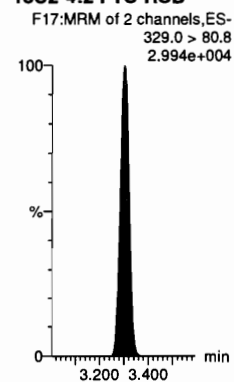
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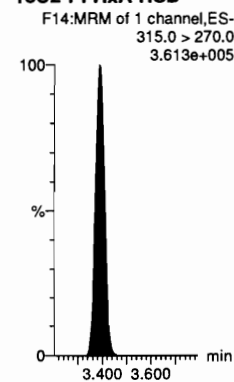
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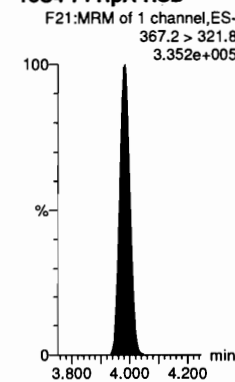
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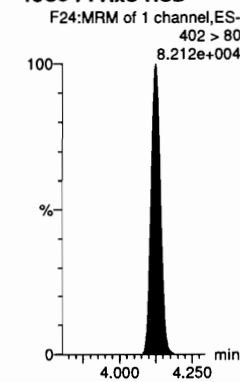
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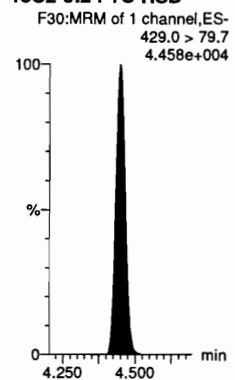
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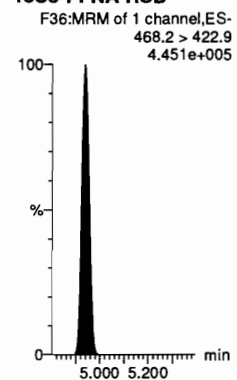
13C3-PFHxS-RSD



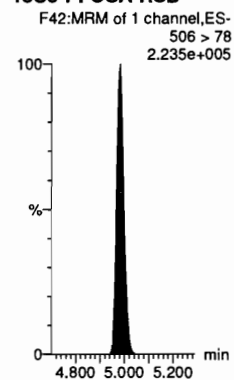
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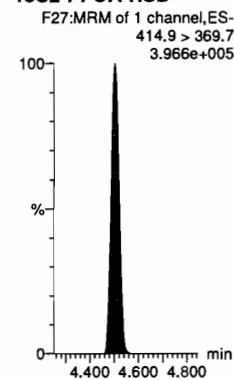
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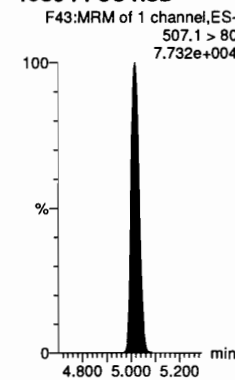
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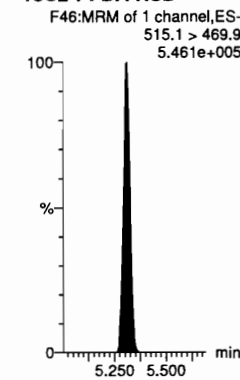
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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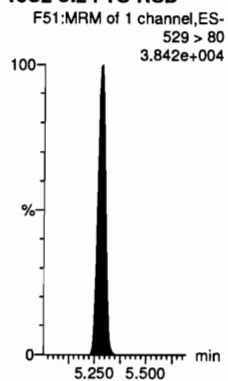
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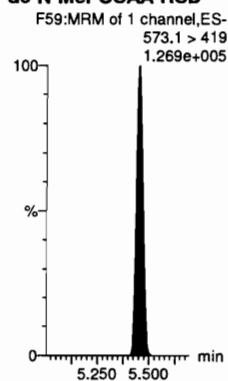
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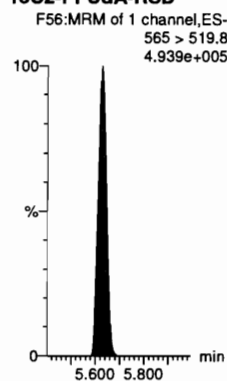
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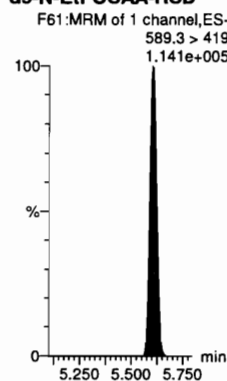
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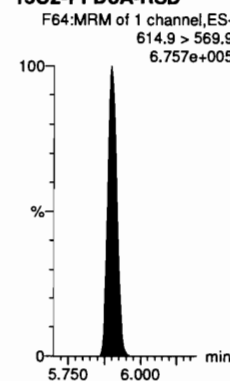
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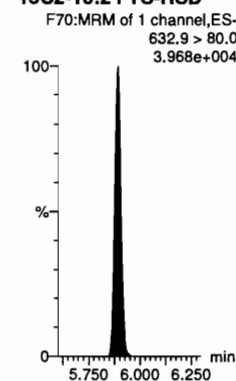
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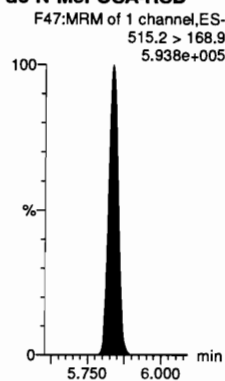
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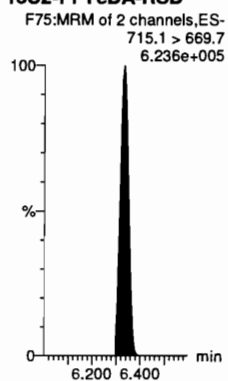
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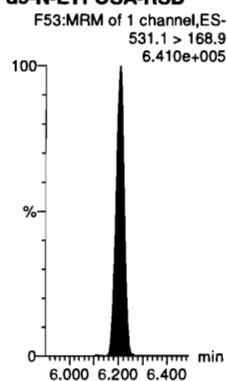
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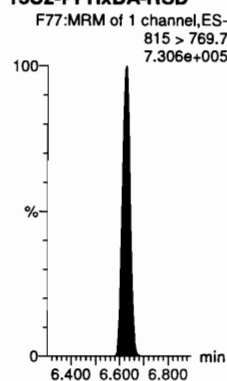
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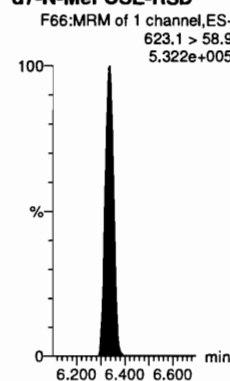
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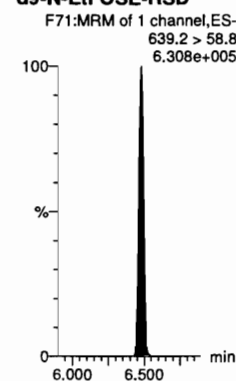
13C2-PFHxDA-RSD



d7-N-MeFOSE-RSD



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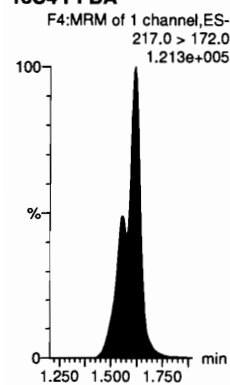
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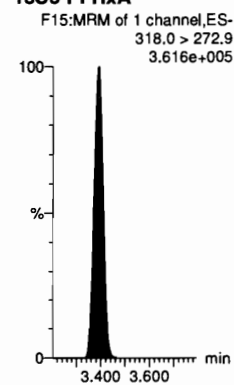
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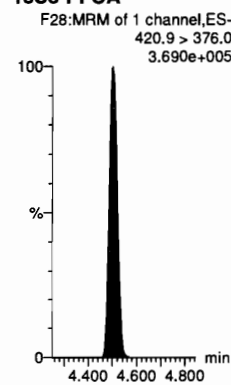
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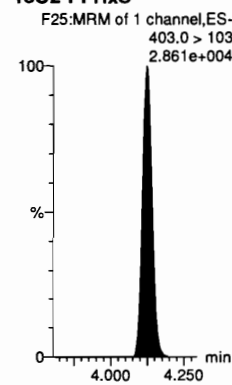
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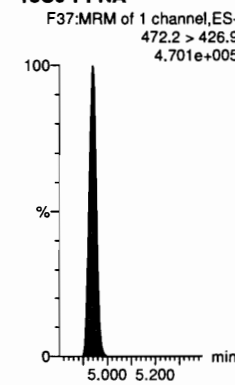
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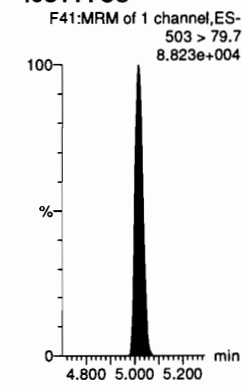
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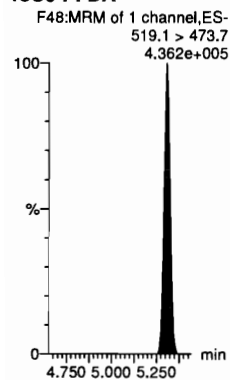
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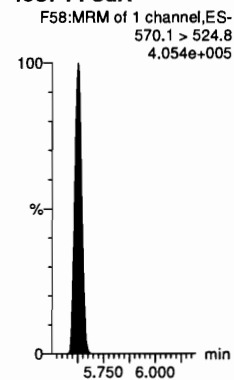
13C4-PFOS



13C6-PFDA



13C7-PFudA



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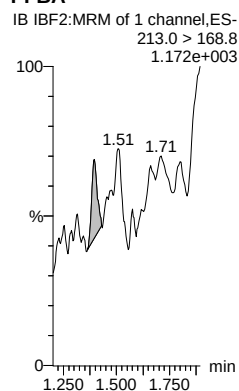
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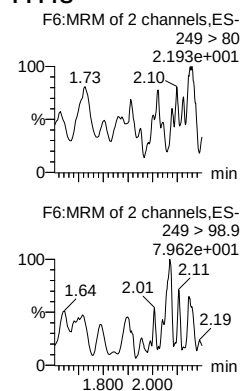
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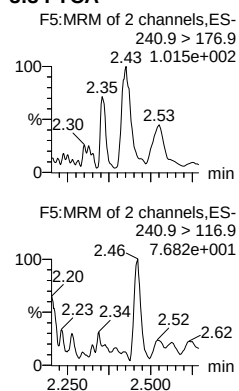
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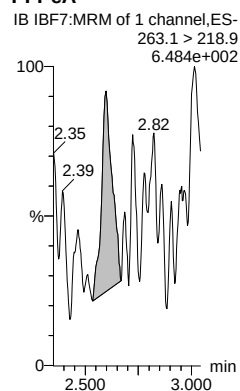
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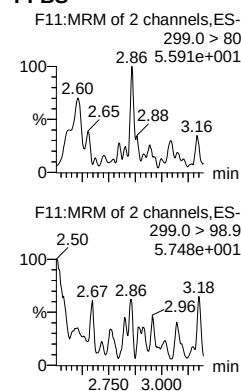
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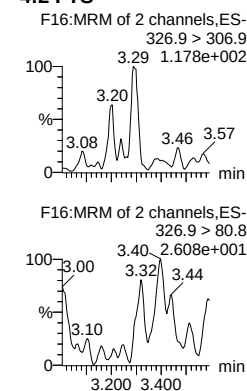
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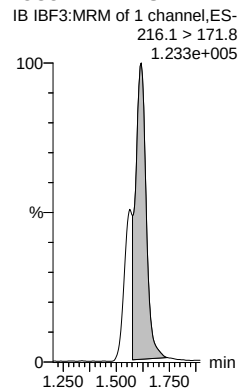
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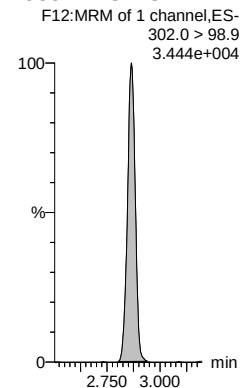
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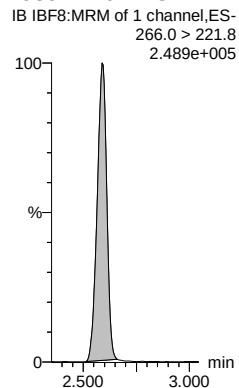
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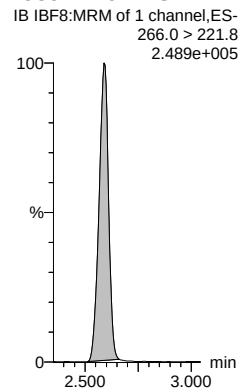
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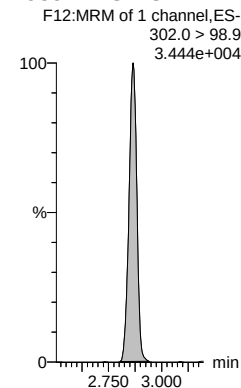
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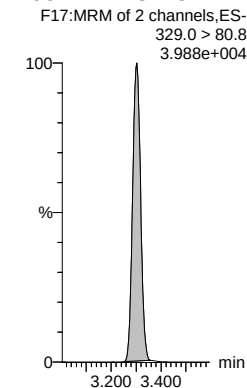
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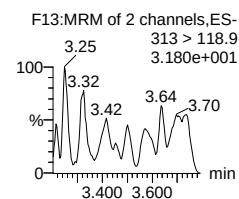
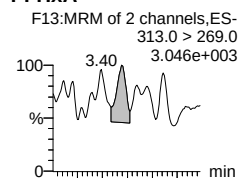
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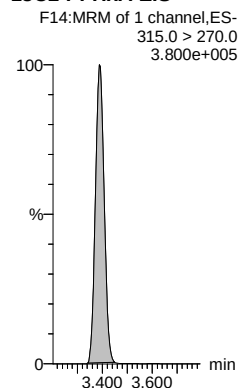
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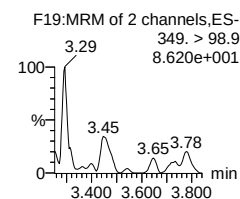
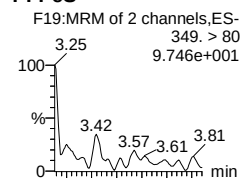
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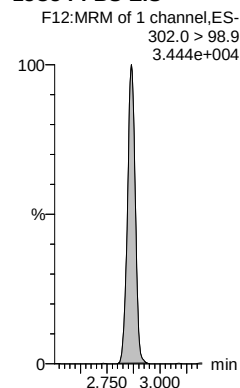
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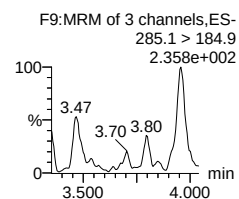
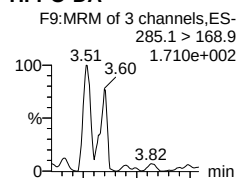
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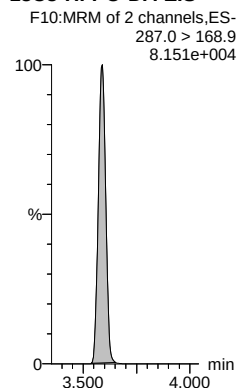
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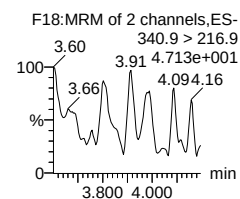
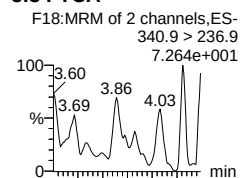
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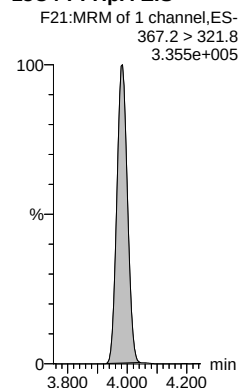
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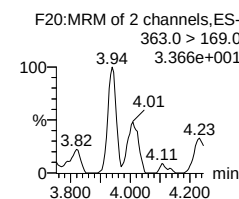
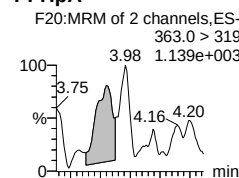
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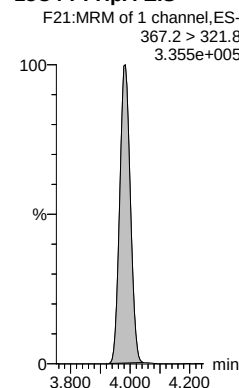
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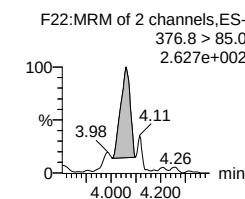
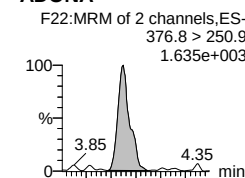
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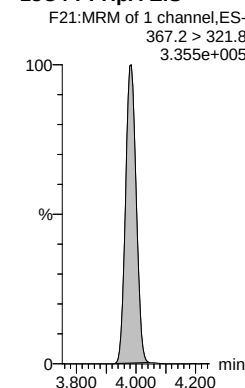
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ADONA



13C4-PFHpA-EIS



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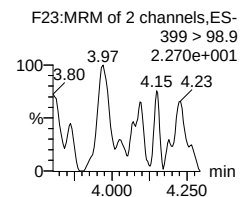
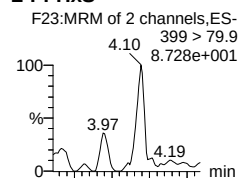
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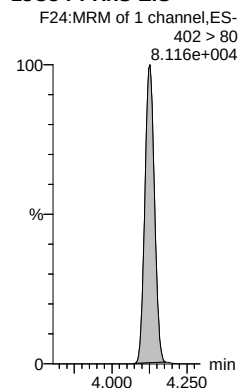
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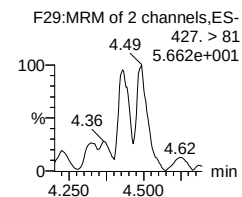
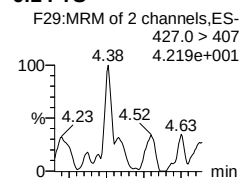
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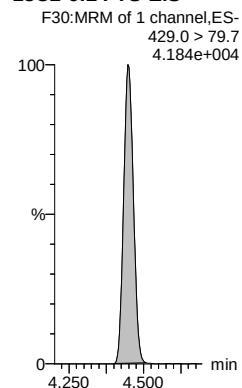
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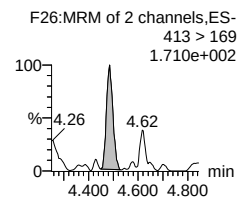
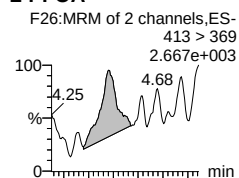
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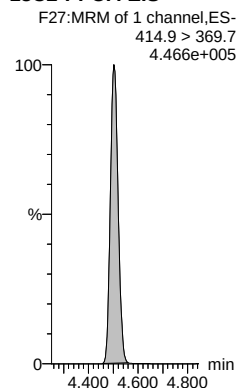
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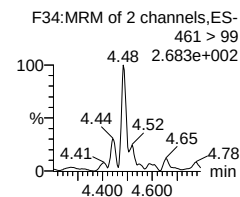
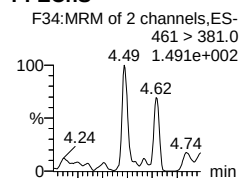
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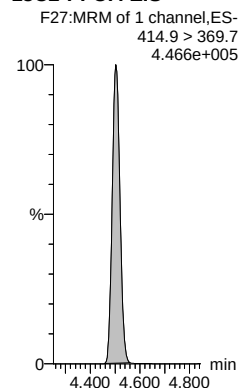
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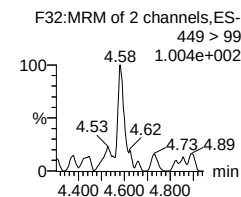
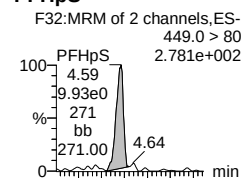
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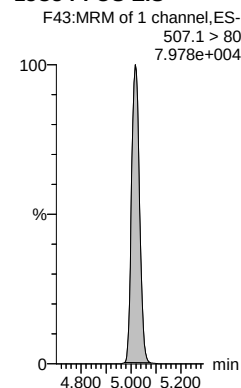
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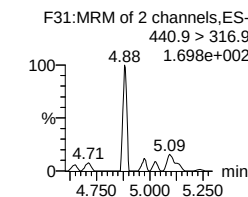
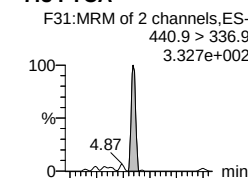
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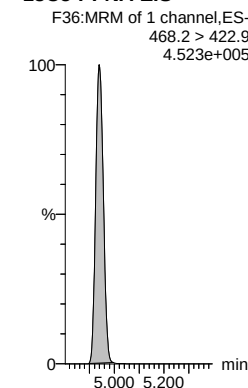
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7:3 FTCA



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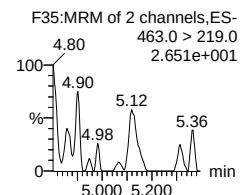
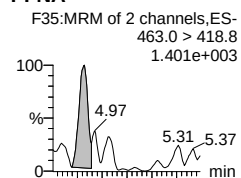
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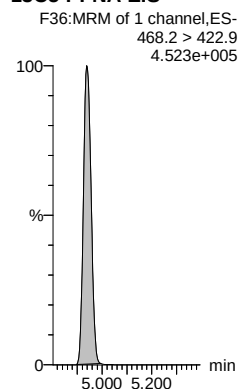
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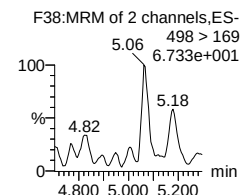
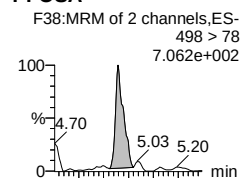
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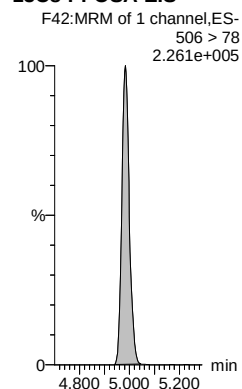
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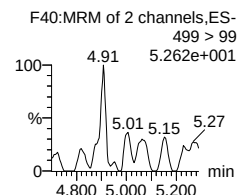
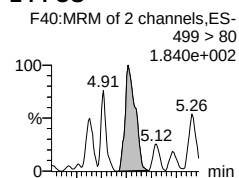
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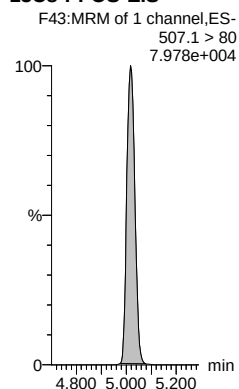
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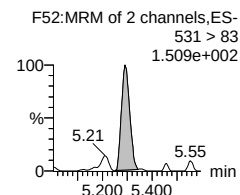
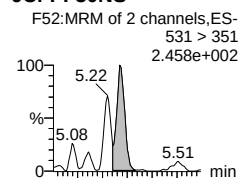
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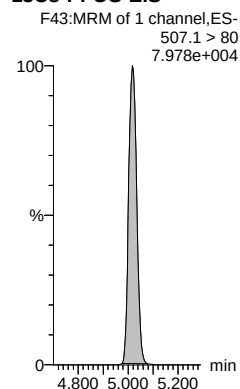
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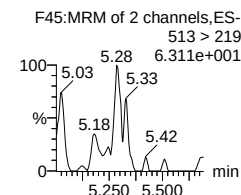
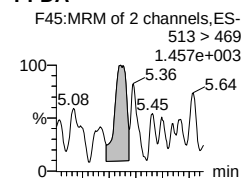
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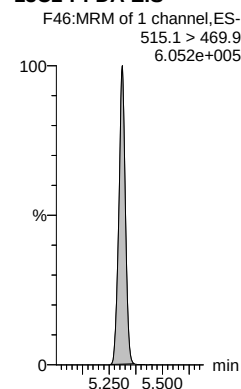
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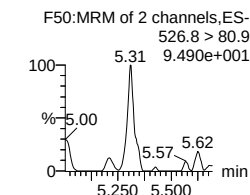
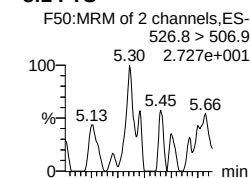
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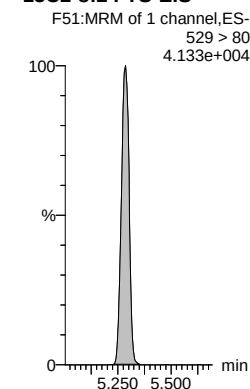
13C2-PFDA-EIS



8:2 FTS



13C2-8:2 FTS-EIS



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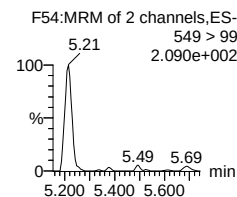
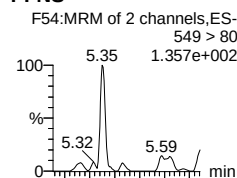
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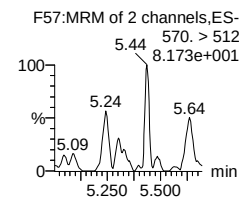
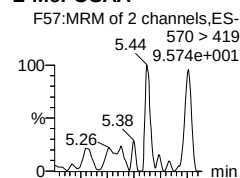
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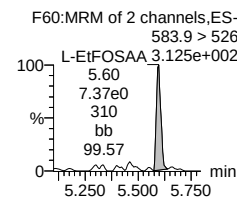
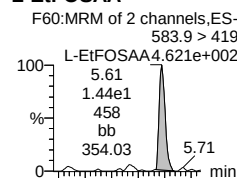
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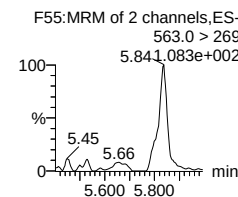
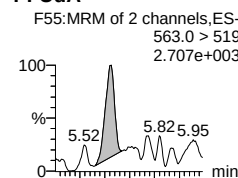
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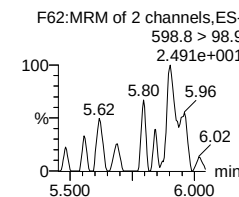
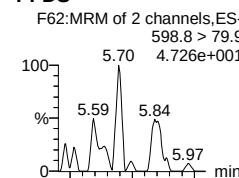
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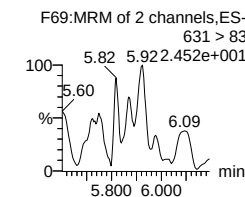
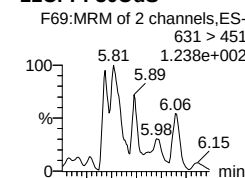
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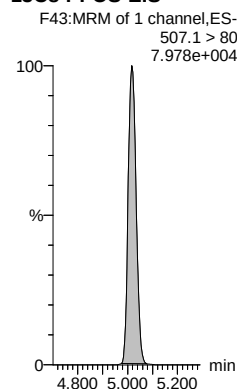
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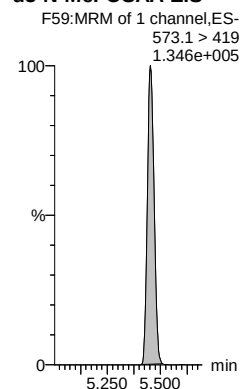
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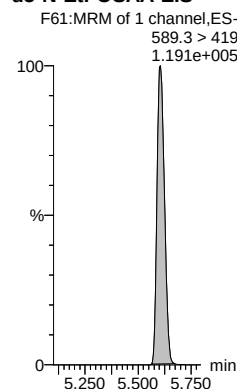
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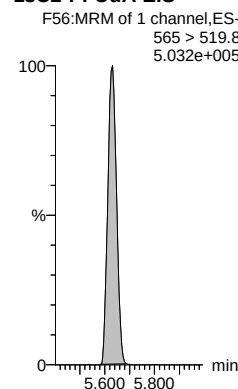
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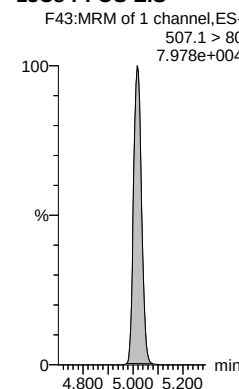
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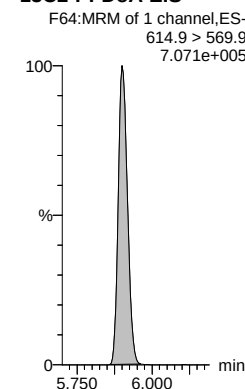
13C2-PFuDA-EIS



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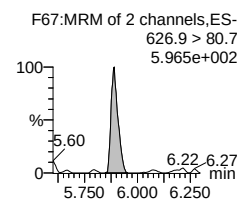
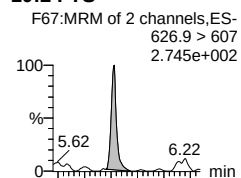
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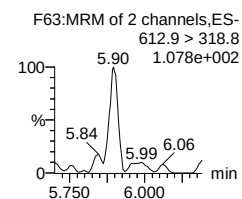
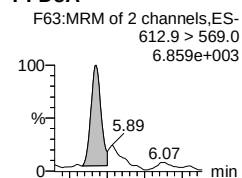
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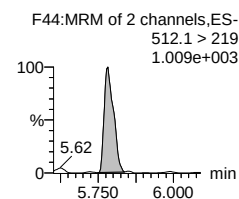
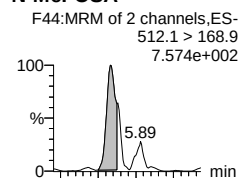
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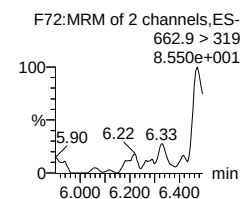
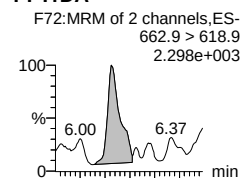
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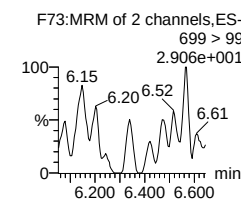
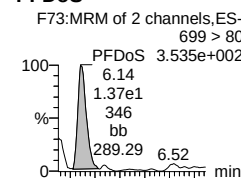
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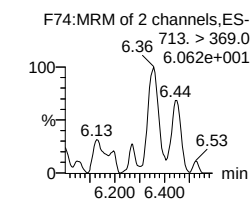
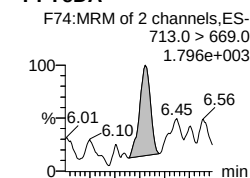
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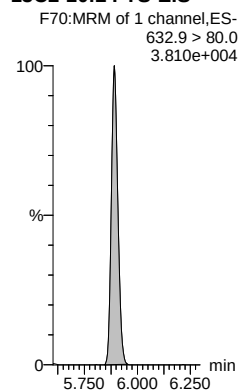
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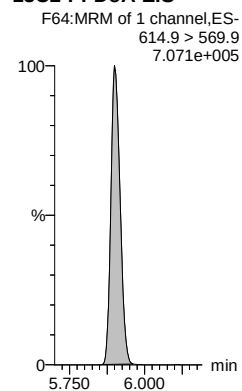
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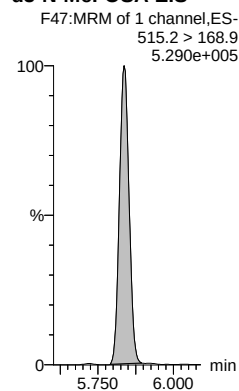
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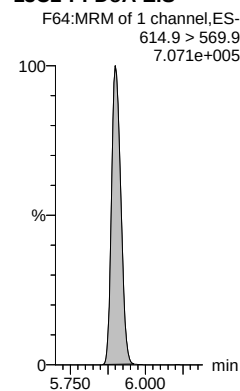
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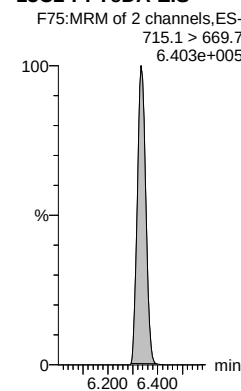
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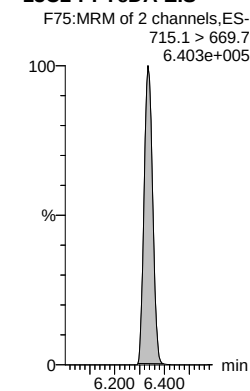
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



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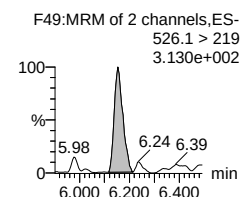
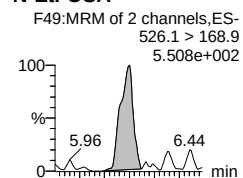
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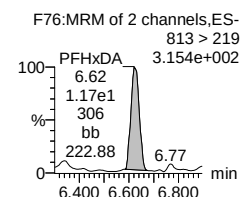
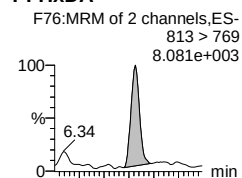
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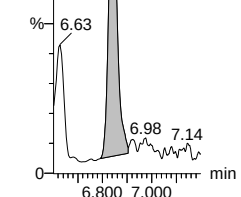
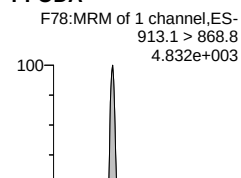
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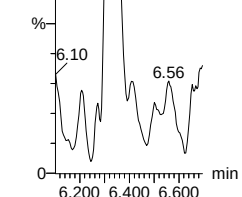
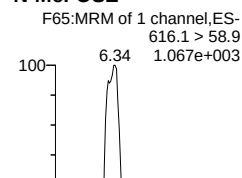
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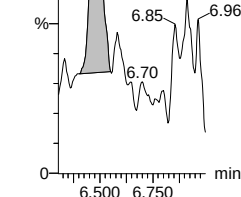
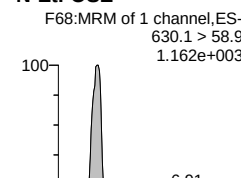
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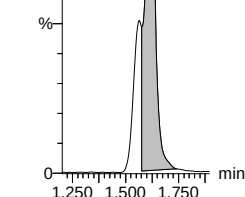
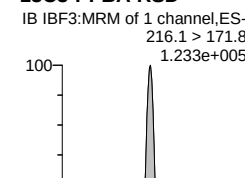
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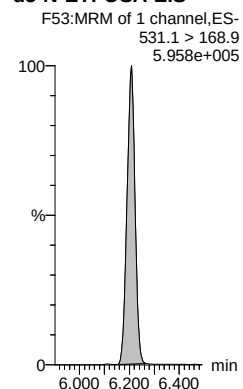
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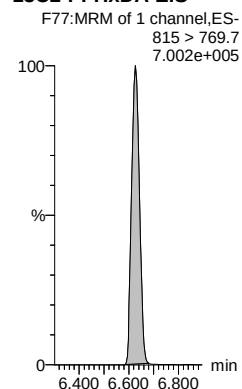
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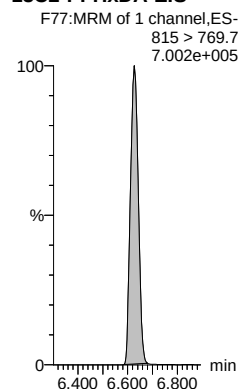
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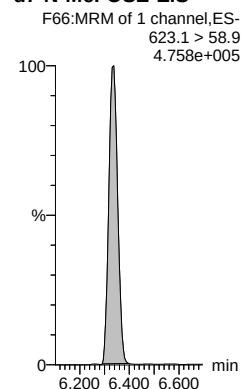
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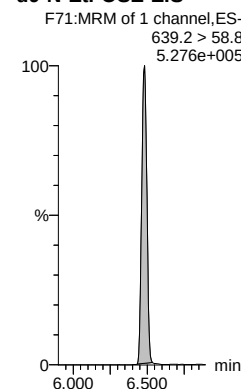
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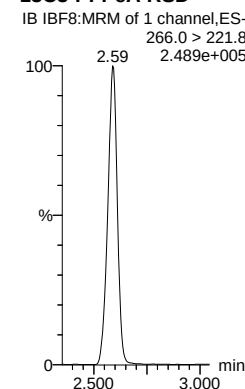
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



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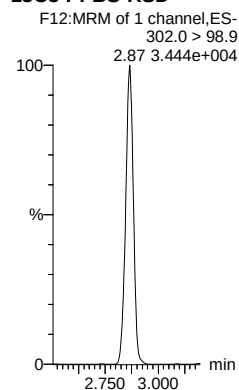
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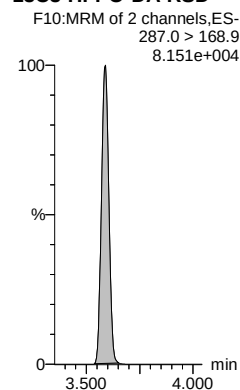
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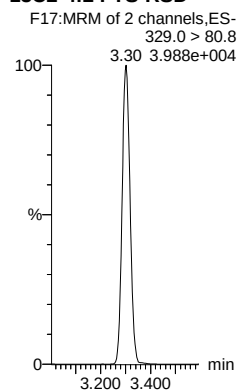
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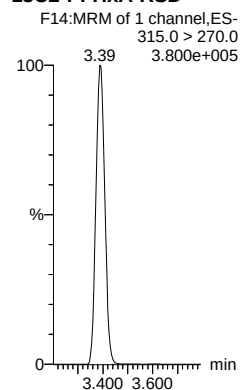
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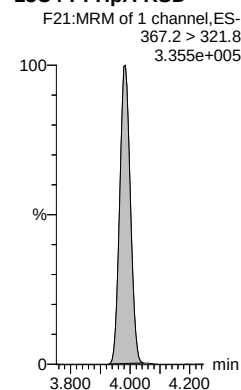
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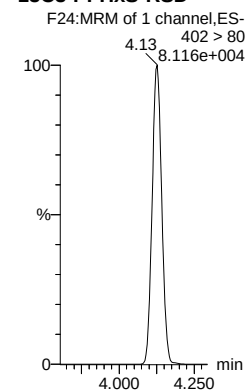
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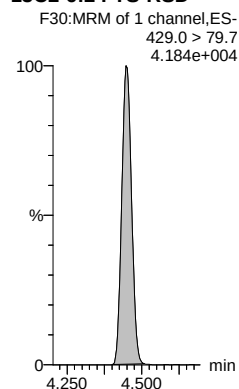
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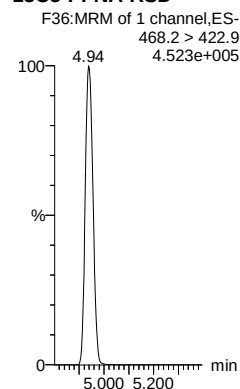
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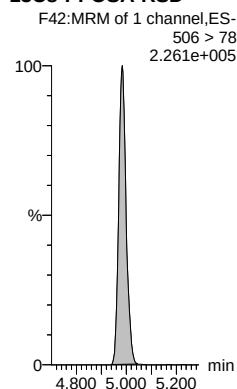
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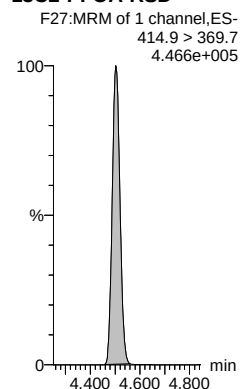
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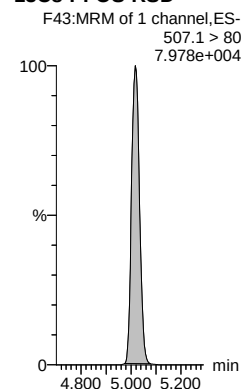
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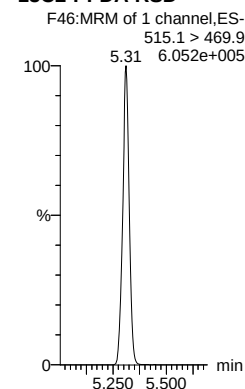
13C2-PFOA-RSD



13C8-PFOS-RSD



13C2-PFDA-RSD



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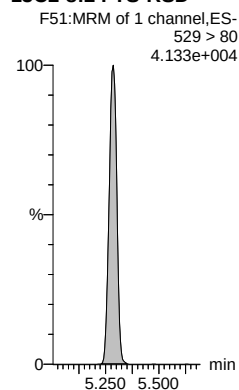
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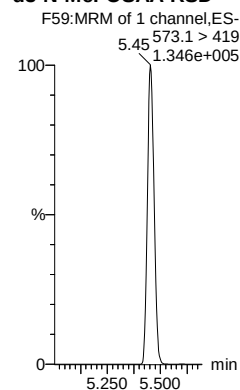
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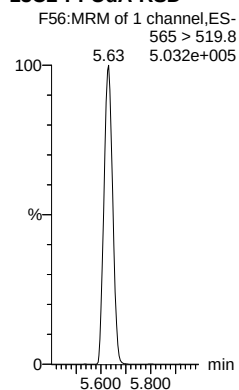
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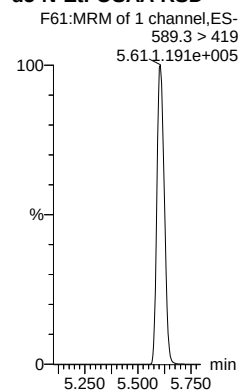
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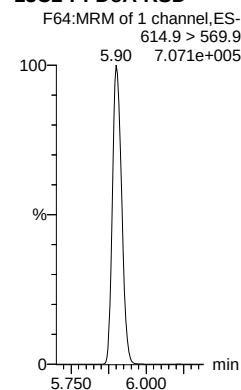
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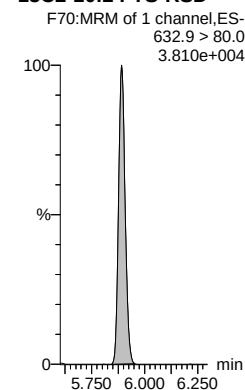
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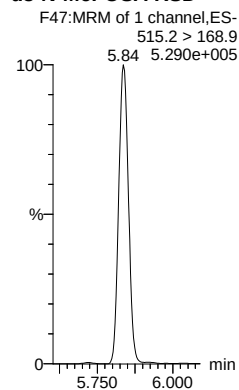
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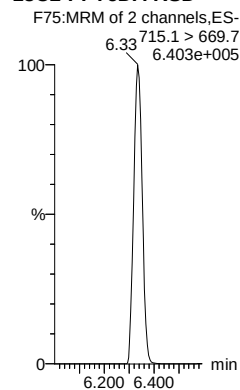
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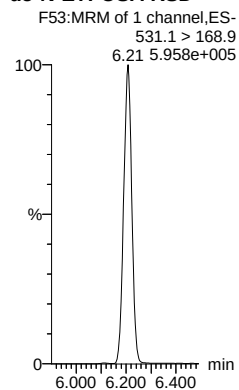
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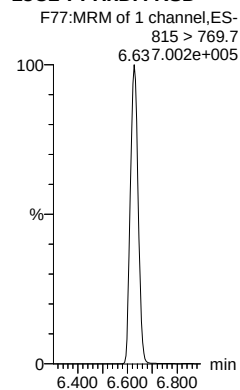
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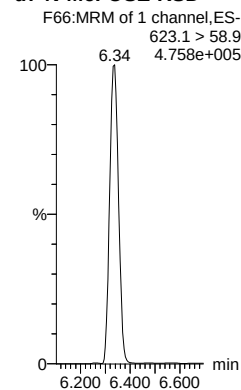
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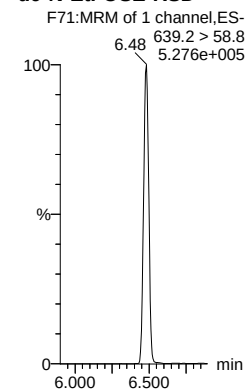
13C2-PFHxDA-RSD



d7-N-MeFOSE-RSD



d9-N-EtFOSE-RSD



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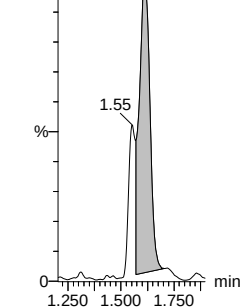
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13C4-PFBA

IB IBF4:MRM of 1 channel,ES-

217.0 > 172.0

1.441e+003

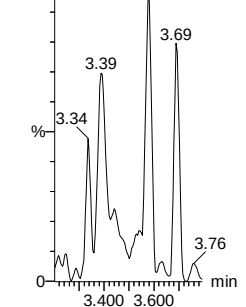


13C5-PFHxA

F15:MRM of 1 channel,ES-

318.0 > 272.9

9.122e+001

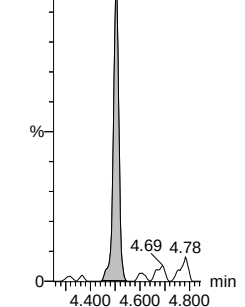


13C8-PFOA

F28:MRM of 1 channel,ES-

420.9 > 376.0

3.483e+002

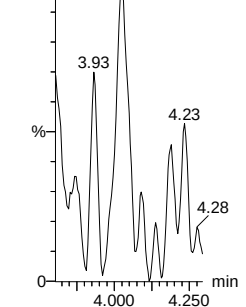


18O2-PFHxS

F25:MRM of 1 channel,ES-

403.0 > 103

2.509e+001

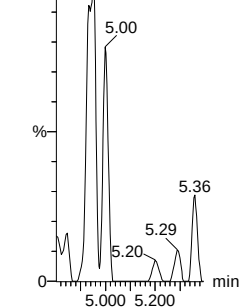


13C9-PFNA

F37:MRM of 1 channel,ES-

472.2 > 426.9

6.655e+001

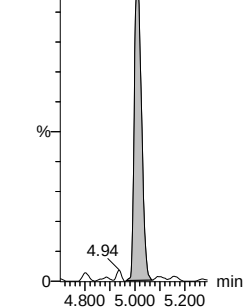


13C4-PFOS

F41:MRM of 1 channel,ES-

503 > 79.7

5.909e+002

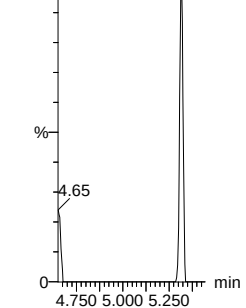


13C6-PFDA

F48:MRM of 1 channel,ES-

519.1 > 473.7

2.117e+002

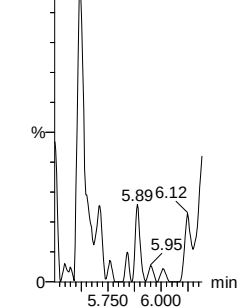


13C7-PFUDa

F58:MRM of 1 channel,ES-

570.1 > 524.8

7.186e+001



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Dataset: Untitled

Last Altered: Tuesday, July 07, 2020 10:17:16 Pacific Daylight Time

Printed: Tuesday, July 07, 2020 10:17:38 Pacific Daylight Time

Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1 PFBA	213.0 > 168.8	9.237	7031.754	1.00	1.40	0.016						
2	2 PFPrS	249 > 80		1445.272	1.00								YES
3	3 3:3 FTCA	240.9 > 176.9		12721.932	1.00								YES
4	4 PFPeA	263.1 > 218.9	25.230	12721.932	1.00	2.60	0.025		0.0220				
5	5 PFBS	299.0 > 80		1445.272	1.00								YES
6	6 4:2 FTS	326.9 > 306.9		1446.075	1.00								YES
7	47 13C3-PFBA-EIS	216.1 > 171.8	7031.754		1.00	1.62	7031.754	12.500	10.2	81.6			
8	51 13C3-PFBS-EIS	302.0 > 98.9	1445.272		1.00	2.87	1445.272	12.500	13.9	111.2			
9	49 13C3-PFPeA-EIS	266.0 > 221.8	12721.932		1.00	2.59	12721.932	12.500	13.2	105.8			
10	49 13C3-PFPeA-EIS	266.0 > 221.8	12721.932		1.00	2.59	12721.932	12.500	13.2	105.8			
11	51 13C3-PFBS-EIS	302.0 > 98.9	1445.272		1.00	2.87	1445.272	12.500	13.9	111.2			
12	55 13C2-4:2 FTS-EIS	329.0 > 80.8	1446.075		1.00	3.30	1446.075	12.500	14.3	114.6			
13	-1												
14	7 PFHxA	313.0 > 269.0	72.555	15300.678	1.00	3.48	0.059						YES
15	8 PFPeS	349.>80		1445.272	1.00								YES
16	9 HFPO-DA	285.1 > 168.9		3189.258	1.00								YES
17	10 5:3 FTCA	340.9 > 236.9		13649.274	1.00								YES
18	11 PFHpA	363.0 > 319	52.108	13649.274	1.00	3.92	0.048		0.00883				YES
19	12 ADONA	376.8 > 250.9	88.752	13649.274	1.00	4.05	0.081		0.00188			8.841	YES
20	57 13C2-PFHxA-EIS	315.0 > 270.0	15300.678		1.00	3.39	15300.678	12.500	14.0	112.3			
21	51 13C3-PFBS-EIS	302.0 > 98.9	1445.272		1.00	2.87	1445.272	12.500	13.9	111.2			
22	53 13C3-HFPO-DA-EIS	287.0 > 168.9	3189.258		1.00	3.59	3189.258	12.500	14.0	111.8			
23	59 13C4-PFHpA-EIS	367.2 > 321.8	13649.274		1.00	3.98	13649.274	12.500	13.9	111.1			
24	59 13C4-PFHpA-EIS	367.2 > 321.8	13649.274		1.00	3.98	13649.274	12.500	13.9	111.1			
25	59 13C4-PFHpA-EIS	367.2 > 321.8	13649.274		1.00	3.98	13649.274	12.500	13.9	111.1			
26	-1												
27	13 L-PFHxS	399 > 79.9		2956.690	1.00								YES
28	15 6:2 FTS	427.0 > 407		1567.986	1.00								YES
29	16 L-PFOA	413 > 369	129.786	15770.835	1.00	4.48	0.103		0.0430			25.854	YES
30	18 PFecHS	461 > 381.0		15770.835	1.00								YES
31	19 PFHpS	449.0 > 80	9.934	2919.588	1.00	4.59	0.043		0.0384				YES
32	20 7:3 FTCA	440.9 > 336.9	7.772	16049.925	1.00	4.92	0.006		0.0180				YES
33	61 13C3-PFHxS-EIS	402 > 80	2956.690		1.00	4.13	2956.690	12.500	13.4	107.5			
34	63 13C2-6:2 FTS-EIS	429.0 > 79.7	1567.986		1.00	4.45	1567.986	12.500	12.2	97.4			
35	69 13C2-PFOA-EIS	414.9 > 369.7	15770.835		1.00	4.50	15770.835	12.500	13.7	109.3			
36	69 13C2-PFOA-EIS	414.9 > 369.7	15770.835		1.00	4.50	15770.835	12.500	13.7	109.3			

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Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
38	65 13C5-PFNA-EIS	468.2 > 422.9	16049.925		1.00	4.94	16049.925	12.500	13.2	105.8	NO		
39	-1												
40	21 PFNA	463.0 > 418.8	57.165	16049.925	1.00	4.93	0.045		0.0224		NO		YES
41	22 PFOSA	498 > 78	25.110	7728.135	1.00	4.96	0.041		0.0514		NO		YES
42	23 L-PFOS	499 > 80	8.560	2919.588	1.00	5.01	0.037		0.103		NO		YES
43	25 9CI-PF30NS	531 > 351	9.123	2919.588	1.00	5.27	0.039		0.00792		NO	1.599	YES
44	26 PFDA	513 > 469	85.108	21328.793	1.00	5.30	0.050		0.00680		NO		YES
45	27 8:2 FTS	526.8 > 506.9		1698.056	1.00						NO		YES
46	65 13C5-PFNA-EIS	468.2 > 422.9	16049.925		1.00	4.94	16049.925	12.500	13.2	105.8	NO		
47	67 13C8-PFOSA-EIS	506 > 78	7728.135		1.00	4.98	7728.135	12.500	13.5	108.2	NO		
48	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
49	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
50	73 13C2-PFDA-EIS	515.1 > 469.9	21328.793		1.00	5.31	21328.793	12.500	14.3	114.4	NO		
51	75 13C2-8:2 FTS-EIS	529 > 80	1698.056		1.00	5.29	1698.056	12.500	15.4	123.1	NO		
52	-1												
53	28 PFNS	549 > 80		2919.588	1.00						NO		YES
54	29 L-MeFOSAA	570 > 419		4765.928	1.00						NO		YES
55	31 L-EtFOSAA	583.9 > 419	14.370	4706.535	1.00	5.61	0.038		0.0729		NO	1.950	NO
56	33 PFUdA	563.0 > 519	100.840	20308.568	1.00	5.63	0.062		0.0393		NO		YES
57	34 PFDS	598.8 > 79.9		2919.588	1.00						NO		YES
58	35 11CI-PF30UdS	631 > 451		24925.619	1.00						NO		YES
59	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
60	77 d3-N-MeFOSAA-EIS	573.1 > 419	4765.928		1.00	5.45	4765.928	12.500	14.4	115.1	NO		
61	81 d5-N-EtFOSAA-EIS	589.3 > 419	4706.535		1.00	5.61	4706.535	12.500	15.0	119.9	NO		
62	79 13C2-PFUdA-EIS	565 > 519.8	20308.568		1.00	5.63	20308.568	12.500	12.8	102.7	NO		
63	71 13C8-PFOS-EIS	507.1 > 80	2919.588		1.00	5.02	2919.588	12.500	12.9	103.6	NO		
64	83 13C2-PFDoA-EIS	614.9 > 569.9	24925.619		1.00	5.90	24925.619	12.500	13.3	106.7	NO		
65	-1												
66	36 10:2 FTS	626.9 > 607	7.920	1352.273	1.00	5.89	0.073				NO	0.352	NO
67	37 PFDoA	612.9 > 569.0	251.215	24925.619	1.00	5.84	0.126		0.123		NO		YES
68	38 N-MeFOSA	512.1 > 168.9	24.563	19283.832	1.00	5.79	0.190		0.115		NO	0.693	YES
69	39 PFTrDA	662.9 > 618.9	124.413	24925.619	1.00	6.13	0.062		0.0581		NO		YES
70	40 PFDoS	699 > 80	13.725	24932.619	1.00	6.14	0.007		0.0634		NO		YES
71	41 PFTeDA	713.0 > 669.0	77.320	24932.619	1.00	6.32	0.039				NO		YES
72	85 13C2-10:2 FTS-EIS	632.9 > 80.0	1352.273		1.00	5.89	1352.273	12.500	12.4	99.6	NO		

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Name: 200706P1-29, Date: 06-Jul-2020, Time: 14:58:58, ID: IB, Description: IB

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83 13C2-PFDoA-EIS	614.9 > 569.9	24925.619		1.00	5.90	24925.619	12.500	13.3	106.7	NO		
74	87 d3-N-MeFOSA-EIS	515.2 > 168.9	19283.832		1.00	5.84	19283.832	149.200	139	93.4	NO		
75	83 13C2-PFDoA-EIS	614.9 > 569.9	24925.619		1.00	5.90	24925.619	12.500	13.3	106.7	NO		
76	89 13C2-PFTEA-EIS	715.1 > 669.7	24932.619		1.00	6.33	24932.619	12.500	13.1	104.7	NO		
77	89 13C2-PFTEA-EIS	715.1 > 669.7	24932.619		1.00	6.33	24932.619	12.500	13.1	104.7	NO		
78	-1												
79	42 N-EtFOSA	526.1 > 168.9	32.074	22029.455	1.00	6.20	0.217		0.279		NO	2.593	NO
80	43 PFHxDA	813 > 769	298.843	25212.395	1.00	6.63	0.148				NO	25.568	NO
81	44 PFODA	913.1 > 868.8	179.740	25212.395	1.00	6.84	0.089		0.0930		NO		
82	45 N-MeFOSE	616.1 > 58.9		19306.602	1.00						NO		
83	46 N-EtFOSE	630.1 > 58.9	49.654	20422.244	1.00	6.49	0.363		0.0274		NO		
84	48 13C3-PFBA-RSD	216.1 > 171.8	7031.754	81.232	1.00	1.62	1082.048	12.500	1270	10132.7	YES		
85	91 d5-N-ETFOSA-EIS	531.1 > 168.9	22029.455		1.00	6.21	22029.455	149.200	142	95.1	NO		
86	93 13C2-PFHxDA-EIS	815 > 769.7	25212.395		1.00	6.63	25212.395	12.500	12.0	95.6	NO		
87	93 13C2-PFHxDA-EIS	815 > 769.7	25212.395		1.00	6.63	25212.395	12.500	12.0	95.6	NO		
88	95 d7-N-MeFOSE-EIS	623.1 > 58.9	19306.602		1.00	6.34	19306.602	149.200	143	96.0	NO		
89	97 d9-N-EtFOSE-EIS	639.2 > 58.8	20422.244		1.00	6.48	20422.244	149.200	137	92.0	NO		
90	50 13C3-PFPeA-RSD	266.0 > 221.8			1.00			12.500			NO		
91	-1												
92	52 13C3-PFBS-RSD	302.0 > 98.9			1.00			12.500			NO		
93	54 13C3-HFPO-DA-RSD	287.0 > 168.9	3189.258		1.00	3.59		12.500			NO		
94	56 13C2-4:2 FTS-RSD	329.0 > 80.8			1.00			12.500			NO		
95	58 13C2-PFHxA-RSD	315.0 > 270.0			1.00			12.500			NO		
96	60 13C4-PFHpA-RSD	367.2 > 321.8	13649.274		1.00	3.98		12.500			NO		
97	62 13C3-PFHxS-RSD	402 > 80			1.00			12.500			NO		
98	64 13C2-6:2 FTS-RSD	429.0 > 79.7	1567.986	19.889	1.00	4.45	985.461	12.500	2080	16676.0	YES		
99	66 13C5-PFNA-RSD	468.2 > 422.9			1.00			12.500			NO		
100	68 13C8-PFOA-RSD	506 > 78	7728.135		1.00	4.98		12.500			NO		
101	70 13C2-PFOA-RSD	414.9 > 369.7	15770.835	8.783	1.00	4.50	22445.114	12.500	20500	16418...	YES		
102	72 13C8-PFOS-RSD	507.1 > 80	2919.588	19.889	1.00	5.02	1834.926	12.500	2100	16783.2	YES		
103	74 13C2-PFDA-RSD	515.1 > 469.9			1.00			12.500			NO		
104	-1												
105	76 13C2-8:2 FTS-RSD	529 > 80	1698.056	19.889	1.00	5.29	1067.208	12.500	2340	18699.8	YES		
106	78 d3-N-MeFOSAA-RSD	573.1 > 419			1.00			12.500			NO		
107	80 13C2-PFUDa-RSD	565 > 519.8			1.00			12.500			NO		
108	82 d5-N-EtFOSAA-RSD	589.3 > 419			1.00			12.500			NO		

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	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	84	13C2-PFDa-RSD	614.9 > 569.9			1.00			12.500					
110	86	13C2-10:2 FTS-RSD	632.9 > 80.0	1352.273	19.889	1.00	5.89	849.888	12.500	2210	17709.6	YES		
111	88	d3-N-MeFOSA-RSD	515.2 > 168.9			1.00			149.200					
112	90	13C2-PFTeDA-RSD	715.1 > 669.7			1.00			12.500					
113	92	d5-N-ETFOSA-RSD	531.1 > 168.9			1.00			149.200					
114	94	13C2-PFHxDA-RSD	815 > 769.7			1.00			12.500					
115	96	d7-N-MeFOSE-RSD	623.1 > 58.9			1.00			149.200					
116	98	d9-N-EtFOSE-RSD	639.2 > 58.8			1.00			149.200					
117	-1													
118	99	13C4-PFBA	217.0 > 172.0	81.232	81.232	1.00	1.61	12.500	12.500	12.5	100.0	NO		
119	1...	13C5-PFHxA	318.0 > 272.9			1.00			12.500					
120	1...	13C8-PFOA	420.9 > 376.0	8.783	8.783	1.00	4.50	12.500	12.500	12.5	100.0	NO		
121	1...	18O2-PFHxS	403.0 > 103			1.00			12.500					
122	1...	13C9-PFNA	472.2 > 426.9			1.00			12.500					
123	1...	13C4-PFOS	503 > 79.7	19.889	19.889	1.00	5.01	12.500	12.500	12.5	100.0	NO		
124	1...	13C6-PFDA	519.1 > 473.7			1.00			12.500					
125	1...	13C7-PFUDa	570.1 > 524.8			1.00			12.500					

TUNE CHECKS

Q5(p)

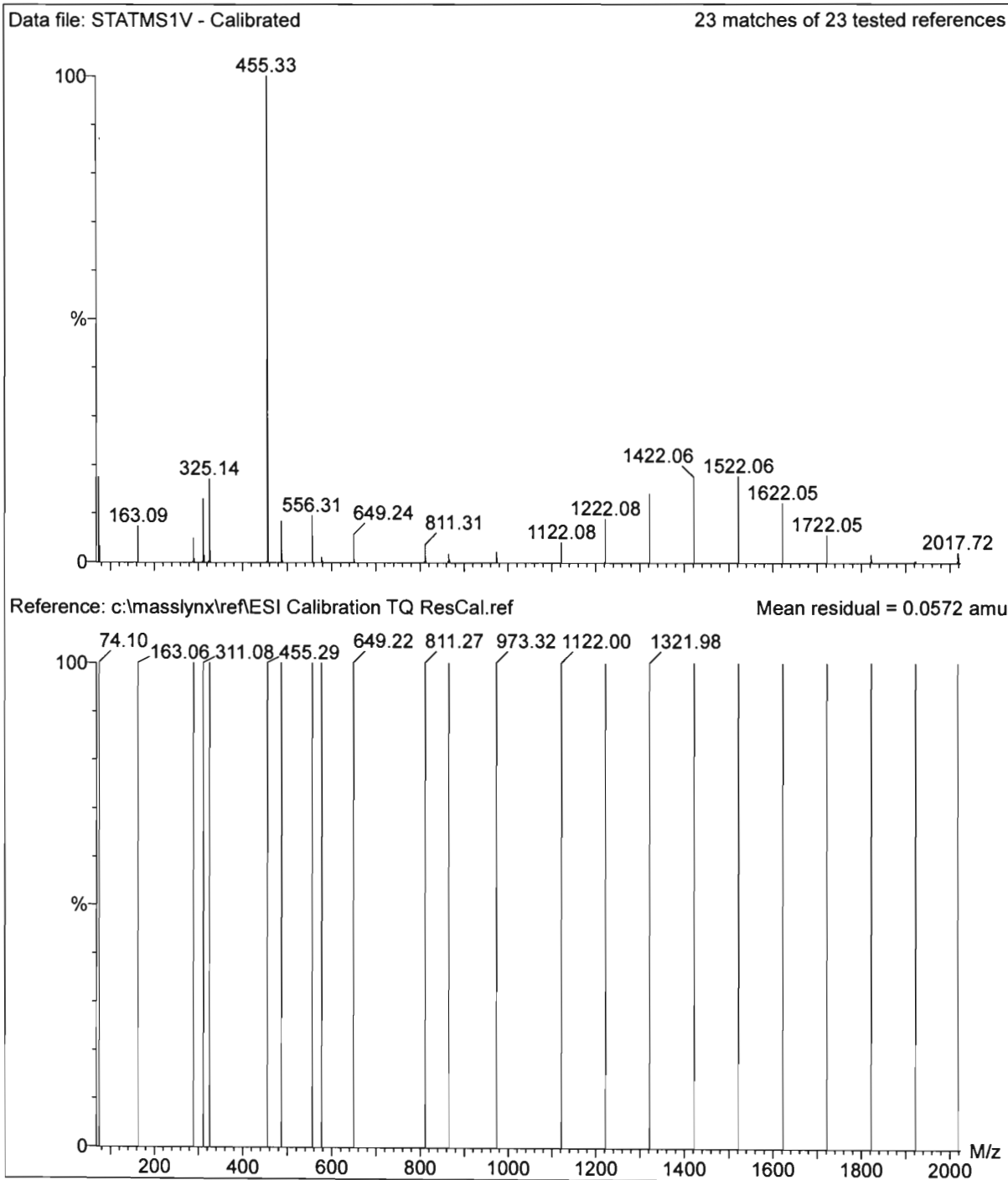
tune check 07/02/2020

07/02/20

Calibration Verification Report - MS1 Static

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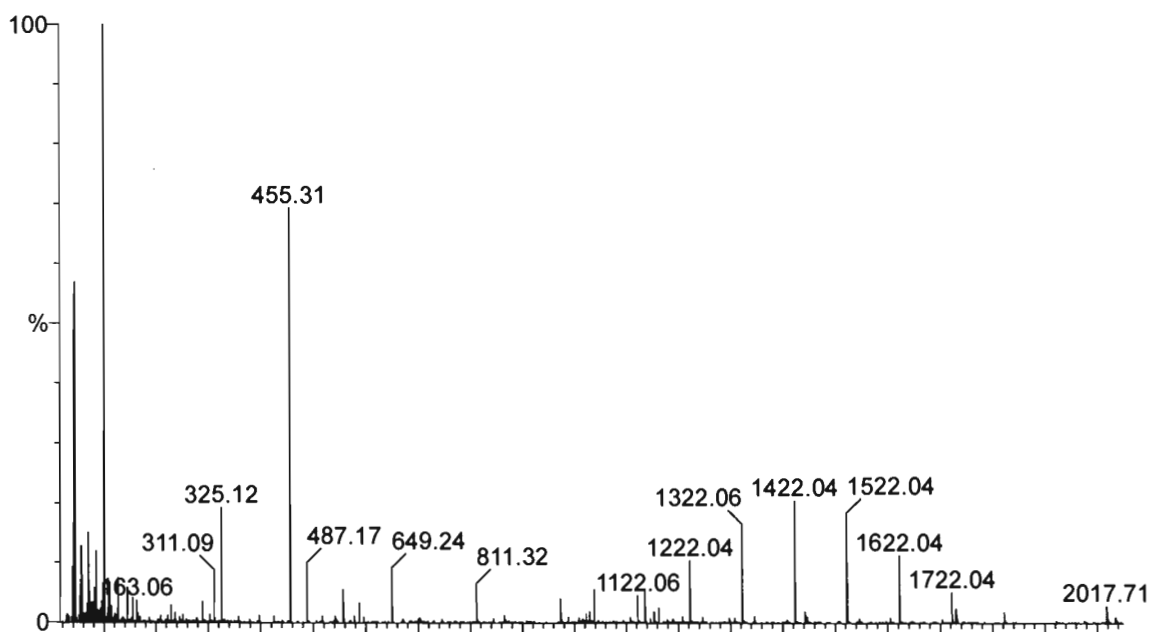
Calibration Verification Report - MS1 Scanning

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Printed: Thu Jul 02 08:30:35 2020

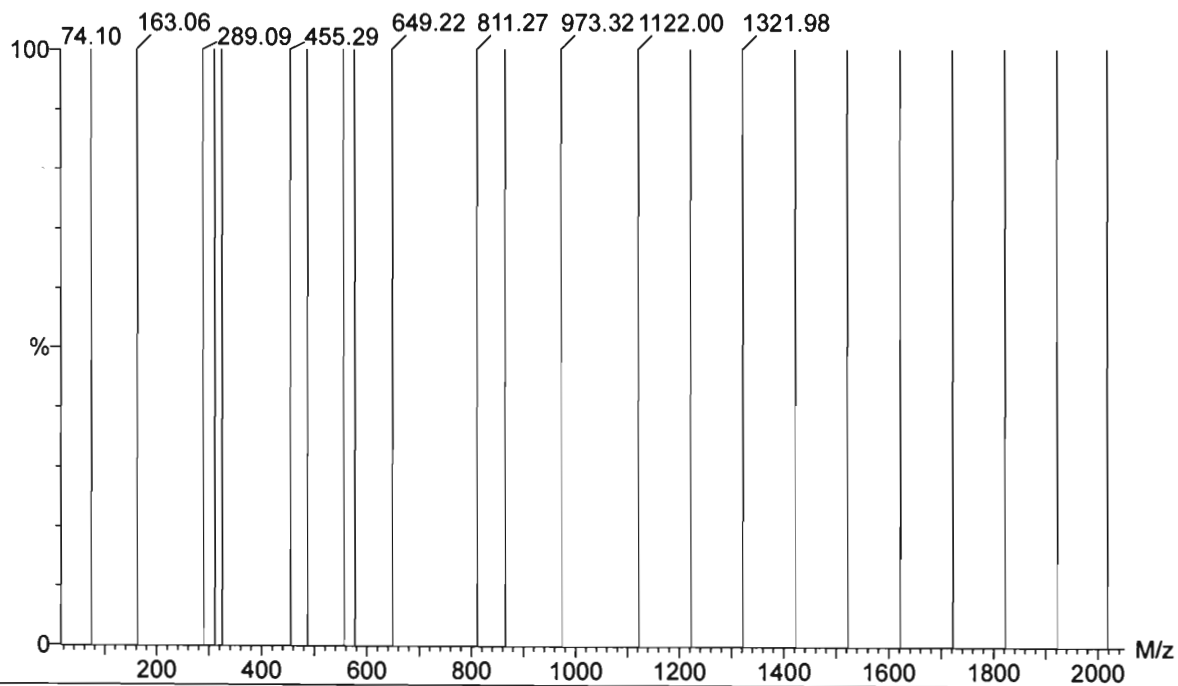
Data file: SCNMS1V - Calibrated

23 matches of 23 tested references



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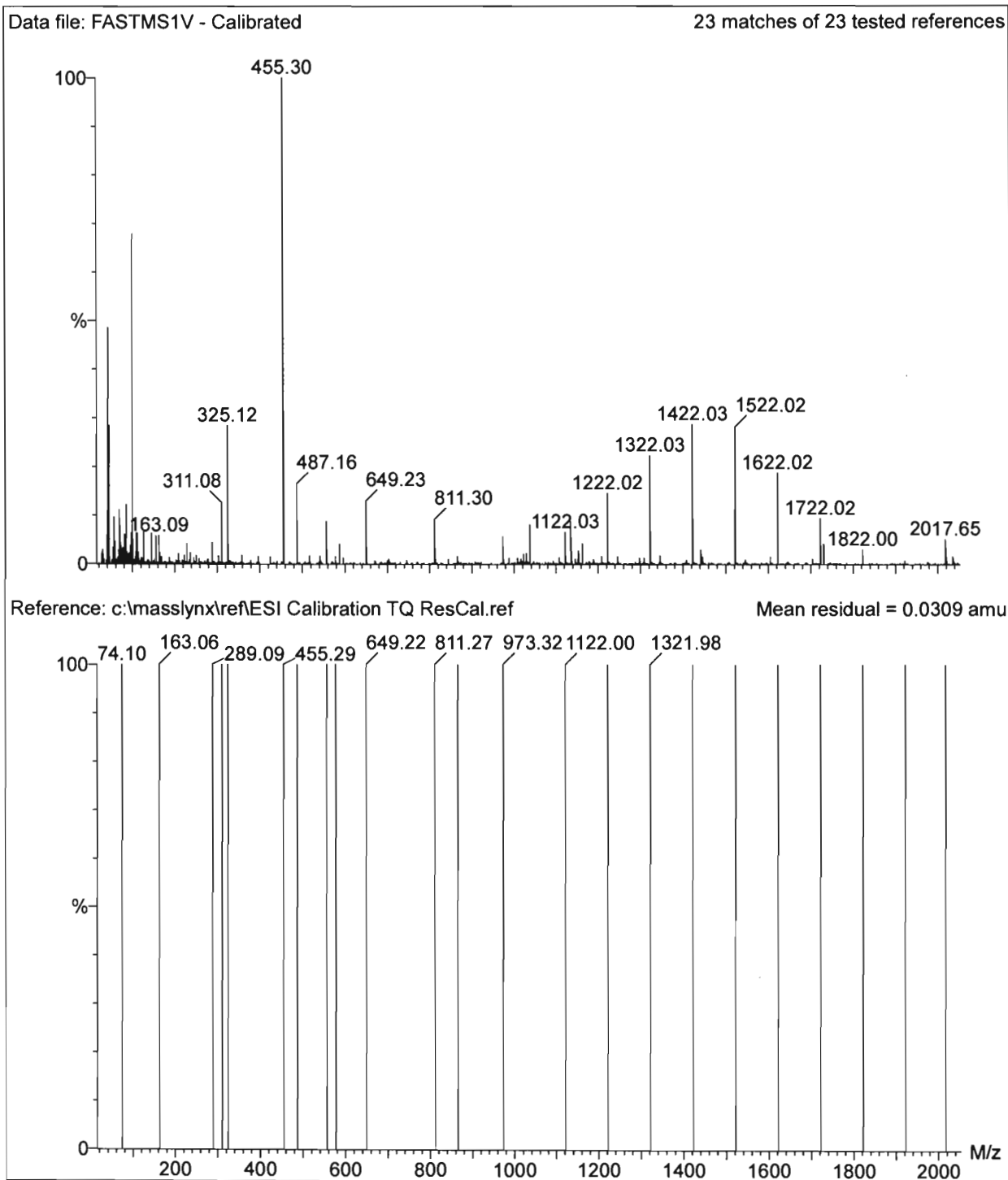
Mean residual = 0.0419 amu



Calibration Verification Report - MS1 Scan Speed Compensation

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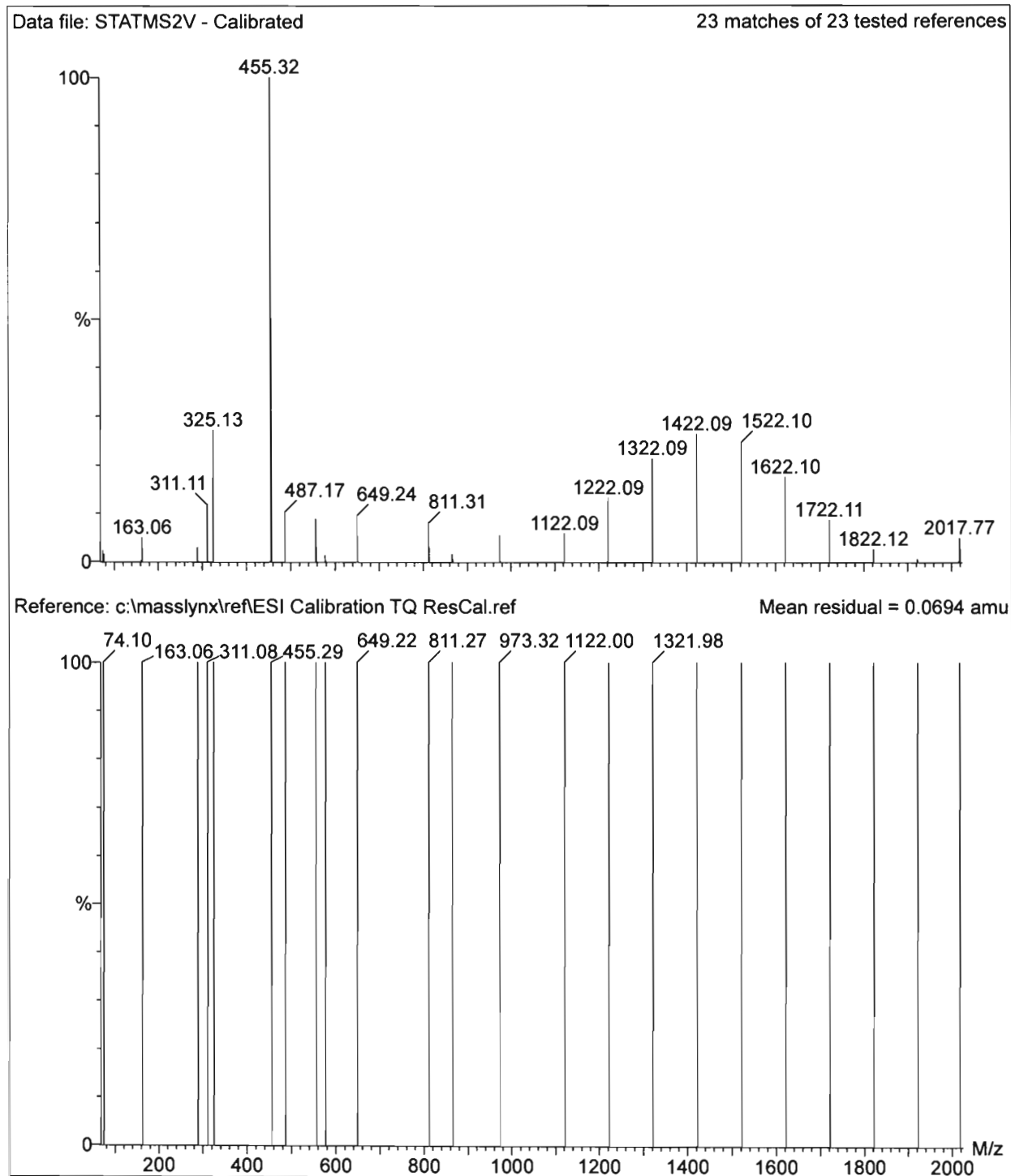
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Calibration Verification Report - MS2 Static

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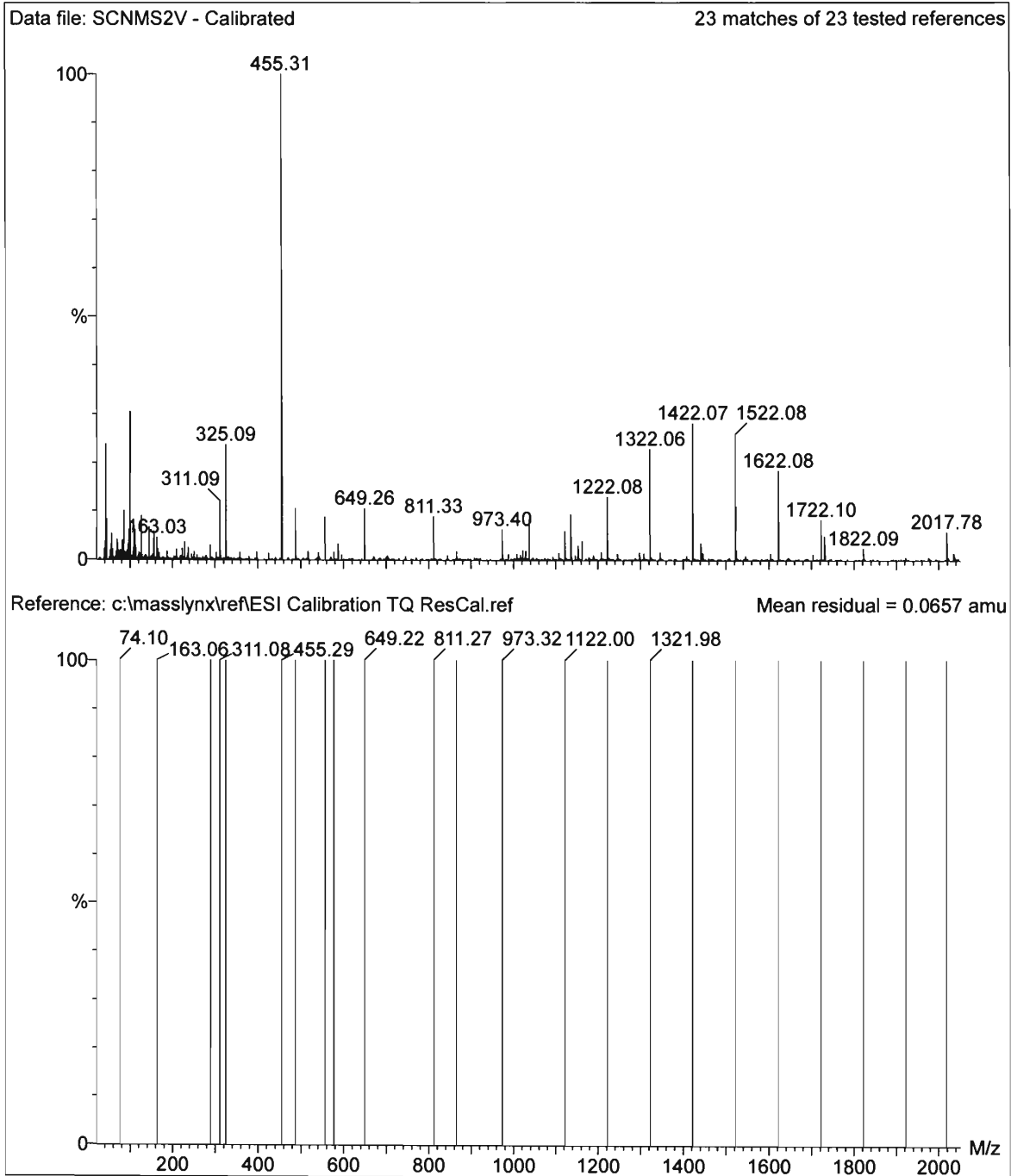
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Calibration Verification Report - MS2 Scanning

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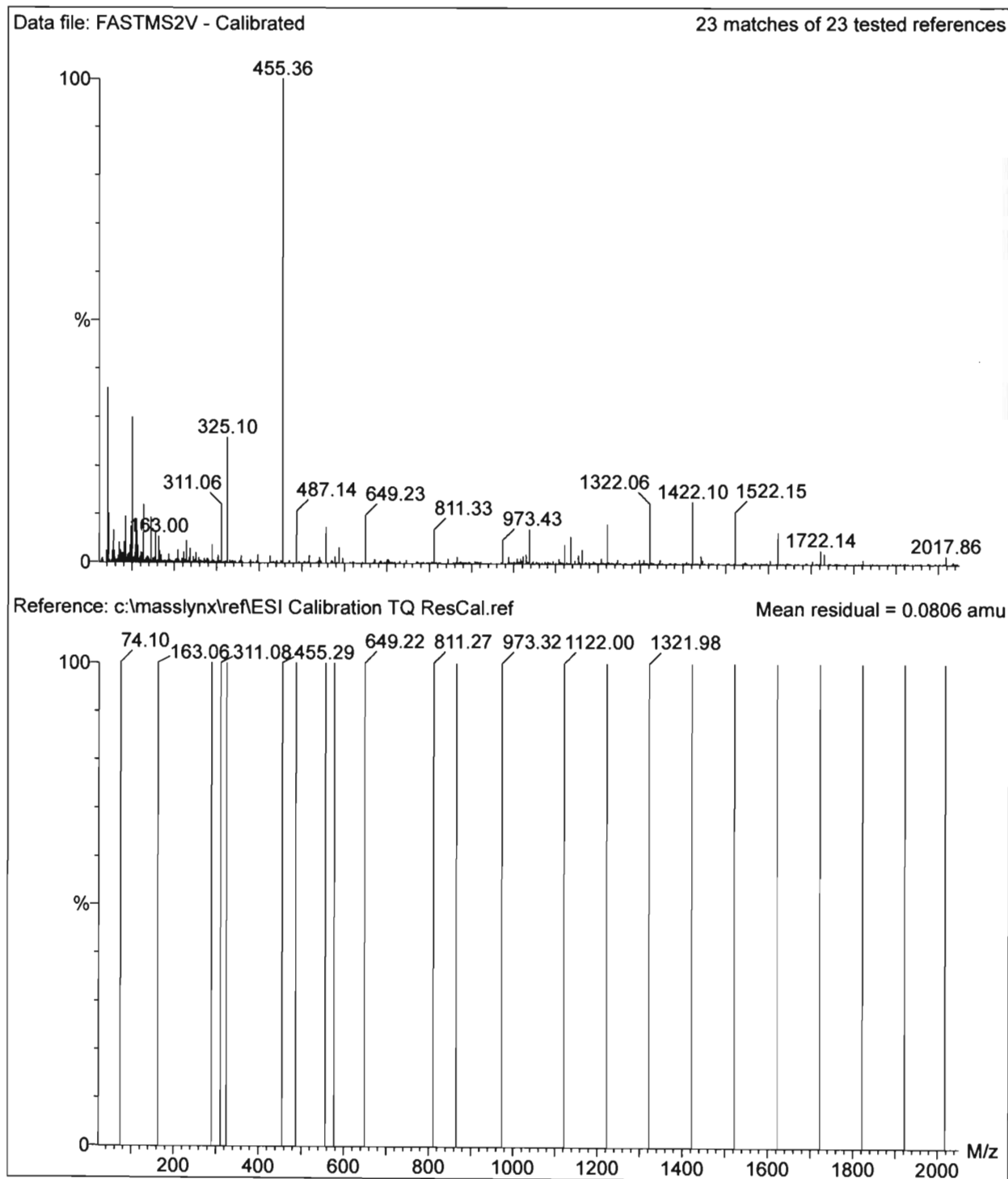
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Calibration Verification Report - MS2 Scan Speed Compensation

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Printed: Thu Jul 02 08:35:29 2020



Q5(P)

Tune check 07/06/20

06-22-20

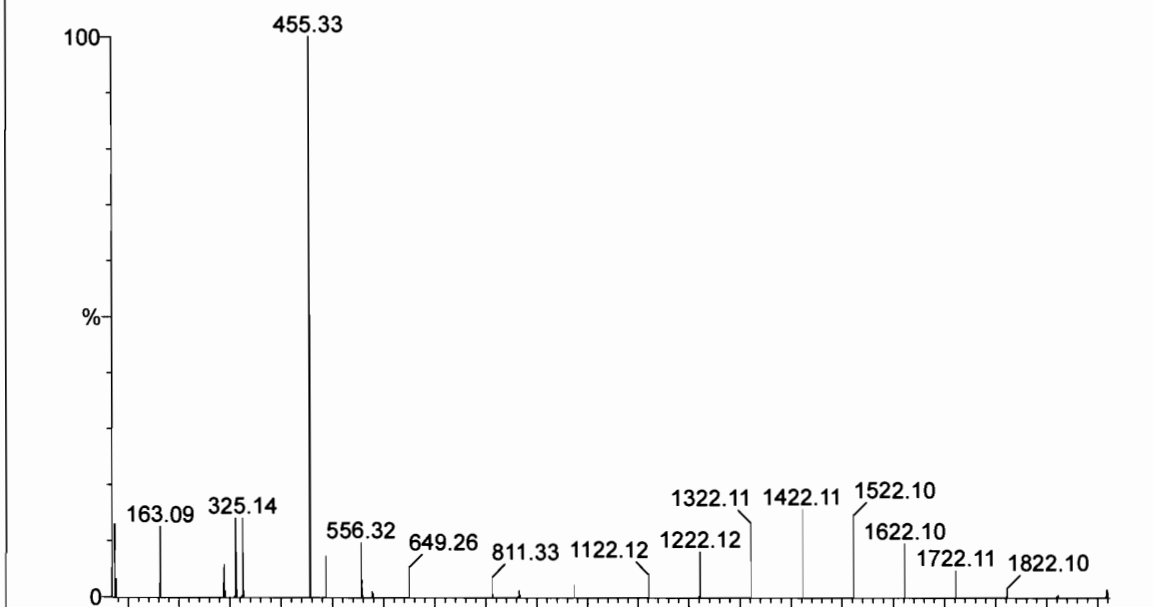
Calibration Verification Report - MS1 Static

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Printed: Mon Jul 06 07:56:25 2020

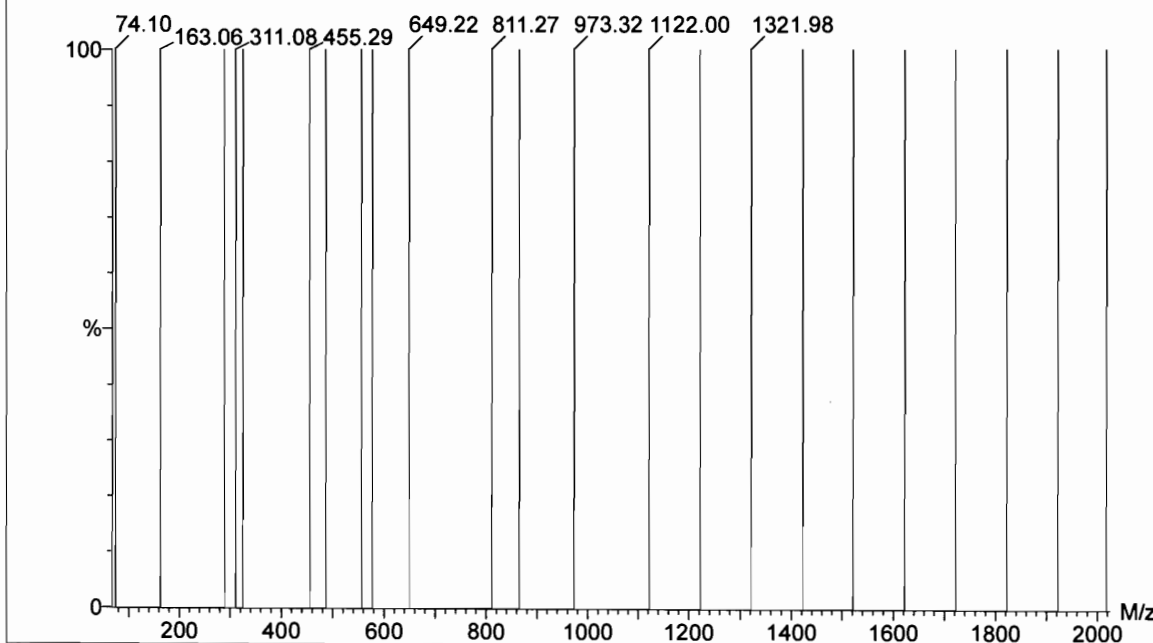
Data file: STATMS1V - Calibrated

23 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref

Mean residual = 0.0848 amu



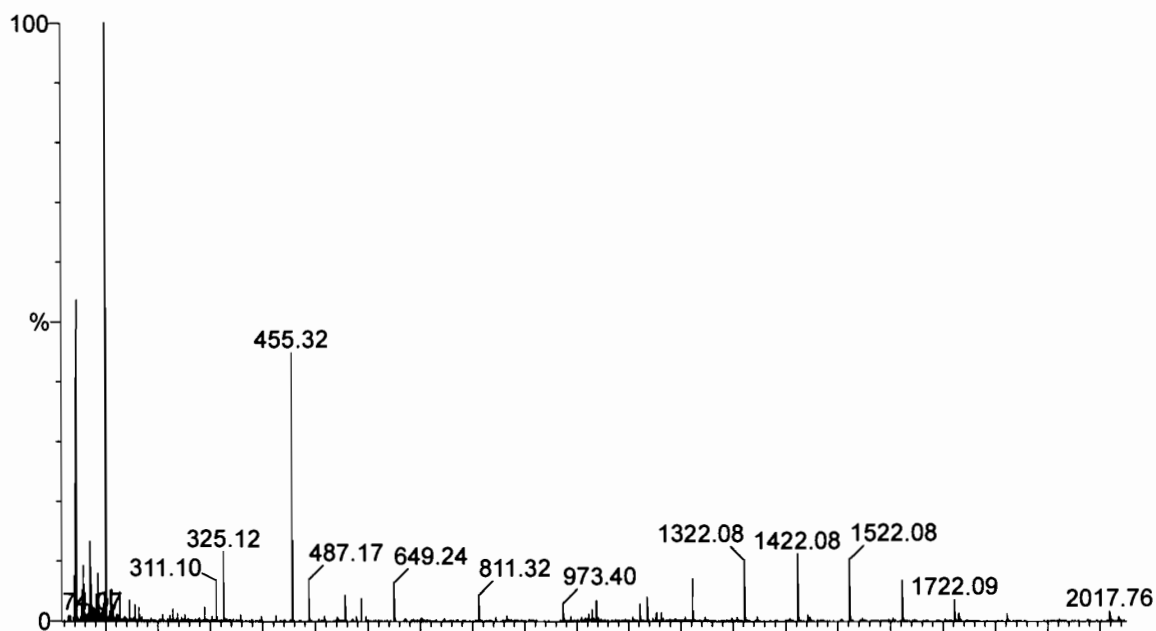
Calibration Verification Report - MS1 Scanning

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Printed: Mon Jul 06 07:57:34 2020

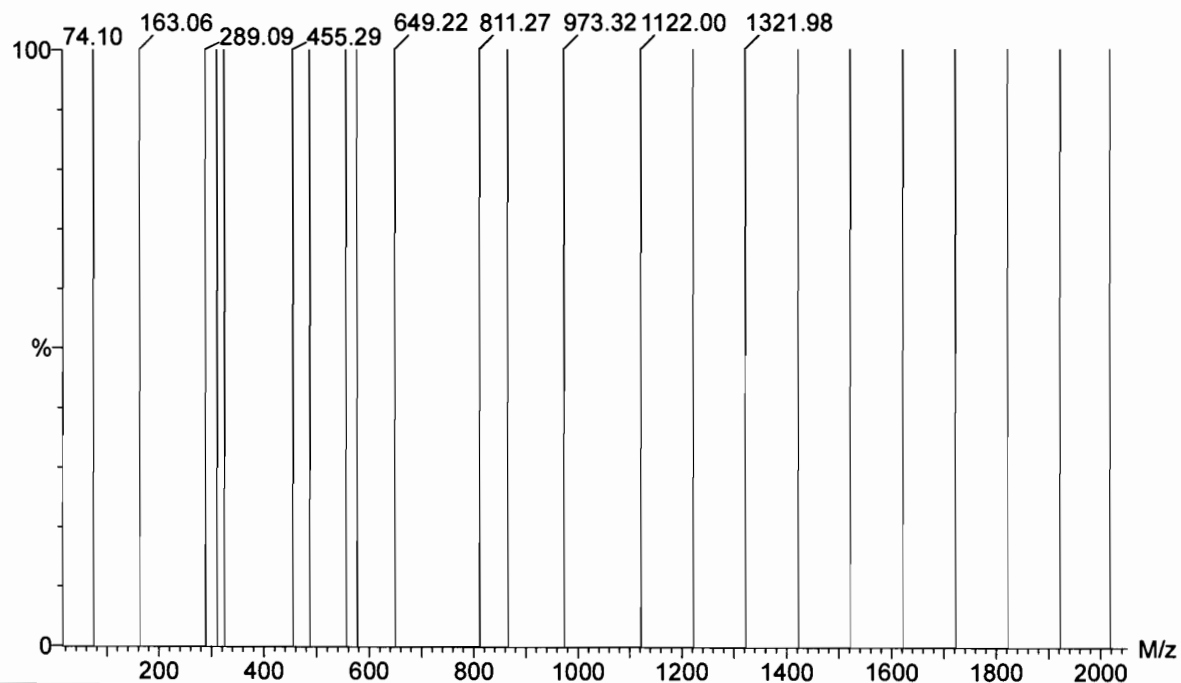
Data file: SCNMS1V - Calibrated

23 matches of 23 tested references



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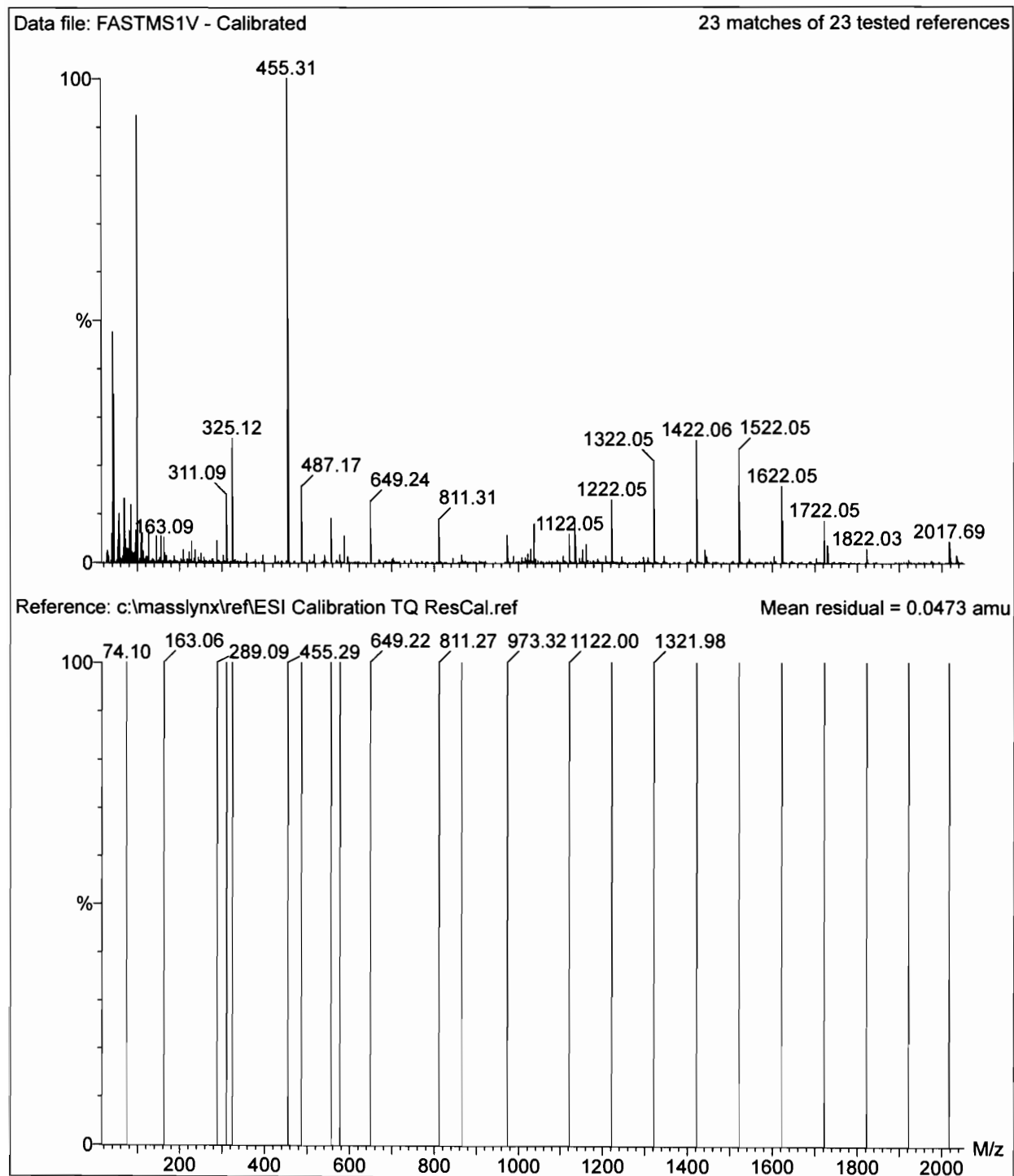
Mean residual = 0.0631 amu



Calibration Verification Report - MS1 Scan Speed Compensation

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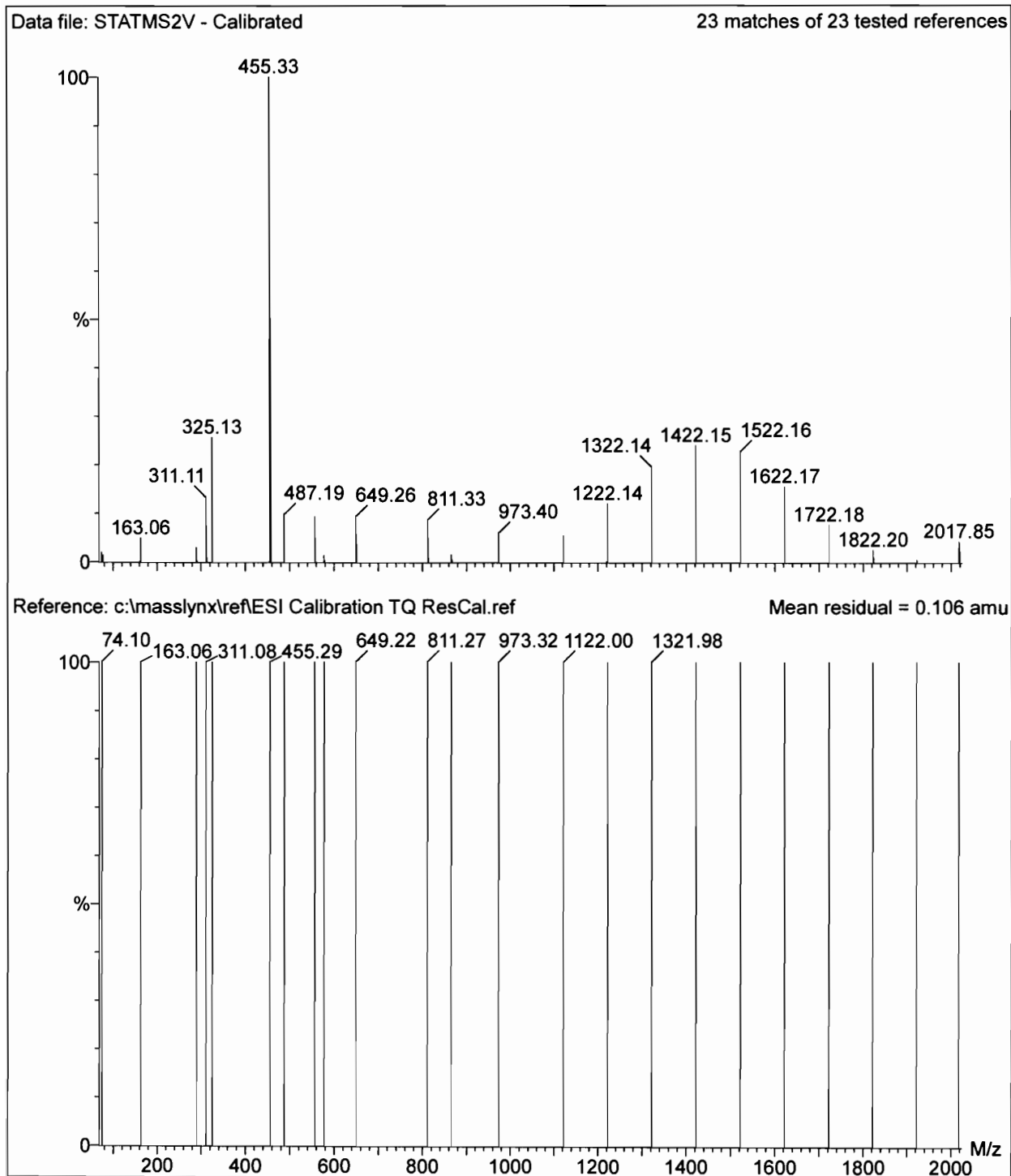
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Calibration Verification Report - MS2 Static

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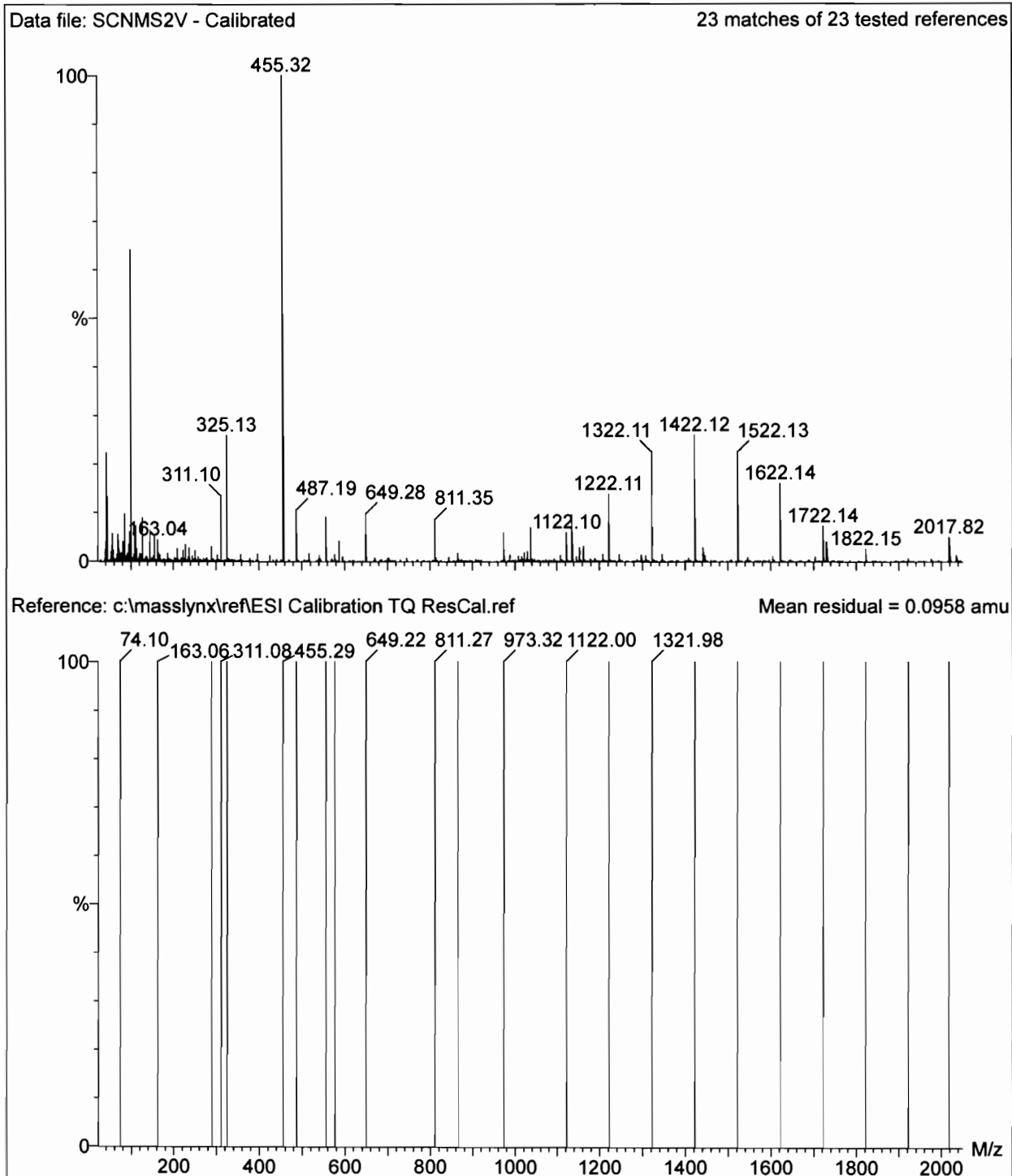
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Calibration Verification Report - MS2 Scanning

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Printed: Mon Jul 06 08:01:03 2020



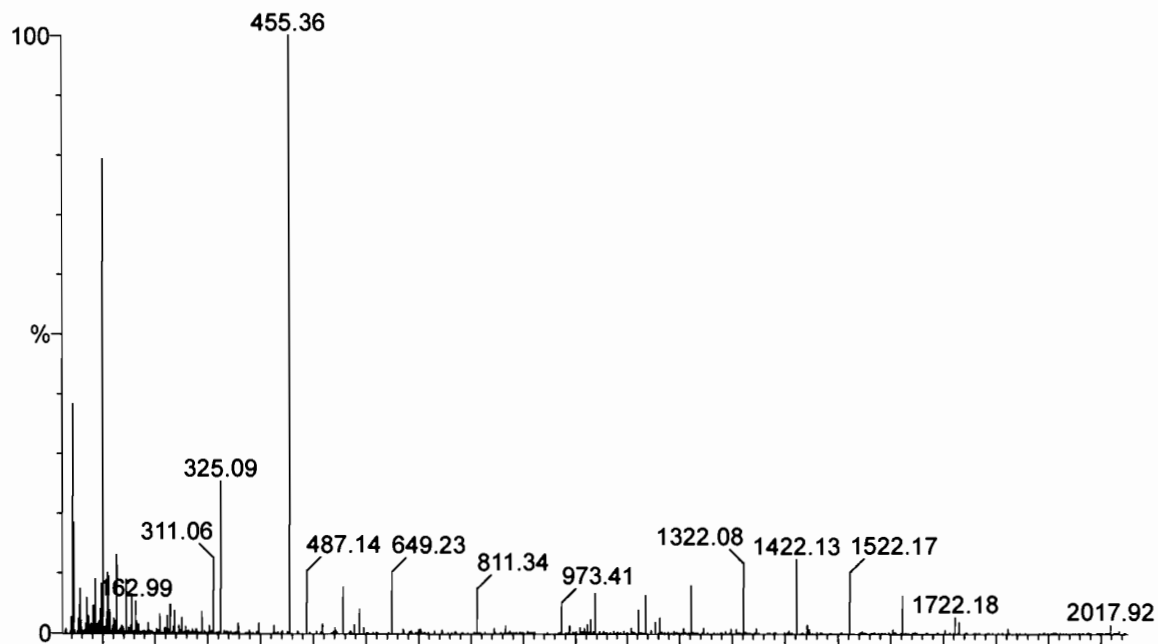
Calibration Verification Report - MS2 Scan Speed Compensation

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Printed: Mon Jul 06 08:02:28 2020

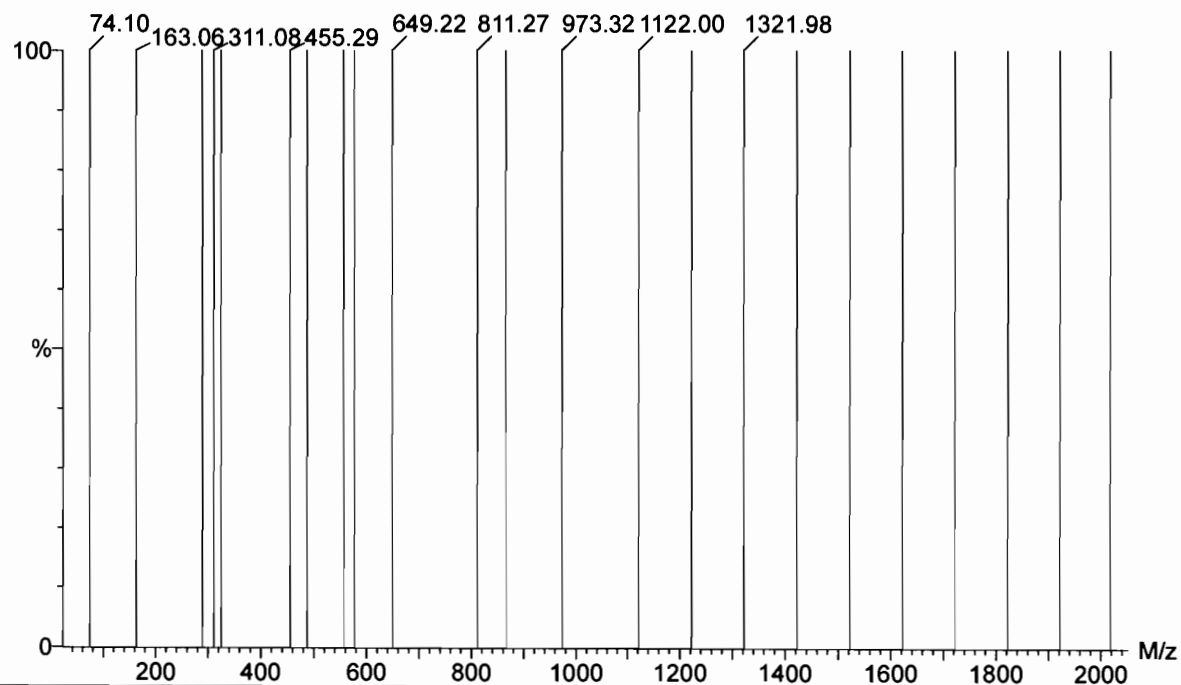
Data file: FASTMS2V - Calibrated

23 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref

Mean residual = 0.0907 amu



STANDARDS

Analytical Standard Record

Vista Analytical Laboratory

20E1201

Parent Standards used in this standard:					
Standard	Description	Prepared	Prepared By	Expires	(mls)
19H2706	13C2-10:2 FTS	21-Aug-19	** Vendor **	21-Aug-24	1
19L0601	13C2-4:2 FTS	06-Dec-19	** Vendor **	29-Oct-24	1.07
19L0602	13C2-6:2 FTS	06-Dec-19	** Vendor **	21-Nov-24	1.05
19L0603	13C2-8:2 FTS	06-Dec-19	** Vendor **	11-Oct-24	1.04
19L0604	13C3-PFBA	06-Dec-19	** Vendor **	14-Dec-22	1
19L0605	13C2-PFDA	06-Dec-19	** Vendor **	05-Sep-24	1
19L0606	13C2-PFUDa	06-Dec-19	** Vendor **	04-Jul-24	1
19L0607	13C2-PFTeDA	06-Dec-19	** Vendor **	11-Dec-23	1
19L0608	13C5-PFNA	06-Dec-19	** Vendor **	05-Dec-23	1
19L0609	13C2-PFDaA	06-Dec-19	** Vendor **	11-Dec-23	1
19L0610	13C4-PFHpA	06-Dec-19	** Vendor **	06-May-24	1
19L0611	13C2-PFOA	06-Dec-19	** Vendor **	21-Jun-24	1
19L0612	13C3-PFPeA	06-Dec-19	** Vendor **	08-Mar-24	1
19L0613	13C8-FOSA-I	06-Dec-19	** Vendor **	19-Jun-24	1
19L0614	d3-N-Me-FOSAA	06-Dec-19	** Vendor **	24-Jul-24	1
19L0615	d5-N-EtFOSAA	06-Dec-19	** Vendor **	25-Jul-24	1
19L0616	13C3-PFBS	06-Dec-19	** Vendor **	29-Oct-24	1.075
19L0617	13C8-PFOS	06-Dec-19	** Vendor **	06-May-24	1.045
19L0618	13C3-PFHxS	06-Dec-19	** Vendor **	15-Oct-24	1.06
19L0619	13C2-PFHxA	06-Dec-19	** Vendor **	11-Oct-24	1
19L0620	13C2-PFHxDA	06-Dec-19	** Vendor **	11-Oct-24	1
19L0621	13C3-HFPO-DA	06-Dec-19	** Vendor **	20-Sep-22	1

Description:	PFC - IS	Expires:	12-May-21
Standard Type:	Reagent	Prepared:	12-May-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	40	Department:	LCMS
Vials:	1	Last Edit:	12-May-20 10:53 by BML

10:2 added			
10 uL spike			
Analyte	CAS Number	Concentration	Units
13C3-HFPO-DA		1.25	ug/mL
13C2-4:2 FTS		1.25	ug/mL
13C2-6:2 FTS		1.25	ug/mL
13C2-8:2 FTS		1.25	ug/mL
13C2-PFDA		1.25	ug/mL
13C2-PFDaA		1.25	ug/mL
13C2-PFHxA		1.25	ug/mL
13C2-PFHxDA		1.25	ug/mL
13C2-PFOA		1.25	ug/mL
13C2-10:2 FTS		1.25	ug/mL
13C2-PFUnA		1.25	ug/mL
d5-EtFOSAA		1.25	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

20E1201

Description:	PFC - IS	Expires:	12-May-21
Standard Type:	Reagent	Prepared:	12-May-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	40	Department:	LCMS
Vials:	1	Last Edit:	12-May-20 10:53 by BML

10:2 added
10 uL spike

Analyte	CAS Number	Concentration	Units
13C3-PFBA		1.25	ug/mL
13C3-PFBS		1.25	ug/mL
13C3-PFHxS		1.25	ug/mL
13C3-PFPeA		1.25	ug/mL
13C4-PFHpA		1.25	ug/mL
13C5-PFNA		1.25	ug/mL
13C8-PFOS		1.25	ug/mL
13C8-PFOSA		1.25	ug/mL
d3-MeFOSAA		1.25	ug/mL
13C2-PFTeDA		1.25	ug/mL



Cambridge Isotope Laboratories, Inc.

19H2706

Certificate of Analysis

Product Name: 1H,1H,2H,2H-PERFLUORODODECANE SULFONATE(10:2 FTS),
(Isotopic Label & Enrichment Specification) SODIUM SALT (13C2, 99%; D4, 98%) 50 UG/ML IN MEOH

Lot Number: SDIJ-019A

Catalog Number: CDLM-10750-S

Product Information

Chemical Purity Specification: $\geq 98\%$

MW*: 656.19
* For isotopically labeled compounds, MW listed is for the fully enriched product.

Labeled CAS Number: NA

Unlabeled CAS Number: 108026-35-3

Chemical Formula: C10*C2D4F21NaO3S

Storage: Store at room temperature away from light and moisture.

Stability: See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated. CIL Certificates of Analysis are occasionally updated with new data following recertification. We recommend checking the website for the latest version.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NSCL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -1, 2, -1, -0.5, -10, or -0.1.

Approved by: Sashi Sivendran-Basak

Sashi Sivendran-Basak, Ph.D., Quality Review

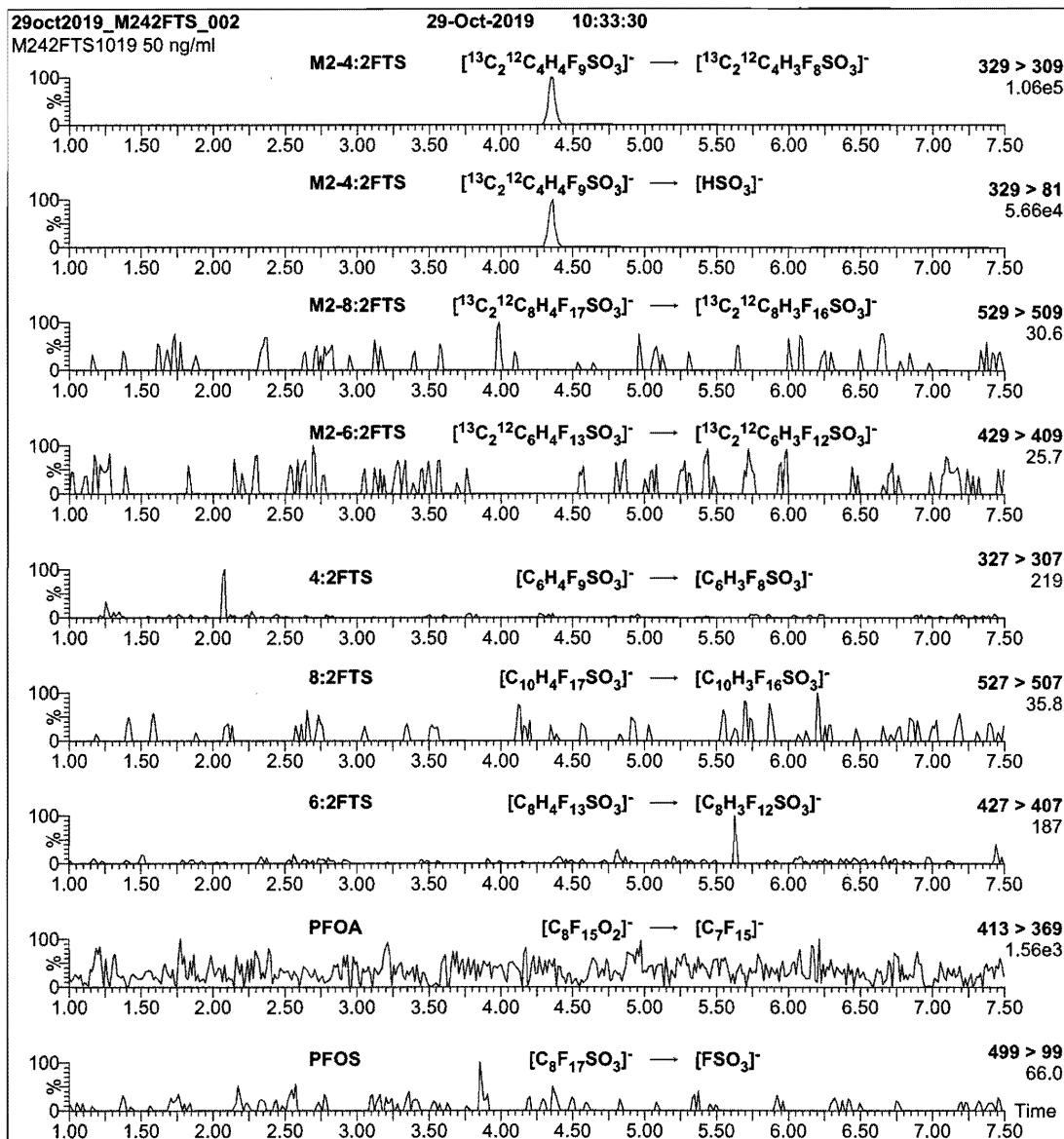
Quality Control Tests and Results

QC Release Date	8/21/2019
Expiration Date	8/21/2024
Concentration Based on Gravimetry	50.0 $\pm$ 0.5 μ g/mL (k=2)
Chemical Purity of Neat Material(s)	100.0%

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

1920601

Figure 2: M2-4:2FTS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M2-4:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

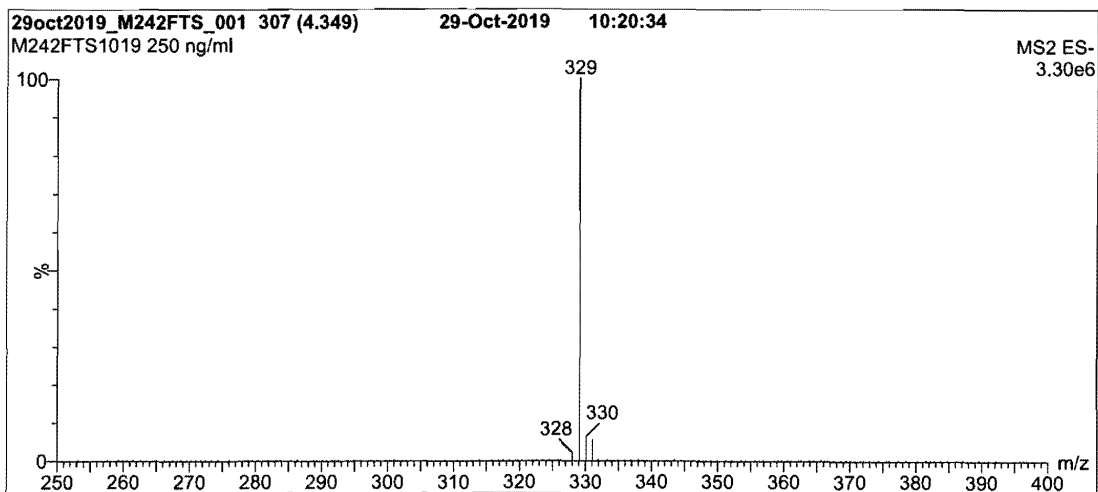
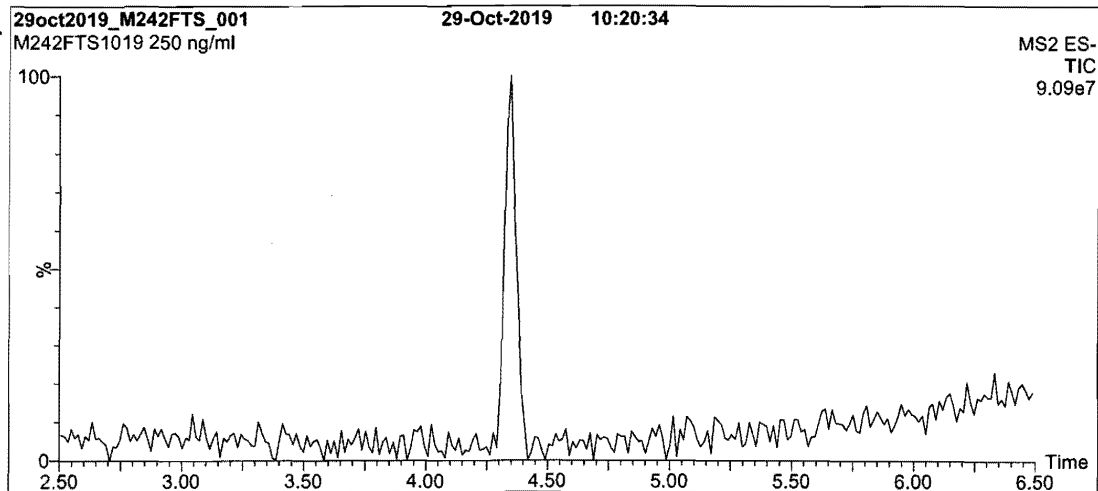
MS Parameters

Collision Gas (mbar) = 3.51e-3

Collision Energy (eV) = 18

19L0601

Figure 1: M2-4:2FTS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0601

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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

19L001



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M2-4:2FTS

LOT NUMBER:

M242FTS1019

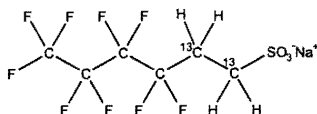
COMPOUND:

Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C₂]hexane sulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₄H₄F₉SO₃Na

MOLECULAR WEIGHT:

352.12

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)
46.7 ± 2.3 µg/ml (M2-4:2FTS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

10/29/2019

EXPIRY DATE: (mm/dd/yyyy)

10/29/2024

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 4:2FTS contains 4.22% of ³⁴S (due to natural isotopic abundance) therefore both native 4:2FTS and M2-4:2FTS will produce signals in the m/z 329 to m/z 309 channel during SRM analysis. We recommend using the m/z 329 to m/z 81 transition to monitor for M2-4:2FTS 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, General Manager

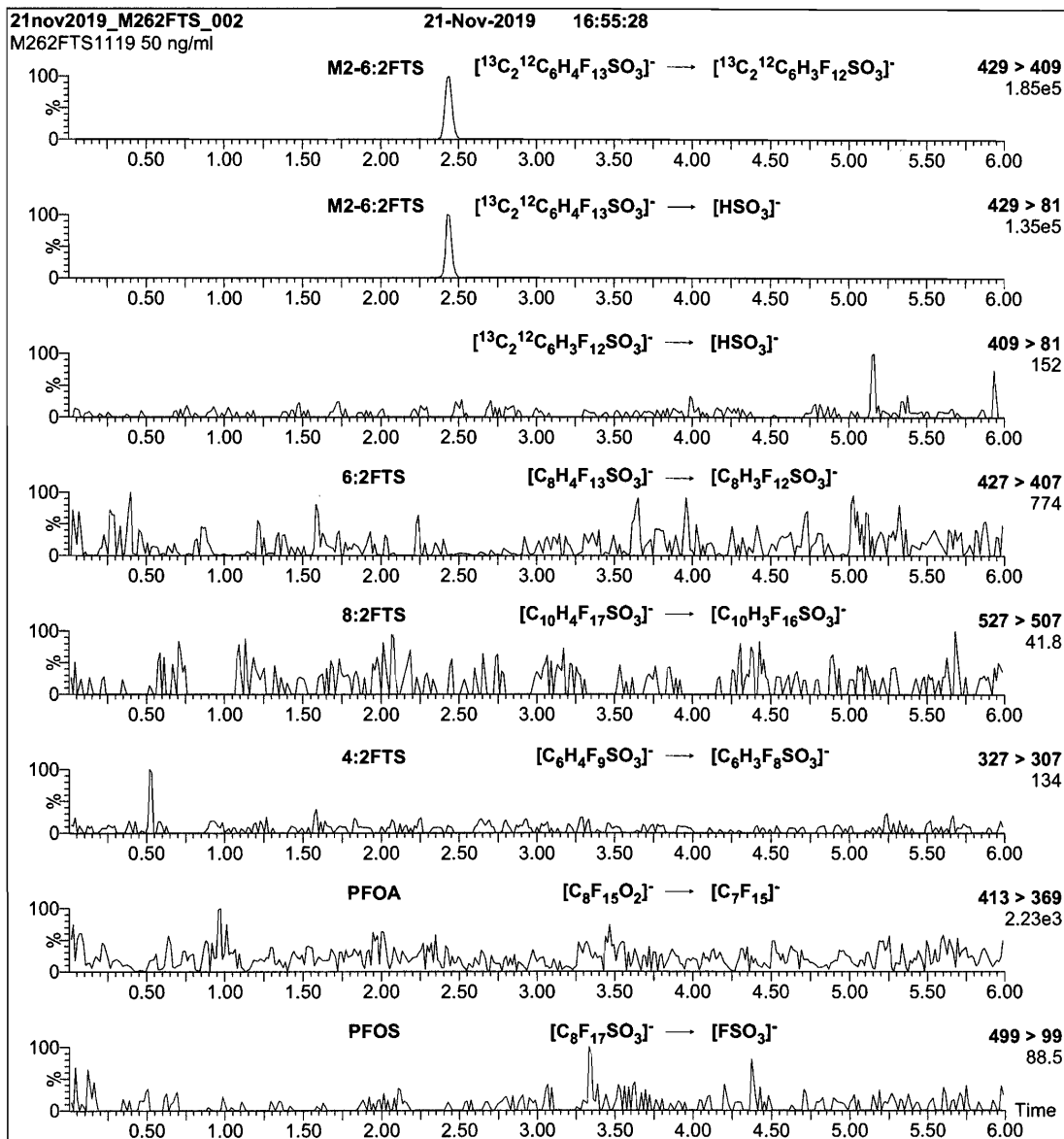
Date:

11/05/2019
(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

19L0602

Figure 2: M2-6:2FTS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M2-6:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

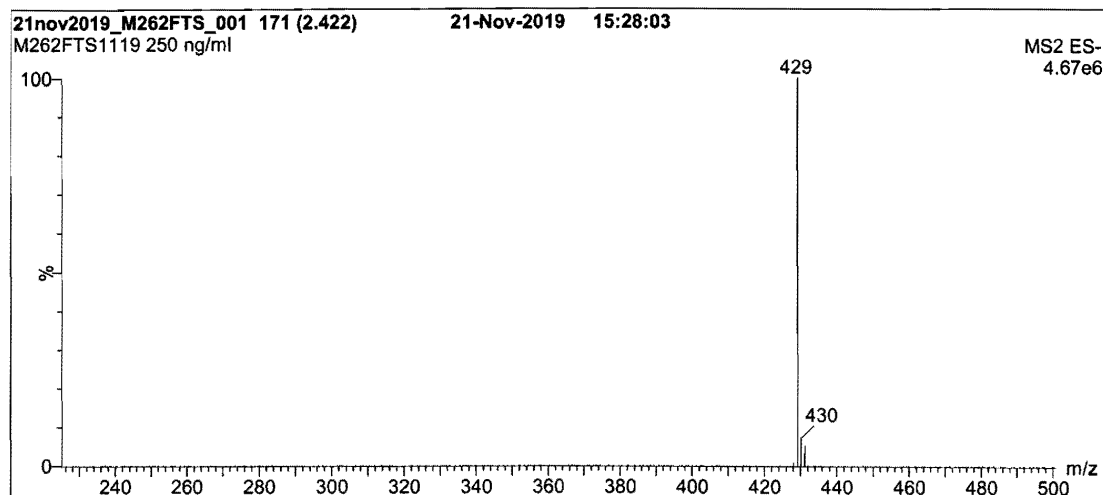
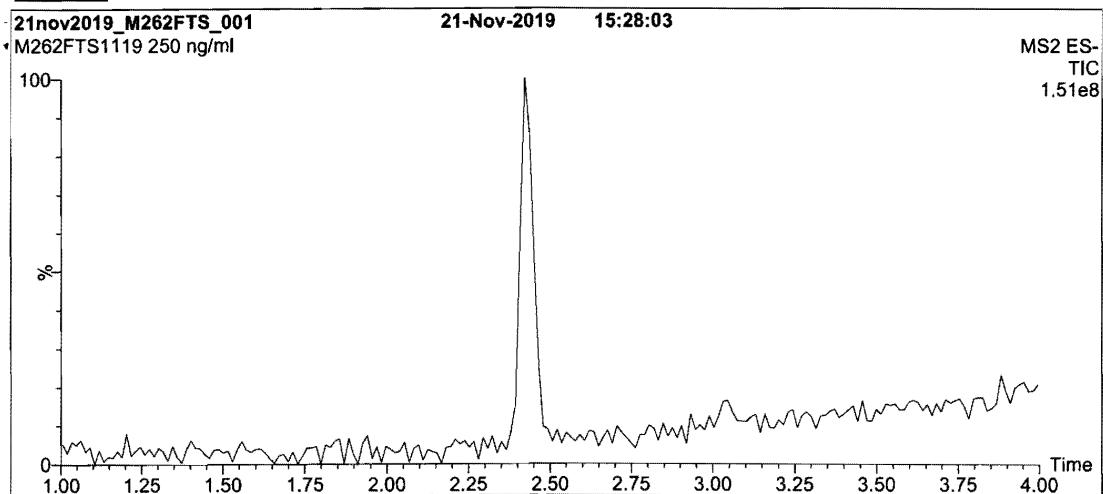
MS Parameters

Collision Gas (mbar) = 3.31e-3

Collision Energy (eV) = 20

19120602

Figure 1: M2-6:2FTS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0602

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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

19L0602



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M2-6:2FTS

LOT NUMBER:

M262FTS1119

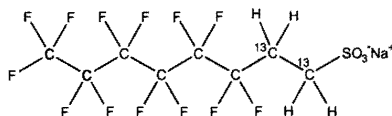
COMPOUND:

Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C₂]octane sulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₆H₄F₁₀SO₃Na

MOLECULAR WEIGHT:

452.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)
47.5 ± 2.4 µg/ml (M2-6:2FTS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

11/21/2019

EXPIRY DATE: (mm/dd/yyyy)

11/21/2024

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 ³⁴S (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, General Manager

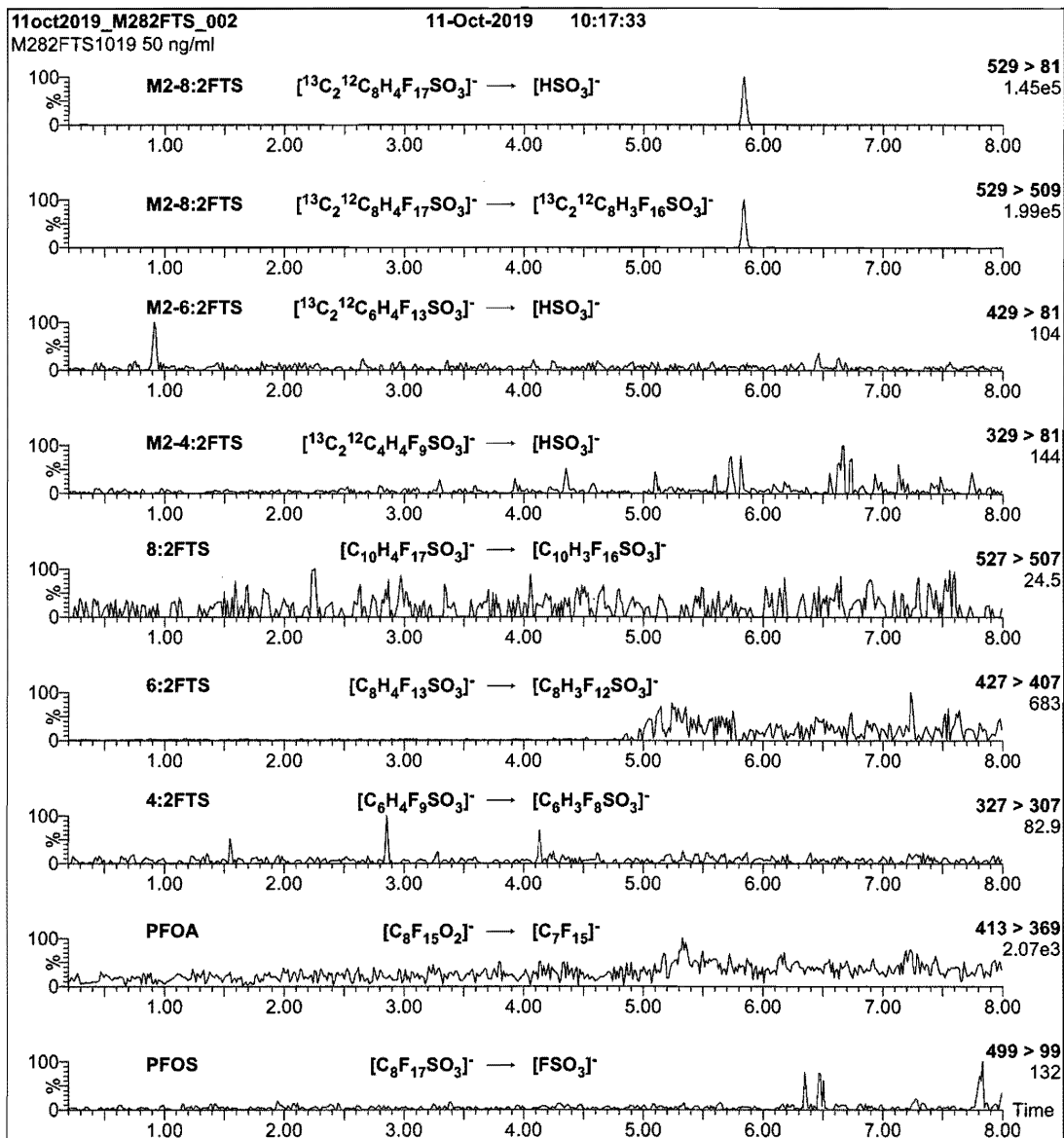
Date:

11/25/2019
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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19L0603

Figure 2: M2-8:2FTS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M2-8:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

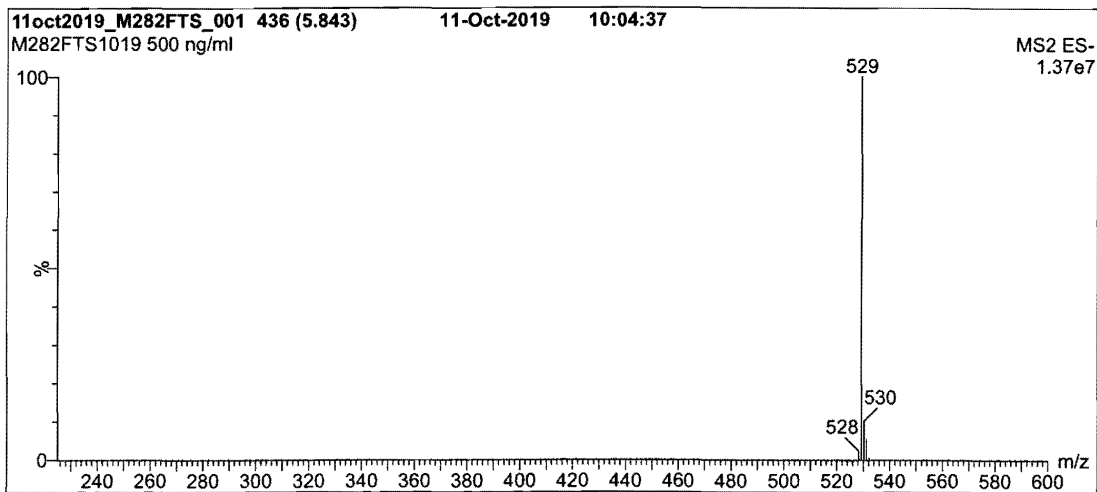
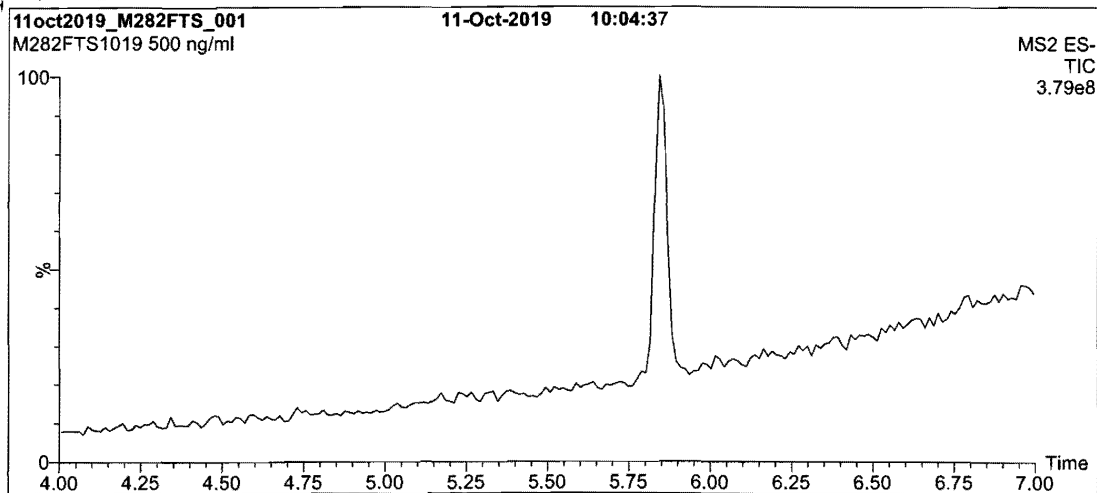
MS Parameters

Collision Gas (mbar) = $3.87\text{e-}3$

Collision Energy (eV) = 26

19L0603

Figure 1: M2-8:2FTS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19Lab03

INTENDED USE:

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HANDLING:

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SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0603



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M2-8:2FTS

LOT NUMBER:

M282FTS1019

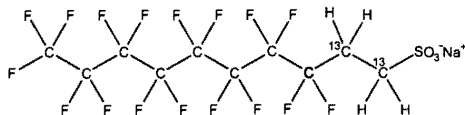
COMPOUND:

Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C₂]decane sulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₈H₄F₁₇SO₃Na

MOLECULAR WEIGHT:

552.15

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)
47.9 ± 2.4 µg/ml (M2-8:2FTS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

10/11/2019

EXPIRY DATE: (mm/dd/yyyy)

10/11/2024

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 ³⁴S (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:

B.G. Chittim, General Manager

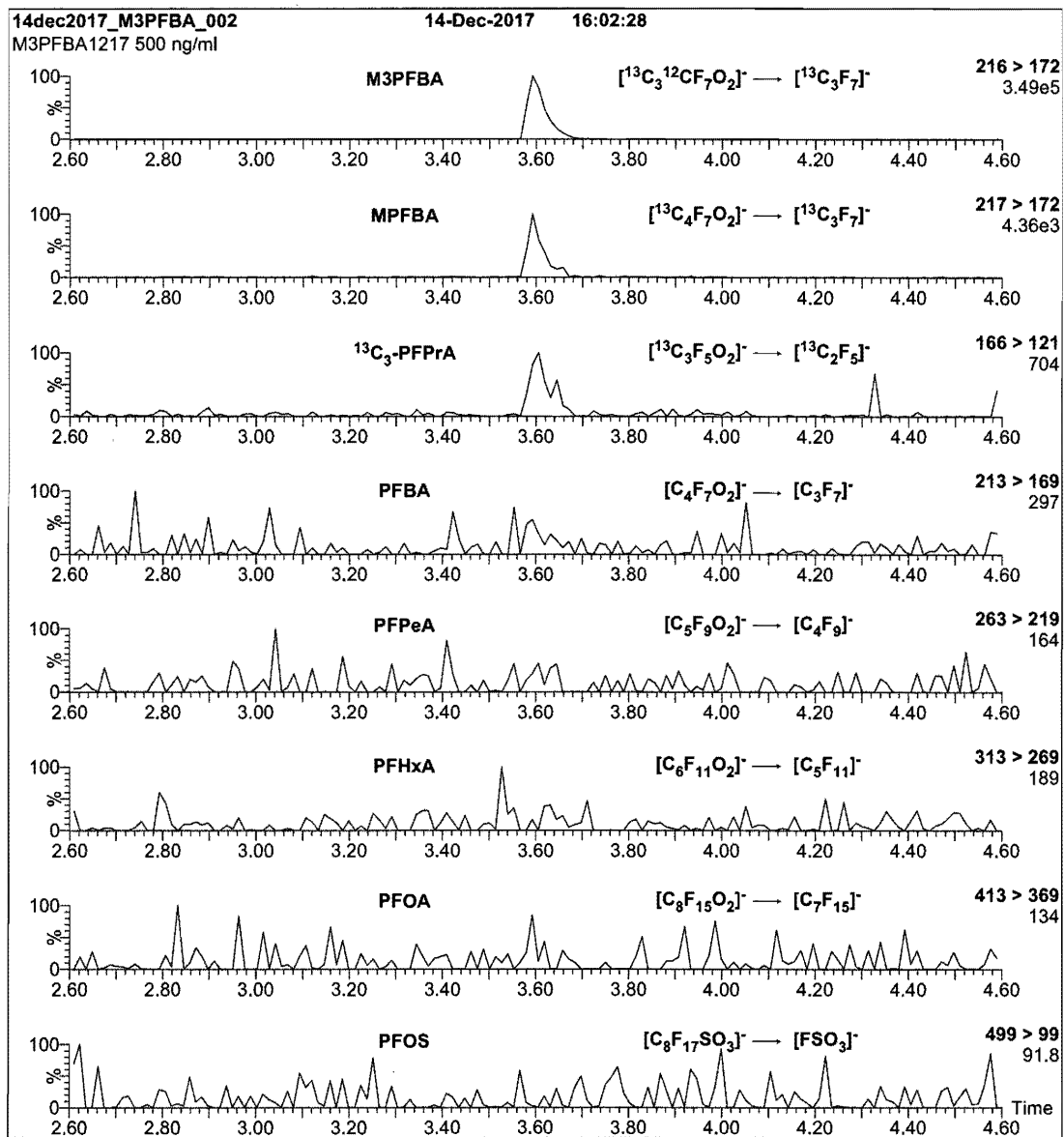
Date:

10/15/2019
(mm/dd/yyyy)

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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)

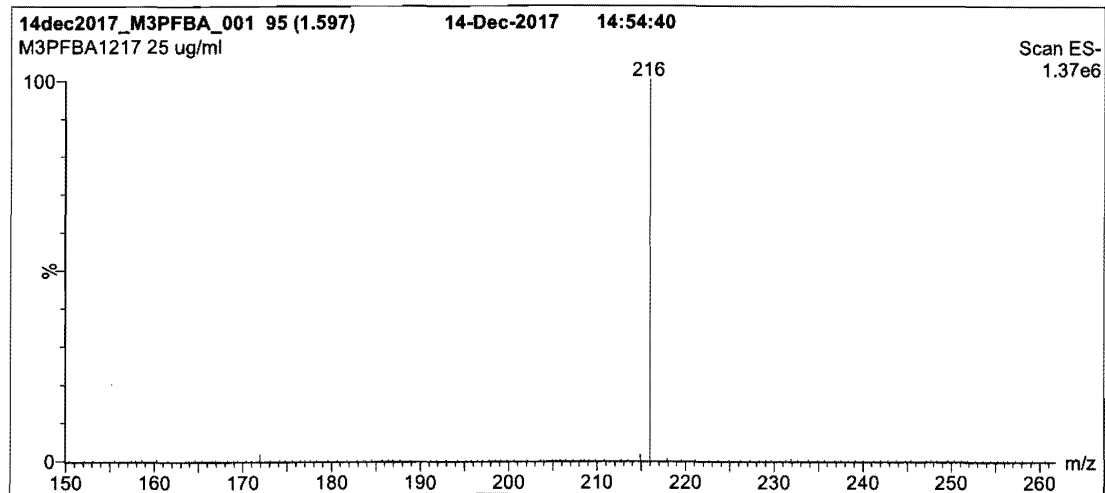
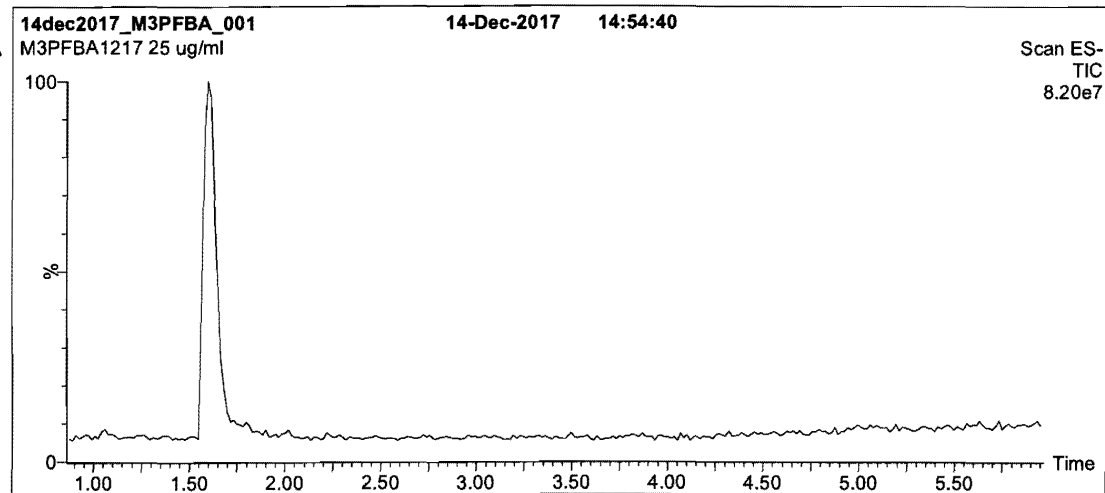
Flow: 300 $\mu\text{l}/\text{min}$

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

19L00041

• **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 RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H₂O
(both with 10 mM NH₄OAc 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 μ l/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

19L0604

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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0604



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M3PFBA

LOT NUMBER:

M3PFBA1217

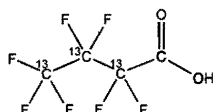
COMPOUND:

Perfluoro-n-[2,3,4-¹³C₃]butanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₃¹²CHF₇O₂

MOLECULAR WEIGHT:

217.02

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99%¹³C
(2,3,4-¹³C₃)

LAST TESTED: (mm/dd/yyyy)

12/14/2017

EXPIRY DATE: (mm/dd/yyyy)

12/14/2022

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 ~ 0.2% of perfluoro-n-[¹³C₃]propanoic acid and also contains ~ 1.0% of perfluoro-n-[1,2,3,4-¹³C₄]butanoic acid due to the naturally occurring isotopic abundance of ¹³C in the unlabelled carbon atom.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

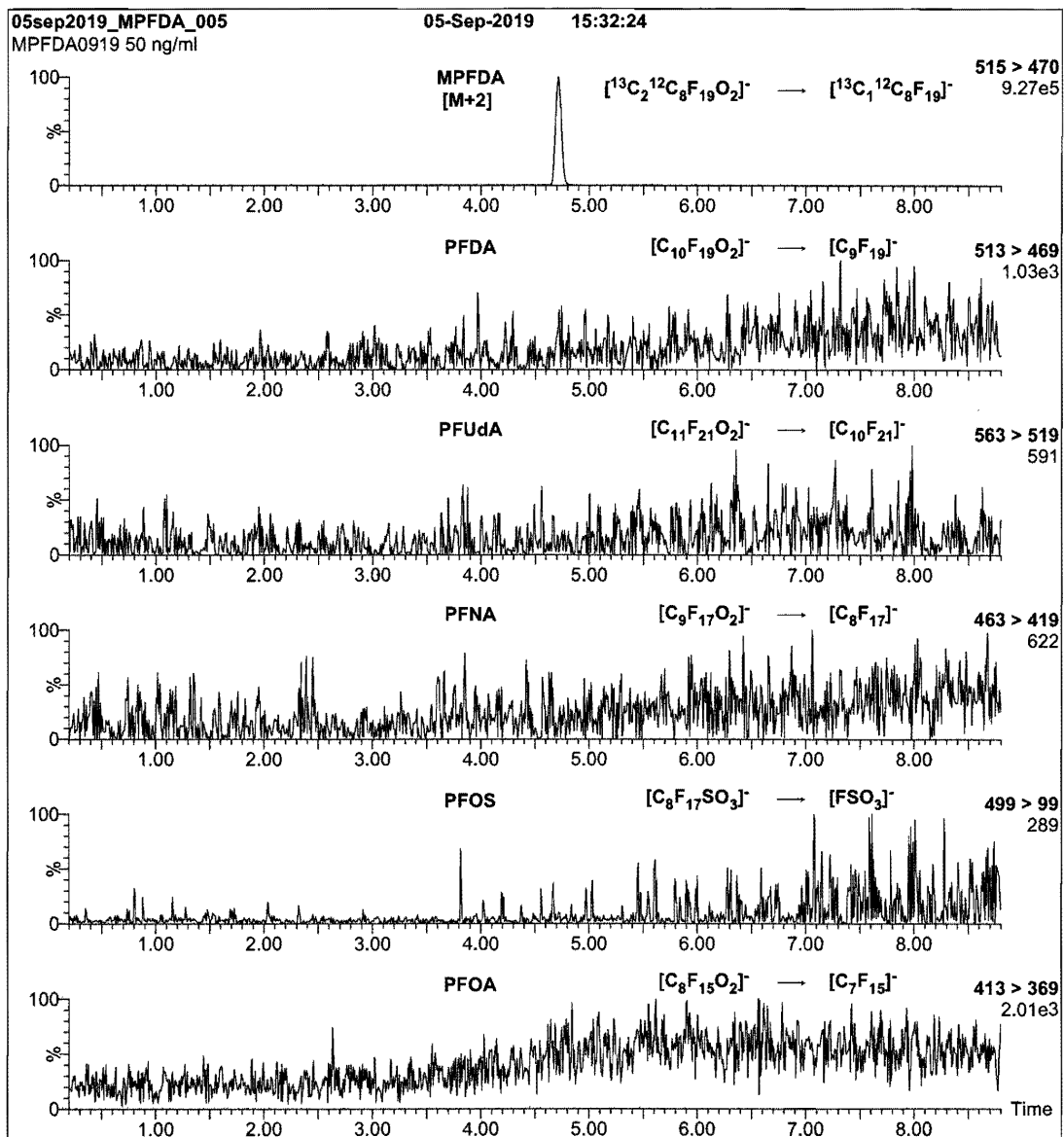
Date:

12/22/2017
(mm/dd/yyyy)

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Figure 2: MPFDA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (MPFDA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

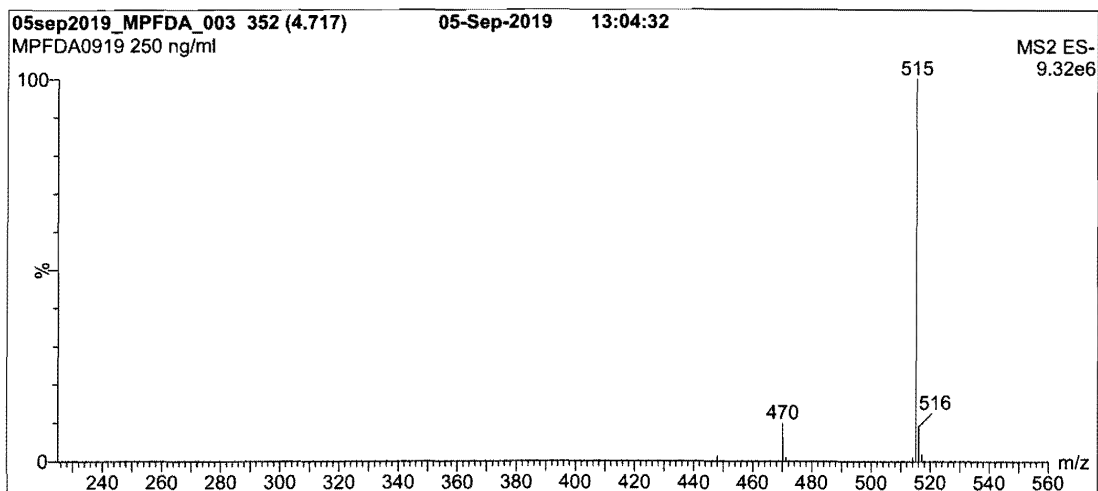
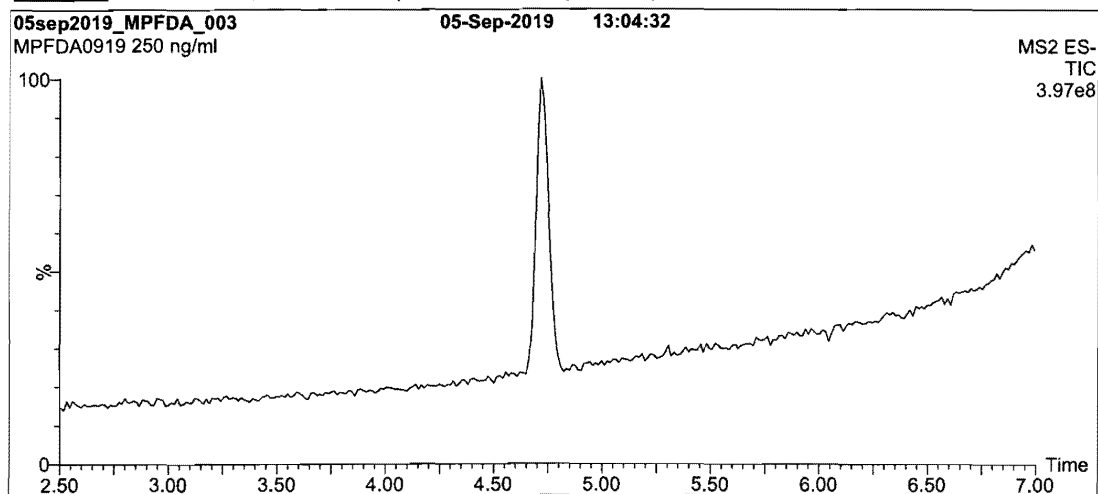
MS Parameters

Collision Gas (mbar) = 3.45e-3

Collision Energy (eV) = 10

19L0605

Figure 1: MPFDA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0605

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L 0605



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFDA

LOT NUMBER:

MPFDA0919

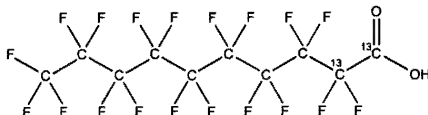
COMPOUND:

Perfluoro-n-[1,2-¹³C₂]decanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₈HF₁₈O₂

MOLECULAR WEIGHT:

516.07

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

LAST TESTED: (mm/dd/yyyy)

09/05/2019

(1,2-¹³C₂)

EXPIRY DATE: (mm/dd/yyyy)

09/05/2024

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, General Manager

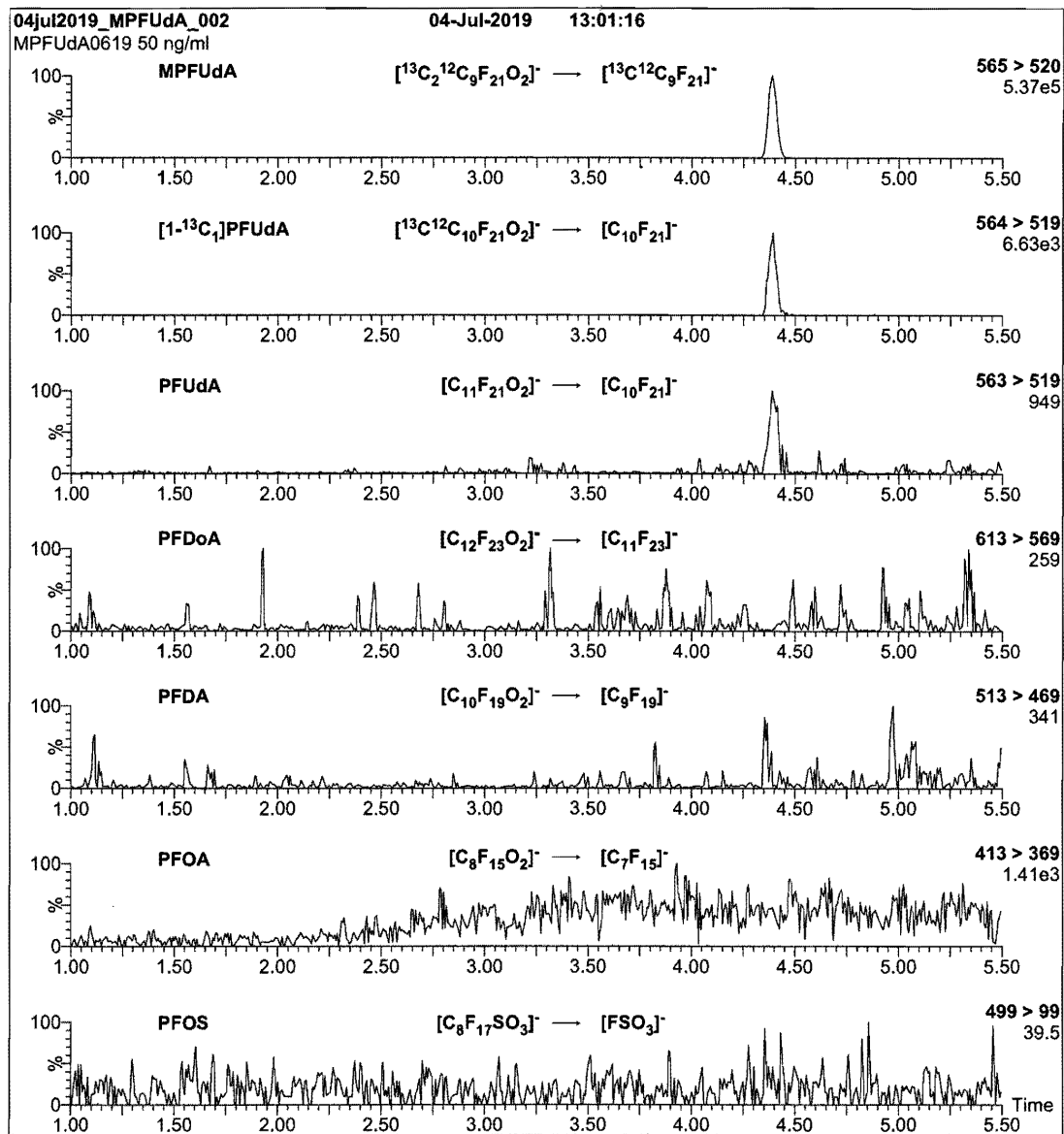
Date:

09/09/2019
(mm/dd/yyyy)

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19L0606

Figure 2: MPFudA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (MPFudA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

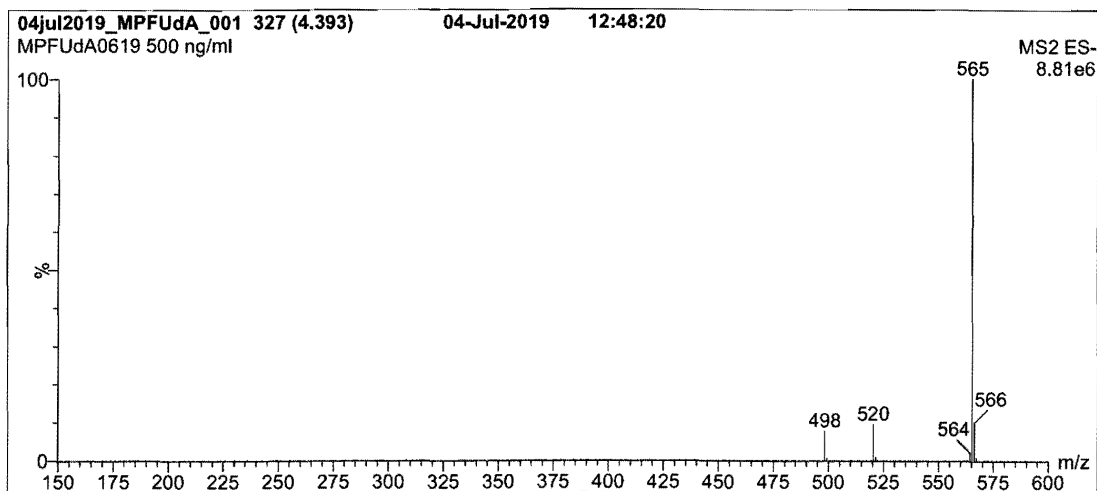
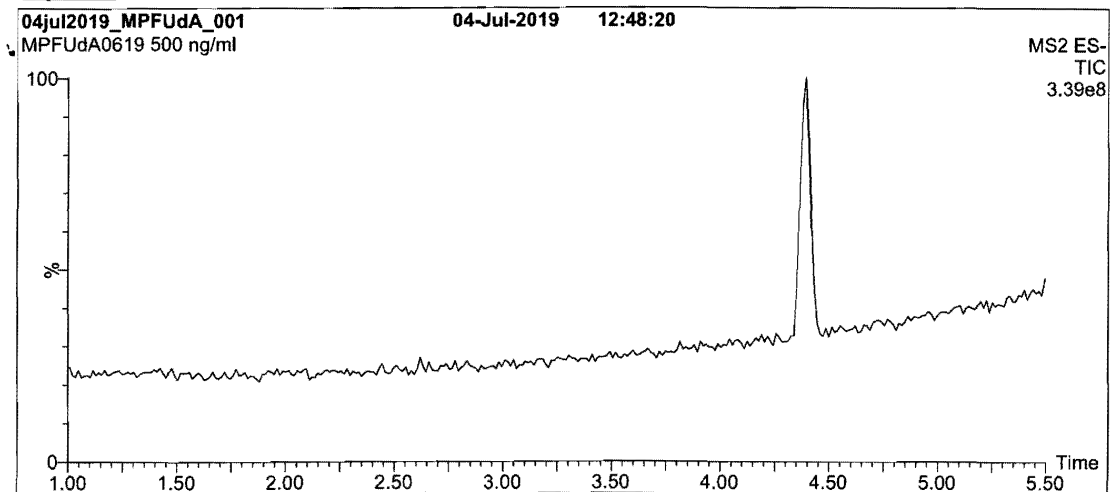
MS Parameters

Collision Gas (mbar) = 3.39e-3

Collision Energy (eV) = 12

19L0600

Figure 1: MPFUDa; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0606

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 $x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0606



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFUdA

LOT NUMBER:

MPFUdA0619

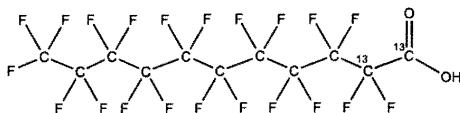
COMPOUND:

Perfluoro-n-[1,2-¹³C₂]undecanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₉HF₂₁O₂

MOLECULAR WEIGHT:

566.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

07/04/2019

EXPIRY DATE: (mm/dd/yyyy)

07/04/2024

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 1-¹³C₁-PFUdA (~1%; see Figure 2), 2-¹³C₁-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ¹³C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

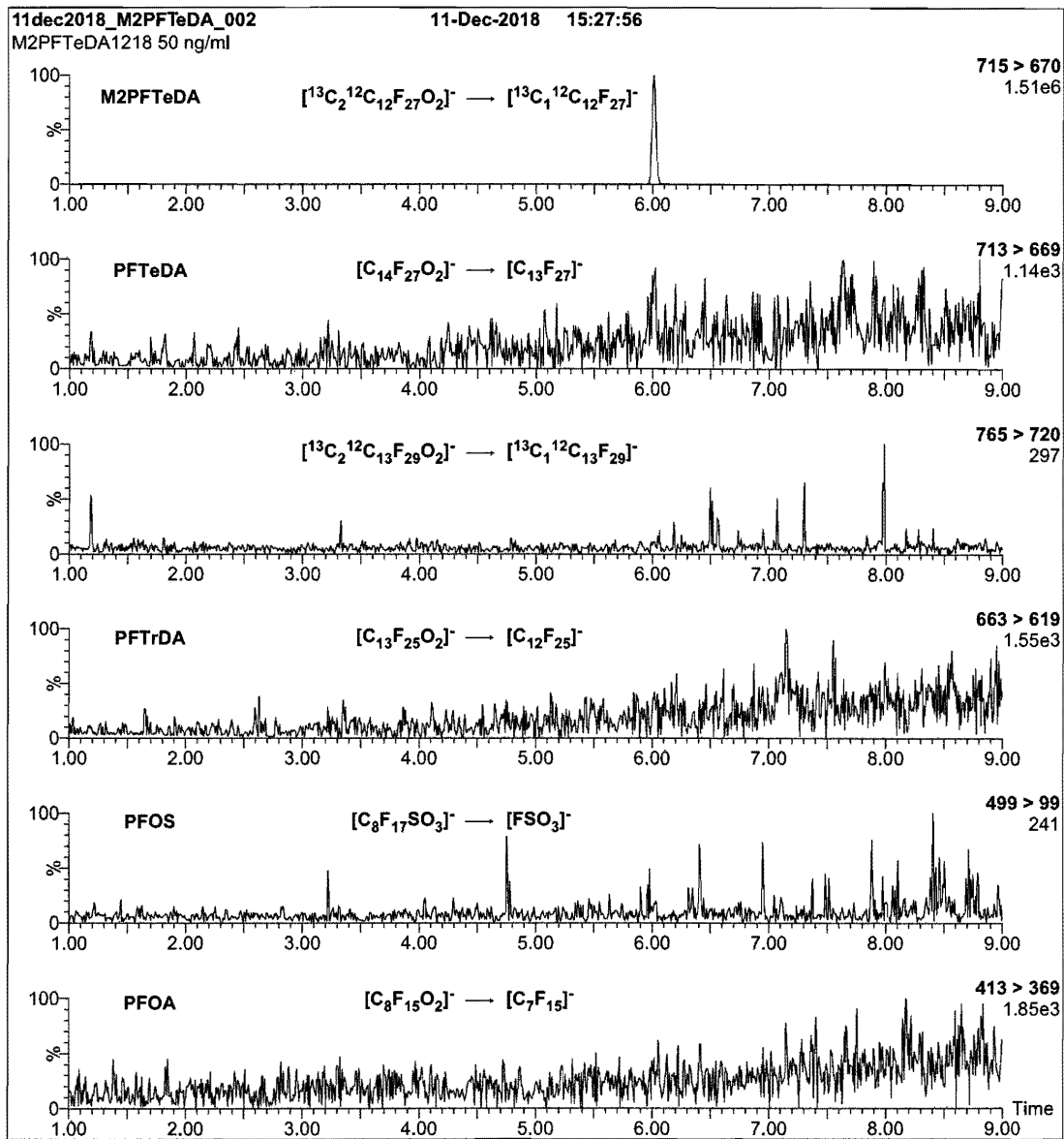
Date:

07/05/2019
(mm/dd/yyyy)

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19L0607

Figure 2: M2PFTeDA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M2PFTeDA)

Mobile phase: Same as Figure 1

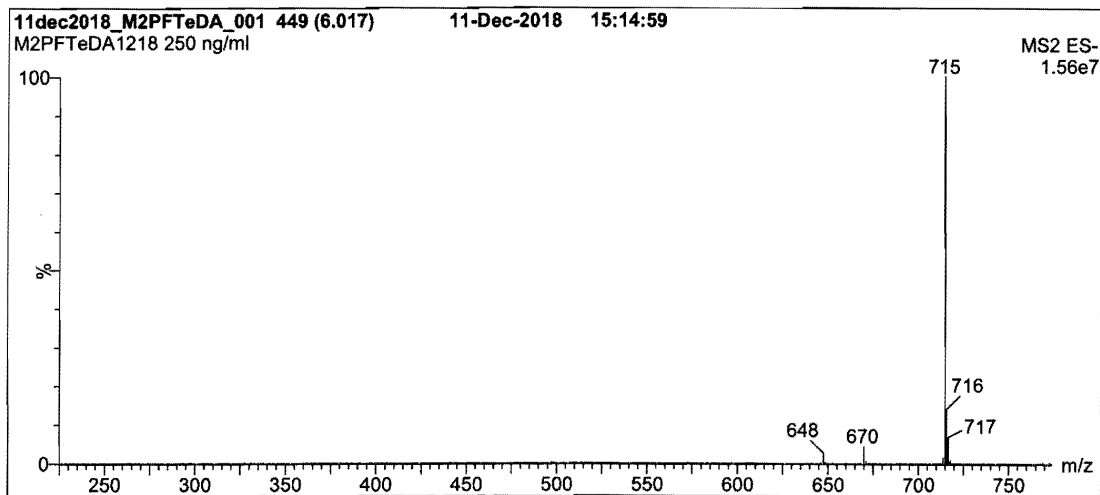
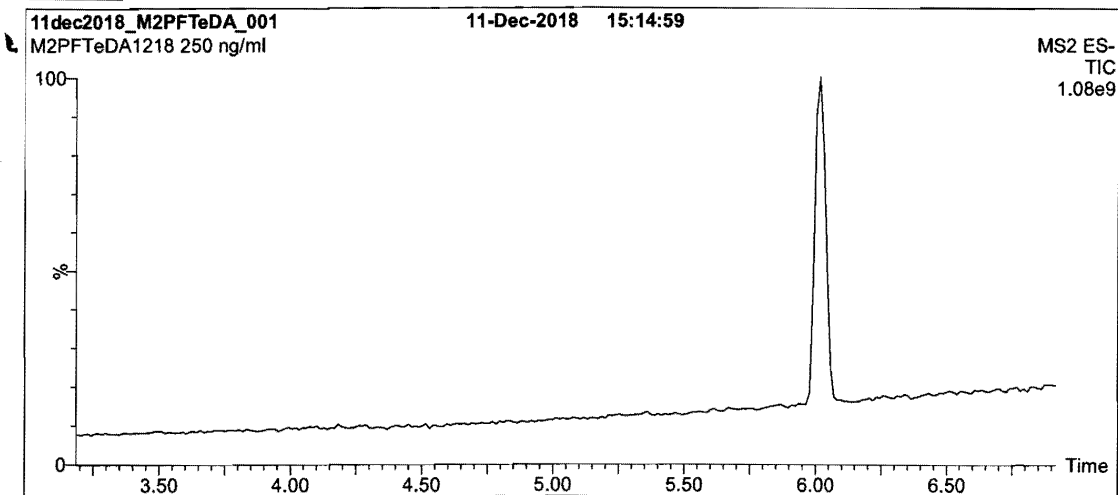
Flow: 300 $\mu\text{l}/\text{min}$

MS Parameters

Collision Gas (mbar) = 3.16e-3
Collision Energy (eV) = 14

19L0607

Figure 1: M2PFTeDA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV): 2.00
Cone Voltage (V): 10.00
Desolvation Temperature (°C): 500
Desolvation Gas Flow (l/hr): 1000

1910607

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0607



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:

M2PFTeDA

LOT NUMBER:

M2PFTeDA1218

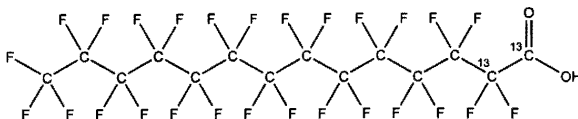
COMPOUND:

Perfluoro-n-[1,2-¹³C₂]tetradecanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₁₂HF₂₇O₂

MOLECULAR WEIGHT:

716.10

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

12/11/2018

EXPIRY DATE: (mm/dd/yyyy)

12/11/2023

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, General Manager

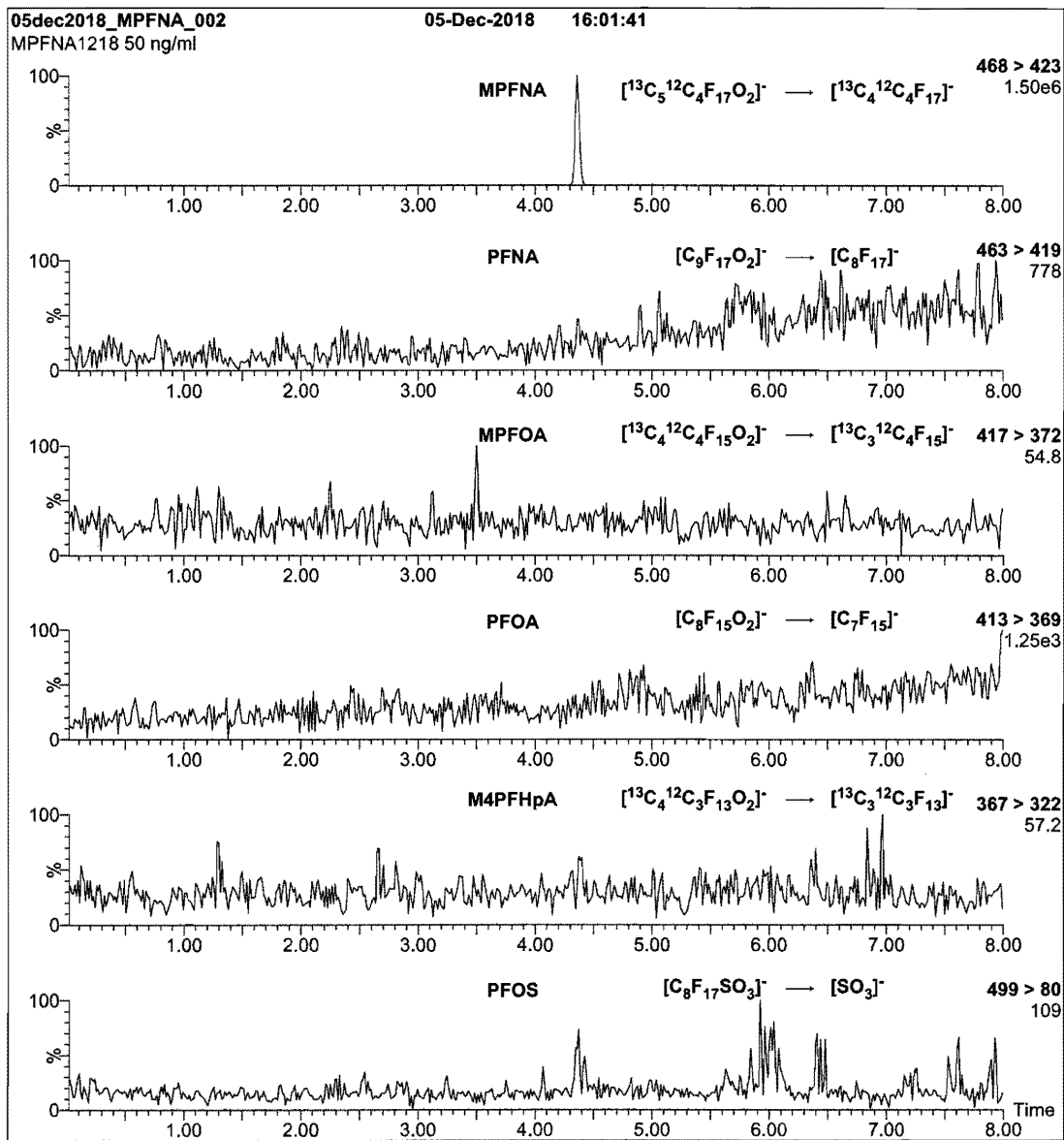
Date:

12/20/2018
(mm/dd/yyyy)

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19L0608

Figure 2: MPFNA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (MPFNA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

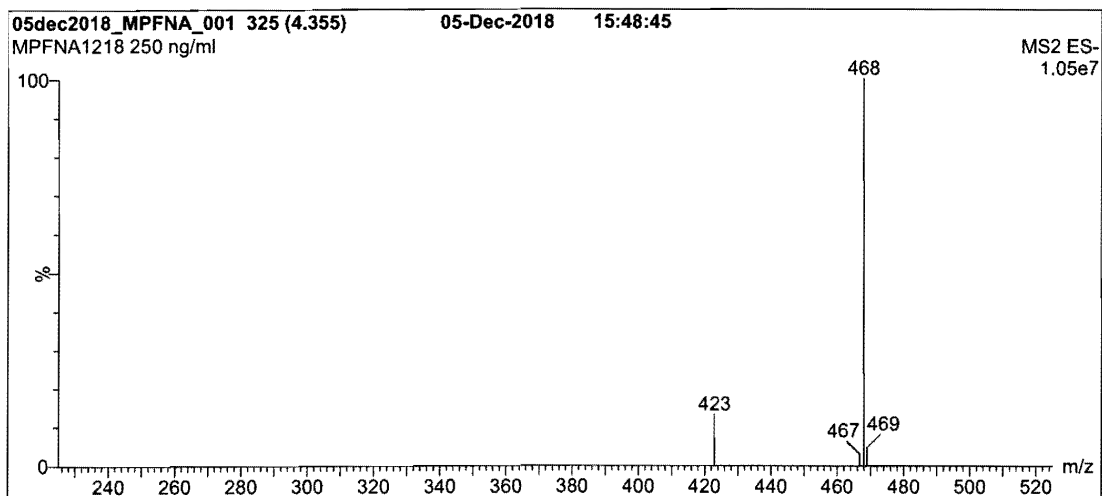
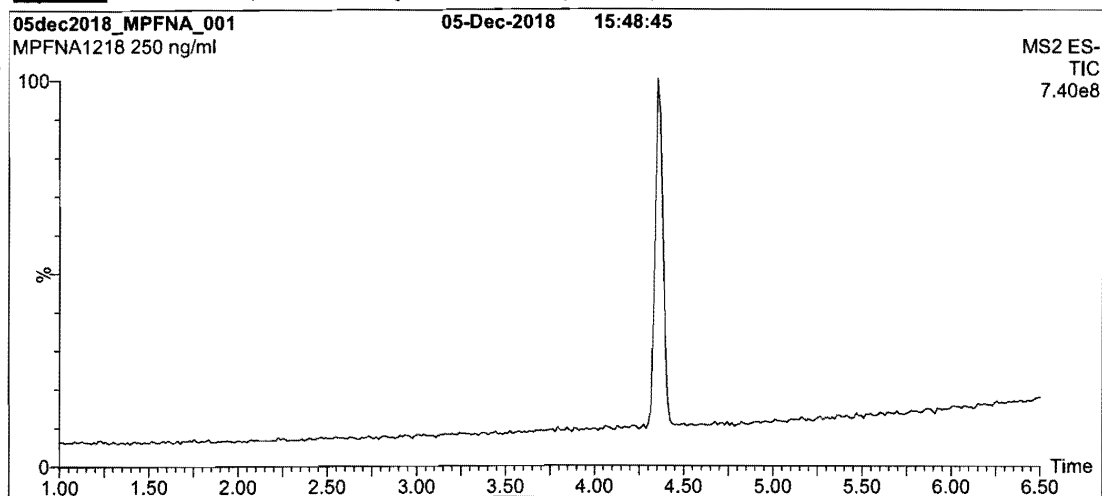
MS Parameters

Collision Gas (mbar) = 2.88e-3

Collision Energy (eV) = 10

19120608

Figure 1: MPFNA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0608

INTENDED USE:

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HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

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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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19Lab008



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFNA

LOT NUMBER:

MPFNA1218

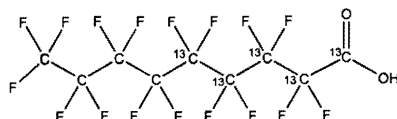
COMPOUND:

Perfluoro-n-[1,2,3,4,5-¹³C₅]nonanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₅¹²C₄HF₁₇O₂

MOLECULAR WEIGHT:

469.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99%¹³C
(1,2,3,4,5-¹³C₅)

LAST TESTED: (mm/dd/yyyy)

12/05/2018

EXPIRY DATE: (mm/dd/yyyy)

12/05/2023

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, General Manager

Date:

12/10/2018
(mm/dd/yyyy)

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19L0609



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFDoA

LOT NUMBER:

MPFDoA1218

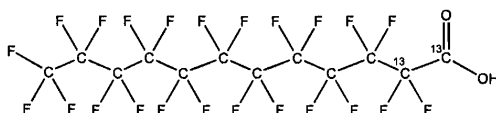
COMPOUND:

Perfluoro-n-[1,2-¹³C₂]dodecanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₁₀HF₂₃O₂

MOLECULAR WEIGHT:

616.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

12/11/2018

EXPIRY DATE: (mm/dd/yyyy)

12/11/2023

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, General Manager

Date:

12/18/2018
(mm/dd/yyyy)

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19L0609

INTENDED USE:

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HANDLING:

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EXPIRY DATE / PERIOD OF VALIDITY:

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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:

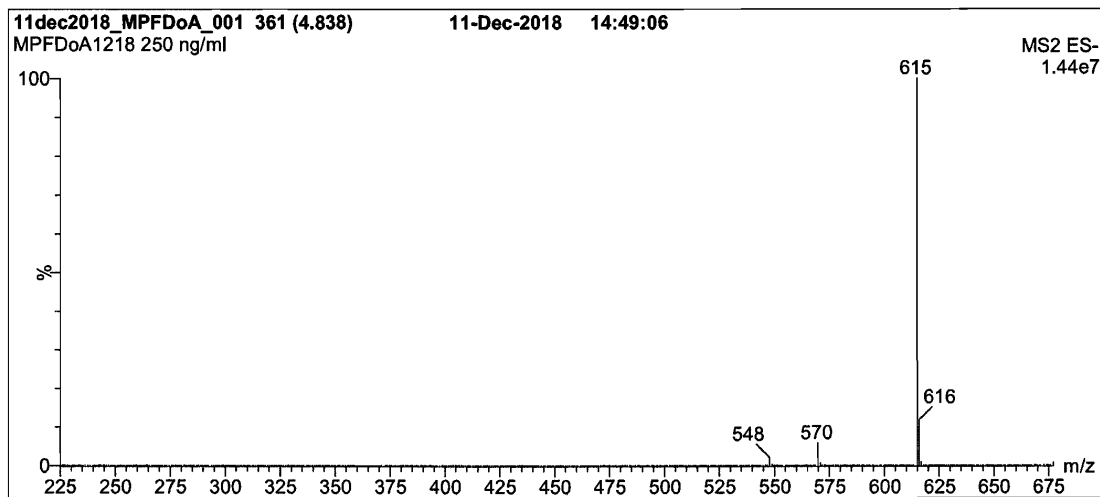
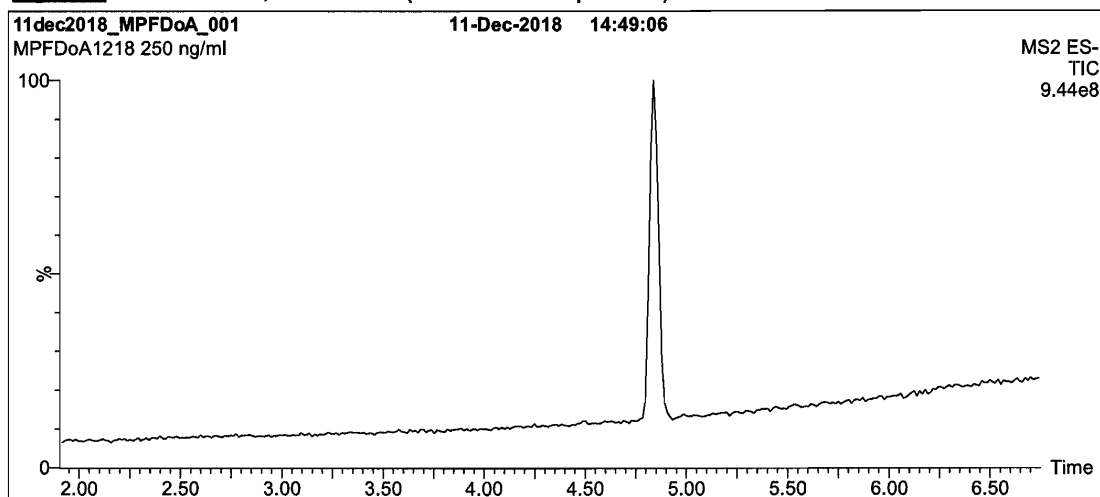
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0609

Figure 1: MPFDoA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

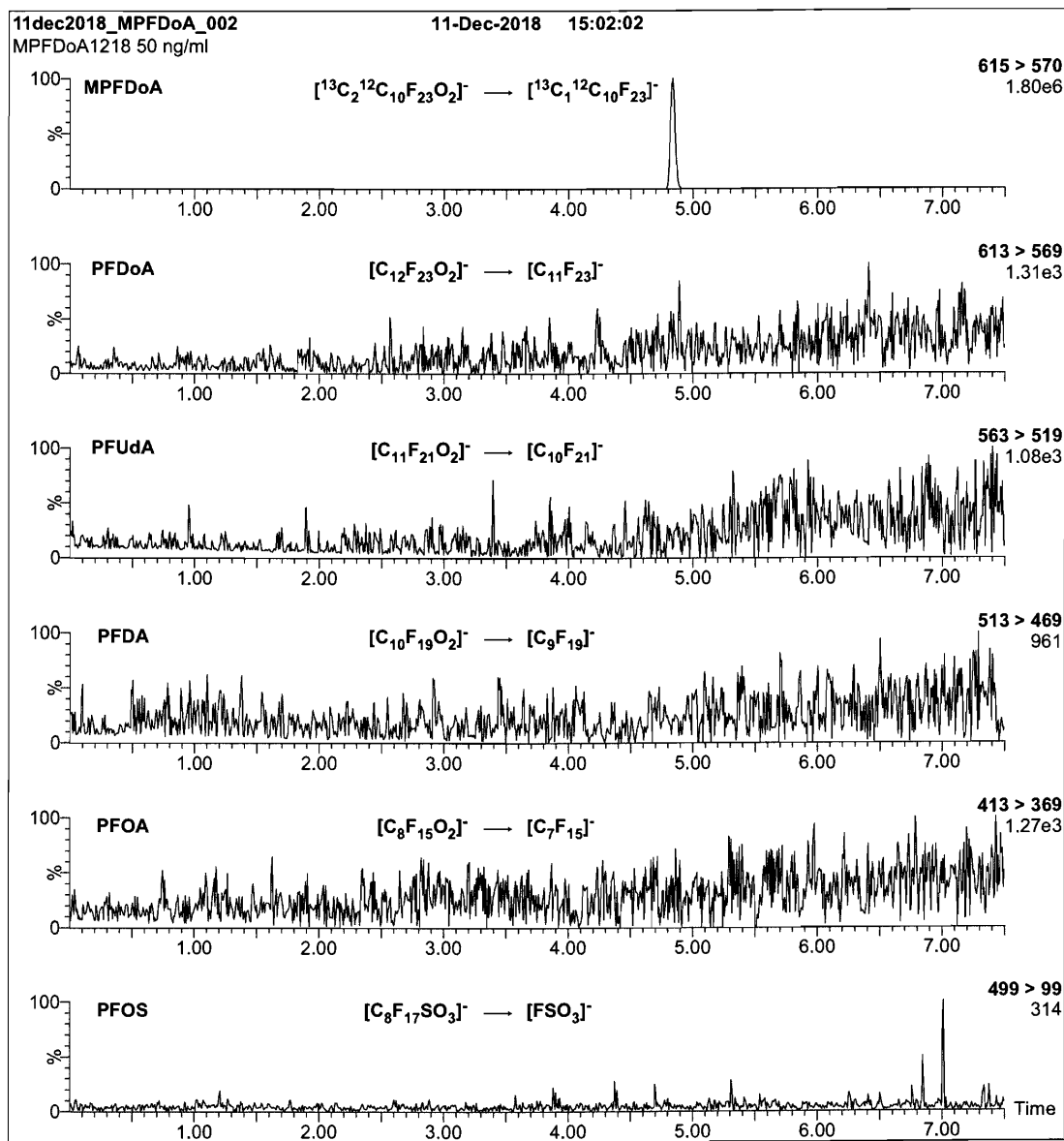
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0609

Figure 2: MPFDoA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (MPFDoA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

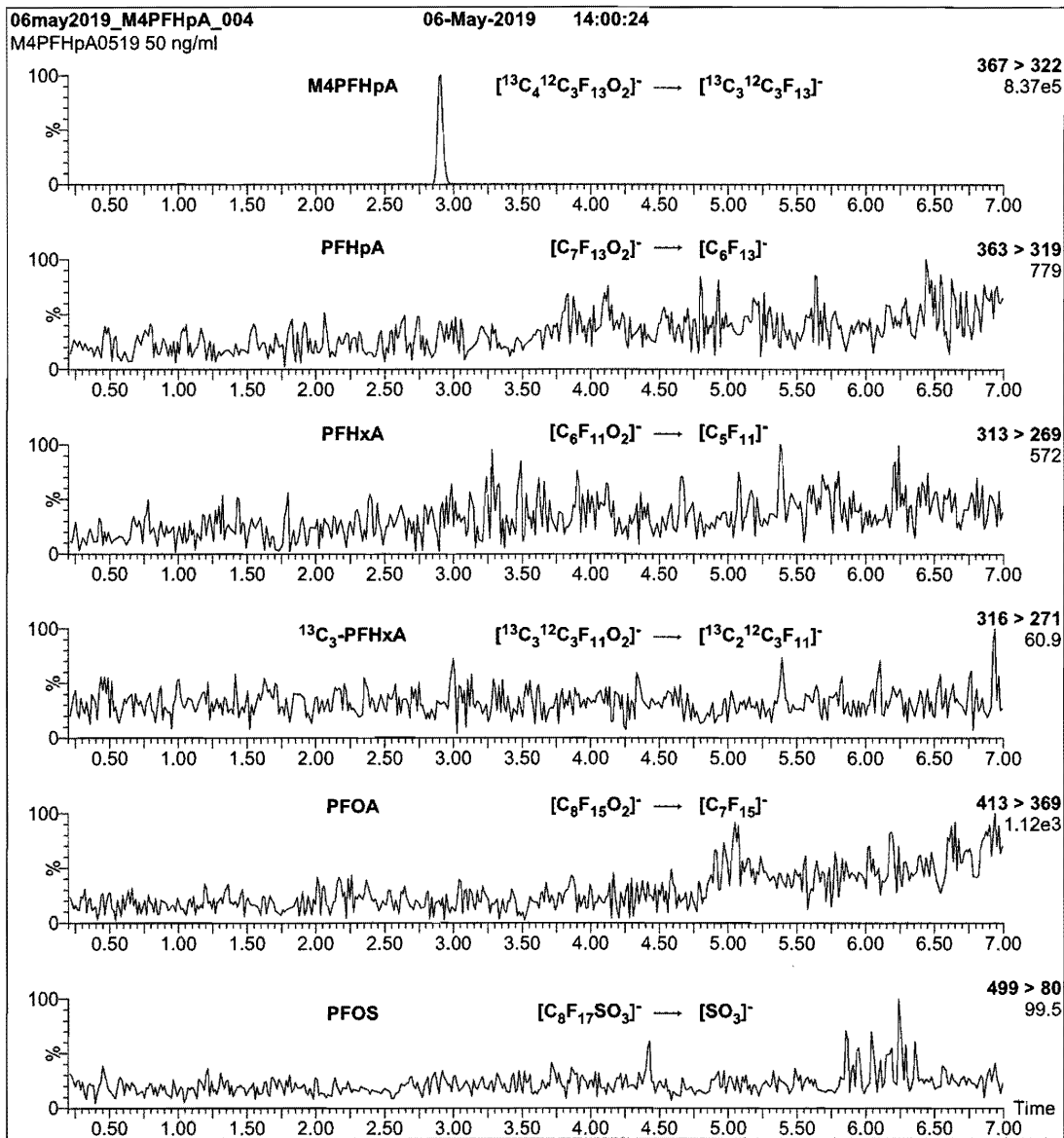
MS Parameters

Collision Gas (mbar) = 3.16e-3

Collision Energy (eV) = 12

19L0610

Figure 2: M4PFHpA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M4PFHpA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

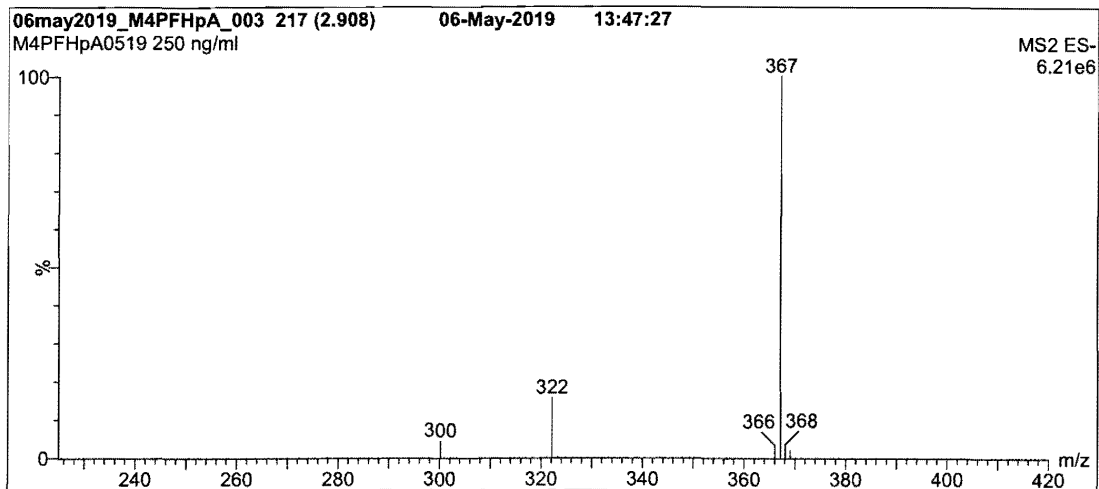
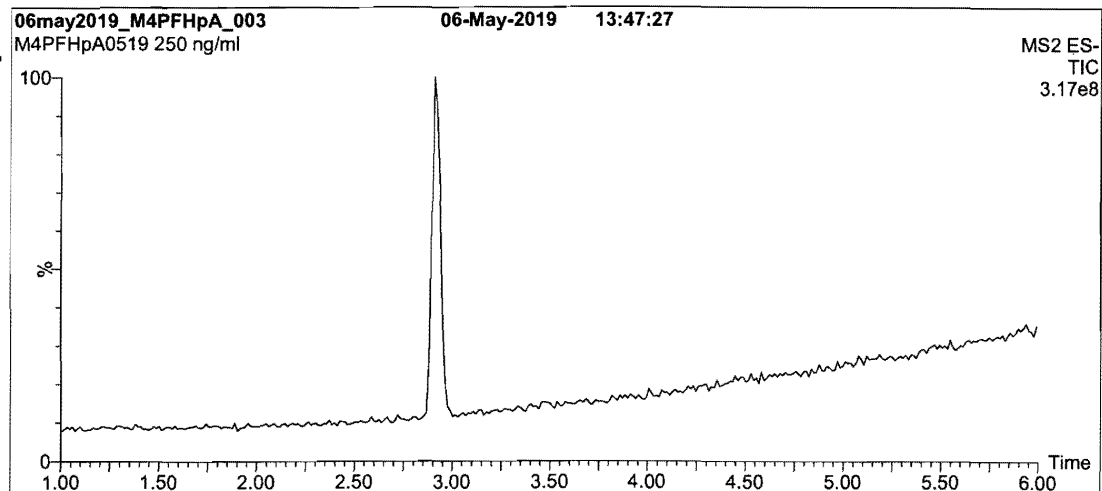
MS Parameters

Collision Gas (mbar) = 2.87e-3

Collision Energy (eV) = 8

19L0610

Figure 1: M4PFHpA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L060

INTENDED USE:

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HANDLING:

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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UNCERTAINTY:

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TRACEABILITY:

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19L0610



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M4PFHpA

LOT NUMBER:

M4PFHpA0519

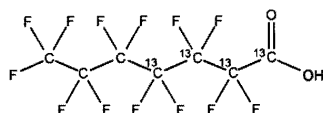
COMPOUND:

Perfluoro-n-[1,2,3,4-¹³C₄]heptanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₄¹²C₃HF₁₃O₂

MOLECULAR WEIGHT:

368.03

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99%¹³C
(1,2,3,4-¹³C₄)

LAST TESTED: (mm/dd/yyyy)

05/06/2019

EXPIRY DATE: (mm/dd/yyyy)

05/06/2024

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, General Manager

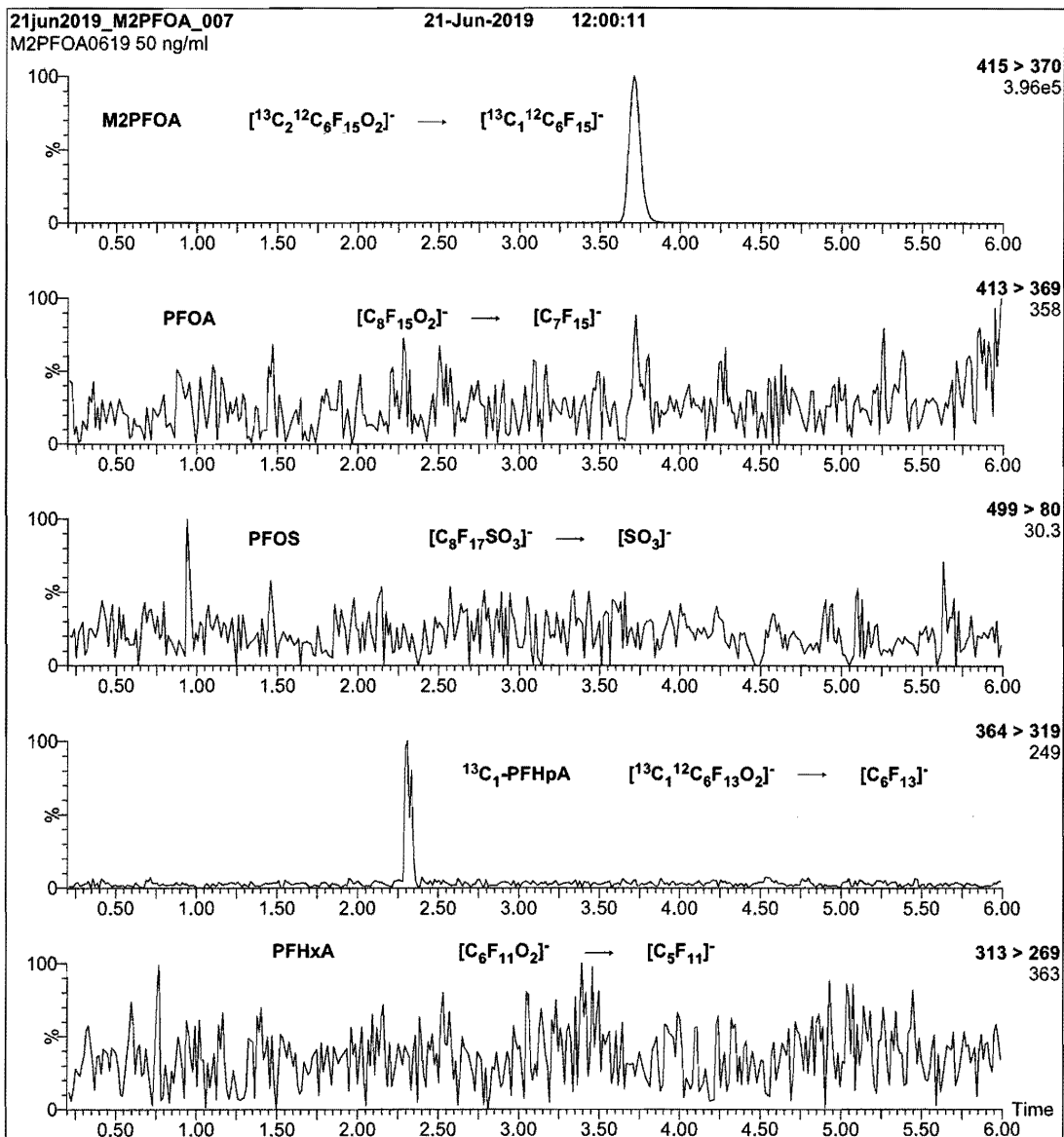
Date:

05/17/2019
(mm/dd/yyyy)

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19LOG61

Figure 2: M2PFOA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M2PFOA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

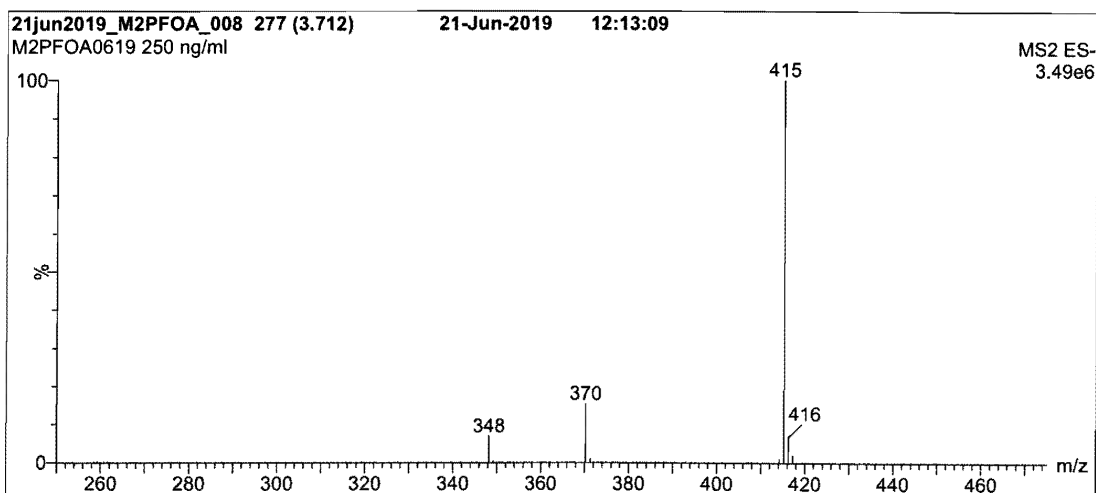
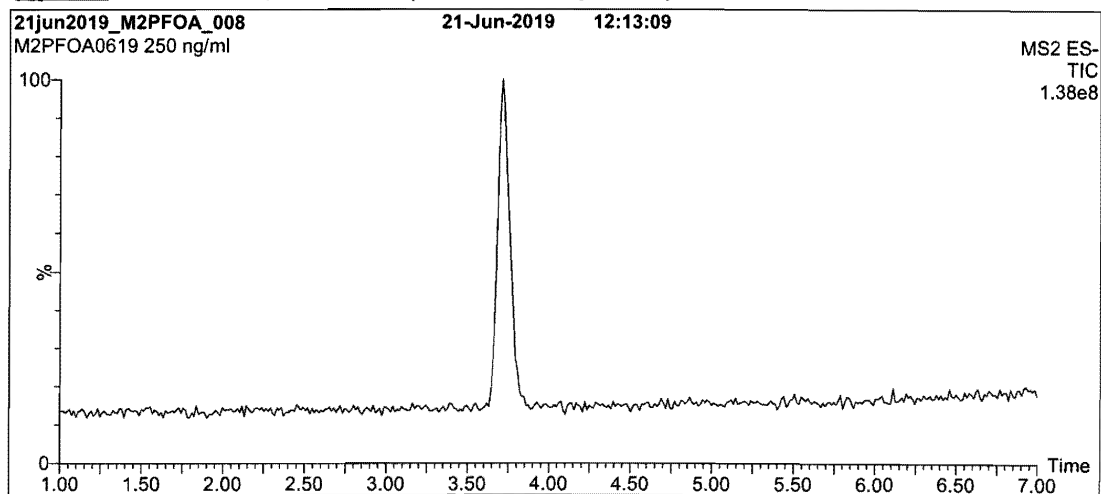
MS Parameters

Collision Gas (mbar) = 2.88e-3

Collision Energy (eV) = 8

19L0611

Figure 1: M2PFOA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (l/hr) = 1000

1920611

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L 0611



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M2PFOA

LOT NUMBER:

M2PFOA0619

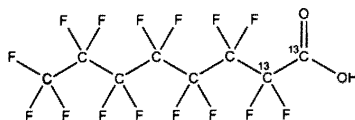
COMPOUND:

Perfluoro-n-[1,2-¹³C₂]octanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₆H₁₅O₂

MOLECULAR WEIGHT:

416.05

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99%¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

06/21/2019

EXPIRY DATE: (mm/dd/yyyy)

06/21/2024

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-[¹³C₁]heptanoic acid (¹³C₁-PFHpA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

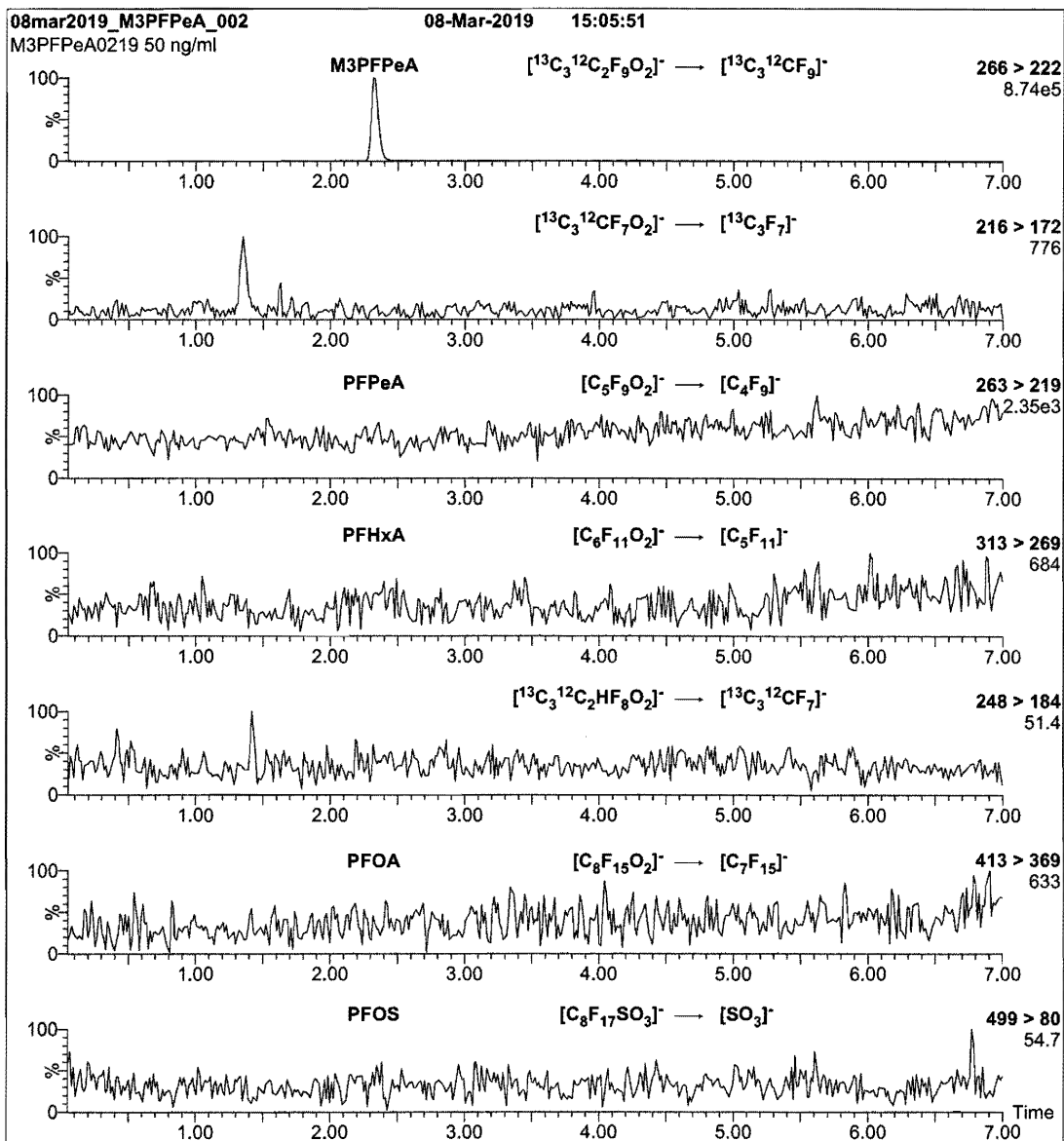
Date: 06/21/2019

(mm/dd/yyyy)

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19L0612

Figure 2: M3PFPeA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M3PFPeA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

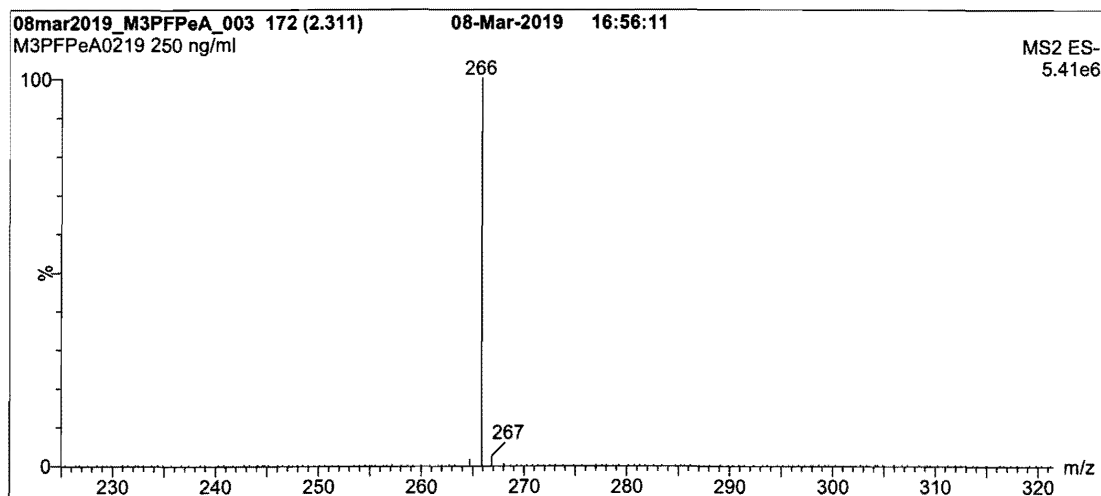
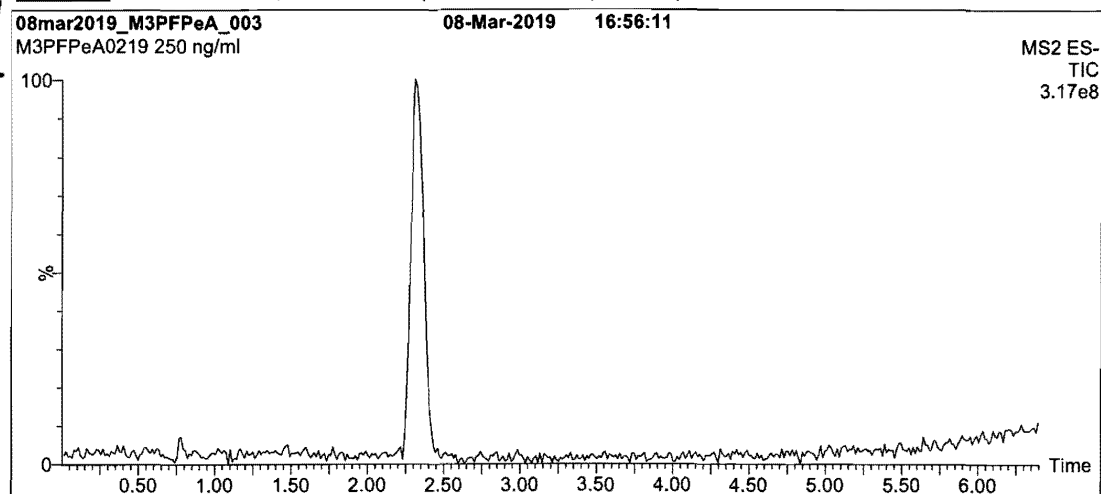
MS Parameters

Collision Gas (mbar) = 2.84e-3

Collision Energy (eV) = 8

19L0612

Figure 1: M3PFPeA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L 0612

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0612



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M3PFPeA

LOT NUMBER:

M3PFPeA0219

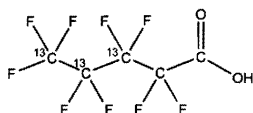
COMPOUND:

Perfluoro-n-[3,4,5-¹³C₃]pentanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₃¹²C₂HF₉O₂

MOLECULAR WEIGHT:

267.02

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C
(3,4,5-¹³C₃)

LAST TESTED: (mm/dd/yyyy)

03/08/2019

EXPIRY DATE: (mm/dd/yyyy)

03/08/2024

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-[¹³C₃]butanoic acid and 0.05% of perfluoro-1-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

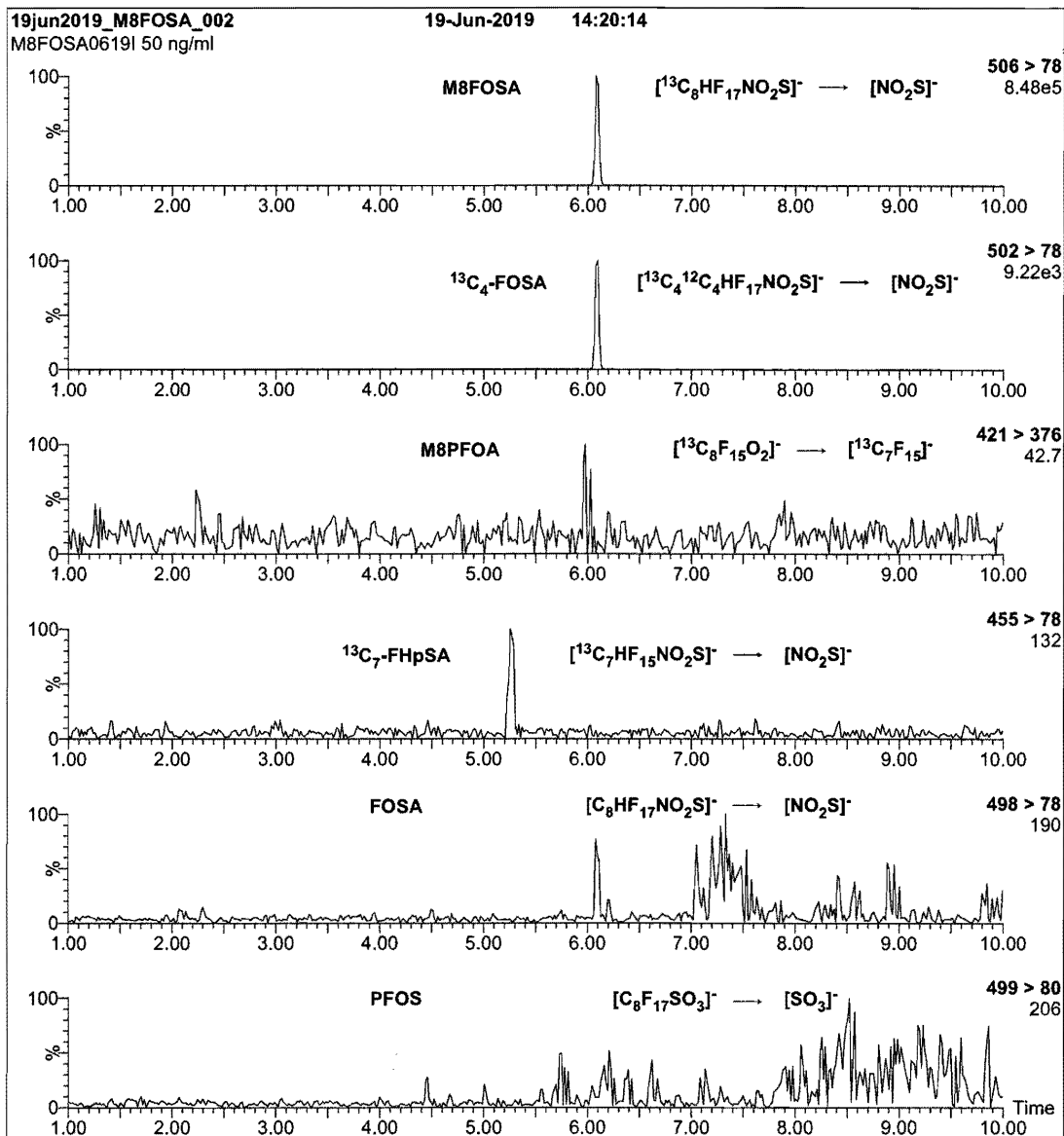
Date:

03/19/2019
(mm/dd/yyyy)

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19L06B

Figure 2: M8FOSA-I; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M8FOSA-I)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

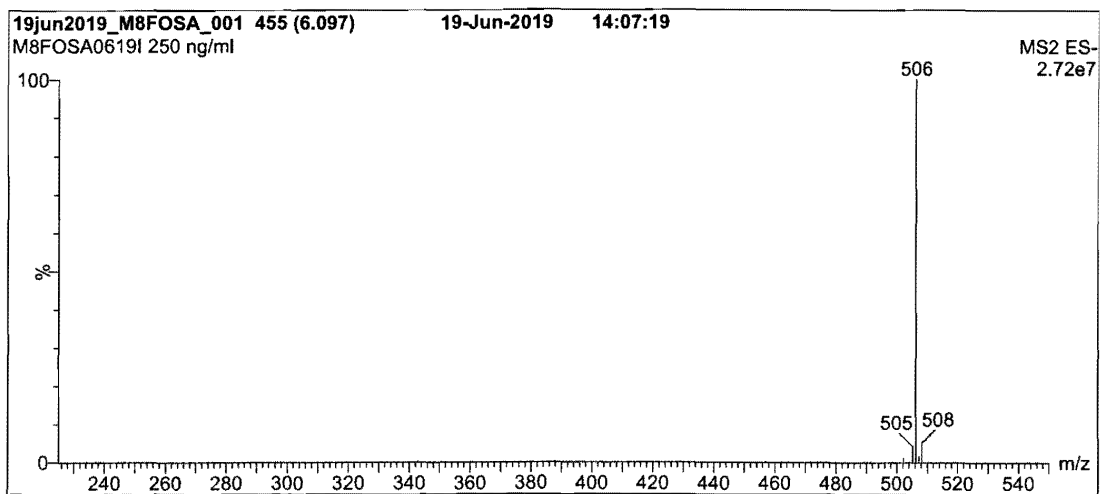
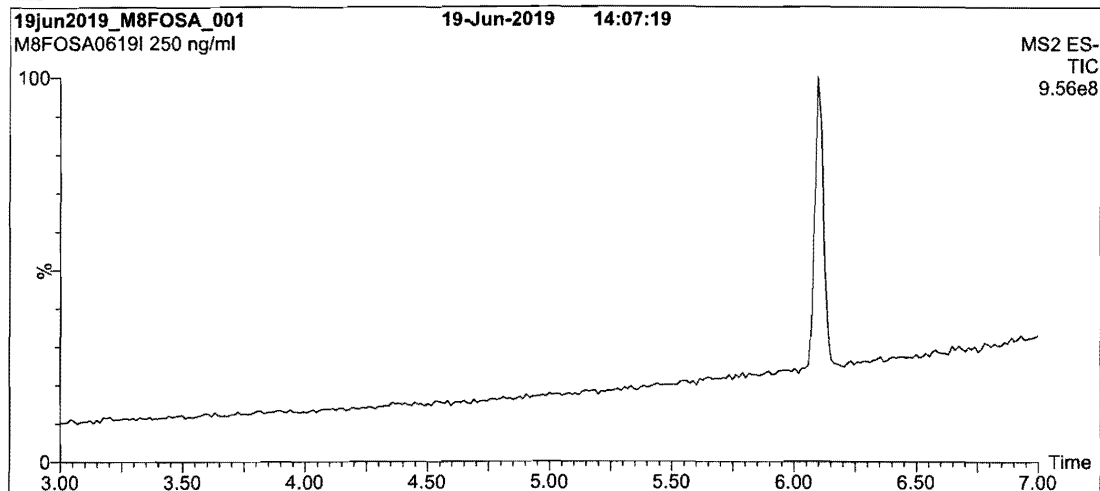
MS Parameters

Collision Gas (mbar) = 2.94e-3

Collision Energy (eV) = 30

19L0613

Figure 1: M8FOSA-I; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0613

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 $x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0613



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M8FOSA-I

LOT NUMBER:

M8FOSA0619I

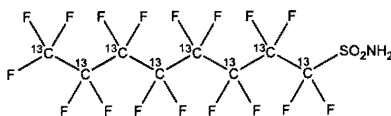
COMPOUND:

Perfluoro-1-[¹³C₈]octanesulfonamide

STRUCTURE:

CAS #:

1365803-60-6



MOLECULAR FORMULA:

¹³C₈H₂F₁₇NO₂S

MOLECULAR WEIGHT:

507.09

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Isopropanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99% ¹³C

LAST TESTED: (mm/dd/yyyy)

06/19/2019

(¹³C₈)

EXPIRY DATE: (mm/dd/yyyy)

06/19/2024

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 ~ 1.2% of perfluoro-1-[¹³C₄]octanesulfonamide and ~ 0.02% of perfluoro-1-[¹³C₇]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date: 06/21/2019

(mm/dd/yyyy)

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19L0614

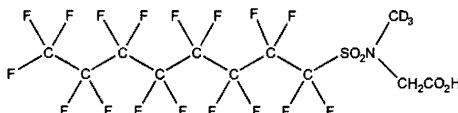


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA0719
COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 1400690-70-1



MOLECULAR FORMULA: C₁₁D₃H₃F₁₇NO₄S **MOLECULAR WEIGHT:** 574.23
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% ²H₃
LAST TESTED: (mm/dd/yyyy) 07/24/2019
EXPIRY DATE: (mm/dd/yyyy) 07/24/2024
RECOMMENDED STORAGE: Refrigerate ampoule

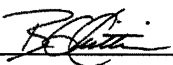
DOCUMENTATION/ DATA ATTACHED:

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, General Manager

Date: 07/26/2019
(mm/dd/yyyy)

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191206H

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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:

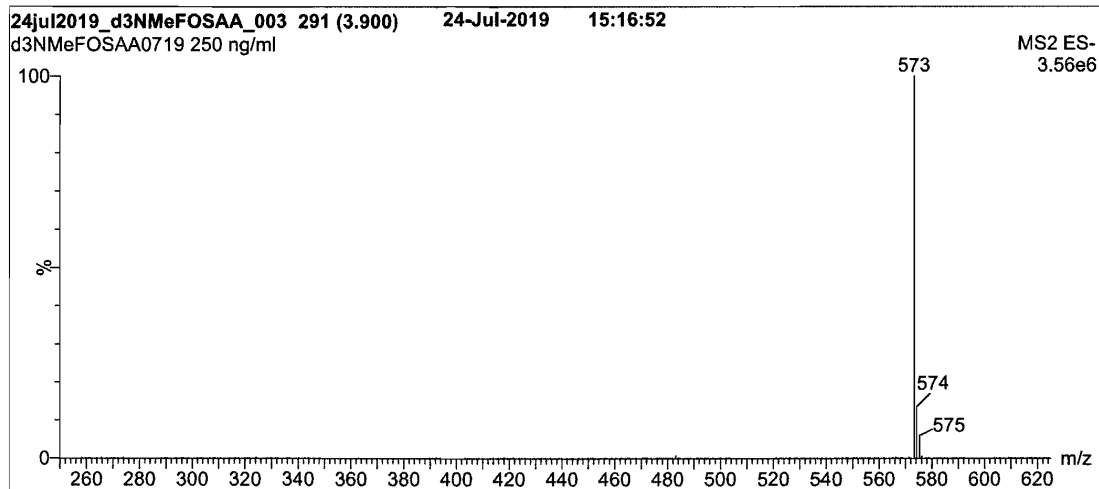
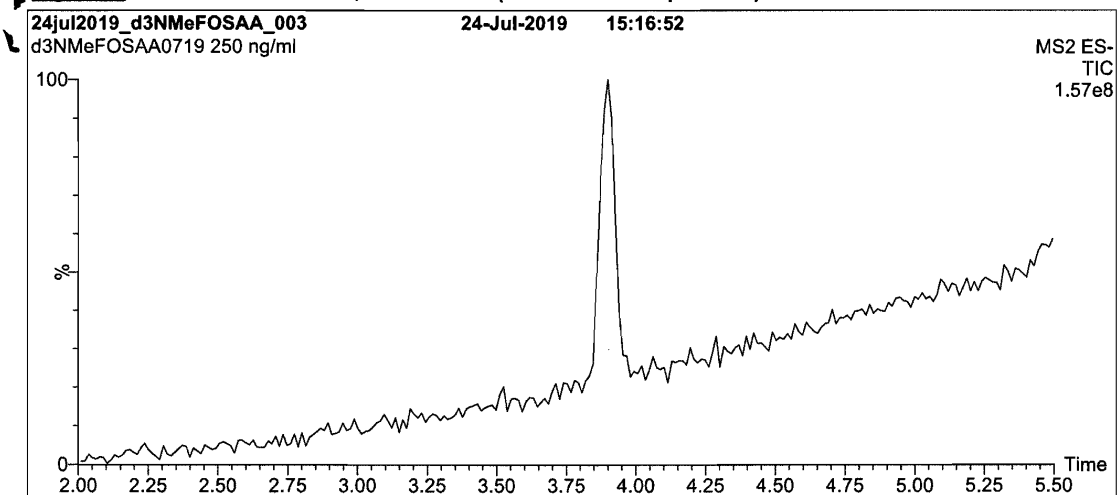
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0614

Figure 1: d3-N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

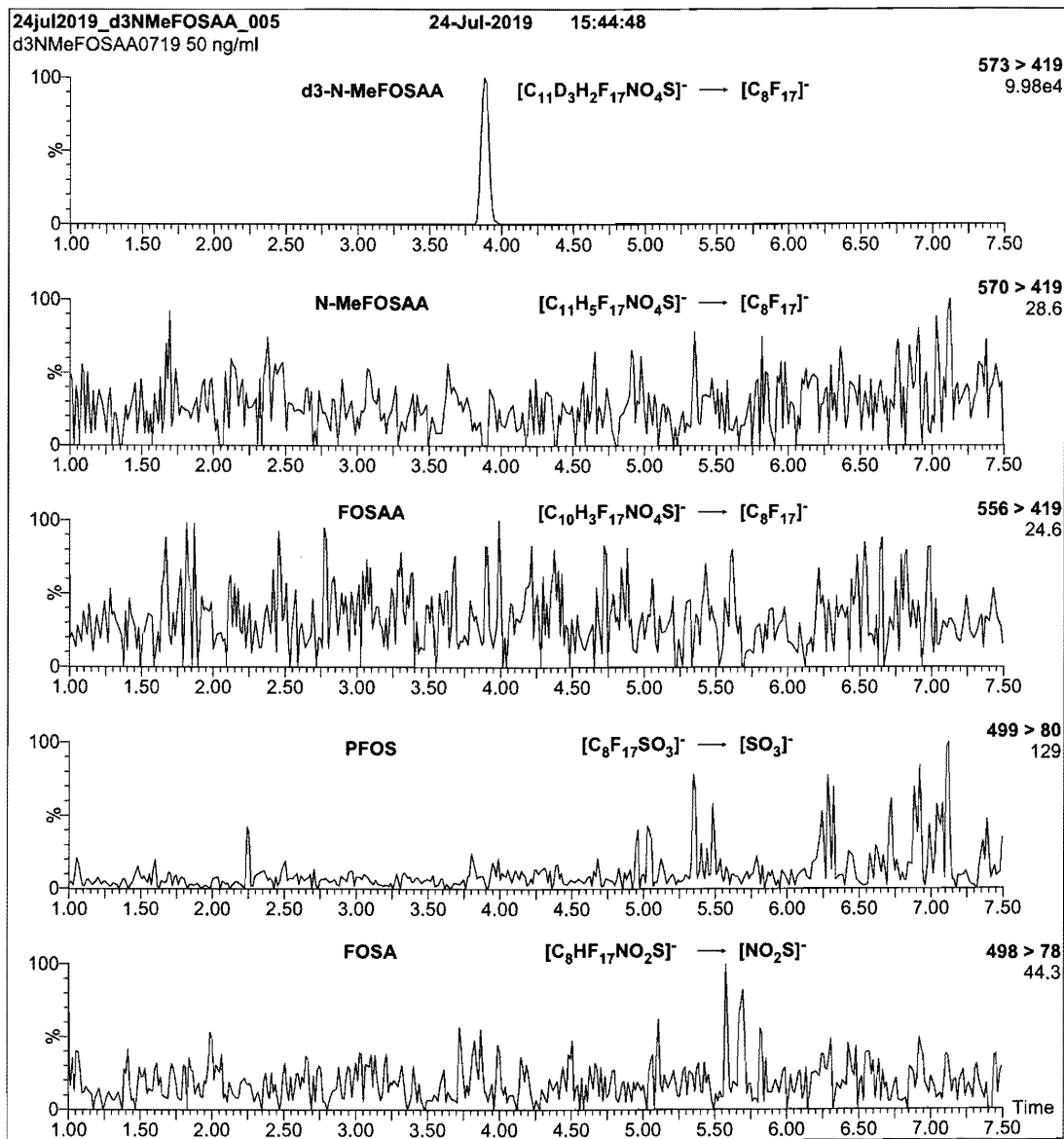
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0614

Figure 2: d3-N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (d3-N-MeFOSAA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

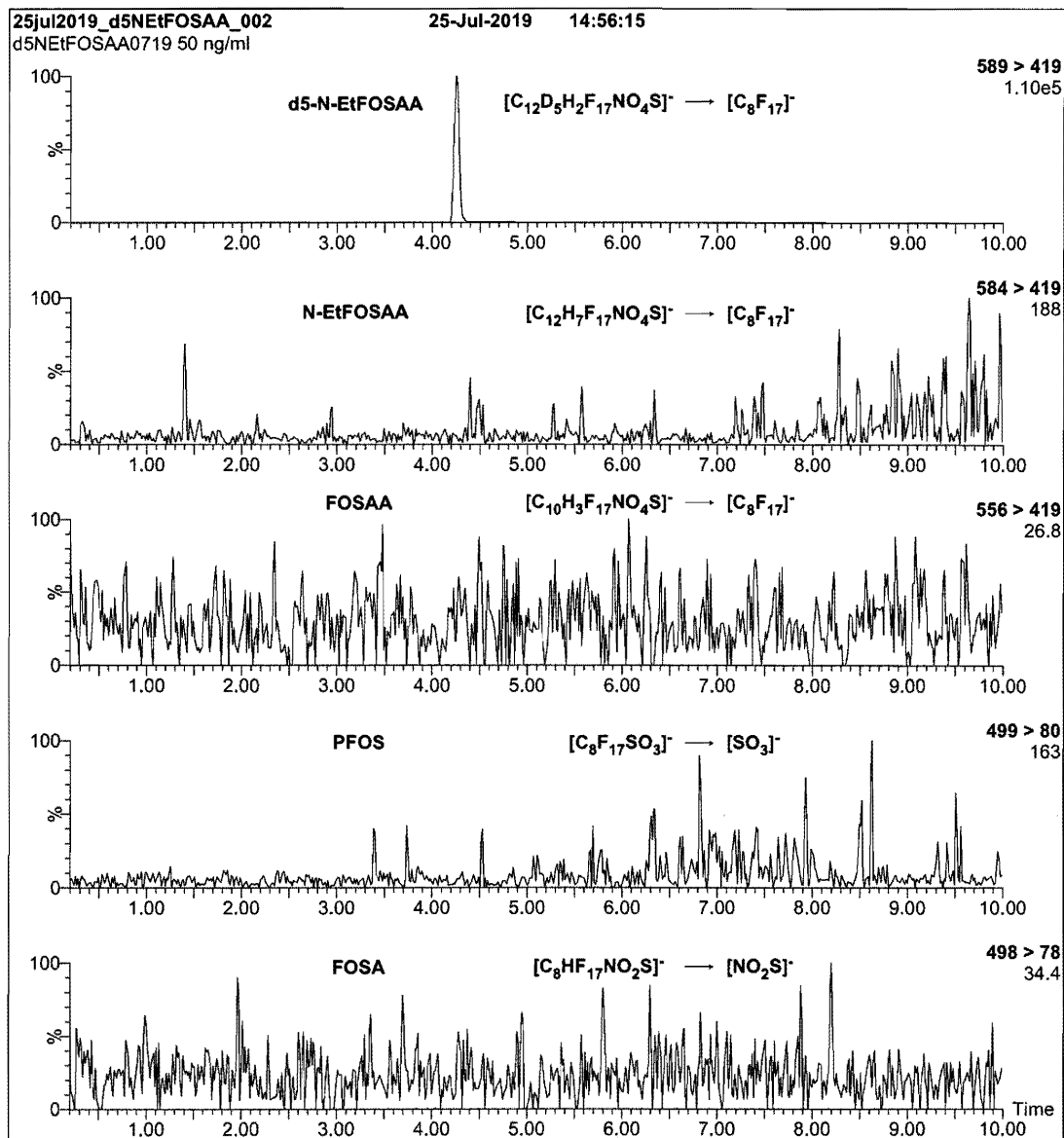
MS Parameters

Collision Gas (mbar) = 3.33e-3

Collision Energy (eV) = 18

19L0615

Figure 2: d5-N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (d5-N-EtFOSAA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

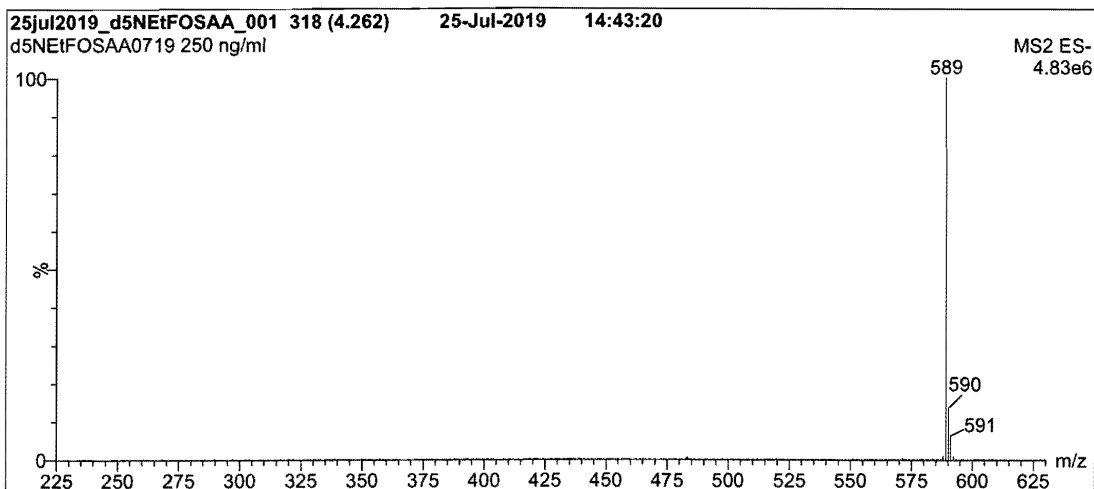
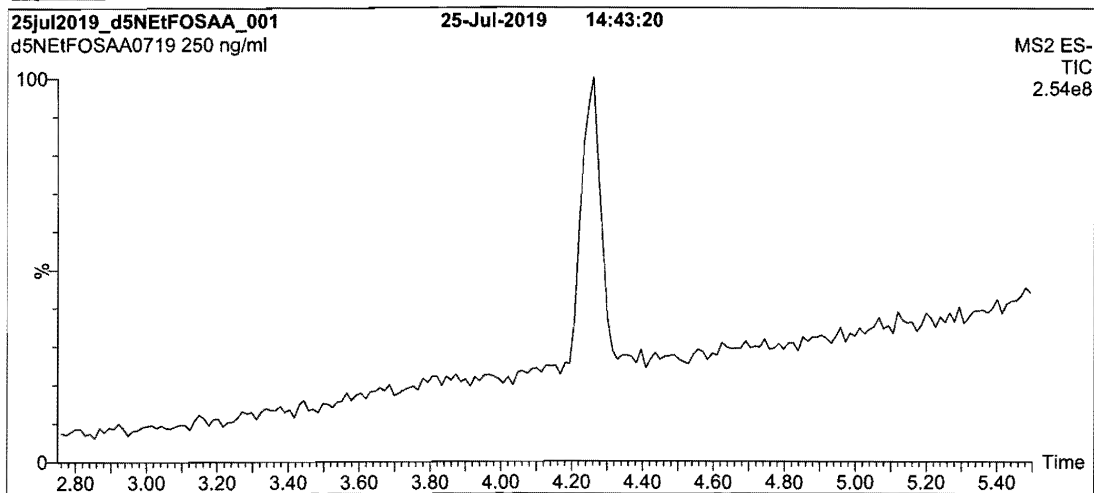
MS Parameters

Collision Gas (mbar) = 3.29e-3

Collision Energy (eV) = 18

19L0615

Figure 1: d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0615

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.

HANDLING:

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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UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0615



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

d5-N-EiFOSAA

LOT NUMBER:

d5NEiFOSAA0719

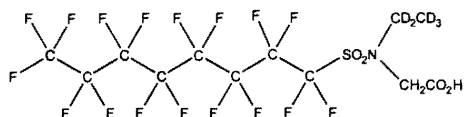
COMPOUND:

N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

C₁₂D₈H₃F₁₇NO₃S

MOLECULAR WEIGHT:

590.26

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥98% ²H₅

LAST TESTED: (mm/dd/yyyy)

07/25/2019

EXPIRY DATE: (mm/dd/yyyy)

07/25/2024

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, General Manager

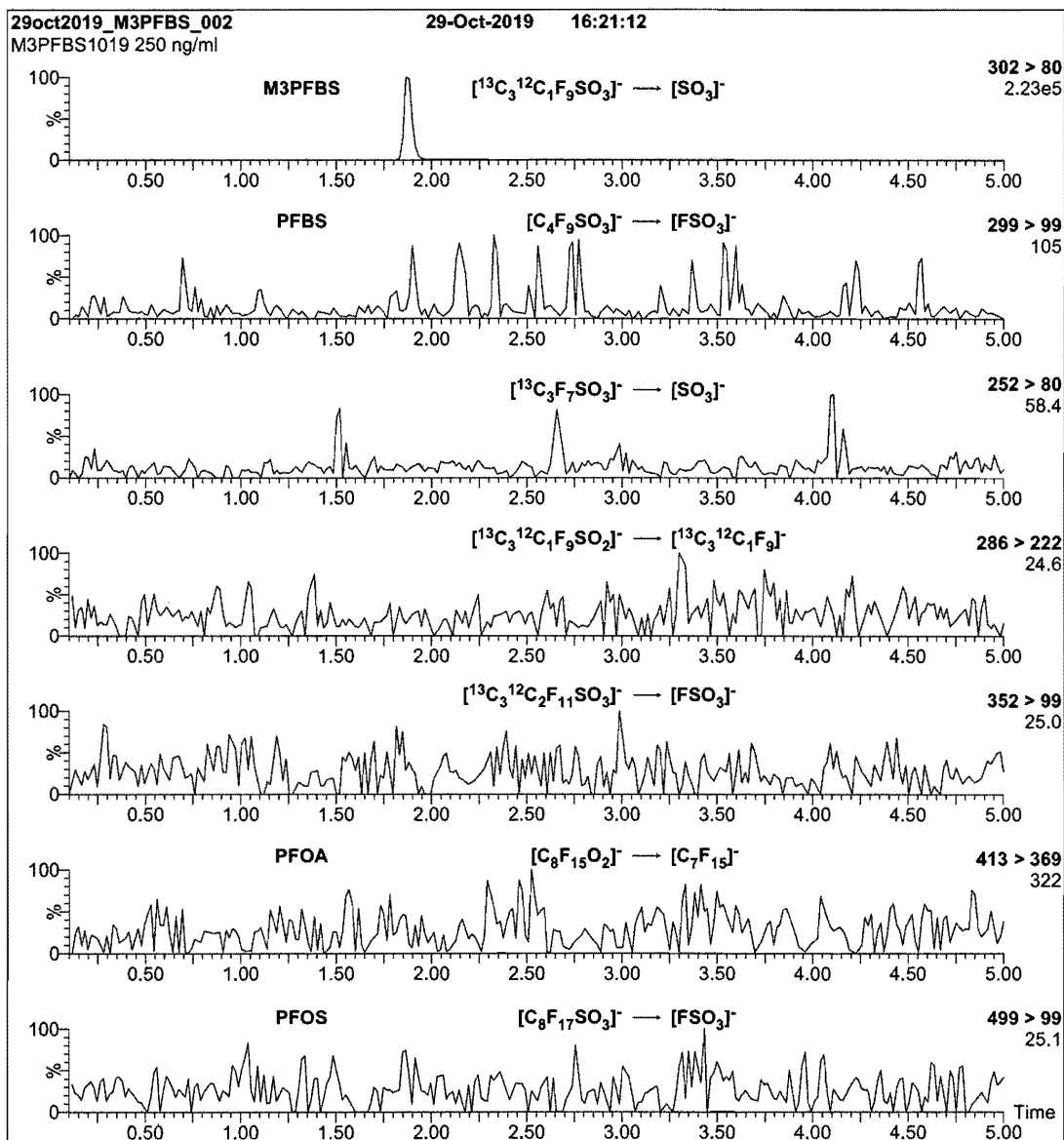
Date:

07/26/2019
(mm/dd/yyyy)

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19L0616

Figure 2: M3PFBS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M3PFBS)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

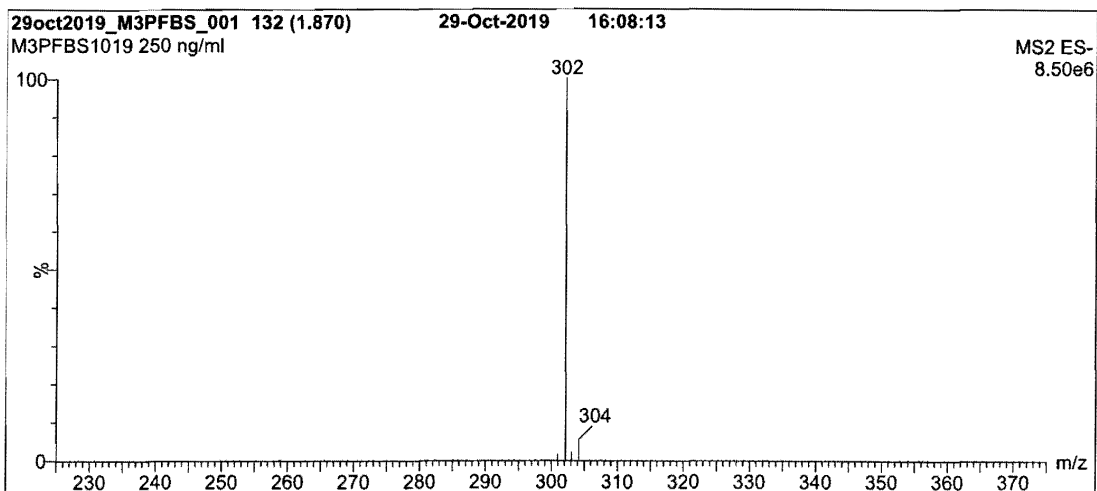
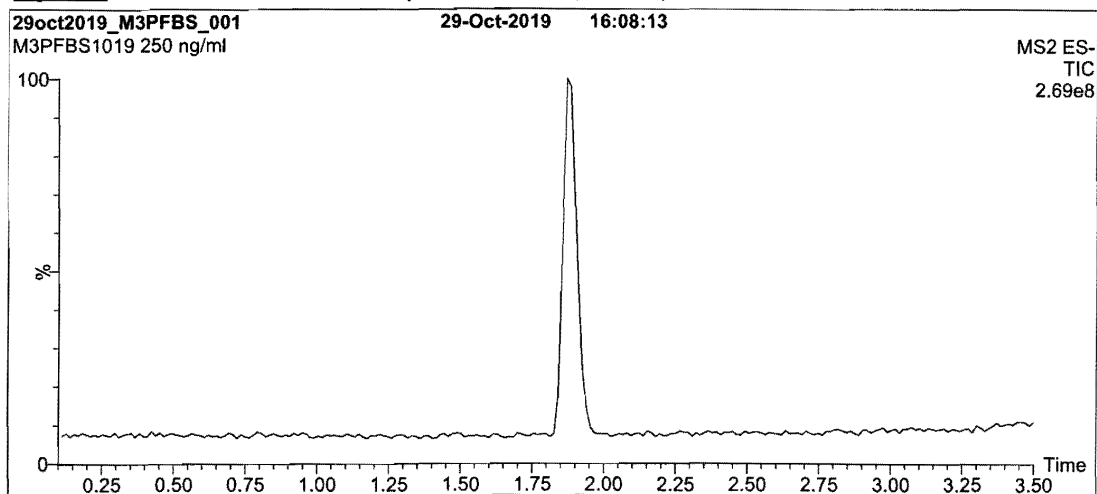
MS Parameters

Collision Gas (mbar) = 3.57e-3

Collision Energy (eV) = 30

19L0616

Figure 1: M3PFBS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0616

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.

HANDLING:

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:

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$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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:

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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19L 0616



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M3PFBS

LOT NUMBER:

M3PFBS1019

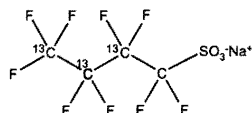
COMPOUND:

Sodium perfluoro-1-[2,3,4-¹³C₃]butanesulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₃¹²CF₉SO₃Na

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% ¹³C
(2,3,4-¹³C₃)

LAST TESTED: (mm/dd/yyyy)

10/29/2019

EXPIRY DATE: (mm/dd/yyyy)

10/29/2024

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 < 0.1% of perfluoro-1-buthanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

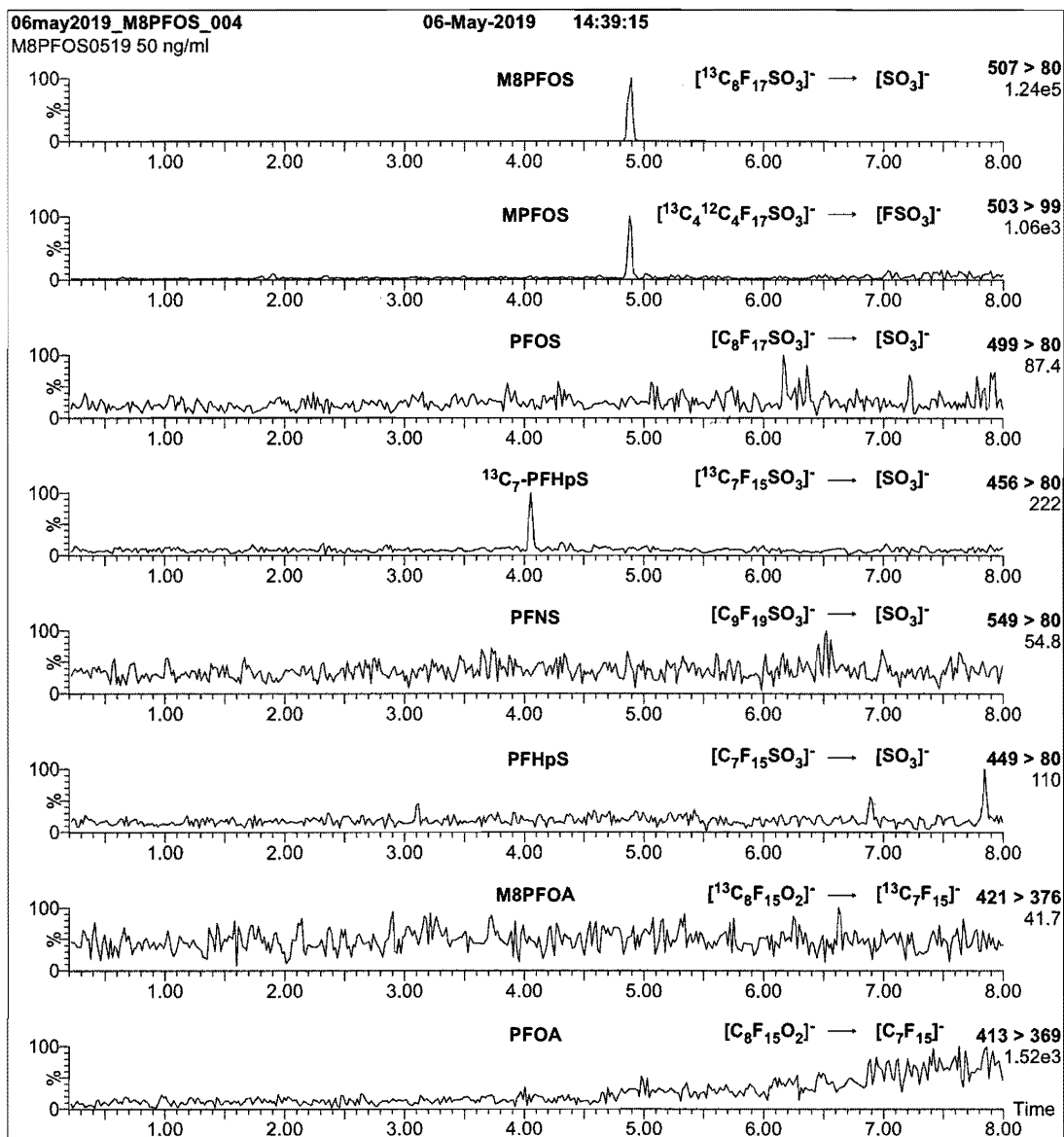
Date:

11/08/2019
(mm/dd/yyyy)

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19L0617

Figure 2: M8PFOS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M8PFOS)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

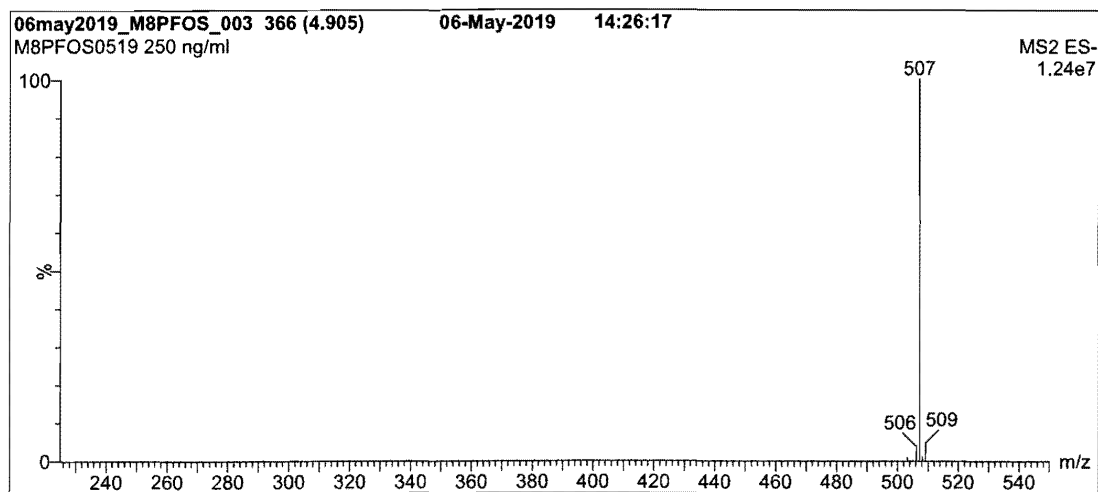
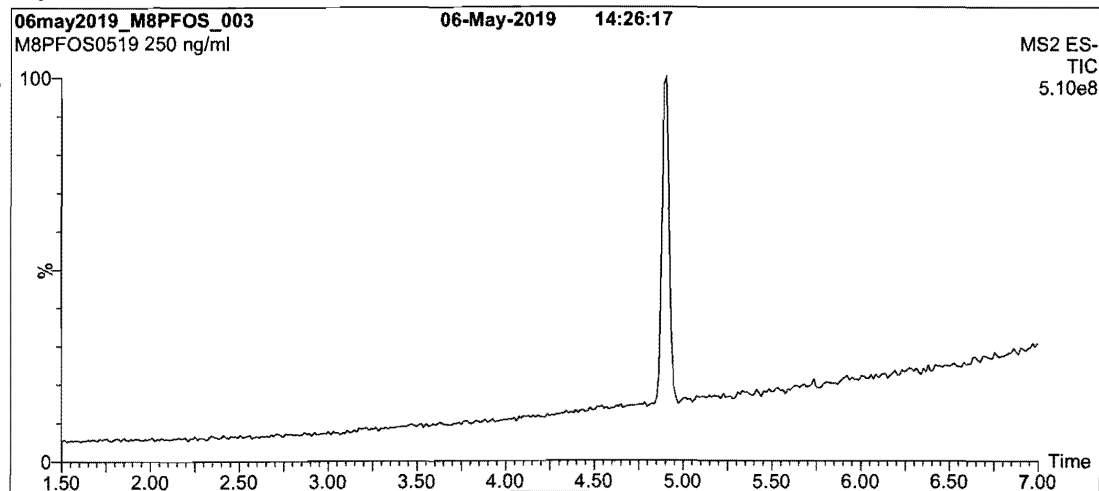
MS Parameters

Collision Gas (mbar) = 2.85e-3

Collision Energy (eV) = 42

19L0617

Figure 1: M8PFOS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0617

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.

HANDLING:

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SYNTHESIS / CHARACTERIZATION:

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Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

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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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19L0617



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M8PFOS

LOT NUMBER:

M8PFOS0519

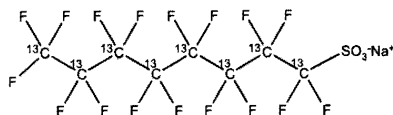
COMPOUND:

Sodium perfluoro-1-[¹³C₈]octanesulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₈F₁₇SO₃Na

MOLECULAR WEIGHT:

530.05

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)
47.8 ± 2.4 µg/ml (M8PFOS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

>99% ¹³C
(¹³C₈)

LAST TESTED: (mm/dd/yyyy)

05/06/2019

EXPIRY DATE: (mm/dd/yyyy)

05/06/2024

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 sodium perfluoro-1-[¹³C₇]heptanesulfonate (¹³C₇-PFHpS) and ~ 1.0% of sodium perfluoro-1-[¹³C₈]octanesulfonate (MPFOS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

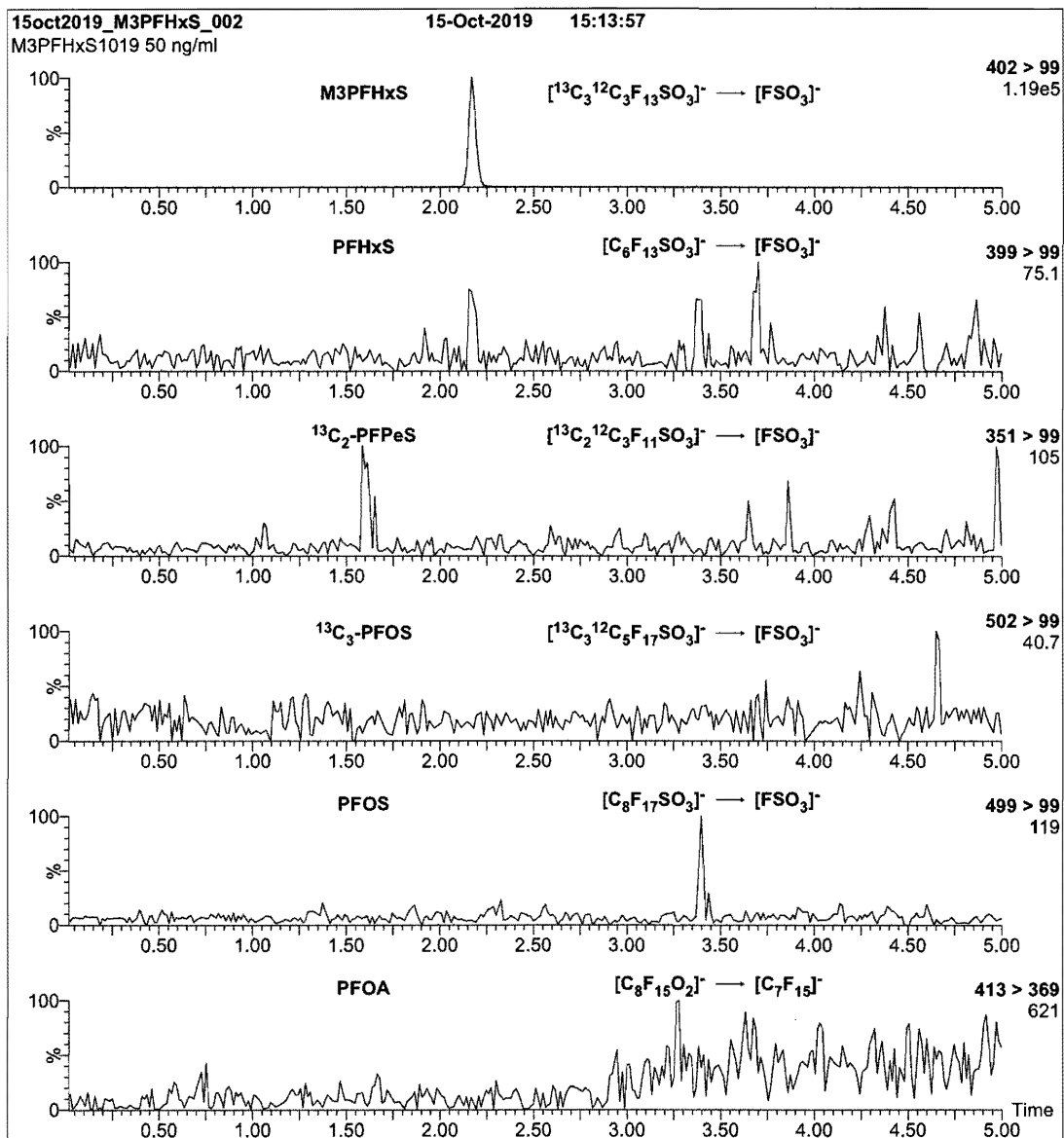
B.G. Chittim, General Manager

Date: 05/23/2019
(mm/dd/yyyy)

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19L0618

Figure 2: M3PFHxS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M3PFHxS)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

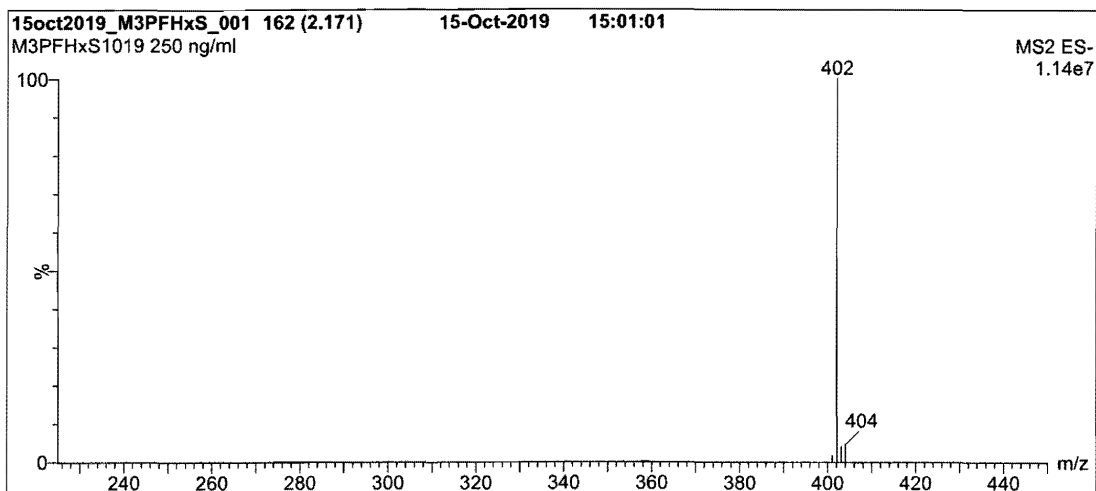
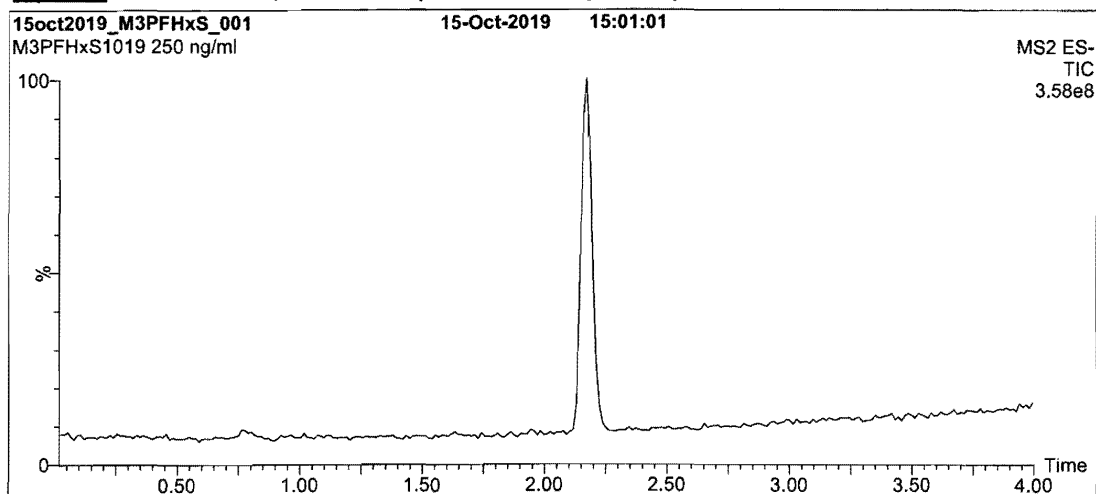
MS Parameters

Collision Gas (mbar) = 3.91e-3

Collision Energy (eV) = 32

19L0618

Figure 1: M3PFHxS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0618

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0018



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M3PFHxS

LOT NUMBER:

M3PFHxS1019

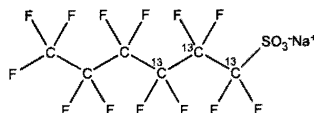
COMPOUND:

Sodium perfluoro-1-[1,2,3-¹³C₃]hexanesulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₃¹²C₃F₁₃SO₃Na

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% ¹³C
(1,2,3-¹³C₃)

LAST TESTED: (mm/dd/yyyy)

10/15/2019

EXPIRY DATE: (mm/dd/yyyy)

10/15/2024

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 ~ 0.1% perfluoro-1-[1,2-¹³C₂]pentanesulfonate, ~ 0.1% perfluoro-1-octanesulfonate, and ~ 0.05% of perfluoro-1-hexanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

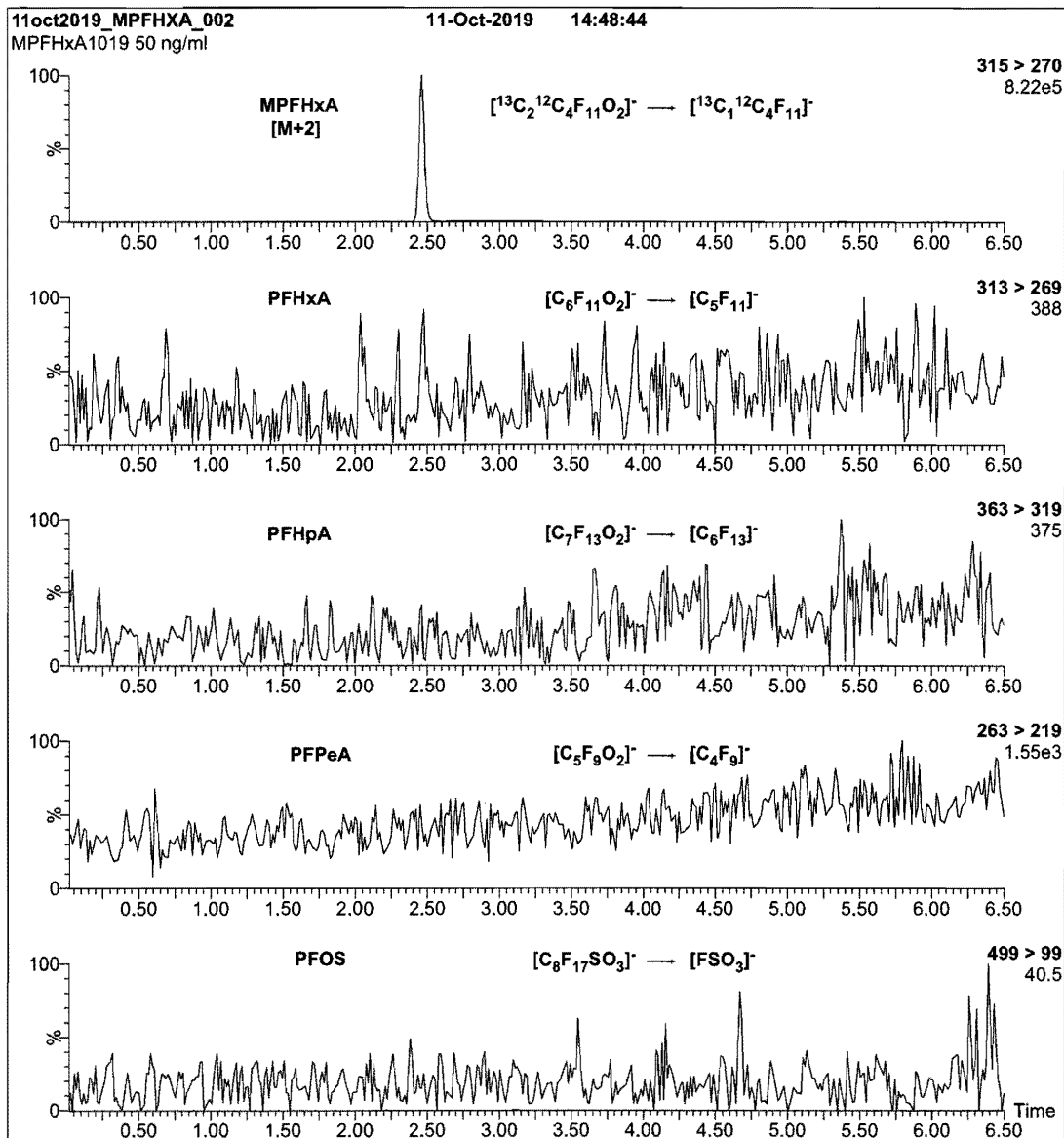
Date:

10/16/2019
(mm/dd/yyyy)

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19L0619

Figure 2: MPFHxA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (MPFHxA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

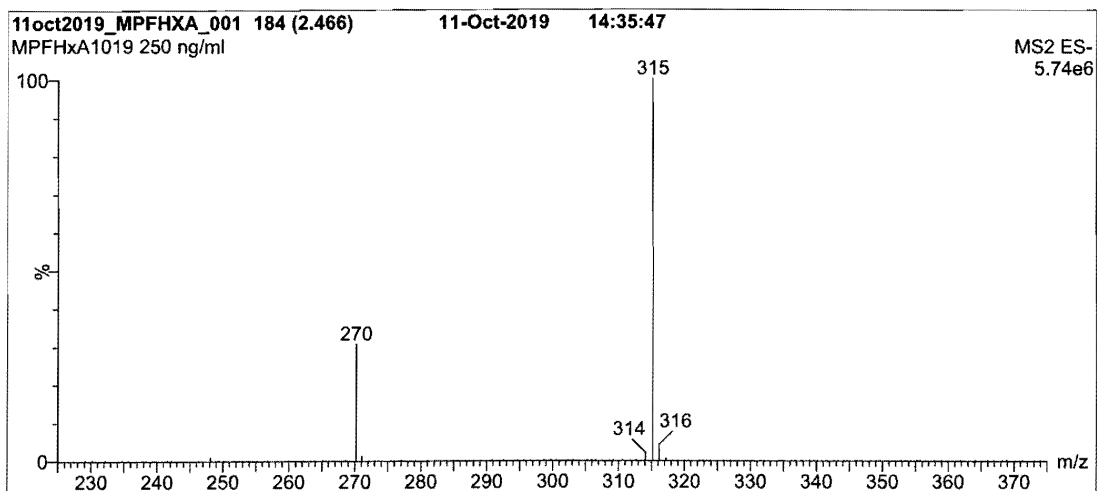
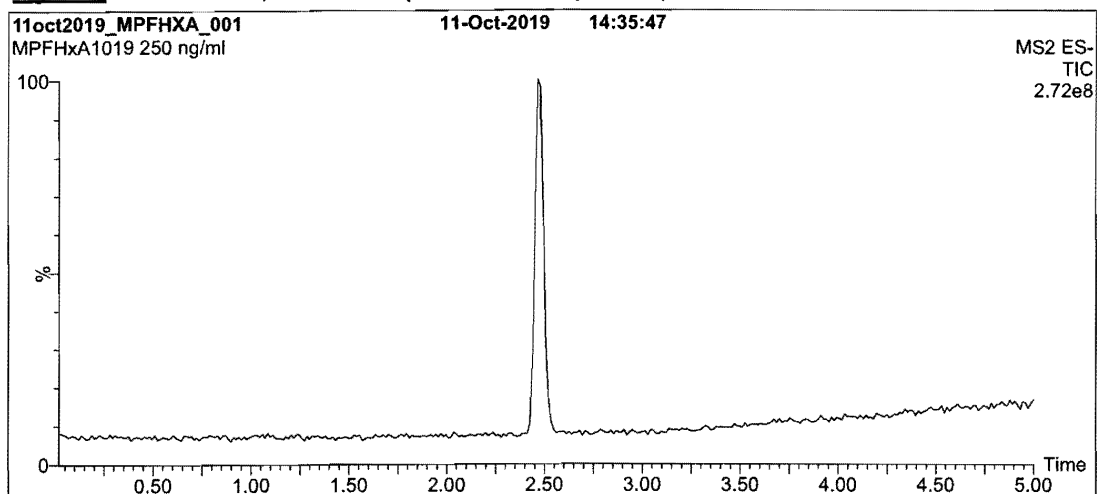
MS Parameters

Collision Gas (mbar) = 3.80e-3

Collision Energy (eV) = 8

19L0619

Figure 1: MPFHxA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19 L0619

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0619



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

MPFHxA

LOT NUMBER:

MPFHxA1019

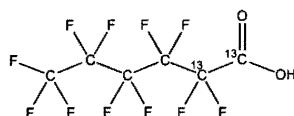
COMPOUND:

Perfluoro-n-[1,2-¹³C₂]hexanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₂¹²C₄HF₁₁O₂

MOLECULAR WEIGHT:

316.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:

≥99%¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy)

10/11/2019

EXPIRY DATE: (mm/dd/yyyy)

10/11/2024

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, General Manager

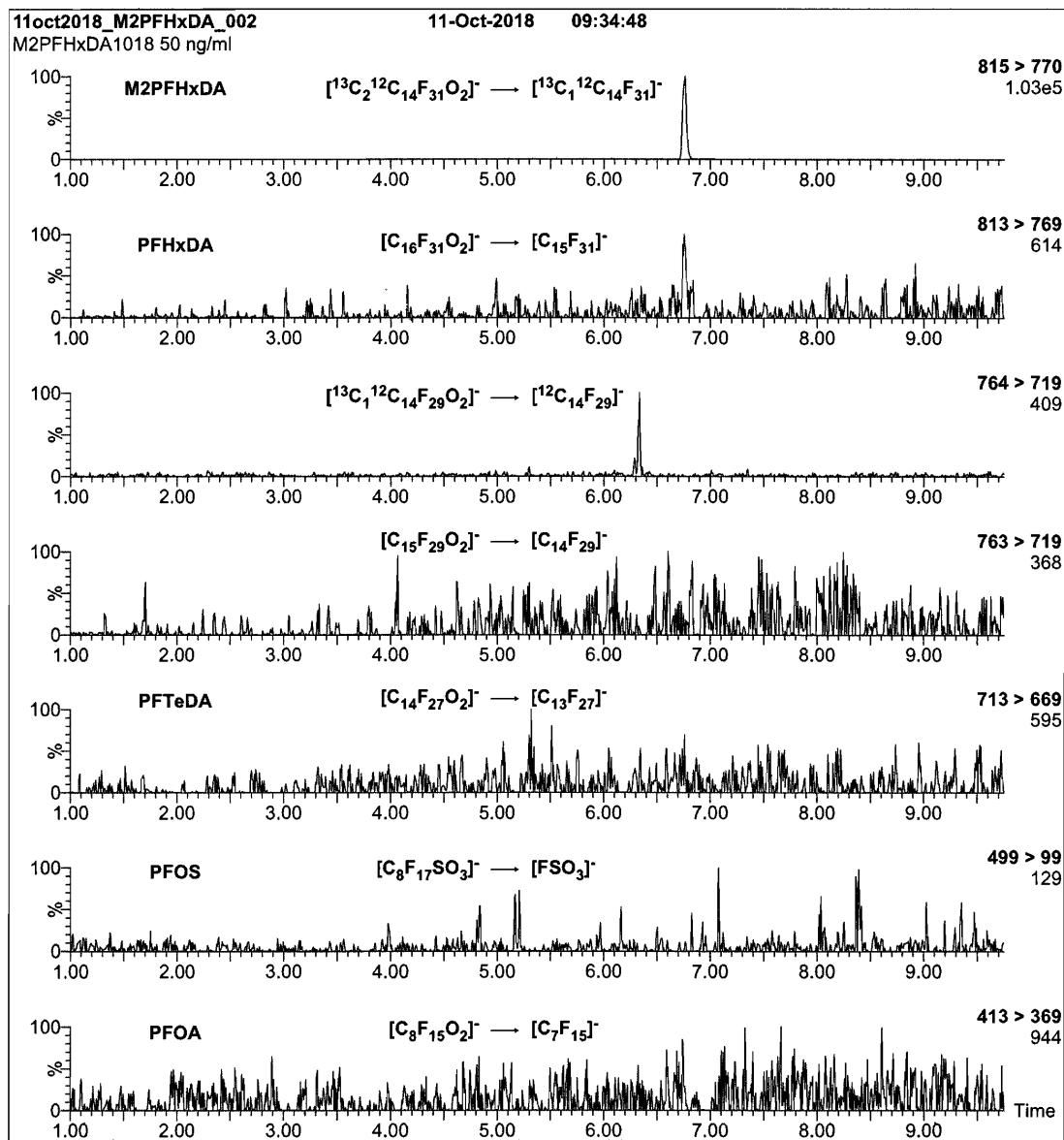
Date:

10/22/2019
(mm/dd/yyyy)

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19L0620

Figure 2: M2PFHxDA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M2PFHxDA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{L}/\text{min}$

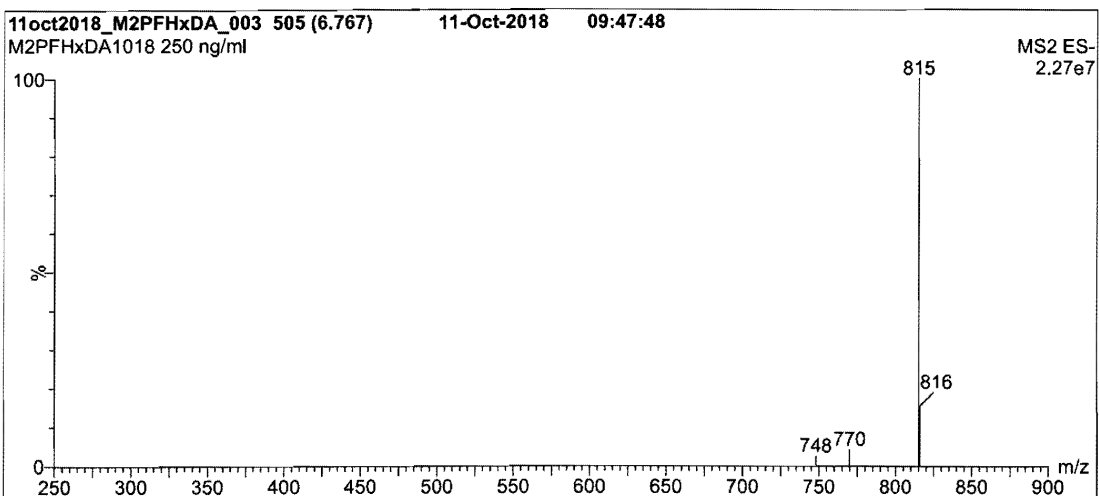
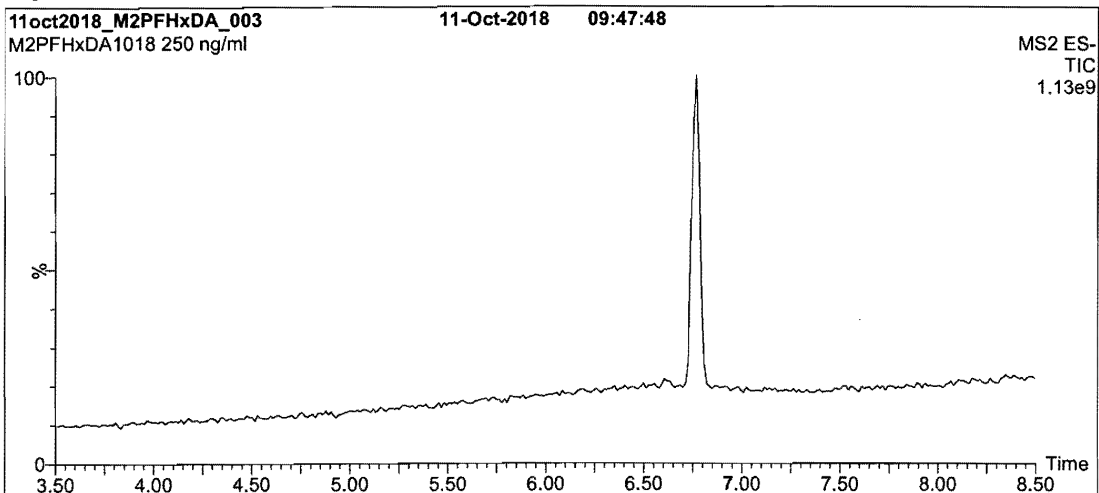
MS Parameters

Collision Gas (mbar) = 2.97e-3

Collision Energy (eV) = 15

19L0620

Figure 1: M2PFHxDA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0620

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0620

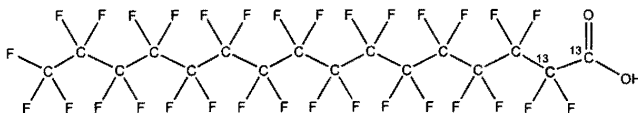


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFHxDA
COMPOUND: Perfluoro-n-[1,2-¹³C₂]hexadecanoic acid
LOT NUMBER: M2PFHxDA1018

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: ¹³C₂¹²C₁₄HF₃₁O₂
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 816.11
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ¹³C
(1,2-¹³C₂)
LAST TESTED: (mm/dd/yyyy) 10/11/2018
EXPIRY DATE: (mm/dd/yyyy) 10/11/2023
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 and ~ 0.2% of perfluoro-n-[¹³C]₁₅pentadecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

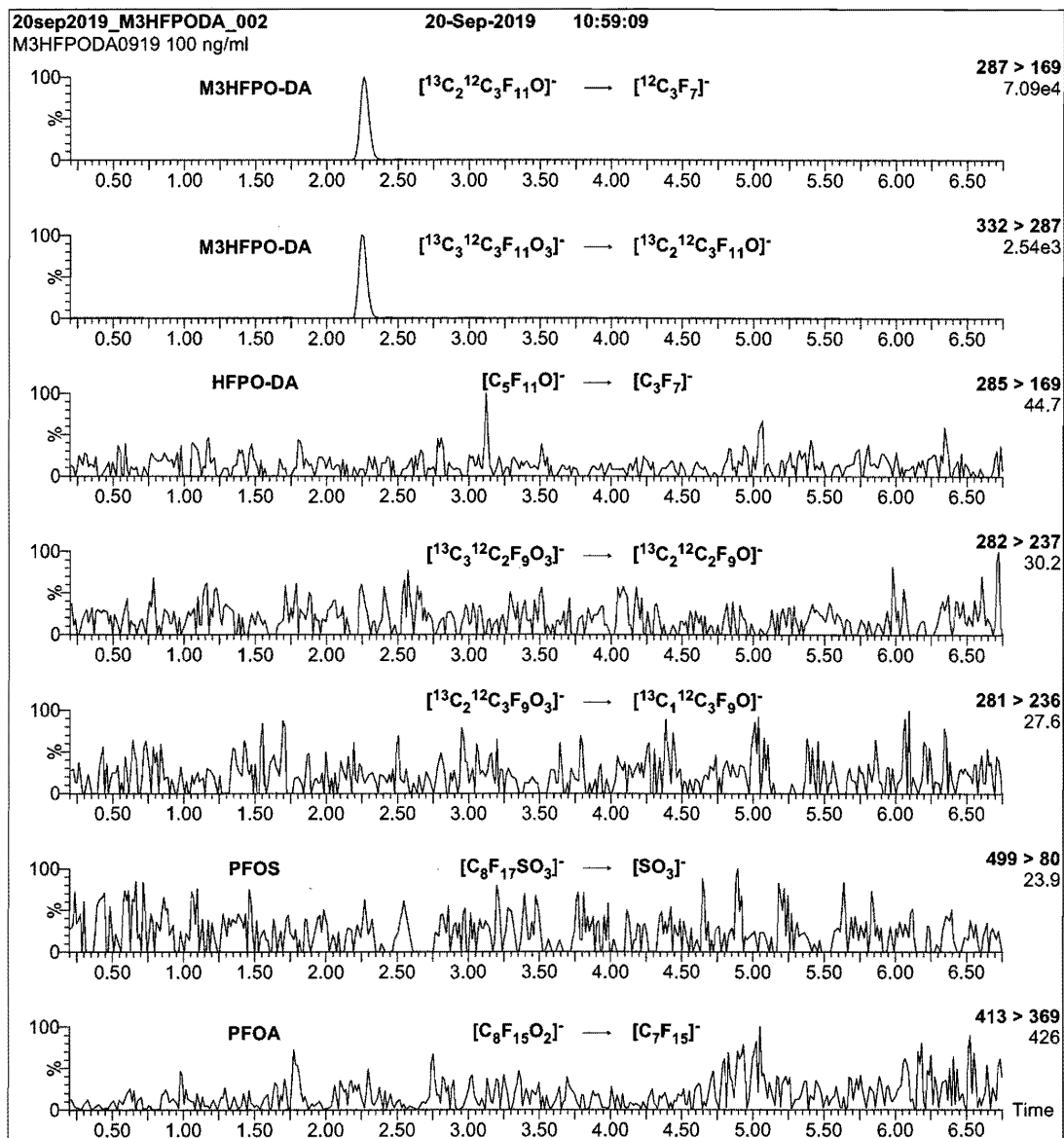
Date:

10/19/2018
(mm/dd/yyyy)

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19L0621

Figure 2: M3HFPO-DA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (M3HFPO-DA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

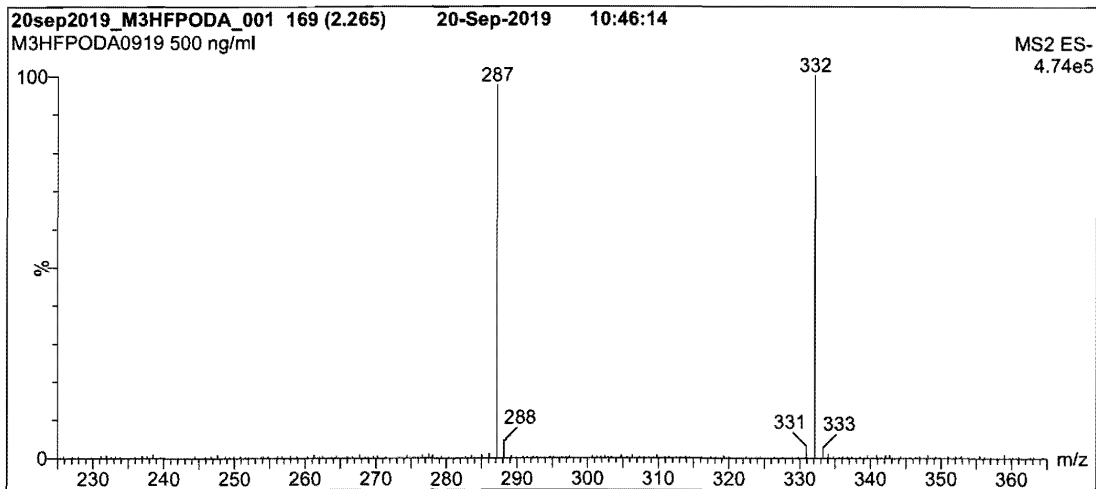
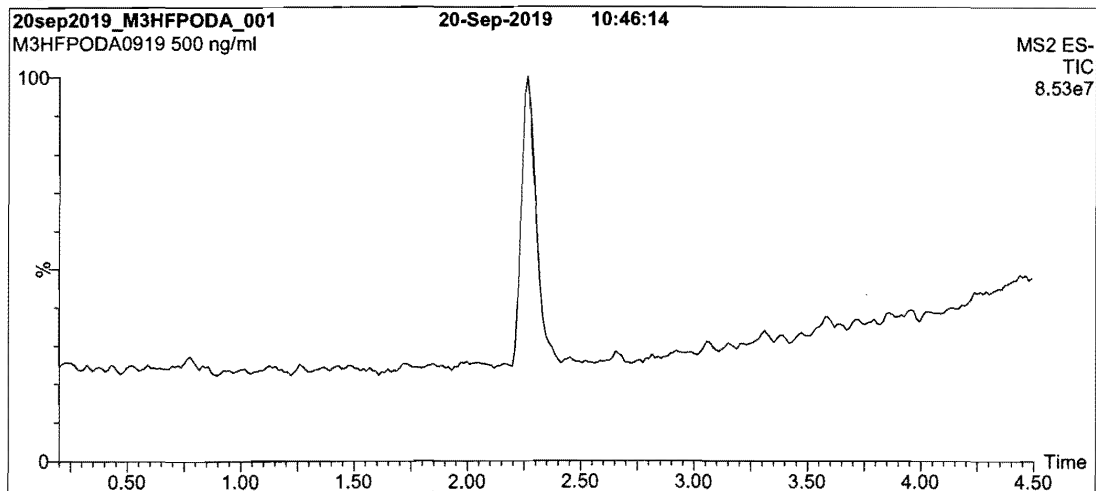
MS Parameters

Collision Gas (mbar) = 3.60e-3

Collision Energy (eV) = 8

19L0621

Figure 1: M3HFPO-DA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (l/hr) = 1000

19L0621

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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

19L0621



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

M3HFPO-DA

LOT NUMBER:

M3HFPODA0919

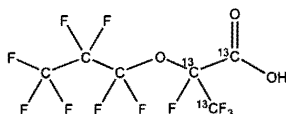
COMPOUND:

2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-¹³C₃-propanoic acid

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

¹³C₃¹²C₃HF₁₁O₃

CONCENTRATION:

50 ± 2.5 µg/ml

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/20/2019

EXPIRY DATE: (mm/dd/yyyy)

09/20/2022

RECOMMENDED STORAGE:

Refrigerate ampoule

MOLECULAR WEIGHT:

333.03

SOLVENT(S):

Methanol

ISOTOPIC PURITY:

≥99% ¹³C
(¹³C₃)

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 ~ 1.9% of the linear M3HFPO-DA isomer.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date: 09/30/2019

(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

Analytical Standard Record
Vista Analytical Laboratory
20E1202

Parent Standards used in this standard:					
Standard	Description	Prepared	Prepared By	Expires	(mls)
19L0635	PFD _o A	06-Dec-19	** Vendor **	23-Jan-24	0.4
19L0636	PFBA	06-Dec-19	** Vendor **	10-Jul-24	0.4
19L0637	PFPeA	06-Dec-19	** Vendor **	04-Sep-24	0.4
19L0638	PFH _x A	06-Dec-19	** Vendor **	08-Aug-24	0.4
19L0639	PFDA	06-Dec-19	** Vendor **	01-May-24	0.4
19L0640	PFU _d A	06-Dec-19	** Vendor **	19-Mar-24	0.4
19L0641	PFT _r DA	06-Dec-19	** Vendor **	26-Sep-24	0.4
19L0642	PFHpA	06-Dec-19	** Vendor **	05-Mar-24	0.4
19L0643	PFOA	06-Dec-19	** Vendor **	06-Sep-24	0.4
19L0644	PFNA	06-Dec-19	** Vendor **	08-Jul-24	0.4
19L0645	PFTeDA	06-Dec-19	** Vendor **	11-Mar-24	0.4
19L0646	PFH _x DA	06-Dec-19	** Vendor **	03-Nov-24	0.4
19L0647	PFODA	06-Dec-19	** Vendor **	02-May-24	0.4
19L0648	L-PFBS	06-Dec-19	** Vendor **	10-Jul-24	0.454
19L0649	L-PFPeS	06-Dec-19	** Vendor **	08-Jul-24	0.428
19L0650	L-PFHpS	06-Dec-19	** Vendor **	16-Aug-24	0.42
19L0651	L-PFNS	06-Dec-19	** Vendor **	06-Aug-24	0.418
19L0652	L-PFDS	06-Dec-19	** Vendor **	04-Apr-24	0.415
19L0653	br-PFH _x SK	06-Dec-19	** Vendor **	02-Oct-23	0.44
19L0654	br-PFOSK anion	06-Dec-19	** Vendor **	07-Jun-24	0.431
19L0655	4:2 FTS	06-Dec-19	** Vendor **	08-May-24	0.43
19L0656	6:2FTS	06-Dec-19	** Vendor **	09-Sep-24	0.422
19L0657	8:2FTS	06-Dec-19	** Vendor **	11-Sep-24	0.418
19L0658	FOSA-I	06-Dec-19	** Vendor **	12-Sep-24	0.4
19L0659	br-NMeFOSAA	06-Dec-19	** Vendor **	08-Jan-24	0.4
19L0660	br-NEtFOSAA	06-Dec-19	** Vendor **	20-Aug-24	0.4
19L0661	N-MeFOSA-M	06-Dec-19	** Vendor **	07-May-24	2
19L0662	N-EtFOSA-M	06-Dec-19	** Vendor **	07-May-24	2
19L0663	N-MeFOSE-M	06-Dec-19	** Vendor **	08-Apr-24	2
19L0664	N-EtFOSE-M	06-Dec-19	** Vendor **	08-Apr-24	2
19L0665	10:2FTS	06-Dec-19	** Vendor **	11-Jun-22	0.415
19L0666	HFPO-DA	06-Dec-19	** Vendor **	20-Sep-22	0.4
19L0667	11Cl-PF3OUdS	06-Dec-19	** Vendor **	23-Nov-24	0.425
19L0668	9Cl-PF3ONS	06-Dec-19	** Vendor **	30-Oct-24	0.43
19L0669	NaDONA	06-Dec-19	** Vendor **	15-Jul-24	0.425
19L0670	PFECHS	06-Dec-19	** Vendor **	04-Apr-24	0.435
19L0671	L-PFP _r S	06-Dec-19	** Vendor **	14-Dec-24	0.438
19L1707	L-PFDoS	17-Dec-19	** Vendor **	06-Dec-23	0.415

Analytical Standard Record
Vista Analytical Laboratory
20E1202

Description:	PFC NS Stock	Expires:	12-May-21
Standard Type:	Analyte Spike	Prepared:	12-May-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-May-20 10:53 by BML

Analyte	CAS Number	Concentration	Units
L-PFHpA		1	ug/mL
10:2 FTS	120226-60-0	1	ug/mL
L-MeFOSA	31506-32-8	5	ug/mL
L-MeFOSAA	2355-31-9	0.76	ug/mL
L-MeFOSE	24448-09-7	5	ug/mL
L-PFBA		1	ug/mL
L-PFBS		1	ug/mL
L-PFDA		1	ug/mL
L-PFD0A		1	ug/mL
L-EtFOSAA	2991-50-6	0.776	ug/mL
L-PFDS		1	ug/mL
L-EtFOSA	4151-50-2	5	ug/mL
L-PFHpS		1	ug/mL
L-PFHxA		1	ug/mL
L-PFHxDA		1	ug/mL
L-PFHxS		0.812	ug/mL
L-PFNA		1	ug/mL
L-PFNS	68259-12-1	1	ug/mL
L-PFOA		1	ug/mL
L-PFODA		1	ug/mL
L-PFD0S		1	ug/mL
cis-PFECHS		0.668	ug/mL
11Cl-PF3OUdS	763051-92-9	1	ug/mL
4:2 FTS	757124-72-4	1	ug/mL
6:2 FTS	27619-97-2	1	ug/mL
8:2 FTS	39108-34-4	1	ug/mL
9Cl-PF3ONS	756426-58-1	1	ug/mL
ADONA	919005-14-4	1	ug/mL
Br-EtFOSAA		0.224	ug/mL
Br-MeFOSAA		0.24	ug/mL
L-EtFOSE	1691-99-2	5	ug/mL
Br-PFOS	2795-39-3	0.211	ug/mL
L-PFPeA		1	ug/mL
EtFOSA	4151-50-2	5	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

20E1202

Description:	PFC NS Stock	Expires:	12-May-21
Standard Type:	Analyte Spike	Prepared:	12-May-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-May-20 10:53 by BML

Analyte	CAS Number	Concentration	Units
EtFOSAA	2991-50-6	1	ug/mL
EtFOSE	1691-99-2	5	ug/mL
F-53B Total		2	ug/mL
HFPO-DA	13252-13-6	1	ug/mL
L-4:2 FTS	75124-72-4	1	ug/mL
L-6:2 FTS		1	ug/mL
L-8:2FTS		1	ug/mL
Br-PFHxS	3871-99-6	0.189	ug/mL
Total 6:2 FTS		1	ug/mL
PFOA	335-67-1	1	ug/mL
PFODA	16517-11-6	1	ug/mL
PFOS	1763-23-1	1	ug/mL
PFOSA	754-91-6	1	ug/mL
PFPeA	2706-90-3	1	ug/mL
PFPeS	2706-91-4	1	ug/mL
PFPPrS	423-41-6	1	ug/mL
PFTeDA	376-06-7	1	ug/mL
L-PFOS		0.789	ug/mL
PFUnA	2058-94-8	1	ug/mL
PFHxS	355-46-4	1	ug/mL
Total EtFOSAA		1	ug/mL
Total MeFOSAA		1	ug/mL
Total PFDS		1	ug/mL
Total PFHpS		1	ug/mL
Total PFHxS		1	ug/mL
Total PFOA		1	ug/mL
Total PFOS		1	ug/mL
Total PFUnA		1	ug/mL
PFTTrDA	72629-94-8	1	ug/mL
PFDA	335-76-2	1	ug/mL
trans-PFECHS		0.335	ug/mL
L-PFPeS	2706-91-4	1	ug/mL
L-PFTeDA		1	ug/mL
L-PFTTrDA		1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

20E1202

Description:	PFC NS Stock	Expires:	12-May-21
Standard Type:	Analyte Spike	Prepared:	12-May-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-May-20 10:53 by BML

Analyte	CAS Number	Concentration	Units
L-PFUnA		1	ug/mL
MeFOSA	31506-32-8	5	ug/mL
MeFOSAA	2355-31-9	1	ug/mL
MeFOSE	24448-09-7	5	ug/mL
PFNS	68259-12-1	1	ug/mL
PFBS	375-73-5	1	ug/mL
PFNA	375-95-1	1	ug/mL
PFDoA	307-55-1	1	ug/mL
PFDoS	79780-39-5	1	ug/mL
PFDS	335-77-3	1	ug/mL
PFecHS	646-83-3	1	ug/mL
PFHpA	375-85-9	1	ug/mL
PFHpS	375-92-8	1	ug/mL
PFHxA	307-24-4	1	ug/mL
PFHxDA	67905-19-5	1	ug/mL
L-PFOSA		1	ug/mL
PFBA	375-22-4	1	ug/mL

19L0635



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:

PFD0A

LOT NUMBER:

PFD0A0119

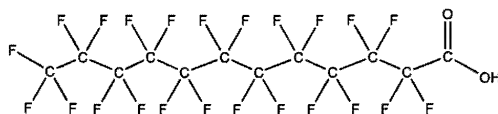
COMPOUND:

Perfluoro-n-dodecanoic acid

STRUCTURE:

CAS #:

307-55-1



MOLECULAR FORMULA:

$C_{12}H_2F_{23}O_2$

MOLECULAR WEIGHT:

614.10

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

01/23/2019

EXPIRY DATE: (mm/dd/yyyy)

01/23/2024

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, General Manager

Date:

01/30/2019
(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

19L 0635

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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:

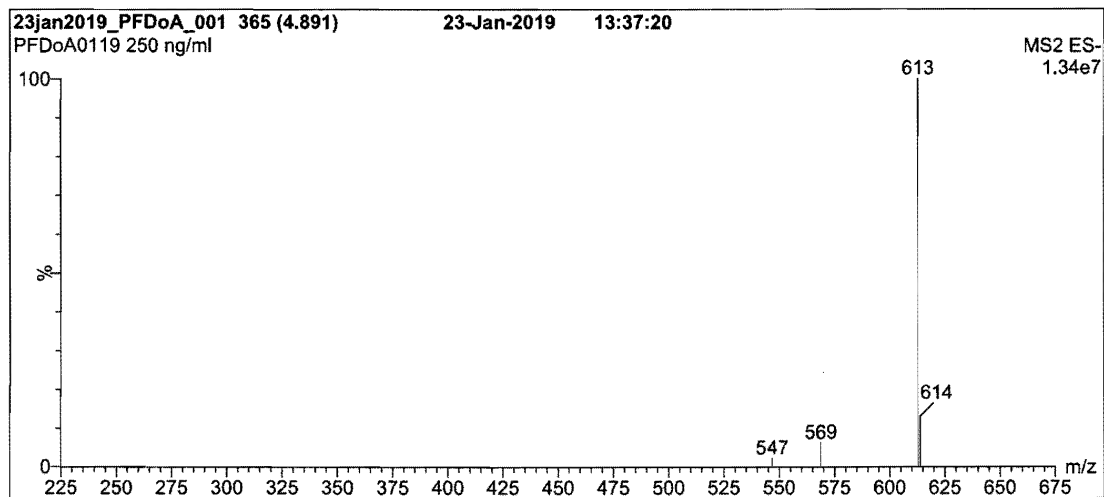
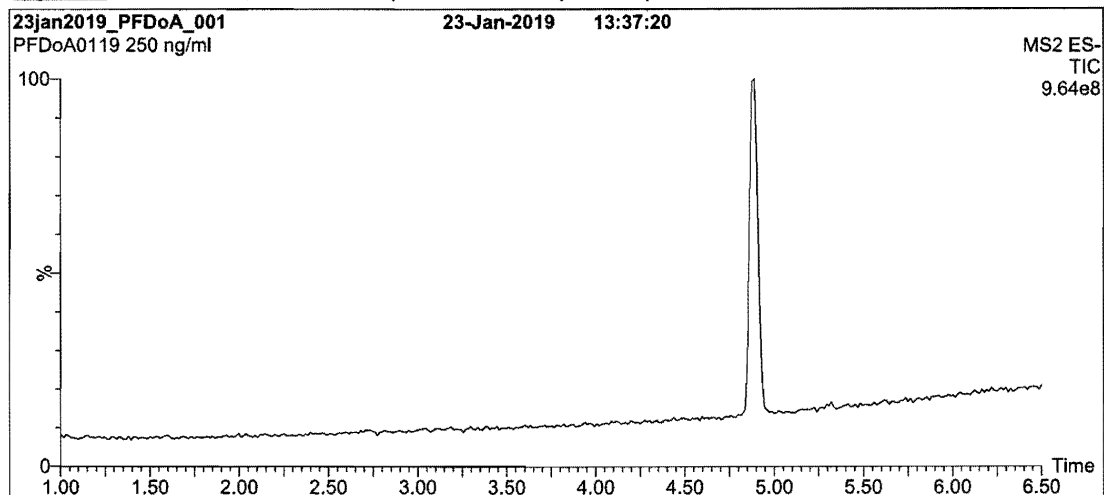
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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

19L0635

• **Figure 1:** PFD0A; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

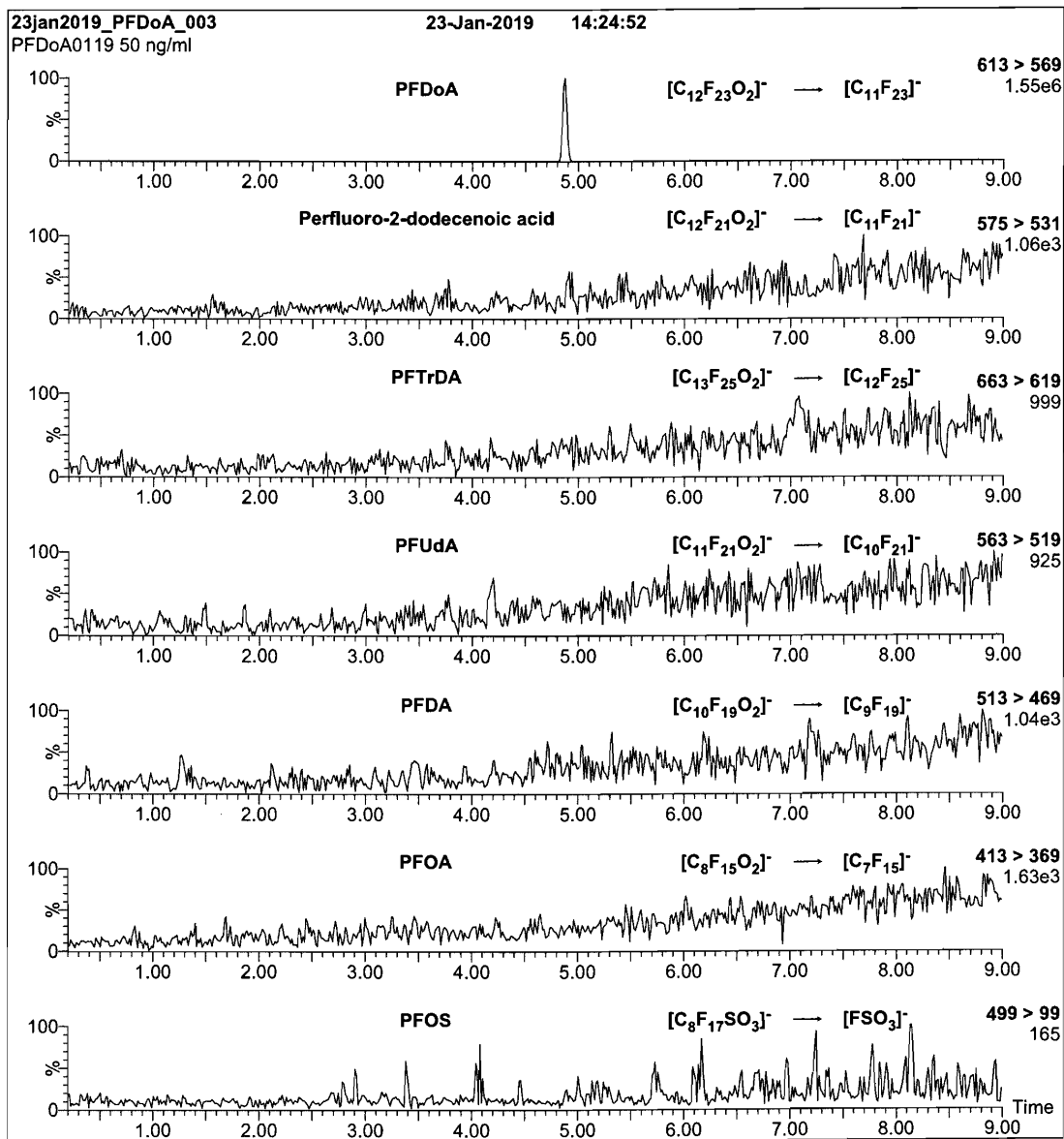
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0635

Figure 2: PFD0A; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFD0A)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

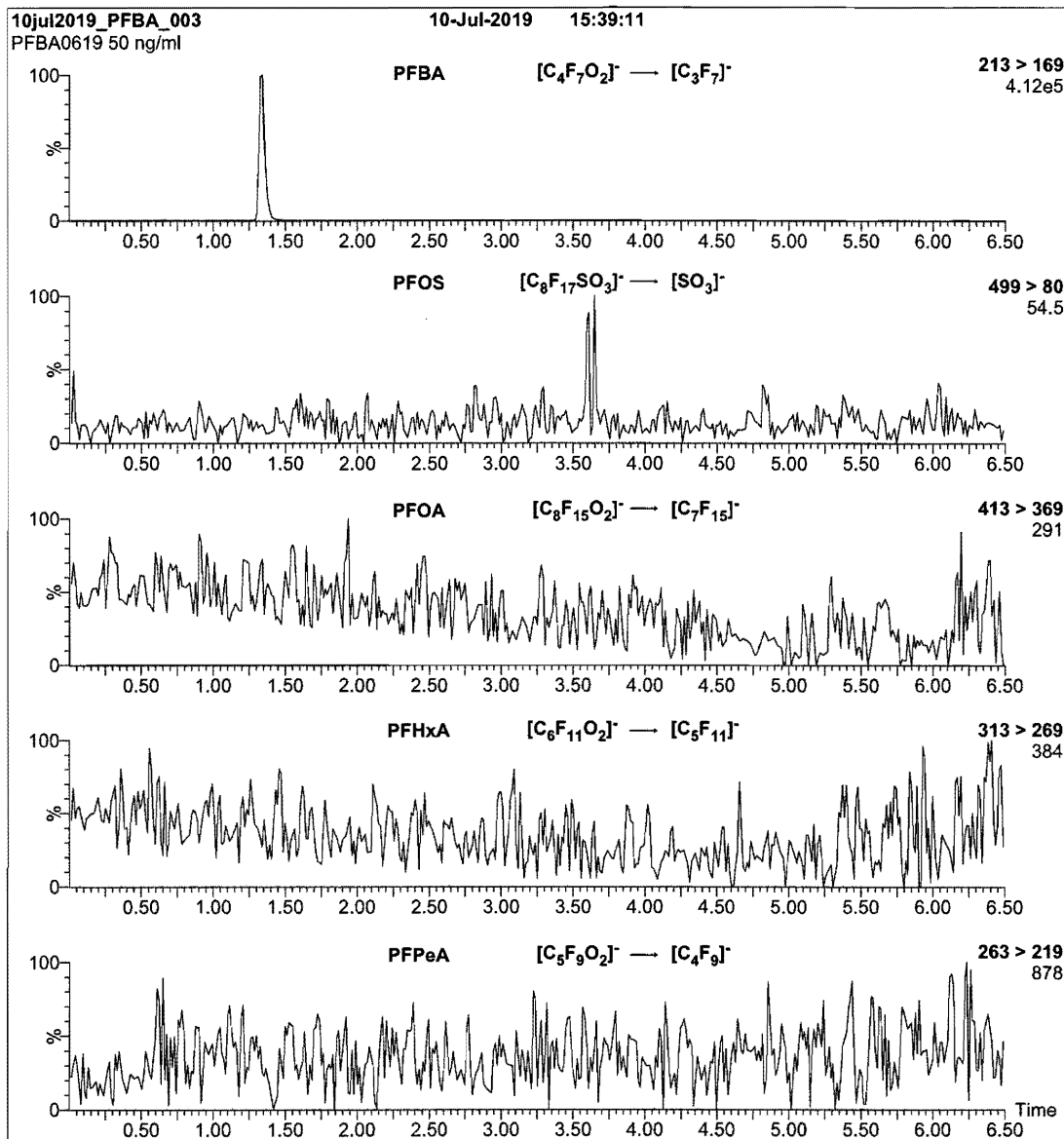
MS Parameters

Collision Gas (mbar) = 2.72e-3

Collision Energy (eV) = 12

19L0636

Figure 2: PFBA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFBA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

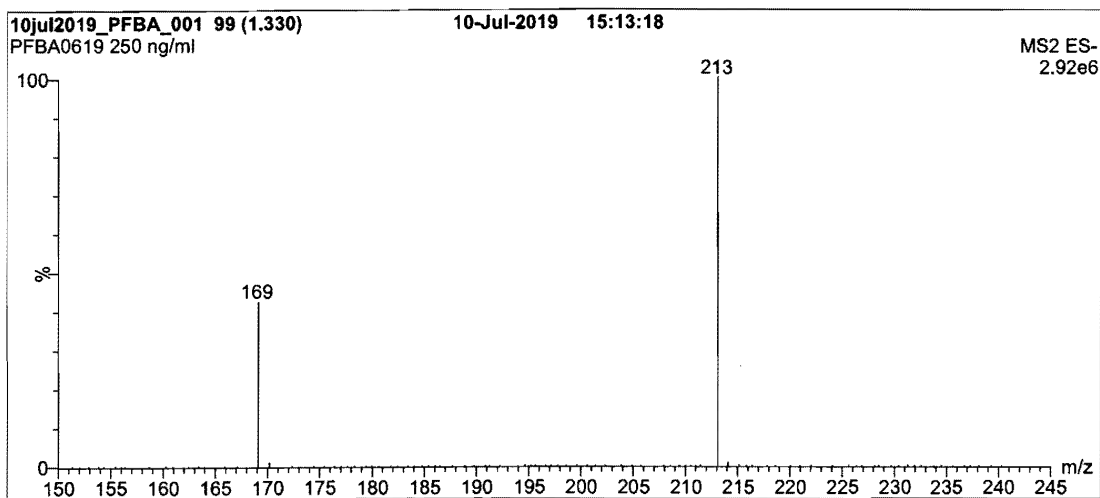
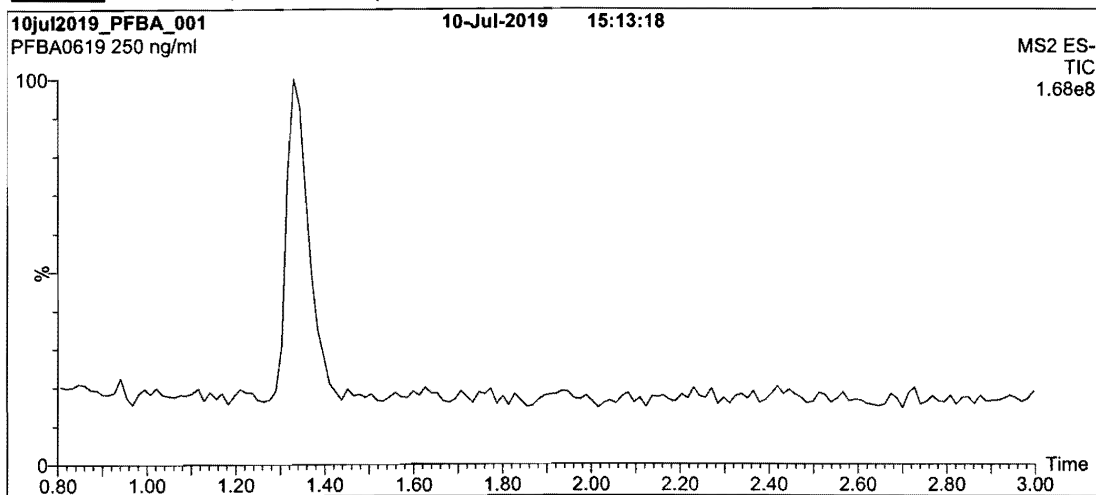
MS Parameters

Collision Gas (mbar) = 3.43e-3

Collision Energy (eV) = 8

19L0636

Figure 1: PFBA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 70% organic over 7 min.
Ramp to 90% organic over 2 min and hold for
1.5 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0636

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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:

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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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

V9L0636



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFBA

LOT NUMBER:

PFBA0619

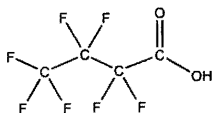
COMPOUND:

Perfluoro-n-butanoic acid

STRUCTURE:

CAS #:

375-22-4



MOLECULAR FORMULA:

C₄HF₇O₂

MOLECULAR WEIGHT:

214.04

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

07/10/2019

EXPIRY DATE: (mm/dd/yyyy)

07/10/2024

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, General Manager

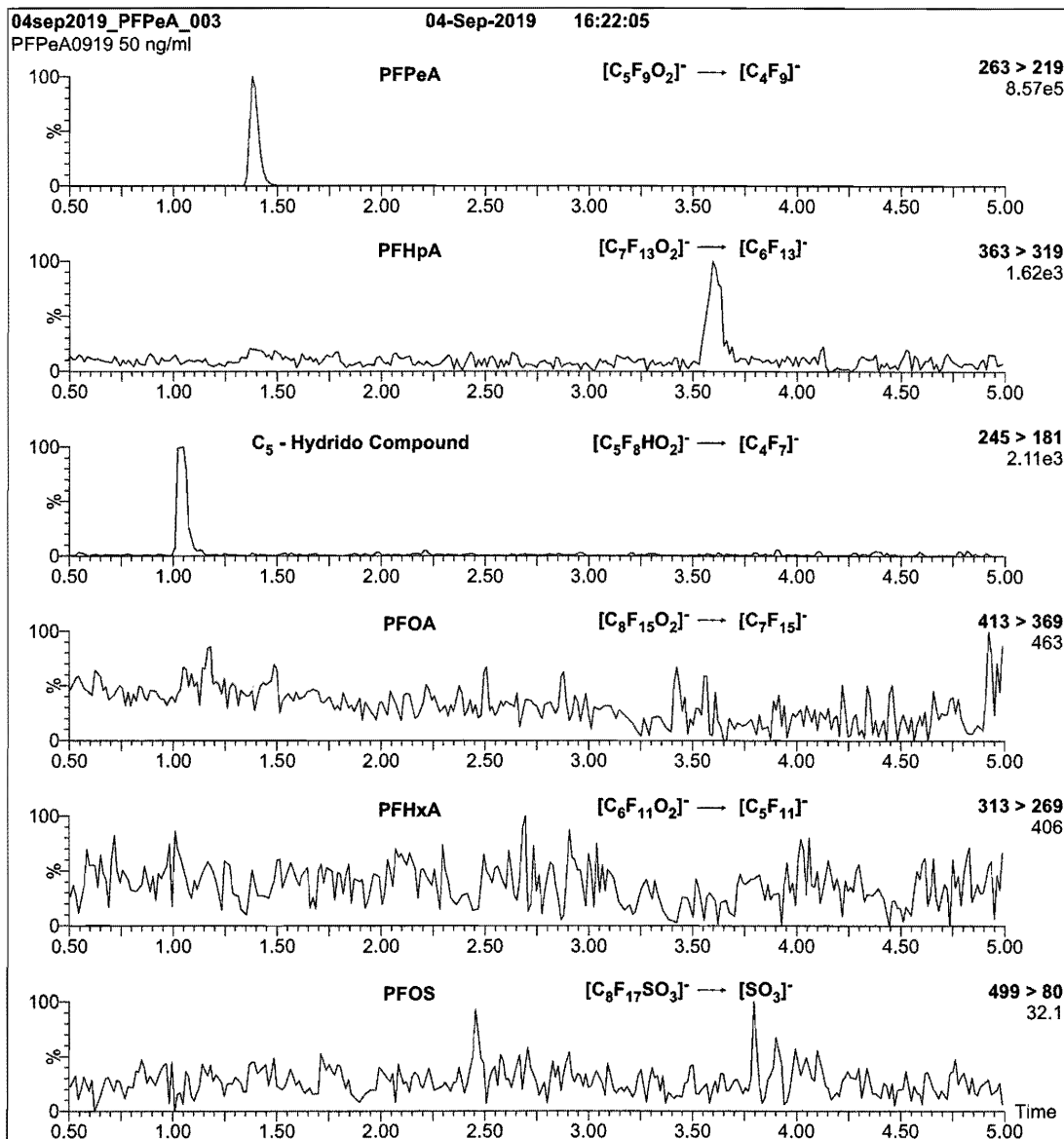
Date: 07/22/2019

(mm/dd/yyyy)

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Figure 2: PFPeA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFPeA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

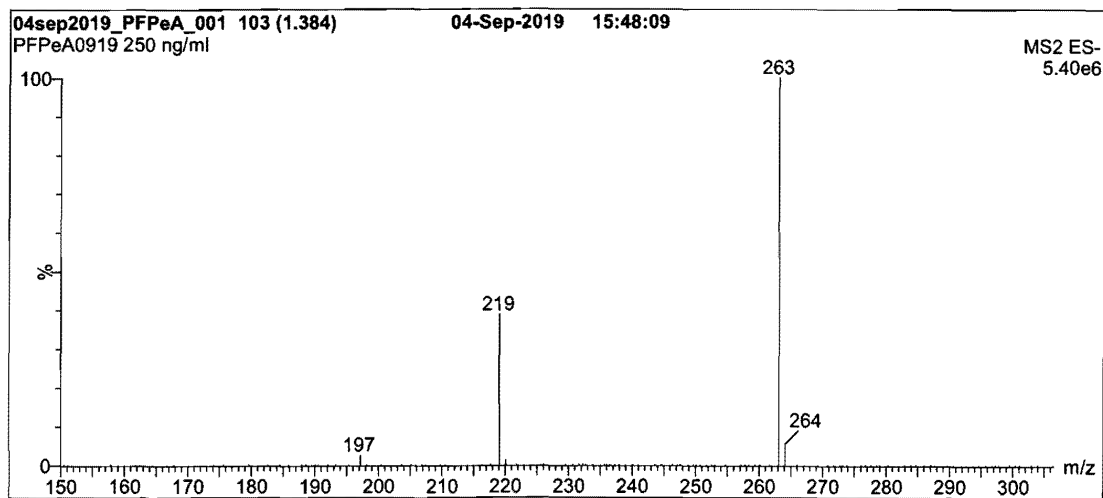
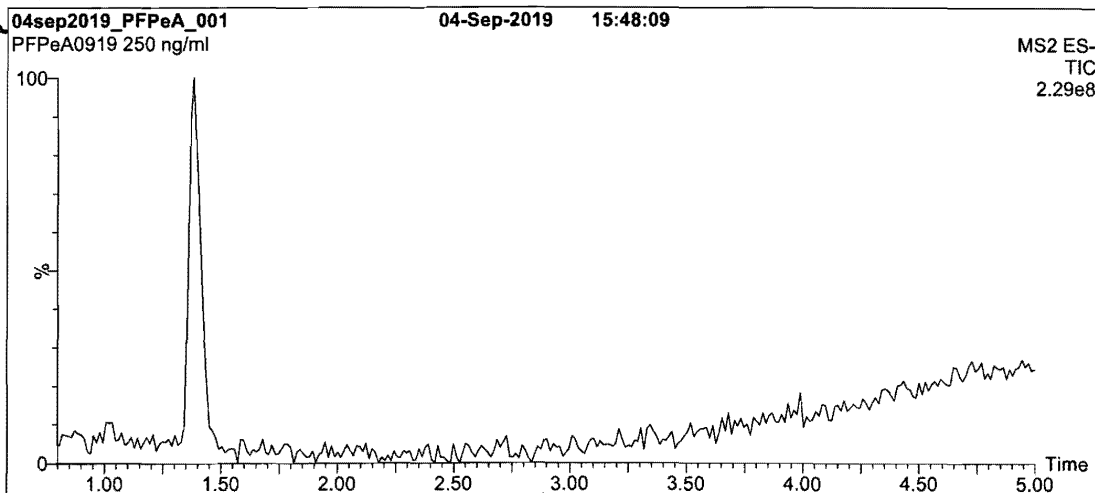
MS Parameters

Collision Gas (mbar) = 3.51e-3

Collision Energy (eV) = 8

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Figure 1: PFPeA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

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INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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1920637



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFPeA

LOT NUMBER:

PFPeA0919

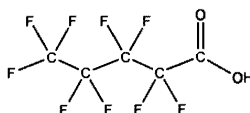
COMPOUND:

Perfluoro-n-pentanoic acid

STRUCTURE:

CAS #:

2706-90-3



MOLECULAR FORMULA:

C₅H₂F₈O₂

MOLECULAR WEIGHT:

264.05

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/04/2019

EXPIRY DATE: (mm/dd/yyyy)

09/04/2024

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 C₅H₂F₈O₂ (hydrido - derivative) as measured by ¹⁹F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

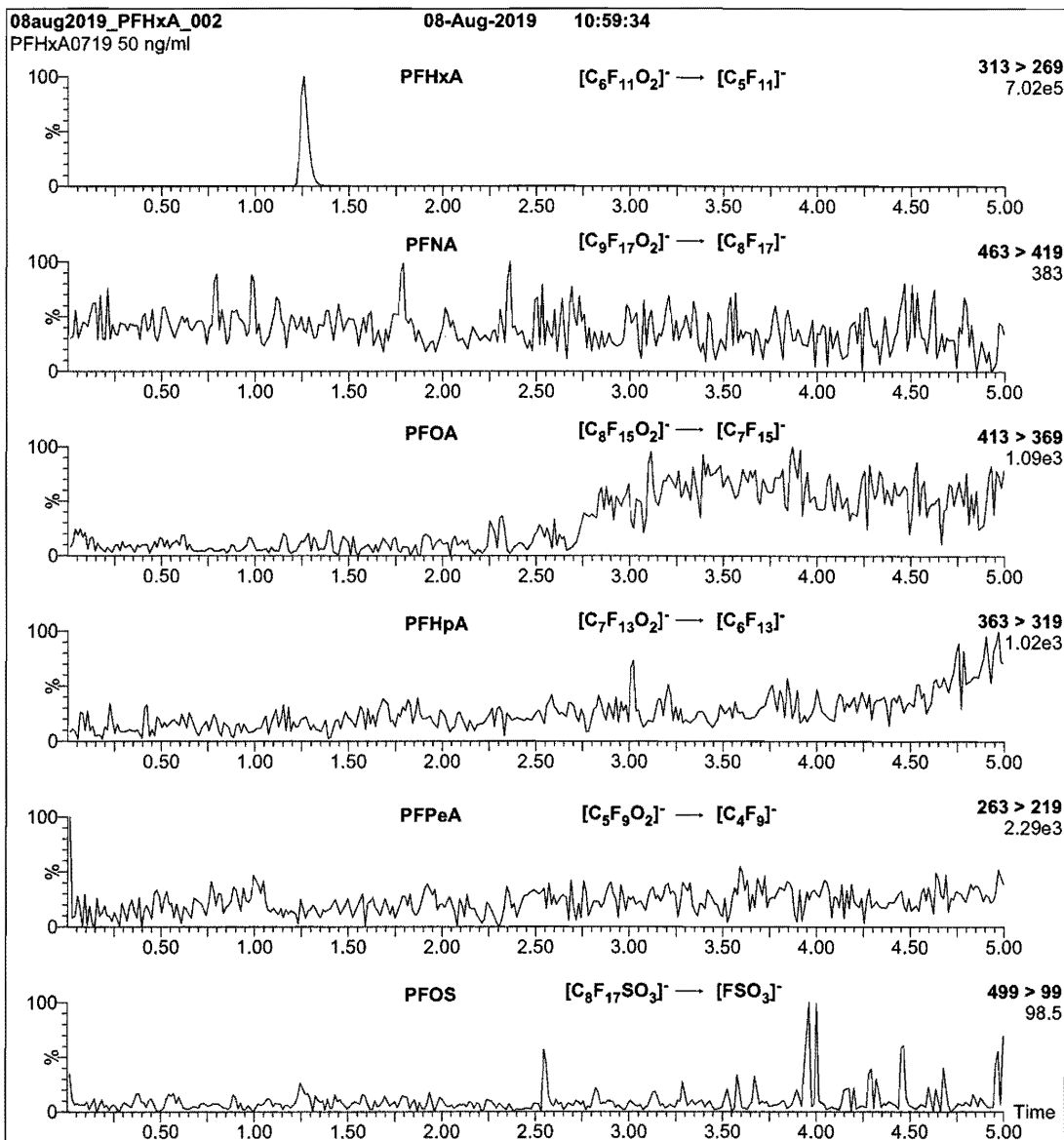
Date: 09/05/2019

(mm/dd/yyyy)

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19L0638

Figure 2: PFHxA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFHxA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

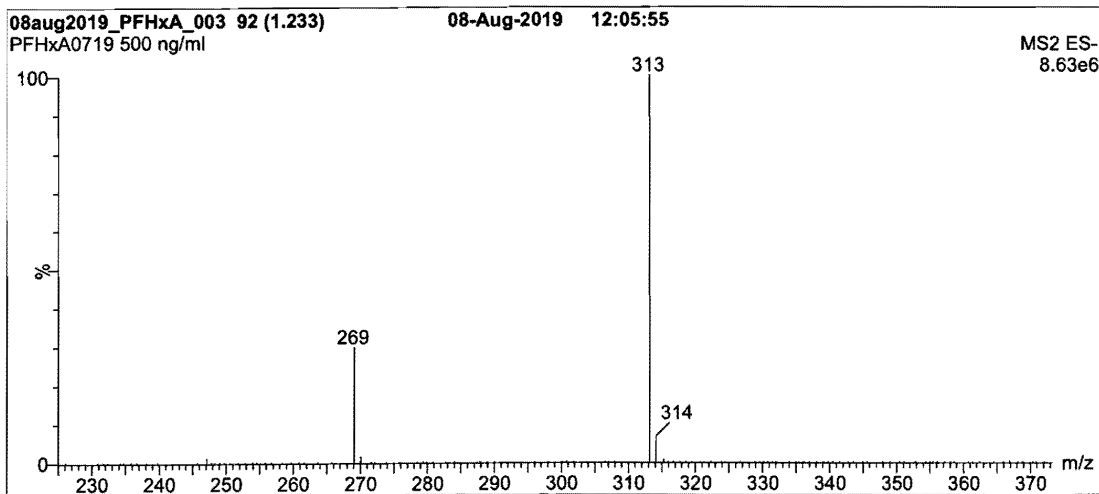
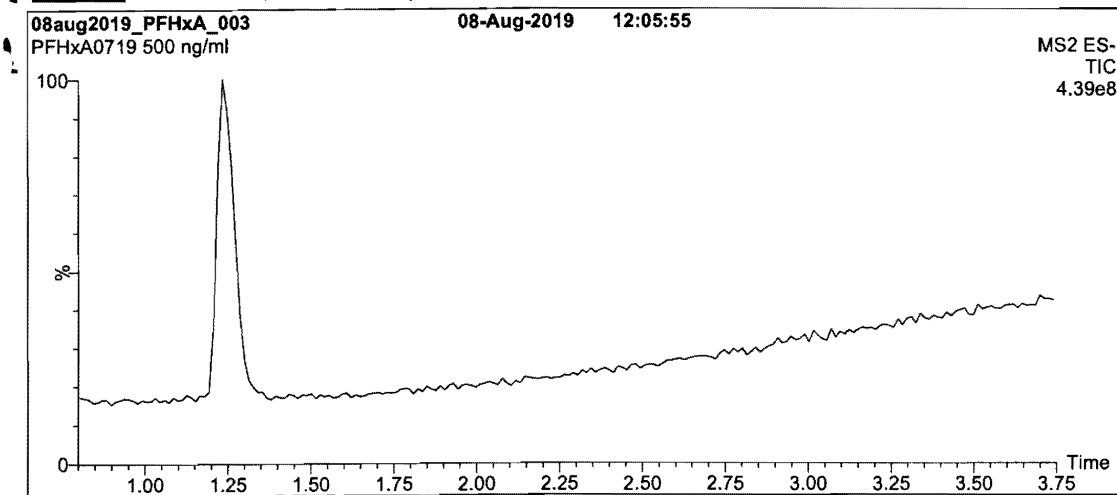
MS Parameters

Collision Gas (mbar) = 3.49e-3

Collision Energy (eV) = 8

19L0638

Figure 1: PFHxA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0638

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.

HANDLING:

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:

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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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0638



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHxA

LOT NUMBER:

PFHxA0719

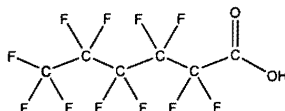
COMPOUND:

Perfluoro-n-hexanoic acid

STRUCTURE:

CAS #:

307-24-4



MOLECULAR FORMULA:

C₆H₁₁O₂

MOLECULAR WEIGHT:

314.05

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

08/08/2019

EXPIRY DATE: (mm/dd/yyyy)

08/08/2024

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, General Manager

Date: 08/15/2019

(mm/dd/yyyy)

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19L0639



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CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:

PFDA

LOT NUMBER:

PFDA0419

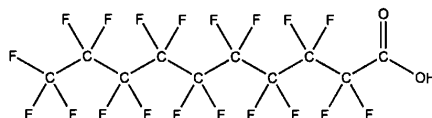
COMPOUND:

Perfluoro-n-decanoic acid

STRUCTURE:

CAS #:

335-76-2



MOLECULAR FORMULA:

$C_{10}H_2F_{19}O_2$

MOLECULAR WEIGHT:

514.08

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

05/01/2019

EXPIRY DATE: (mm/dd/yyyy)

05/01/2024

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date: 05/02/2019

(mm/dd/yyyy)

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INTENDED USE:

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where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

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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:

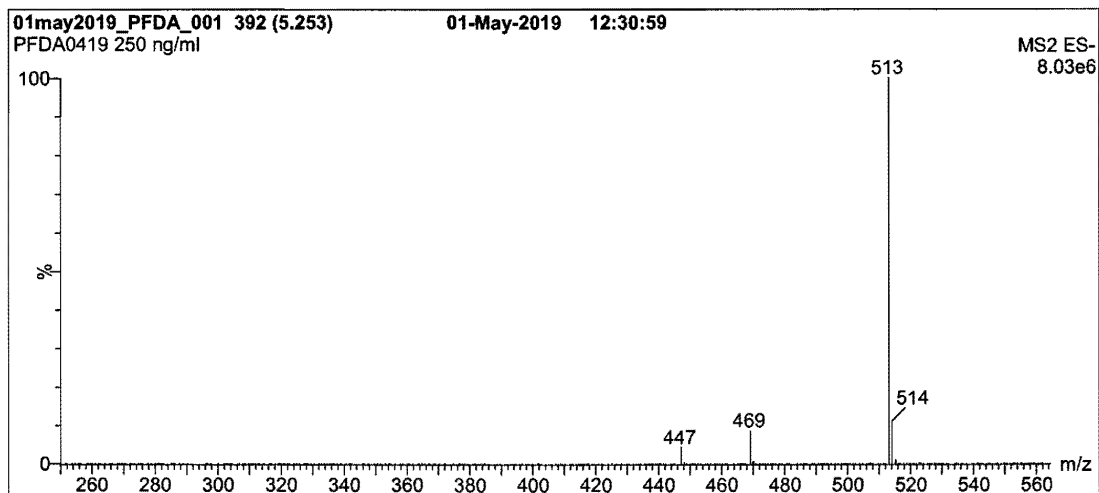
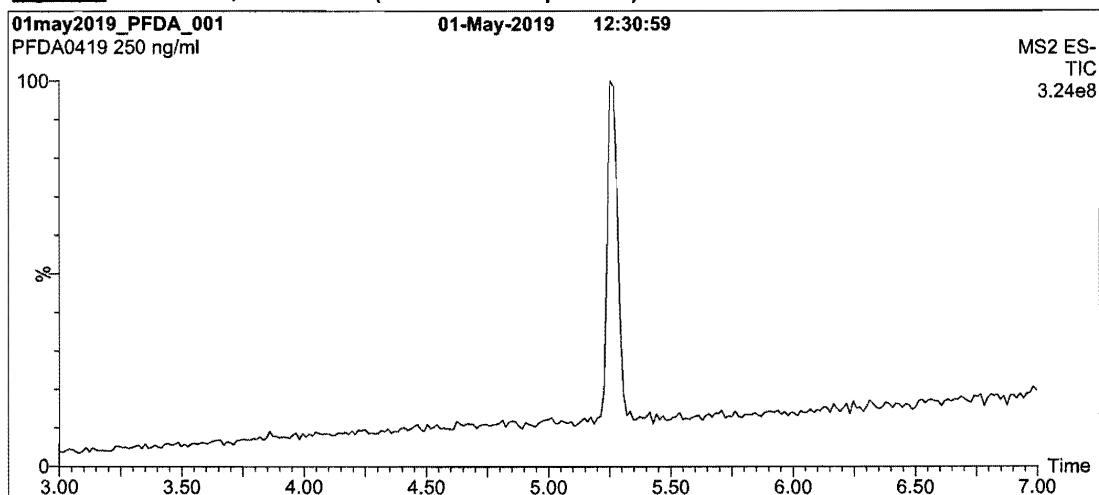
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0639

Figure 1: PFDA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)

Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

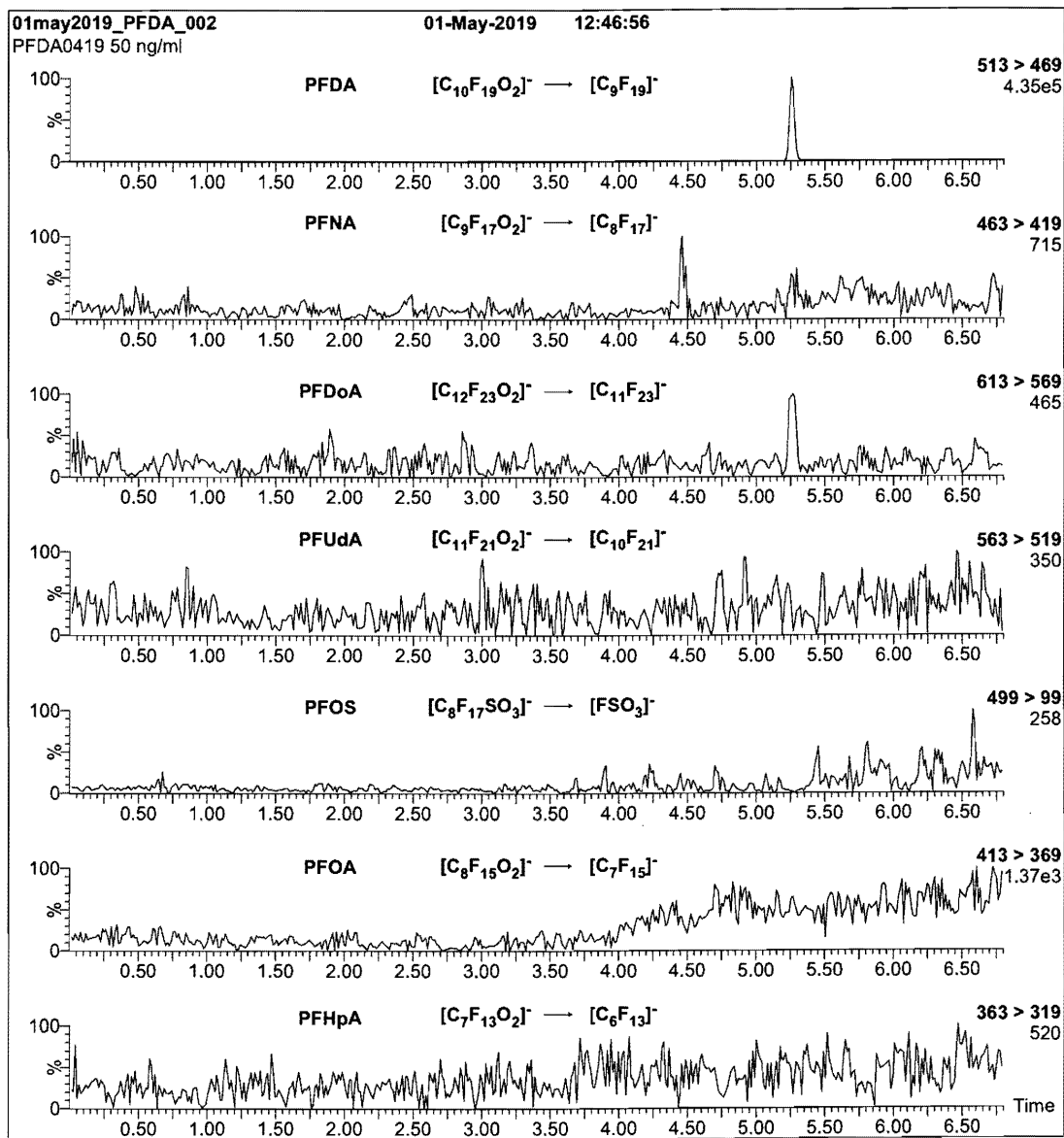
Cone Voltage (V) = 10.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (l/hr) = 1000

19L0639

Figure 2: PFDA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFDA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

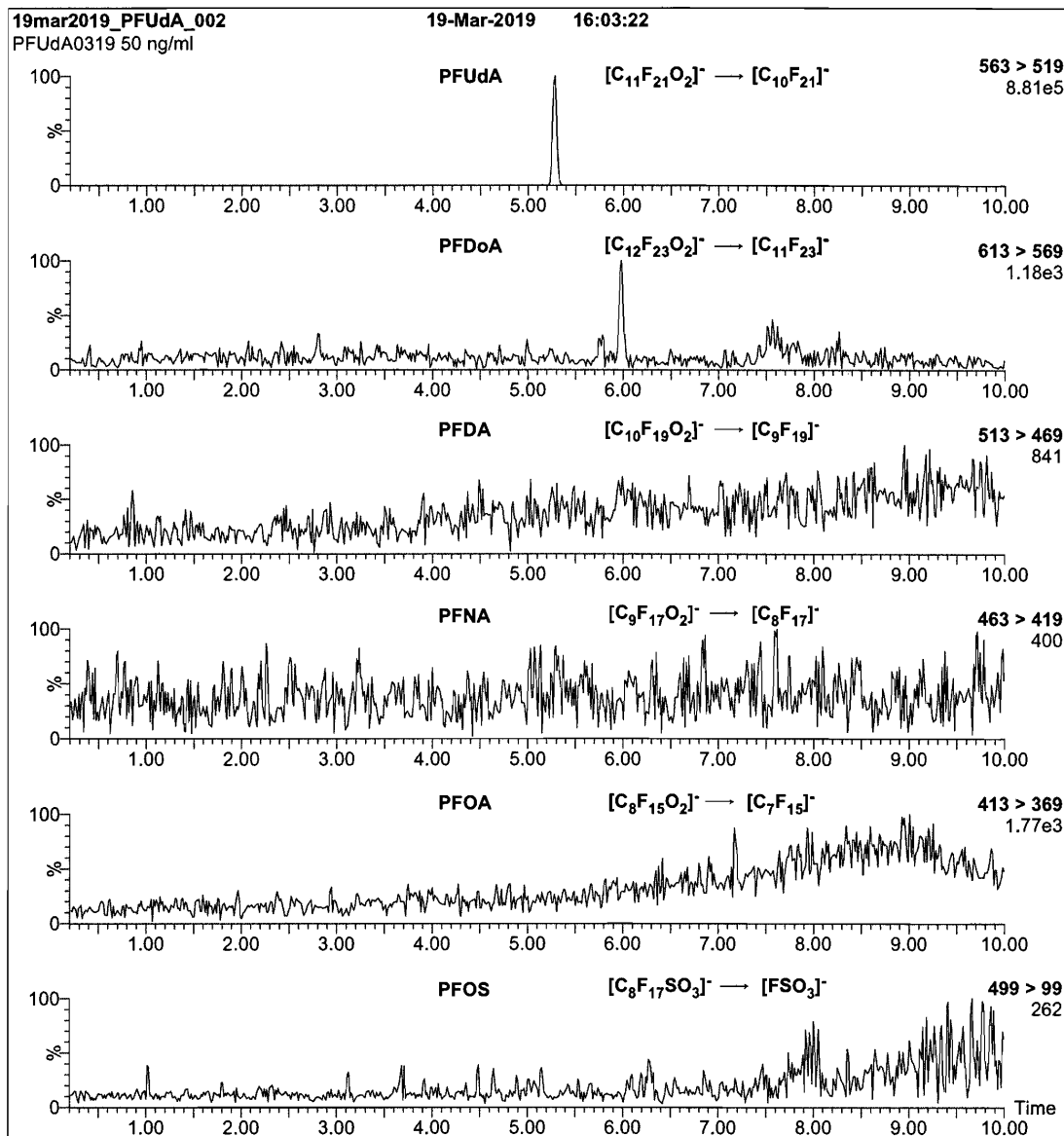
MS Parameters

Collision Gas (mbar) = 2.88e-3

Collision Energy (eV) = 10

19L0640

Figure 2: PFUdA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFUdA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

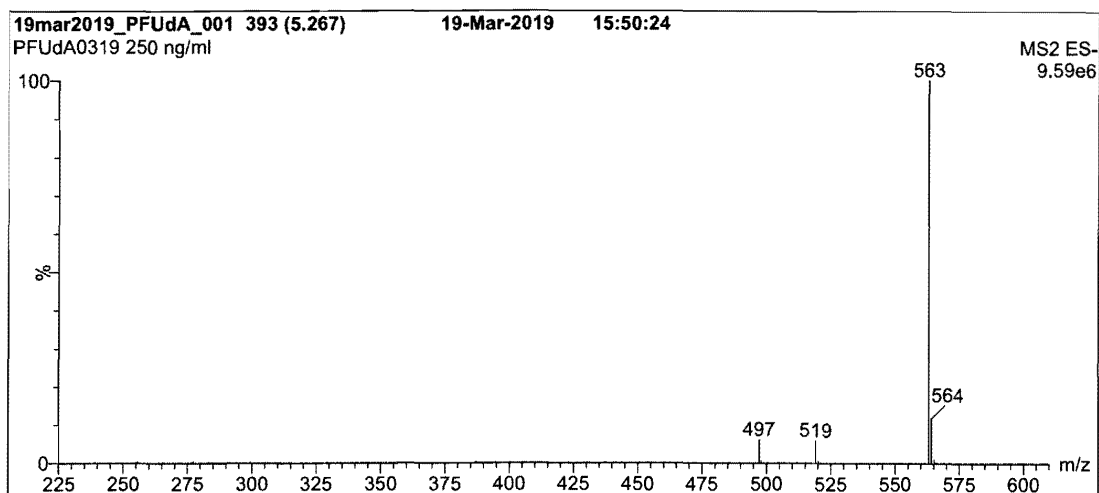
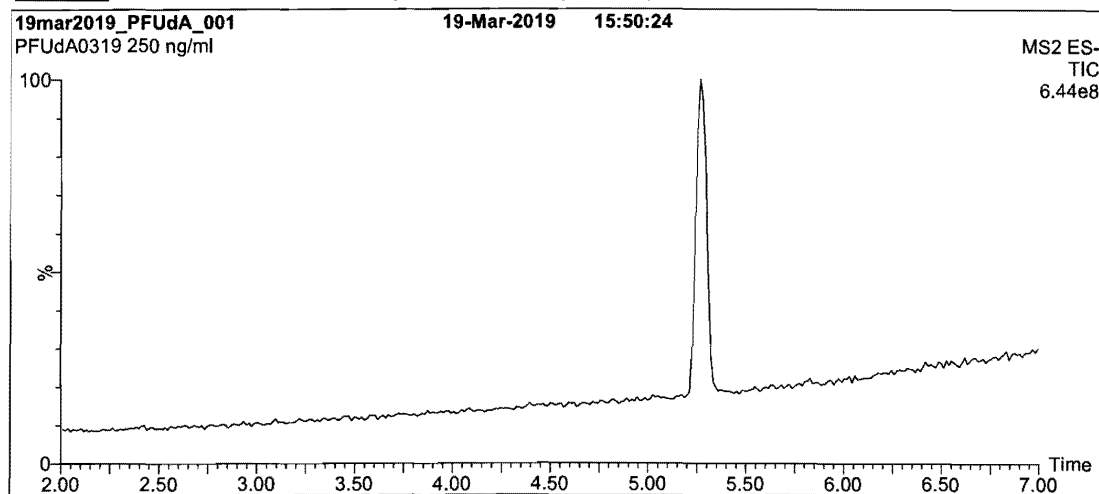
MS Parameters

Collision Gas (mbar) = 3.04e-3

Collision Energy (eV) = 12

19L0640

Figure 1: PFUdA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0640

INTENDED USE:

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HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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1910640



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFUdA

LOT NUMBER:

PFUdA0319

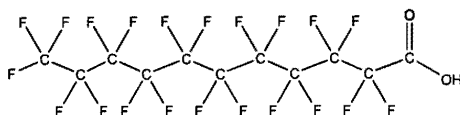
COMPOUND:

Perfluoro-n-undecanoic acid

STRUCTURE:

CAS #:

2058-94-8



MOLECULAR FORMULA:

C₁₁H₂₁O₂

MOLECULAR WEIGHT:

564.09

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

03/19/2019

EXPIRY DATE: (mm/dd/yyyy)

03/19/2024

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-dodecanoic acid (PFDoA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

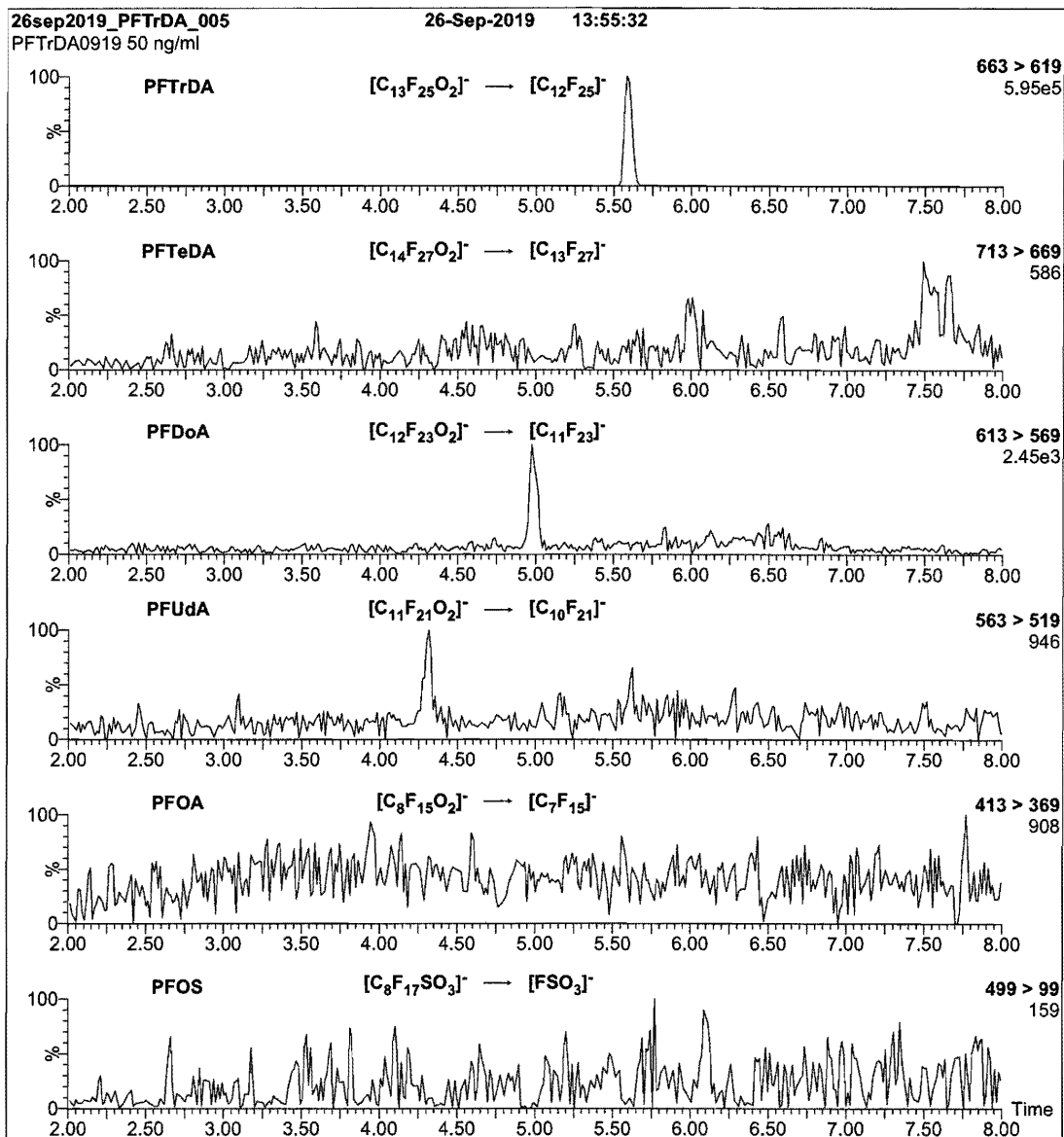
Date: 03/21/2019

(mm/dd/yyyy)

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19L0541

Figure 2: PFTrDA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFTTrDA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

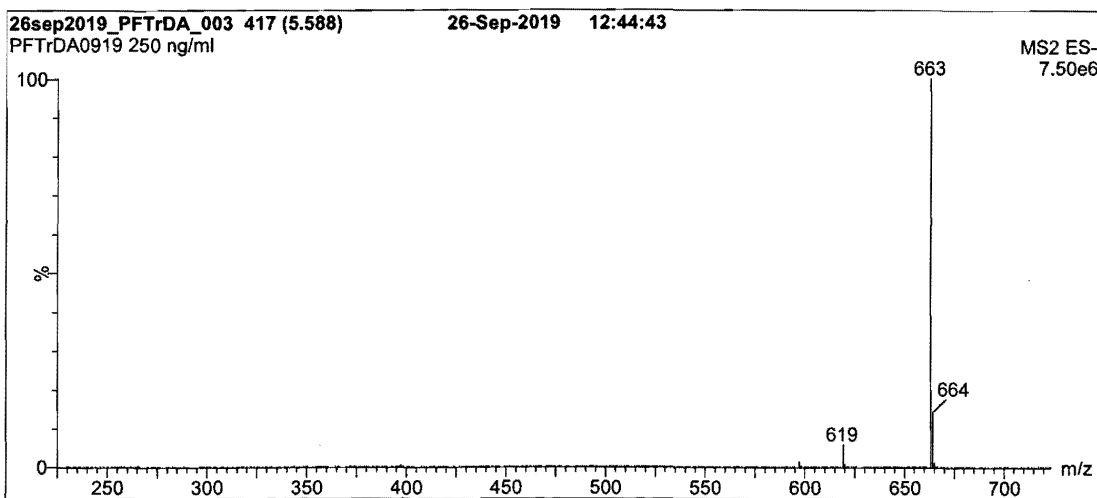
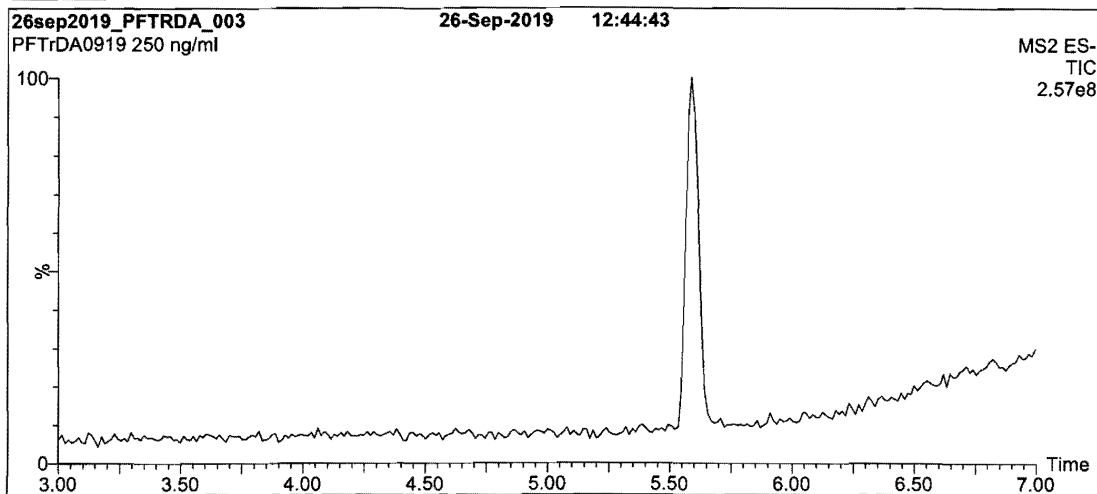
MS Parameters

Collision Gas (mbar) = 3.73e-3

Collision Energy (eV) = 12

1920641

Figure 1: PFTrDA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0641

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0691



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFTrDA

LOT NUMBER:

PFTrDA0919

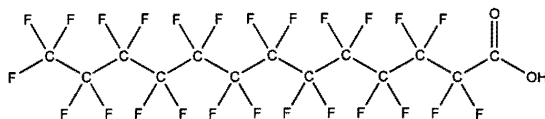
COMPOUND:

Perfluoro-n-tridecanoic acid

STRUCTURE:

CAS #:

72629-94-8



MOLECULAR FORMULA:

C₁₃H₂₅O₂

MOLECULAR WEIGHT:

664.11

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/26/2019

EXPIRY DATE: (mm/dd/yyyy)

09/26/2024

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 (C₁₁H₂₁O₂), ~ 0.4% of PFDoA (C₁₂H₂₃O₂), and ~ 0.1% of PFTeDA (C₁₄H₂₇O₂).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

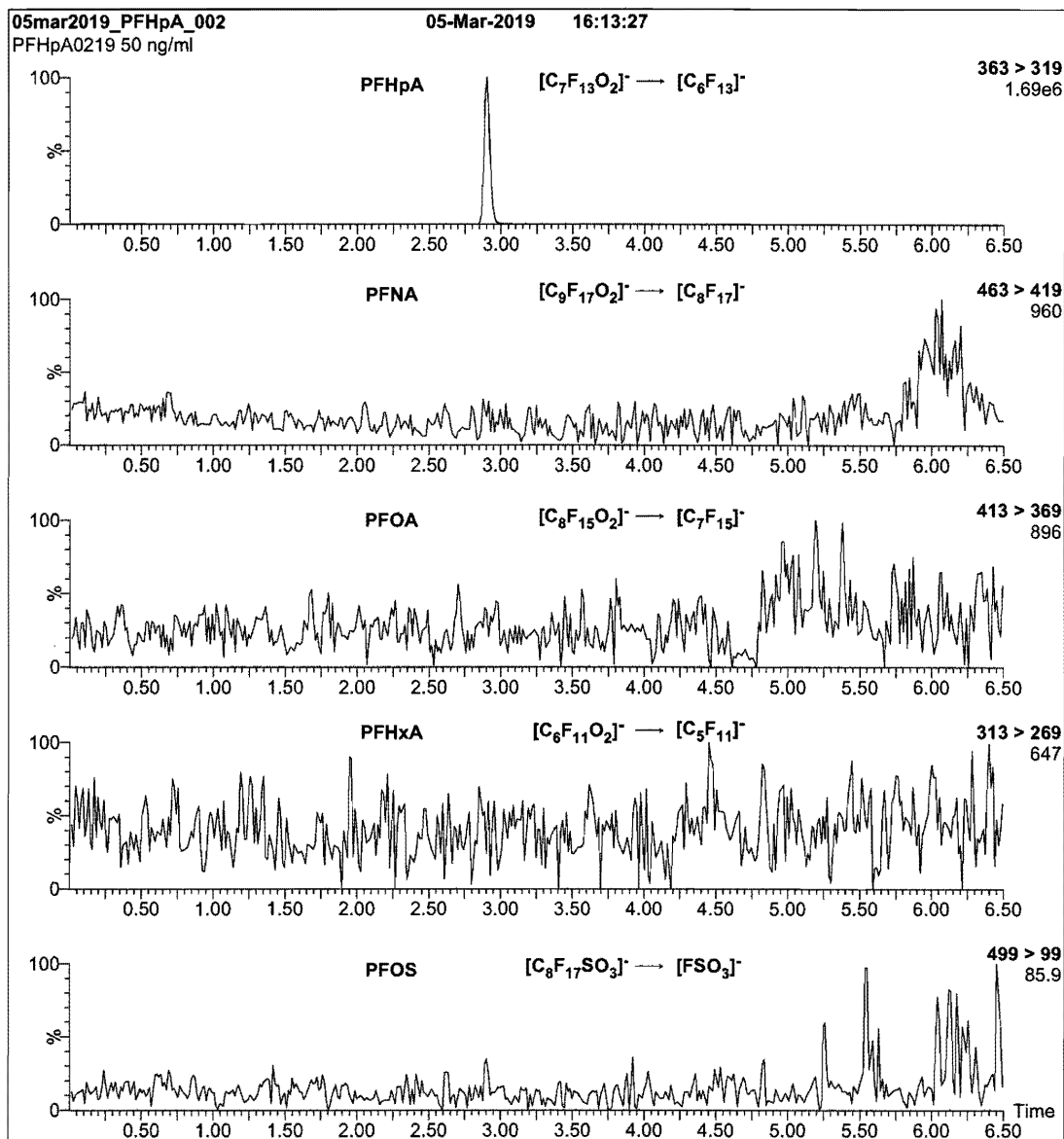
B.G. Chittim, General Manager

Date: 10/03/2019
(mm/dd/yyyy)

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19L0642

Figure 2: PFHpA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFHpA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

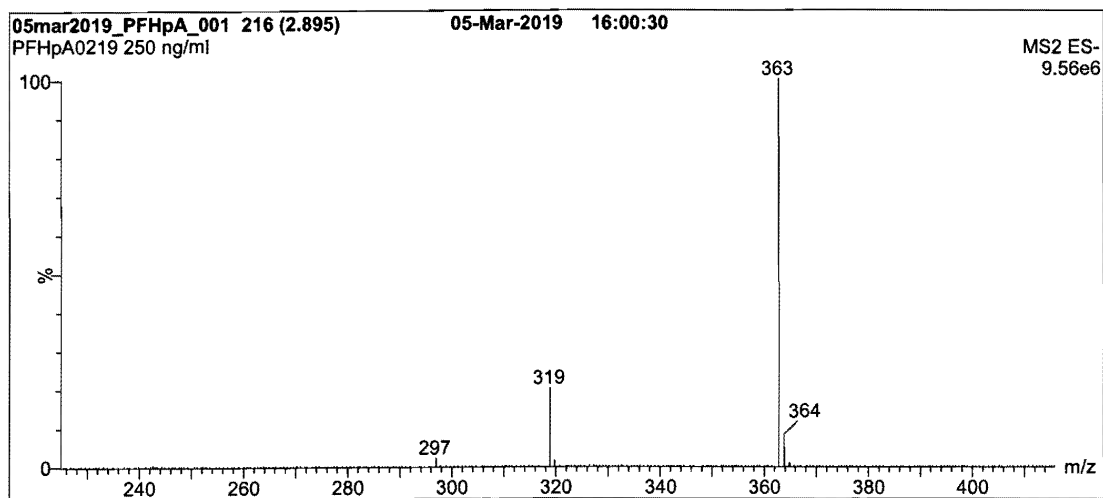
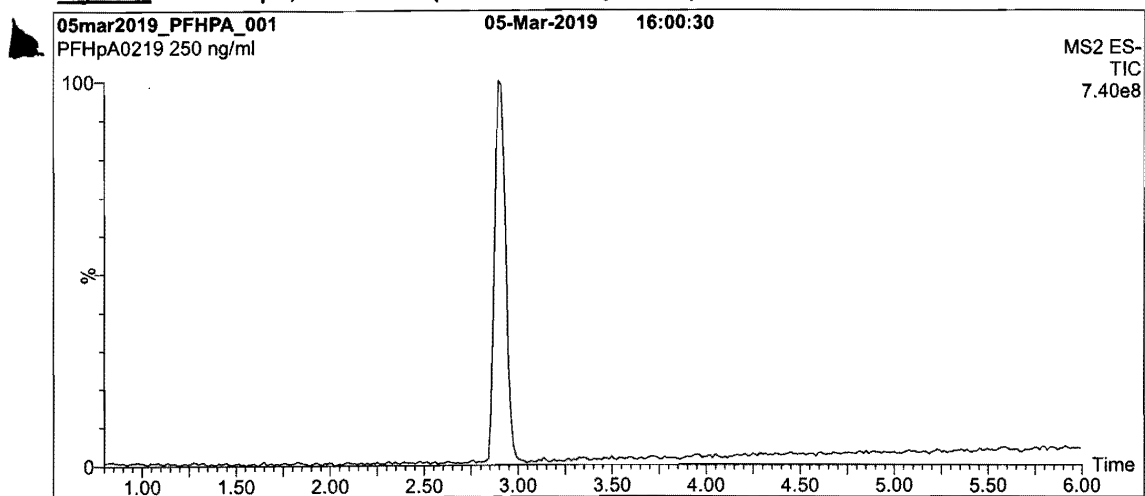
MS Parameters

Collision Gas (mbar) = 2.74e-3

Collision Energy (eV) = 8

19L0642

Figure 1: PFHpA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0642

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 $x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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19L0642



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFHpA

LOT NUMBER:

PFHpA0219

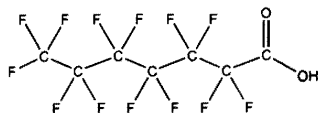
COMPOUND:

Perfluoro-n-heptanoic acid

STRUCTURE:

CAS #:

375-85-9



MOLECULAR FORMULA:

C₇H₁₃O₂

MOLECULAR WEIGHT:

364.06

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

03/05/2019

EXPIRY DATE: (mm/dd/yyyy)

03/05/2024

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, General Manager

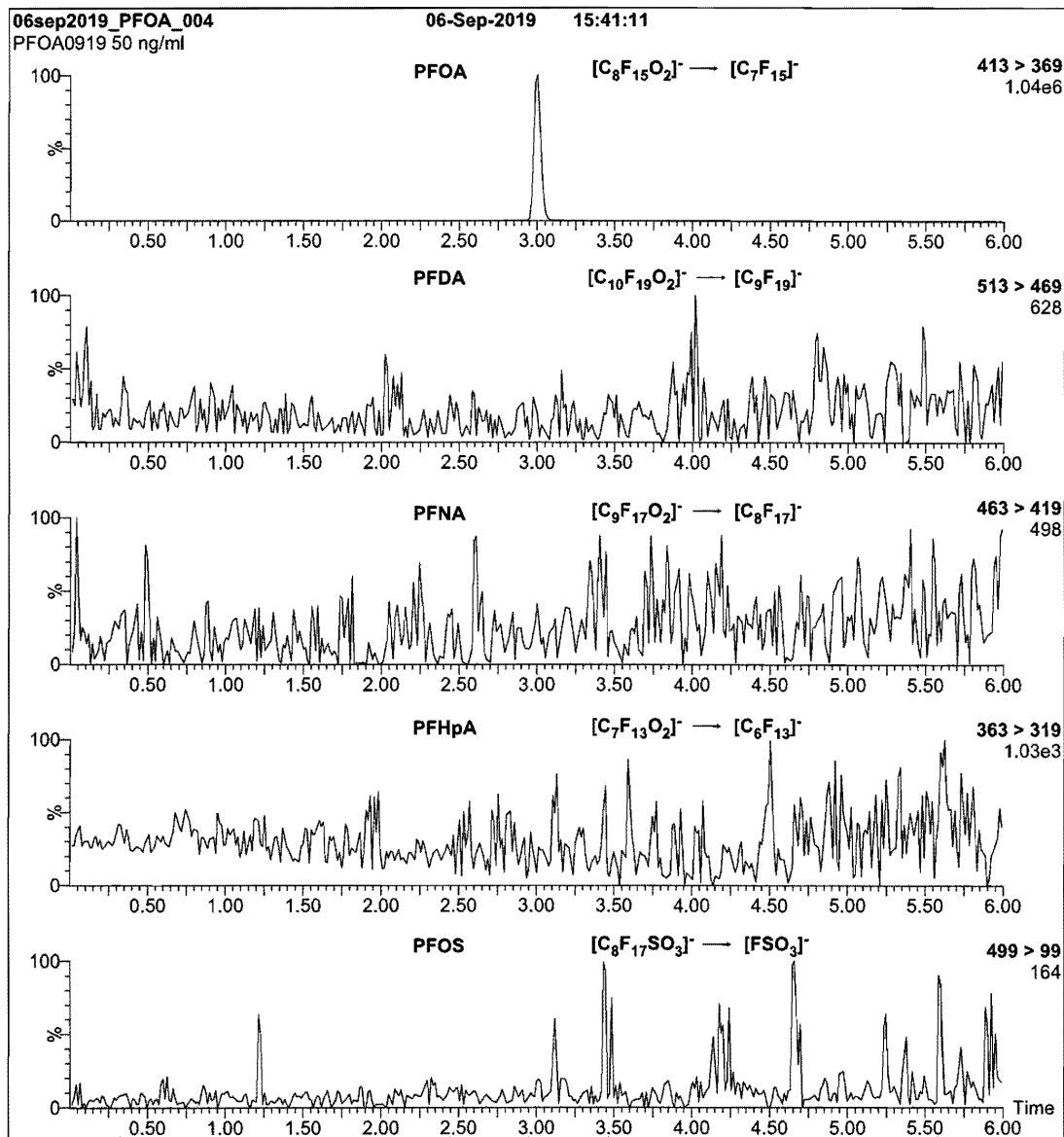
Date: 03/18/2019

(mm/dd/yyyy)

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19L0643

Figure 2: PFOA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFOA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

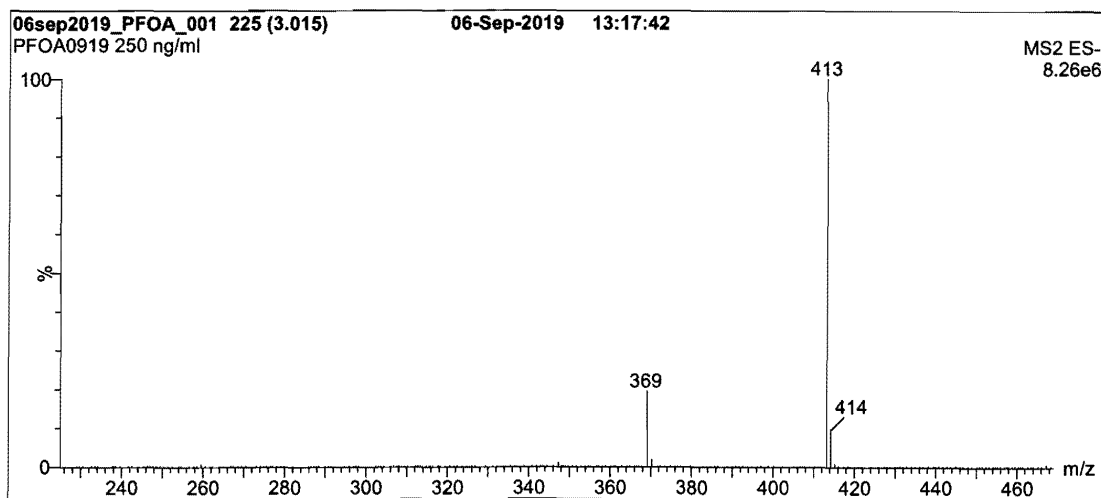
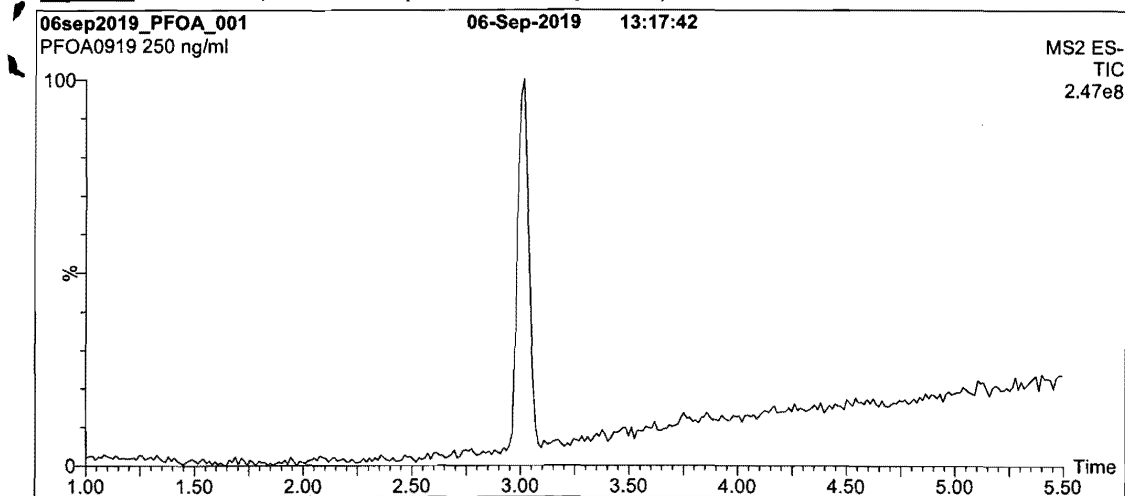
MS Parameters

Collision Gas (mbar) = 3.49e-3

Collision Energy (eV) = 8

19L0643

Figure 1: PFOA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0643

INTENDED USE:

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HANDLING:

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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:

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$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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19L0643



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFOA

LOT NUMBER:

PFOA0919

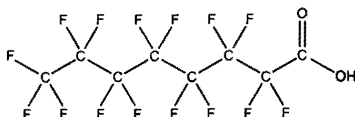
COMPOUND:

Perfluoro-n-octanoic acid

STRUCTURE:

CAS #:

335-67-1



MOLECULAR FORMULA:

C₈HF₁₅O₂

MOLECULAR WEIGHT:

414.07

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/06/2019

EXPIRY DATE: (mm/dd/yyyy)

09/06/2024

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, General Manager

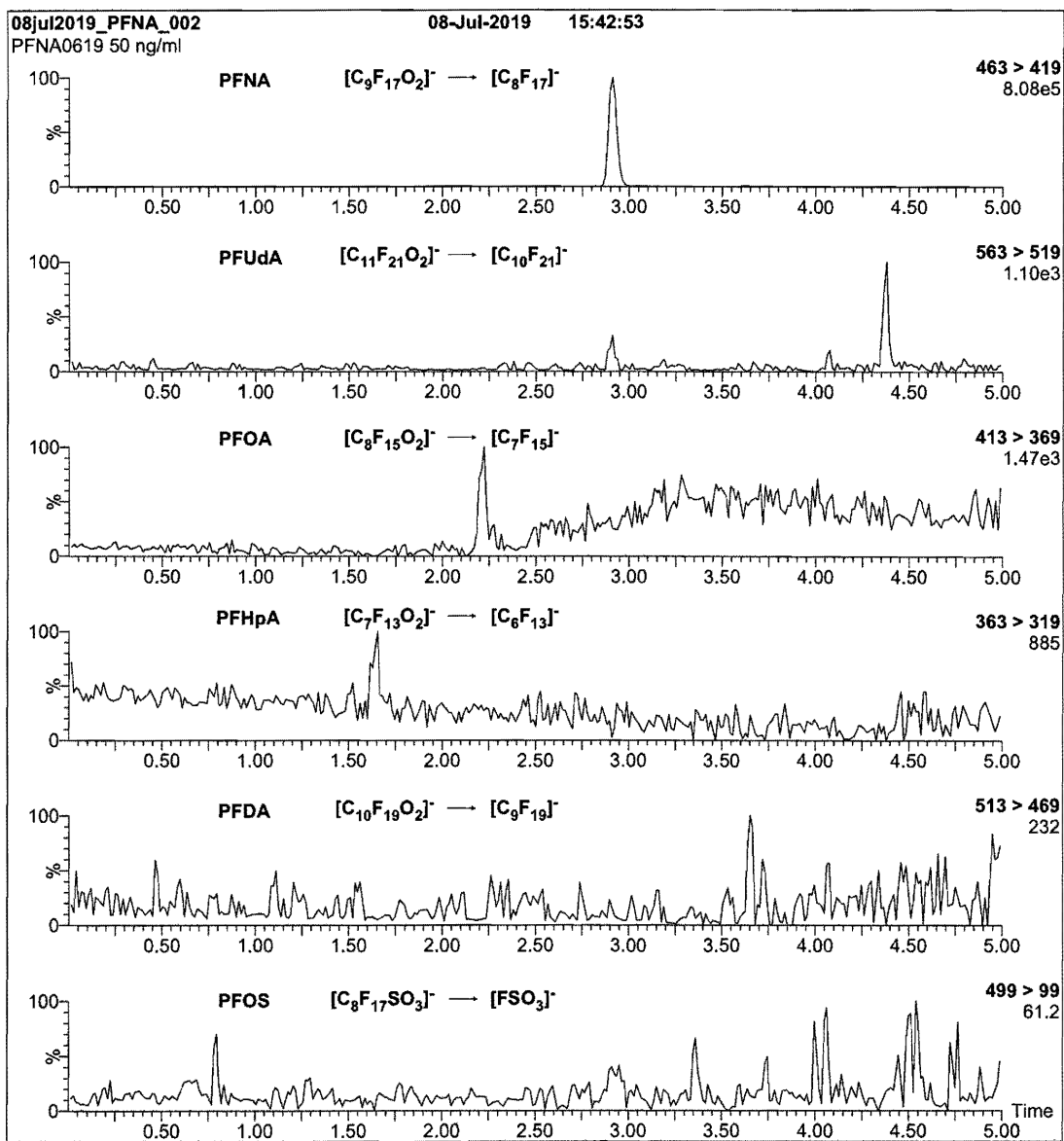
Date: 09/09/2019

(mm/dd/yyyy)

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19L0644

Figure 2: PFNA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFNA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

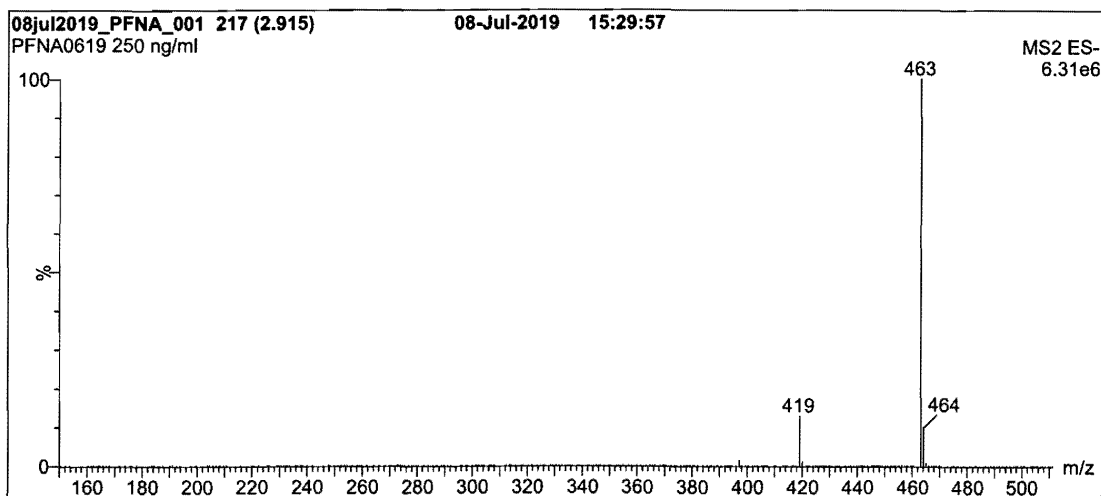
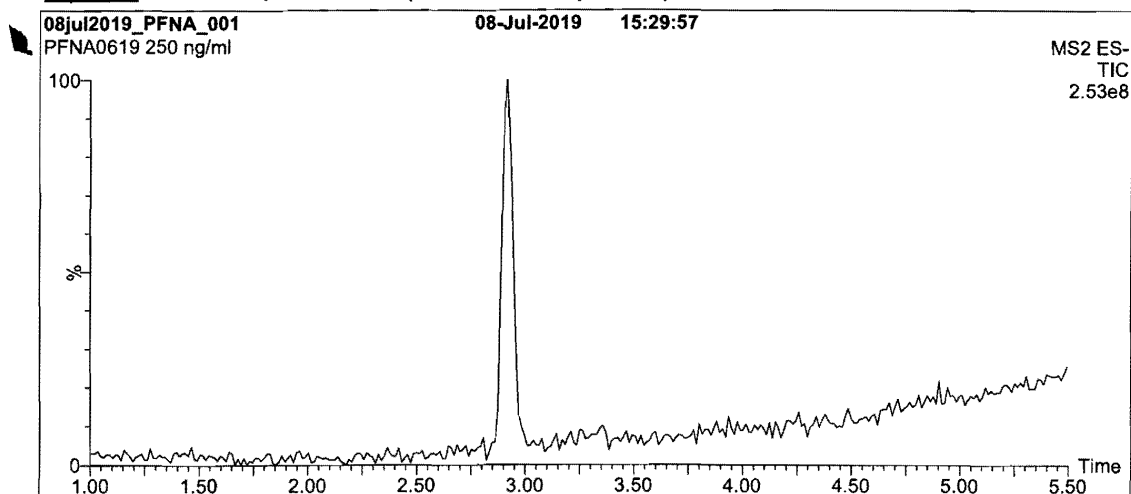
MS Parameters

Collision Gas (mbar) = 3.35e-3

Collision Energy (eV) = 10

19L0644

Figure 1: PFNA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0644

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0644



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFNA

LOT NUMBER:

PFNA0619

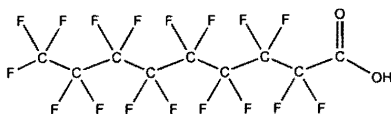
COMPOUND:

Perfluoro-n-nonanoic acid

STRUCTURE:

CAS #:

375-95-1



MOLECULAR FORMULA:

C₉H₁₇O₂

MOLECULAR WEIGHT:

464.08

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

07/08/2019

EXPIRY DATE: (mm/dd/yyyy)

07/08/2024

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-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

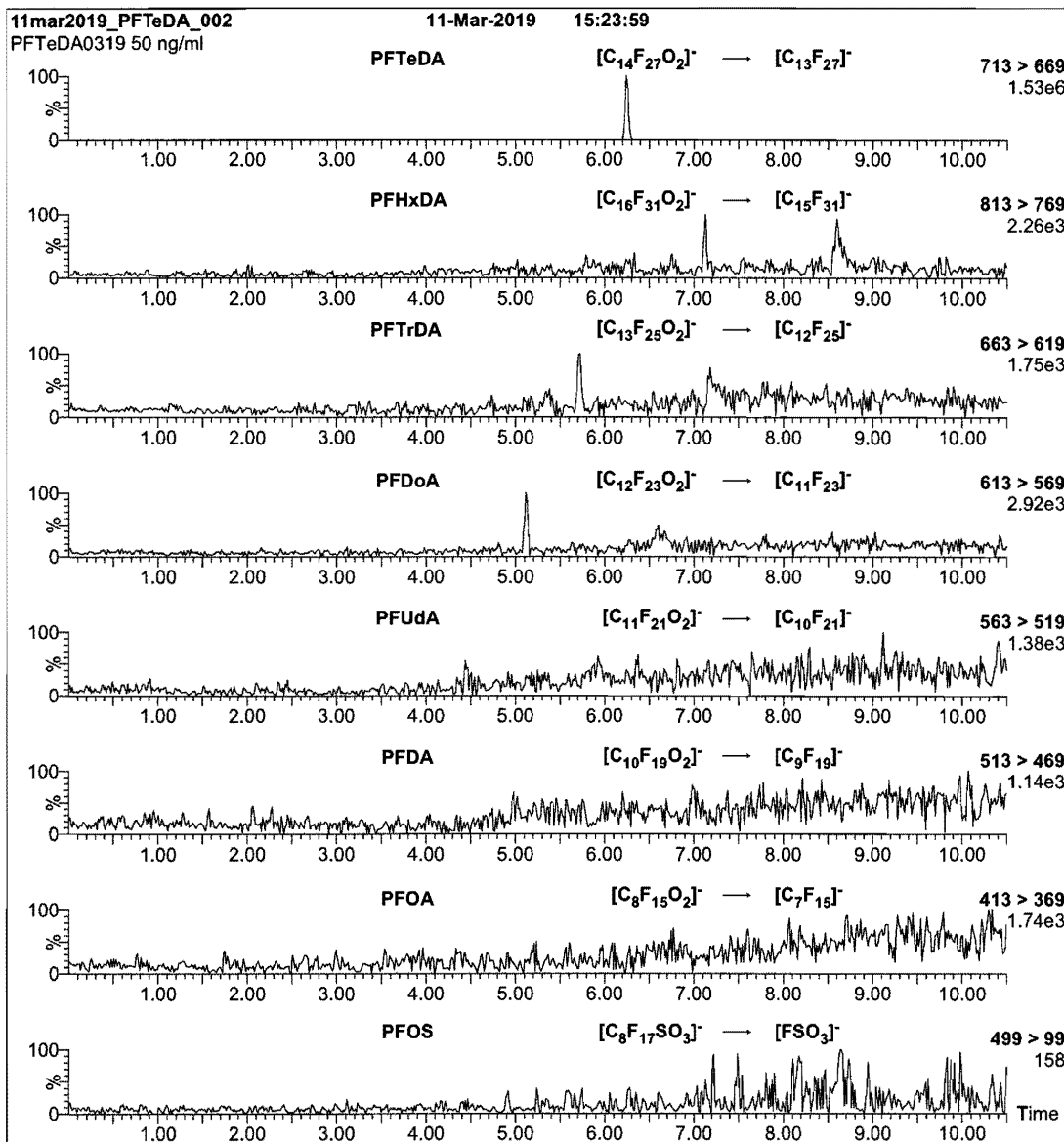
Date: 07/11/2019

(mm/dd/yyyy)

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19L0645

Figure 2: PFTeDA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFTeDA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

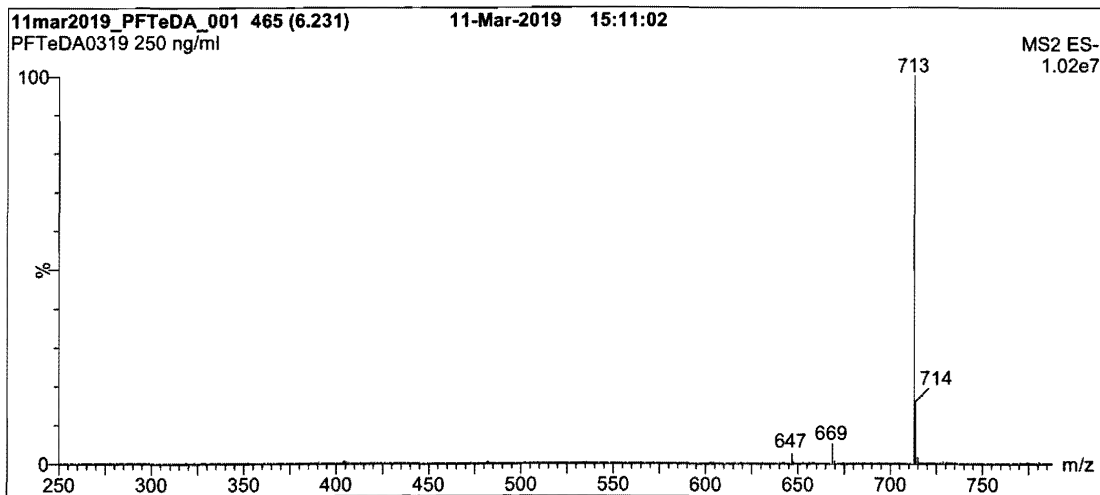
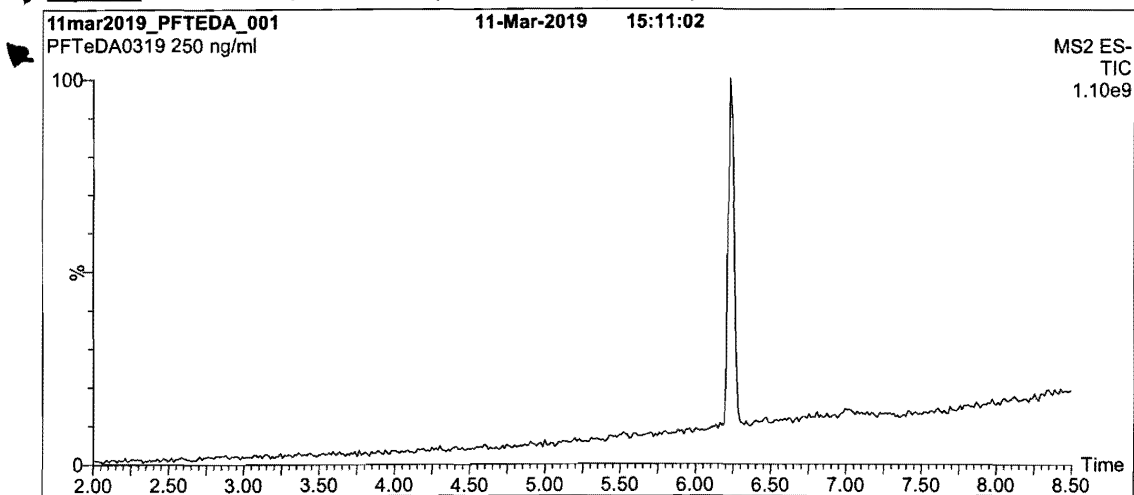
MS Parameters

Collision Gas (mbar) = 3.03e-3

Collision Energy (eV) = 14

1920645

Figure 1: PFTeDA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0645

INTENDED USE:

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HANDLING:

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$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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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19L0645



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFTeDA

LOT NUMBER:

PFTeDA0319

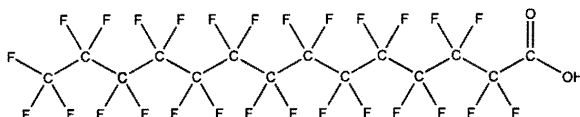
COMPOUND:

Perfluoro-n-tetradecanoic acid

STRUCTURE:

CAS #:

376-06-7



MOLECULAR FORMULA:

$C_{14}HF_{27}O_2$

MOLECULAR WEIGHT:

714.11

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

03/11/2019

EXPIRY DATE: (mm/dd/yyyy)

03/11/2024

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 PFDa ($C_{12}HF_{23}O_2$), ~ 0.1% of PFTDA ($C_{13}HF_{25}O_2$), and ~ 0.1% of PFHxDA ($C_{16}HF_{31}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

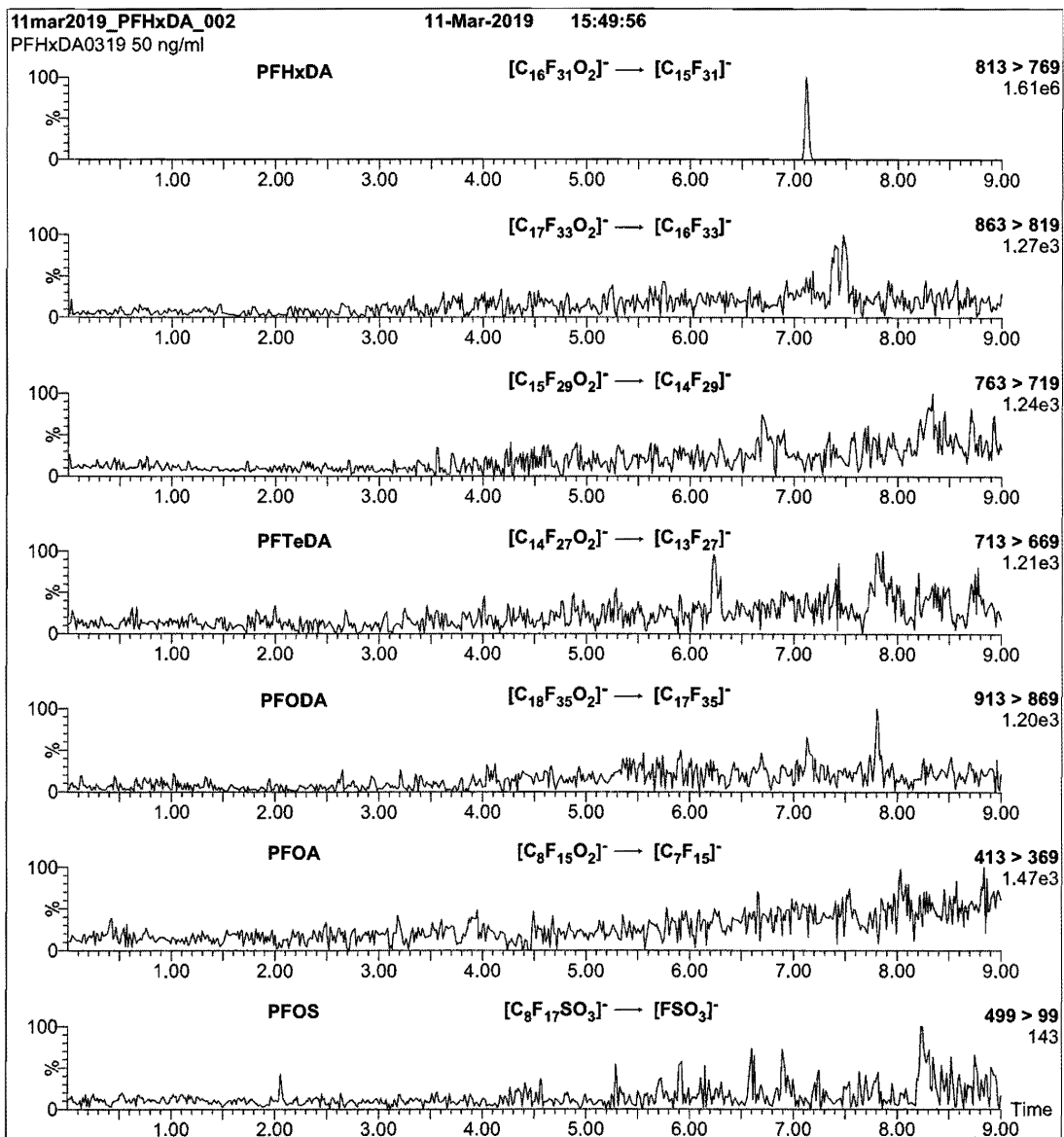
Date:

03/28/2019
(mm/dd/yyyy)

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19L0646

Figure 2: PFHxDA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFHxDA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

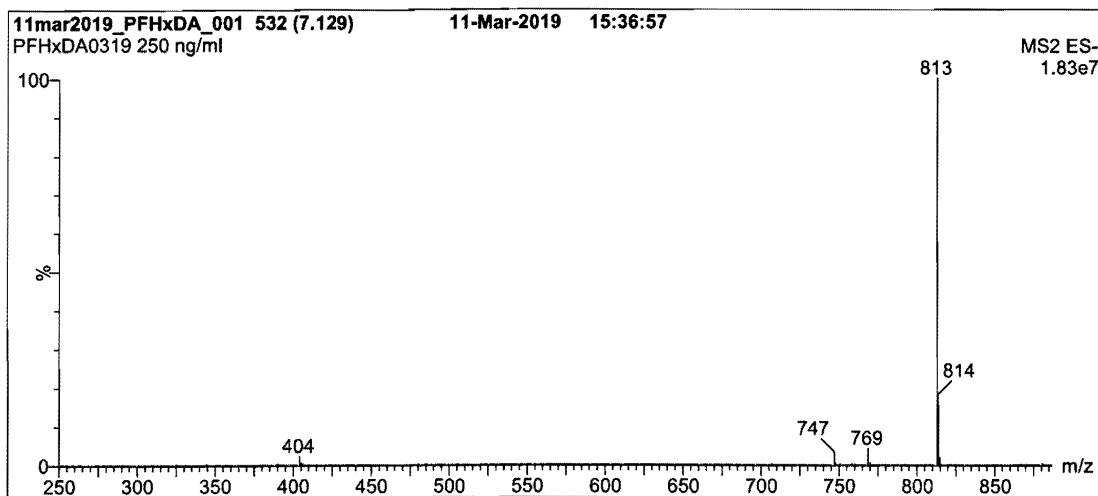
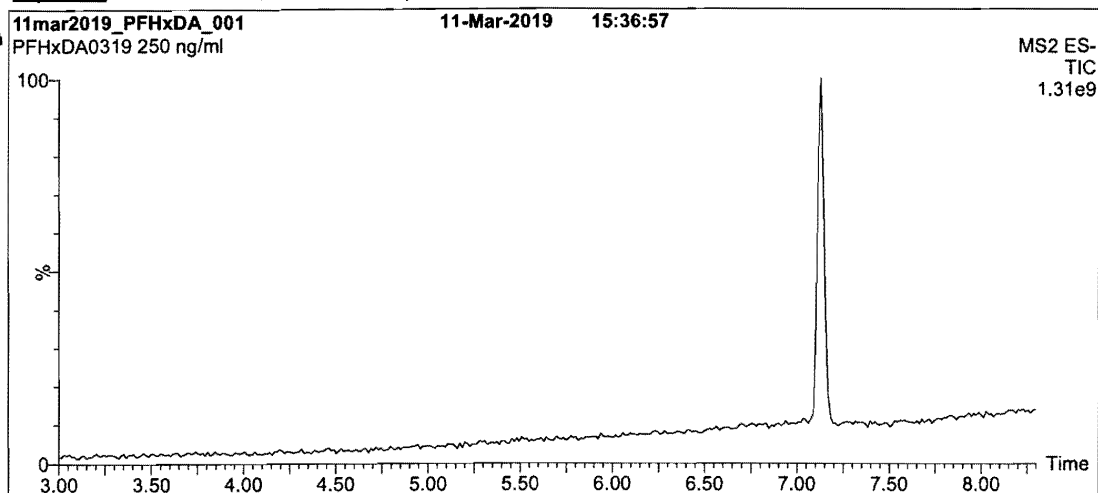
MS Parameters

Collision Gas (mbar) = 3.03e-3

Collision Energy (eV) = 15

19L0646

Figure 1: PFHxDA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L 0646

INTENDED USE:

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HANDLING:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

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UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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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19L0646



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CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:

PFHxDA

LOT NUMBER:

PFHxDA0319

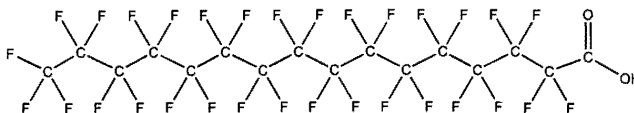
COMPOUND:

Perfluoro-n-hexadecanoic acid

STRUCTURE:

CAS #:

67905-19-5



MOLECULAR FORMULA:

C₁₆H₃₁O₂

MOLECULAR WEIGHT:

814.13

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

03/11/2019

EXPIRY DATE: (mm/dd/yyyy)

03/11/2024

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, General Manager

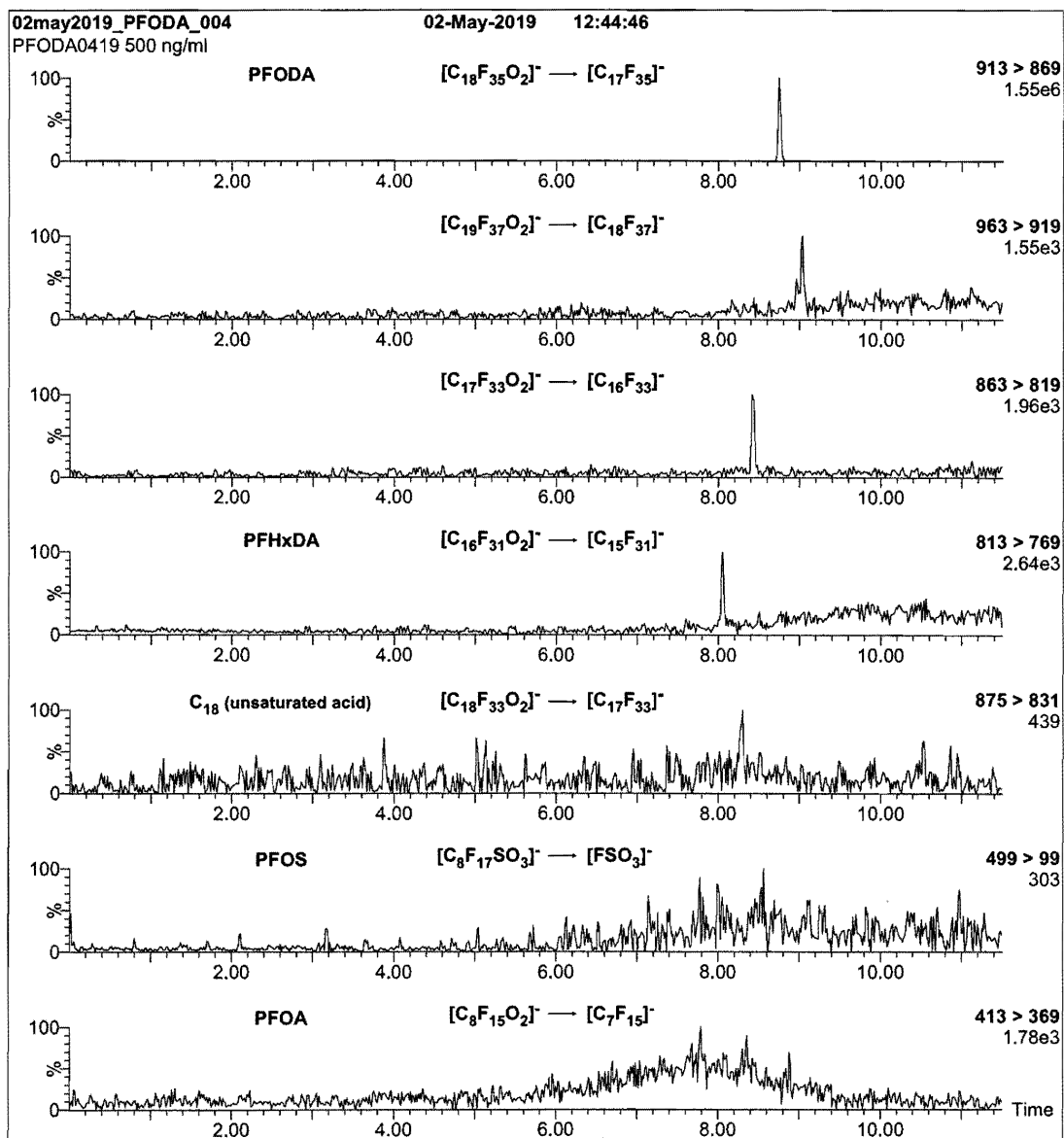
Date: 03/28/2019

(mm/dd/yyyy)

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Figure 2: PFODA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFODA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

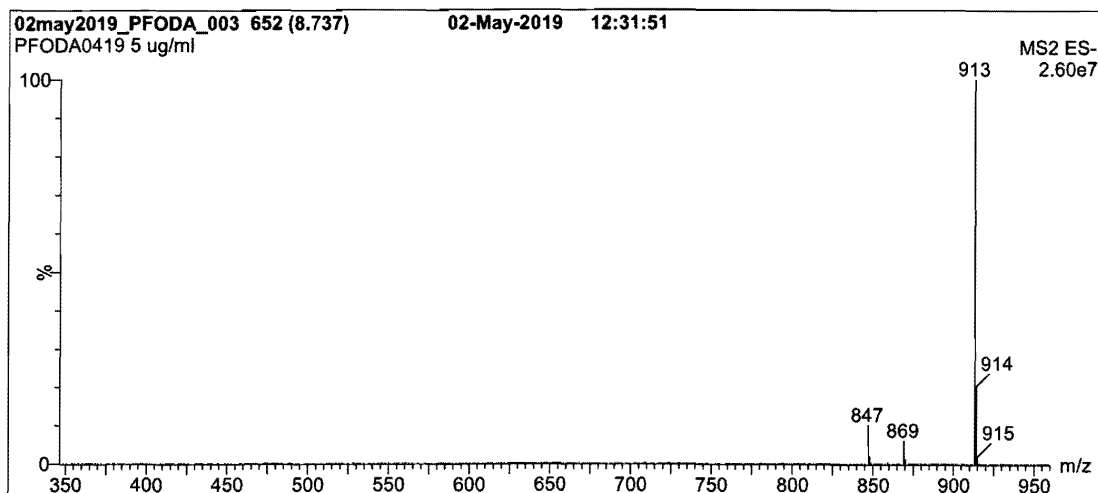
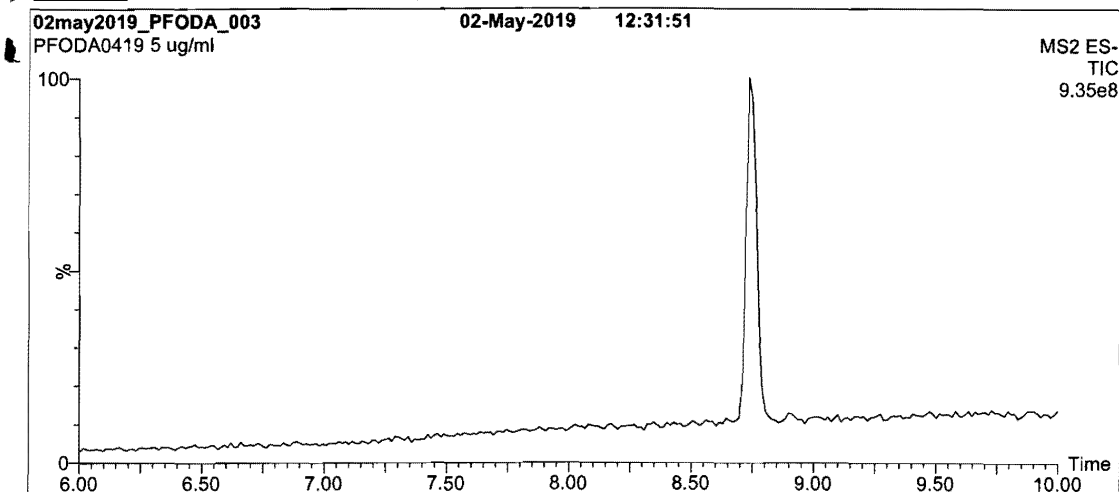
MS Parameters

Collision Gas (mbar) = 2.92e-3

Collision Energy (eV) = 15

19L0647

Figure 1: PFODA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0647

INTENDED USE:

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HANDLING:

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LIMITED WARRANTY:

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19L0647



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

PFODA

LOT NUMBER:

PFODA0419

COMPOUND:

Perfluoro-n-octadecanoic acid

STRUCTURE:

CAS #:

16517-11-6



MOLECULAR FORMULA:

$C_{18}HF_{35}O_2$

MOLECULAR WEIGHT:

914.14

CONCENTRATION:

$50 \pm 2.5 \mu\text{g/ml}$

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

05/02/2019

EXPIRY DATE: (mm/dd/yyyy)

05/02/2024

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

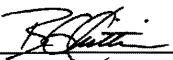
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

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 PFHxDA ($C_{16}HF_{31}O_2$) and ~ 0.1% of PFHpDA ($C_{17}HF_{33}O_2$)

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:


B.G. Chittim, General Manager

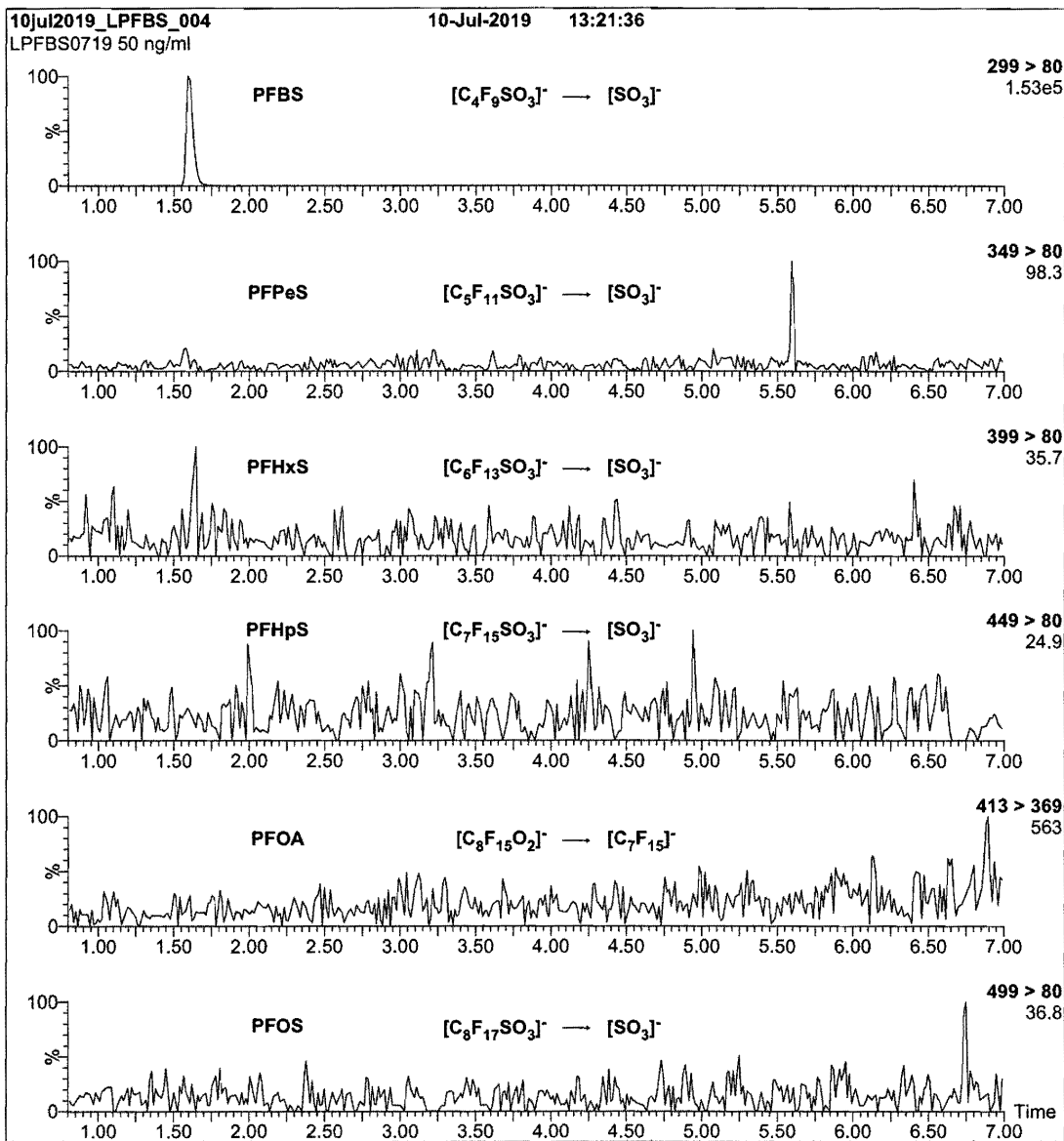
Date:

05/16/2019
(mm/dd/yyyy)

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19L0648

Figure 2: L-PFBS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (L-PFBS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

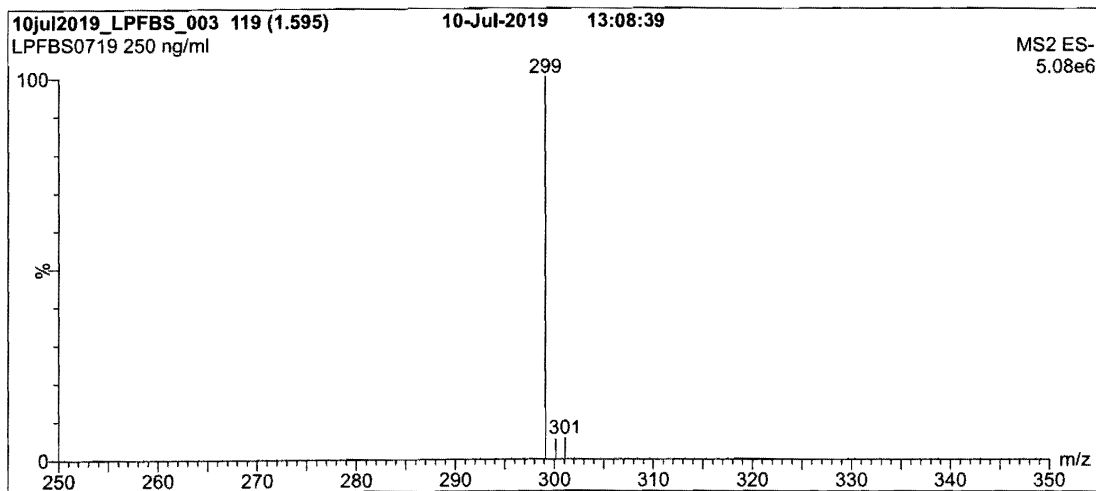
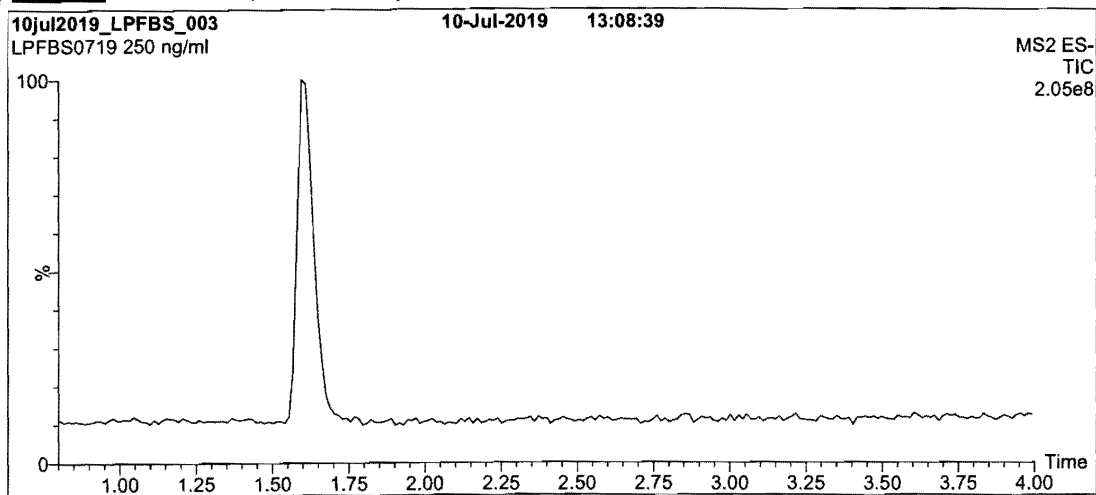
MS Parameters

Collision Gas (mbar) = 3.25e-3

Collision Energy (eV) = 30

19L0648

Figure 1: L-PFBS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 70% organic over 7 min, then ramp to
90% organic over 2 min and hold for 1.5 min before
returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0648

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 $x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0648



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFBS

LOT NUMBER:

LPFBS0719

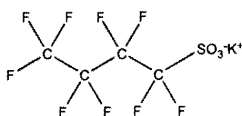
COMPOUND:

Potassium perfluoro-1-butanesulfonate

STRUCTURE:

CAS #:

29420-49-3



MOLECULAR FORMULA:

C₄F₉SO₃K

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)

07/10/2019

EXPIRY DATE: (mm/dd/yyyy)

07/10/2024

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 sodium perfluoro-1-nonanesulfonate (L-PFNS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

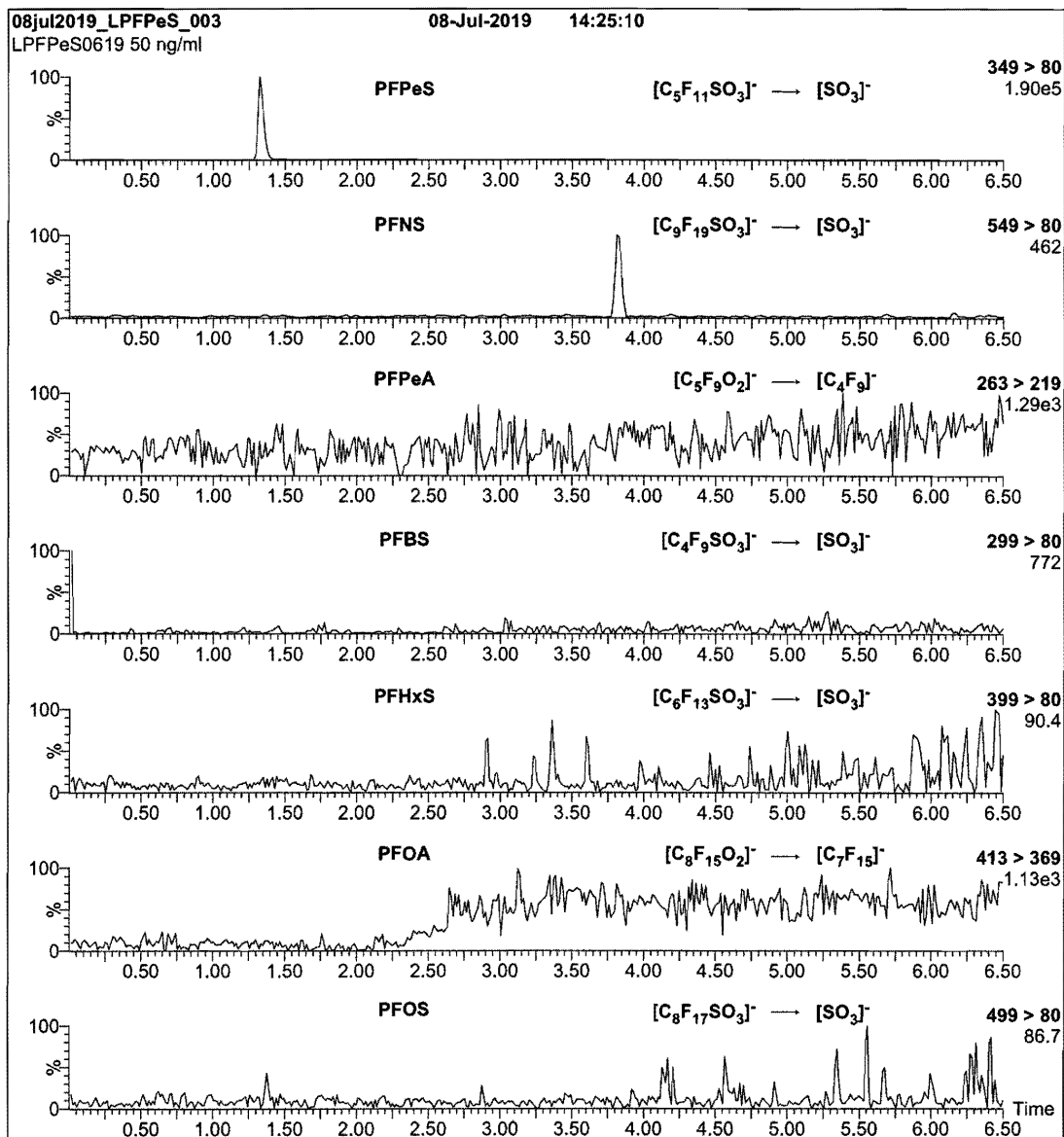
Date: 08/06/2019

(mm/dd/yyyy)

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19L0649

Figure 2: L-PFPeS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (L-PFPeS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

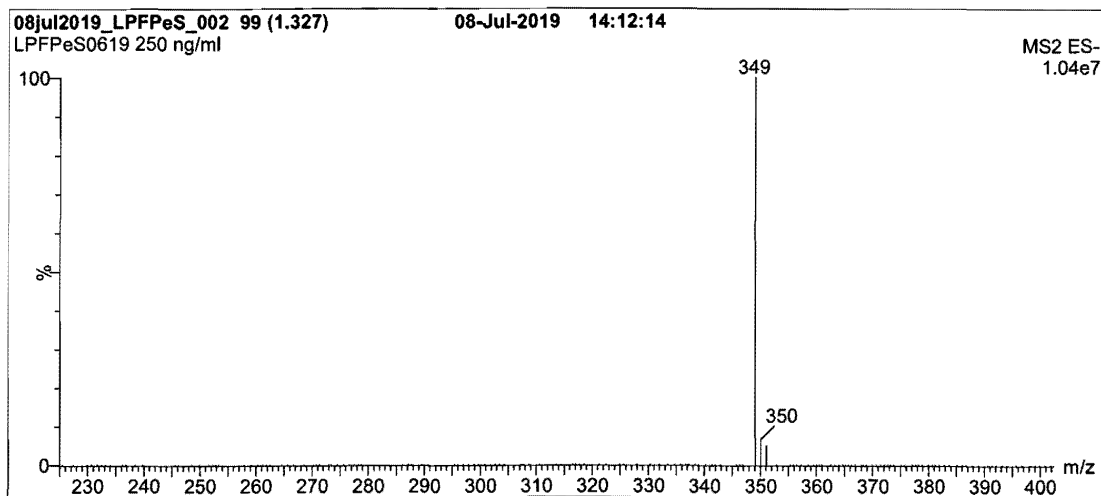
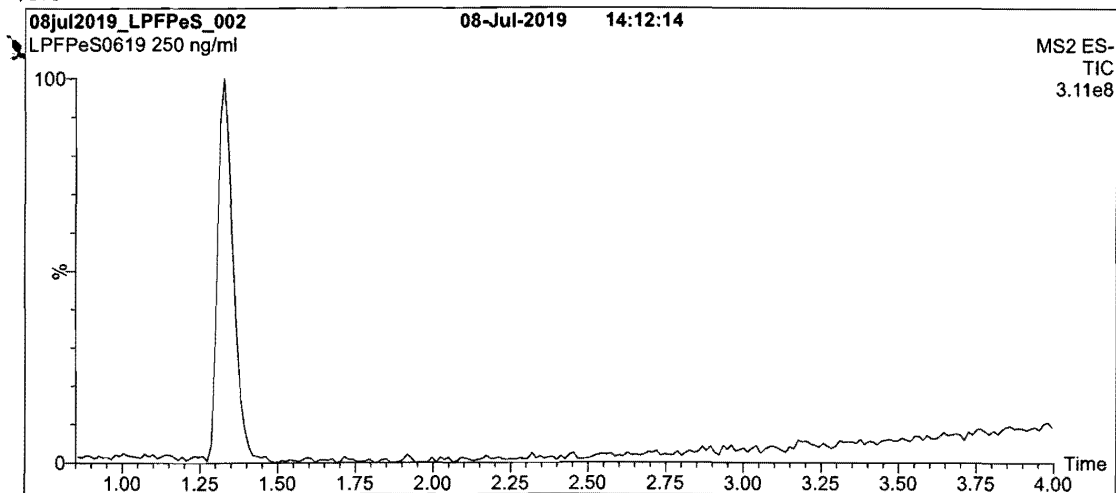
MS Parameters

Collision Gas (mbar) = 3.37e-3

Collision Energy (eV) = 32

19L0649

Figure 1: L-PFPeS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0649

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0649



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFPeS

LOT NUMBER:

LPFPeS0619

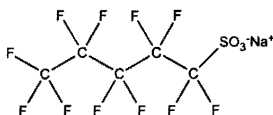
COMPOUND:

Sodium perfluoro-1-pentanesulfonate

STRUCTURE:

CAS #:

630402-22-1



MOLECULAR FORMULA:

C₅F₁₁SO₃Na

MOLECULAR WEIGHT:

372.09

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)
46.9 ± 2.3 µg/ml (PFPeS anion)

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

07/08/2019

EXPIRY DATE: (mm/dd/yyyy)

07/08/2024

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 ~ 0.3% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

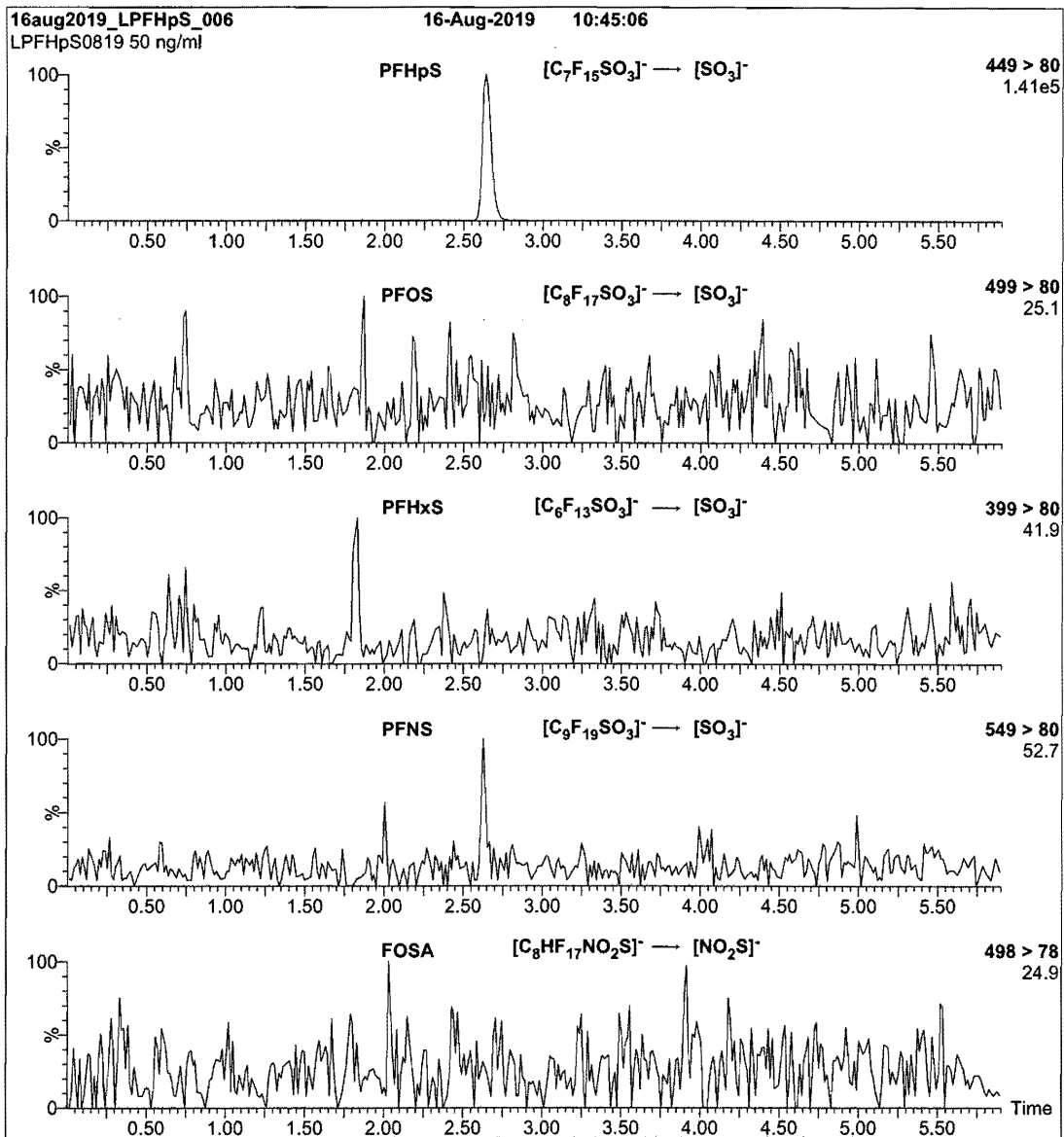
Date: 07/11/2019

(mm/dd/yyyy)

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19L0650

Figure 2: L-PFHpS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (L-PFHpS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

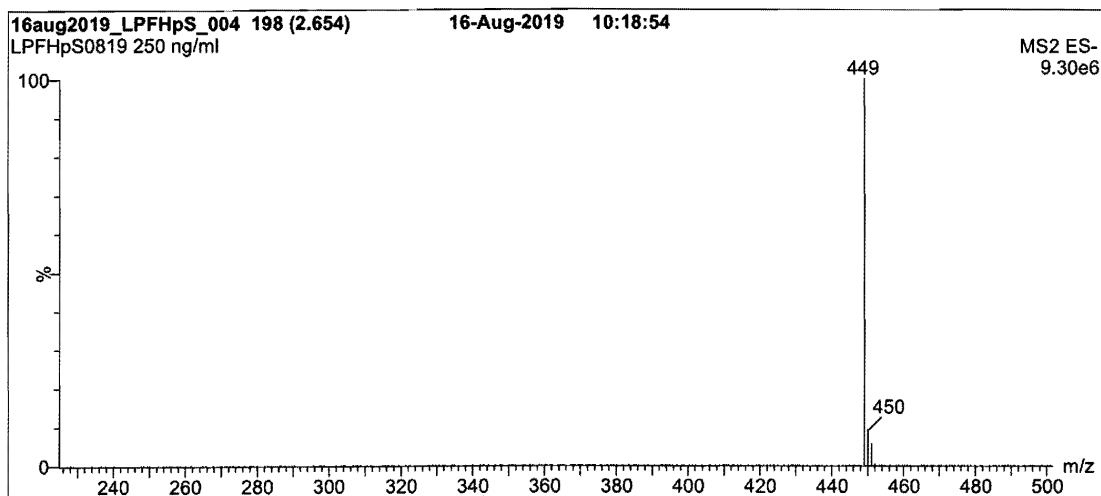
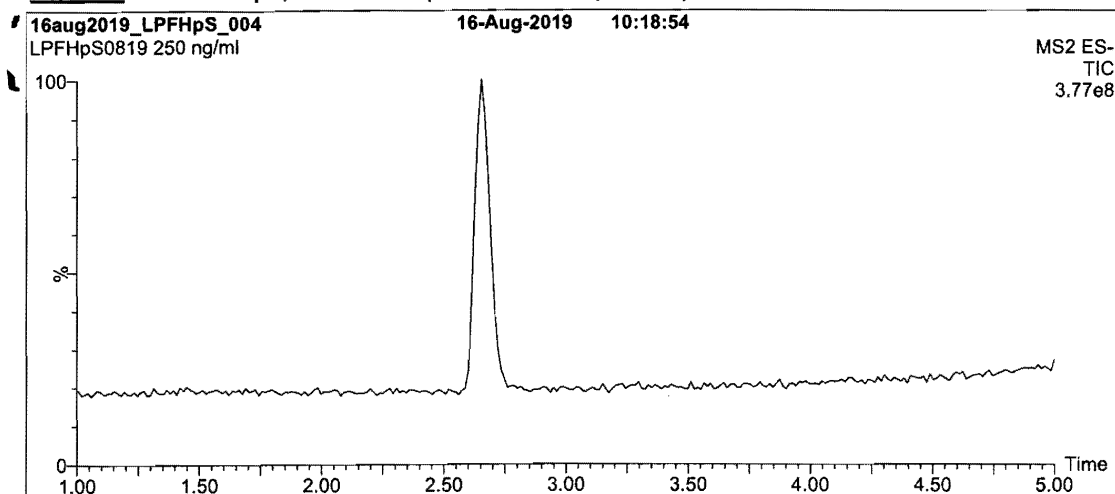
MS Parameters

Collision Gas (mbar) = 3.61e-3

Collision Energy (eV) = 42

19 L0650

Figure 1: L-PFHpS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0650

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0650



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFHpS

LOT NUMBER:

LPFHpS0819

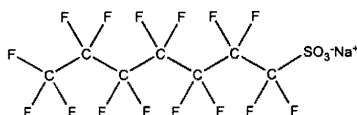
COMPOUND:

Sodium perfluoro-1-heptanesulfonate

STRUCTURE:

CAS #:

21934-50-9



MOLECULAR FORMULA:

C₇F₁₅SO₃Na

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)

08/16/2019

EXPIRY DATE: (mm/dd/yyyy)

08/16/2024

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, General Manager

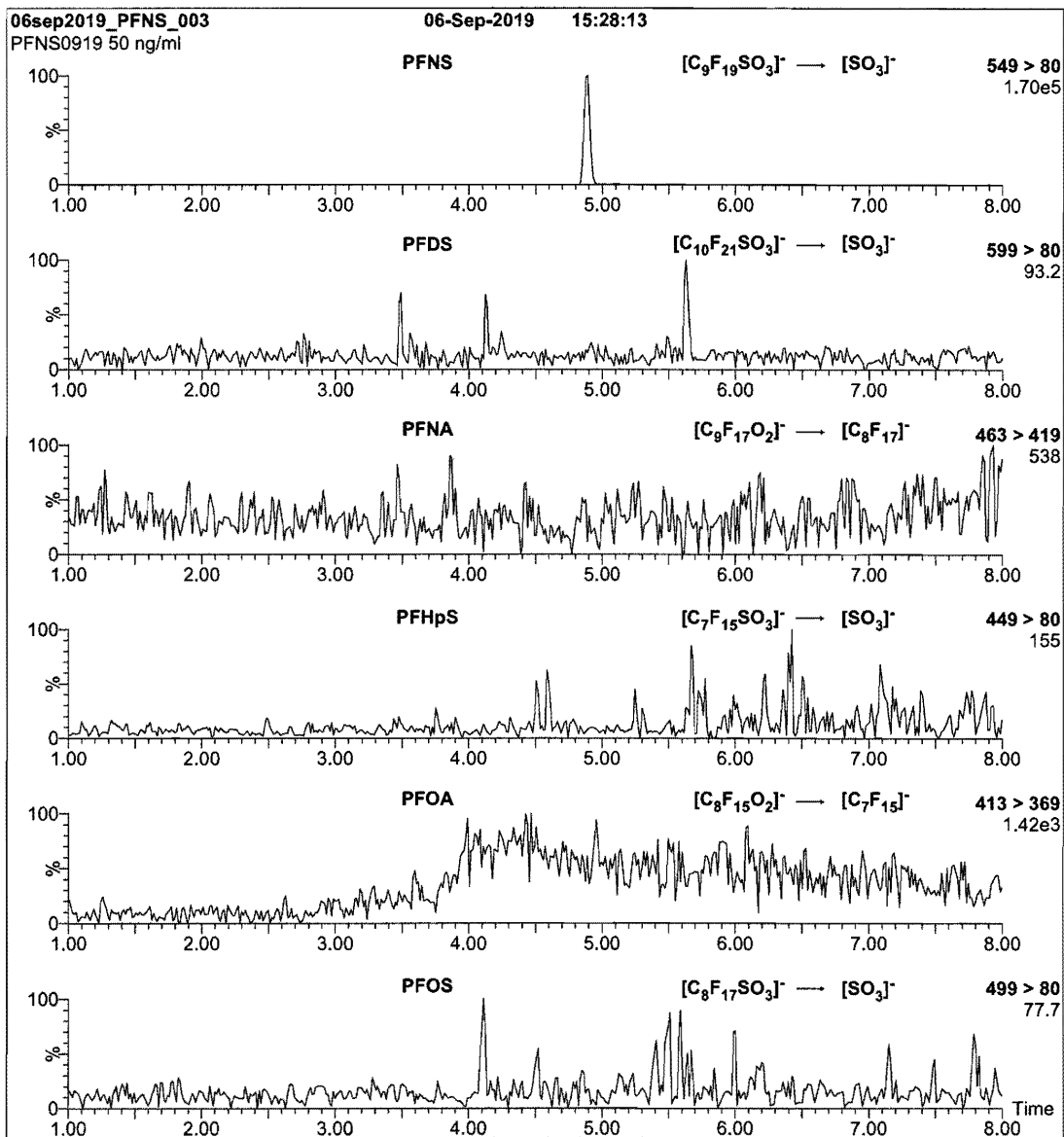
Date:

08/29/2019
(mm/dd/yyyy)

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1920651

Figure 2: L-PFNS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (L-PFNS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

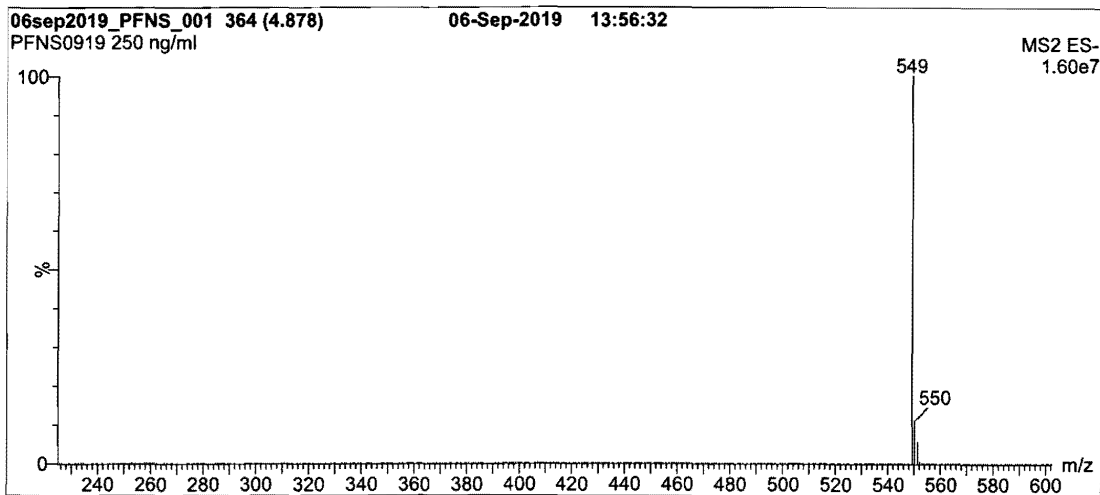
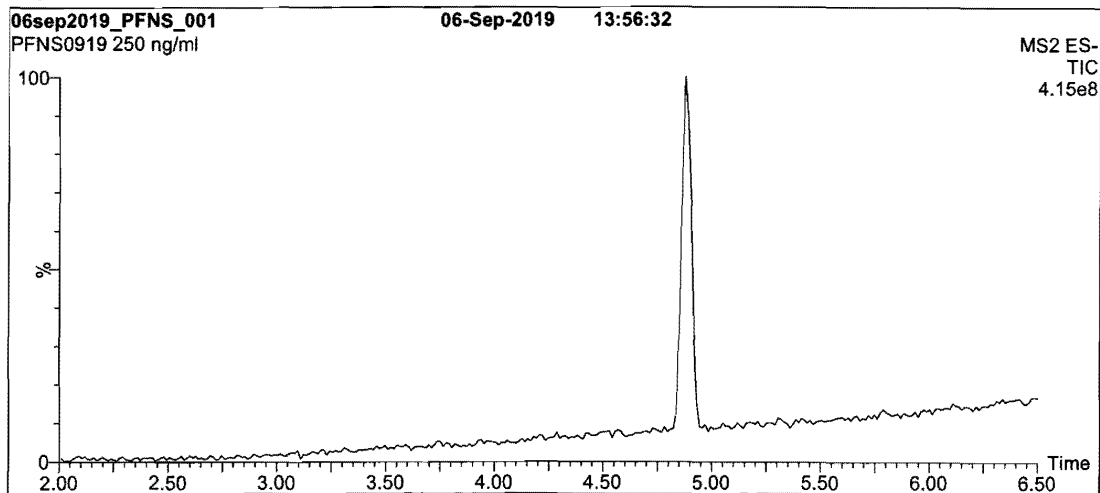
MS Parameters

Collision Gas (mbar) = 3.49e-3

Collision Energy (eV) = 64

19L0651

Figure 1: L-PFNS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0651

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.

HANDLING:

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:

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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 $x_1, x_2, \dots, x_n$ on which it depends is:

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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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0651



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFNS

LOT NUMBER:

LPFNS0919

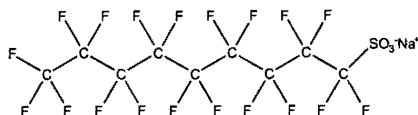
COMPOUND:

Sodium perfluoro-1-nonanesulfonate

STRUCTURE:

CAS #:

98789-57-2



MOLECULAR FORMULA:

C₉F₁₉SO₃Na

MOLECULAR WEIGHT:

572.12

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

48.0 ± 2.4 µg/ml (PFNS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/06/2019

EXPIRY DATE: (mm/dd/yyyy)

09/06/2024

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, General Manager

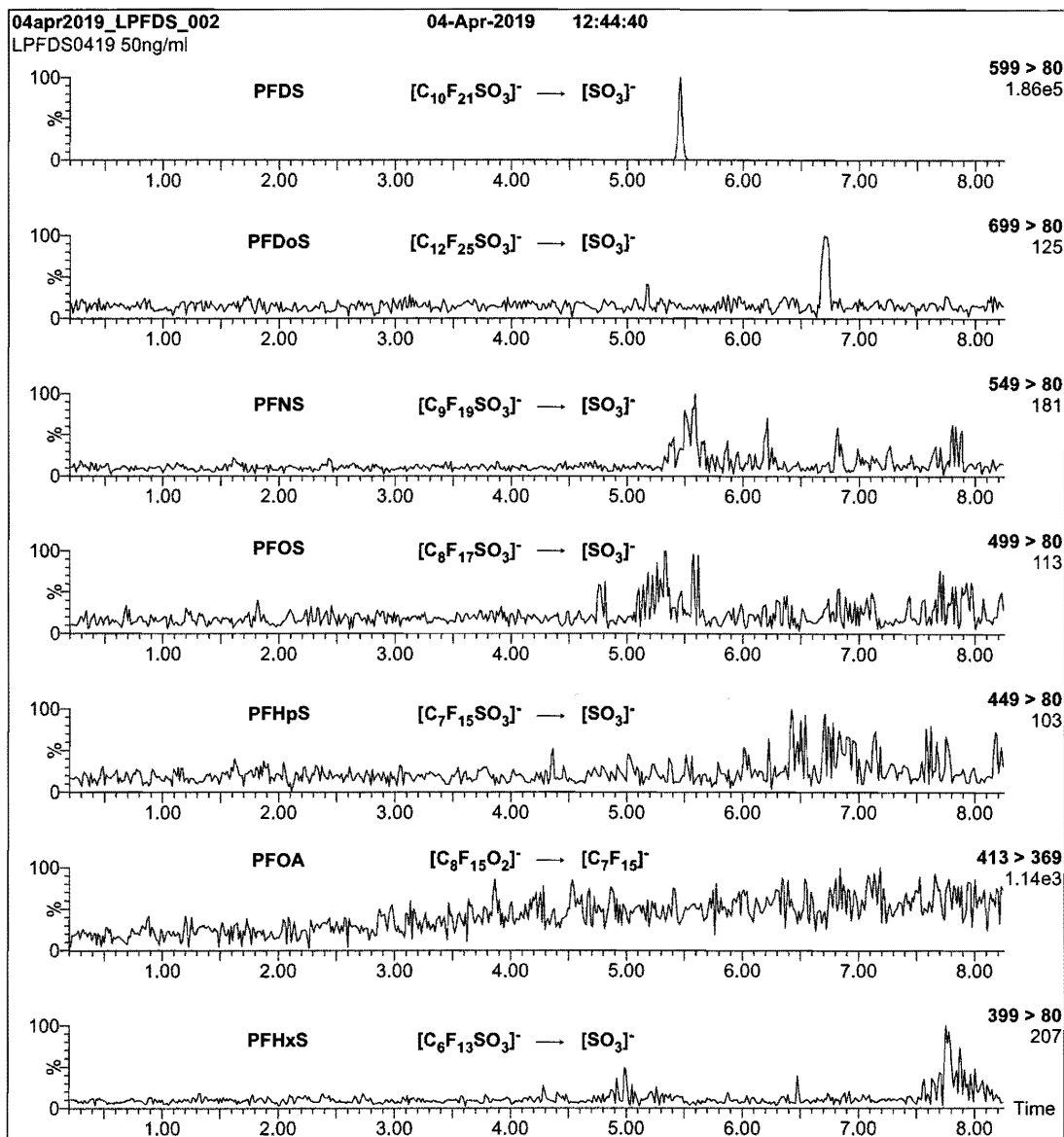
Date:

09/09/2019
(mm/dd/yyyy)

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19L0652

Figure 2: L-PFDS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (L-PFDS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

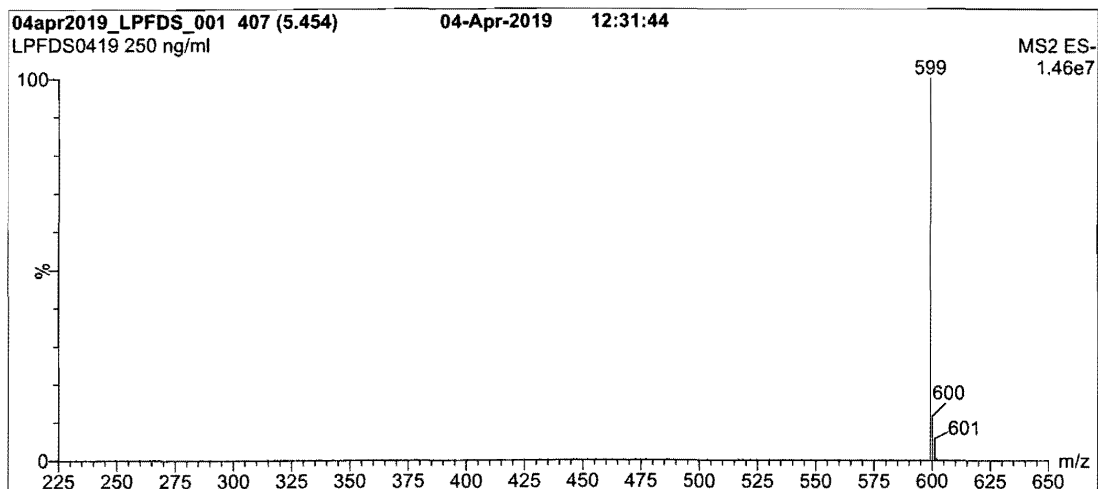
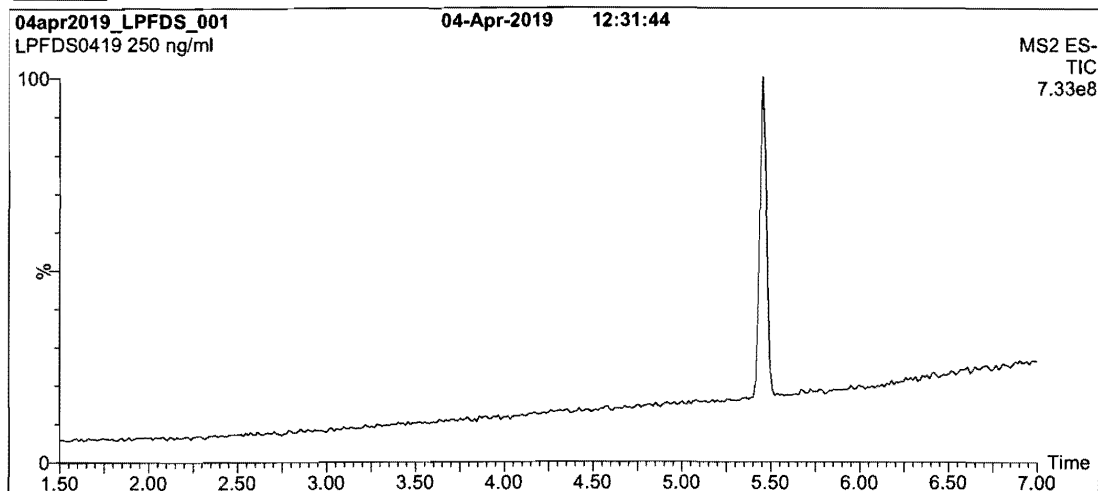
MS Parameters

Collision Gas (mbar) = 2.99e-3

Collision Energy (eV) = 56

19L0652

Figure 1: L-PFDS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0652

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0652



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFDS

LOT NUMBER:

LPFDS0419

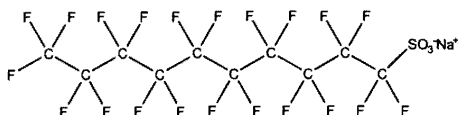
COMPOUND:

Sodium perfluoro-1-decanesulfonate

STRUCTURE:

CAS #:

2806-15-7



MOLECULAR FORMULA:

C₁₀F₂₁SO₃Na

MOLECULAR WEIGHT:

622.13

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

48.2 ± 2.4 µg/ml (PFDS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

04/04/2019

EXPIRY DATE: (mm/dd/yyyy)

04/04/2024

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, General Manager

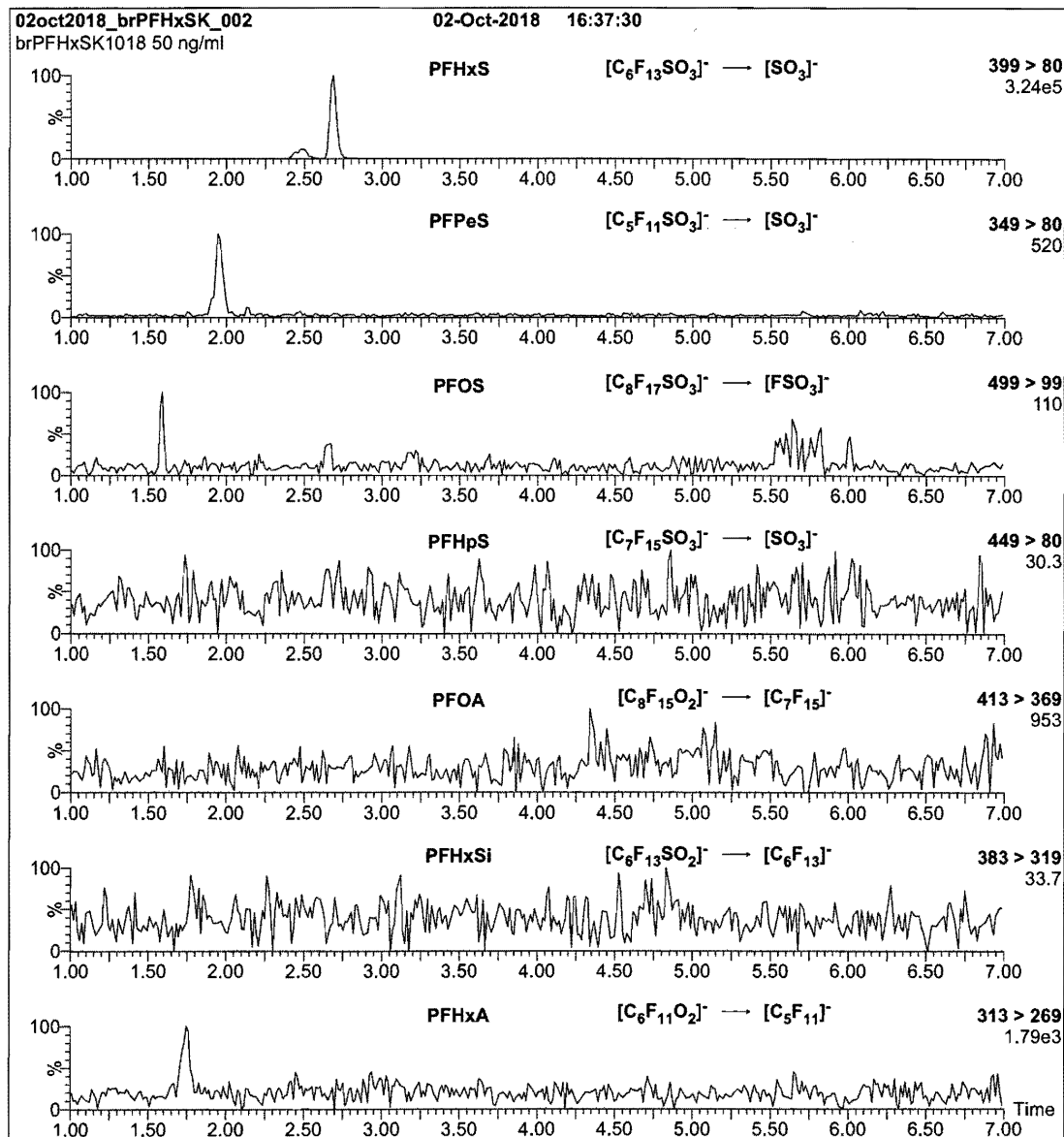
Date: 04/30/2019

(mm/dd/yyyy)

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19L0653

Figure 3: br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 3:

Injection: On-column (br-PFHxSK)

Mobile phase: Same as Figures 1 and 2

Flow: 300 μ l/min

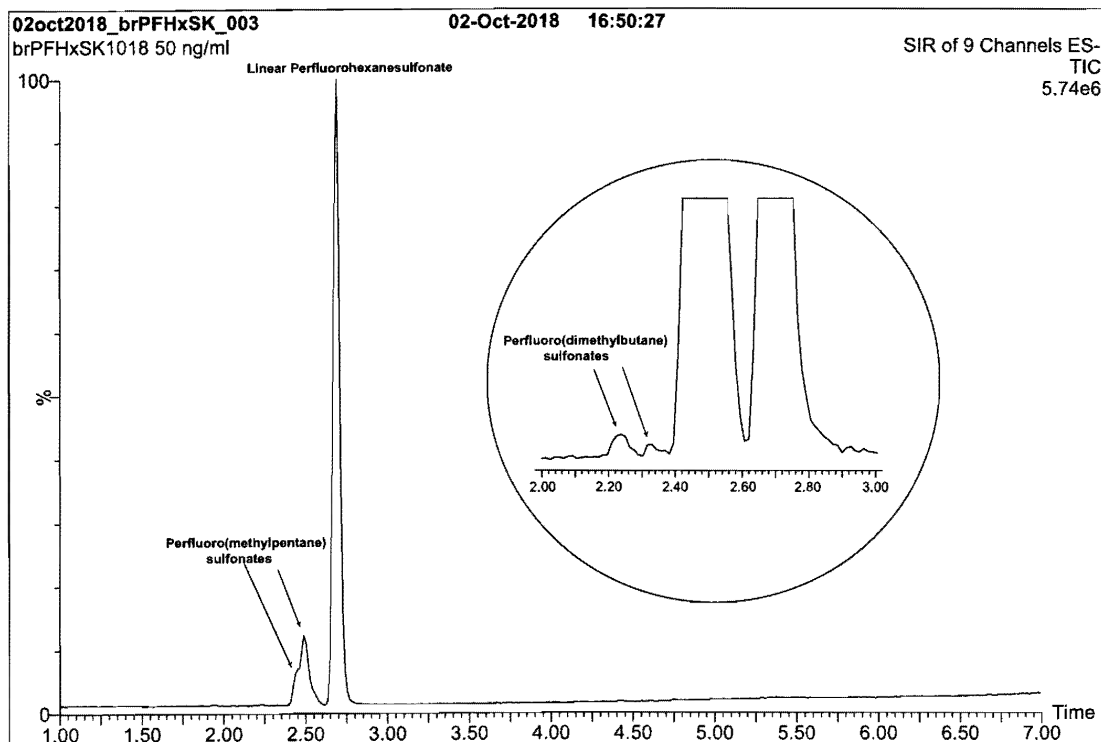
MS Parameters

Collision Gas (mbar) = 2.87e-3

Collision Energy (eV) = 42

1920653

Figure 2: br-PFHxSK; LC/MS Data (SIR)



Conditions for Figure 2:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min. Hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

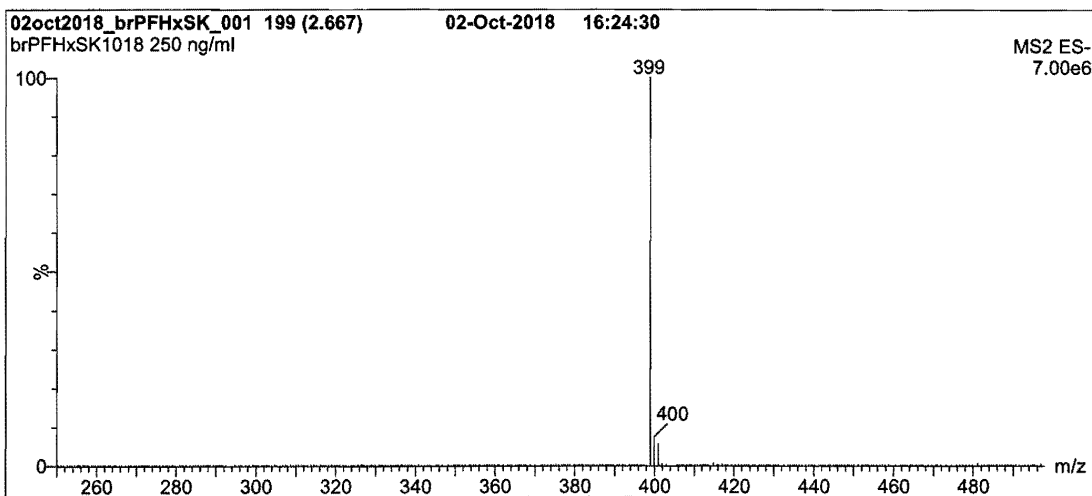
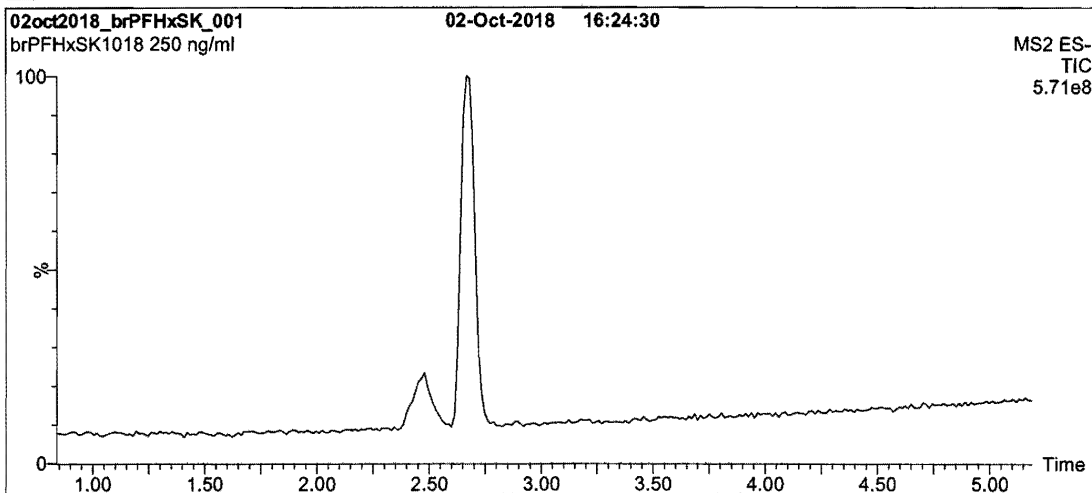
MS Parameters

Experiment: SIR (9 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (2 - 6)
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0653

Figure 1: br-PFHxSK; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min. Hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0653

Table A: br-PFHxSK; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

Isomer	Name	Structure	Percent Composition by ¹⁹ F-NMR
1	Potassium perfluoro-1-hexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	CF ₃ CF ₂ CF ₂ CF ₂ CF(SO ₃ ⁻)K ⁺ CF ₃	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	CF ₃ CF ₂ CF ₂ CF(CF ₃)CF ₂ SO ₃ ⁻ K ⁺ CF ₃	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	CF ₃ CF ₂ CF(CF ₃)CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	CF ₃ CF(CF ₃)CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	CF ₃ CF(CF ₃)CF(CF ₃)CF ₂ SO ₃ ⁻ K ⁺ CF ₃	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, General Manager

Date: 10/05/2018
(mm/dd/yyyy)

19L0653

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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19L0653



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CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

**Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers**

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK1018
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) 10/01/2018
LAST TESTED: (mm/dd/yyyy) 10/02/2018
EXPIRY DATE: (mm/dd/yyyy) 10/02/2023
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 ¹⁹F-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:

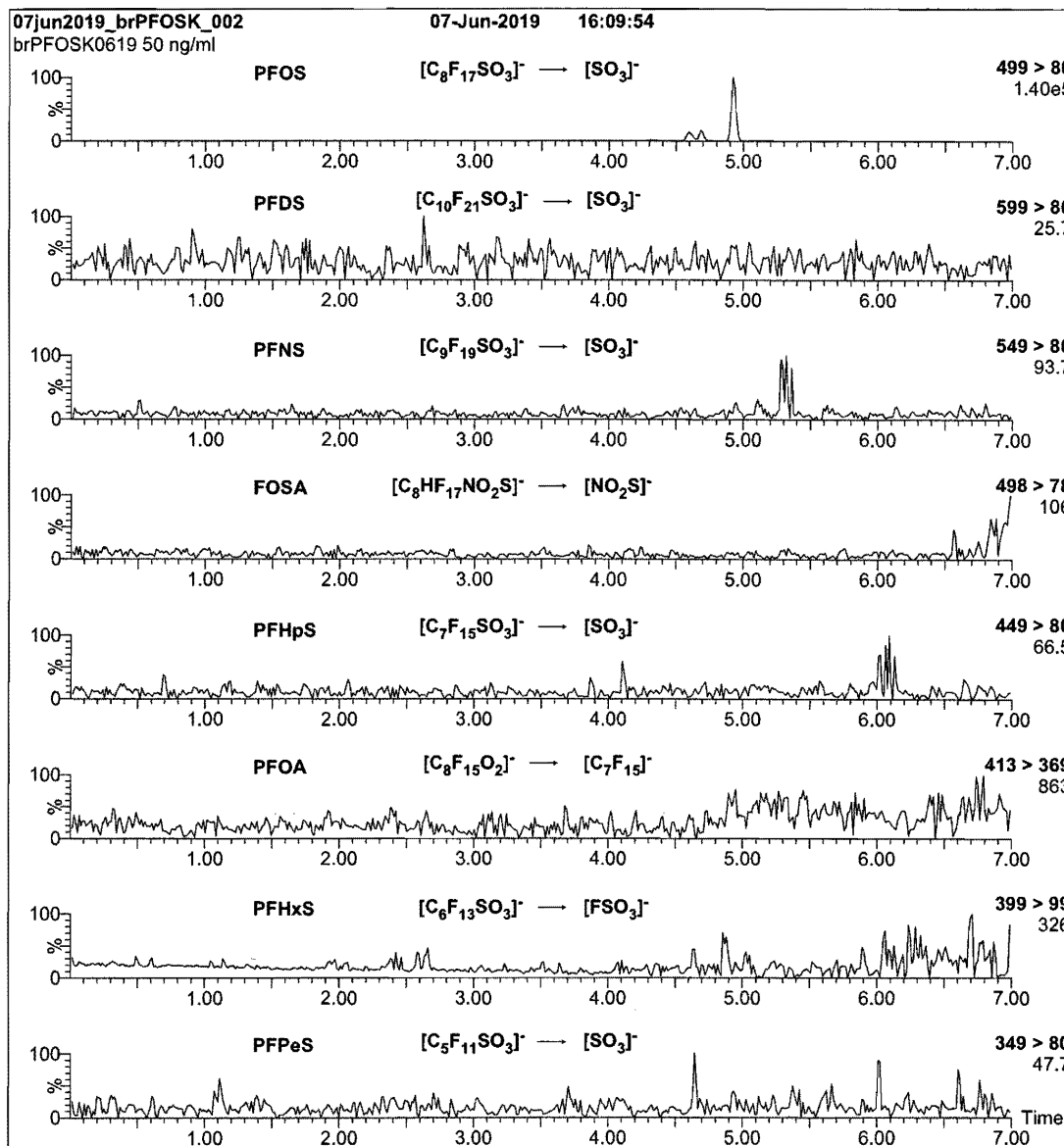
- See page 2 for further details.
- Contains ~ 0.3% of perfluoro-n-hexanoic acid and ~ 0.15% of perfluoro-1-pentanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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19L0654

Figure 3: br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 3:

Injection: On-column (br-PFOSK)

Mobile phase: Same as Figure 2

Flow: 300 μ l/min

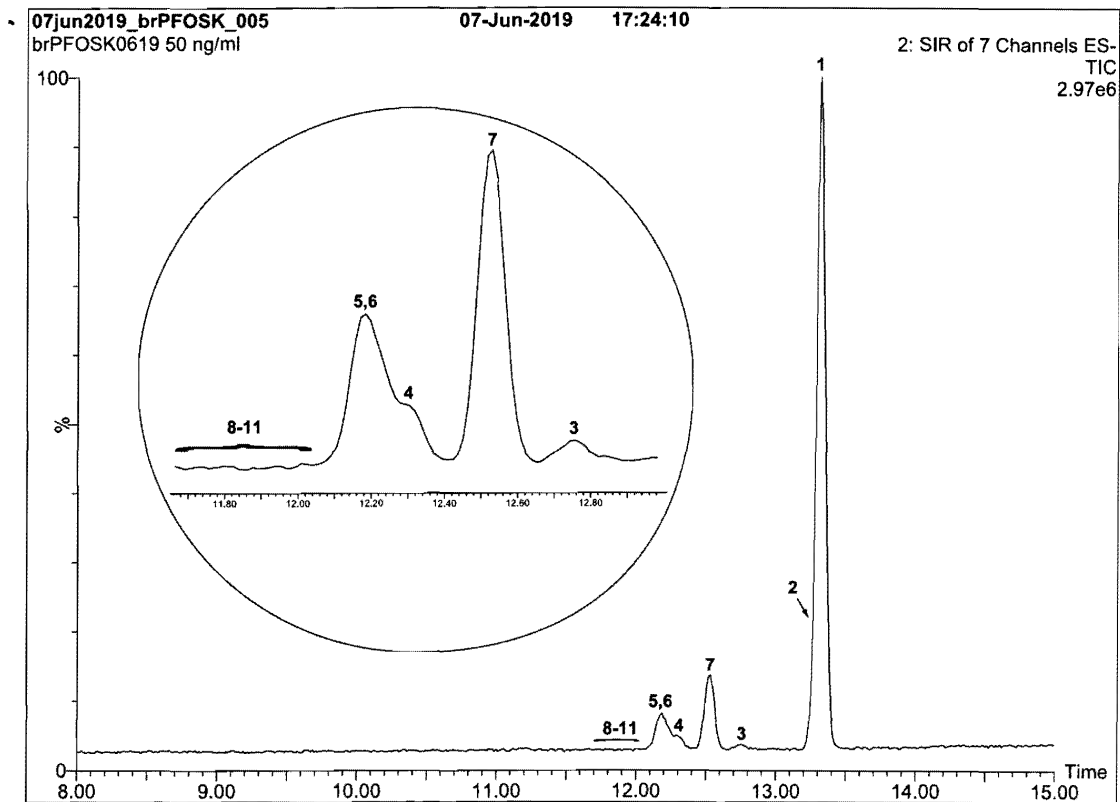
MS Parameters

Collision Gas (mbar) = 2.97e-3

Collision Energy (eV) = 64

1920654

Figure 2: br-PFOSK; LC/MS Data (SIR)



Conditions for Figure 2:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions:

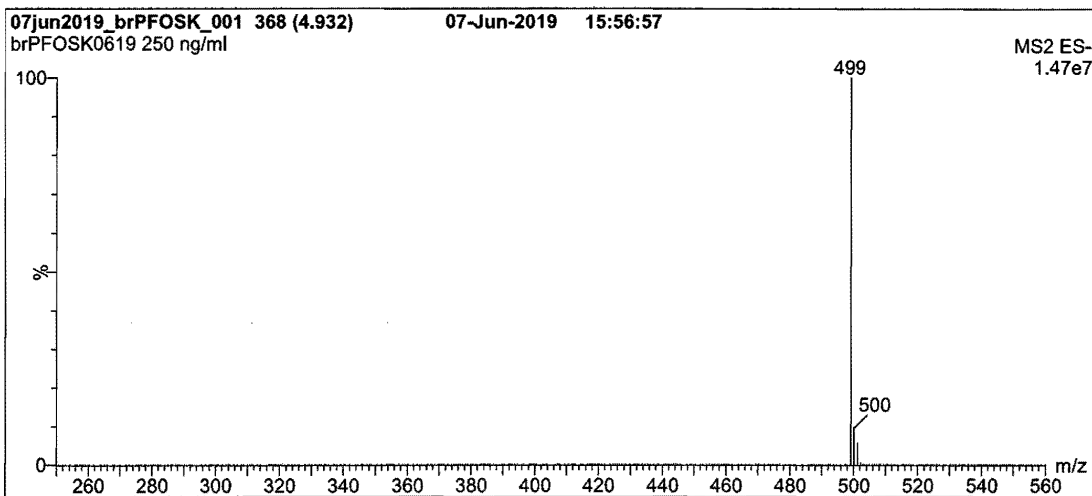
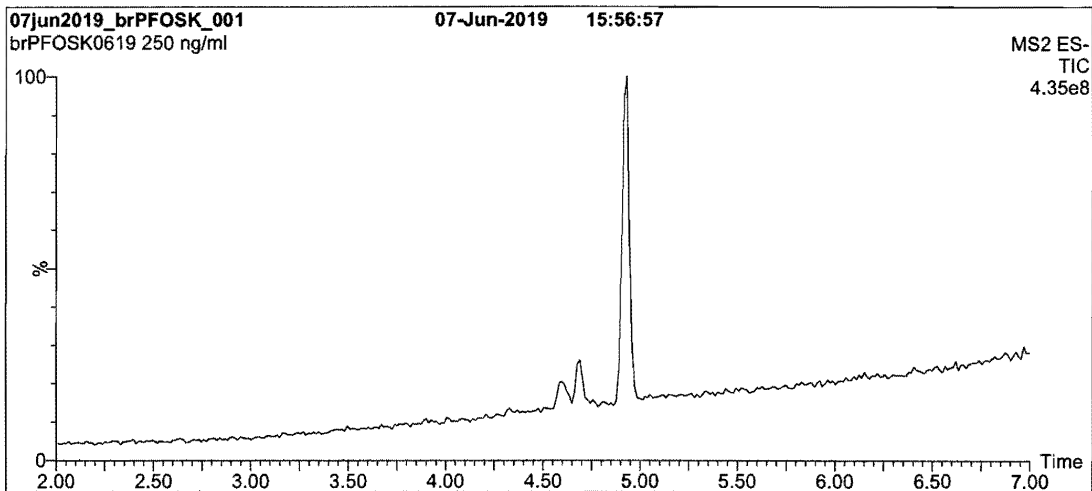
Column: Acquity UPLC BEH Shield RP₁₈ (1.7 μ m, 2.1 x 100 mm)
Injection: 50 ng/ml of br-PFOSK
Mobile Phase: Gradient
50% (80:20 MeOH:ACN) / 50% H₂O (both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min.
Return to initial conditions over 0.75 min.
Time: 12 min
Flow: 300 μ l/min

MS Conditions:

SIR (ES)
Source = 120 $^{\circ}$ C
Desolvation = 500 $^{\circ}$ C
Cone Voltage = 2.00V

1920634

Figure 1: br-PFOSK; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min.
Return to initial conditions over 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0654

Table A: br-PFOSK; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

Isomer	Name	Structure	Percent Composition by ¹⁹ F-NMR
1	Potassium perfluoro-1-octanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{C}(\text{CF}_3)\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{C}(\text{CF}_3)\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{C}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{C}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{C}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{C}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CF}_2\text{CCF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{C}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{C}(\text{CF}_3)\text{CF}_2\text{C}(\text{CF}_3)\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: 
B.G. Chittim, General Manager

Date: 06/17/2019
(mm/dd/yyyy)

19L0654

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0654



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CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

**Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers**

<u>PRODUCT CODE:</u>	br-PFOSK
<u>LOT NUMBER:</u>	brPFOSK0619
<u>CONCENTRATION:</u>	50 ± 2.5 µg/ml (total potassium salt) 46.4 ± 2.3 µg/ml (total PFOS anion)
<u>SOLVENT(S):</u>	Methanol
<u>DATE PREPARED:</u> (mm/dd/yyyy)	06/03/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	06/07/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	06/07/2024
<u>RECOMMENDED STORAGE:</u>	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 ¹⁹F-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:

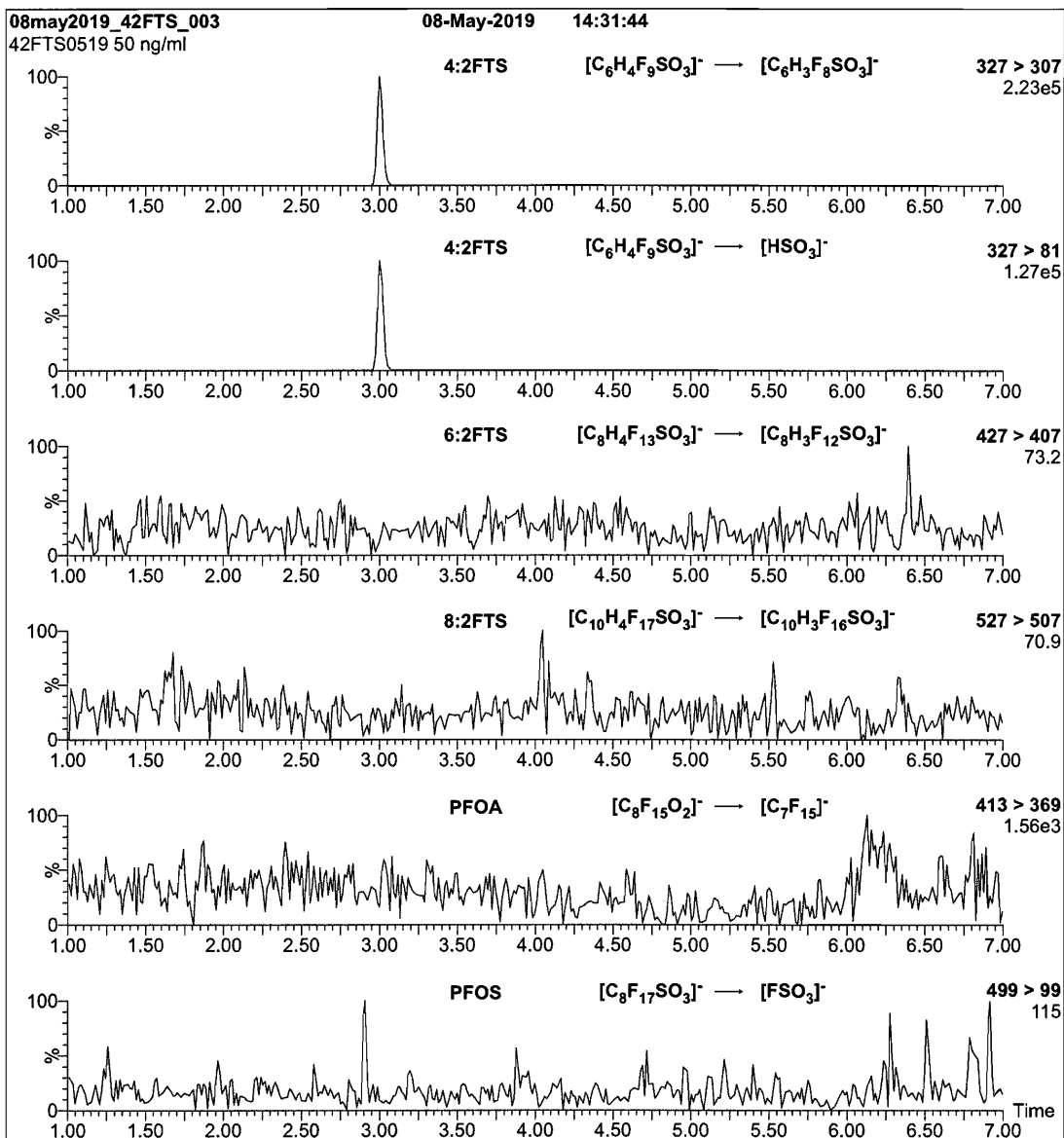
- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

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19L0655

Figure 2: 4:2FTS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (4:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

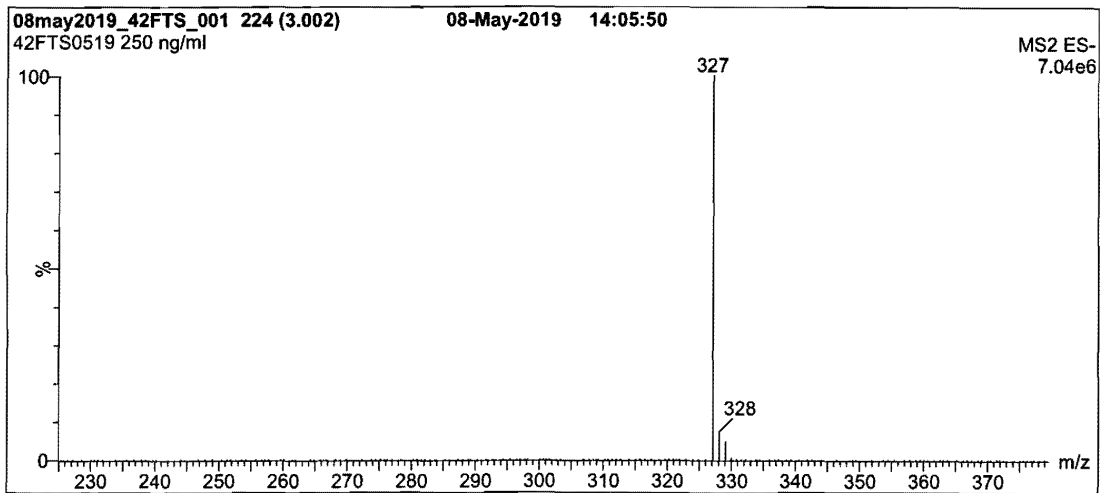
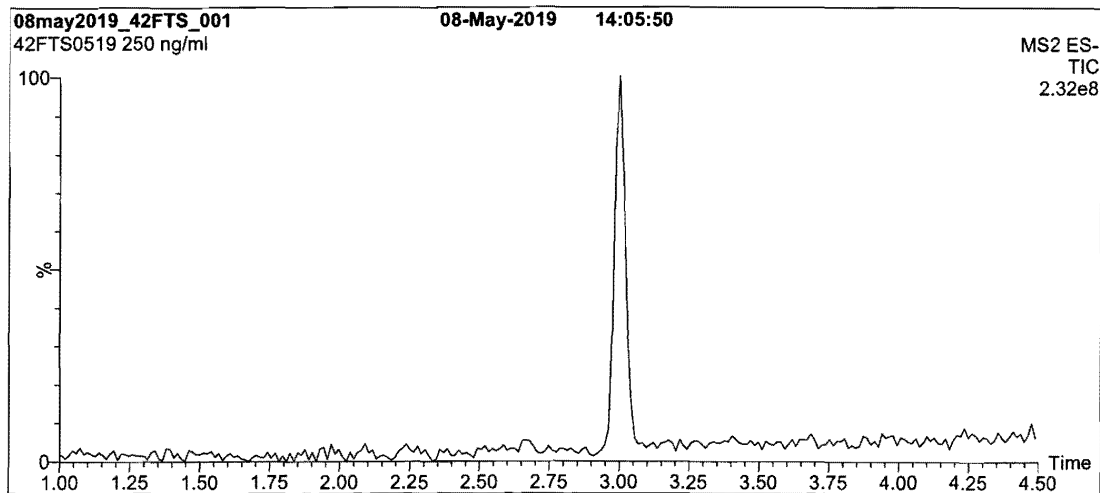
MS Parameters

Collision Gas (mbar) = 3.07e-3

Collision Energy (eV) = 18

19L0655

Figure 1: 4:2FTS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0655

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where x is expressed as a relative standard uncertainty of the individual parameter.

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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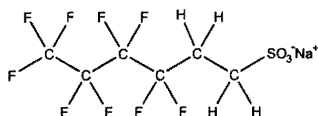


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 4:2FTS **LOT NUMBER:** 42FTS0519
COMPOUND: Sodium 1H,1H,2H,2H-perfluorohexane sulfonate

STRUCTURE: **CAS #:** 27619-93-8



MOLECULAR FORMULA: $C_6H_4F_9SO_3Na$ **MOLECULAR WEIGHT:** 350.13
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
46.7 ± 2.3 µg/ml (4:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/08/2019
EXPIRY DATE: (mm/dd/yyyy) 05/08/2024
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

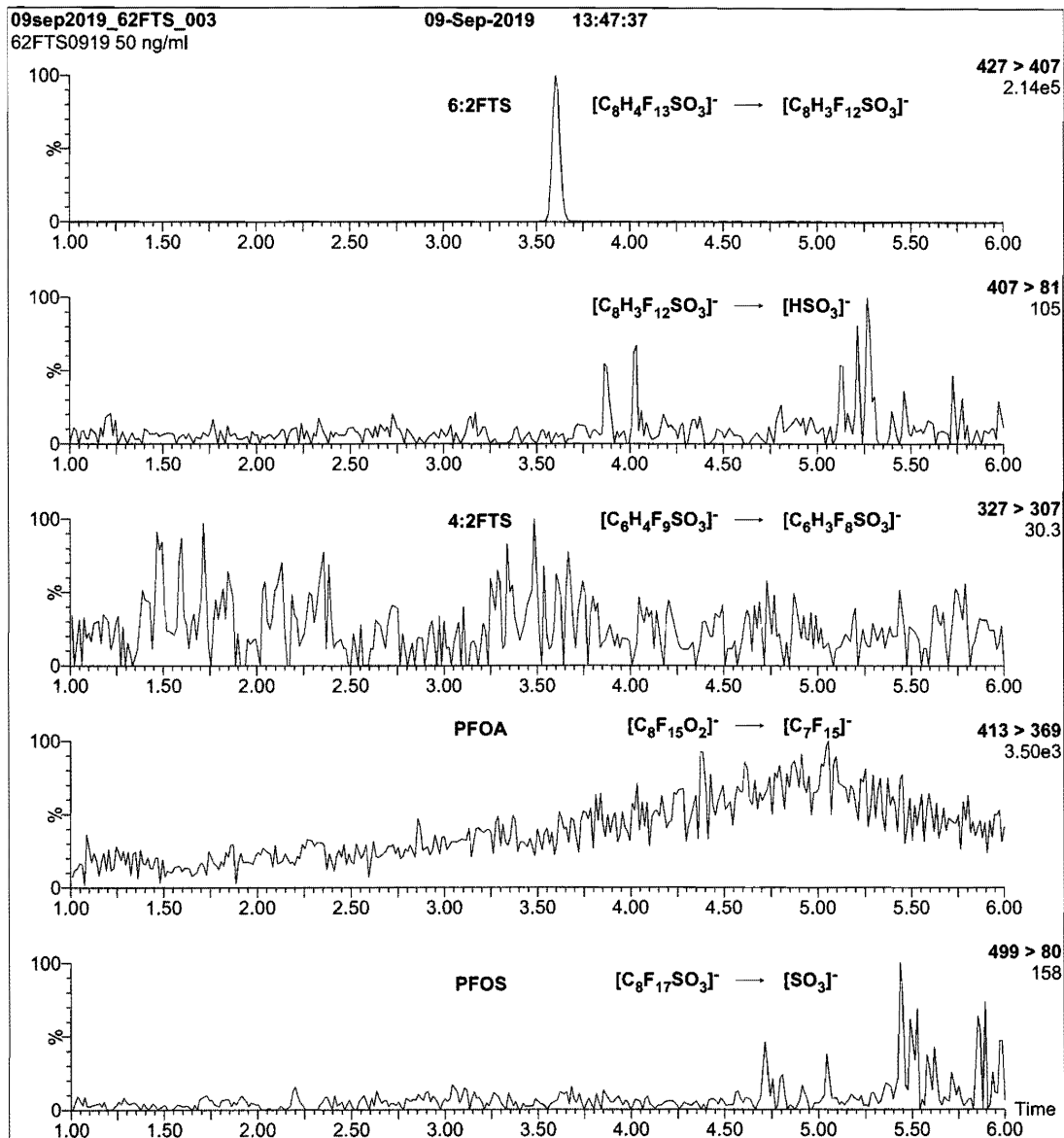
Certified By: 
B.G. Chittim, General Manager

Date: 05/09/2019
(mm/dd/yyyy)

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19L0656

Figure 2: 6:2FTS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (6:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{l}/\text{min}$

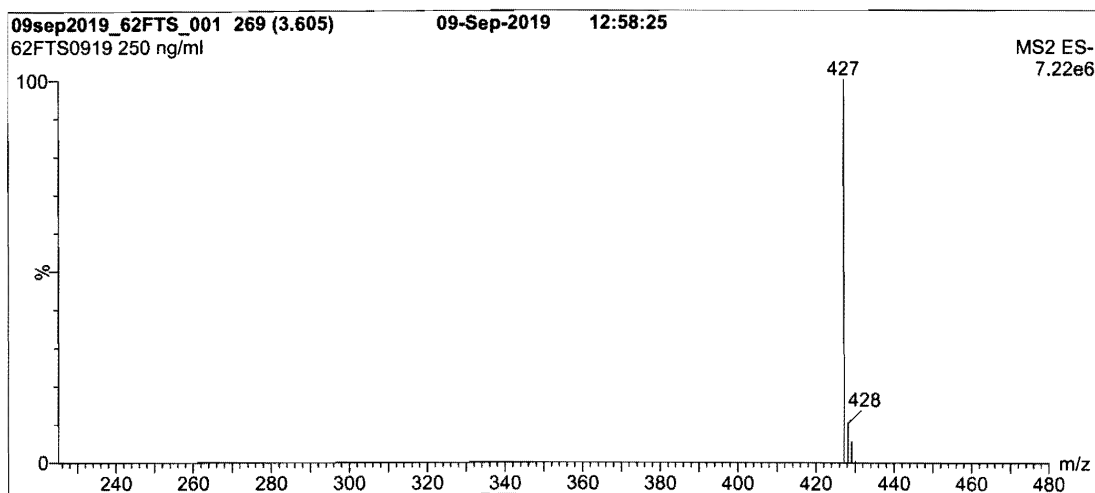
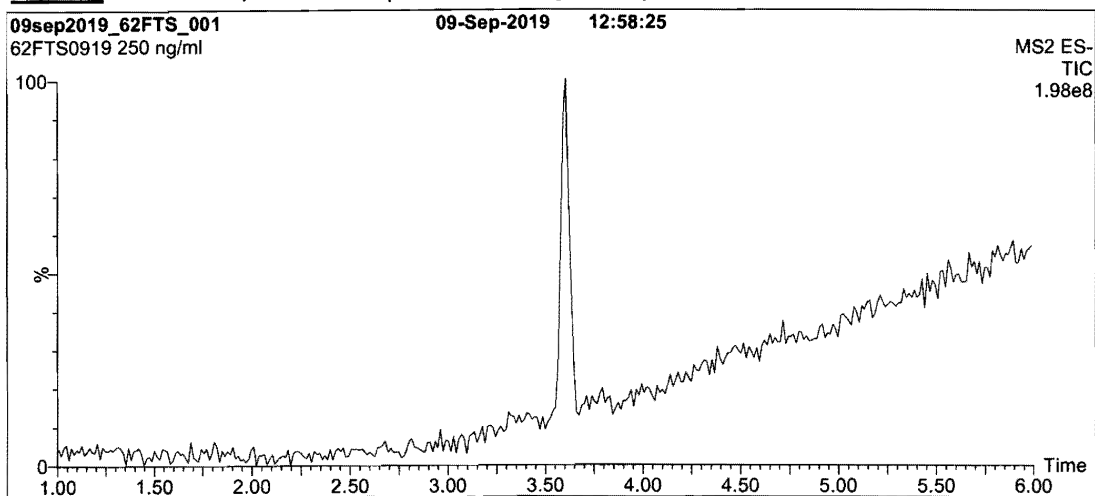
MS Parameters

Collision Gas (mbar) = 3.61e-3

Collision Energy (eV) = 20

19L0656

Figure 1: 6:2FTS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0656

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19L0656

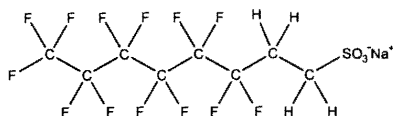


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0919
COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE: **CAS #:** 27619-94-9



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) 09/09/2019
EXPIRY DATE: (mm/dd/yyyy) 09/09/2024
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

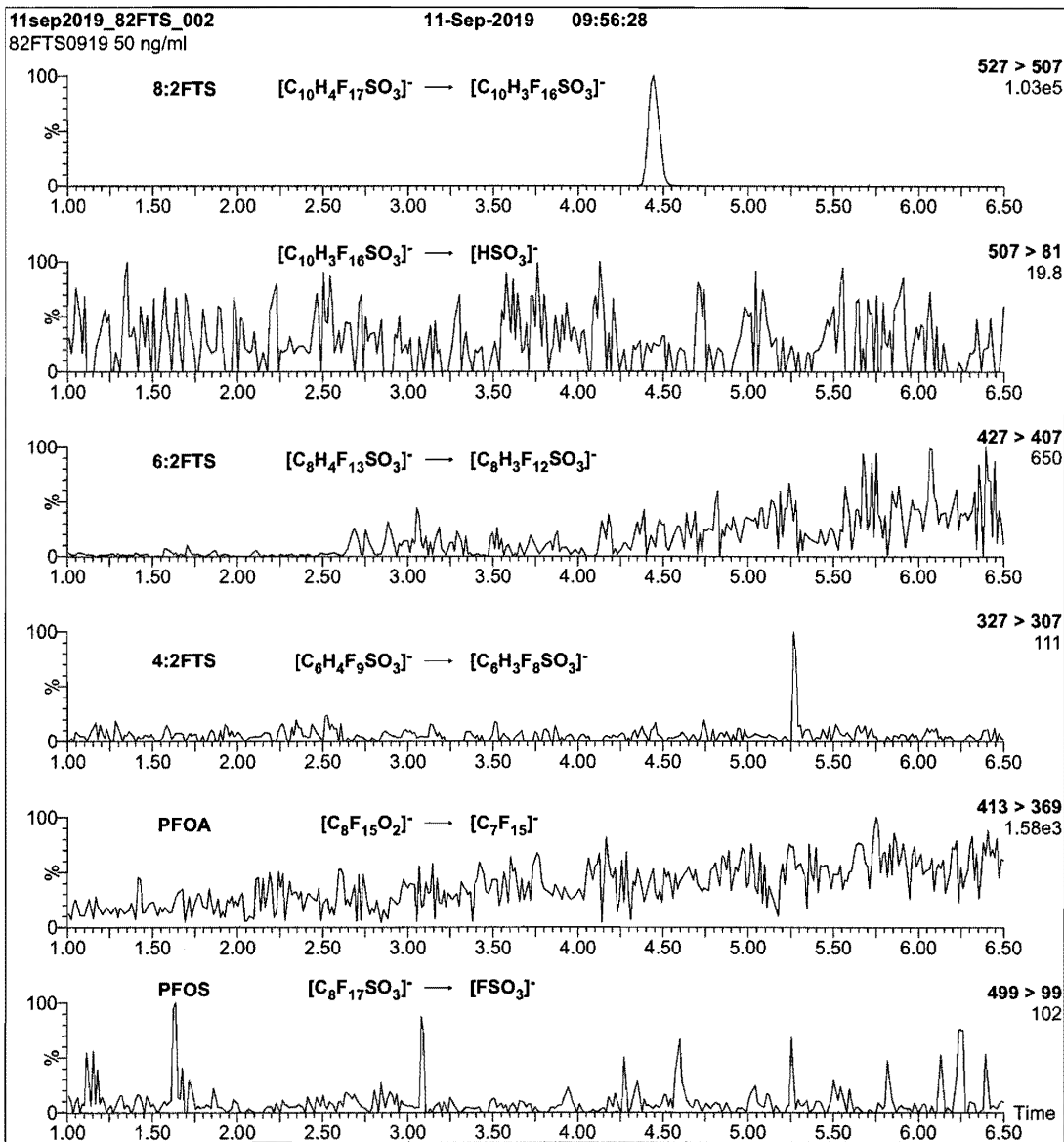
Certified By: 
B.G. Chittim, General Manager

Date: 09/09/2019
(mm/dd/yyyy)

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19L0657

Figure 2: 8:2FTS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (8:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

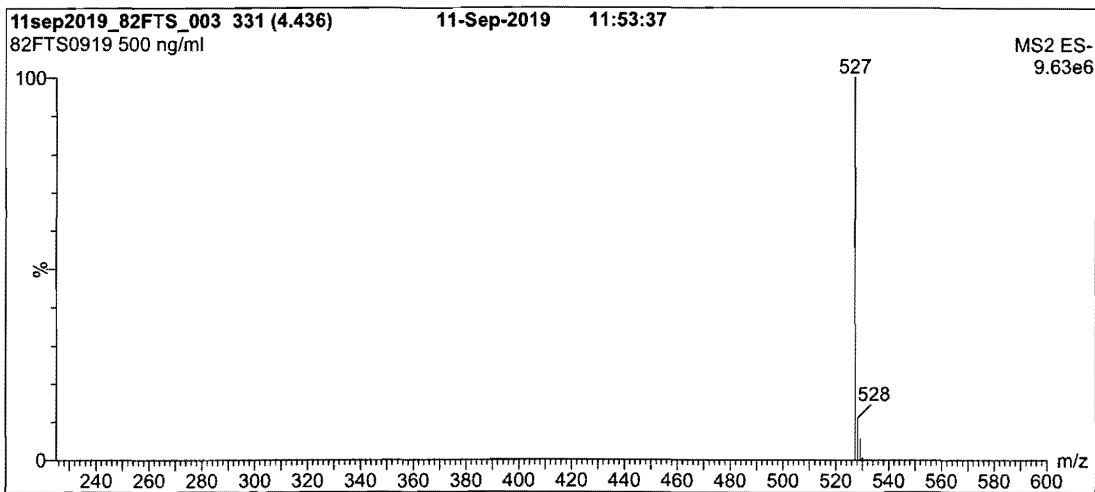
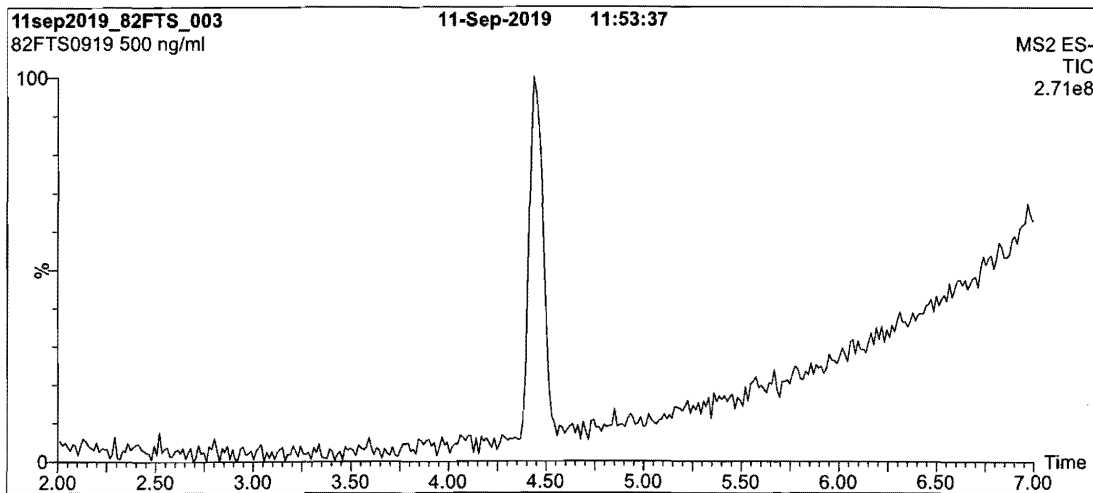
MS Parameters

Collision Gas (mbar) = 3.49e-3

Collision Energy (eV) = 26

19L0657

Figure 1: 8:2FTS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)
Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0657

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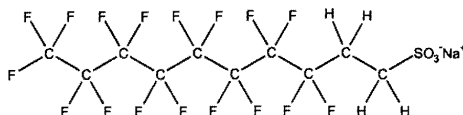
19L 0657



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS0919
COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate
STRUCTURE: **CAS #:** 27619-96-1



MOLECULAR FORMULA: $C_{10}H_4F_{17}SO_3Na$ **MOLECULAR WEIGHT:** 550.16
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/ml}$ (Na salt) **SOLVENT(S):** Methanol
 $47.9 \pm 2.4 \mu\text{g/ml}$ (8:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/11/2019
EXPIRY DATE: (mm/dd/yyyy) 09/11/2024
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By:

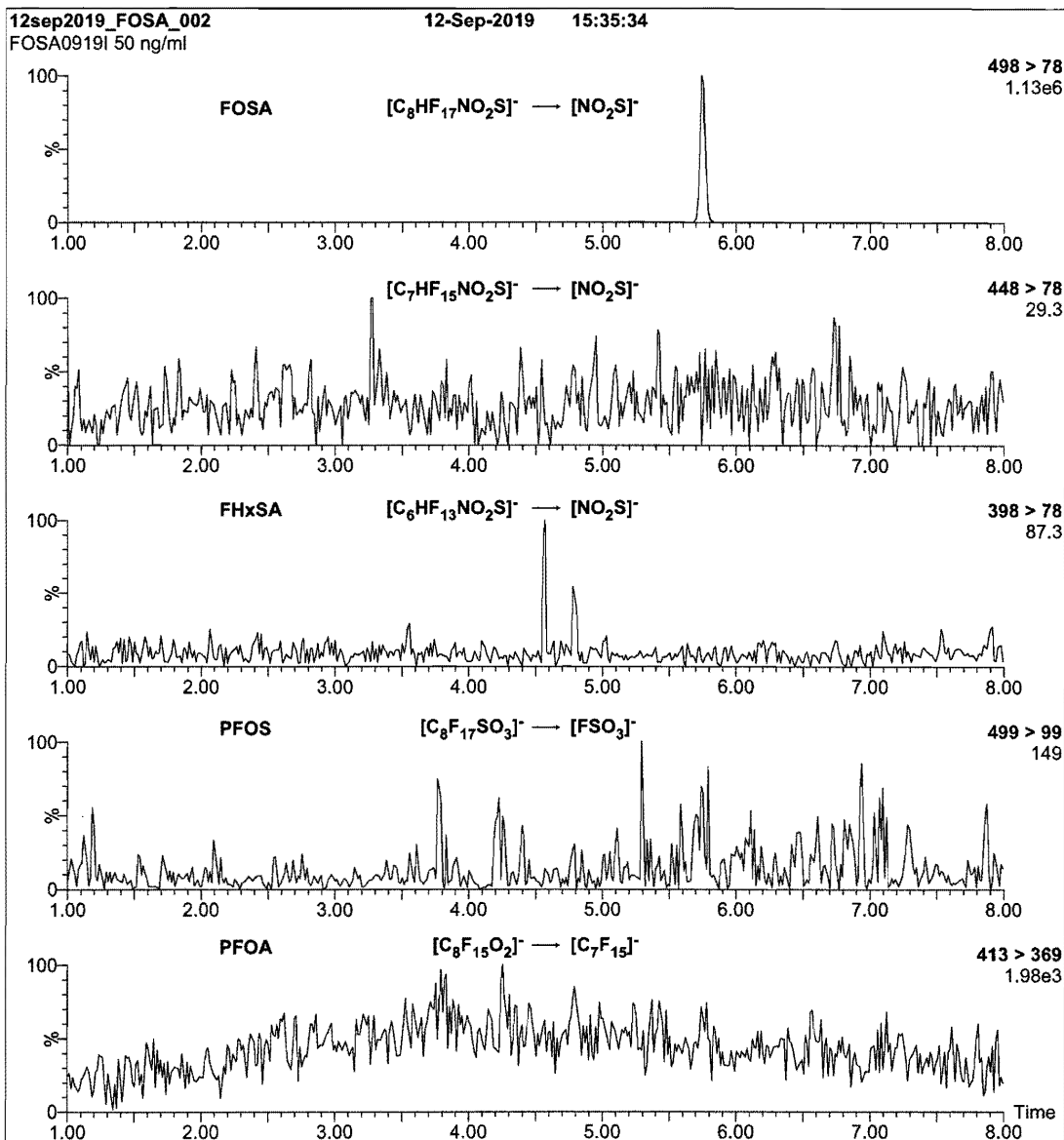
B.G. Chittim, General Manager

Date: 09/11/2019
(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

19L0658

Figure 2: FOSA-I; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (FOSA-I)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

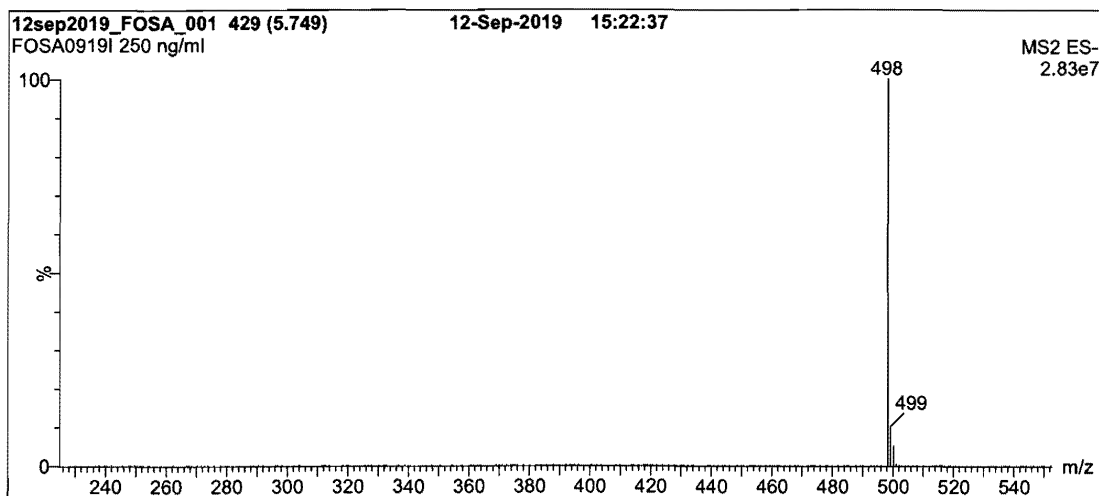
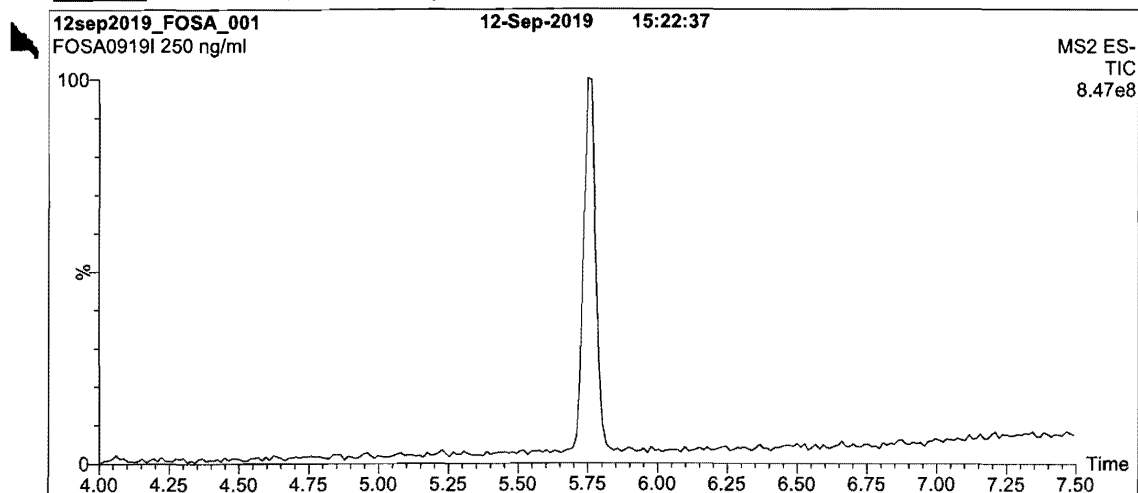
MS Parameters

Collision Gas (mbar) = 3.57e-3

Collision Energy (eV) = 30

19L0658

Figure 1: FOSA-I; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0658

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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19L0658



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

FOSA-I

LOT NUMBER:

FOSA0919I

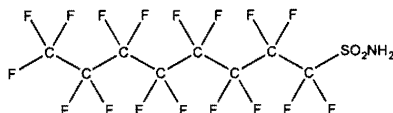
COMPOUND:

Perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #:

754-91-6



MOLECULAR FORMULA:

C₈H₂F₁₇NO₂S

MOLECULAR WEIGHT:

499.14

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Isopropanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/12/2019

EXPIRY DATE: (mm/dd/yyyy)

09/12/2024

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:

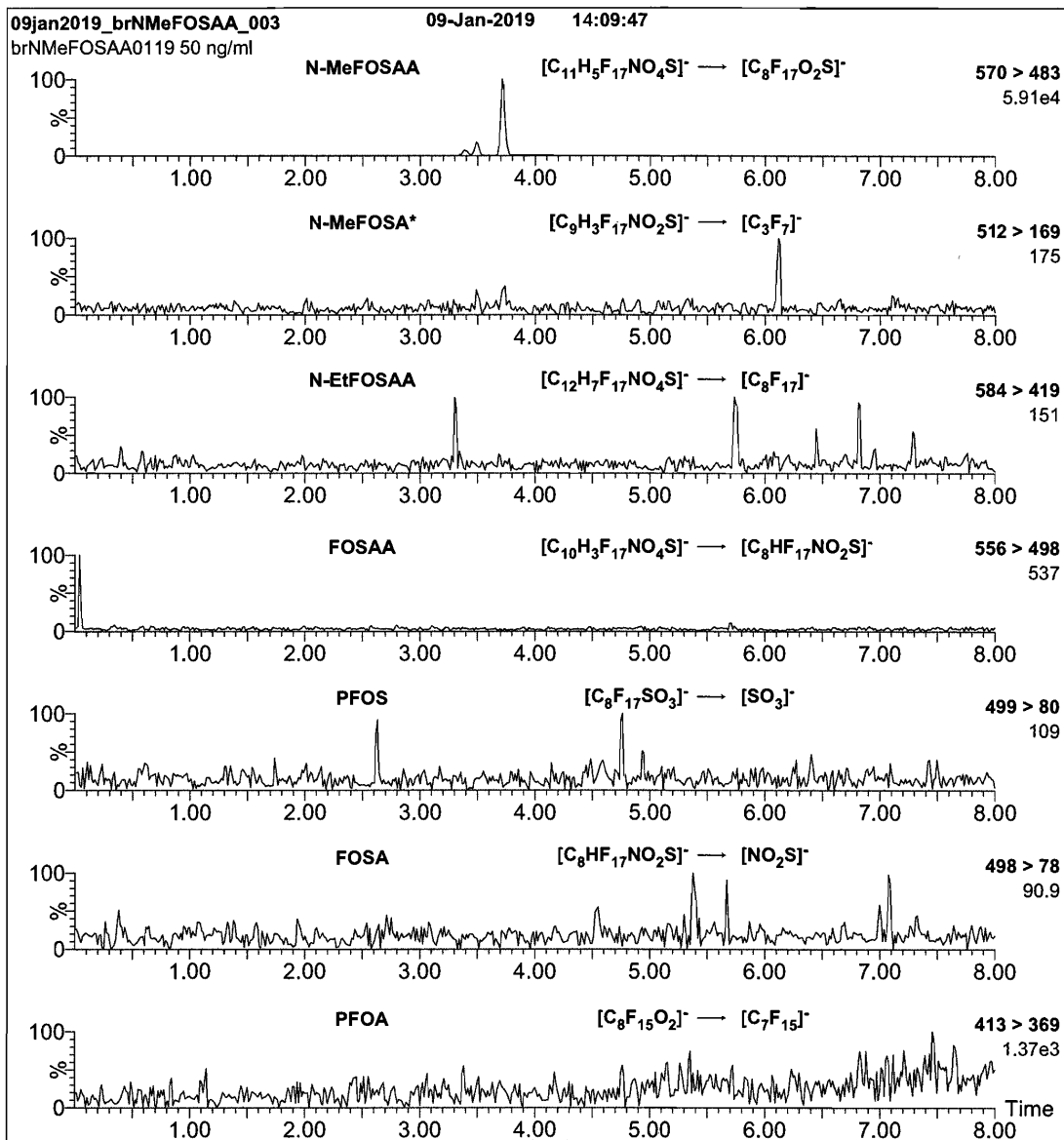
B.G. Chittim, General Manager

Date: 09/13/2019
(mm/dd/yyyy)

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19L0659

Figure 3: br-NMeFOSAA; LC/MS/MS Data (Selected MRM Transitions)



***Note:** N-MeFOSA is formed by in-source fragmentation.

Conditions for Figure 3:

Injection: On-column (br-NMeFOSAA)

Mobile phase: Same as Figure 1

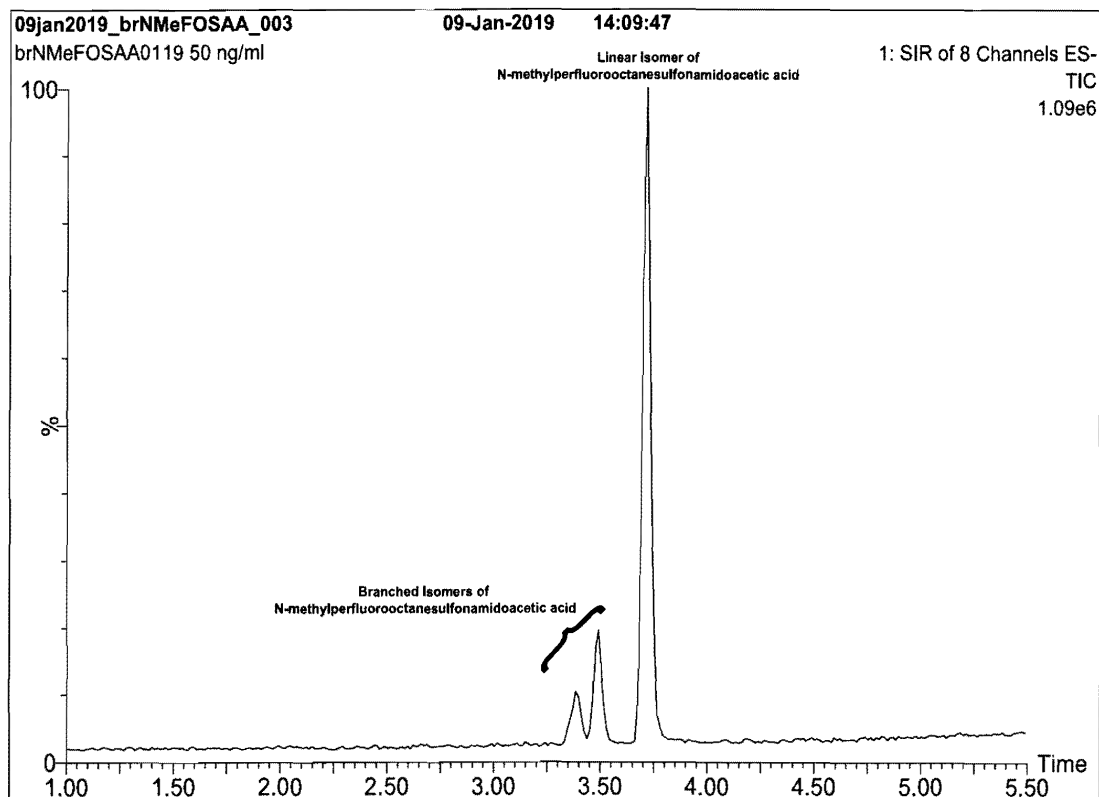
Flow: 300 μ l/min

MS Parameters

Collision Gas (mbar) = 2.79e-3
Collision Energy (eV) = 16

19L0659

Figure 2: br-NMeFOSAA; LC/MS Data (SIR)



Conditions for Figure 2:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: SIR (8 channels)

Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

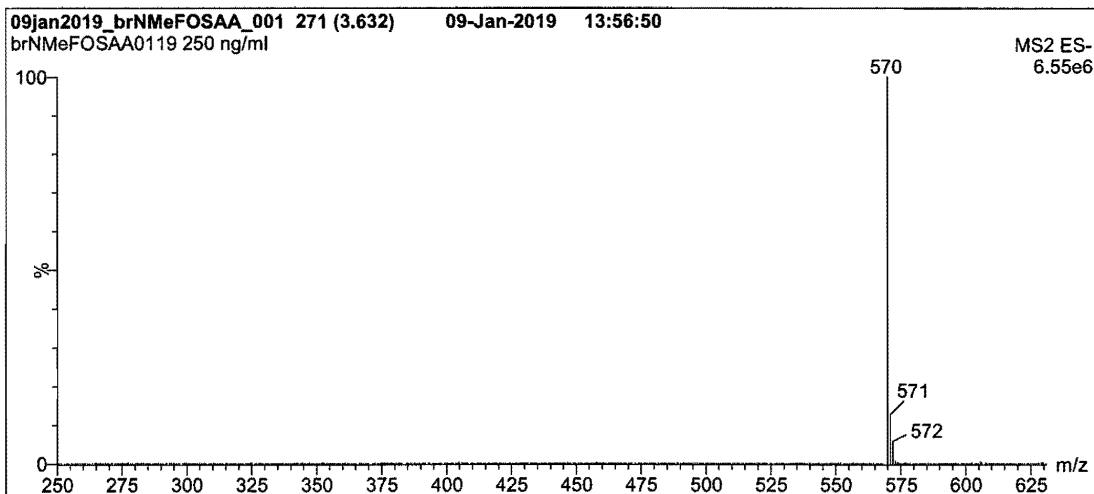
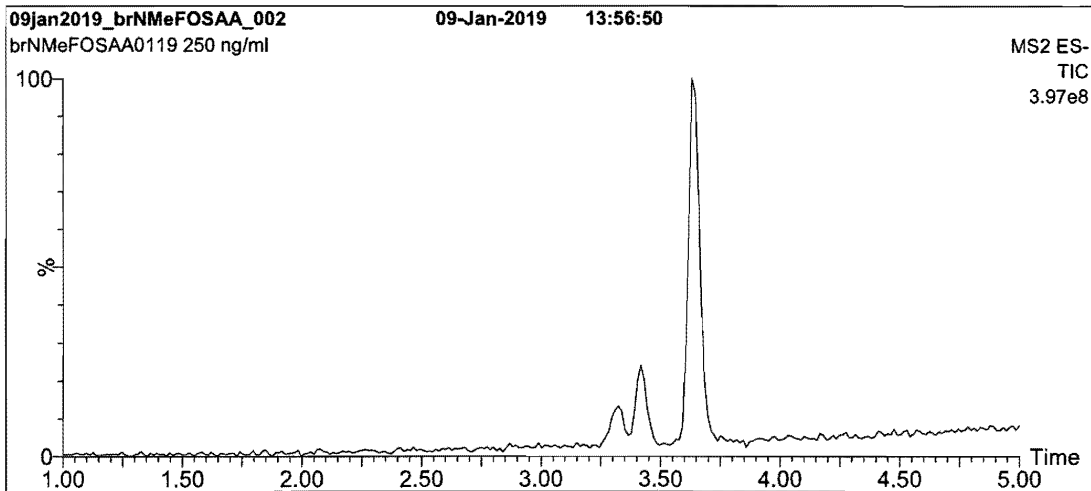
Cone Voltage (V) = 2-64

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (l/hr) = 1000

19L0659

Figure 1: br-NMeFOSAA; LC/MS Data (TIC and Mass Spectrum)



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LC: Waters Acquity Ultra Performance LC
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Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0559

Table A: br-NMeFOSAA; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

Isomer	Name	Structure	Percent Composition by ¹⁹ F-NMR
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	2.0
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	6.0
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_5\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	14.0
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{C}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \\ \text{CF}_3 \end{array}$	0.2
7	Other Unidentified Isomers		1.1

* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: 
B.G. Chittim, General Manager

Date: 01/16/2019
(mm/dd/yyyy)

19L0659

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where x is expressed as a relative standard uncertainty of the individual parameter.

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19L0659



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NMeFOSAA

**N-Methylperfluorooctanesulfonamidoacetic
Acid Solution/Mixture of Linear and
Branched Isomers**

<u>PRODUCT CODE:</u>	br-NMeFOSAA
<u>LOT NUMBER:</u>	brNMeFOSAA0119
<u>CONCENTRATION:</u>	50.0 ± 2.5 µg/ml
<u>SOLVENT(S):</u>	Methanol/Water (<1%)
<u>DATE PREPARED:</u> (mm/dd/yyyy)	01/02/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	01/09/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	01/09/2024
<u>RECOMMENDED STORAGE:</u>	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-methylperfluorooctanesulfonamidoacetic acid (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 ¹⁹F-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:

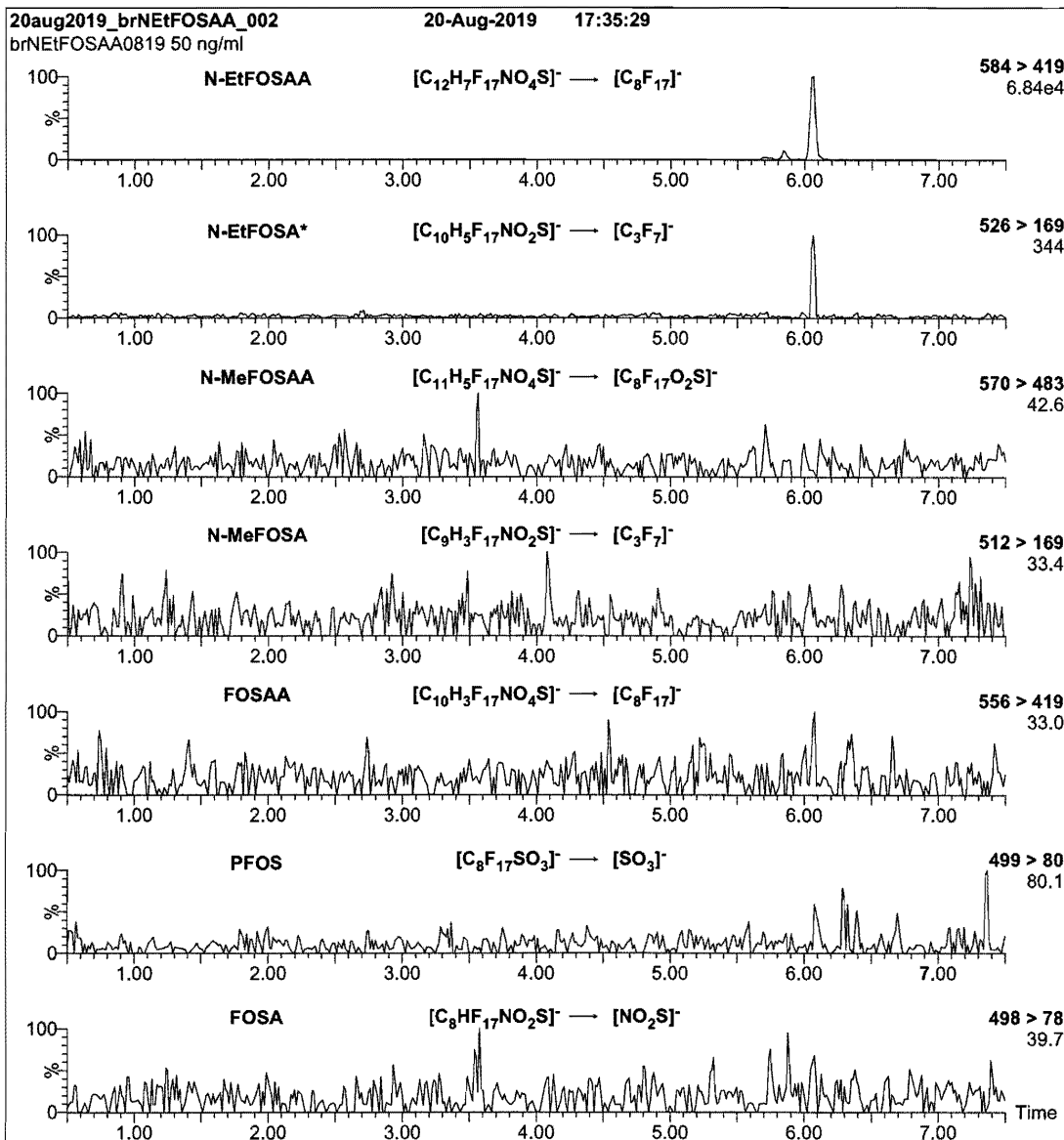
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1920650

Figure 3: br-NEtFOSAA; LC/MS/MS Data (Selected MRM Transitions)



*Note: N-EtFOSA is formed by in-source fragmentation.

Conditions for Figure 3:

Injection: On-column (br-NEtFOSAA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

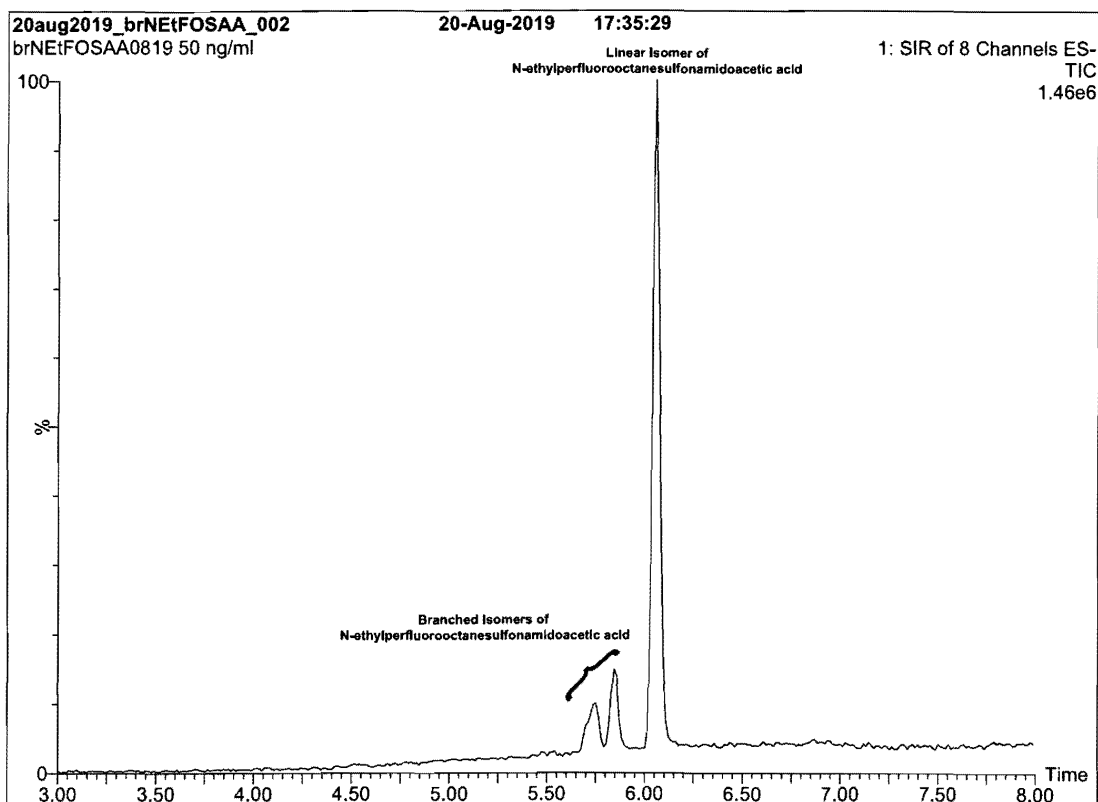
MS Parameters

Collision Gas (mbar) = 3.53e-3

Collision Energy (eV) = 18

19L0660

Figure 2: br-NEtFOSAA; LC/MS Data (SIR)



Conditions for Figure 2:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

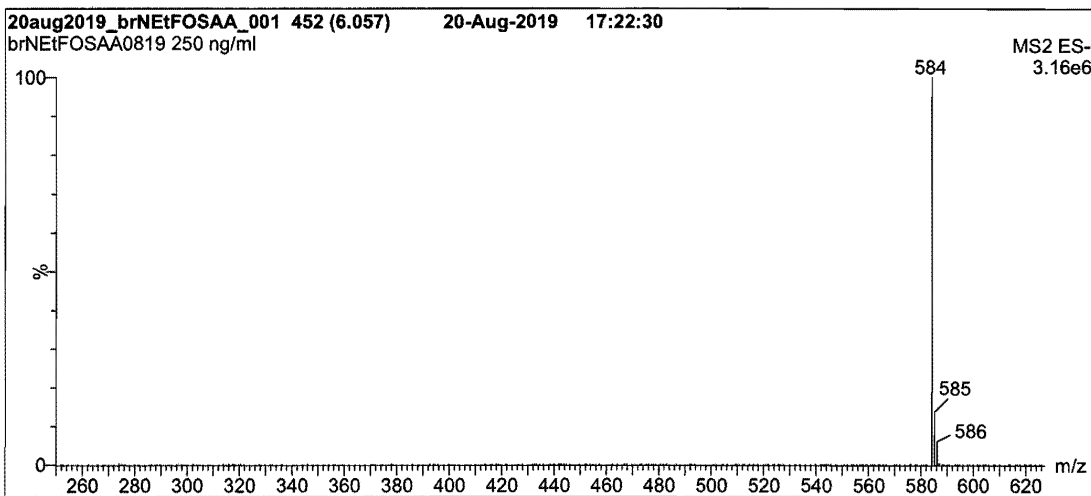
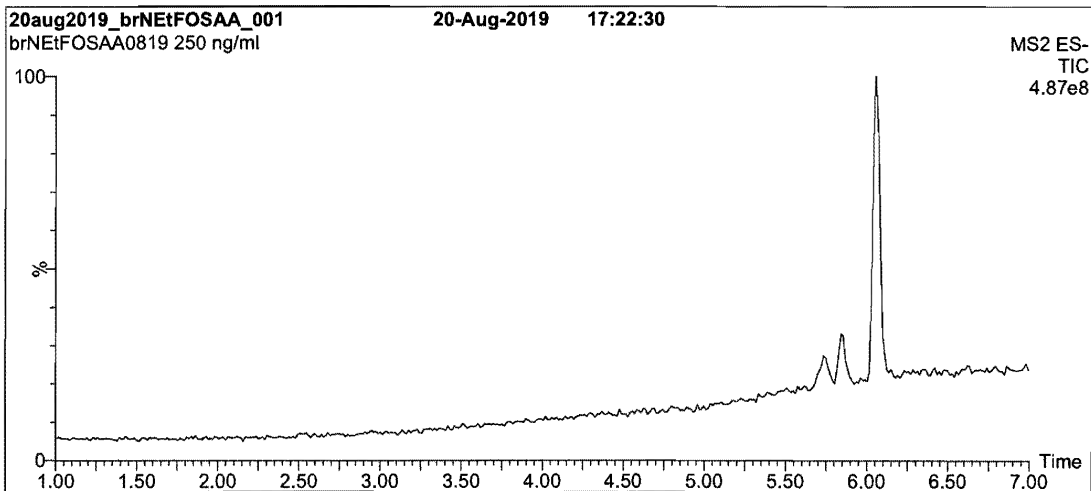
MS Parameters

Experiment: SIR (8 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (2-64)
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0660

Figure 1: br-NEtFOSAA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
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2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0660



Table A: br-NEtFOSAA; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

Isomer	Name	Structure	Percent Composition by ¹⁹ F-NMR
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ C_2H_5	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\text{CF}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	2.3
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\text{CF}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	2.2
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\text{CF}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	5.4
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}(\text{CF}_2)_5\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	10.4
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\text{CF}_3\text{C}(\text{CF}_3)(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 CF_3 C_2H_5	0.3
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$\text{CF}_3\text{CF}(\text{CF}_3)\text{CF}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 CF_3 C_2H_5	0.3
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$\text{CF}_3\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 CF_3 C_2H_5	0.3
9	Other Unidentified Isomers		1.3

* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: 
B.G. Chittim, General Manager

Date: 08/29/2019
(mm/dd/yyyy)

19L0660

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19L0650



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NEtFOSAA

**N-Ethylperfluorooctanesulfonamidoacetic
Acid Solution/Mixture of Linear and
Branched Isomers**

<u>PRODUCT CODE:</u>	br-NEtFOSAA
<u>LOT NUMBER:</u>	brNEtFOSAA0819
<u>CONCENTRATION:</u>	50.0 ± 2.5 µg/ml
<u>SOLVENT(S):</u>	Methanol/Water (<1%)
<u>DATE PREPARED:</u> (mm/dd/yyyy)	08/20/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	08/20/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	08/20/2024
<u>RECOMMENDED STORAGE:</u>	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-ethylperfluorooctanesulfonamidoacetic acid (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 ¹⁹F-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:

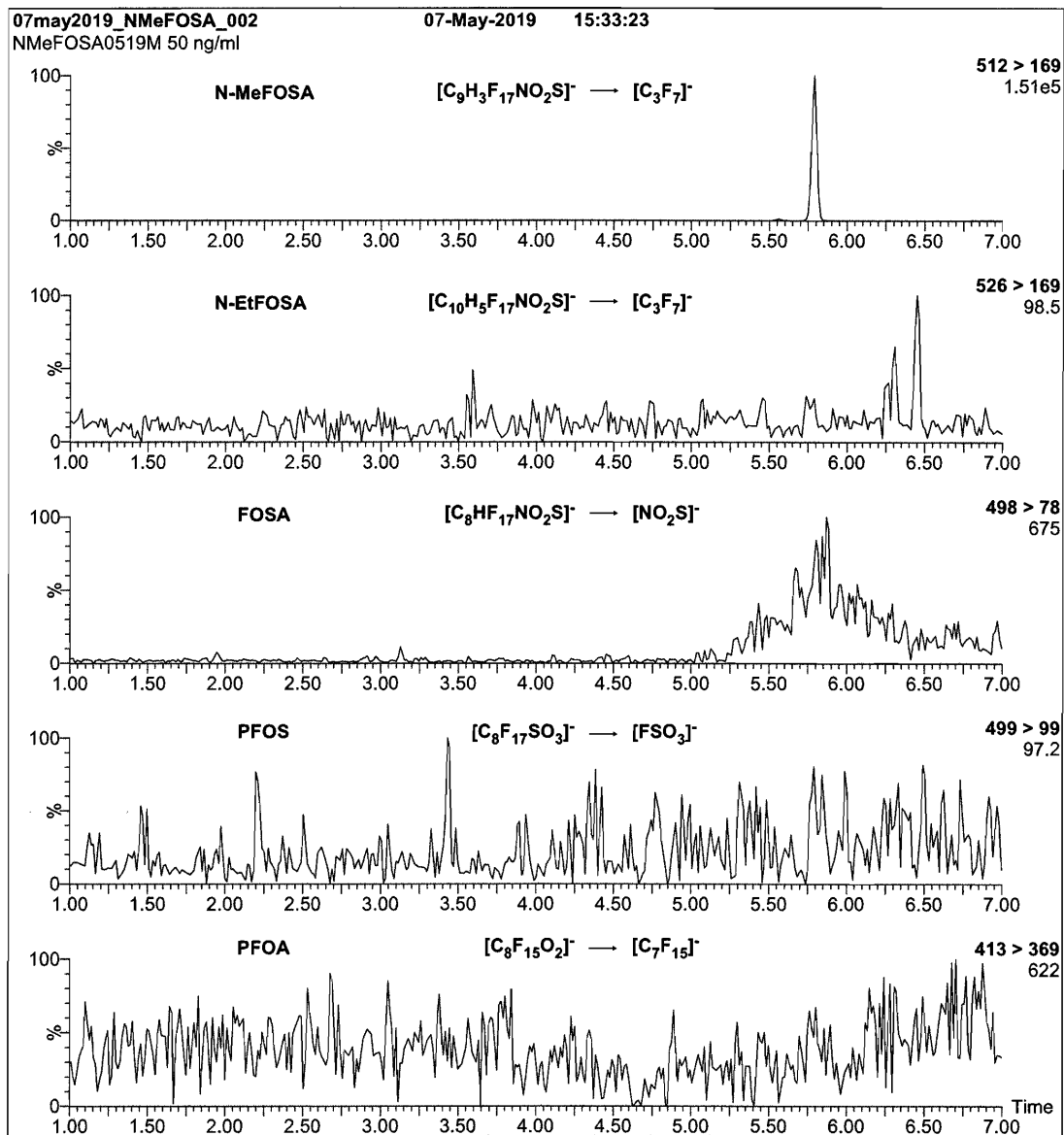
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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Figure 2: N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (N-MeFOSA-M)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

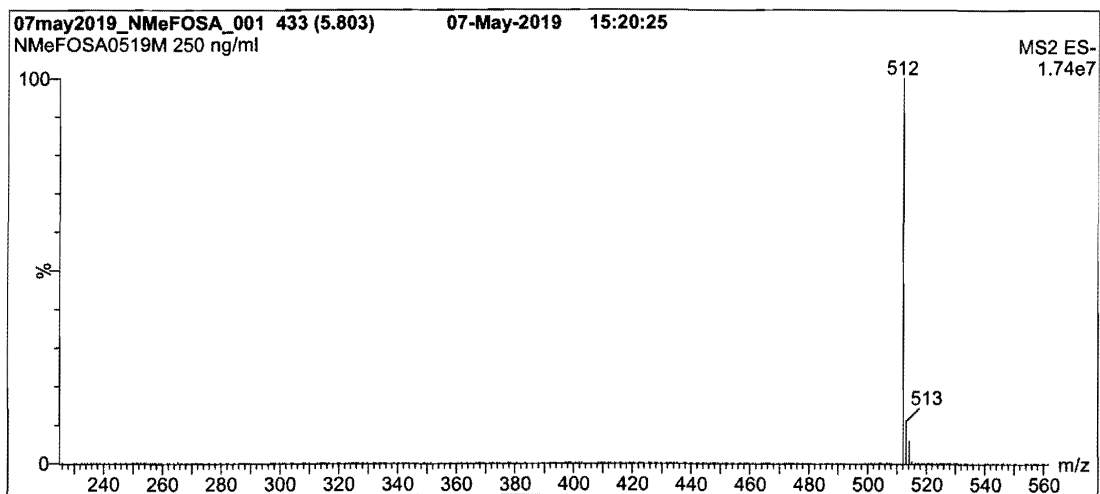
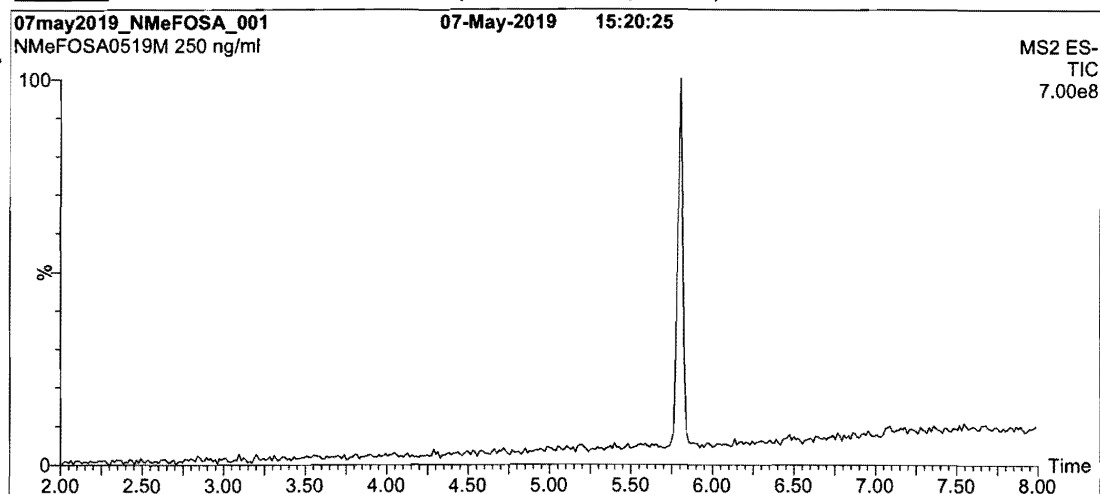
MS Parameters

Collision Gas (mbar) = 2.99e-3

Collision Energy (eV) = 24

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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: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

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INTENDED USE:

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HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y)(x_1, x_2, \dots, x_n) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSA-M

LOT NUMBER:

NMeFOSA0519M

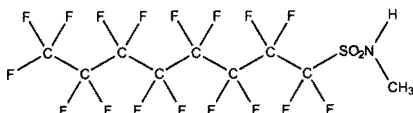
COMPOUND:

N-methylperfluoro-1-octanesulfonamide

STRUCTURE:

CAS #:

31506-32-8



MOLECULAR FORMULA:

C₈H₁F₁₇NO₂S

MOLECULAR WEIGHT:

513.17

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

05/07/2019

EXPIRY DATE: (mm/dd/yyyy)

05/07/2024

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, General Manager

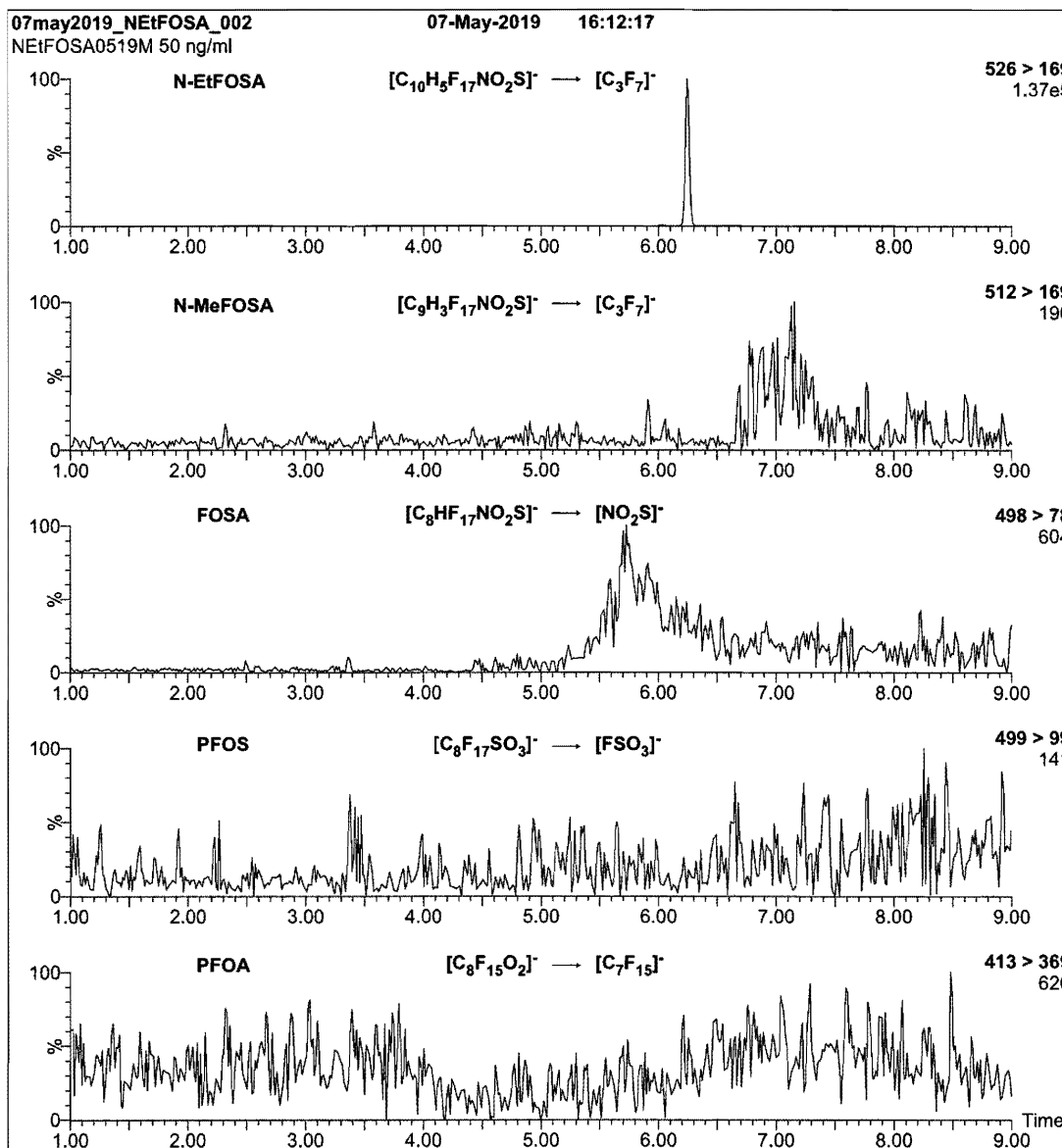
Date: 05/09/2019

(mm/dd/yyyy)

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Figure 2: N-EtFOSA-M; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (N-EtFOSA-M)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

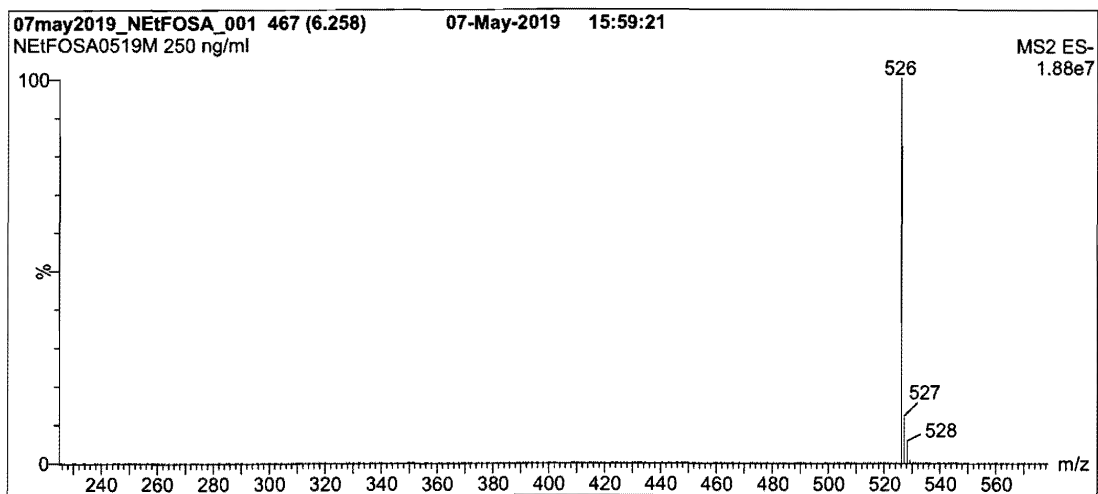
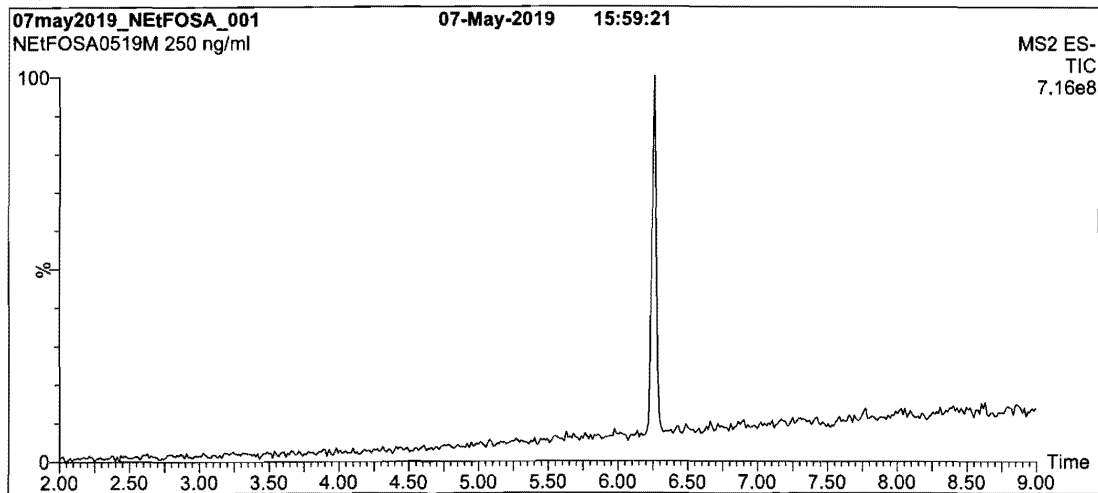
MS Parameters

Collision Gas (mbar) = 3.00e-3

Collision Energy (eV) = 24

19L0662

Figure 1: N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

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UNCERTAINTY:

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$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-EtFOSA-M

LOT NUMBER:

NEtFOSA0519M

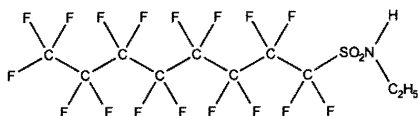
COMPOUND:

N-ethylperfluoro-1-octanesulfonamide

STRUCTURE:

CAS #:

4151-50-2



MOLECULAR FORMULA:

C₁₀H₆F₁₇NO₂S

MOLECULAR WEIGHT:

527.20

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

05/07/2019

EXPIRY DATE: (mm/dd/yyyy)

05/07/2024

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% branched isomers of N-ethylperfluorooctanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date:

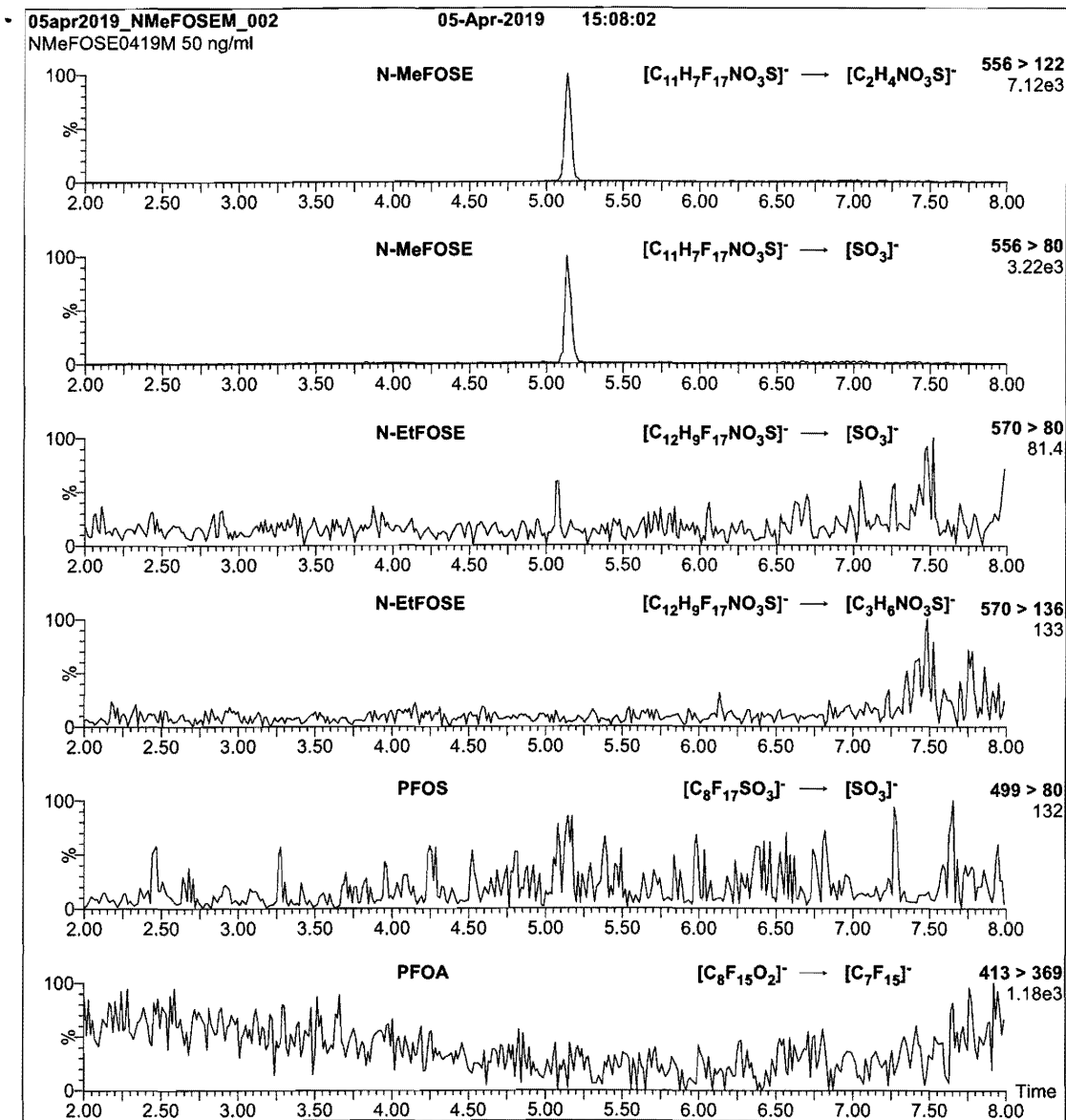
05/09/2019

(mm/dd/yyyy)

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Figure 3: N-MeFOSE-M; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 3:

Injection: On-column (N-MeFOSE-M)

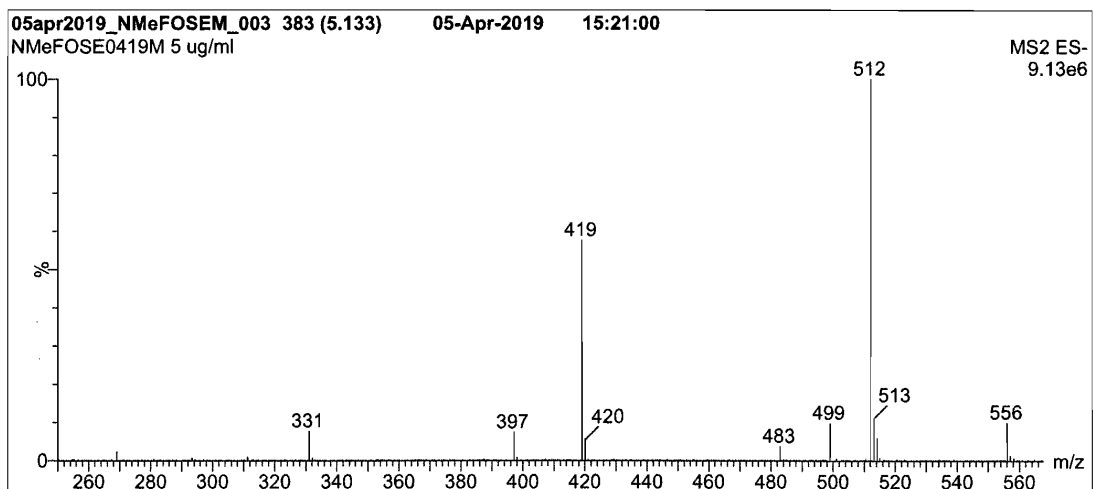
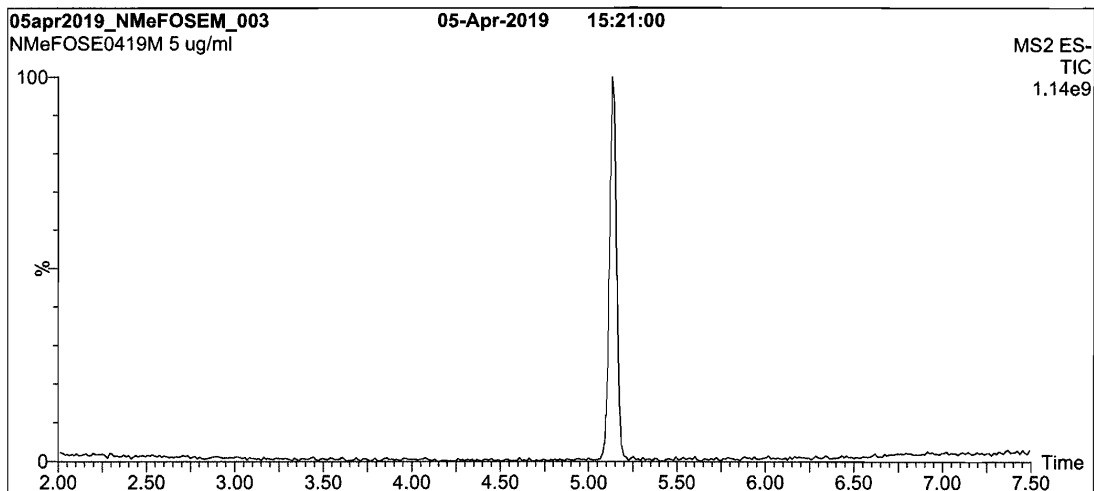
Mobile phase: Same as Figure 2

Flow: 300 μ l/min

MS Parameters

Collision Gas (mbar) = 2.94e-3
Collision Energy (eV) = 36

Figure 2: N-MeFOSE-M; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 2:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% MeOH / 35% H₂O
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

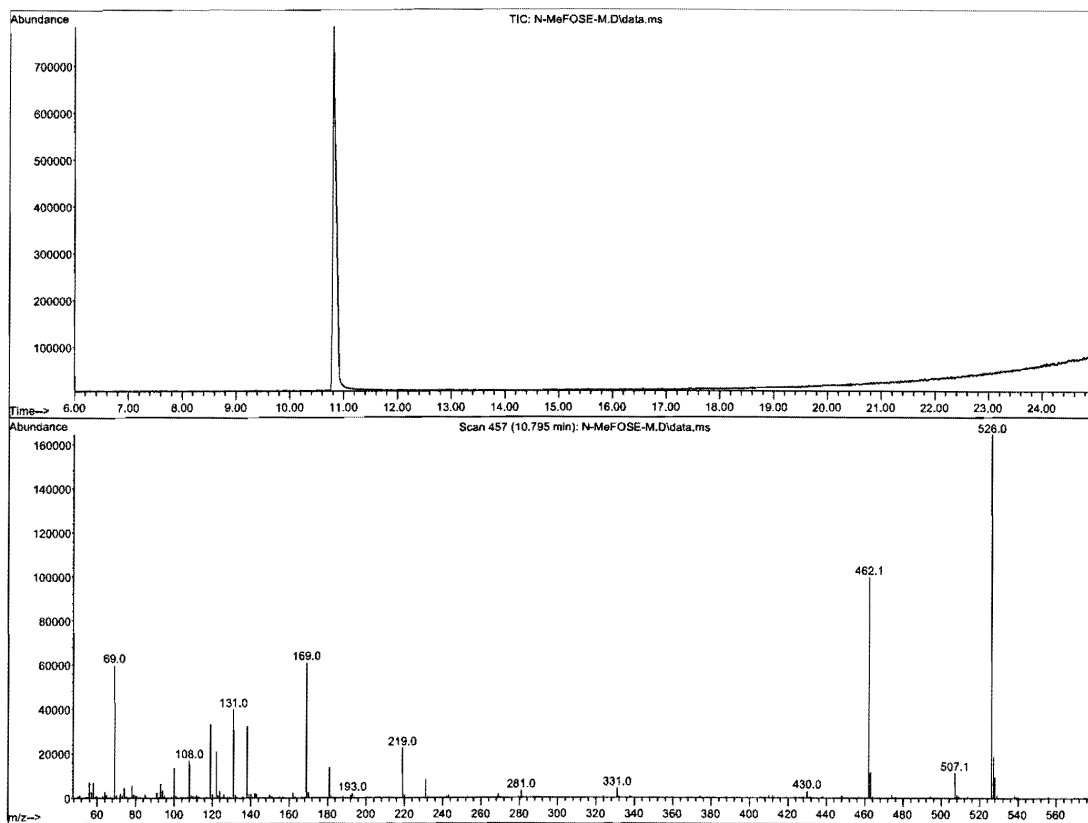
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 65.00
Desolvation Temperature ($^{\circ}$ C) = 450
Desolvation Gas Flow (l/hr) = 1000

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Figure 1: N-MeFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)



HRGC/LRMS:

Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column: 30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Injector: 250 °C (Splitless Injection)

Oven: 100 °C (5 min)
10 °C/min to 325 °C
325 °C (20 min)

Ionization: EI+

Detector: 250 °C
Full Scan (50-1000 amu)

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where x is expressed as a relative standard uncertainty of the individual parameter.

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LIMITED WARRANTY:

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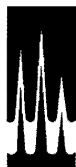
QUALITY MANAGEMENT:

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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSE-M

LOT NUMBER:

NMeFOSE0419M

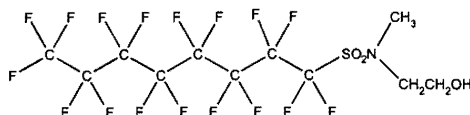
COMPOUND:

2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE:

CAS #:

24448-09-7



MOLECULAR FORMULA:

C₁₁H₈F₁₇NO₃S

MOLECULAR WEIGHT:

557.22

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

04/08/2019 (HRGC/LRMS)

04/05/2019 (LC/MS)

EXPIRY DATE: (mm/dd/yyyy)

04/08/2024

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)

Figure 2: LC/MS Data (TIC and Mass Spectrum)

Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

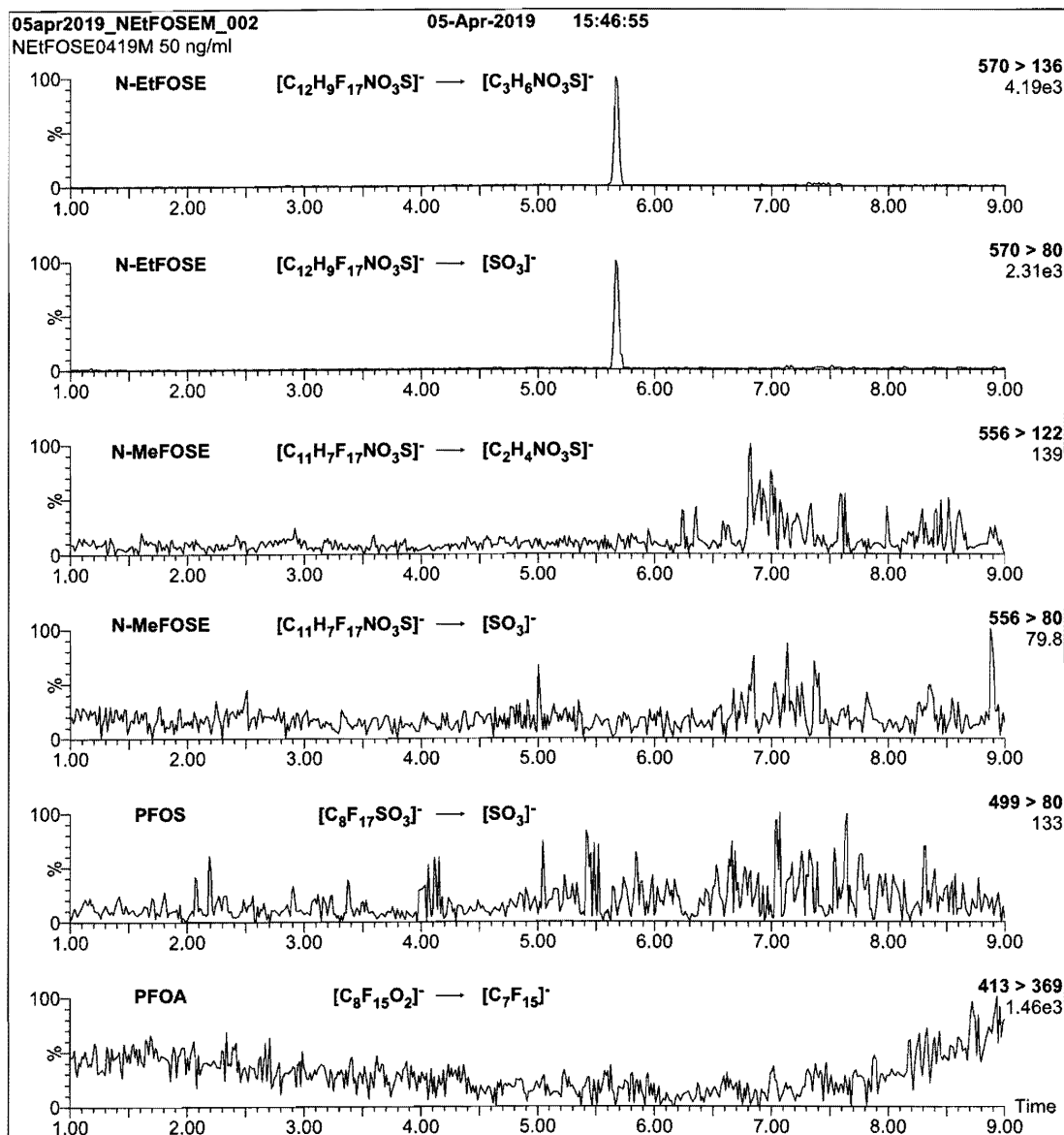
Date:

04/12/2019
(mm/dd/yyyy)

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19L0664

Figure 3: N-EtFOSE-M; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 3:

Injection: On-column (N-EtFOSE-M)

Mobile phase: Same as Figure 2

Flow: 300 μ l/min

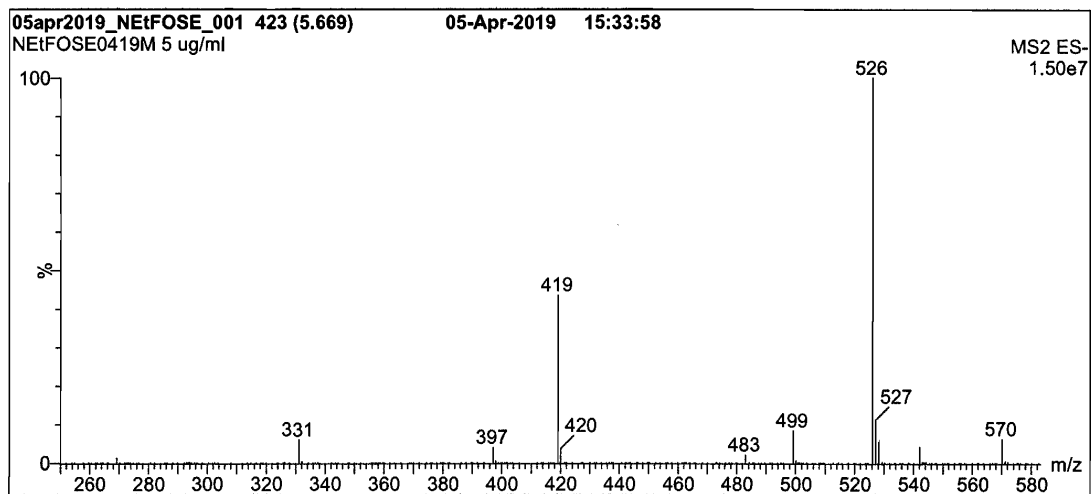
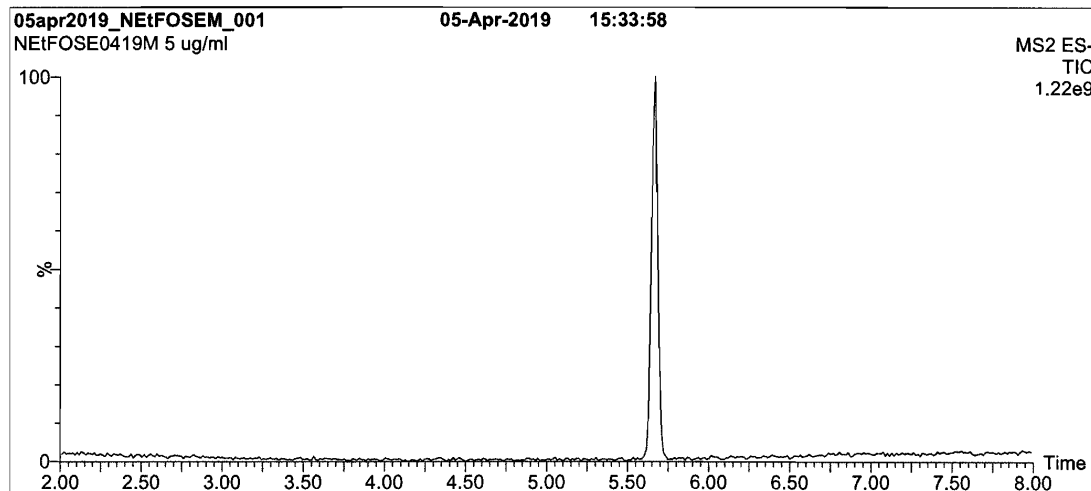
MS Parameters

Collision Gas (mbar) = 2.76e-3

Collision Energy (eV) = 32

19L0664

Figure 2: N-EtFOSE-M; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 2:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% MeOH / 35% H₂O
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

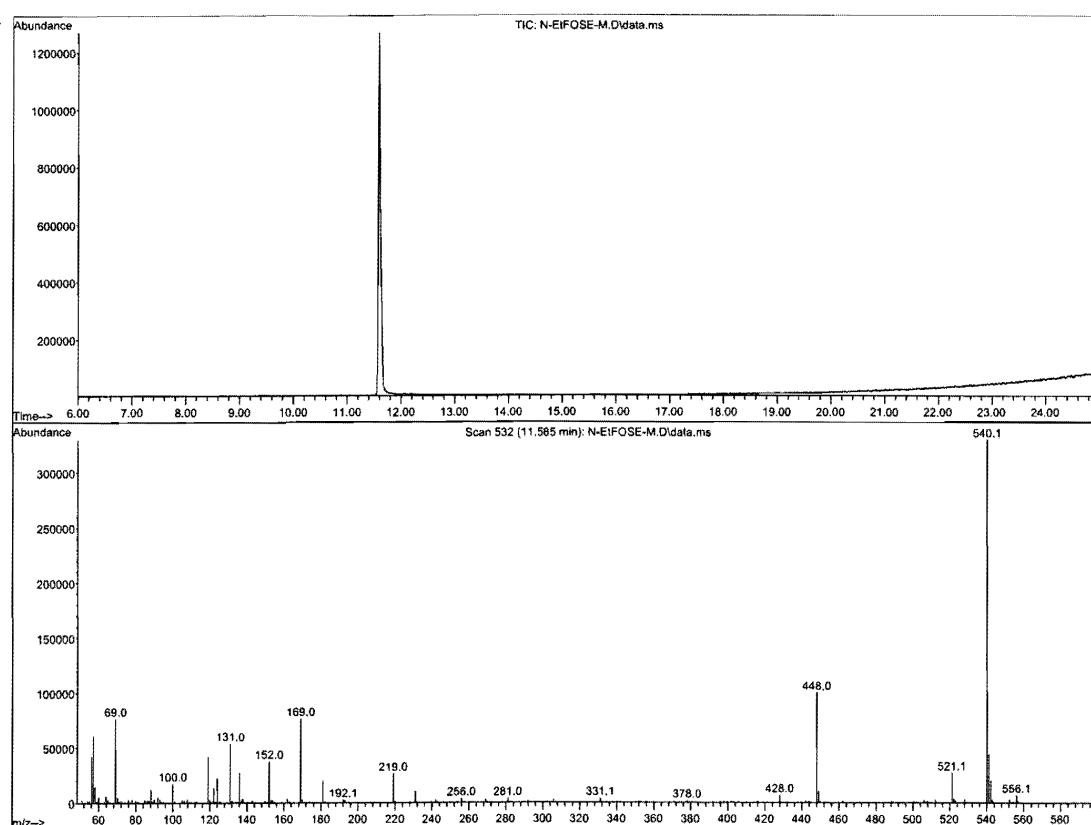
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 65.00
Desolvation Temperature (°C) = 450
Desolvation Gas Flow (l/hr) = 1000

19L0654

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 μ m film thickness) Agilent J&W

Injector: 250 $^{\circ}$ C (Splitless Injection)

Oven: 100 $^{\circ}$ C (5 min)
10 $^{\circ}$ C/min to 325 $^{\circ}$ C
325 $^{\circ}$ C (20 min)

Ionization: EI+

Detector: 250 $^{\circ}$ C
Full Scan (50-1000 amu)

19L0564

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0664



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-EtFOSE-M

LOT NUMBER:

NEtFOSE0419M

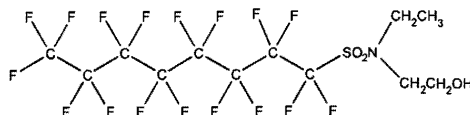
COMPOUND:

2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE:

CAS #:

1691-99-2



MOLECULAR FORMULA:

C₁₂H₁₀F₁₇NO₃S

MOLECULAR WEIGHT:

571.25

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

04/08/2019 (HRGC/LRMS)

04/05/2019 (LC/MS)

EXPIRY DATE: (mm/dd/yyyy)

04/08/2024

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)

Figure 2: LC/MS Data (TIC and Mass Spectrum)

Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

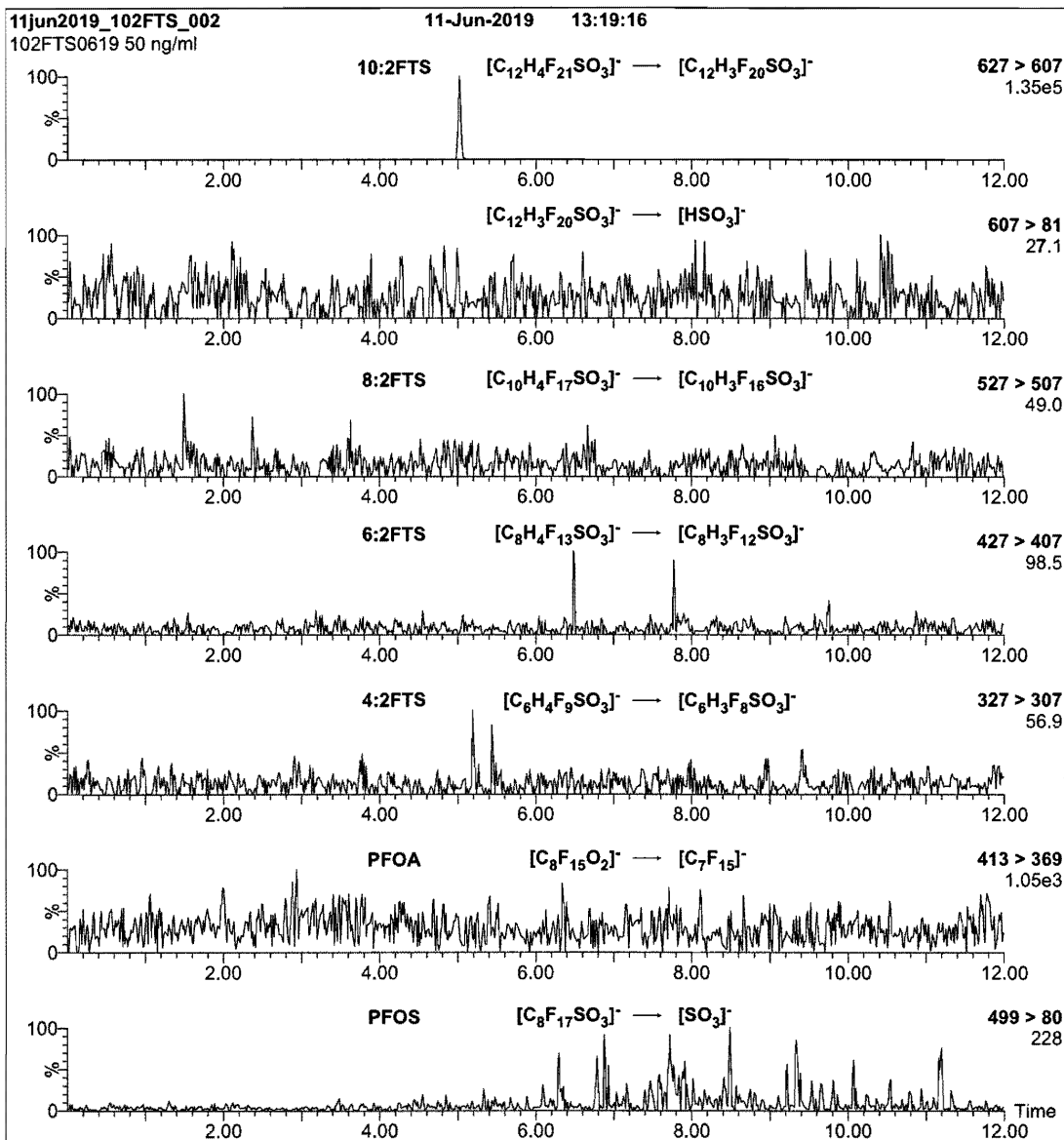
Date: 04/15/2019

(mm/dd/yyyy)

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19L0665

Figure 2: 10:2FTS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (10:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

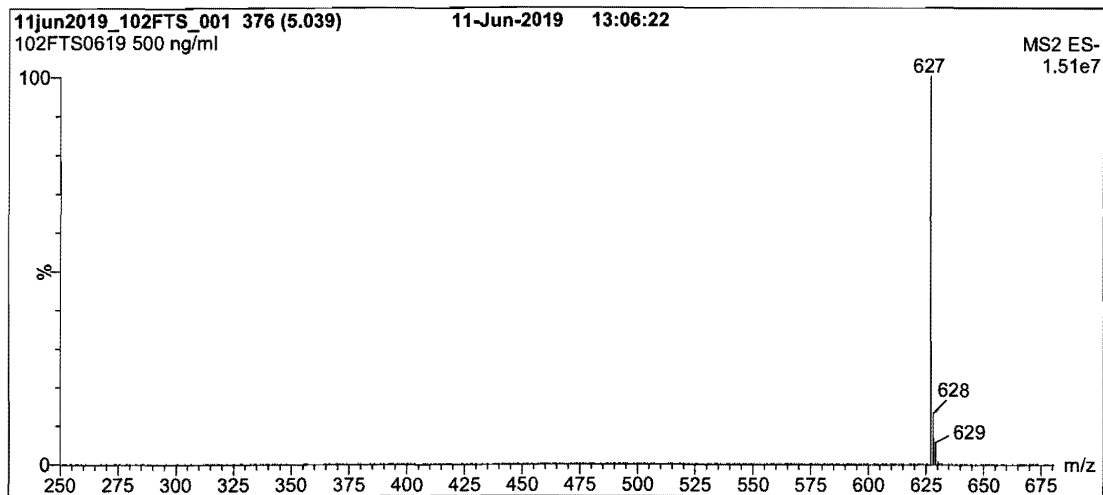
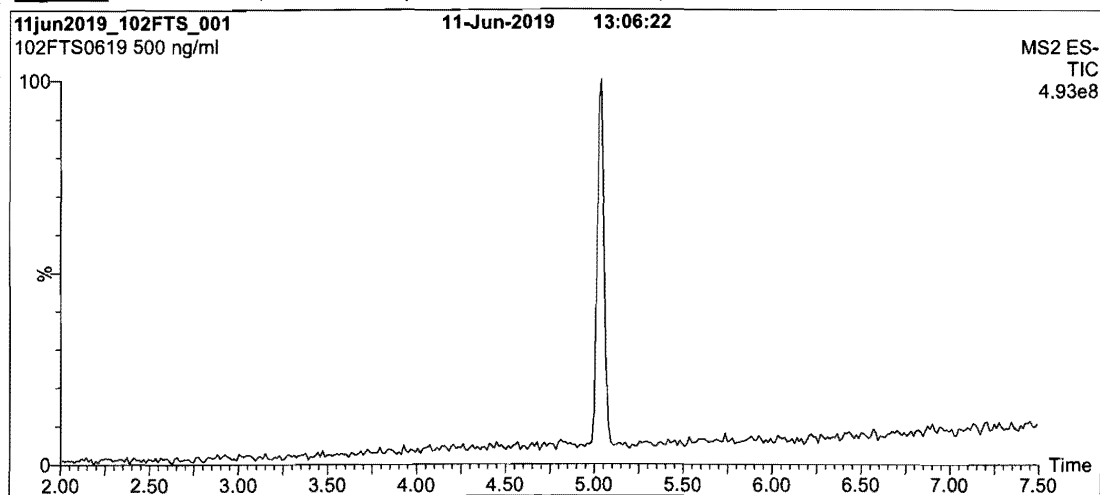
MS Parameters

Collision Gas (mbar) = 2.92e-3

Collision Energy (eV) = 25

19L0665

Figure 1: 10:2FTS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0665

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where x is expressed as a relative standard uncertainty of the individual parameter.

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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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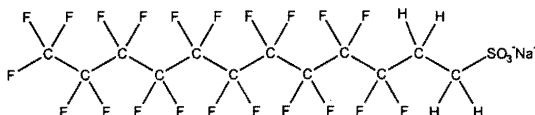
19L0665



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 10:2FTS **LOT NUMBER:** 102FTS0619
COMPOUND: Sodium 1H,1H,2H,2H-perfluorododecane sulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{12}H_4F_{21}SO_3Na$ **MOLECULAR WEIGHT:** 650.18
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/ml}$ (Na salt) **SOLVENT(S):** Methanol
 $48.2 \pm 2.4 \mu\text{g/ml}$ (10:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 06/11/2019
EXPIRY DATE: (mm/dd/yyyy) 06/11/2022
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

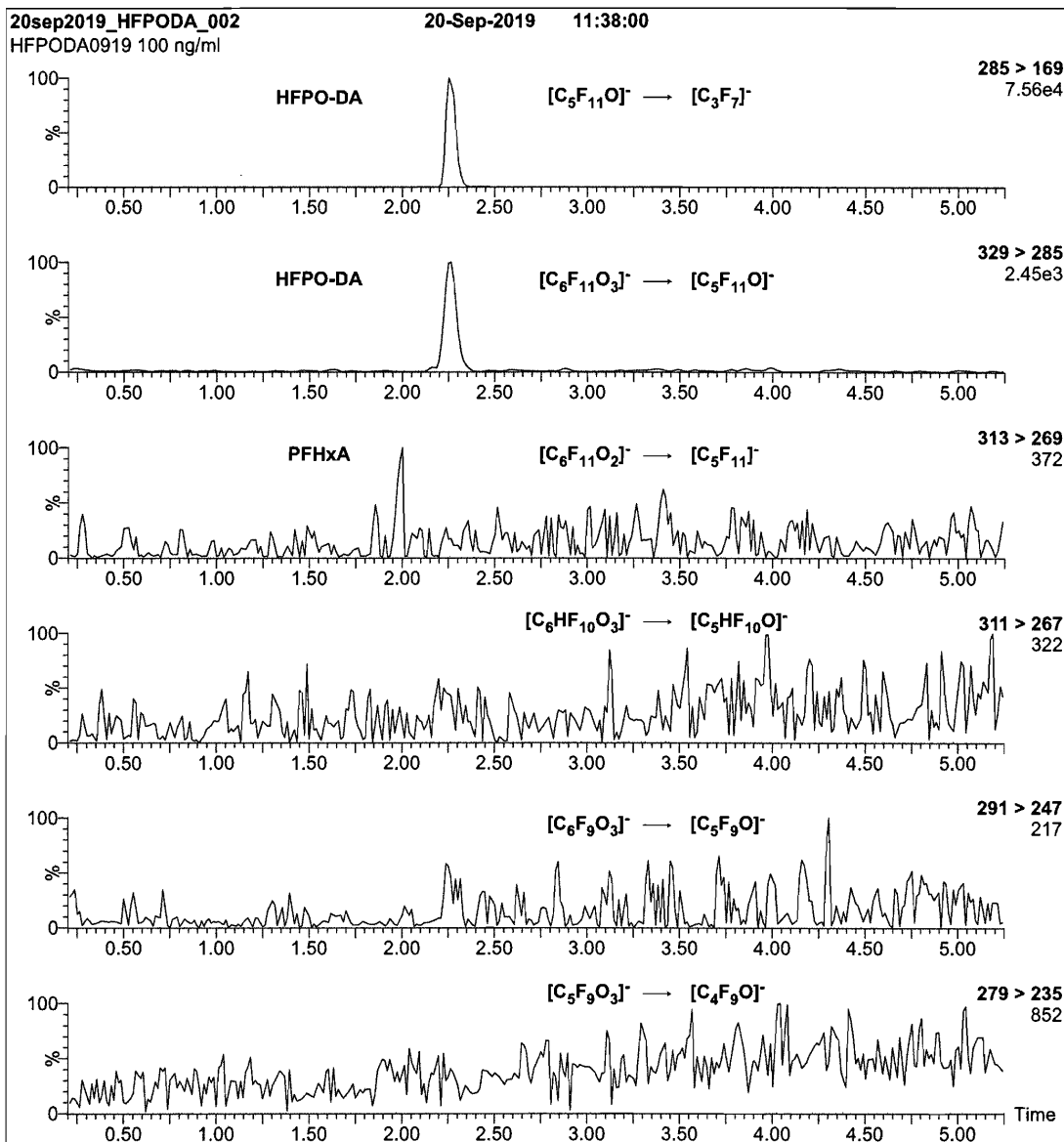
Certified By: 
B.G. Chittim, General Manager

Date: 06/18/2019
(mm/dd/yyyy)

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19L0665

Figure 2: HFPO-DA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (HFPO-DA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

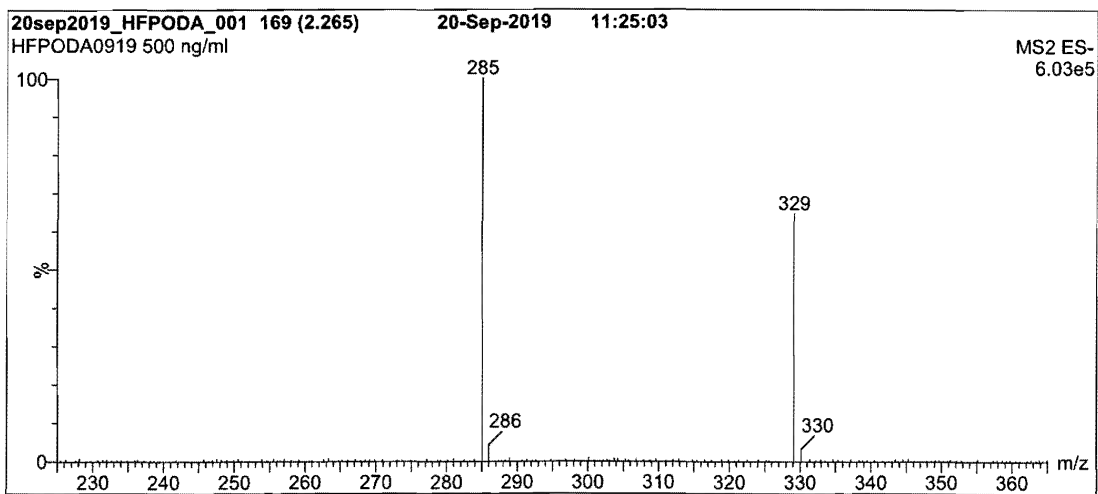
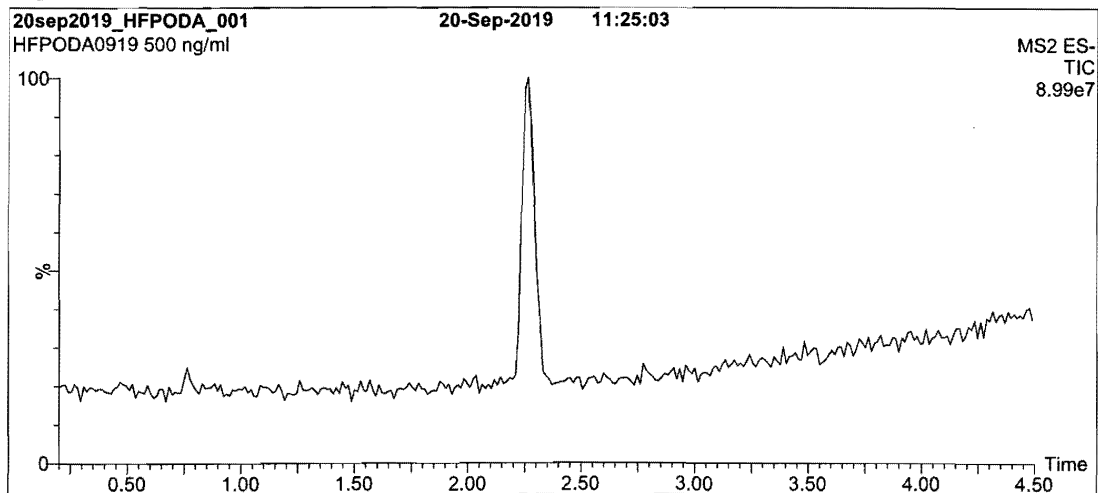
MS Parameters

Collision Gas (mbar) = 3.60e-3

Collision Energy (eV) = 8

19L0666

Figure 1: HFPO-DA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (l/hr) = 1000

19L 0666

INTENDED USE:

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HANDLING:

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UNCERTAINTY:

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

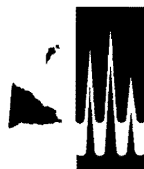
QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0666



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

HFPO-DA

LOT NUMBER:

HFPODA0919

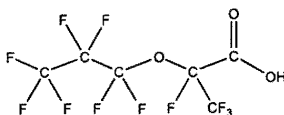
COMPOUND:

2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid

STRUCTURE:

CAS #:

13252-13-6



MOLECULAR FORMULA:

C₈H₁₁O₃

MOLECULAR WEIGHT:

330.05

CONCENTRATION:

50 ± 2.5 µg/ml

SOLVENT(S):

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/20/2019

EXPIRY DATE: (mm/dd/yyyy)

09/20/2022

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.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date:

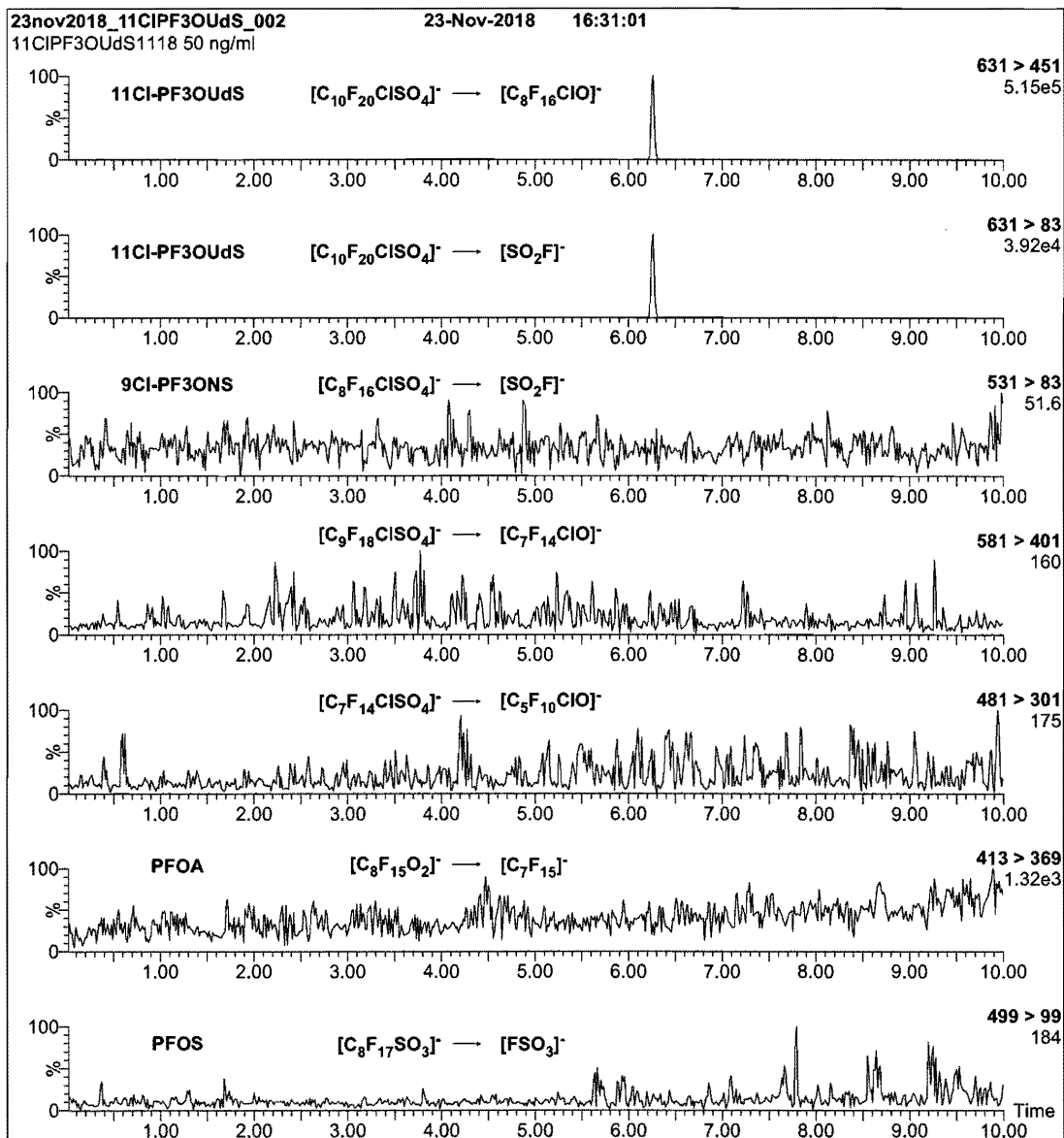
09/30/2019

(mm/dd/yyyy)

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19L0667

Figure 2: 11CI-PF3OUdS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (11CI-PF3OUdS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

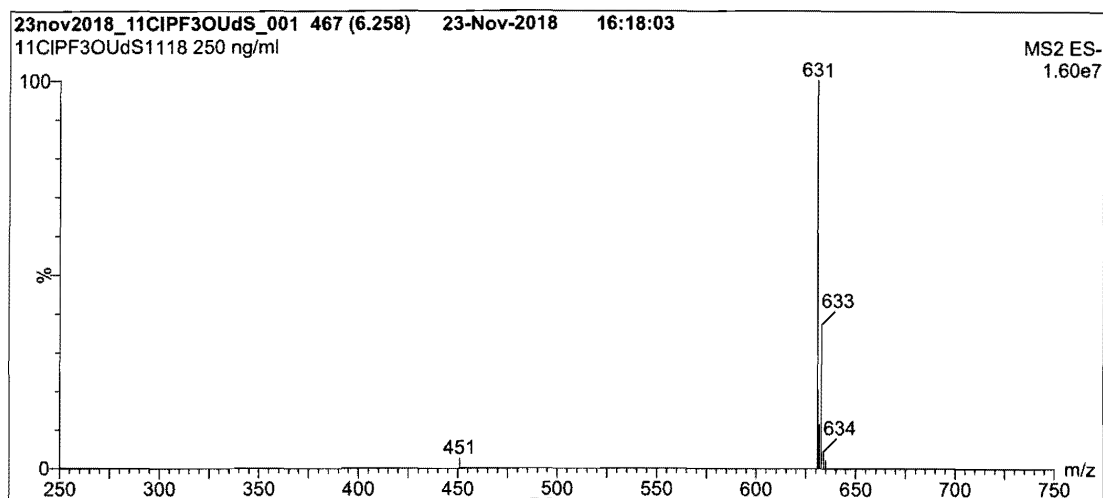
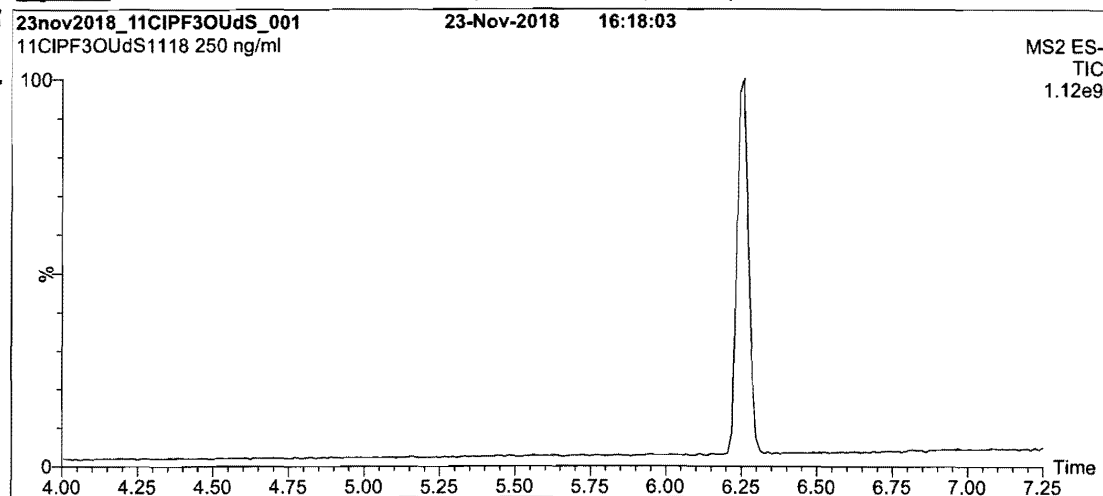
MS Parameters

Collision Gas (mbar) = 2.84e-3

Collision Energy (eV) = 24

19L0667

Figure 1: 11CI-PF3OUdS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 70.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

19L0667

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HANDLING:

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19L 0667



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:

11CI-PF3OUdS

LOT NUMBER:

11CIPF3OUdS1118

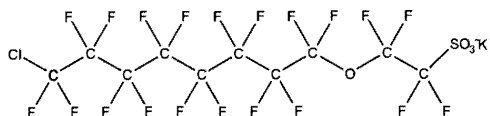
COMPOUND:

Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate

STRUCTURE:

CAS #:

83329-89-9



MOLECULAR FORMULA:

C₁₀F₂₀ClSO₄K

MOLECULAR WEIGHT:

670.69

CONCENTRATION:

50.0 ± 2.5 µg/ml (K Salt)

SOLVENT(S):

Methanol

47.1 ± 2.4 µg/ml (11CI-PF3OUdS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

11/23/2018

EXPIRY DATE: (mm/dd/yyyy)

11/23/2023

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.
- This compound is a minor component of the commercial formulation known as F-53B.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

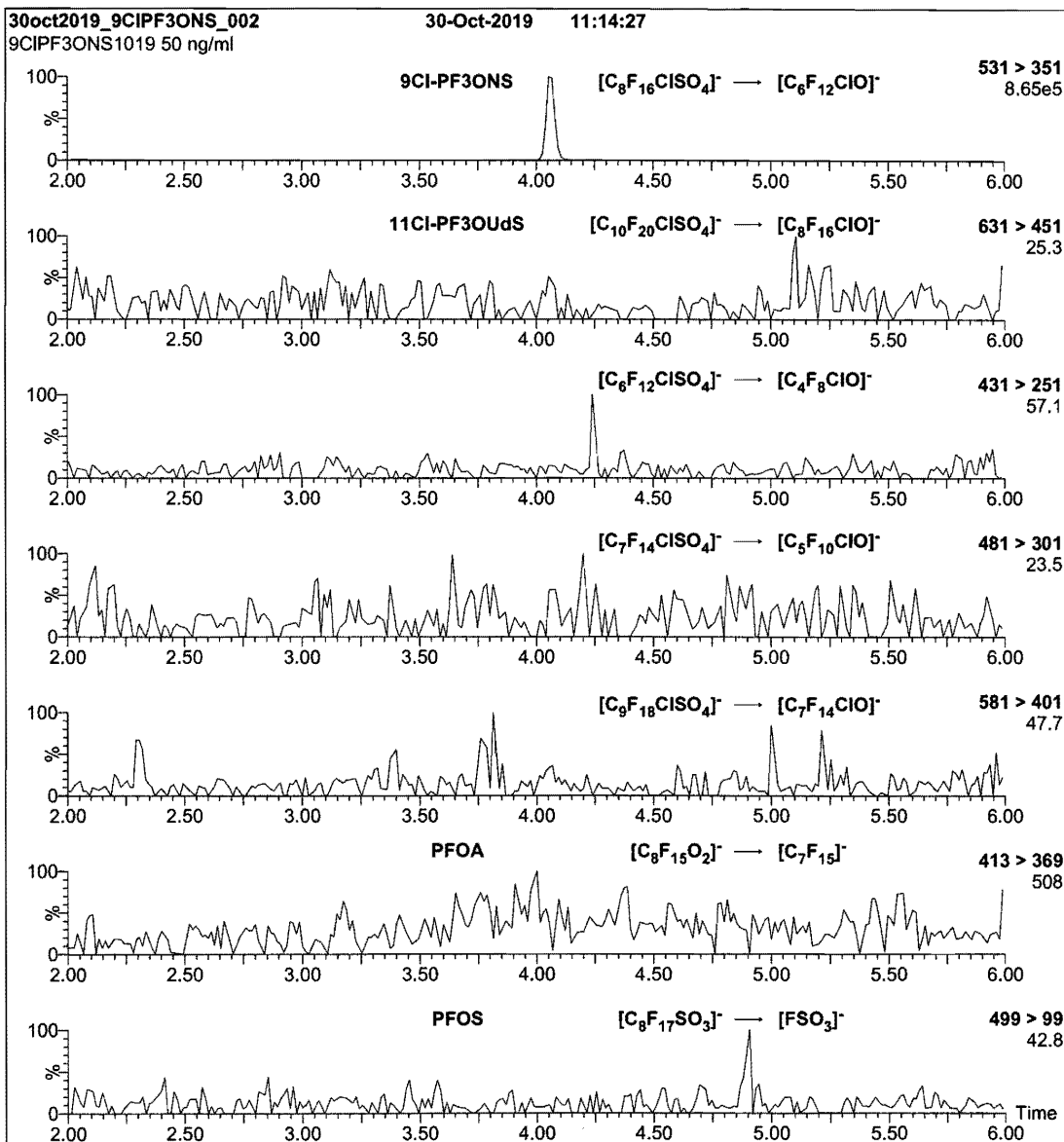
Date: 11/28/2018

(mm/dd/yyyy)

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1910668

Figure 2: 9CI-PF3ONS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (9CI-PF3ONS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

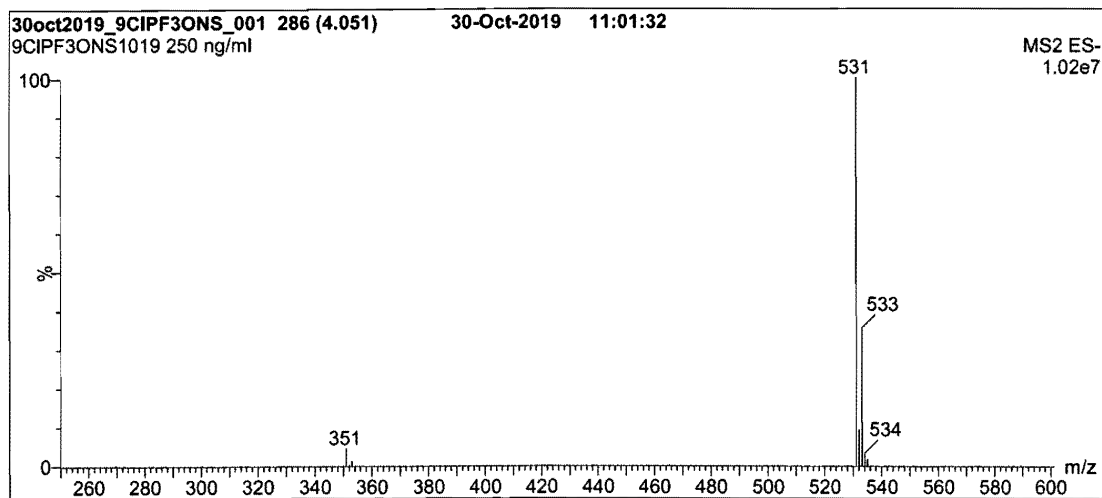
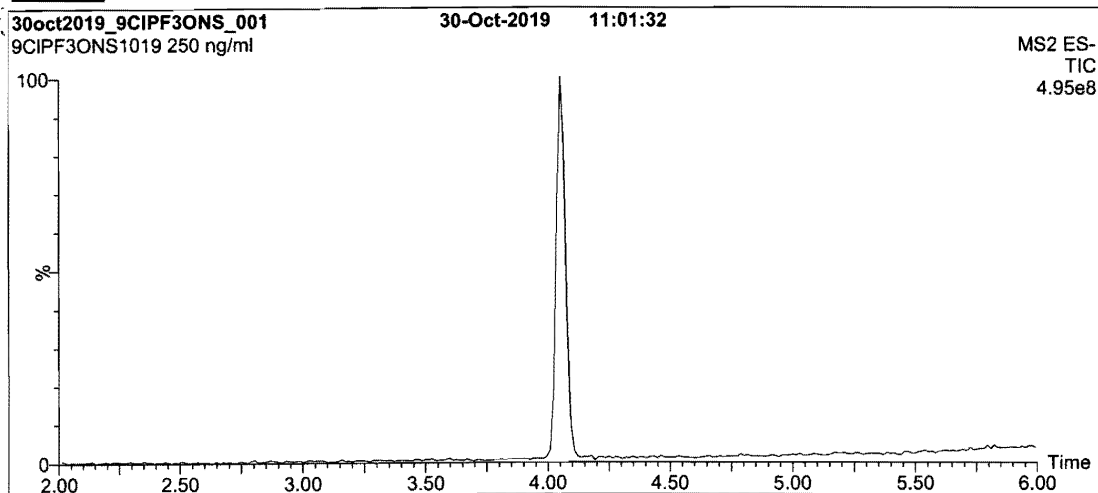
MS Parameters

Collision Gas (mbar) = 3.25e-3

Collision Energy (eV) = 20

19L0568

Figure 1: 9CI-PF3ONS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 70.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

19L0668

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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.

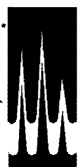
QUALITY MANAGEMENT:

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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0668



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

9CI-PF3ONS

LOT NUMBER:

9CIPF3ONS1019

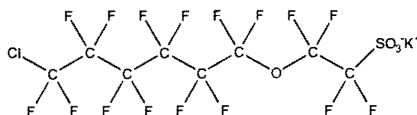
COMPOUND:

Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate

STRUCTURE:

CAS #:

73606-19-6



MOLECULAR FORMULA:

C₉F₁₆ClSO₄K

MOLECULAR WEIGHT:

570.67

CONCENTRATION:

50.0 ± 2.5 µg/ml (K Salt)

SOLVENT(S):

Methanol

46.6 ± 2.3 µg/ml (9CI-PF3ONS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

10/30/2019

EXPIRY DATE: (mm/dd/yyyy)

10/30/2024

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.
- This compound is the major component of the commercial formulation known as F-53B.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

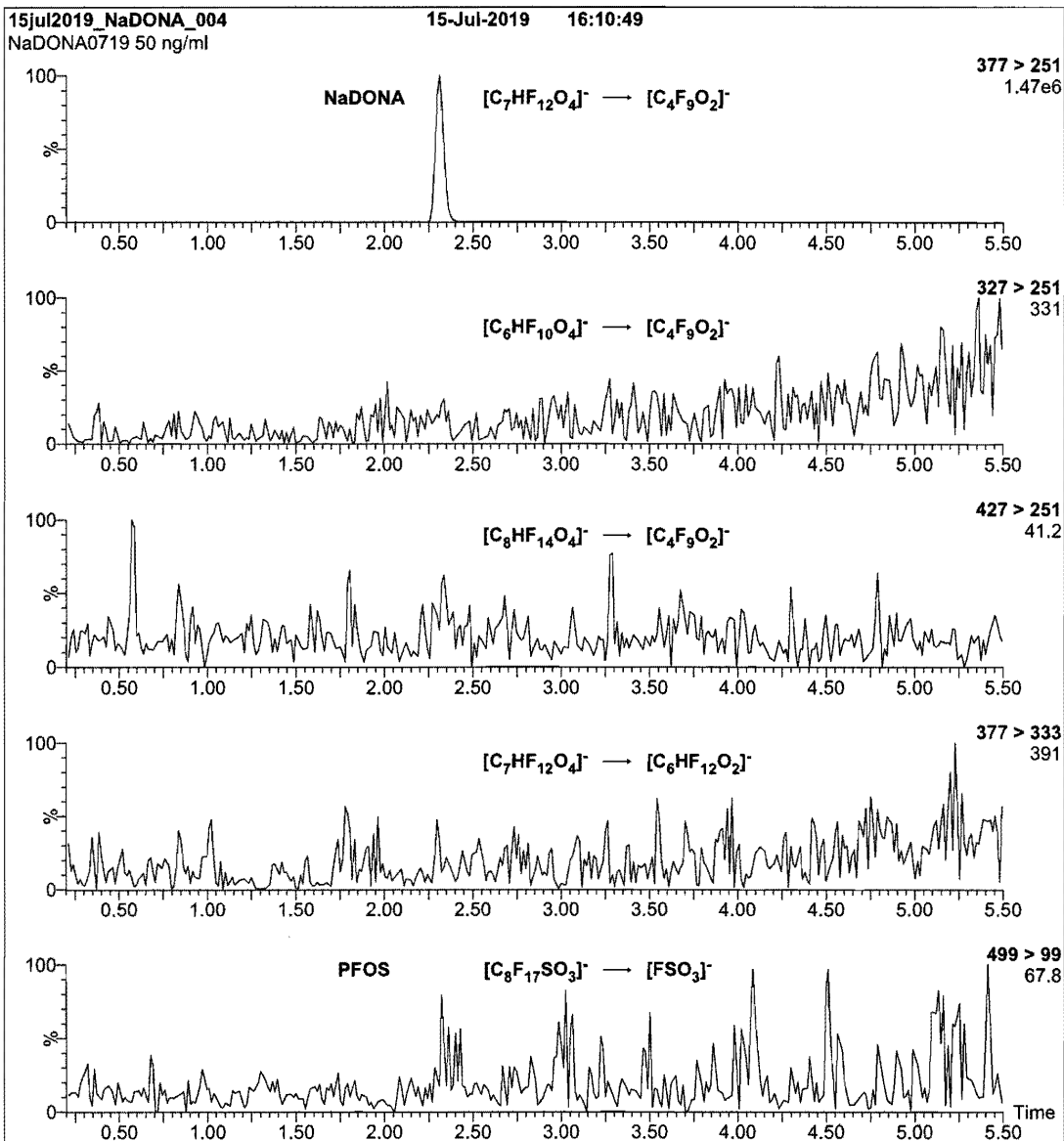
Date: 11/04/2019

(mm/dd/yyyy)

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19L0669

Figure 2: NaDONA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (NaDONA)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

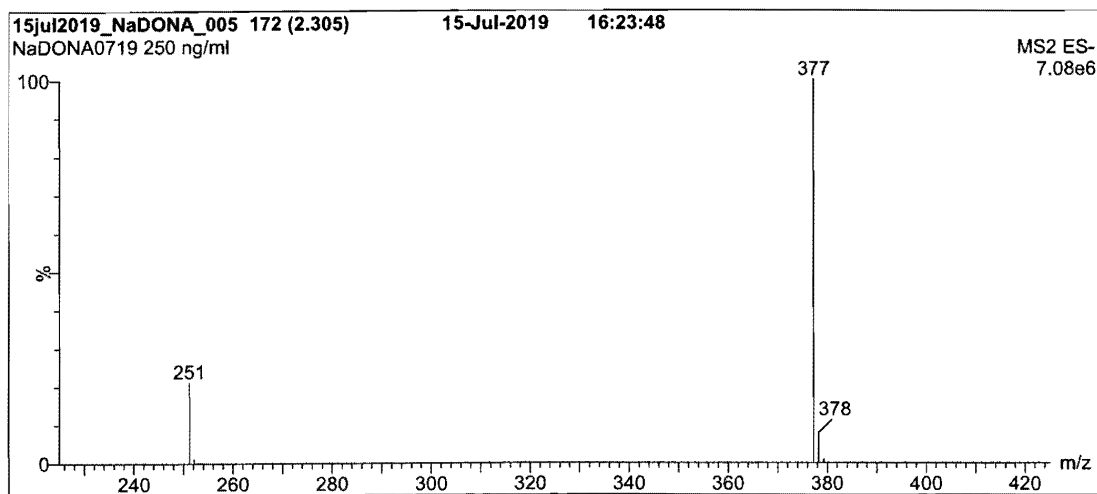
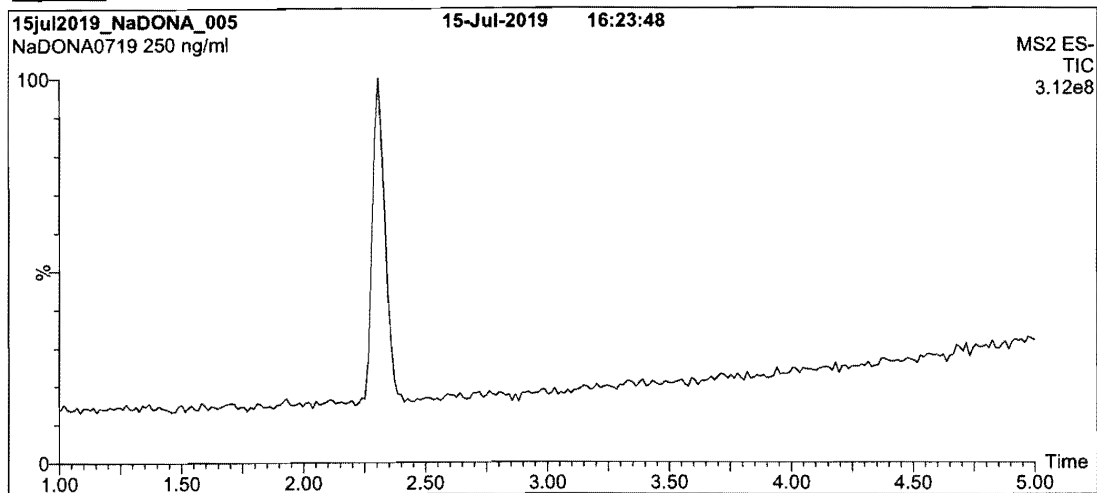
MS Parameters

Collision Gas (mbar) = 3.37e-3

Collision Energy (eV) = 10

19L0669

Figure 1: NaDONA; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.70
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0669

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.

HANDLING:

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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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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19L0669



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

NaDONA

LOT NUMBER:

NaDONA0719

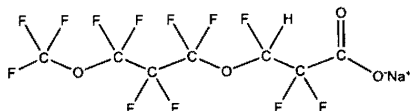
COMPOUND:

Sodium dodecafluoro-3H-4,8-dioxanonoate

STRUCTURE:

CAS #:

958445-44-8
(ammonium salt)



MOLECULAR FORMULA:

C₇H₁₂F₁₂O₄Na

MOLECULAR WEIGHT:

400.05

CONCENTRATION:

50 ± 2.5 µg/ml (Na Salt)
47.1 ± 2.4 µg/ml (NaDONA anion)

SOLVENT(S):

Methanol
Water (<1%)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

07/15/2019

EXPIRY DATE: (mm/dd/yyyy)

07/15/2024

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.
- Product is commercially known as ADONA.
- 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, General Manager

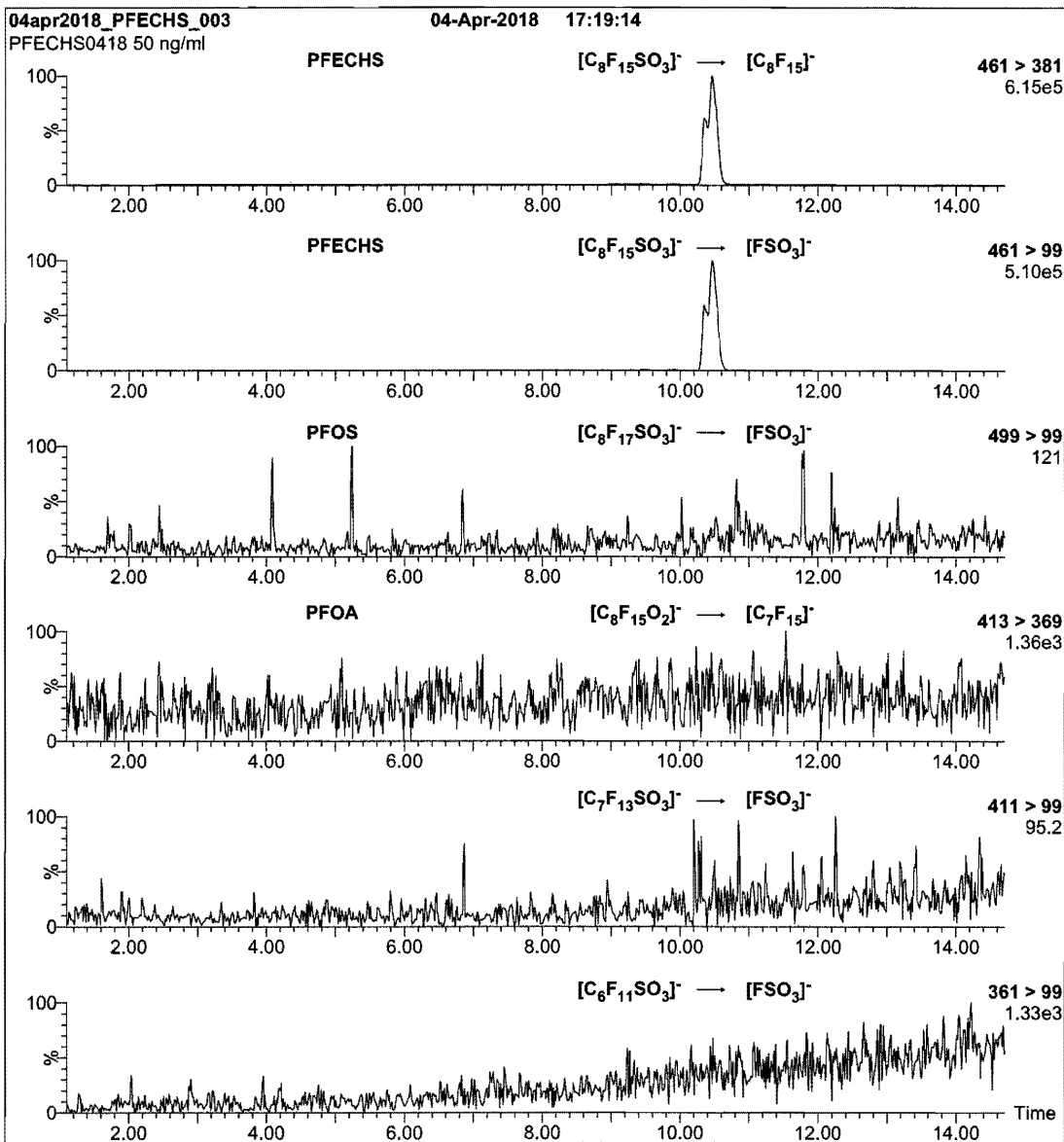
Date:

07/25/2019
(mm/dd/yyyy)

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1920670

Figure 2: PFECHS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (PFECHS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

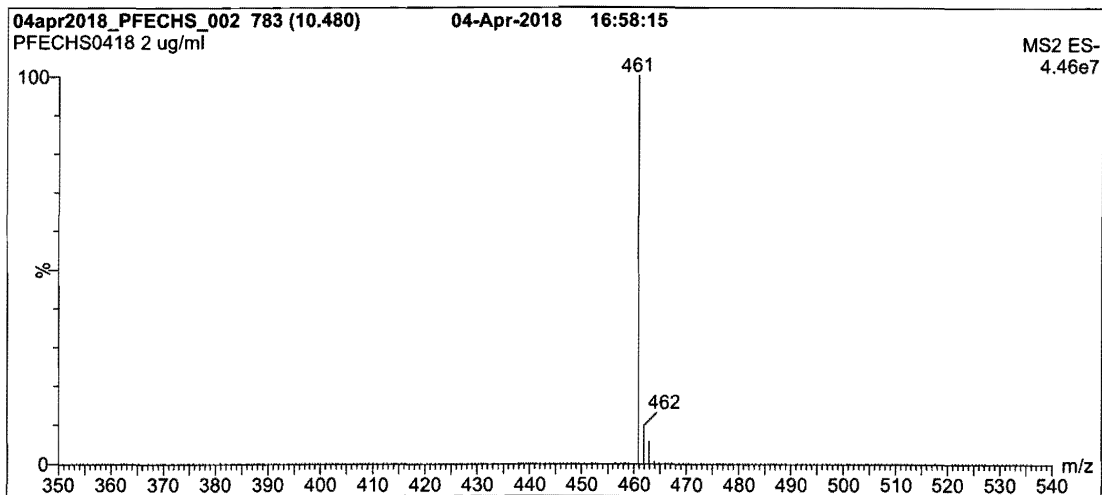
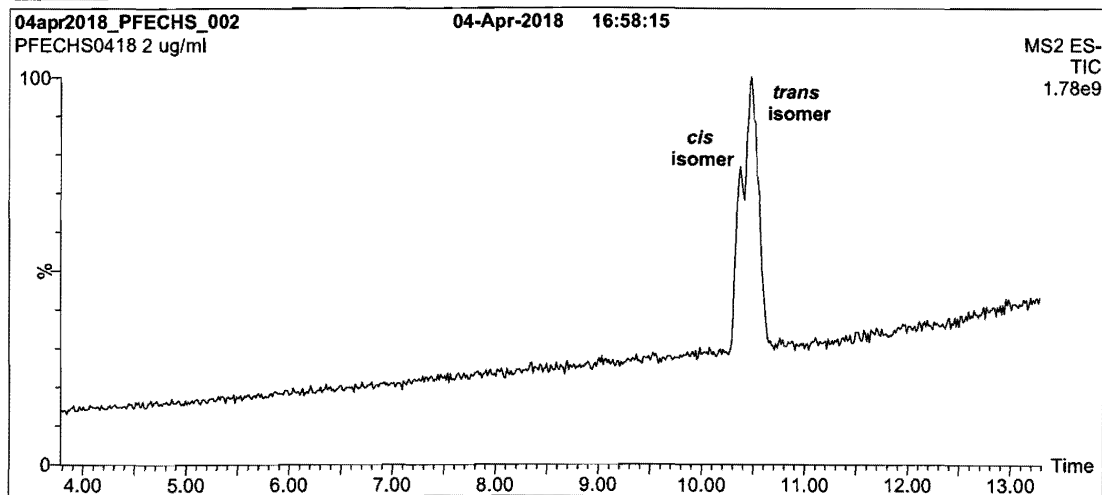
MS Parameters

Collision Gas (mbar) = 3.37e-3

Collision Energy (eV) = 24

19L0670

Figure 1: PFECHS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity CSH Fluoro-Phenyl
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 25% (80:20 MeOH:ACN) / 75% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 60% organic over 13 min.
Ramp to 80% organic over 2 min and hold for
2 min before returning to initial conditions in 1 min.

Time: 20 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (350 - 850 amu)

Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 45.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (l/hr) = 750

19L0570

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.

HANDLING:

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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:

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$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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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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19L0670



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

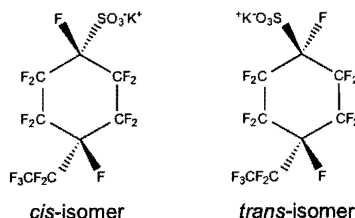
PFECHS

LOT NUMBER: PFECHS0418

COMPOUND:

Potassium perfluoro-4-ethylcyclohexanesulfonate (isomeric mixture)

STRUCTURE:



CAS #: 67584-42-3

MOLECULAR FORMULA:

$C_8F_{15}SO_3K$

MOLECULAR WEIGHT:

500.22

CONCENTRATION:

$50.0 \pm 2.5 \mu\text{g/ml}$ (K salt)

SOLVENT(S):

Methanol

$46.1 \pm 2.3 \mu\text{g/ml}$ (PFECHS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

04/04/2018

EXPIRY DATE: (mm/dd/yyyy)

04/04/2023

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 a mixture of the *cis/trans* isomers of PFECHS at a ratio of 2:3 (*cis:trans*).
- Contains ~ 1.5% of other isomeric impurities.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

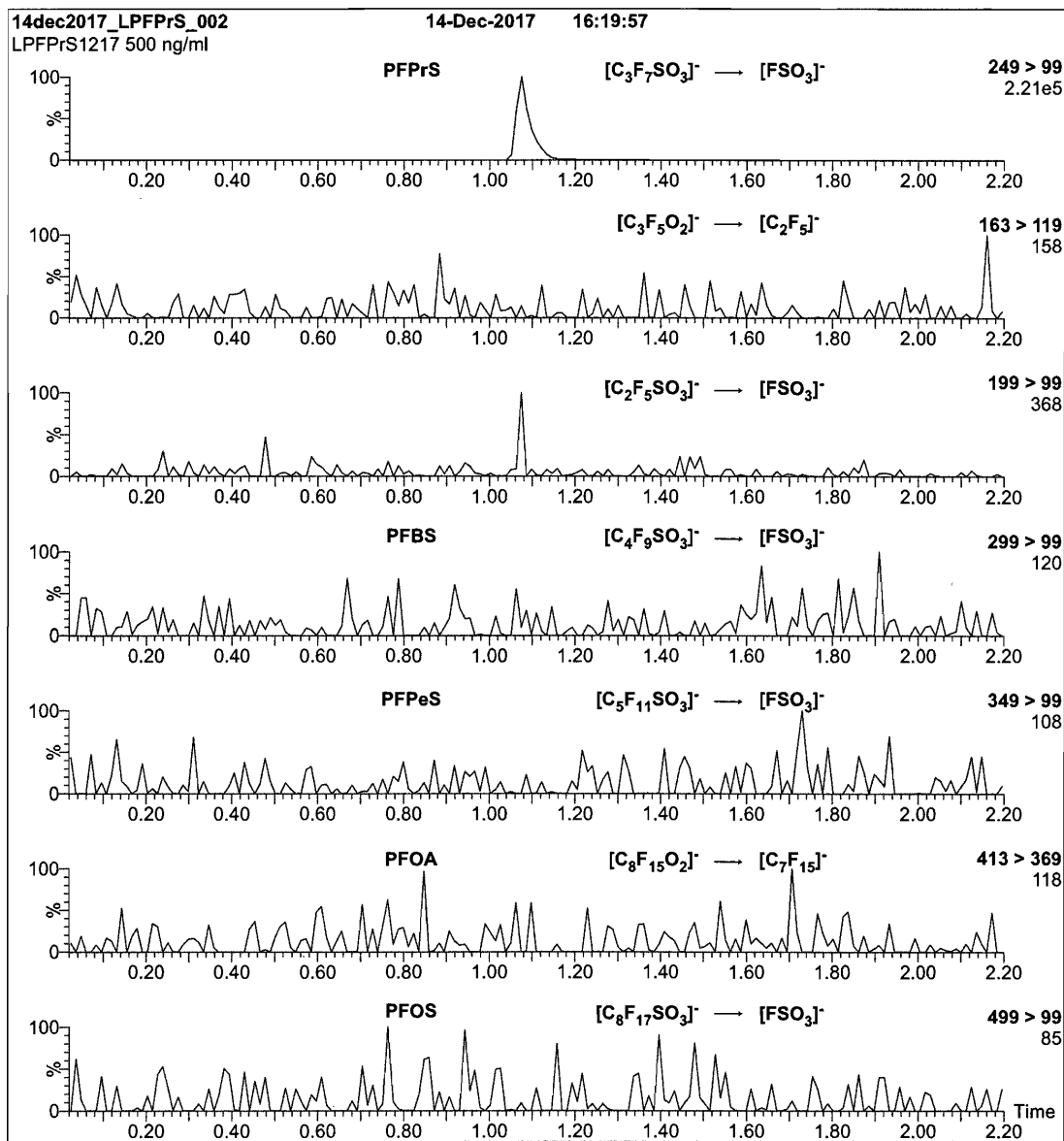
Date: 04/09/2018

(mm/dd/yyyy)

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17L0671

Figure 2: L-PFPrS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: Direct loop injection
10 μ l (500 ng/ml L-PFPrS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H₂O
(both with 10 mM NH₄OAc buffer)

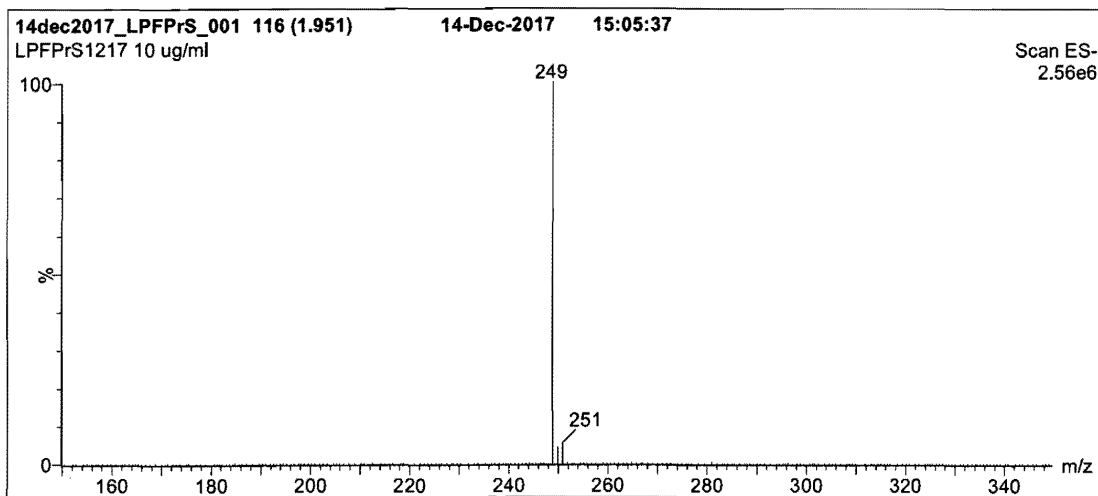
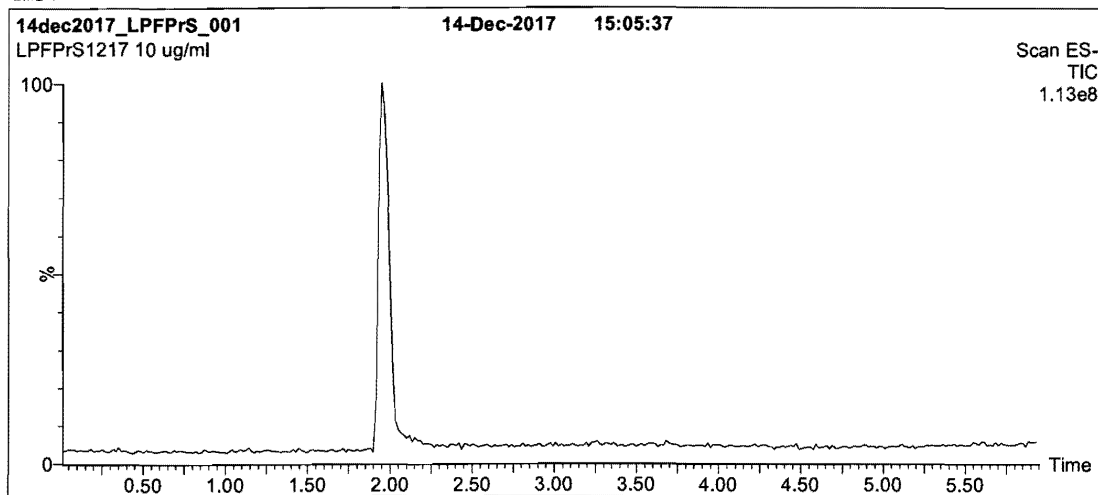
Flow: 300 μ l/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 25

1920571

Figure 1: L-PFPrS; 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 RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions over 0.5 min.
Time: 10 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

1910571

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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$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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).



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

1960671



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFPrS

LOT NUMBER:

LPFPrS1217

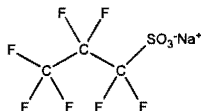
COMPOUND:

Sodium perfluoro-1-propanesulfonate

STRUCTURE:

CAS #:

Not available



MOLECULAR FORMULA:

C₃F₇SO₃Na

MOLECULAR WEIGHT:

272.07

CONCENTRATION:

50.0 ± 2.5 µg/ml (Na salt)

SOLVENT(S):

Methanol

45.8 ± 2.3 µg/ml (PFPrS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

12/14/2017

EXPIRY DATE: (mm/dd/yyyy)

12/14/2022

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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date:

12/18/2017

(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

19L1707



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

L-PFDoS

LOT NUMBER:

LPFDoS1218

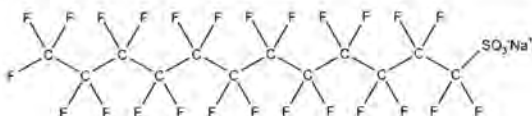
COMPOUND:

Sodium perfluoro-1-dodecanesulfonate

STRUCTURE:

CAS #:

1260224-54-1



MOLECULAR FORMULA:

$C_{12}F_{25}SO_3Na$

MOLECULAR WEIGHT:

722.14

CONCENTRATION:

$50.0 \pm 2.5 \mu\text{g/ml}$ (Na salt)

SOLVENT(S):

Methanol

$48.4 \pm 2.4 \mu\text{g/ml}$ (PFDoS anion)

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

12/06/2018

EXPIRY DATE: (mm/dd/yyyy)

12/06/2023

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 perfluoro-n-dodecanoic acid (PFDoA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

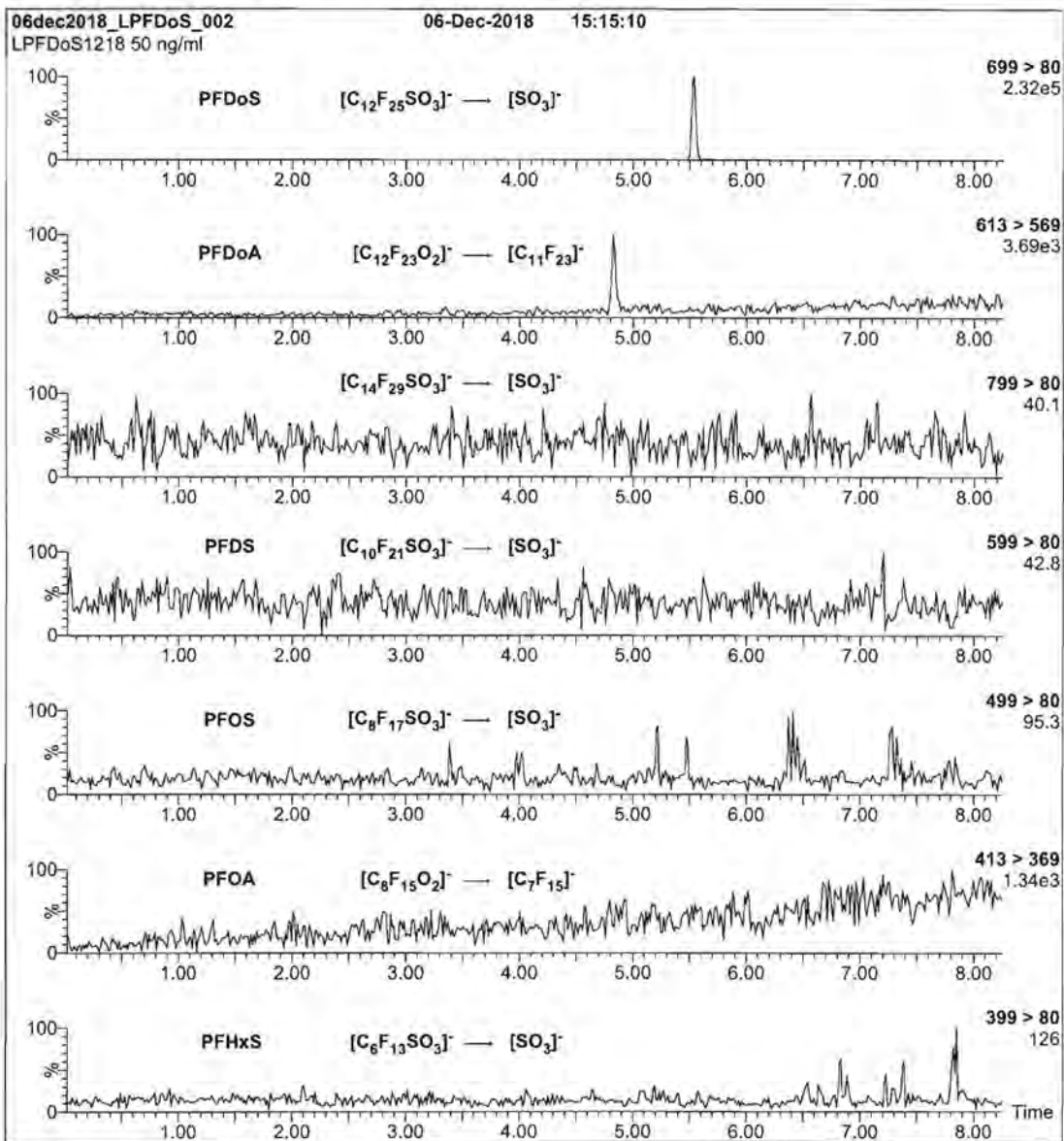
Date:

12/20/2018
(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

19L707

Figure 2: L-PFDoS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (L-PFDoS)

Mobile phase: Same as Figure 1

Flow: 300 μ l/min

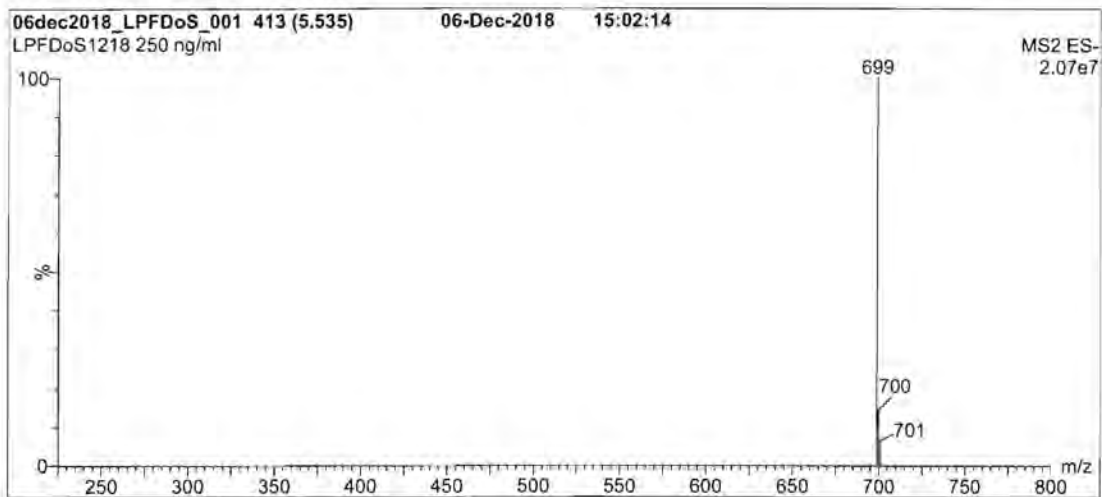
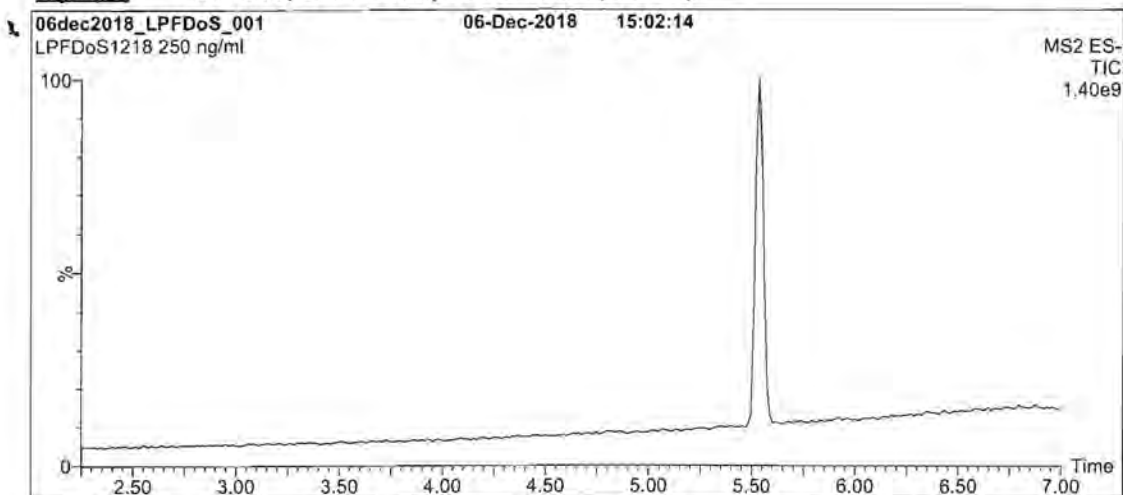
MS Parameters

Collision Gas (mbar) = 3.27e-3

Collision Energy (eV) = 60

19L1707

Figure 1: L-PFDoS; LC/MS Data (TIC and Mass Spectrum)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Waters Xevo TQ-S micro MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L1707

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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

$x_1, x_2, \dots, x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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"SB01-20200618","537_MOD","07/02/20","13:14","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00404","UG_L","UG_L","","","","","","","","","","",""

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"SB01-20200618","537_MOD","07/02/20","13:14","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00404","UG_L","UG_L","","","","","","","","","","",""

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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","1763-23-1","HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","","","","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","72629-94-8","PFTTrDA","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","","","","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","376-06-7","PFTeDA","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","","","","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C3-PFBS","13C3-PFBS","74.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.7","74.7","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C3-HFPO-DA","13C3-HFPO-DA","66.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","66.9","66.9","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C2-PFHxA","13C2-PFHxA","69.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.6","69.6","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C4-PFHpA","13C4-PFHpA","75.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","75.8","75.8","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C3-PFHxS","13C3-PFHxS","74.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.3","74.3","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C5-PFNA","13C5-PFNA","72.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.1","72.1","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C2-PFOA","13C2-PFOA","69.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.5","69.5","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C8-PFOS","13C8-PFOS","83.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.0","83.0","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C2-PFDA","13C2-PFDA","67.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","67.9","67.9","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","d3-MeFOSAA","d3-MeFOSAA","62.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","62.4","62.4","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C2-PFUnA","13C2-PFUnA","62.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","62.9","62.9","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","d5-EtFOSAA","d5-EtFOSAA","57.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","57.1","57.1","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C2-PFDoA","13C2-PFDoA","65.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","65.4","65.4","","","","","","50","150","",""
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"EB01-20200618","537_MOD","07/02/20","13:24","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","53.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","53.6","53.6","","","","","","50","150","",""
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","375-73-5","PFBS","0.00458","","TRG","Yes","Y","","Y","0.00133","0.00194","0.00388","UG_L","UG_L","","","","","","","","",""

1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00133","0.00194","0.00388","UG_L","UG_L","","","","","","","","","","",""
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","72629-94-
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00133","0.00194","0.00388","UG_L","UG_L","","","","","","","","",""
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","13C3-PFBS","13C3-
PFBS","72.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.8","72.8","","","","","","50","150",""
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","13C3-HFPO-DA","13C3-HFPO-
DA","66.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","66.0","66.0","","","","","","50","150",""
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PFHpA","72.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.5","72.5","","","","","","50","150",""
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PFHxS","67.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","67.2","67.2","","","","","","50","150",""
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","13C5-PFNA","13C5-
PFNA","68.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","68.0","68.0","","","","","","50","150",""
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","13C2-PFOA","13C2-
PFOA","70.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.8","70.8","","","","","","50","150",""
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","d3-MeFOSAA","d3-
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","13C2-PFUnA","13C2-
PFUnA","61.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","61.0","61.0","","","","","","50","150",""
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","61.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","61.4","61.4","","","","","","50","150
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"24-GW-15DBMW51-20200618","537_MOD","07/02/20","13:35","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","55.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","55.7","55.7","","","","","","50","150"
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"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","375-73-
5","PFBS","0.0738","","TRG","Yes","Y","","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","",""
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"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.232","","TRG","Yes","Y","","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","","","TRG","Yes","N","U","Y","0.00227","0.00283","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0176","","TRG","Yes","Y","","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","","","TRG","Yes","N","U","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","0.0208","","TRG","Yes","Y","","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.0397","","TRG","Yes","Y","","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","1763-23-1","HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION","0.0180","","TRG","Yes","Y","","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","756426-58-1","9-CHLOROHEXADEC AFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","","","TRG","Yes","N","U","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","","","TRG","Yes","N","U","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","
"24-GW-24NEW8-20200618","537_MOD","07/02/20","13:45","N","NA","000","763051-92-9","11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-PF3OUdS)","","","TRG","Yes","N","U","Y","0.00129","0.00189","0.00377","UG_L","UG_L","","","","","","","","","

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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","72629-94-8","PFTTrDA","","","TRG","Yes","N","U","Y","0.00128","0.00187","0.00374","UG_L","UG_L","","","","","","","","","",""
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","376-06-7","PFTeDA","","","TRG","Yes","N","U","Y","0.00128","0.00187","0.00374","UG_L","UG_L","","","","","","","","","",""
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C3-PFBS","13C3-PFBS","68.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","68.1","68.1","","","","","","50","150","","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C3-HFPO-DA","13C3-HFPO-DA","63.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","63.1","63.1","","","","","","50","150","","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C2-PFHxA","13C2-PFHxA","63.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","63.6","63.6","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C4-PFHpA","13C4-PFHpA","67.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","67.3","67.3","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C3-PFHxS","13C3-PFHxS","69.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.7","69.7","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C5-PFNA","13C5-PFNA","69.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.1","69.1","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C2-PFOA","13C2-PFOA","69.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.8","69.8","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C8-PFOS","13C8-PFOS","70.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.1","70.1","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C2-PFDA","13C2-PFDA","63.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","63.4","63.4","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","d3-MeFOSAA","d3-MeFOSAA","59.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","59.9","59.9","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C2-PFUnA","13C2-PFUnA","54.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","54.2","54.2","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","d5-EtFOSAA","d5-EtFOSAA","48.3","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","48.3","48.3","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C2-PFDoA","13C2-PFDoA","48.1","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","48.1","48.1","","","","","","50","150","
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"24-GW-09DGMW75R-20200618","537_MOD","07/02/20","13:56","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","40.7","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","40.7","40.7","","","","","","50","150","
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"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","375-73-5","PFBS","0.0110","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","307-24-4","PERFLUOROHXANOIC ACID (PFHXA)","0.0211","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","","","TRG","Yes","N","U","Y","0.00243","0.00302","0.00403","UG_L","UG_L","","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.00465","","TRG","Yes","Y","Q","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","355-46-4","PERFLUOROHXANESULFONIC ACID (PFHXS)","0.0291","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.0121","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.00192","","TRG","Yes","Y","J","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","1763-23-1","HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION","0.177","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","756426-58-1","9-CHLOROHEXADEC AFLUORO-3-OXANONE-1-SULFONIC ACID (9CI-PF3ONS)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","0.00155","","TRG","Yes","Y","J","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""
"24-GW-18PS8-20200618","537_MOD","07/02/20","14:17","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","",""

PFTeDA","44.7","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","100","44.7","44.7","","","","50","150","","*","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","375-73-5","PFBS","0.0145","","TRG","Yes","Y","","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","","","
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.0699","","TRG","Yes","Y","","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","","","TRG","Yes","N","U","Y","0.00236","0.00294","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0144","","TRG","Yes","Y","","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","0.356","","TRG","Yes","Y","","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.153","","TRG","Yes","Y","","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","1763-23-1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION","0.0553","","TRG","Yes","Y","","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","756426-58-1","9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","",""

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"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","763051-92-9","11-
CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-
PF3OUdS)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","","","","","","",""
","","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","","","","","","",""
","","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","72629-94-
8","PFTTrDA","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","","","","","","",""
","","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00134","0.00196","0.00392","UG_L","UG_L","","","","","","","","","","",""
","","","","","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C3-PFBS","13C3-
PFBS","70.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.7","70.7","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C3-HFPO-DA","13C3-HFPO-
DA","57.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","57.0","57.0","","","","","","50","150","",""
","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C2-PFHxA","13C2-
PFHxA","58.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","58.2","58.2","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C4-PFHpA","13C4-
PFHpA","59.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","59.5","59.5","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C3-PFHxS","13C3-
PFHxS","69.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.1","69.1","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C5-PFNA","13C5-
PFNA","59.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","59.7","59.7","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C2-PFOA","13C2-
PFOA","59.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","59.2","59.2","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C8-PFOS","13C8-
PFOS","68.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","68.0","68.0","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C2-PFDA","13C2-
PFDA","59.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","59.7","59.7","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","59.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","59.7","59.7","","","","","","50","150"
0","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C2-PFUnA","13C2-
PFUnA","52.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","52.6","52.6","","","","","","50","150",""
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","53.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","53.5","53.5","","","","","","50","150"
","","",""
"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C2-PFDoA","13C2-
PFDoA","54.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","54.0","54.0","","","","","","50","150",""
","","",""

"24-GW-08DGMW73-20200618","537_MOD","07/06/20","16:57","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","49.6","","IS","Yes","Y","H","Y","","","PCT_REC","","","100","49.6","49.6","","","50","150","","*","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","375-73-5","PFBS","0.107","","TRG","Yes","Y","","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.522","","TRG","Yes","Y","","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","","","TRG","Yes","N","U","Y","0.00212","0.00264","0.00352","UG_L","UG_L","","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0703","","TRG","Yes","Y","","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","1.16","","TRG","Yes","Y","","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.243","","TRG","Yes","Y","","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.00131","","TRG","Yes","Y","J,Q","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","1763-23-1","HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION","0.483","","TRG","Yes","Y","","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","756426-58-1","9-CHLOROHEXADEC AFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","",""

","","","","","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","763051-92-9","11-
CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-
PF3OUdS)","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","","",""
","","","","","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","","",""
","","","","","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","72629-94-
8","PFTTrDA","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","","",""
","","","","","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00121","0.00176","0.00352","UG_L","UG_L","","","","","","","","","","",""
","","","","","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C3-PFBS","13C3-
PFBS","69.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.6","69.6","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C3-HFPO-DA","13C3-HFPO-
DA","60.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","60.9","60.9","","","","","","50","150","",""
","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C2-PFHxA","13C2-
PFHxA","64.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.9","64.9","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C4-PFHpA","13C4-
PFHpA","68.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","68.8","68.8","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C3-PFHxS","13C3-
PFHxS","65.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","65.4","65.4","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C5-PFNA","13C5-
PFNA","73.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.8","73.8","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C2-PFOA","13C2-
PFOA","70.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.4","70.4","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C8-PFOS","13C8-
PFOS","73.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.2","73.2","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C2-PFDA","13C2-
PFDA","67.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","67.1","67.1","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","58.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","58.2","58.2","","","","","","50","15
0","","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C2-PFUnA","13C2-
PFUnA","53.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","53.4","53.4","","","","","","50","150",""
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","50.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","50.6","50.6","","","","","","50","150
","","",""
"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C2-PFDoA","13C2-
PFDoA","49.3","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","49.3","49.3","","","","","","50","150"
","","*","",""

"24-GW-18PS3A-20200618","537_MOD","07/02/20","14:38","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","41.1","","IS","Yes","Y","H","Y","","","PCT_REC","","","100","41.1","41.1","","","50","150","","*","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","375-73-5","PFBS","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","","","TRG","Yes","N","U","Y","0.00241","0.00300","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","1763-23-1","HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","756426-58-1","9-CHLOROHEXADEC AFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","763051-92-9","11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-PF3OUdS)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",""

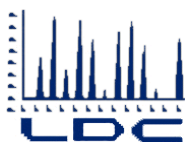
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"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","",""
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"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","72629-94-8","PFTTrDA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","",""
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"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","376-06-7","PFTeDA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","",""
","","","","","",""
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C3-PFBS","13C3-PFBS","69.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.3","69.3","","","","","","50","150","","
","","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C3-HFPO-DA","13C3-HFPO-DA","66.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","66.5","66.5","","","","","","50","150","","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C2-PFHxA","13C2-PFHxA","64.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.6","64.6","","","","","","50","150","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C4-PFHpA","13C4-PFHpA","70.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.6","70.6","","","","","","50","150","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C3-PFHxS","13C3-PFHxS","67.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","67.5","67.5","","","","","","50","150","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C5-PFNA","13C5-PFNA","68.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","68.3","68.3","","","","","","50","150","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C2-PFOA","13C2-PFOA","69.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.6","69.6","","","","","","50","150","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C8-PFOS","13C8-PFOS","74.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.5","74.5","","","","","","50","150","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C2-PFDA","13C2-PFDA","61.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","61.5","61.5","","","","","","50","150","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","d3-MeFOSAA","d3-MeFOSAA","51.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","51.7","51.7","","","","","","50","150","
0","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C2-PFUnA","13C2-PFUnA","50.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","50.1","50.1","","","","","","50","150","
","","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","d5-EtFOSAA","d5-EtFOSAA","49.0","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","49.0","49.0","","","","","","50","150","
50","","+","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C2-PFDoA","13C2-PFDoA","46.4","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","46.4","46.4","","","","","","50","150","
","+","
"B0F0205-BLK1","537_MOD","07/02/20","12:14","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","39.0","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","39.0","39.0","","","","","","50","150","
0","+","
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","375-73-5","PFBS","0.0484","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.

0484","121","","","72","130","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID
(PFHXA)","0.0504","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.
0504","126","","","72","129","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE
OXIDE DIMER ACID (HFPO-
DA)","0.0481","","TRG","Yes","Y","","Y","0.00241","0.00300","0.00400","UG_L","UG_L","","","0.0400","0.0481
","120","","","70","130","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID
(PFHPA)","0.0442","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.
0442","110","","","72","130","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","919005-14-4","4,8-DIOXA-3H-
PERFLUORONONANOIC ACID
(ADONA)","0.0416","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.
.0416","104","","","70","130","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC
ACID
(PFHXS)","0.0467","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.
0467","117","","","68","131","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","0.0477","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.0
477","119","","","71","133","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","0.0459","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.0
459","115","","","69","130","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","1763-23-
1","HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION
","0.0451","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.0451","11
3","","","65","140","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","756426-58-1","9-
CHLOROHEXADEC AFLUORO-3-OXANONE-1-SULFONIC ACID (9CI-
PF3ONS)","0.0429","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.
0429","107","","","70","130","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","0.0475","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.0
475","119","","","71","129","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","2355-31-
9","MeFOSAA","0.0455","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.040
0","0.0455","114","","","65","136","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","2991-50-
6","EtFOSAA","0.0450","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400
","0.0450","112","","","61","135","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID
(PFUNA)","0.0452","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.
0452","113","","","69","133","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","763051-92-9","11-CHLOROEICOSAFLUORO-3-
OXAUNDECANE-1-SULFONIC ACID (11CI-
PF3OUdS)","0.0469","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400",""
0.0469","117","","","70","130","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID
(PFDOA)","0.0487","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.
0487","122","","","72","134","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","72629-94-
8","PFTTrDA","0.0426","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400",

"0.0426","107","","","","65","144","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","376-06-7","PFTeDA","0.0518","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.0518","130","","","71","132","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C3-PFBS","13C3-PFBS","63.8","","IS","Yes","Y","","Y","","","PCT_REC","","","100","63.8","63.8","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C3-HFPO-DA","13C3-HFPO-DA","55.5","","IS","Yes","Y","","Y","","","PCT_REC","","","100","55.5","55.5","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C2-PFHxA","13C2-PFHxA","58.2","","IS","Yes","Y","","Y","","","PCT_REC","","","100","58.2","58.2","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C4-PFHpA","13C4-PFHpA","63.8","","IS","Yes","Y","","Y","","","PCT_REC","","","100","63.8","63.8","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C3-PFHxS","13C3-PFHxS","59.6","","IS","Yes","Y","","Y","","","PCT_REC","","","100","59.6","59.6","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C5-PFNA","13C5-PFNA","59.2","","IS","Yes","Y","","Y","","","PCT_REC","","","100","59.2","59.2","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C2-PFOA","13C2-PFOA","61.1","","IS","Yes","Y","","Y","","","PCT_REC","","","100","61.1","61.1","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C8-PFOS","13C8-PFOS","63.0","","IS","Yes","Y","","Y","","","PCT_REC","","","100","63.0","63.0","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C2-PFDA","13C2-PFDA","57.3","","IS","Yes","Y","","Y","","","PCT_REC","","","100","57.3","57.3","","","50","150","","",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","d3-MeFOSAA","d3-MeFOSAA","48.2","","IS","Yes","Y","H","Y","","","PCT_REC","","","100","48.2","48.2","","","50","150","","","+",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C2-PFUnA","13C2-PFUnA","46.2","","IS","Yes","Y","H","Y","","","PCT_REC","","","100","46.2","46.2","","","50","150","","","+",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","d5-EtFOSAA","d5-EtFOSAA","45.4","","IS","Yes","Y","H","Y","","","PCT_REC","","","100","45.4","45.4","","","50","150","","","+",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C2-PFDoA","13C2-PFDoA","45.5","","IS","Yes","Y","H","Y","","","PCT_REC","","","100","45.5","45.5","","","50","150","","","+",""
"B0F0205-BS1","537_MOD","07/02/20","12:24","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","44.7","","IS","Yes","Y","H","Y","","","PCT_REC","","","100","44.7","44.7","","","50","150","","","+",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","375-73-5","PFBS","0.0465","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.0465","116","","","4.08","72","130","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","307-24-4","PERFLUOROHXANOIC ACID (PFHXA)","0.0486","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","0.0400","0.0486","122","","","3.66","72","129","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-

DA)","0.0491","","TRG","Yes","Y","","Y","0.00241","0.00300","0.00400","UG_L","UG_L","","","","0.0400","0.0491
","123","","","","","2.00","70","130","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID
(PFHPA)","0.0455","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.
0455","114","","","","","3.01","72","130","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","919005-14-4","4,8-DIOXA-3H-
PERFLUORONONANOIC ACID
(ADONA)","0.0478","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0
.0478","119","","","","","13.7","70","130","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","355-46-4","PERFLUOROHXANESULFONIC
ACID
(PFHXS)","0.0437","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.
0437","109","","","","","6.69","68","131","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","0.0487","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0
487","122","","","","","2.15","71","133","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","0.0427","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0
427","107","","","","","7.30","69","130","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","1763-23-
1","HEPTADEC AFLUOROACTANESULFONIC ACID SOLUTION
","0.0445","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0445","11
1","","","","","1.34","65","140","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","756426-58-1","9-
CHLOROHEXADEC AFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-
PF3ONS)","0.0464","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.
0464","116","","","","","7.87","70","130","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","0.0514","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0
514","129","","","","","7.83","71","129","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","2355-31-
9","MeFOSAA","0.0421","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.040
0","0.0421","105","","","","","7.86","65","136","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","2991-50-
6","EtFOSAA","0.0467","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400
","0.0467","117","","","","","3.66","61","135","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC
ACID
(PFUNA)","0.0431","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.
0431","108","","","","","4.84","69","133","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","763051-92-9","11-CHLOROEICOSAFLUORO-
3-OXAUNDECANE-1-SULFONIC ACID (11Cl-
PF3OUdS)","0.0410","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400",""
0.0410","102","","","","","13.5","70","130","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID
(PFDOA)","0.0442","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.
0442","110","","","","","9.63","72","134","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","72629-94-
8","PFTTrDA","0.0410","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400",
,"0.0410","102","","","","","4.01","65","144","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","376-06-
7","PFTeDA","0.0465","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400",
,"0.0465","116","","","","","10.8","71","132","","","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C3-PFBS","13C3-

PFBS","66.1","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","66.1","66.1","","","","","50","150","","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C3-HFPO-DA","13C3-HFPO-
DA","57.3","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","57.3","57.3","","","","","50","150","","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C2-PFHxA","13C2-
PFHxA","60.6","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","60.6","60.6","","","","","50","150","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C4-PFHpA","13C4-
PFHpA","66.2","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","66.2","66.2","","","","","50","150","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C3-PFHxS","13C3-
PFHxS","66.4","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","66.4","66.4","","","","","50","150","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C5-PFNA","13C5-
PFNA","67.8","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","67.8","67.8","","","","","50","150","","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C2-PFOA","13C2-
PFOA","61.5","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","61.5","61.5","","","","","50","150","","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C8-PFOS","13C8-
PFOS","64.0","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","64.0","64.0","","","","","50","150","","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C2-PFDA","13C2-
PFDA","56.0","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","56.0","56.0","","","","","50","150","","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","48.3","","","IS","Yes","Y","H","Y","","","PCT_REC","","","","","100","48.3","48.3","","","","","50","150",
150","","","+",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C2-PFUnA","13C2-
PFUnA","51.3","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","51.3","51.3","","","","","50","150","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","41.7","","","IS","Yes","Y","H","Y","","","PCT_REC","","","","","100","41.7","41.7","","","","","50","150",
50","","","+",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C2-PFDoA","13C2-
PFDoA","50.3","","","IS","Yes","Y","","Y","","","PCT_REC","","","","","100","50.3","50.3","","","","","50","150","",
","",""
"B0F0205-BSD1","537_MOD","07/02/20","12:35","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","48.8","","","IS","Yes","Y","H","Y","","","PCT_REC","","","","","100","48.8","48.8","","","","","50","150",
0","","","+",""



LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Wood Environment & Infrastructure Solutions, Inc.
7376 SW Durham Road
Portland, OR 97224
Attn: Ms. Kimberly Shiroadi
Kimberly.Shiroadi@woodplc.com

July 30, 2020

SUBJECT: Revised MCAS El Toro & Tustin PFAs, Data Validation

Dear Ms. Shiroadi,

Enclosed are the revised validation reports for the fraction listed below. These SDGs were received on July 14, 2020. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #48600 RV1:

SDG #

Fraction

2001315, 2001358

Perfluoroalkyl & Polyfluoroalkyl Substances

The data validation was performed under Stage 4 guidelines. The analyses were validated using the following documents, as applicable to each method:

- Final Sampling and Analysis Plan, Field Sampling Plan and Quality Assurance Project Plan for Initial Basewide Assessment of Perfluorinated Compounds or Per- and Polyfluoroalkyl Substances in Groundwater, Former Marine Corps Air Station El Toro, Irvine, California; June 2017
- Field Change Request Form No. FCRF-2405-008-01-0066; January 2020
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.3, 2019
- DoD General Validation Guidelines, November 2019

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

Sincerely,

Pei Geng
Pgeng@lab-data.com
Project Manager/Senior Chemist

MMEC-2405-0008-0085

LDC Report# 48600A96_RV1

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS El Toro and Tustin PFAS
LDC Report Date: July 30, 2020
Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances
Validation Level: Stage 4
Laboratory: Vista Analytical Laboratory
Sample Delivery Group (SDG): 2001315

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
24-GW-15DBMW51-20200618	2001315-03	Water	06/18/20
24-GW-24NEW8-20200618	2001315-04	Water	06/18/20
24-GW-09DGMW75R-20200618	2001315-05	Water	06/18/20
24-GW-24NEW4-20200618	2001315-06	Water	06/18/20
24-GW-18PS8-20200618	2001315-07	Water	06/18/20
24-GW-08DGMW73-20200618	2001315-08	Water	06/18/20
24-GW-18PS3A-20200618	2001315-09	Water	06/18/20

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) for Initial Basewide Assessment of Perfluorinated Compounds or Per- and Polyfluoroalkyl Substances in Groundwater, Former Marine Corps Air Station El Toro, Irvine, California (June 2017), Field Change Request Form No. FCRF-2405-0008-01-0066 (January 2020), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.3 (2019), and the DoD General Validation Guidelines (November 2019). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

All sample results were subjected to Stage 4 data validation, which is comprised of the quality control (QC) summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked and the requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

For each calibration standard, all compounds were within 70-130% of their true value.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

Retention time windows were established as required by the methods.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

IV. Continuing Calibration and Instrument Sensitivity Check

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

The percent differences (%D) of the instrument sensitivity check (ISC) were less than or equal to 30.0% for all compounds.

Retention times of all compounds in the calibration standards were within the established retention time windows.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

Sample EB01-20200618 was identified as an equipment blank. No contaminants were found.

Sample SB01-20200618 was identified as a source blank. No contaminants were found.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Labeled Compounds

All percent recoveries (%R) for labeled compounds used to quantitate target compounds were within QC limits with the following exceptions:

Sample	Labeled Compound	%R (Limits)	Affected Compound	Flag	A or P
24-GW-24NEW8-20200618	13C2-PFTeDA	44.3 (50-150)	Perfluorotetradecanoic acid (PFTeDA)	NA	-
24-GW-09DGMW75R-20200618	d5-EtFOSAA 13C2-PFDoA 13C2-PFTeDA	48.3 (50-150) 48.1 (50-150) 40.7 (50-150)	N-Ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA) Perfluorododecanoic acid (PFDoA) 11-Chloroeicosafuoro-3-Oxaundecane-1-sulfonic acid (11CL-PF3OUdS) Perfluorotridecanoic acid (PFTriDA) Perfluorotetradecanoic acid (PFTeDA)	NA	-
24-GW-24NEW4-20200618	d3-MeFOSAA 13C2-PFTeDA	49.6 (50-150) 49.1 (50-150)	N-Methylperfluorooctanesulfonamidoacetic acid (MeFOSAA) Perfluorotetradecanoic acid (PFTeDA)	NA	-
24-GW-18PS8-20200618	13C2-PFTeDA	44.7 (50-150)	Perfluorotetradecanoic acid (PFTeDA)	NA	-
24-GW-08DGMW73-20200618	13C2-PFTeDA	49.6 (50-150)	Perfluorotetradecanoic acid (PFTeDA)	NA	-
24-GW-18PS3A-20200618	13C2-PFDoA 13C2-PFTeDA	49.3 (50-150) 41.1 (50-150)	Perfluorododecanoic acid (PFDoA) 11-Chloroeicosafuoro-3-Oxaundecane-1-sulfonic acid (11CL-PF3OUdS) Perfluorotridecanoic acid (PFTriDA) Perfluorotetradecanoic acid (PFTeDA)	NA	-

XI. Compound Quantitation

All compound quantitations met validation criteria.

XII. Target Compound Identifications

All target compound identifications met validation criteria with the following exceptions:

Sample	Compound	Ion Abundance Ratio (Limits)	Flag	A or P
24-GW-15DBMW51-20200618	Perfluorodecanoic acid (PFDA)	8.904 (2.393-7.179)	J (all detects)	P
24-GW-18PSB-20200618	Perfluoroheptanoic acid (PFHpA)	400.117 (29.461-88.383)	J (all detects)	P
24-GW-18PS3A-20200618	Perfluorononanoic acid (PFNA)	28.350 (6.705-20.115)	J (all detects)	P

XIII. System Performance

The system performance was acceptable.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to ion abundance ratio, data were qualified as estimated in three samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

**MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Data Qualification Summary - SDG
2001315**

Sample	Compound	Flag	A or P	Reason
24-GW-15DBMW51-20200618	Perfluorodecanoic acid (PFDA)	J (all detects)	P	Target compound identification (ion abundance ratio)
24-GW-18PS8-20200618	Perfluoroheptanoic acid (PFHpA)	J (all detects)	P	Target compound identification (ion abundance ratio)
24-GW-18PS3A-20200618	Perfluorononanoic acid (PFNA)	J (all detects)	P	Target compound identification (ion abundance ratio)

**MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification
Summary - SDG 2001315**

No Sample Data Qualified in this SDG

**MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification
Summary - SDG 2001315**

No Sample Data Qualified in this SDG

LDC #: 48600A96 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: 2001315 Stage 4

Laboratory: Vista Analytical Laboratory

Date: 7/18/20

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer:

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M/QSM 5.3 Table B-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A, A	RSB = 20, 12 TV/Q = 30
IV.	Continuing calibration/ISC	A, A	b = 30
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	SB01-20200618 EB01-20200618
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LOQ/D
IX.	Field duplicates	N	
X.	Labeled Compounds	SW	
VI.	Compound quantitation RL/LOQ/LODs	A	
XII.	Target compound identification	SW	
XIII.	System performance	A	
XIV.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

SB=Source blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1	24-GW-15B DMW51-20200618	2001315-03	Water	06/18/20
2	24-GW-24NEW8-20200618	2001315-04	Water	06/18/20
3	24-GW-09DGMW75R-20200618	2001315-05	Water	06/18/20
4	24-GW-24NEW4-20200618	2001315-06	Water	06/18/20
5	24-GW-18PS8-20200618	2001315-07	Water	06/18/20
6	24-GW-08DGMW73-20200618	2001315-08	Water	06/18/20
7	24-GW-18PS3A-20200618	2001315-09	Water	06/18/20
8				
9				
10				

Notes:

BOF0205				

LDC #: 4600A 9b

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: n
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	/			
Were cooler temperature criteria met?	/			
II. LC/MS Instrument performance check				
Were the instrument performance reviewed and found to be within the validation criteria?	/			
III. Initial calibration and initial calibration verification				
Did the laboratory perform a 5-point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) $\leq$ 20%?	/			
Was a curve fit used for evaluation? If yes, did the initial calibration meet the coefficient of determination (r^2) criteria of $\geq$ 0.990?	/			
Were all analytes within 70-130% or percent differences (%D) $\leq$ 30% of their true value for each calibration standard?	/			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	/			
Were the retention time windows properly established?	/			
Was an initial calibration verification (ICV) standard analyzed after each initial calibration for each instrument?	/			
Were all ICV percent differences (%D) of the initial calibration verification $\leq$ 30%?	/			
IV. Continuing calibration and instrument sensitivity check				
Was a continuing calibration analyzed prior to sample analysis, after every 10 samples and at the end of the analytical sequence?	/			
Were all percent differences (%D) of the continuing calibration $\leq$ 30%?	/			
Were all the retention times within the acceptance windows?	/			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	/			
Were all percent differences (%D) of the Instrument Sensitivity Check $\leq$ 30%?	/			
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	/			
Was a laboratory blank analyzed for each matrix and concentration?	/			
Was there contamination in the laboratory blanks?		/		
VI. Field blanks				
Were field blanks identified in this SDG?	/			
Were target compounds detected in the field blanks?		/		

LDC #: 4600A96

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: R
2nd Reviewer: _____

Validation Area	Yes	No	NA	Findings/Comments
VII. Matrix spike/Matrix spike duplicates				
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?		/		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			/	
VIII. Laboratory control samples				
Was an LCS analyzed per extraction batch for this SDG?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
IX. Field duplicates				
Were field duplicate pairs identified in this SDG?		/		
Were target compounds detected in the field duplicates?			/	
X. Labeled compounds				
Were labeled compound percent recoveries (%R) within the QC limits?		/		
Were retention times within 0.4 minutes of the associated calibration standard?	/			
XI. Compound quantitation				
Did the laboratory reporting limits (i.e. DL, LOD, LOQ) meet the QAPP?	/			
Did reported results include both branched and linear isomers?	/			
Were the correct ion transition, labeled compound and relative response factor (RRF) used to quantitate the compound?	/			
Were compound retention times within 0.1 minutes of the associated labeled compound for compounds with a labeled analog?	/			
Were compound quantitation and reporting limits adjusted to reflect all sample dilutions and dry weight factors applicable to Stage 4 validation?	/			
XII. Target compound identification				
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	/			
Were two transitions and the ion transition ratio per analyte monitored and documented with the exception of PFBA and PFPeA?	/			
Were ion ratios between 50-150%?		/		
XIII. System performance				
System performance was found to be acceptable.	/			
XIV. Overall assessment of Data				
Overall assessment of data was found to be acceptable.	/			

METHOD: PFAS

[illegible]

MMEC-2405-0008-0085

VALIDATION FINDINGS WORKSHEET

Labeled Compounds

Page: 1 of 1
Reviewer: NY
2nd Reviewer:

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y ☒ N ☐ N/A Were all labeled compound recoveries within the QC criteria?

#	Date	Lab ID/Reference	Labeled Compound	% Recovery (Limit)	Qualifications
		B0FD0205-BLK1	EFOS	49.0	(50-150)
			DDA	46.4	
			TDA	39.0	
		2 (ND)	TDA	44.3	(I)
		3 (ND)	EFOS	48.3	(K)
			DDA	48.1	(G, 9H)
			TDA	40.7	
		4 (ND)	MF09	49.6	(J)
			TDA	49.1	
		5 (ND)	TDA	44.7	
		6 ↓	↓	49.6	
		7 ↓	DDA	49.3	
			TDA	41.1	

BS = 13C3-PFBS HXS = 13C3-PFHxS OS = 13C8-PFOS TDA = 13C2-PFTeDA EFOS = d5-EtFOSAA
HXA = 13C2-PFHxA NA = 13C5-PFNA DA = 13C2-PFDA DDA = 13C2-PFDoA
HPA = 13C4-PFHpA OA = 13C2-PFOA UDA = 13C2-PFUnA MFOS = d3-MeFOSAA

Page: 1 of 1
Reviewer: A
2nd Reviewer: _____

Y	N	N/A	Was the signal to noise (S/N) ratio for all compounds within the validation criteria?
Y	N	N/A	Were two transitions and the ion transition ratio per analyte monitored and documented with the exception of PFBA and PFPeA?
Y	N	N/A	Were ion ratios within QC limits and between 50-150%?

[illegible]

LDC # 48600A96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 2
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Calibration Date	Instrument	Compound	Standard	(Y) Response ratio	(X) Conc. Ratio	(X^2) Conc. Ratio
7/2/2020	SCN977	PFOA	1	0.0228	0.02	0.00040
			2	0.0500	0.04	0.0016
			3	0.0861	0.08	0.0064
			4	0.1895	0.16	0.0256
			5	0.4613	0.40	0.1600
			6	0.9003	0.80	0.6400
			7	4.4574	4.00	16.0000
			8	8.7616	8.00	64.0000
			9	21.6651	20.00	400.0000
			10	43.3424	40.00	1600.0000

Regression Output	Calculated		Reported	
Constant	c	0.02693	c	0.0278768
Std Err of Y Est				
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.09040	-0.0001803	1.10119	-0.000039346
Std Err of Coef.				
Correlation Coefficient		0.999996		
Coefficient of Determination (r^2)		0.999992		0.999173

LDC # 48680A96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 2 of 2
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Calibration Date	Instrument	Compound	Standard	(Y) Response ratio	(X) Conc. Ratio	(X^2) Conc. Ratio
7/6/2020	SCN977	PFOS	1	0.0340	0.02	0.00040
			2	0.0461	0.04	0.0016
			3	0.0944	0.08	0.0064
			4	0.1962	0.16	0.0256
			5	0.5120	0.40	0.1600
			6	1.0234	0.80	0.6400
			7	4.9413	4.00	16.0000
			8	9.7209	8.00	64.0000
			9	25.0818	20.00	400.0000
			10	50.0016	40.00	1600.0000

Regression Output	Calculated		Reported	
Constant	c	-0.01463	c	0.0340096
Std Err of Y Est				
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.24196	0.0002202	1.23386	0.0000359750
Std Err of Coef.				
Correlation Coefficient		0.999988		
Coefficient of Determination (r^2)		0.999976		0.999886

LDC # 4200A96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 2
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Calibration Date	Instrument	Compound	Standard	(Y) Response ratio	(X) Conc. Ratio	(X^2) Conc. Ratio
7/6/2020	SCN977	PFOA	1	0.0283	0.02	0.00040
			2	0.0513	0.04	0.0016
			3	0.0937	0.08	0.0064
			4	0.1952	0.16	0.0256
			5	0.4739	0.40	0.1600
			6	0.8828	0.80	0.6400
			7	4.5622	4.00	16.0000
			8	9.3191	8.00	64.0000
			9	20.7411	20.00	400.0000
			10	41.4806	40.00	1600.0000

Regression Output	Calculated		Reported	
Constant	c	0.09230	c	0.0543225
Std Err of Y Est				
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.09128	-0.0014190	1.13013	-0.000202972
Std Err of Coef.				
Correlation Coefficient		0.999825		
Coefficient of Determination (r^2)		0.999651		0.999173

LDC # 48600196

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 2 of 2
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Calibration Date	Instrument	Compound	Standard	(Y) Response ratio	(X) Conc. Ratio	(X ²) Conc. Ratio
7/6/2020	SCN977	PFOS	1	0.0184	0.02	0.00040
			2	0.0397	0.04	0.0016
			3	0.0806	0.08	0.0064
			4	0.1980	0.16	0.0256
			5	0.4633	0.40	0.1600
			6	1.0057	0.80	0.6400
			7	4.8637	4.00	16.0000
			8	10.3716	8.00	64.0000
			9	24.6679	20.00	400.0000
			10	47.3616	40.00	1600.0000

Regression Output	Calculated		Reported	
Constant	c	-0.03049	c	-0.0944633
Std Err of Y Est				
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.28839	-0.0026132	1.27905	-0.0001870130
Std Err of Coef.				
Correlation Coefficient		0.999980		
Coefficient of Determination (r ²)		0.999959		0.999703

LDC # 4600196

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{aveRRF} - \text{RRF}) / \text{aveRRF}$$

$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

aveRRF = initial calib average RRF

RRF = continuing calib RRF

Ax = Area of compound

Cx = Concentration of compound,

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Conc	Reported Conc	Recalculated Conc	Reported %R	Recalculated %R
1			PFOA (13C2-PFOA)	<i>see 1</i>	<i>OK</i>			
			PFOS (13C8-PFOS)					
2			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					
3			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					
4			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					
5			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					
6			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					

LDC #: 48600A96

VALIDATION FINDINGS WORKSHEET
LCS Results Verification

Page: 1 of 1
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control duplicate were recalculated for the compounds identified below using the following calculation:

$SSC = (\text{Area spike}) (\text{Conc IS}) / (\text{Area IS}) (\text{average RRF spike})$

$\% \text{Recovery} = 100 * SSC / SA$

Where:

SSC = Spiked concentration

SA = Spike added

LCS = Laboratory control spike recovery

LCSD = Laboratory control spike duplicate recovery

$RPD = |LCS - LCSD| * 2 / (LCS + LCSD)$

LCS/LCSD ID: B0F0205-BS/D

Compound	SA (ug/L)		SSC (ug/L)		LCS		LCSD		LCS/LCSD	
					Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	0.0400	0.0400	0.0477	0.0487	119	119	122	122	2.15	2.07
PFBS	0.0400	0.0400	0.0451	0.0445	113	113	111	111	1.34	1.34

LDC # 460019

VALIDATION FINDINGS WORKSHEET
Sample Results Verification

Page: 1 of 1
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Compound results for all Level IV samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(\text{Ax}) (\text{Vo}) (\text{Df})}{(\text{RRF}) (\text{Wt}) (\%S)}$$

Where:

Ax = Area or height of the peak for the compound to be measured

Ais = Area or height of the peak for the internal standard

Cis = Concentration of the internal standard

DF = Dilution factor

Vt = Volume of extract in milliliters (mL)

RRF = Average relative response factor

Vo = Volume of sample in milliliters (mL)

Sample #	Compound	Ax	Ais	Cis	DF	RRF	Vt (mL)	Vo (mL)	Calculated Concentration (ug/L)	Reported Concentration (ug/L)	% Diff
1	PFOS	5.657E+02	1.849E+03	12.5	1	curve	1	257.58	0.0119	0.0119	0

LDC Report# 48600B96

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS El Toro and Tustin PFAS
LDC Report Date: July 29, 2020
Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances
Validation Level: Stage 4
Laboratory: Vista Analytical Laboratory
Sample Delivery Group (SDG): 2001358

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
24-GW-24MW06-20200624	2001358-02	Water	06/24/20
DUP01-20200624	2001358-03	Water	06/24/20
24-GW-24MW10D-20200624	2001358-04	Water	06/24/20
DUP02-20200624	2001358-05	Water	06/24/20
24-GW-24MW10C-20200624	2001358-06	Water	06/24/20
24GW-24MW07R-20200624	2001358-07	Water	06/24/20
24-GW-24MW10C-20200624MS	2001358-06MS	Water	06/24/20
24-GW-24MW10C-20200624MSD	2001358-06MSD	Water	06/24/20

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) for Initial Basewide Assessment of Perfluorinated Compounds or Per- and Polyfluoroalkyl Substances in Groundwater, Former Marine Corps Air Station El Toro, Irvine, California (June 2017), Field Change Request Form No. FCRF-2405-0008-01-0066 (January 2020), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.3 (2019), and the DoD General Validation Guidelines (February 2018). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) by Environmental Protection Agency (EPA) Method 537 Modified and LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

All sample results were subjected to Stage 4 data validation, which is comprised of the quality control (QC) summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UU (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked and the requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the methods.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

For each calibration standard, all compounds were within 70-130% of their true value.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

Retention time windows were established as required by the methods.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

IV. Continuing Calibration and Instrument Sensitivity Check

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

The percent differences (%D) of the instrument sensitivity check (ISC) were less than or equal to 30.0% for all compounds.

Retention times of all compounds in the calibration standards were within the established retention time windows.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

VI. Field Blanks

Sample EB01-20200624 was identified as an equipment blank. No contaminants were found.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

IX. Field Duplicates

Samples 24-GW-24MW06-20200624 and DUP01-20200624 and samples 24-GW-24MW10D-20200624 and DUP02-20200624 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ng/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
	24-GW-24MW06-20200624	DUP01-20200624				
Perfluorohexanoic acid (PFHxA)	0.00517	0.00538	-	0.00021 (≤0.00380)	-	-
Perfluorohexanesulfonic acid (PFHxS)	0.00959	0.00980	-	0.00021 (≤0.00380)	-	-
Perfluorooctanoic acid (PFOA)	0.00360	0.00385	-	0.00025 (≤0.00380)	-	-
Perfluorooctanesulfonic acid (PFOS)	0.00199	0.00176	-	0.00023 (≤0.00380)	-	-
N-Ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA)	0.00192	0.00190U	-	0.00002 (≤0.00380)	-	-

Compound	Concentration (ng/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
	24-GW-24MW10D-20200624	DUP02-20200624				
Perfluorohexanoic acid (PFHxA)	0.00488	0.00539	-	0.00051 (≤0.00391)	-	-
N-Ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA)	0.00154	0.00283	-	0.00002 (≤0.00391)	-	-

X. Labeled Compounds

All percent recoveries (%R) for labeled compounds used to quantitate target compounds were within QC limits.

XI. Compound Quantitation

All compound quantitations met validation criteria.

XII. Target Compound Identifications

All target compound identifications met validation criteria with the following exceptions:

Sample	Compound	Ion Abundance Ratio (Limits)	Flag	A or P
24-GW-24MW10C-20200624	Perfluorooctanesulfonic acid (PFOS)	4.052 (1.299-3.897)	J (all detects)	P

XIII. System Performance

The system performance was acceptable.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the methods. No results were rejected in this SDG.

Due to ion abundance ratio, data were qualified as estimated in one sample.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

**MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Data Qualification Summary - SDG
2001358**

Sample	Compound	Flag	A or P	Reason
24-GW-24MW10C-20200624	Perfluorooctanesulfonic acid (PFOS)	J (all detects)	P	Target compound identification (ion abundance ratio)

**MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification
Summary - SDG 2001358**

No Sample Data Qualified in this SDG

**MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification
Summary - SDG 2001358**

No Sample Data Qualified in this SDG

LDC #: 48600B96 **VALIDATION COMPLETENESS WORKSHEET**

SDG #: 2001358 Stage 4

Laboratory: Vista Analytical Laboratory

Date: 7/8/20

Page: 1 of 1

Reviewer: RL

2nd Reviewer:

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M/QSM 5.3 Table B-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	RCV ≤ 20, 12 TV/ICV ≤ 30
IV.	Continuing calibration/ISC	A/A	D ≤ 30
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	EB02-20200624
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LOS/D
IX.	Field duplicates	SW	D = 1+2, 3+4
X.	Labeled Compounds	A	
VI.	Compound quantitation RL/LOQ/LODs	A	
XII.	Target compound identification	SW	
XIII.	System performance	A	
XIV.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

SB=Source blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1	24-GW-24MW06-20200624	2001358-02	Water	06/27/20
2	DUP01-20200624	2001358-03	Water	06/27/20
3	24-GW-24MW10D-20200624	2001358-04	Water	06/27/20
4	DUP02-20200624	2001358-05	Water	06/27/20
5	24-GW-24MW10C-20200624	2001358-06	Water	06/27/20
6	24GW-24MW07R-20200624	2001358-07	Water	06/27/20
7	24-GW-24MW10C-20200624MS	2001358-06MS	Water	06/27/20
8	24-GW-24MW10C-20200624MSD	2001358-06MSD	Water	06/27/20
9				
10				

Notes:

BOF0257						

LDC #: 48600296

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: n
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	/			
Were cooler temperature criteria met?	/			
II. LC/MS Instrument performance check				
Were the instrument performance reviewed and found to be within the validation criteria?	/			
III. Initial calibration and Initial calibration verification				
Did the laboratory perform a 5-point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) $\leq 20\%$?	/			
Was a curve fit used for evaluation? If yes, did the initial calibration meet the coefficient of determination (r^2) criteria of ≥ 0.990 ?	/			
Were all analytes within 70-130% or percent differences (%D) $\leq 30\%$ of their true value for each calibration standard?	/			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	/			
Were the retention time windows properly established?	/			
Was an initial calibration verification (ICV) standard analyzed after each initial calibration for each instrument?	/			
Were all ICV percent differences (%D) of the initial calibration verification $\leq 30\%$?	/			
IV. Continuing calibration and Instrument sensitivity check				
Was a continuing calibration analyzed prior to sample analysis, after every 10 samples and at the end of the analytical sequence?	/			
Were all percent differences (%D) of the continuing calibration $\leq 30\%$?	/			
Were all the retention times within the acceptance windows?	/			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	/			
Were all percent differences (%D) of the Instrument Sensitivity Check $\leq 30\%$?	/			
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	/			
Was a laboratory blank analyzed for each matrix and concentration?	/			
Was there contamination in the laboratory blanks?		/		
VI. Field blanks				
Were field blanks identified in this SDG?	/			
Were target compounds detected in the field blanks?		/		

LDC #: 49600896

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: R
2nd Reviewer: _____

Validation Area	Yes	No	NA	Findings/Comments
VII. Matrix spike/Matrix spike duplicates				
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?	☒	☐	☐	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	☒	☐	☐	
VIII. Laboratory control samples				
Was an LCS analyzed per extraction batch for this SDG?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Field duplicates				
Were field duplicate pairs identified in this SDG?	☒	☐	☐	
Were target compounds detected in the field duplicates?	☒	☐	☐	
X. Labeled compounds				
Were labeled compound percent recoveries (%R) within the QC limits?	☒	☐	☐	
Were retention times within 0.4 minutes of the associated calibration standard?	☒	☐	☐	
XI. Compound quantitation				
Did the laboratory reporting limits (i.e. DL, LOD, LOQ) meet the QAPP?	☒	☐	☐	
Did reported results include both branched and linear isomers?	☒	☐	☐	
Were the correct ion transition, labeled compound and relative response factor (RRF) used to quantitate the compound?	☒	☐	☐	
Were compound retention times within 0.1 minutes of the associated labeled compound for compounds with a labeled analog?	☒	☐	☐	
Were compound quantitation and reporting limits adjusted to reflect all sample dilutions and dry weight factors applicable to Stage 4 validation?	☒	☐	☐	
XII. Target compound identification				
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	☒	☐	☐	
Were two transitions and the ion transition ratio per analyte monitored and documented with the exception of PFBA and PFPeA?	☒	☐	☐	
Were ion ratios between 50-150%?	☐	☒	☐	
XIII. System performance				
System performance was found to be acceptable.	☒	☐	☐	
XIV. Overall assessment of Data				
Overall assessment of data was found to be acceptable.	☒	☐	☐	

METHOD: PFAS

[illegible]

MMEC-2405-0008-0085

LDC #: 48600B96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DOD QSM 5.3

Compound	Concentration (ng/L)		RPD (≤30)	Difference <5x LOQ	Limits <LOQ	Qualification
	1	2				
A	0.00517	0.00538		0.00021	0.00380	
M	0.00959	0.00980		0.00021	0.00380	
C	0.00360	0.00385		0.00025	0.00380	
N	0.00199	0.00176		0.00023	0.00380	
K	0.00192	0.00190U		0.00002	0.00380	

Compound	Concentration (ng/L)		RPD (≤30)	Difference <5x LOQ	LOQ	Qualification
	3	4				
A	0.00488	0.00539		0.00051	0.00391	
K	0.00154	0.00283		0.00002	0.00391	

VALIDATION FINDINGS WORKSHEET

Target Compound Identification

Page: 1 of 1
Reviewer: nc
2nd Reviewer: _____

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

☒ N	N/A	Was the signal to noise (S/N) ratio for all compounds within the validation criteria?
☒ N	N/A	Were two transitions and the ion transition ratio per analyte monitored and documented with the exception of PFBA and PFPeA?
☒ Y	N/A	Were ion ratios within QC limits and between 50-150%?

[illegible]

LDC # 48600396

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 2
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Calibration Date	Instrument	Compound	Standard	(Y) Response ratio	(X) Conc. Ratio	(X^2) Conc. Ratio
7/6/2020	SCN977	PFOA	1	0.0283	0.02	0.00040
			2	0.0513	0.04	0.0016
			3	0.0937	0.08	0.0064
			4	0.1952	0.16	0.0256
			5	0.4739	0.40	0.1600
			6	0.8828	0.80	0.6400
			7	4.5622	4.00	16.0000
			8	9.3191	8.00	64.0000
			9	20.7411	20.00	400.0000
			10	41.4806	40.00	1600.0000

Regression Output	Calculated		Reported	
Constant	c	0.09230	c	0.0543225
Std Err of Y Est				
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.09128	-0.0014190	1.13013	-0.000202972
Std Err of Coef.				
Correlation Coefficient		0.999825		
Coefficient of Determination (r^2)		0.999651		0.999173

LDC # 48600396

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 2 of 2
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Calibration Date	Instrument	Compound	Standard	(Y) Response ratio	(X) Conc. Ratio	(X ²) Conc. Ratio
7/6/2020	SCN977	PFOS	1	0.0184	0.02	0.00040
			2	0.0397	0.04	0.0016
			3	0.0806	0.08	0.0064
			4	0.1980	0.16	0.0256
			5	0.4633	0.40	0.1600
			6	1.0057	0.80	0.6400
			7	4.8637	4.00	16.0000
			8	10.3716	8.00	64.0000
			9	24.6679	20.00	400.0000
			10	47.3616	40.00	1600.0000

Regression Output	Calculated		Reported	
Constant	c	-0.03049	c	-0.0944633
Std Err of Y Est				
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.28839	-0.0026132	1.27905	-0.0001870130
Std Err of Coef.				
Correlation Coefficient		0.999980		
Coefficient of Determination (r ²)		0.999959		0.999703

LDC #: 48600B96

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{aveRRF} - \text{RRF}) / \text{aveRRF}$$

$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

aveRRF = initial calib average RRF

RRF = continuing calib RRF

Ax = Area of compound

Cx = Concentration of compound,

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Conc	Reported Conc	Recalculated Conc	Reported %R	Recalculated %R
1	ST200706P1-11	7/6/2020	PFOA (13C2-PFOA)	10.00	10.10	10.08	100.8	100.8
			PFOS (13C8-PFOS)	10.00	9.91	9.89	99.1	98.9
2			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					
3			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					
4			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					
5			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					
6			PFOA (13C2-PFOA)					
			PFOS (13C8-PFOS)					

LDC # 4860B96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

$SSC = (\text{Area spike}) (\text{Conc IS}) / (\text{Area IS}) (\text{average RRF spike})$

$\% \text{Recovery} = 100 * (SSC - SC) / SA$

Where: SSC = Spiked concentration

SC = Sample concentration

SA = Spike added

$RPD = |MS - MSD| * 2 / (MS + MSD)$

MS = Matrix spike recovery

MSD = Matrix spike duplicate recovery

MS/MSD ID: 7/8

Compound	SA (ug/L)		SC (ug/L)	SSC (ug/L)		MS		MSD		MS/MSD	
						Percent Recovery		Percent Recovery		RPD	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	0.0398	0.0413	0.0422	0.0791	0.0837	92.7	92.7	100	100	7.58	5.65
PFOS	0.0398	0.0413	0.00176	0.0383	0.0394	91.9	91.8	91.1	91.1	0.874	2.83

LDC #: 4200896

VALIDATION FINDINGS WORKSHEET LCS Results Verification

Page: 1 of 1
Reviewer: SC
2nd Reviewer: _____

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control duplicate were recalculated for the compounds identified below using the following calculation:

$SSC = (\text{Area spike}) (\text{Conc IS}) / (\text{Area IS}) (\text{average RRF spike})$

$\% \text{Recovery} = 100 * SSC / SA$

Where:

SSC = Spiked concentration

SA = Spike added

LCS = Laboratory control spike recovery

LCSD = Laboratory control spike duplicate recovery

$RPD = |LCS - LCSD| * 2 / (LCS + LCSD)$

LCS/LCSD ID: B0F0257-BS/D

Compound	SA (ug/L)		SSC (ug/L)		LCS		LCSD		LCS/LCSD	
					Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	0.0400	0.0400	0.0391	0.0393	97.7	97.8	98.3	98.3	0.463	0.510
PFBS	0.0400	0.0400	0.0386	0.0384	96.5	96.5	96.0	96.0	0.435	0.519

Page: 1 of 1
Reviewer: SC
2nd Reviewer: _____

Compound results for all Level IV samples reported with a positive detect were recalculated and verified using the following equation:

Where:

A_x = Area or height of the peak for the compound to be measured

A_{is} = Area or height of the peak for the internal standard

Cis = Concentration of the internal standard

DF = Dilution factor

V_t = Volume of extract in milliliters (mL)

RRF = Average relative response factor

V_0 = Volume of sample in milliliters (mL)

[illegible]

INSTALLATION_ID	SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	SAMPLE_NAME	SAMPLE_MATRIX_DESC	COLLECT_DATE	ANALYTICAL_METHOD_GRP_DESC	SDG
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
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EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
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EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
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INSTALLATION_ID	SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	SAMPLE_NAME	SAMPLE_MATRIX_DESC	COLLECT_DATE	ANALYTICAL_METHOD_GRP_DESC	SDG
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
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EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
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EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
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EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
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EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
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EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	20

INSTALLATION_ID	SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	SAMPLE_NAME	SAMPLE_MATRIX_DESC	COLLECT_DATE	ANALYTICAL_METHOD_GRP_DESC	SDG
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW4	Monitoring well	6109460.6	2189234.97	24-GW-24NEW4-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	24NEW8	Monitoring well	6109711.47	2190269.72	24-GW-24NEW8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	09DGMW75R	Monitoring well	6108282.98	2190320.09	24-GW-09DGMW75R-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	15_DBMW51	Well	6107322.28	2192664.06	24-GW-15DBMW51-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS3A	Well	6109290.87	2187093.49	24-GW-18PS3A-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	08_DGMW73	Well	6109260.27	2187536.98	24-GW-08DGMW73-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315
EL_TORO_MCAS	SITE 00024	18_PS8	Well	6109657	2188046	24-GW-18PS8-20200618	Ground water	18-Jun-20	Perfluoroalkyl Compounds	2001315