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NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, Sample Location Report, SDG 2000321

MCAS
Tustin, CA
April 2021

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March 02, 2020

Vista Work Order No. 2000321

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 February 14, 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. 2000321
Case Narrative

Sample Condition on Receipt:

One blank water sample and ten groundwater 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 Method

The samples were extracted and analyzed for a selected list of PFAS using the PFAS Isotope Dilution Method (Modified EPA Method 537). 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 Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria.

As requested, an MS/MSD was performed on sample "IS72MW17S-20200213". The MS/MSD recoveries and/or RPDs were out of the acceptance criteria for PFHxA, PFHxS, and PFOA.

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

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2000321-09	I003MW01S-20200213	PFAS Isotope Dilution Method	13C3-PFHxS	H	35.2
2000321-09	I003MW01S-20200213	PFAS Isotope Dilution Method	13C8-PFOS	H	156

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
2000321-01	EB02-20200213		13-Feb-20 07:00	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-02	I013WMW02SR-20200213		13-Feb-20 08:15	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-03	IS72MW17S-20200213	MS/MSD	13-Feb-20 09:15	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-04	I012MW01SR-20200213		13-Feb-20 10:20	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-05	I012MW10S-20200213		13-Feb-20 11:10	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-06	I012MW11S-20200213		13-Feb-20 12:00	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-07	I012MW15S-20200213		13-Feb-20 13:00	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-08	DUP02-20200213		13-Feb-20 13:05	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-09	I003MW01S-20200213		13-Feb-20 13:50	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-10	I003MW15S-20200213		13-Feb-20 14:40	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-11	I003MW02S-20200213		13-Feb-20 15:30	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Aqueous

Laboratory Data

Lab Sample: B0B0127-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		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFHxA	307-24-4	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
HFPO-DA	13252-13-6	ND	0.00241	0.00300	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFHpA	375-85-9	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
ADONA	919005-14-4	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFHxS	355-46-4	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFOA	335-67-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFNA	375-95-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFOS	1763-23-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
9Cl-PF3ONS	756426-58-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFDA	335-76-2	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
MeFOSAA	2355-31-9	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
EtFOSAA	2991-50-6	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFUnA	2058-94-8	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
11Cl-PF3OUdS	763051-92-9	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFDoA	307-55-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFTrDA	72629-94-8	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFTeDA	376-06-7	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	80.0	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C3-HFPO-DA	IS	63.5	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFHxA	IS	66.8	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C4-PFHpA	IS	70.3	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C3-PFHxS	IS	76.6	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C5-PFNA	IS	76.8	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFOA	IS	74.8	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C8-PFOS	IS	83.9	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFDA	IS	67.9	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
d3-MeFOSAA	IS	82.1	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFUnA	IS	75.0	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
d5-EtFOSAA	IS	73.0	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFDoA	IS	61.2	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFTeDA	IS	58.8	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	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: OPR **PFAS Isotope Dilution Method**

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Aqueous

Laboratory Data

Lab Sample: B0B0127-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ug/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0396	0.0400	99.0	72 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFHxA	307-24-4	0.0428	0.0400	107	72 - 129		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
HFPO-DA	13252-13-6	0.0427	0.0400	107	70 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFHpA	375-85-9	0.0384	0.0400	95.9	72 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
ADONA	919005-14-4	0.0377	0.0400	94.3	70 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFHxS	355-46-4	0.0406	0.0400	101	68 - 131		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFOA	335-67-1	0.0406	0.0400	102	71 - 133		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFNA	375-95-1	0.0409	0.0400	102	69 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFOS	1763-23-1	0.0342	0.0400	85.6	65 - 140		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
9Cl-PF3ONS	756426-58-1	0.0366	0.0400	91.5	70 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFDA	335-76-2	0.0400	0.0400	100	71 - 129		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
MeFOSAA	2355-31-9	0.0365	0.0400	91.4	65 - 136		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
EtFOSAA	2991-50-6	0.0398	0.0400	99.5	61 - 135		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFUnA	2058-94-8	0.0423	0.0400	106	69 - 133		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
11Cl-PF3OUdS	763051-92-9	0.0491	0.0400	123	70 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFDoA	307-55-1	0.0419	0.0400	105	72 - 134		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFTrDA	72629-94-8	0.0431	0.0400	108	65 - 144		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFTeDA	376-06-7	0.0414	0.0400	104	71 - 132		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	83.5	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C3-HFPO-DA	IS	73.4	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFHxA	IS	79.5	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C4-PFHpA	IS	76.2	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C3-PFHxS	IS	78.5	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C5-PFNA	IS	80.5	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFOA	IS	78.6	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C8-PFOS	IS	84.0	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFDA	IS	79.2	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
d3-MeFOSAA	IS	73.6	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFUnA	IS	85.3	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
d5-EtFOSAA	IS	74.7	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFDoA	IS	62.6	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFTeDA	IS	66.6	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1

Sample ID: EB02-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Blank Water
Date Collected: 13-Feb-20 07:00

Laboratory Data

Lab Sample: 2000321-01
Date Received: 14-Feb-20 09:25
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	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFHxA	307-24-4	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
HFPO-DA	13252-13-6	ND	0.00235	0.00293	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFHpA	375-85-9	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
ADONA	919005-14-4	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFHxS	355-46-4	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFOA	335-67-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFNA	375-95-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFOS	1763-23-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
9Cl-PF3ONS	756426-58-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFDA	335-76-2	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
MeFOSAA	2355-31-9	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
EtFOSAA	2991-50-6	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFUnA	2058-94-8	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
11Cl-PF3OUdS	763051-92-9	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFDoA	307-55-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFTrDA	72629-94-8	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFTeDA	376-06-7	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	84.5	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C3-HFPO-DA	IS	71.4	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFHxA	IS	74.0	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C4-PFHpA	IS	81.6	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C3-PFHxS	IS	78.4	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C5-PFNA	IS	85.7	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFOA	IS	82.4	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C8-PFOS	IS	90.2	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFDA	IS	79.1	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
d3-MeFOSAA	IS	75.3	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFUnA	IS	87.4	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
d5-EtFOSAA	IS	74.2	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFDoA	IS	66.9	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFTeDA	IS	65.8	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	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: I013WMW02SR-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 08:15

Laboratory Data

Lab Sample: 2000321-02
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0144	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFHxA	307-24-4	0.106	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
HFPO-DA	13252-13-6	ND	0.00246	0.00306	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFHpA	375-85-9	0.0354	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
ADONA	919005-14-4	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFHxS	355-46-4	0.0214	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFOA	335-67-1	0.741	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFNA	375-95-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFOS	1763-23-1	0.0107	0.00140	0.00204	0.00408	Q	B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
9Cl-PF3ONS	756426-58-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFDA	335-76-2	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
MeFOSAA	2355-31-9	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
EtFOSAA	2991-50-6	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFUnA	2058-94-8	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
11Cl-PF3OUdS	763051-92-9	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFDoA	307-55-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFTrDA	72629-94-8	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFTeDA	376-06-7	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	93.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C3-HFPO-DA	IS	72.5	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFHxA	IS	73.9	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C4-PFHpA	IS	76.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C3-PFHxS	IS	102	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C5-PFNA	IS	86.0	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFOA	IS	70.2	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C8-PFOS	IS	85.7	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFDA	IS	66.4	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
d3-MeFOSAA	IS	76.4	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFUnA	IS	67.9	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
d5-EtFOSAA	IS	72.0	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFDoA	IS	58.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFTeDA	IS	65.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	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: IS72MW17S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 09:15

Laboratory Data

Lab Sample: 2000321-03
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0644	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFHxA	307-24-4	0.247	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
HFPO-DA	13252-13-6	ND	0.00242	0.00301	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFHpA	375-85-9	0.0901	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
ADONA	919005-14-4	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFHxS	355-46-4	0.221	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFOA	335-67-1	0.881	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFNA	375-95-1	0.00329	0.00137	0.00201	0.00401	J	B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFOS	1763-23-1	0.134	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
9Cl-PF3ONS	756426-58-1	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFDA	335-76-2	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
MeFOSAA	2355-31-9	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
EtFOSAA	2991-50-6	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFUnA	2058-94-8	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
11Cl-PF3OUdS	763051-92-9	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFDoA	307-55-1	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFTrDA	72629-94-8	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFTeDA	376-06-7	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	91.6	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C3-HFPO-DA	IS	69.9	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFHxA	IS	77.2	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C4-PFHpA	IS	79.9	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C3-PFHxS	IS	99.1	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C5-PFNA	IS	93.4	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFOA	IS	79.3	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C8-PFOS	IS	84.4	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFDA	IS	71.3	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
d3-MeFOSAA	IS	81.2	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFUnA	IS	76.9	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
d5-EtFOSAA	IS	64.2	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFDoA	IS	59.9	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFTeDA	IS	64.5	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	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: IS72MW17S-20200213 **PFAS Isotope Dilution Method**

Name:	KMEA	Lab Sample:	B0B0127-MS1/B0B0127-MSD1	Source Lab Sample:	2000321-03
Project:	MCAS El Toro and Tustin, PFAS	QC Batch:	B0B0127	Date Extracted:	24-Feb-20
Matrix:	Aqueous	Samp Size:	0.252/0.245 L	Column:	BEH C18

Analyte	CAS Number	Sample (ug/L)	MS (ug/L)	MS Spike	MS % Rec	MS Quals	MSD (ug/L)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	375-73-5	0.0644	0.113	0.0396	122		0.111	0.0408	113	7.66		72-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFHxA	307-24-4	0.247	0.315	0.0396	171	H	0.306	0.0408	145	16.5	H	72-129	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
HFPO-DA	13252-13-6	ND	0.0421	0.0396	106		0.0416	0.0408	102	3.85		70-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFHpA	375-85-9	0.0901	0.133	0.0396	108		0.136	0.0408	114	5.41		72-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
ADONA	919005-14-4	ND	0.0352	0.0396	88.8		0.0398	0.0408	97.5	9.34		70-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFHxS	355-46-4	0.221	0.297	0.0396	191	H	0.286	0.0408	158	18.9	H	68-131	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFOA	335-67-1	0.881	1.05	0.0396	419	H	0.973	0.0408	225	60.2	H	71-133	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFNA	375-95-1	0.00329	0.0474	0.0396	111		0.0493	0.0408	113	1.79		69-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFOS	1763-23-1	0.134	0.175	0.0396	103		0.184	0.0408	120	15.2		65-140	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
9Cl-PF3ONS	756426-58-1	ND	0.0378	0.0396	95.5		0.0352	0.0408	86.2	10.2		70-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFDA	335-76-2	ND	0.0435	0.0396	109		0.0470	0.0408	115	5.36		71-129	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
MeFOSAA	2355-31-9	ND	0.0390	0.0396	98.5		0.0429	0.0408	105	6.39		65-136	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
EtFOSAA	2991-50-6	ND	0.0438	0.0396	111		0.0458	0.0408	112	0.897		61-135	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFUnA	2058-94-8	ND	0.0398	0.0396	100		0.0418	0.0408	102	1.98		69-133	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
11Cl-PF3OUdS	763051-92-9	ND	0.0493	0.0396	125		0.0486	0.0408	119	4.92		70-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFDoA	307-55-1	ND	0.0445	0.0396	112		0.0441	0.0408	108	3.64		72-134	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFTrDA	72629-94-8	ND	0.0438	0.0396	111		0.0451	0.0408	111	0		65-144	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFTeDA	376-06-7	ND	0.0436	0.0396	110		0.0481	0.0408	118	7.02		71-132	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBS	IS	87.6		89.0		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C3-HFPO-DA	IS	74.8		78.5		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFHxA	IS	70.7		70.5		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C4-PFHpA	IS	79.9		76.7		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C3-PFHxS	IS	85.7		79.1		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C5-PFNA	IS	81.9		79.2		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFOA	IS	72.7		73.5		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C8-PFOS	IS	88.2		78.9		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFDA	IS	78.6		64.4		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
d3-MeFOSAA	IS	82.8		74.4		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFUnA	IS	78.0		67.8		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
d5-EtFOSAA	IS	70.2		64.5		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFDoA	IS	59.3		55.0		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1

Sample ID: IS72MW17S-20200213 **PFAS Isotope Dilution Method**

Name:	KMEA	Lab Sample:	B0B0127-MS1/B0B0127-MSD1	Source Lab Sample:	2000321-03
Project:	MCAS El Toro and Tustin, PFAS	QC Batch:	B0B0127	Date Extracted:	24-Feb-20
Matrix:	Aqueous	Samp Size:	0.252/0.245 L	Column:	BEH C18

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C2-PFTeDA	IS	65.8		63.6		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1

Sample ID: I012MW01SR-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 10:20

Laboratory Data

Lab Sample: 2000321-04
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0131	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFHxA	307-24-4	0.0570	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
HFPO-DA	13252-13-6	ND	0.00243	0.00302	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFHpA	375-85-9	0.0176	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
ADONA	919005-14-4	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFHxS	355-46-4	0.0306	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFOA	335-67-1	0.370	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFNA	375-95-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFOS	1763-23-1	0.0740	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
9Cl-PF3ONS	756426-58-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFDA	335-76-2	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
MeFOSAA	2355-31-9	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
EtFOSAA	2991-50-6	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFUnA	2058-94-8	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
11Cl-PF3OUdS	763051-92-9	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFDoA	307-55-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFTrDA	72629-94-8	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFTeDA	376-06-7	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	87.2	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C3-HFPO-DA	IS	67.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFHxA	IS	68.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C4-PFHpA	IS	70.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C3-PFHxS	IS	84.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C5-PFNA	IS	71.3	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFOA	IS	67.0	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C8-PFOS	IS	75.6	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFDA	IS	69.4	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
d3-MeFOSAA	IS	74.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFUnA	IS	63.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
d5-EtFOSAA	IS	65.1	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFDoA	IS	50.4	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFTeDA	IS	64.5	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	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: I012MW10S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 11:10

Laboratory Data

Lab Sample: 2000321-05
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0340	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFHxA	307-24-4	0.0765	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
HFPO-DA	13252-13-6	ND	0.00243	0.00302	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFHpA	375-85-9	0.0213	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
ADONA	919005-14-4	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFHxS	355-46-4	0.140	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFOA	335-67-1	0.591	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFNA	375-95-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFOS	1763-23-1	0.0327	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
9Cl-PF3ONS	756426-58-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFDA	335-76-2	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
MeFOSAA	2355-31-9	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
EtFOSAA	2991-50-6	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFUnA	2058-94-8	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
11Cl-PF3OUdS	763051-92-9	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFDoA	307-55-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFTrDA	72629-94-8	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFTeDA	376-06-7	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	88.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C3-HFPO-DA	IS	69.0	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFHxA	IS	72.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C4-PFHpA	IS	80.3	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C3-PFHxS	IS	86.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C5-PFNA	IS	92.6	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFOA	IS	79.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C8-PFOS	IS	95.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFDA	IS	69.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
d3-MeFOSAA	IS	87.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFUnA	IS	68.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
d5-EtFOSAA	IS	71.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFDoA	IS	64.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFTeDA	IS	65.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	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: I012MW11S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 12:00

Laboratory Data

Lab Sample: 2000321-06
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.467	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFHxA	307-24-4	2.13	0.00675	0.00984	0.0197	D	B0B0127	24-Feb-20	0.254 L	26-Feb-20 02:22	5
HFPO-DA	13252-13-6	ND	0.00238	0.00295	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFHpA	375-85-9	1.09	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
ADONA	919005-14-4	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFHxS	355-46-4	3.17	0.00675	0.00984	0.0197	D	B0B0127	24-Feb-20	0.254 L	26-Feb-20 02:22	5
PFOA	335-67-1	1.37	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFNA	375-95-1	0.0488	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFOS	1763-23-1	1.72	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
9Cl-PF3ONS	756426-58-1	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFDA	335-76-2	0.00382	0.00135	0.00197	0.00394	J	B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
MeFOSAA	2355-31-9	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
EtFOSAA	2991-50-6	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFUnA	2058-94-8	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
11Cl-PF3OUdS	763051-92-9	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFDoA	307-55-1	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFTrDA	72629-94-8	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFTeDA	376-06-7	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	86.9	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C3-HFPO-DA	IS	77.9	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFHxA	IS	80.0	50 - 150	D	B0B0127	24-Feb-20	0.254 L	26-Feb-20 02:22	5
13C4-PFHpA	IS	73.9	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C3-PFHxS	IS	70.5	50 - 150	D	B0B0127	24-Feb-20	0.254 L	26-Feb-20 02:22	5
13C5-PFNA	IS	83.0	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFOA	IS	73.0	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C8-PFOS	IS	77.7	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFDA	IS	73.8	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
d3-MeFOSAA	IS	68.9	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFUnA	IS	69.3	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
d5-EtFOSAA	IS	65.0	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFDoA	IS	53.7	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFTeDA	IS	62.8	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	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: I012MW15S-20200213 **PFAS Isotope Dilution Method**

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 13:00

Laboratory Data

Lab Sample: 2000321-07
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.179	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFHxA	307-24-4	0.908	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
HFPO-DA	13252-13-6	ND	0.00241	0.00300	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFHpA	375-85-9	0.200	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
ADONA	919005-14-4	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFHxS	355-46-4	0.526	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFOA	335-67-1	0.312	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFNA	375-95-1	0.00292	0.00137	0.00200	0.00399	J	B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFOS	1763-23-1	0.109	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
9Cl-PF3ONS	756426-58-1	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFDA	335-76-2	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
MeFOSAA	2355-31-9	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
EtFOSAA	2991-50-6	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFUnA	2058-94-8	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
11Cl-PF3OUdS	763051-92-9	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFDoA	307-55-1	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFTrDA	72629-94-8	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFTeDA	376-06-7	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	80.7	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C3-HFPO-DA	IS	61.6	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFHxA	IS	62.1	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C4-PFHpA	IS	64.3	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C3-PFHxS	IS	88.2	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C5-PFNA	IS	72.8	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFOA	IS	64.7	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C8-PFOS	IS	82.5	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFDA	IS	66.8	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
d3-MeFOSAA	IS	76.9	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFUnA	IS	58.4	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
d5-EtFOSAA	IS	63.1	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFDoA	IS	51.0	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFTeDA	IS	58.9	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	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: DUP02-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 13:05

Laboratory Data

Lab Sample: 2000321-08
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.181	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFHxA	307-24-4	0.881	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
HFPO-DA	13252-13-6	ND	0.00244	0.00304	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFHpA	375-85-9	0.191	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
ADONA	919005-14-4	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFHxS	355-46-4	0.505	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFOA	335-67-1	0.306	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFNA	375-95-1	0.00251	0.00139	0.00202	0.00406	J	B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFOS	1763-23-1	0.112	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
9Cl-PF3ONS	756426-58-1	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFDA	335-76-2	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
MeFOSAA	2355-31-9	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
EtFOSAA	2991-50-6	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFUnA	2058-94-8	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
11Cl-PF3OUdS	763051-92-9	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFDoA	307-55-1	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFTrDA	72629-94-8	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFTeDA	376-06-7	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	88.2	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C3-HFPO-DA	IS	75.9	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFHxA	IS	73.4	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C4-PFHpA	IS	78.2	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C3-PFHxS	IS	93.9	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C5-PFNA	IS	80.5	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFOA	IS	76.1	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C8-PFOS	IS	88.7	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFDA	IS	74.0	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
d3-MeFOSAA	IS	90.8	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFUnA	IS	63.1	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
d5-EtFOSAA	IS	62.3	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFDoA	IS	60.1	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFTeDA	IS	65.7	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	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: I003MW01S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 13:50

Laboratory Data

Lab Sample: 2000321-09
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	2.11	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFHxA	307-24-4	7.20	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
HFPO-DA	13252-13-6	ND	0.0120	0.0149	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFHpA	375-85-9	1.55	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
ADONA	919005-14-4	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFHxS	355-46-4	23.9	0.0273	0.0398	0.0797	D	B0B0127	24-Feb-20	0.251 L	29-Feb-20 18:02	20
PFOA	335-67-1	14.1	0.0273	0.0398	0.0797	D	B0B0127	24-Feb-20	0.251 L	29-Feb-20 18:02	20
PFNA	375-95-1	0.0344	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFOS	1763-23-1	7.97	0.0136	0.0199	0.0398	D	B0B0127	24-Feb-20	0.251 L	27-Feb-20 02:26	10
9Cl-PF3ONS	756426-58-1	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFDA	335-76-2	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
MeFOSAA	2355-31-9	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
EtFOSAA	2991-50-6	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFUnA	2058-94-8	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
11Cl-PF3OUdS	763051-92-9	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFDoA	307-55-1	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFTrDA	72629-94-8	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFTeDA	376-06-7	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	91.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C3-HFPO-DA	IS	83.5	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFHxA	IS	93.5	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C4-PFHpA	IS	89.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C3-PFHxS	IS	35.2	50 - 150	D, H	B0B0127	24-Feb-20	0.251 L	29-Feb-20 18:02	20
13C5-PFNA	IS	89.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFOA	IS	99.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	29-Feb-20 18:02	20
13C8-PFOS	IS	156	50 - 150	D, H	B0B0127	24-Feb-20	0.251 L	27-Feb-20 02:26	10
13C2-PFDA	IS	96.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
d3-MeFOSAA	IS	109	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFUnA	IS	86.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
d5-EtFOSAA	IS	96.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFDoA	IS	63.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFTeDA	IS	73.5	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5

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: I003MW15S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 14:40

Laboratory Data

Lab Sample: 2000321-10
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.390	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFHxA	307-24-4	2.47	0.00698	0.0102	0.0204	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
HFPO-DA	13252-13-6	ND	0.00246	0.00306	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFHpA	375-85-9	0.562	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
ADONA	919005-14-4	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFHxS	355-46-4	2.36	0.00698	0.0102	0.0204	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
PFOA	335-67-1	4.92	0.00698	0.0102	0.0204	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
PFNA	375-95-1	0.0299	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFOS	1763-23-1	2.42	0.00698	0.0102	0.0204	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
9Cl-PF3ONS	756426-58-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFDA	335-76-2	0.00840	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
MeFOSAA	2355-31-9	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
EtFOSAA	2991-50-6	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFUnA	2058-94-8	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
11Cl-PF3OUdS	763051-92-9	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFDoA	307-55-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFTrDA	72629-94-8	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFTeDA	376-06-7	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	94.1	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C3-HFPO-DA	IS	81.8	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFHxA	IS	87.0	50 - 150	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
13C4-PFHpA	IS	87.4	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C3-PFHxS	IS	78.5	50 - 150	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
13C5-PFNA	IS	81.8	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFOA	IS	88.0	50 - 150	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
13C8-PFOS	IS	90.5	50 - 150	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
13C2-PFDA	IS	86.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
d3-MeFOSAA	IS	98.1	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFUnA	IS	74.8	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
d5-EtFOSAA	IS	86.3	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFDoA	IS	56.8	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFTeDA	IS	70.9	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	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: I003MW02S-20200213 **PFAS Isotope Dilution Method**

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 15:30

Laboratory Data

Lab Sample: 2000321-11
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.360	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFHxA	307-24-4	1.41	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
HFPO-DA	13252-13-6	ND	0.00244	0.00304	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFHpA	375-85-9	0.300	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
ADONA	919005-14-4	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFHxS	355-46-4	1.47	0.00693	0.0101	0.0202	D	B0B0127	24-Feb-20	0.247 L	26-Feb-20 03:36	5
PFOA	335-67-1	2.16	0.00693	0.0101	0.0202	D	B0B0127	24-Feb-20	0.247 L	26-Feb-20 03:36	5
PFNA	375-95-1	0.0114	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFOS	1763-23-1	0.599	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
9Cl-PF3ONS	756426-58-1	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFDA	335-76-2	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
MeFOSAA	2355-31-9	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
EtFOSAA	2991-50-6	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFUnA	2058-94-8	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
11Cl-PF3OUdS	763051-92-9	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFDoA	307-55-1	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFTrDA	72629-94-8	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFTeDA	376-06-7	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	88.0	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C3-HFPO-DA	IS	76.8	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFHxA	IS	73.7	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C4-PFHpA	IS	82.2	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C3-PFHxS	IS	80.0	50 - 150	D	B0B0127	24-Feb-20	0.247 L	26-Feb-20 03:36	5
13C5-PFNA	IS	83.2	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFOA	IS	91.0	50 - 150	D	B0B0127	24-Feb-20	0.247 L	26-Feb-20 03:36	5
13C8-PFOS	IS	84.9	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFDA	IS	78.9	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
d3-MeFOSAA	IS	84.3	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFUnA	IS	71.4	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
d5-EtFOSAA	IS	69.8	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFDoA	IS	63.6	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFTeDA	IS	69.4	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	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.

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

Vista Analytical

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

2000321 2.3°C

Vista PM: Jade White-Dobbs

CHAIN OF CUSTODY RECORD

DATE: 2/13/2020

PAGE: 1 OF 2

LABORATORY CLIENT: KMEA	CLIENT PROJECT NAME / NUMBER: MCAS El Toro and Tustin, PFAS
ADDRESS: 9210 Sky Park Court, Suite 220	P.O. NO.: TO 008 Mod 4
CITY: San Diego, CA 92123	PROJECT CONTACT: Kimberly Shiroodi / Brian Johnson
TEL: (619) 399-5900 / E-Mail: kimberly.shiroodi@woodplc.com / E-MAIL: brian.johnson@woodplc.com	CONTRACT NO.: N62473-16-D-2405
	SAMPLER(S): (SIGNATURE) Uly Ruiter
	LAB USE ONLY

TURNAROUND TIME

☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 10 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS

Samples potentially contain elevated levels of PFAS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	QC Level	PFAS by LC/MS-MS
	EB02-20200213	2/13/20	7:40	BW	2		X
	I013WMW02SR-20200213		8:15	GW	2	IV	X
	IS72MW17S-20200213		9:15		6	IV	X
	I012MW01SR-20200213		10:20		2	IV	X
	I012MW10S-20200213		11:10		2	IV	X
	I012MW11S-20200213		12:00		2	IV	X
	I012MW15S-20200213		13:00		2	IV	X
	DUP02-20200213		13:05		2	IV	X
	I003MW01S-20200213		13:50		2	IV	X
	I003MW15S-20200213		14:40		2	IV	X

MS / MSD

Relinquished by: (Signature) Uly Ruiter	Received by: (Signature) / Carrier Tracking Number FedEx	Date: 2/13/20	Time: 17:00
Relinquished by: (Signature) FedEx	Received by: (Signature) Hayden Crane	Date: 02/14/2020	Time: 09:25
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Vista Analytical

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

2000321 2.3°C

Vista PM: Jade White-Dobbs

CHAIN OF CUSTODY RECORD

DATE: 2/13/2020

PAGE: 2 OF 2

LABORATORY CLIENT: KMEA		CLIENT PROJECT NAME / NUMBER: MCAS El Toro and Tustin, PFAS	P.O. NO.: TO 008 Mod 4
ADDRESS: 9210 Sky Park Court, Suite 220		PROJECT CONTACT: Kimberly Shiroodi / Brian Johnson	CONTRACT NO.: N62473-16-D-2405
CITY: San Diego, CA 92123		SAMPLER(S): (SIGNATURE) Uly Ruiz	LAB USE ONLY
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

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS

Samples potentially contain elevated levels of PFAS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	QC Level	PFAS by LC/MS-MS
	I003MW02S-20200213	2/13/20	15:30	GW	2	IV	X

Uly Ruiz 2-13-20

Relinquished by: (Signature) Uly Ruiz	Received by: (Signature) / Carrier Tracking Number FedEx	Date: 2/13/20	Time: 17:00
Relinquished by: (Signature) FedEx	Received by: (Signature) Hayden Canal	Date: 02/14/2020	Time: 09:25
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2000321 TAT 14

Samples Arrival:	**Date/Time** 02/14/2020 09:25		**Initials:** HOG		**Location:** WR-2 **Shelf/Rack:** N/A		
Delivered By:	(FedEx)	UPS	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 2.3 (uncorrected)			**Probe used: Y / (N)**		**Thermometer ID:** IR-4		
Temp °C: 2.3 (corrected)							

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill — Trk # 8106 7954 5930	✓		
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** 02/14/20 1213	**Initials:** KS	**Location:** R-13 / WR-2 **Shelf/Rack:** A-2 / E-3	
COC Anomaly/Sample Acceptance Form completed?			✓	✓

Comments:

CoC/Label Reconciliation Report WO# 2000321

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2000321-01	A EB02-20200213		13-Feb-20 07:00	HDPE Bottle, 250 mL	Aqueous	
2000321-01	B EB02-20200213		13-Feb-20 07:00	HDPE Bottle, 250 mL	Aqueous	
2000321-02	A I013WMW02SR-20200213		13-Feb-20 08:15	HDPE Bottle, 250 mL	Aqueous	
2000321-02	B I013WMW02SR-20200213		13-Feb-20 08:15	HDPE Bottle, 250 mL	Aqueous	
2000321-03	A IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	B IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	C IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	D IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	E IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	F IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-04	A I012MW01SR-20200213		13-Feb-20 10:20	HDPE Bottle, 250 mL	Aqueous	
2000321-04	B I012MW01SR-20200213		13-Feb-20 10:20	HDPE Bottle, 250 mL	Aqueous	
2000321-05	A I012MW10S-20200213		13-Feb-20 11:10	HDPE Bottle, 250 mL	Aqueous	
2000321-05	B I012MW10S-20200213		13-Feb-20 11:10	HDPE Bottle, 250 mL	Aqueous	
2000321-06	A I012MW11S-20200213		13-Feb-20 12:00	HDPE Bottle, 250 mL	Aqueous	
2000321-06	B I012MW11S-20200213		13-Feb-20 12:00	HDPE Bottle, 250 mL	Aqueous	
2000321-07	A I012MW15S-20200213		13-Feb-20 13:00	HDPE Bottle, 250 mL	Aqueous	
2000321-07	B I012MW15S-20200213		13-Feb-20 13:00	HDPE Bottle, 250 mL	Aqueous	
2000321-08	A DUP02-20200213		13-Feb-20 13:05	HDPE Bottle, 250 mL	Aqueous	
2000321-08	B DUP02-20200213 (A)		13-Feb-20 13:05	HDPE Bottle, 250 mL	Aqueous	
2000321-09	A I003MW01S-20200213		13-Feb-20 13:50	HDPE Bottle, 250 mL	Aqueous	
2000321-09	B I003MW01S-20200213		13-Feb-20 13:50	HDPE Bottle, 250 mL	Aqueous	
2000321-10	A I003MW15S-20200213		13-Feb-20 14:40	HDPE Bottle, 250 mL	Aqueous	
2000321-10	B I003MW15S-20200213		13-Feb-20 14:40	HDPE Bottle, 250 mL	Aqueous	
2000321-11	A I003MW02S-20200213		13-Feb-20 15:30	HDPE Bottle, 250 mL	Aqueous	
2000321-11	B I003MW02S-20200213		13-Feb-20 15:30	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
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		
Preservation Documented: Na2S2O3 Trizma None Other	✓		
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments: Ⓐ correction on sample label made with correction fluid.

Verifed by/Date: BLB 02/14/20

March 02, 2020

Vista Work Order No. 2000321

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 February 14, 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. 2000321
Case Narrative

Sample Condition on Receipt:

One blank water sample and ten groundwater 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 Method

The samples were extracted and analyzed for a selected list of PFAS using the PFAS Isotope Dilution Method (Modified EPA Method 537). 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 Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria.

As requested, an MS/MSD was performed on sample "IS72MW17S-20200213". The MS/MSD recoveries and/or RPDs were out of the acceptance criteria for PFHxA, PFHxS, and PFOA.

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

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2000321-09	I003MW01S-20200213	PFAS Isotope Dilution Method	13C3-PFHxS	H	35.2
2000321-09	I003MW01S-20200213	PFAS Isotope Dilution Method	13C8-PFOS	H	156

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
2000321-01	EB02-20200213		13-Feb-20 07:00	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-02	I013WMW02SR-20200213		13-Feb-20 08:15	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-03	IS72MW17S-20200213	MS/MSD	13-Feb-20 09:15	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-04	I012MW01SR-20200213		13-Feb-20 10:20	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-05	I012MW10S-20200213		13-Feb-20 11:10	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-06	I012MW11S-20200213		13-Feb-20 12:00	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-07	I012MW15S-20200213		13-Feb-20 13:00	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-08	DUP02-20200213		13-Feb-20 13:05	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-09	I003MW01S-20200213		13-Feb-20 13:50	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-10	I003MW15S-20200213		13-Feb-20 14:40	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
2000321-11	I003MW02S-20200213		13-Feb-20 15:30	14-Feb-20 09:25	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Aqueous

Laboratory Data

Lab Sample: B0B0127-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		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFHxA	307-24-4	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
HFPO-DA	13252-13-6	ND	0.00241	0.00300	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFHpA	375-85-9	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
ADONA	919005-14-4	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFHxS	355-46-4	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFOA	335-67-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFNA	375-95-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFOS	1763-23-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
9Cl-PF3ONS	756426-58-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFDA	335-76-2	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
MeFOSAA	2355-31-9	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
EtFOSAA	2991-50-6	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFUnA	2058-94-8	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
11Cl-PF3OUdS	763051-92-9	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFDoA	307-55-1	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFTrDA	72629-94-8	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
PFTeDA	376-06-7	ND	0.00137	0.00200	0.00400		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	80.0	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C3-HFPO-DA	IS	63.5	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFHxA	IS	66.8	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C4-PFHpA	IS	70.3	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C3-PFHxS	IS	76.6	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C5-PFNA	IS	76.8	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFOA	IS	74.8	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C8-PFOS	IS	83.9	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFDA	IS	67.9	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
d3-MeFOSAA	IS	82.1	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFUnA	IS	75.0	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
d5-EtFOSAA	IS	73.0	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFDoA	IS	61.2	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	1
13C2-PFTeDA	IS	58.8	50 - 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:48	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: OPR **PFAS Isotope Dilution Method**

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Aqueous

Laboratory Data

Lab Sample: B0B0127-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ug/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0396	0.0400	99.0	72 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFHxA	307-24-4	0.0428	0.0400	107	72 - 129		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
HFPO-DA	13252-13-6	0.0427	0.0400	107	70 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFHpA	375-85-9	0.0384	0.0400	95.9	72 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
ADONA	919005-14-4	0.0377	0.0400	94.3	70 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFHxS	355-46-4	0.0406	0.0400	101	68 - 131		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFOA	335-67-1	0.0406	0.0400	102	71 - 133		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFNA	375-95-1	0.0409	0.0400	102	69 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFOS	1763-23-1	0.0342	0.0400	85.6	65 - 140		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
9Cl-PF3ONS	756426-58-1	0.0366	0.0400	91.5	70 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFDA	335-76-2	0.0400	0.0400	100	71 - 129		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
MeFOSAA	2355-31-9	0.0365	0.0400	91.4	65 - 136		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
EtFOSAA	2991-50-6	0.0398	0.0400	99.5	61 - 135		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFUnA	2058-94-8	0.0423	0.0400	106	69 - 133		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
11Cl-PF3OUdS	763051-92-9	0.0491	0.0400	123	70 - 130		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFDoA	307-55-1	0.0419	0.0400	105	72 - 134		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFTrDA	72629-94-8	0.0431	0.0400	108	65 - 144		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
PFTeDA	376-06-7	0.0414	0.0400	104	71 - 132		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	83.5	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C3-HFPO-DA	IS	73.4	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFHxA	IS	79.5	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C4-PFHpA	IS	76.2	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C3-PFHxS	IS	78.5	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C5-PFNA	IS	80.5	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFOA	IS	78.6	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C8-PFOS	IS	84.0	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFDA	IS	79.2	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
d3-MeFOSAA	IS	73.6	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFUnA	IS	85.3	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
d5-EtFOSAA	IS	74.7	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFDoA	IS	62.6	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1
13C2-PFTeDA	IS	66.6	50- 150		B0B0127	24-Feb-20	0.250 L	26-Feb-20 00:58	1

Sample ID: EB02-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Blank Water
Date Collected: 13-Feb-20 07:00

Laboratory Data

Lab Sample: 2000321-01
Date Received: 14-Feb-20 09:25
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	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFHxA	307-24-4	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
HFPO-DA	13252-13-6	ND	0.00235	0.00293	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFHpA	375-85-9	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
ADONA	919005-14-4	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFHxS	355-46-4	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFOA	335-67-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFNA	375-95-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFOS	1763-23-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
9Cl-PF3ONS	756426-58-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFDA	335-76-2	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
MeFOSAA	2355-31-9	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
EtFOSAA	2991-50-6	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFUnA	2058-94-8	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
11Cl-PF3OUdS	763051-92-9	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFDoA	307-55-1	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFTrDA	72629-94-8	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
PFTeDA	376-06-7	ND	0.00134	0.00195	0.00390		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	84.5	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C3-HFPO-DA	IS	71.4	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFHxA	IS	74.0	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C4-PFHpA	IS	81.6	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C3-PFHxS	IS	78.4	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C5-PFNA	IS	85.7	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFOA	IS	82.4	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C8-PFOS	IS	90.2	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFDA	IS	79.1	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
d3-MeFOSAA	IS	75.3	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFUnA	IS	87.4	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
d5-EtFOSAA	IS	74.2	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFDoA	IS	66.9	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	1
13C2-PFTeDA	IS	65.8	50 - 150		B0B0127	24-Feb-20	0.256 L	26-Feb-20 01:30	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: I013WMW02SR-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 08:15

Laboratory Data

Lab Sample: 2000321-02
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0144	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFHxA	307-24-4	0.106	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
HFPO-DA	13252-13-6	ND	0.00246	0.00306	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFHpA	375-85-9	0.0354	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
ADONA	919005-14-4	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFHxS	355-46-4	0.0214	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFOA	335-67-1	0.741	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFNA	375-95-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFOS	1763-23-1	0.0107	0.00140	0.00204	0.00408	Q	B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
9Cl-PF3ONS	756426-58-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFDA	335-76-2	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
MeFOSAA	2355-31-9	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
EtFOSAA	2991-50-6	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFUnA	2058-94-8	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
11Cl-PF3OUdS	763051-92-9	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFDoA	307-55-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFTrDA	72629-94-8	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
PFTeDA	376-06-7	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	93.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C3-HFPO-DA	IS	72.5	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFHxA	IS	73.9	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C4-PFHpA	IS	76.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C3-PFHxS	IS	102	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C5-PFNA	IS	86.0	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFOA	IS	70.2	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C8-PFOS	IS	85.7	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFDA	IS	66.4	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
d3-MeFOSAA	IS	76.4	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFUnA	IS	67.9	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
d5-EtFOSAA	IS	72.0	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFDoA	IS	58.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	1
13C2-PFTeDA	IS	65.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 00:30	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.

Vista Analytical Laboratory

Sample ID: IS72MW17S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 09:15

Laboratory Data

Lab Sample: 2000321-03
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0644	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFHxA	307-24-4	0.247	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
HFPO-DA	13252-13-6	ND	0.00242	0.00301	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFHpA	375-85-9	0.0901	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
ADONA	919005-14-4	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFHxS	355-46-4	0.221	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFOA	335-67-1	0.881	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFNA	375-95-1	0.00329	0.00137	0.00201	0.00401	J	B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFOS	1763-23-1	0.134	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
9Cl-PF3ONS	756426-58-1	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFDA	335-76-2	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
MeFOSAA	2355-31-9	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
EtFOSAA	2991-50-6	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFUnA	2058-94-8	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
11Cl-PF3OUdS	763051-92-9	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFDoA	307-55-1	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFTrDA	72629-94-8	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
PFTeDA	376-06-7	ND	0.00137	0.00201	0.00401		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	91.6	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C3-HFPO-DA	IS	69.9	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFHxA	IS	77.2	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C4-PFHpA	IS	79.9	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C3-PFHxS	IS	99.1	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C5-PFNA	IS	93.4	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFOA	IS	79.3	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C8-PFOS	IS	84.4	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFDA	IS	71.3	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
d3-MeFOSAA	IS	81.2	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFUnA	IS	76.9	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
d5-EtFOSAA	IS	64.2	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFDoA	IS	59.9	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	1
13C2-PFTeDA	IS	64.5	50 - 150		B0B0127	24-Feb-20	0.249 L	27-Feb-20 00:41	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: IS72MW17S-20200213 **PFAS Isotope Dilution Method**

Name:	KMEA	Lab Sample:	B0B0127-MS1/B0B0127-MSD1	Source Lab Sample:	2000321-03
Project:	MCAS El Toro and Tustin, PFAS	QC Batch:	B0B0127	Date Extracted:	24-Feb-20
Matrix:	Aqueous	Samp Size:	0.252/0.245 L	Column:	BEH C18

Analyte	CAS Number	Sample (ug/L)	MS (ug/L)	MS Spike	MS % Rec	MS Quals	MSD (ug/L)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	375-73-5	0.0644	0.113	0.0396	122		0.111	0.0408	113	7.66		72-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFHxA	307-24-4	0.247	0.315	0.0396	171	H	0.306	0.0408	145	16.5	H	72-129	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
HFPO-DA	13252-13-6	ND	0.0421	0.0396	106		0.0416	0.0408	102	3.85		70-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFHpA	375-85-9	0.0901	0.133	0.0396	108		0.136	0.0408	114	5.41		72-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
ADONA	919005-14-4	ND	0.0352	0.0396	88.8		0.0398	0.0408	97.5	9.34		70-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFHxS	355-46-4	0.221	0.297	0.0396	191	H	0.286	0.0408	158	18.9	H	68-131	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFOA	335-67-1	0.881	1.05	0.0396	419	H	0.973	0.0408	225	60.2	H	71-133	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFNA	375-95-1	0.00329	0.0474	0.0396	111		0.0493	0.0408	113	1.79		69-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFOS	1763-23-1	0.134	0.175	0.0396	103		0.184	0.0408	120	15.2		65-140	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
9Cl-PF3ONS	756426-58-1	ND	0.0378	0.0396	95.5		0.0352	0.0408	86.2	10.2		70-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFDA	335-76-2	ND	0.0435	0.0396	109		0.0470	0.0408	115	5.36		71-129	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
MeFOSAA	2355-31-9	ND	0.0390	0.0396	98.5		0.0429	0.0408	105	6.39		65-136	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
EtFOSAA	2991-50-6	ND	0.0438	0.0396	111		0.0458	0.0408	112	0.897		61-135	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFUnA	2058-94-8	ND	0.0398	0.0396	100		0.0418	0.0408	102	1.98		69-133	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
11Cl-PF3OUdS	763051-92-9	ND	0.0493	0.0396	125		0.0486	0.0408	119	4.92		70-130	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFDoA	307-55-1	ND	0.0445	0.0396	112		0.0441	0.0408	108	3.64		72-134	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFTrDA	72629-94-8	ND	0.0438	0.0396	111		0.0451	0.0408	111	0		65-144	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1
PFTeDA	376-06-7	ND	0.0436	0.0396	110		0.0481	0.0408	118	7.02		71-132	30	27-Feb-20 00:09	1	27-Feb-20 00:20	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBS	IS	87.6		89.0		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C3-HFPO-DA	IS	74.8		78.5		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFHxA	IS	70.7		70.5		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C4-PFHpA	IS	79.9		76.7		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C3-PFHxS	IS	85.7		79.1		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C5-PFNA	IS	81.9		79.2		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFOA	IS	72.7		73.5		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C8-PFOS	IS	88.2		78.9		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFDA	IS	78.6		64.4		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
d3-MeFOSAA	IS	82.8		74.4		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFUnA	IS	78.0		67.8		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
d5-EtFOSAA	IS	70.2		64.5		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1
13C2-PFDoA	IS	59.3		55.0		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1

Sample ID: IS72MW17S-20200213 **PFAS Isotope Dilution Method**

Name:	KMEA	Lab Sample:	B0B0127-MS1/B0B0127-MSD1	Source Lab Sample:	2000321-03
Project:	MCAS El Toro and Tustin, PFAS	QC Batch:	B0B0127	Date Extracted:	24-Feb-20
Matrix:	Aqueous	Samp Size:	0.252/0.245 L	Column:	BEH C18

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C2-PFTeDA	IS	65.8		63.6		50-150	27-Feb-20 00:09	1	27-Feb-20 00:20	1

Sample ID: I012MW01SR-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 10:20

Laboratory Data

Lab Sample: 2000321-04
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0131	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFHxA	307-24-4	0.0570	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
HFPO-DA	13252-13-6	ND	0.00243	0.00302	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFHpA	375-85-9	0.0176	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
ADONA	919005-14-4	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFHxS	355-46-4	0.0306	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFOA	335-67-1	0.370	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFNA	375-95-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFOS	1763-23-1	0.0740	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
9Cl-PF3ONS	756426-58-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFDA	335-76-2	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
MeFOSAA	2355-31-9	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
EtFOSAA	2991-50-6	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFUnA	2058-94-8	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
11Cl-PF3OUdS	763051-92-9	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFDoA	307-55-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFTrDA	72629-94-8	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
PFTeDA	376-06-7	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	87.2	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C3-HFPO-DA	IS	67.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFHxA	IS	68.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C4-PFHpA	IS	70.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C3-PFHxS	IS	84.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C5-PFNA	IS	71.3	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFOA	IS	67.0	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C8-PFOS	IS	75.6	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFDA	IS	69.4	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
d3-MeFOSAA	IS	74.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFUnA	IS	63.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
d5-EtFOSAA	IS	65.1	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFDoA	IS	50.4	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	1
13C2-PFTeDA	IS	64.5	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 00:51	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: I012MW10S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 11:10

Laboratory Data

Lab Sample: 2000321-05
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.0340	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFHxA	307-24-4	0.0765	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
HFPO-DA	13252-13-6	ND	0.00243	0.00302	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFHpA	375-85-9	0.0213	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
ADONA	919005-14-4	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFHxS	355-46-4	0.140	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFOA	335-67-1	0.591	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFNA	375-95-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFOS	1763-23-1	0.0327	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
9Cl-PF3ONS	756426-58-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFDA	335-76-2	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
MeFOSAA	2355-31-9	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
EtFOSAA	2991-50-6	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFUnA	2058-94-8	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
11Cl-PF3OUdS	763051-92-9	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFDoA	307-55-1	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFTrDA	72629-94-8	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
PFTeDA	376-06-7	ND	0.00138	0.00202	0.00403		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	88.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C3-HFPO-DA	IS	69.0	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFHxA	IS	72.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C4-PFHpA	IS	80.3	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C3-PFHxS	IS	86.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C5-PFNA	IS	92.6	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFOA	IS	79.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C8-PFOS	IS	95.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFDA	IS	69.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
d3-MeFOSAA	IS	87.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFUnA	IS	68.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
d5-EtFOSAA	IS	71.8	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFDoA	IS	64.7	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	1
13C2-PFTeDA	IS	65.9	50 - 150		B0B0127	24-Feb-20	0.248 L	27-Feb-20 01:02	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: I012MW11S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 12:00

Laboratory Data

Lab Sample: 2000321-06
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.467	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFHxA	307-24-4	2.13	0.00675	0.00984	0.0197	D	B0B0127	24-Feb-20	0.254 L	26-Feb-20 02:22	5
HFPO-DA	13252-13-6	ND	0.00238	0.00295	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFHpA	375-85-9	1.09	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
ADONA	919005-14-4	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFHxS	355-46-4	3.17	0.00675	0.00984	0.0197	D	B0B0127	24-Feb-20	0.254 L	26-Feb-20 02:22	5
PFOA	335-67-1	1.37	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFNA	375-95-1	0.0488	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFOS	1763-23-1	1.72	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
9Cl-PF3ONS	756426-58-1	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFDA	335-76-2	0.00382	0.00135	0.00197	0.00394	J	B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
MeFOSAA	2355-31-9	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
EtFOSAA	2991-50-6	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFUnA	2058-94-8	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
11Cl-PF3OUdS	763051-92-9	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFDoA	307-55-1	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFTrDA	72629-94-8	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
PFTeDA	376-06-7	ND	0.00135	0.00197	0.00394		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	86.9	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C3-HFPO-DA	IS	77.9	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFHxA	IS	80.0	50 - 150	D	B0B0127	24-Feb-20	0.254 L	26-Feb-20 02:22	5
13C4-PFHpA	IS	73.9	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C3-PFHxS	IS	70.5	50 - 150	D	B0B0127	24-Feb-20	0.254 L	26-Feb-20 02:22	5
13C5-PFNA	IS	83.0	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFOA	IS	73.0	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C8-PFOS	IS	77.7	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFDA	IS	73.8	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
d3-MeFOSAA	IS	68.9	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFUnA	IS	69.3	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
d5-EtFOSAA	IS	65.0	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFDoA	IS	53.7	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	1
13C2-PFTeDA	IS	62.8	50 - 150		B0B0127	24-Feb-20	0.254 L	27-Feb-20 01:44	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: I012MW15S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 13:00

Laboratory Data

Lab Sample: 2000321-07
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.179	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFHxA	307-24-4	0.908	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
HFPO-DA	13252-13-6	ND	0.00241	0.00300	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFHpA	375-85-9	0.200	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
ADONA	919005-14-4	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFHxS	355-46-4	0.526	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFOA	335-67-1	0.312	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFNA	375-95-1	0.00292	0.00137	0.00200	0.00399	J	B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFOS	1763-23-1	0.109	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
9Cl-PF3ONS	756426-58-1	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFDA	335-76-2	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
MeFOSAA	2355-31-9	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
EtFOSAA	2991-50-6	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFUnA	2058-94-8	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
11Cl-PF3OUdS	763051-92-9	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFDoA	307-55-1	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFTrDA	72629-94-8	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
PFTeDA	376-06-7	ND	0.00137	0.00200	0.00399		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	80.7	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C3-HFPO-DA	IS	61.6	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFHxA	IS	62.1	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C4-PFHpA	IS	64.3	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C3-PFHxS	IS	88.2	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C5-PFNA	IS	72.8	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFOA	IS	64.7	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C8-PFOS	IS	82.5	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFDA	IS	66.8	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
d3-MeFOSAA	IS	76.9	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFUnA	IS	58.4	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
d5-EtFOSAA	IS	63.1	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFDoA	IS	51.0	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	1
13C2-PFTeDA	IS	58.9	50 - 150		B0B0127	24-Feb-20	0.250 L	27-Feb-20 02:05	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: DUP02-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 13:05

Laboratory Data

Lab Sample: 2000321-08
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.181	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFHxA	307-24-4	0.881	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
HFPO-DA	13252-13-6	ND	0.00244	0.00304	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFHpA	375-85-9	0.191	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
ADONA	919005-14-4	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFHxS	355-46-4	0.505	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFOA	335-67-1	0.306	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFNA	375-95-1	0.00251	0.00139	0.00202	0.00406	J	B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFOS	1763-23-1	0.112	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
9Cl-PF3ONS	756426-58-1	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFDA	335-76-2	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
MeFOSAA	2355-31-9	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
EtFOSAA	2991-50-6	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFUnA	2058-94-8	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
11Cl-PF3OUdS	763051-92-9	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFDoA	307-55-1	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFTrDA	72629-94-8	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
PFTeDA	376-06-7	ND	0.00139	0.00202	0.00406		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	88.2	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C3-HFPO-DA	IS	75.9	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFHxA	IS	73.4	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C4-PFHpA	IS	78.2	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C3-PFHxS	IS	93.9	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C5-PFNA	IS	80.5	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFOA	IS	76.1	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C8-PFOS	IS	88.7	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFDA	IS	74.0	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
d3-MeFOSAA	IS	90.8	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFUnA	IS	63.1	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
d5-EtFOSAA	IS	62.3	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFDoA	IS	60.1	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	1
13C2-PFTeDA	IS	65.7	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:15	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: I003MW01S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 13:50

Laboratory Data

Lab Sample: 2000321-09
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	2.11	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFHxA	307-24-4	7.20	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
HFPO-DA	13252-13-6	ND	0.0120	0.0149	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFHpA	375-85-9	1.55	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
ADONA	919005-14-4	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFHxS	355-46-4	23.9	0.0273	0.0398	0.0797	D	B0B0127	24-Feb-20	0.251 L	29-Feb-20 18:02	20
PFOA	335-67-1	14.1	0.0273	0.0398	0.0797	D	B0B0127	24-Feb-20	0.251 L	29-Feb-20 18:02	20
PFNA	375-95-1	0.0344	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFOS	1763-23-1	7.97	0.0136	0.0199	0.0398	D	B0B0127	24-Feb-20	0.251 L	27-Feb-20 02:26	10
9Cl-PF3ONS	756426-58-1	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFDA	335-76-2	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
MeFOSAA	2355-31-9	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
EtFOSAA	2991-50-6	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFUnA	2058-94-8	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
11Cl-PF3OUdS	763051-92-9	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFDoA	307-55-1	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFTrDA	72629-94-8	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
PFTeDA	376-06-7	ND	0.00682	0.00996	0.0199	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	91.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C3-HFPO-DA	IS	83.5	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFHxA	IS	93.5	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C4-PFHpA	IS	89.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C3-PFHxS	IS	35.2	50 - 150	D, H	B0B0127	24-Feb-20	0.251 L	29-Feb-20 18:02	20
13C5-PFNA	IS	89.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFOA	IS	99.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	29-Feb-20 18:02	20
13C8-PFOS	IS	156	50 - 150	D, H	B0B0127	24-Feb-20	0.251 L	27-Feb-20 02:26	10
13C2-PFDA	IS	96.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
d3-MeFOSAA	IS	109	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFUnA	IS	86.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
d5-EtFOSAA	IS	96.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFDoA	IS	63.0	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5
13C2-PFTeDA	IS	73.5	50 - 150	D	B0B0127	24-Feb-20	0.251 L	26-Feb-20 02:54	5

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: I003MW15S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 14:40

Laboratory Data

Lab Sample: 2000321-10
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.390	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFHxA	307-24-4	2.47	0.00698	0.0102	0.0204	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
HFPO-DA	13252-13-6	ND	0.00246	0.00306	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFHpA	375-85-9	0.562	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
ADONA	919005-14-4	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFHxS	355-46-4	2.36	0.00698	0.0102	0.0204	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
PFOA	335-67-1	4.92	0.00698	0.0102	0.0204	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
PFNA	375-95-1	0.0299	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFOS	1763-23-1	2.42	0.00698	0.0102	0.0204	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
9Cl-PF3ONS	756426-58-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFDA	335-76-2	0.00840	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
MeFOSAA	2355-31-9	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
EtFOSAA	2991-50-6	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFUnA	2058-94-8	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
11Cl-PF3OUdS	763051-92-9	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFDoA	307-55-1	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFTrDA	72629-94-8	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
PFTeDA	376-06-7	ND	0.00140	0.00204	0.00408		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	94.1	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C3-HFPO-DA	IS	81.8	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFHxA	IS	87.0	50 - 150	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
13C4-PFHpA	IS	87.4	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C3-PFHxS	IS	78.5	50 - 150	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
13C5-PFNA	IS	81.8	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFOA	IS	88.0	50 - 150	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
13C8-PFOS	IS	90.5	50 - 150	D	B0B0127	24-Feb-20	0.245 L	26-Feb-20 03:25	5
13C2-PFDA	IS	86.6	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
d3-MeFOSAA	IS	98.1	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFUnA	IS	74.8	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
d5-EtFOSAA	IS	86.3	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFDoA	IS	56.8	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	1
13C2-PFTeDA	IS	70.9	50 - 150		B0B0127	24-Feb-20	0.245 L	27-Feb-20 02:36	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: I003MW02S-20200213

PFAS Isotope Dilution Method

Client Data

Name: KMEA
Project: MCAS El Toro and Tustin, PFAS
Matrix: Groundwater
Date Collected: 13-Feb-20 15:30

Laboratory Data

Lab Sample: 2000321-11
Date Received: 14-Feb-20 09:25
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.360	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFHxA	307-24-4	1.41	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
HFPO-DA	13252-13-6	ND	0.00244	0.00304	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFHpA	375-85-9	0.300	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
ADONA	919005-14-4	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFHxS	355-46-4	1.47	0.00693	0.0101	0.0202	D	B0B0127	24-Feb-20	0.247 L	26-Feb-20 03:36	5
PFOA	335-67-1	2.16	0.00693	0.0101	0.0202	D	B0B0127	24-Feb-20	0.247 L	26-Feb-20 03:36	5
PFNA	375-95-1	0.0114	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFOS	1763-23-1	0.599	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
9Cl-PF3ONS	756426-58-1	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFDA	335-76-2	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
MeFOSAA	2355-31-9	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
EtFOSAA	2991-50-6	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFUnA	2058-94-8	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
11Cl-PF3OUdS	763051-92-9	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFDoA	307-55-1	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFTrDA	72629-94-8	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
PFTeDA	376-06-7	ND	0.00139	0.00202	0.00405		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	88.0	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C3-HFPO-DA	IS	76.8	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFHxA	IS	73.7	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C4-PFHpA	IS	82.2	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C3-PFHxS	IS	80.0	50 - 150	D	B0B0127	24-Feb-20	0.247 L	26-Feb-20 03:36	5
13C5-PFNA	IS	83.2	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFOA	IS	91.0	50 - 150	D	B0B0127	24-Feb-20	0.247 L	26-Feb-20 03:36	5
13C8-PFOS	IS	84.9	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFDA	IS	78.9	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
d3-MeFOSAA	IS	84.3	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFUnA	IS	71.4	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
d5-EtFOSAA	IS	69.8	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFDoA	IS	63.6	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	1
13C2-PFTeDA	IS	69.4	50 - 150		B0B0127	24-Feb-20	0.247 L	27-Feb-20 02:57	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.

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

Vista Analytical

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

2000321 2.3°C

Vista PM: Jade White-Dobbs

CHAIN OF CUSTODY RECORD

DATE: 2/13/2020

PAGE: 1 OF 2

LABORATORY CLIENT: KMEA	CLIENT PROJECT NAME / NUMBER: MCAS El Toro and Tustin, PFAS
ADDRESS: 9210 Sky Park Court, Suite 220	P.O. NO.: TO 008 Mod 4
CITY: San Diego, CA 92123	PROJECT CONTACT: Kimberly Shiroodi / Brian Johnson
TEL: (619) 399-5900 / E-Mail: kimberly.shiroodi@woodplc.com / E-MAIL: brian.johnson@woodplc.com	CONTRACT NO.: N62473-16-D-2405
	SAMPLER(S): (SIGNATURE) Uly Ruiter
	LAB USE ONLY

TURNAROUND TIME

☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 10 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

Samples potentially contain elevated levels of PFAS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	QC Level	PFAS by LC/MS-MS
	EB02-20200213	2/13/20	7:40	BW	2		X
	I013WMW02SR-20200213		8:15	GW	2	IV	X
	IS72MW17S-20200213		9:15		6	IV	X
	I012MW01SR-20200213		10:20		2	IV	X
	I012MW10S-20200213		11:10		2	IV	X
	I012MW11S-20200213		12:00		2	IV	X
	I012MW15S-20200213		13:00		2	IV	X
	DUP02-20200213		13:05		2	IV	X
	I003MW01S-20200213		13:50		2	IV	X
	I003MW15S-20200213		14:40		2	IV	X

MS/MSD

Relinquished by: (Signature) Uly Ruiter	Received by: (Signature) / Carrier Tracking Number FedEx	Date: 2/13/20	Time: 17:00
Relinquished by: (Signature) FedEx	Received by: (Signature) Hayden Crane	Date: 02/14/2020	Time: 09:25
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Vista Analytical

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

2000321 2.3°C

Vista PM: Jade White-Dobbs

CHAIN OF CUSTODY RECORD

DATE: 2/13/2020

PAGE: 2 OF 2

LABORATORY CLIENT: KMEA		CLIENT PROJECT NAME / NUMBER: MCAS El Toro and Tustin, PFAS	P.O. NO.: TO 008 Mod 4
ADDRESS: 9210 Sky Park Court, Suite 220		PROJECT CONTACT: Kimberly Shiroodi / Brian Johnson	CONTRACT NO.: N62473-16-D-2405
CITY: San Diego, CA 92123		SAMPLER(S): (SIGNATURE) Uly Ruiz	LAB USE ONLY
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

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS

Samples potentially contain elevated levels of PFAS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	QC Level	PFAS by LC/MS-MS
	I003MW02S-20200213	2/13/20	15:30	GW	2	IV	X

Uly Ruiz 2-13-20

Relinquished by: (Signature) Uly Ruiz	Received by: (Signature) / Carrier Tracking Number FedEx	Date: 2/13/20	Time: 17:00
Relinquished by: (Signature) FedEx	Received by: (Signature) Hayden Canal	Date: 02/14/2020	Time: 09:25
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Vista Analytical Laboratory

Sample Log-In Checklist

Vista Work Order #: 2000321 TAT 14

Samples Arrival:	**Date/Time** 02/14/2020 09:25		**Initials:** HOG		**Location:** WR-2 **Shelf/Rack:** N/A		
Delivered By:	(FedEx)	UPS	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 2.3 (uncorrected)			**Probe used: Y / (N)**		**Thermometer ID:** IR-4		
Temp °C: 2.3 (corrected)							

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill — Trk # 8106 7954 5930	✓		
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** 02/14/20 1213	**Initials:** KS	**Location:** R-13 / WR-2 **Shelf/Rack:** A-2 / E-3	
COC Anomaly/Sample Acceptance Form completed?			✓	✓

Comments:

CoC/Label Reconciliation Report WO# 2000321

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2000321-01	A EB02-20200213		13-Feb-20 07:00	HDPE Bottle, 250 mL	Aqueous	
2000321-01	B EB02-20200213		13-Feb-20 07:00	HDPE Bottle, 250 mL	Aqueous	
2000321-02	A I013WMW02SR-20200213		13-Feb-20 08:15	HDPE Bottle, 250 mL	Aqueous	
2000321-02	B I013WMW02SR-20200213		13-Feb-20 08:15	HDPE Bottle, 250 mL	Aqueous	
2000321-03	A IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	B IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	C IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	D IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	E IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-03	F IS72MW17S-20200213		13-Feb-20 09:15	HDPE Bottle, 250 mL	Aqueous	MS/MSD
2000321-04	A I012MW01SR-20200213		13-Feb-20 10:20	HDPE Bottle, 250 mL	Aqueous	
2000321-04	B I012MW01SR-20200213		13-Feb-20 10:20	HDPE Bottle, 250 mL	Aqueous	
2000321-05	A I012MW10S-20200213		13-Feb-20 11:10	HDPE Bottle, 250 mL	Aqueous	
2000321-05	B I012MW10S-20200213		13-Feb-20 11:10	HDPE Bottle, 250 mL	Aqueous	
2000321-06	A I012MW11S-20200213		13-Feb-20 12:00	HDPE Bottle, 250 mL	Aqueous	
2000321-06	B I012MW11S-20200213		13-Feb-20 12:00	HDPE Bottle, 250 mL	Aqueous	
2000321-07	A I012MW15S-20200213		13-Feb-20 13:00	HDPE Bottle, 250 mL	Aqueous	
2000321-07	B I012MW15S-20200213		13-Feb-20 13:00	HDPE Bottle, 250 mL	Aqueous	
2000321-08	A DUP02-20200213		13-Feb-20 13:05	HDPE Bottle, 250 mL	Aqueous	
2000321-08	B DUP02-20200213 (A)		13-Feb-20 13:05	HDPE Bottle, 250 mL	Aqueous	
2000321-09	A I003MW01S-20200213		13-Feb-20 13:50	HDPE Bottle, 250 mL	Aqueous	
2000321-09	B I003MW01S-20200213		13-Feb-20 13:50	HDPE Bottle, 250 mL	Aqueous	
2000321-10	A I003MW15S-20200213		13-Feb-20 14:40	HDPE Bottle, 250 mL	Aqueous	
2000321-10	B I003MW15S-20200213		13-Feb-20 14:40	HDPE Bottle, 250 mL	Aqueous	
2000321-11	A I003MW02S-20200213		13-Feb-20 15:30	HDPE Bottle, 250 mL	Aqueous	
2000321-11	B I003MW02S-20200213		13-Feb-20 15:30	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
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		
Preservation Documented: Na2S2O3 Trizma None Other	✓		
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments: A correction on sample label made with correction fluid.

Verifed by/Date: BLB 02/14/20

EXTRACTION INFORMATION

PRIORITY

Process Sheet

Workorder: 2000321

Prep Expiration: 2020-02-27
Client: KMEA

Workorder Due: 02-Mar-20 00:00

TAT: 17

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

Prep Batch: BOB0127

Prep Data Entered: LW 02/25/20
Date and Initials

Version: 537.1 List of 18
DoD: DoD QSM 5.3

Initial Sequence: SOBOOL2

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
2000321-01	A	☑	☑	EB02-20200213		R-13 A-2	HDPE Bottle, 250 mL
2000321-02	↓	☑	☑	I013WMW02SR-20200213	// //	R-13 A-2	HDPE Bottle, 250 mL
2000321-03	ABC	☑	☑	IS72MW17S-20200213	**MS/MSD**	R-13 A-2	HDPE Bottle, 250 mL
2000321-04	A	☑	☑	I012MW01SR-20200213		R-13 A-2	HDPE Bottle, 250 mL
2000321-05	↓	☑	☑	I012MW10S-20200213		R-13 A-2	HDPE Bottle, 250 mL
2000321-06		☑	☑	I012MW11S-20200213		R-13 A-2	HDPE Bottle, 250 mL
2000321-07		☑	☑	I012MW15S-20200213		R-13 A-2	HDPE Bottle, 250 mL
2000321-08		☑	☑	DUP02-20200213		R-13 A-2	HDPE Bottle, 250 mL
2000321-09		☑	☑	I003MW01S-20200213		R-13 A-2	HDPE Bottle, 250 mL
2000321-10		☑	☑	I003MW15S-20200213		R-13 A-2	HDPE Bottle, 250 mL
2000321-11	↓	☑	☑	I003MW02S-20200213		R-13 A-2	HDPE Bottle, 250 mL

WO Comments: **Potentially elevated levels - isolate samples.**
Instrument: begin w/ dils.

Pre-Prep Check Out: CHT 02/18/20
Pre-Prep Check In: CHT 02/18/20

Prep Check Out: LW 02/24/20
Prep Check In: N/A

Prep Reconciled Initals/Date: CHT 02/18/20
Spike Reconciled Initals/Date: LW 02/24/20
VialBoxID: Future

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

PREPARATION BENCH SHEET

B0B0127

Chemist: LW
Prep Date: 02/24/20
Prep Time: 0724
Hood#: 6

Prepared using: ☐ Sonication Shaker ☑ SPE Extraction ☐ Centrifuge ID: _____

Rec Date/Initals: M 02/25/20 | Date/Initals: 02/18/20 CMT | BalanceID: 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	RS CHEM/WIT DATE
☐	B0B0127-BLK1	☑	☑	5	0	NA	NA	(0.250)	LW HP 02/24/20	LW 02/24/20	LW 02/24/20	LW HP 02/24/20
☐	B0B0127-BS1	☑	☑	5	0	↓	↓	(0.250)	↓	↓	↓	↓
☐	B0B0127-MS1 2000321-03	☑	☑	6	0	278.46	26.07	0.25239				
☐	B0B0127-MSD1 2000321-03	☑	☑	6	0	271.28	26.29	0.24499				
☐	2000321-01	☑	☑	5	0	282.32	25.91	0.25641				
☐	2000321-02	☑	☑	6	0	270.76	25.88	0.24488				
☐	2000321-03	☑	☑	6	0	275.30	25.88	0.24942				
☐	2000321-04	☑	☑	6	0	274.14	26.10	0.24804				
☐	2000321-05	☑	☑	6	0	274.58	26.37	0.24821				
☐	2000321-06	☑	☑	6	0	279.64	26.06	0.25358				
☐	2000321-07	☑	☑	6	0	276.60	26.24	0.25036				
☐	2000321-08	☑	☑	6	0	272.58	25.98	0.24660				
☐	2000321-09	☑	☑	6	0	277.04	25.97	0.25107				
☐	2000321-10	☑	☑	6	0	271.14	25.92	0.24522				

IS: 20A0801, 10mL (V18)
IS SUP: NA
NS: 20A0803, 10mL (V10)
NS SUP: NA
RS: 20A0804, 10mL (V18)

SPE Chem: Strata-X-AW 33um 200mg/6mL
SPE Lot#: S19-005857
ENVI-Carb Lot#: 803074
Ele SOLV: MeOH/0.5%NH4OH in MeOH
Final Volume(s) 1 mL

Notes:

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)

Matrix: Aqueous

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

PREPARATION BENCH SHEET

B0B0127

Chemist: LW

Prep Date: 02/24/20

Prep Time: 0724

Hood#: 6

Prepared using: ☐ Sonication Shaker ☑ SPE Extraction ☐ Centrifuge ID: _____

Rec Date/Initals: | Date/Initals: 02/18/20 CHT | BalanceID: 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	RS CHEM/WIT DATE
☐	2000321-11	☐	☐	6	0	272.86	258.2	0.24704	LW HP 02/24/20	LW 02/24/20	LW 02/24/20	LW HP 02/24/20

IS: 20A0801, 10mL (V18)

IS SUP: N/A

NS: 20A0803, 10mL (V10)

NS SUP: N/A

RS: 20A0804, 10mL (V18)

SPE Chem: strata xAW 33mm 200mg/6mL

SPE Lot#: 519005857

ENVI-Carb Lot#: 803074

Ele SOLV: MeOH/0.5%NH4OH in MeOH

Final Volume(s) 1 mL

Notes:

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)

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

Vista Internal Chain-of-Custody

B0B0127

Vista Analytical Laboratory

	Location		L2	R-13	L2	R12	L2	R12	L4		
	Reason		Prep	R9	R4	R2	R6	R9	R8		
	Initials		CHT	CHT	LW	HR	HR	HR	L4		
	Date/Time		02/18/20 0743	02/18/20 0815	02/24/20 0700	02/24/20 1355	02/25/20 0651	02/25/20 13:40	2/25/2020 1565		
Initial Storage	LabNumber	Cont									
R-13 A-2	2000321-01	A	O	O	E	E	E	E	E		
R-13 A-2	2000321-02	↓									
R-13 A-2	2000321-03	ABC									
R-13 A-2	2000321-04	A									
R-13 A-2	2000321-05										
R-13 A-2	2000321-06										
R-13 A-2	2000321-07										
R-13 A-2	2000321-08										
R-13 A-2	2000321-09										
R-13 A-2	2000321-10										
R-13 A-2	2000321-11	↓	↓	↓	↓	↓	↓	↓	↓		

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

Batch: B0B0127

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2000321-01	0.25641	NA	NA	1000	24-Feb-20 07:24	LW			Blank Water	537M PFAS DOD QSM 5.3
2000321-02	0.24488			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-03	0.24942			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-04	0.24804			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-05	0.24821			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-06	0.25358			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-07	0.25036			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-08	0.2466			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-09	0.25107			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-10	0.24522			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
2000321-11	0.24704			1000	24-Feb-20 07:24	LW			Groundwater	537M PFAS DOD QSM 5.3
B0B0127-BLK1	0.25			1000	24-Feb-20 07:24	LW				QC
B0B0127-BS1	0.25			1000	24-Feb-20 07:24	LW	20A0803	10		QC
B0B0127-MS1	0.25239			1000	24-Feb-20 07:24	LW	20A0803	10		QC
B0B0127-MSD1	0.24499			1000	24-Feb-20 07:24	LW	20A0803	10		QC

All bolded data on report verified against written benchsheet by (initial/date) M 02/25/20

Printed: 2/25/2020 8:10:47AM
Page 1 of 1

Sample Data – PFAS Isotope Dilution Method

Vista Analytical Laboratory L18

MM 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-40.qld

Last Altered: Friday, February 28, 2020 10:24:21 Pacific Standard Time
Printed: Friday, February 28, 2020 10:24:56 Pacific Standard Time

Name: 200225P1-40, Date: 26-Feb-2020, Time: 00:48:24, ID: B0B0127-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7		1.20e3	0.250		2.62						YES
2	7	PFHxA	313.0 > 269.0		1.50e4	0.250		3.13						YES
3	9	HFPO-DA	285.1 > 168.9		2.50e3	0.250		3.34						YES
4	11	PFHpA	363.0 > 318.9		1.08e4	0.250		3.73						YES
5	12	ADONA	376.8 > 250.9		1.08e4	0.250		3.82						YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.20e3		0.250	120.043	2.66	2.62	1200	40.0058	80.0		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.50e4		0.250	1794.782	3.13	3.13	15000	33.4053	66.8		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.50e3		0.250	314.205	3.39	3.34	2500	31.7722	63.5		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.08e4		0.250	1233.447	3.74	3.73	10800	35.1474	70.3		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.08e4		0.250	1233.447	3.74	3.73	10800	35.1474	70.3		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	6.20e0	2.62e3	0.250		3.86	3.87	0.0296			1.904	NO
13	1...	Total PFHxS	398.9 > 79.7	6.20e0	2.62e3	0.250		3.93		0.000				
14	16	L-PFOA	412.8 > 368.9		1.49e4	0.250		4.23						YES
15	1...	Total PFOA	412.8 > 368.9	0.00e0	1.49e4	0.250		4.60		0.000				
16	21	PFNA	463.0 > 418.8		1.43e4	0.250		4.67						YES
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.62e3		0.250	273.316	3.86	3.86	2620	38.3212	76.6		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.62e3		0.250	273.316	3.86	3.86	2620	38.3212	76.6		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.49e4		0.250	1593.567	4.23	4.23	14900	37.4109	74.8		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.49e4		0.250	1593.567	4.23	4.23	14900	37.4109	74.8		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.43e4		0.250	1492.001	4.67	4.67	14300	38.3900	76.8		
22	-1													
23	23	L-PFOS	498.9 > 79.7		3.06e3	0.250		4.75						YES
24	1...	Total PFOS	498.9 > 79.7	0.00e0	3.06e3	0.250		5.13		0.000				
25	25	9Cl-PF30NS	530.7 > 350.8		3.06e3	0.250		4.96						YES
26	26	PFDA	513 > 468.8		1.39e4	0.250		5.04						YES
27	33	PFUdA	563.0 > 518.9	7.04e1	1.52e4	0.250		5.35	5.35	0.0580			431.914	YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	3.06e3		0.250	291.759	4.75	4.75	3060	41.9302	83.9		
29	71	13C8-PFOS-EIS	507.0 > 79.7	3.06e3		0.250	291.759	4.75	4.75	3060	41.9302	83.9		
30	71	13C8-PFOS-EIS	507.0 > 79.7	3.06e3		0.250	291.759	4.75	4.75	3060	41.9302	83.9		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.39e4		0.250	1635.176	5.04	5.04	13900	33.9474	67.9		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.52e4		0.250	1617.090	5.35	5.35	15200	37.5042	75.0		
33	-1													
34	29	L-MeFOSAA	570 > 419		3.39e3	0.250		5.18						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	3.39e3	0.250		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		3.61e3	0.250		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-40.qld

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Name: 200225P1-40, Date: 26-Feb-2020, Time: 00:48:24, ID: B0B0127-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	3.61e3	0.250		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		1.29e4	0.250		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.39e3		0.250	330.310	5.18	5.18	3390	41.0502	82.1		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.39e3		0.250	330.310	5.18	5.18	3390	41.0502	82.1		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.61e3		0.250	395.337	5.32	5.34	3610	36.4785	73.0		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.61e3		0.250	395.337	5.32	5.34	3610	36.4785	73.0		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.29e4		0.250	1686.253	5.62	5.62	12900	30.6056	61.2		
44	-1													
45	37	PFDoA	612.9 > 569.0		1.29e4	0.250		5.62						YES
46	39	PFTrDA	662.9 > 618.9		1.29e4	0.250		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.39e4	0.250		6.07						YES
48	1...	TDCA	498.3>106.9			0.250		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	9.43e3	9.43e3	0.250	1.000	1.42	1.41	12.5	50.0000	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.29e4		0.250	1686.253	5.62	5.62	12900	30.6056	61.2		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.29e4		0.250	1686.253	5.62	5.62	12900	30.6056	61.2		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.39e4		0.250	1896.410	6.05	6.07	13900	29.4180	58.8		
53	71	13C8-PFOS-EIS	507.0 > 79.7	3.06e3		0.250	291.759	4.75	4.75	3060	41.9302	83.9		
54	1...	13C5-PFHxA	318.0 > 272.9	1.64e4	1.64e4	0.250	1.000	3.13	3.13	12.5	50.0000	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.13e3	1.13e3	0.250	1.000	3.86	3.86	12.5	50.0000	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.50e4	1.50e4	0.250	1.000	5.04	5.04	12.5	50.0000	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.72e4	1.72e4	0.250	1.000	5.35	5.35	12.5	50.0000	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.06e3	3.06e3	0.250	1.000	4.75	4.75	12.5	50.0000	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.61e4	1.61e4	0.250	1.000	4.67	4.67	12.5	50.0000	100.0		

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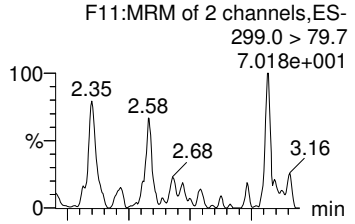
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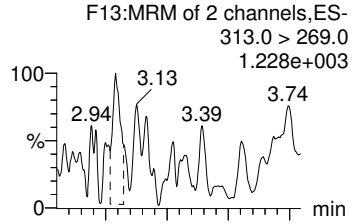
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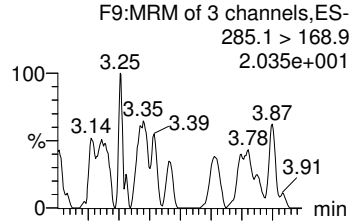
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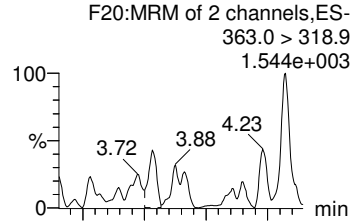
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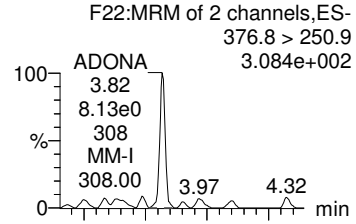
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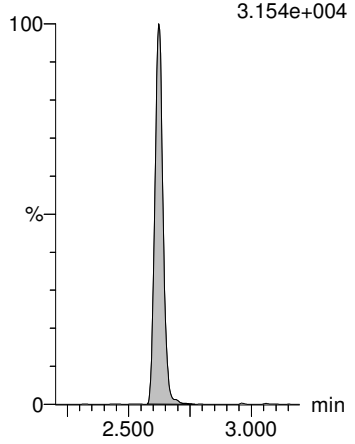
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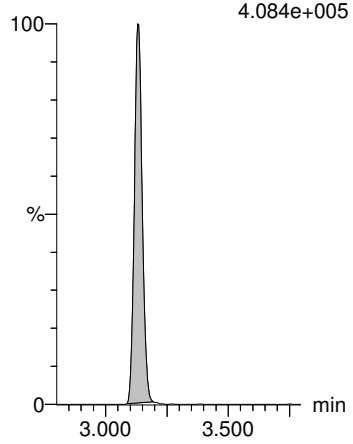
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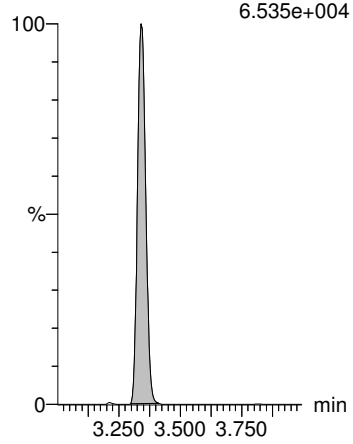
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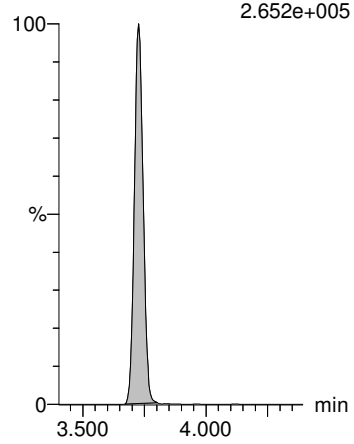
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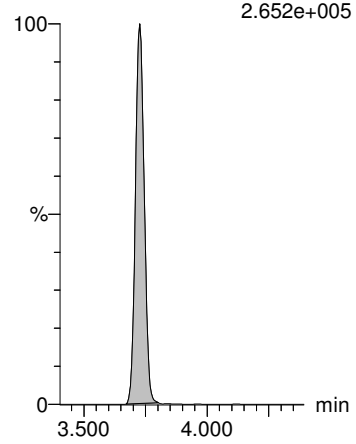
13C3-HFPO-DA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS



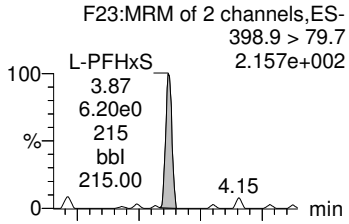
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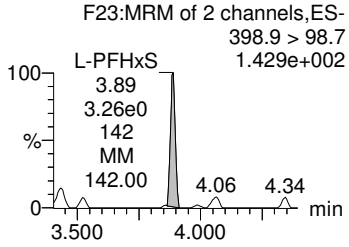
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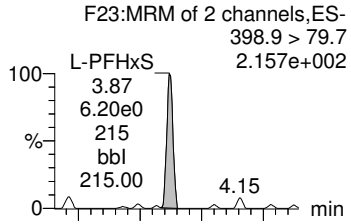
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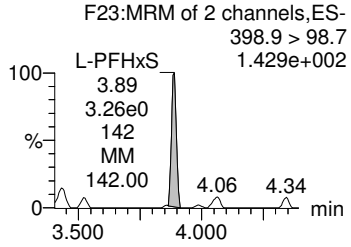
L-PFHxS



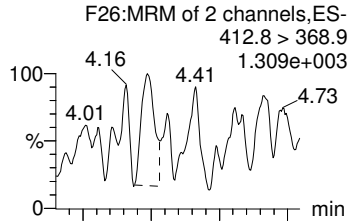


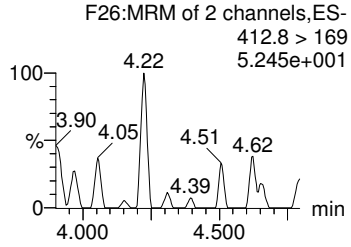
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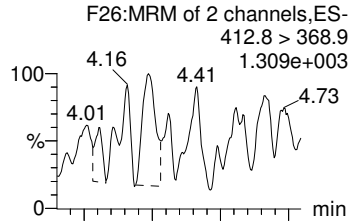


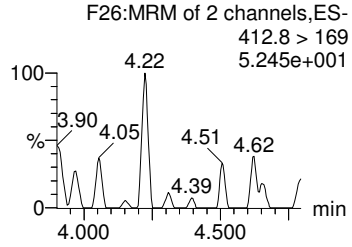
L-PFOA



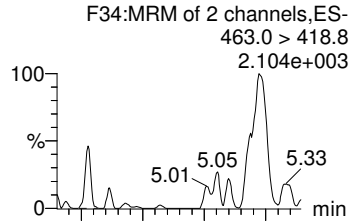


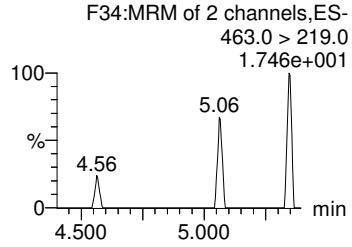
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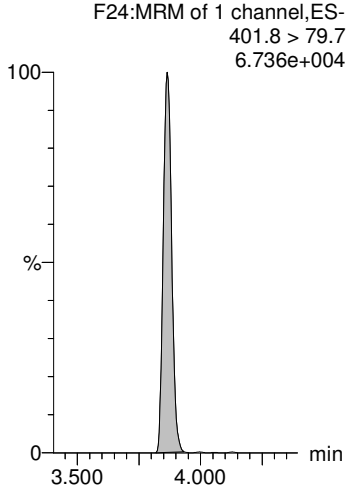


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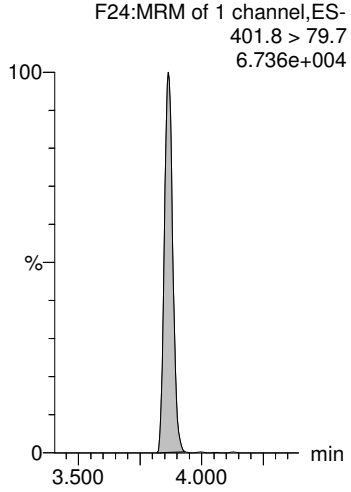




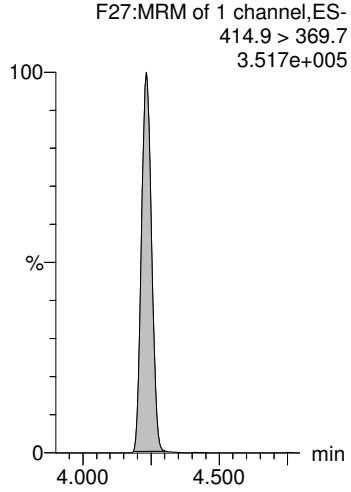
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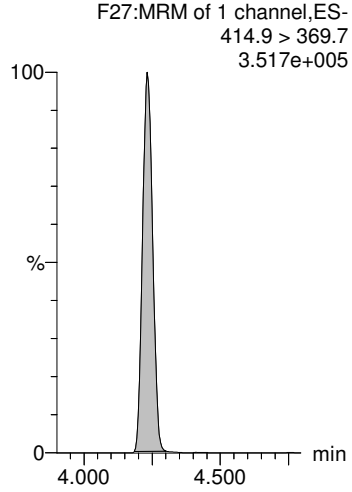
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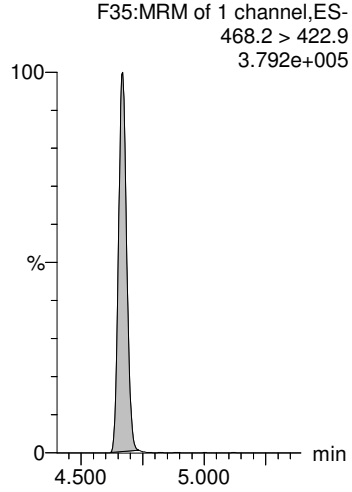
13C2-PFOA-EIS



13C2-PFOA-EIS



13C5-PFNA-EIS



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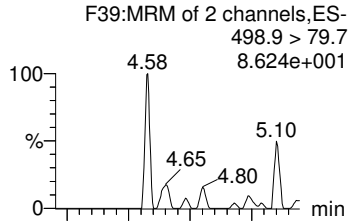
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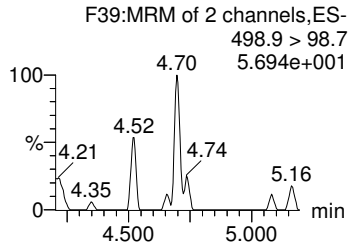
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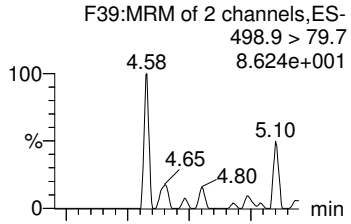
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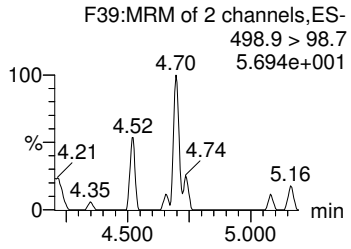
L-PFOS



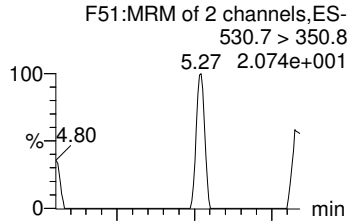


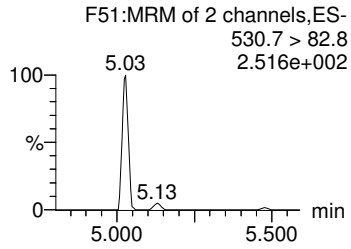
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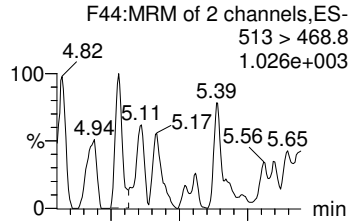


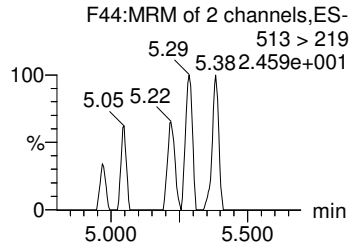
9Cl-PF30NS



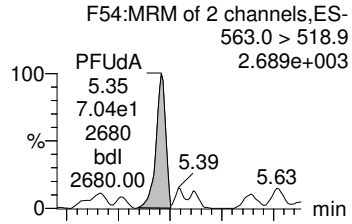


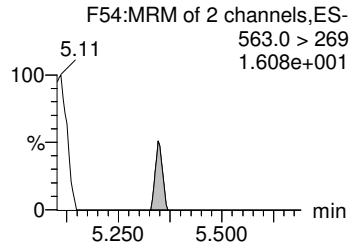
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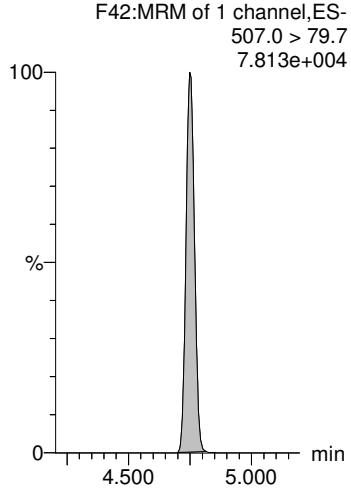


PFUdA

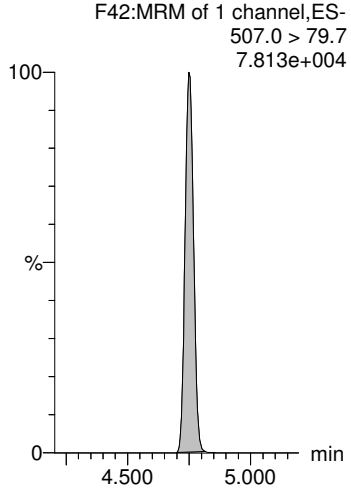




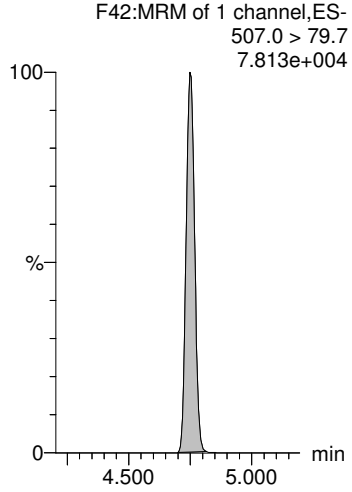
13C8-PFOS-EIS



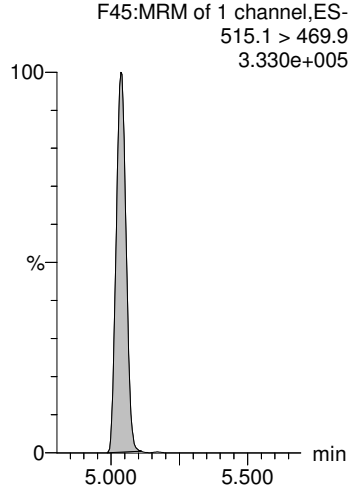
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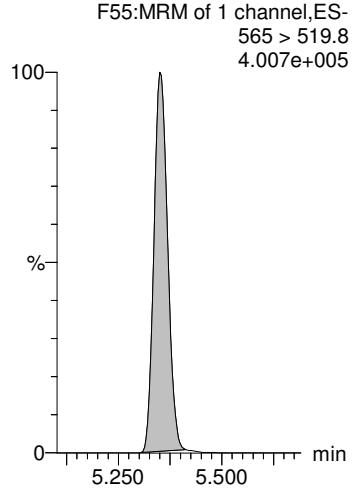
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-PFUdA-EIS



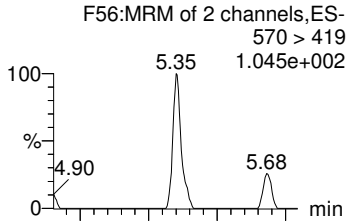
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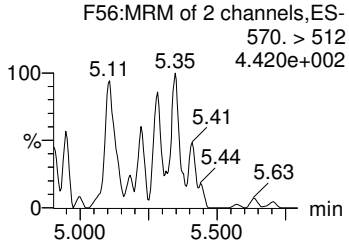
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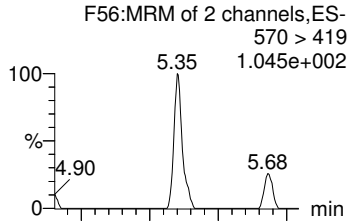
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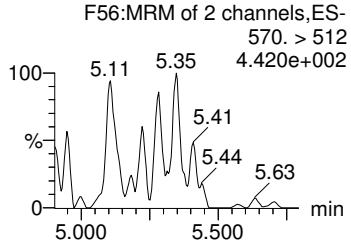
L-MeFOSAA



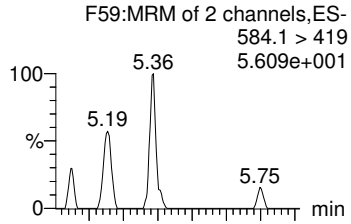


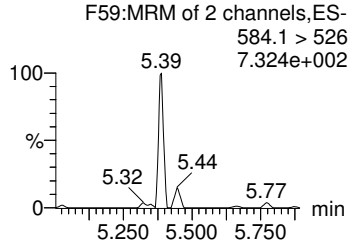
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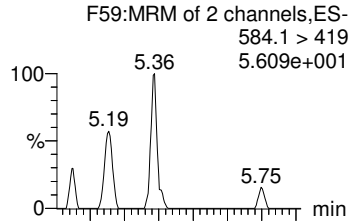


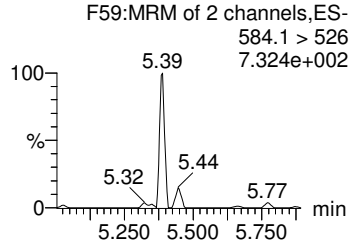
L-EtFOSAA



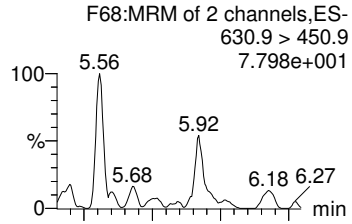


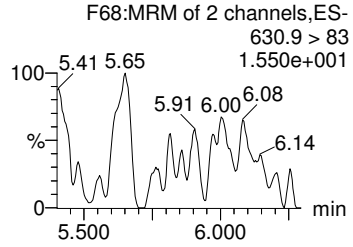
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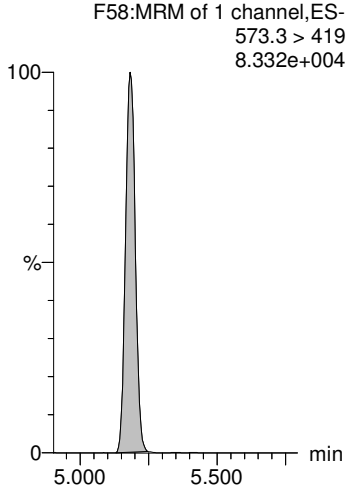


11Cl-PF30UdS

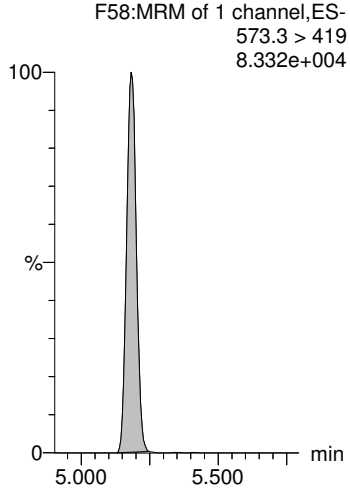




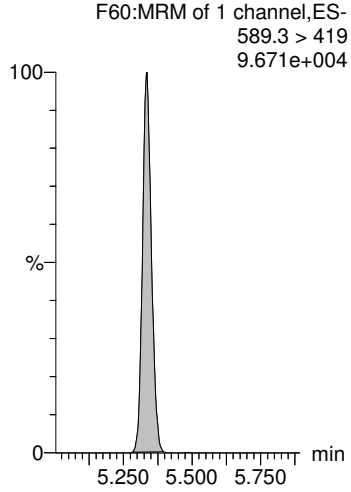
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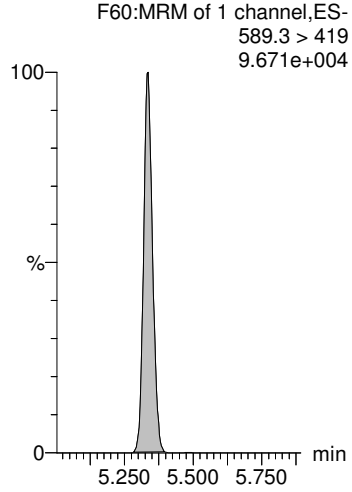
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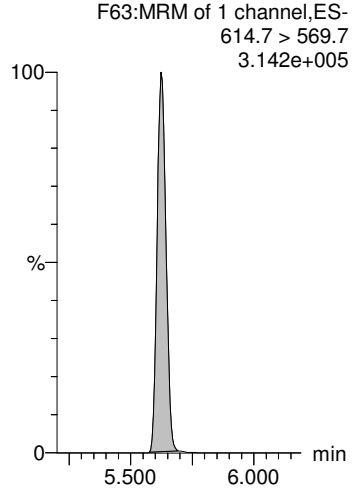
d5-N-EtFOSAA-EIS



d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS

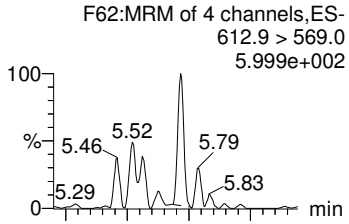


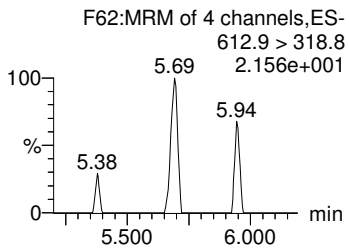
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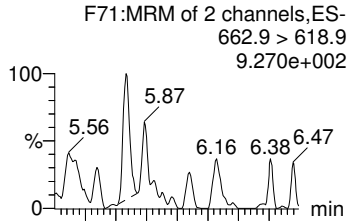
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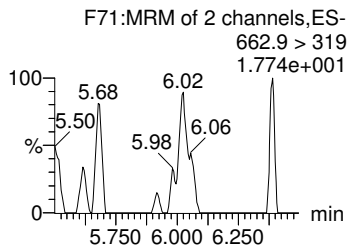
PFDoA



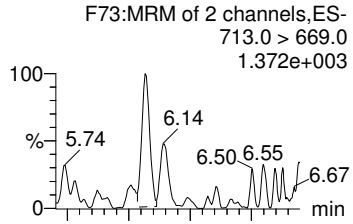


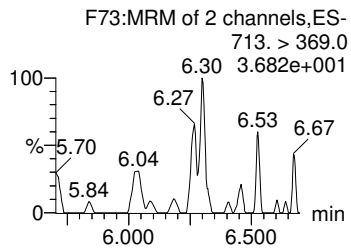
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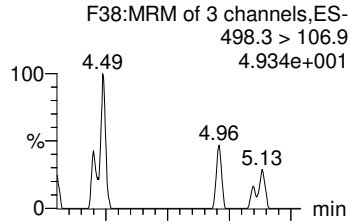


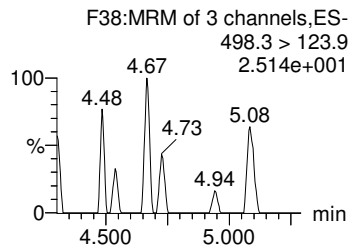
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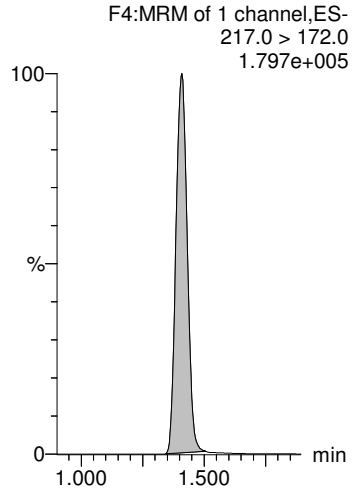


TDCA

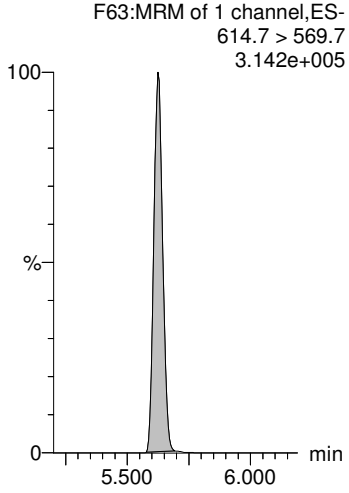




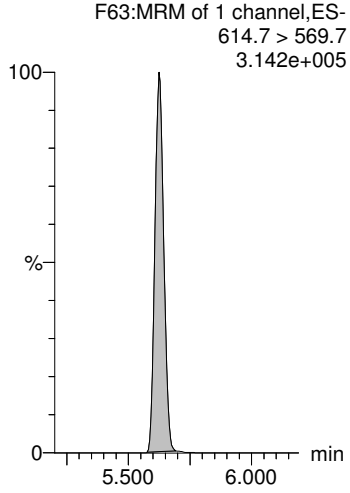
13C4-PFBA



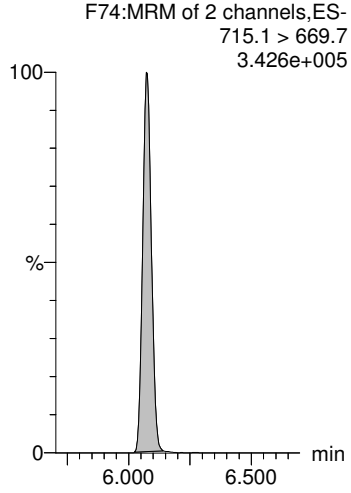
13C2-PFDoA-EIS



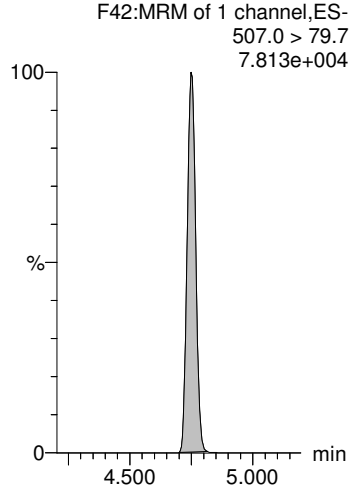
13C2-PFDoA-EIS



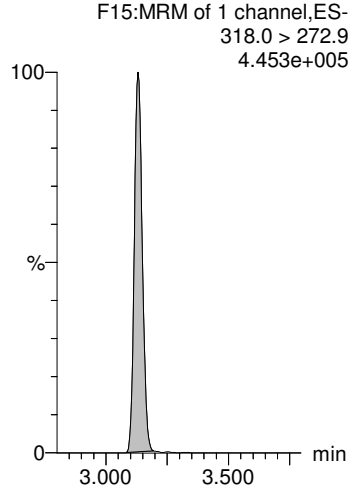
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13C8-PFOS-EIS



13C5-PFHxA

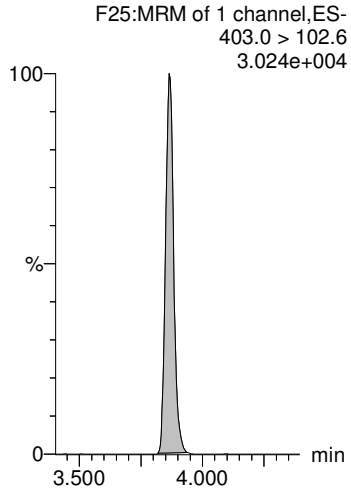


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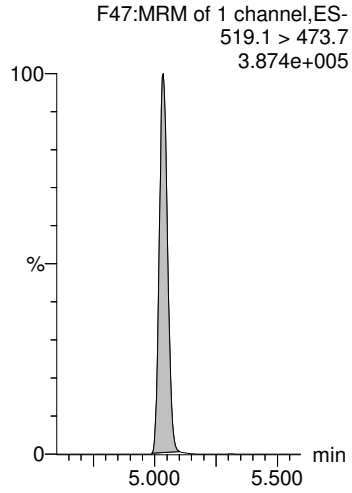
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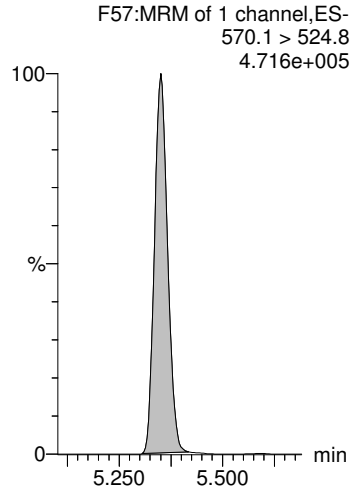
18O2-PFHxS



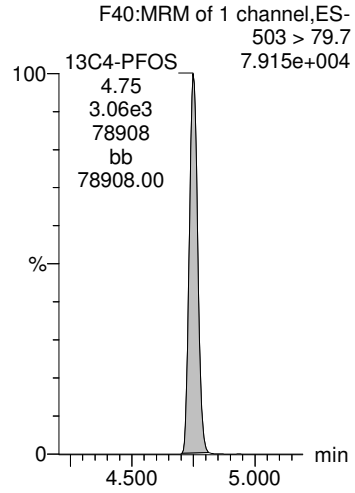
13C6-PFDA



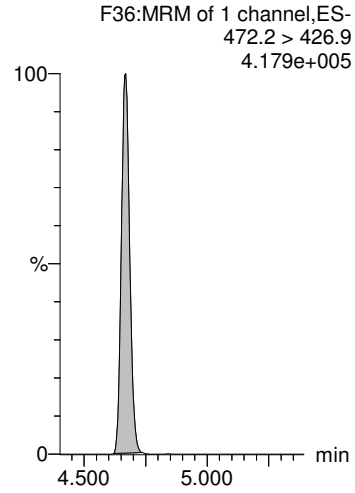
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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MM 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-41.qld

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Name: 200225P1-41, Date: 26-Feb-2020, Time: 00:58:53, ID: B0B0127-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?
1	5	PFBS	299.0 > 79.7	2.30e3	1.25e3	0.250		2.62	2.62	22.9	39.5977	99.0	2.951	NO
2	7	PFHxA	313.0 > 269.0	1.37e4	1.78e4	0.250		3.13	3.13	9.64	42.7800	107.0	18.289	NO
3	9	HFPO-DA	285.1 > 168.9	2.45e3	2.88e3	0.250		3.34	3.34	10.6	42.7384	106.8	2.698	NO
4	11	PFHpA	363.0 > 318.9	1.12e4	1.18e4	0.250		3.73	3.73	11.9	38.3799	95.9	38.991	NO
5	12	ADONA	376.8 > 250.9	2.53e4	1.18e4	0.250		3.82	3.83	26.9	37.7276	94.3	3.908	NO
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.25e3		0.250	120.043	2.66	2.62	1250	41.7339	83.5		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.78e4		0.250	1794.782	3.13	3.13	17800	39.7303	79.5		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.88e3		0.250	314.205	3.39	3.34	2880	36.7126	73.4		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.18e4		0.250	1233.447	3.74	3.73	11800	38.1055	76.2		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.18e4		0.250	1233.447	3.74	3.73	11800	38.1055	76.2		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	2.23e3	2.68e3	0.250		3.87	3.86	10.4	40.5880	101.5	2.174	NO
13	1...	Total PFHxS	398.9 > 79.7	2.23e3	2.68e3	0.250		3.93		10.4	40.5880			
14	16	L-PFOA	412.8 > 368.9	1.45e4	1.57e4	0.250		4.23	4.23	11.6	40.6046	101.5	3.058	NO
15	1...	Total PFOA	412.8 > 368.9	1.45e4	1.57e4	0.250		4.60		11.6	40.6046			
16	21	PFNA	463.0 > 418.8	1.47e4	1.50e4	0.250		4.67	4.67	12.2	40.9087	102.3	8.353	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.68e3		0.250	273.316	3.86	3.87	2680	39.2653	78.5		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.68e3		0.250	273.316	3.86	3.87	2680	39.2653	78.5		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.57e4		0.250	1593.567	4.23	4.23	15700	39.3043	78.6		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.57e4		0.250	1593.567	4.23	4.23	15700	39.3043	78.6		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.50e4		0.250	1492.001	4.67	4.67	15000	40.2548	80.5		
22	-1													
23	23	L-PFOS	498.9 > 79.7	1.96e3	3.06e3	0.250		4.75	4.75	8.01	34.2479	85.6	2.241	NO
24	1...	Total PFOS	498.9 > 79.7	1.96e3	3.06e3	0.250		5.13		8.01	34.2479			
25	25	9Cl-PF30NS	530.7 > 350.8	2.26e3	3.06e3	0.250		4.96	4.96	9.23	36.5977	91.5	16.709	NO
26	26	PFDA	513 > 468.8	1.53e4	1.62e4	0.250		5.04	5.04	11.8	40.0287	100.1	10.066	NO
27	33	PFUdA	563.0 > 518.9	1.36e4	1.72e4	0.250		5.35	5.35	9.89	42.2871	105.7	23.887	NO
28	71	13C8-PFOS-EIS	507.0 > 79.7	3.06e3		0.250	291.759	4.75	4.75	3060	42.0096	84.0		
29	71	13C8-PFOS-EIS	507.0 > 79.7	3.06e3		0.250	291.759	4.75	4.75	3060	42.0096	84.0		
30	71	13C8-PFOS-EIS	507.0 > 79.7	3.06e3		0.250	291.759	4.75	4.75	3060	42.0096	84.0		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.62e4		0.250	1635.176	5.04	5.04	16200	39.5926	79.2		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.72e4		0.250	1617.090	5.35	5.35	17200	42.6543	85.3		
33	-1													
34	29	L-MeFOSAA	570 > 419	4.29e3	3.04e3	0.250		5.18	5.19	17.7	36.5402	91.4	2.129	NO
35	1...	Total N-MeFOSAA	570. > 419	4.29e3	3.04e3	0.250		5.19		17.7	36.5402			
36	31	L-EtFOSAA	584.1 > 419	3.51e3	3.69e3	0.250		5.34	5.34	11.9	39.7961	99.5	1.166	NO

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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-41.qld

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Name: 200225P1-41, Date: 26-Feb-2020, Time: 00:58:53, ID: B0B0127-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	584.1 > 419	3.51e3	3.69e3	0.250		5.37		11.9	39.7961			
38	35	11Cl-PF30UdS	630.9 > 450.9	5.92e3	1.32e4	0.250		5.56	5.56	5.61	49.0880	122.7	18.704	NO
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.04e3		0.250	330.310	5.18	5.18	3040	36.7972	73.6		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.04e3		0.250	330.310	5.18	5.18	3040	36.7972	73.6		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.69e3		0.250	395.337	5.32	5.34	3690	37.3390	74.7		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.69e3		0.250	395.337	5.32	5.34	3690	37.3390	74.7		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.32e4		0.250	1686.253	5.62	5.63	13200	31.3060	62.6		
44	-1													
45	37	PFDoA	612.9 > 569.0	1.20e4	1.32e4	0.250		5.63	5.63	11.3	41.8630	104.7	10.413	NO
46	39	PFTrDA	662.9 > 618.9	1.28e4	1.32e4	0.250		5.88	5.87	12.1	43.1278	107.8	72.385	NO
47	41	PFTeDA	713.0 > 669.0	1.25e4	1.58e4	0.250		6.08	6.08	9.86	41.4280	103.6	15.959	NO
48	1...	TDCA	498.3>106.9			0.250		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	1.02e4	1.02e4	0.250	1.000	1.42	1.41	12.5	50.0000	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.32e4		0.250	1686.253	5.62	5.63	13200	31.3060	62.6		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.32e4		0.250	1686.253	5.62	5.63	13200	31.3060	62.6		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.58e4		0.250	1896.410	6.05	6.08	15800	33.2898	66.6		
53	71	13C8-PFOS-EIS	507.0 > 79.7	3.06e3		0.250	291.759	4.75	4.75	3060	42.0096	84.0		
54	1...	13C5-PFHxA	318.0 > 272.9	1.76e4	1.76e4	0.250	1.000	3.13	3.13	12.5	50.0000	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.14e3	1.14e3	0.250	1.000	3.86	3.86	12.5	50.0000	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.59e4	1.59e4	0.250	1.000	5.04	5.04	12.5	50.0000	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.79e4	1.79e4	0.250	1.000	5.35	5.35	12.5	50.0000	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.39e3	3.39e3	0.250	1.000	4.75	4.75	12.5	50.0000	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.61e4	1.61e4	0.250	1.000	4.67	4.67	12.5	50.0000	100.0		

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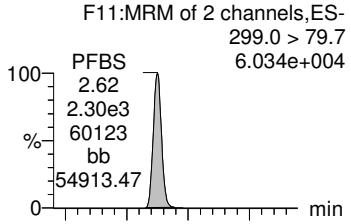
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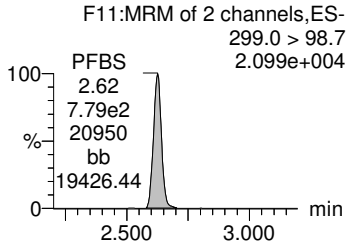
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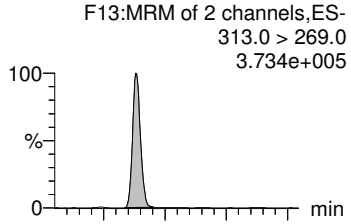
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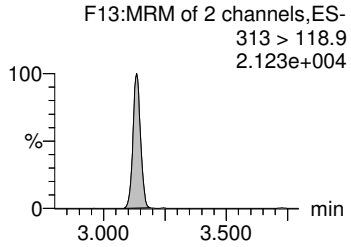
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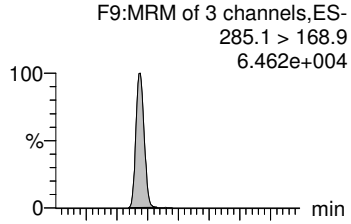


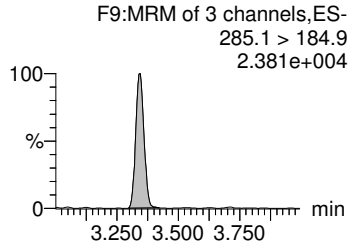
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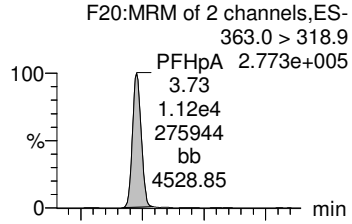


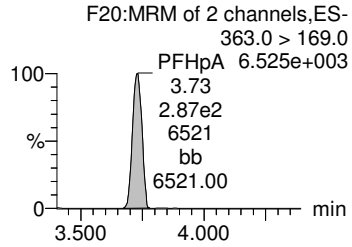
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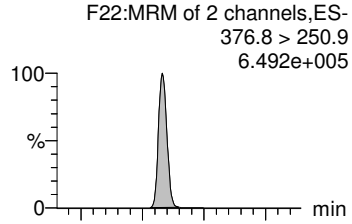


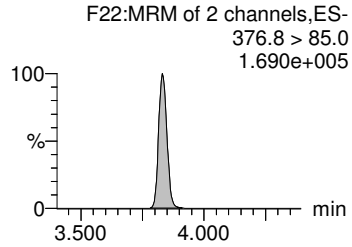
PFHpA



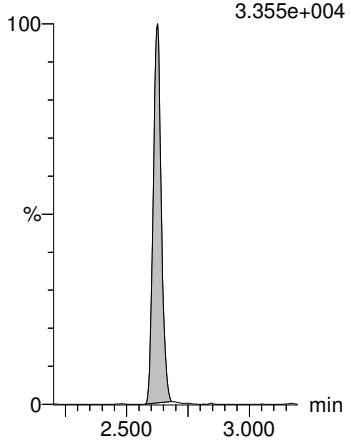


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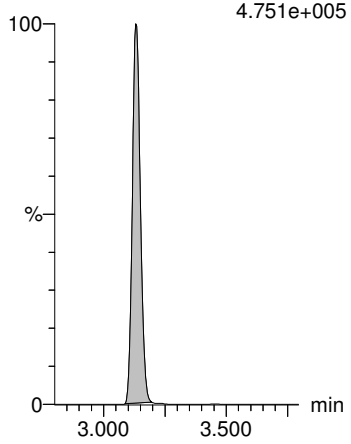




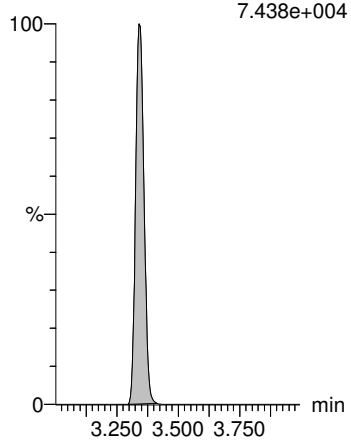
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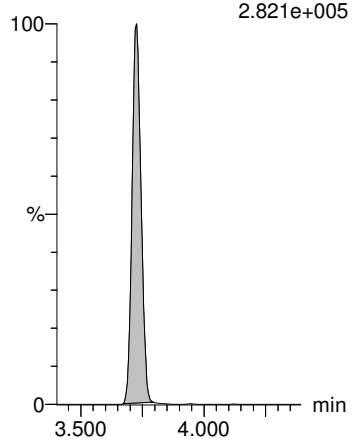
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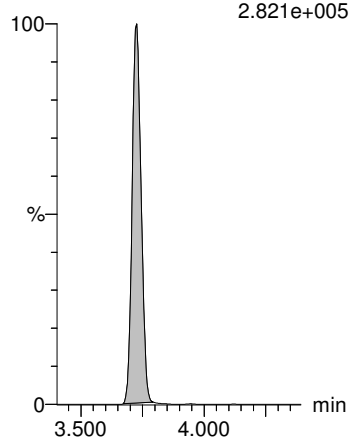
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

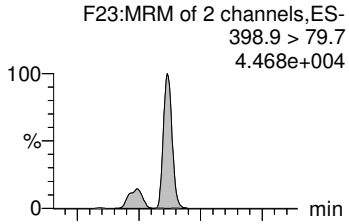


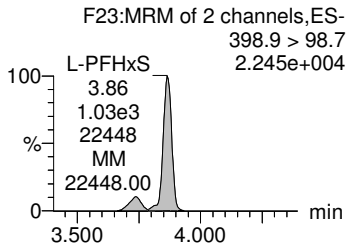
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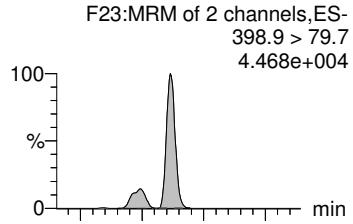
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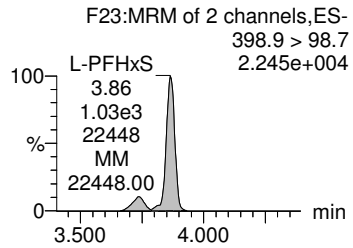
L-PFHxS



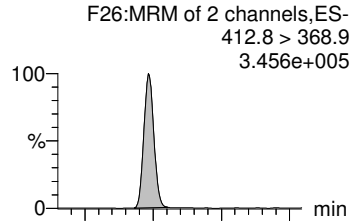


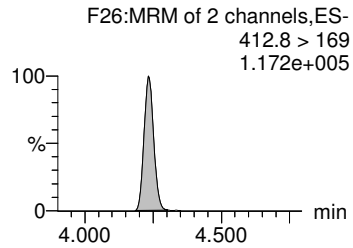
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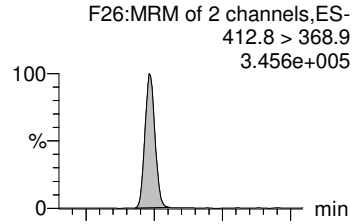


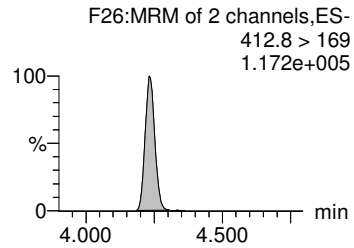
L-PFOA



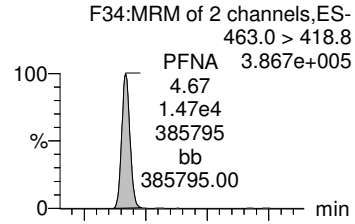


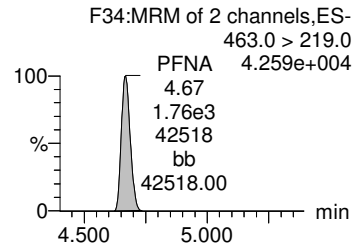
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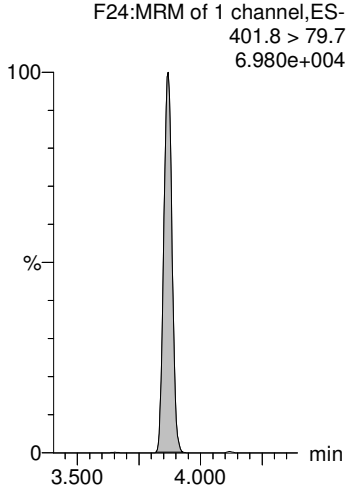


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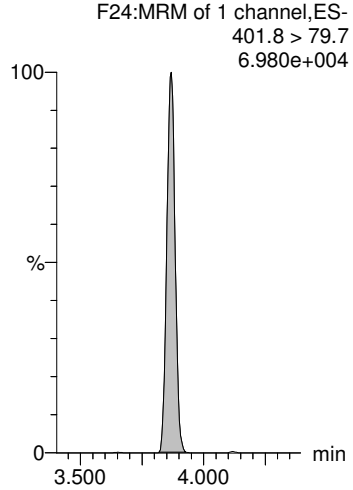




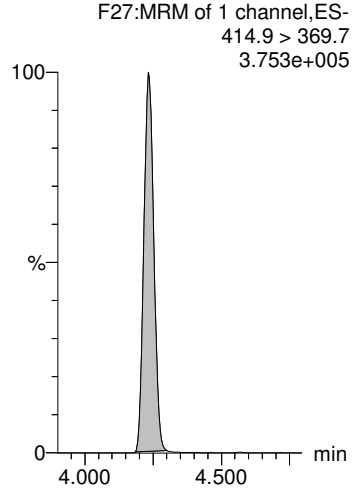
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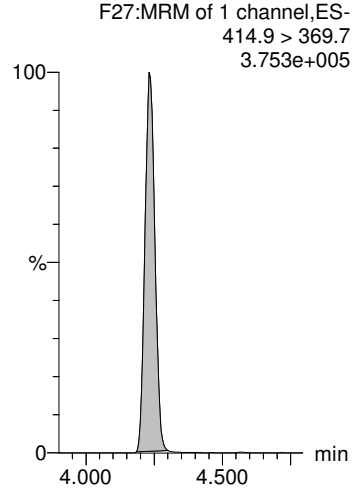
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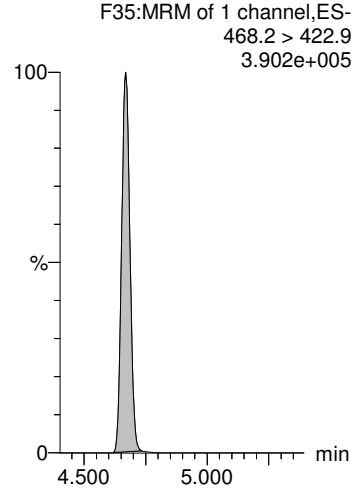
13C2-PFOA-EIS



13C2-PFOA-EIS



13C5-PFNA-EIS



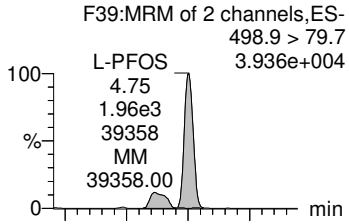
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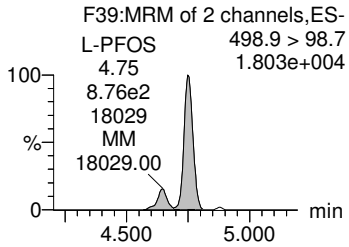
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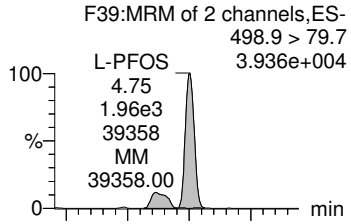
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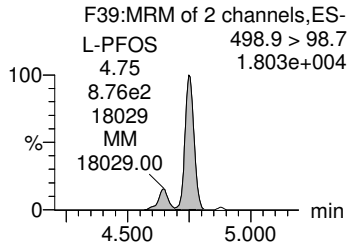
L-PFOS



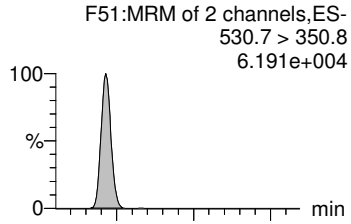


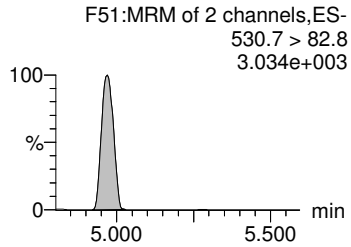
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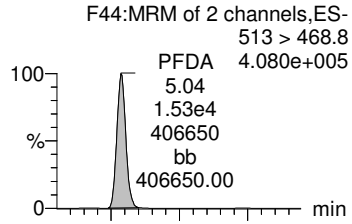


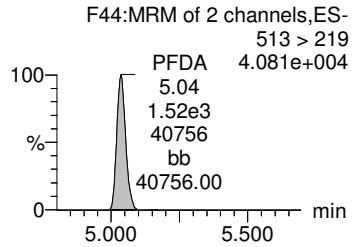
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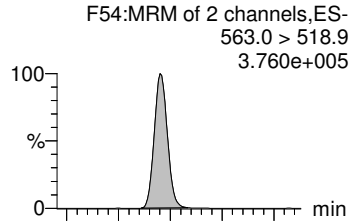


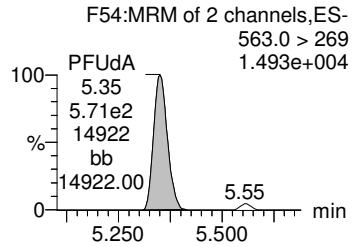
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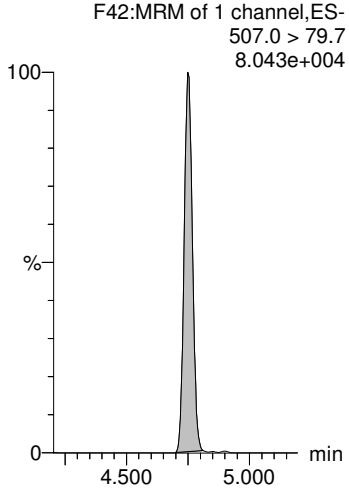


PFUdA

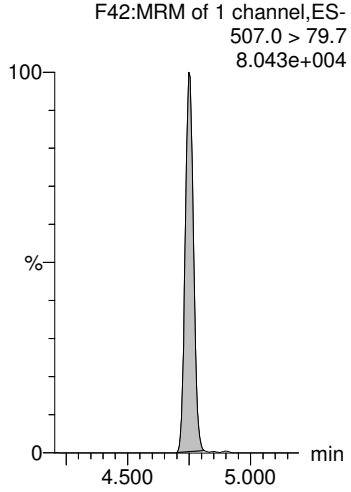




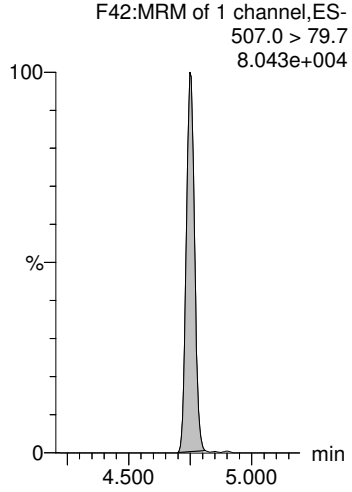
13C8-PFOS-EIS



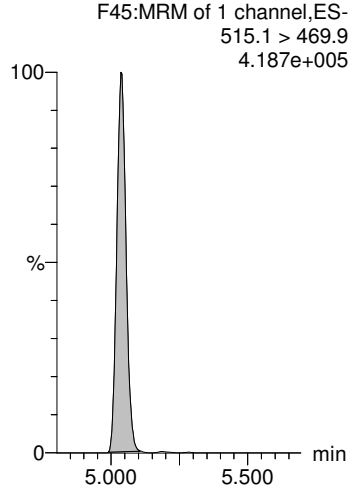
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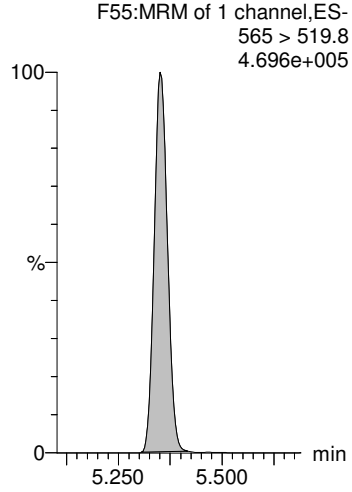
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-PFUdA-EIS

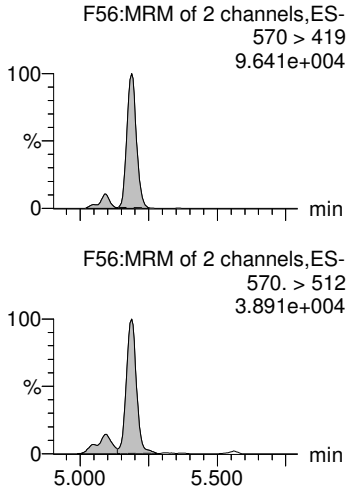


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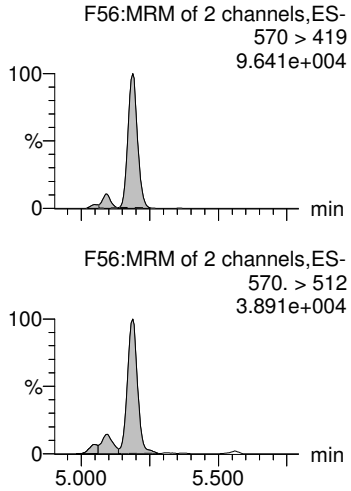
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Name: 200225P1-41, Date: 26-Feb-2020, Time: 00:58:53, ID: B0B0127-BS1 OPR 0.25, Description: OPR

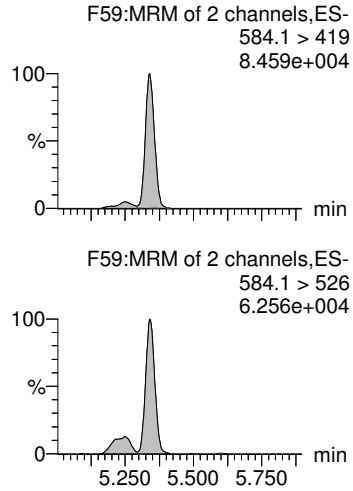
L-MeFOSAA



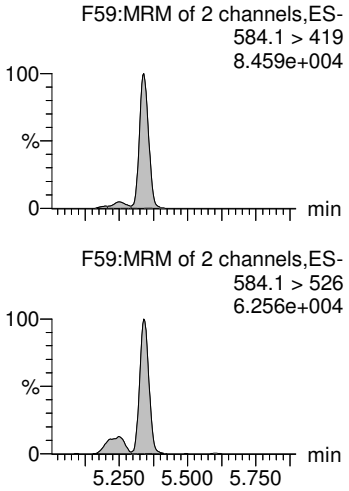
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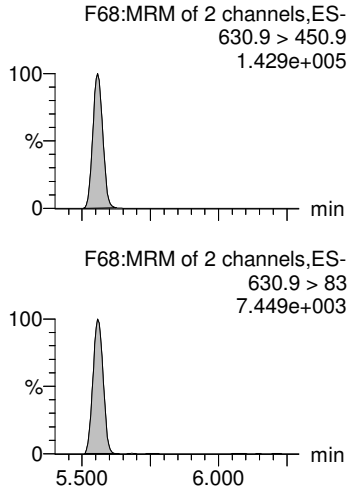
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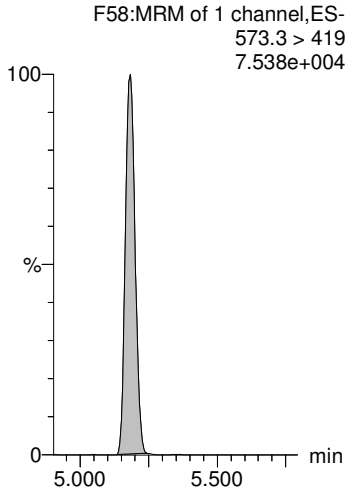
Total N-EtFOSAA



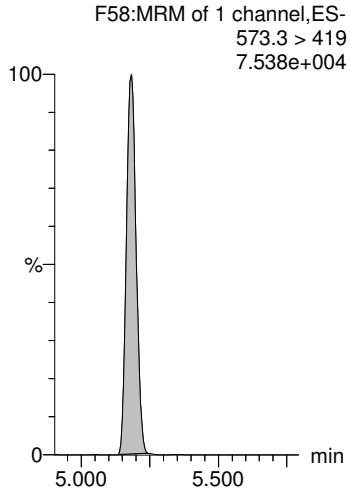
11Cl-PF30UdS



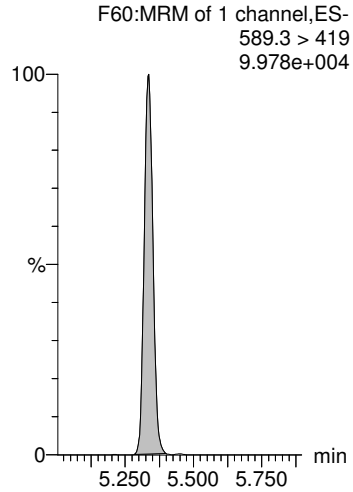
d3-N-MeFOSAA-EIS



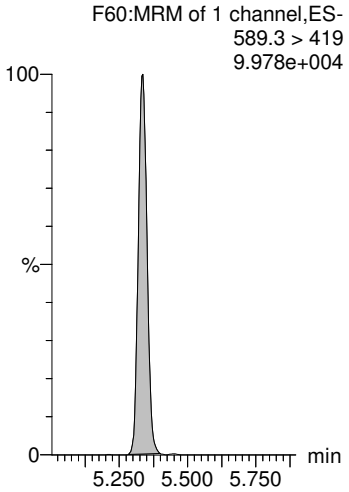
d3-N-MeFOSAA-EIS



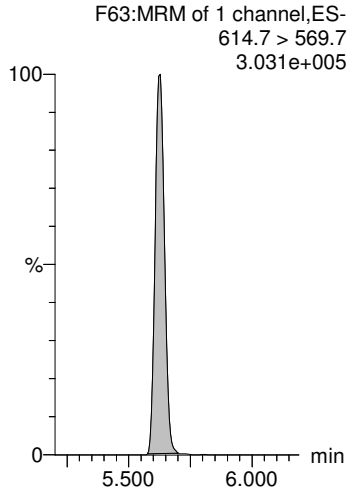
d5-N-EtFOSAA-EIS



d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS

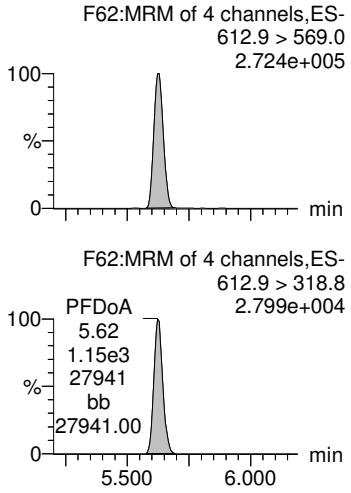


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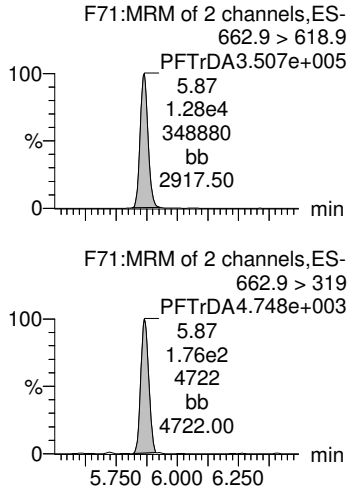
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Name: 200225P1-41, Date: 26-Feb-2020, Time: 00:58:53, ID: B0B0127-BS1 OPR 0.25, Description: OPR

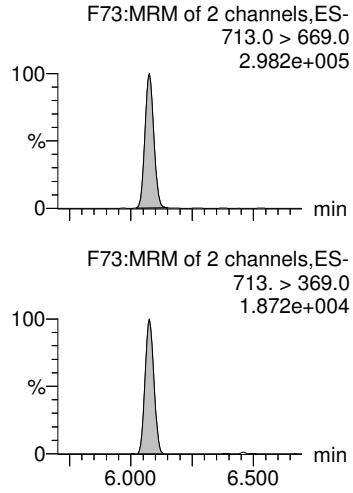
PFDoA



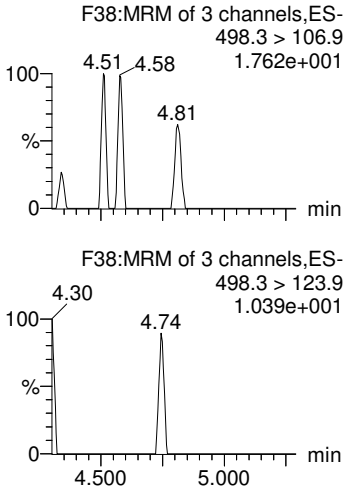
PFTrDA



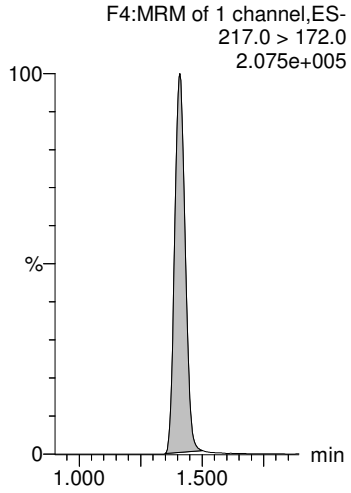
PFTeDA



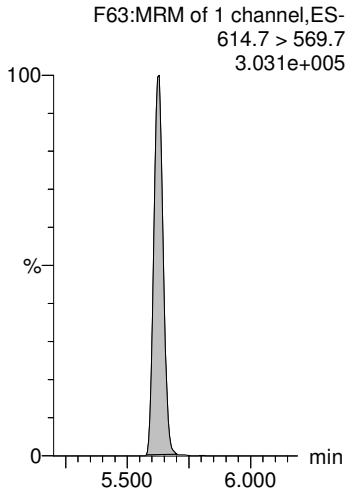
TDCA



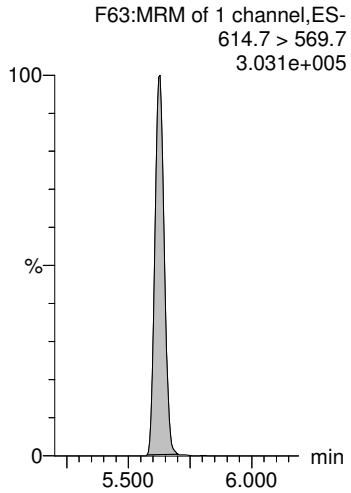
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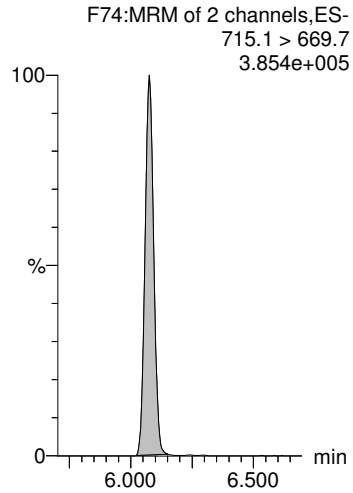
13C2-PFDoA-EIS



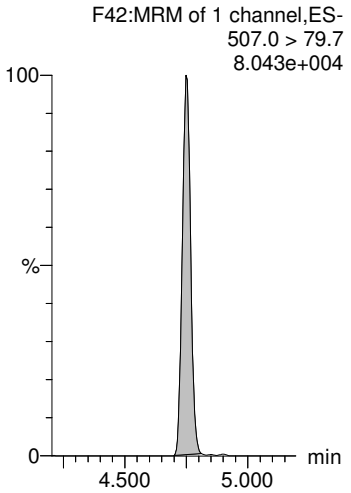
13C2-PFDoA-EIS



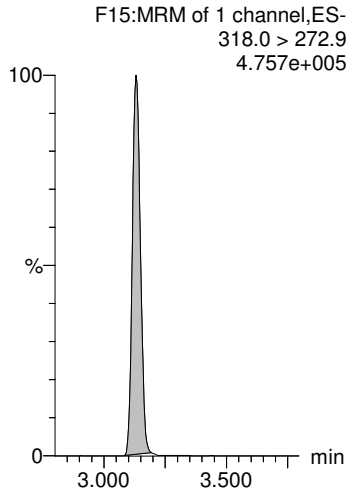
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



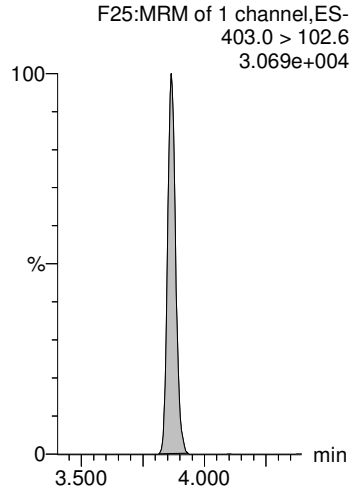
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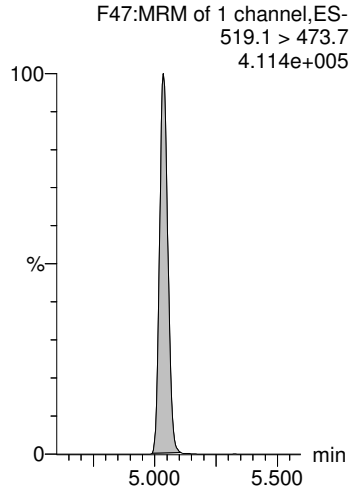
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Printed: Friday, February 28, 2020 10:30:18 Pacific Standard Time

Name: 200225P1-41, Date: 26-Feb-2020, Time: 00:58:53, ID: B0B0127-BS1 OPR 0.25, Description: OPR

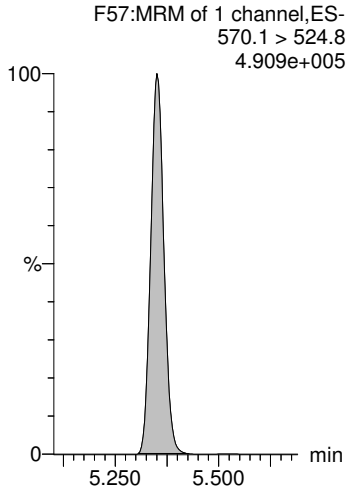
18O2-PFHxS



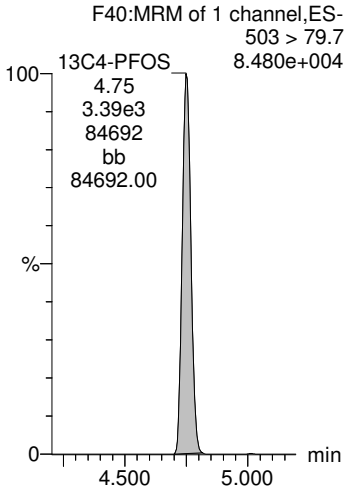
13C6-PFDA



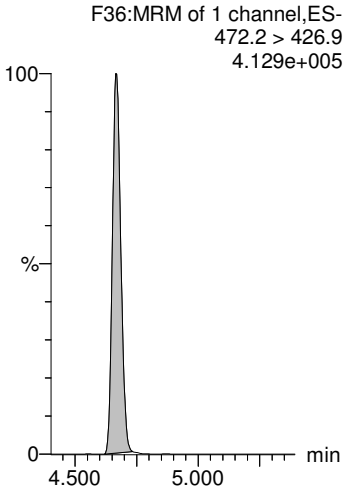
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-44.qld

Last Altered: Friday, February 28, 2020 10:31:38 Pacific Standard Time
Printed: Friday, February 28, 2020 10:31:58 Pacific Standard Time

Name: 200225P1-44, Date: 26-Feb-2020, Time: 01:30:25, ID: 2000321-01 EB02-20200213 0.25641, Description: EB02-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7		1.27e3	0.256		2.62						YES
2	7	PFHxA	313.0 > 269.0		1.66e4	0.256		3.13						YES
3	9	HFPO-DA	285.1 > 168.9		2.80e3	0.256		3.34						YES
4	11	PFHpA	363.0 > 318.9		1.26e4	0.256		3.73						YES
5	12	ADONA	376.8 > 250.9		1.26e4	0.256		3.82						YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.27e3		0.256	120.043	2.66	2.62	1270	41.2146	84.5		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.66e4		0.256	1794.782	3.13	3.13	16600	36.0751	74.0		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.80e3		0.256	314.205	3.39	3.34	2800	34.8094	71.4		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.26e4		0.256	1233.447	3.74	3.73	12600	39.7590	81.6		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.26e4		0.256	1233.447	3.74	3.73	12600	39.7590	81.6		
11	-1													
12	13	L-PFHxS	398.9 > 79.7		2.68e3	0.256		3.86						YES
13	1...	Total PFHxS	398.9 > 79.7	0.00e0	2.68e3	0.256		3.93		0.000				
14	16	L-PFOA	412.8 > 368.9		1.64e4	0.256		4.23						YES
15	1...	Total PFOA	412.8 > 368.9	0.00e0	1.64e4	0.256		4.60		0.000				
16	21	PFNA	463.0 > 418.8		1.60e4	0.256		4.67						YES
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.68e3		0.256	273.316	3.86	3.86	2680	38.2332	78.4		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.68e3		0.256	273.316	3.86	3.86	2680	38.2332	78.4		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.64e4		0.256	1593.567	4.23	4.23	16400	40.1460	82.4		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.64e4		0.256	1593.567	4.23	4.23	16400	40.1460	82.4		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.60e4		0.256	1492.001	4.67	4.67	16000	41.7922	85.7		
22	-1													
23	23	L-PFOS	498.9 > 79.7	1.22e1	3.29e3	0.256		4.75	4.64	0.0464	0.2191		4.793	YES
24	1...	Total PFOS	498.9 > 79.7	1.22e1	3.29e3	0.256		5.13		0.0464	0.2191			
25	25	9Cl-PF30NS	530.7 > 350.8		3.29e3	0.256		4.96						YES
26	26	PFDA	513 > 468.8		1.62e4	0.256		5.04						YES
27	33	PFUdA	563.0 > 518.9		1.77e4	0.256		5.35						YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	3.29e3		0.256	291.759	4.75	4.75	3290	43.9680	90.2		
29	71	13C8-PFOS-EIS	507.0 > 79.7	3.29e3		0.256	291.759	4.75	4.75	3290	43.9680	90.2		
30	71	13C8-PFOS-EIS	507.0 > 79.7	3.29e3		0.256	291.759	4.75	4.75	3290	43.9680	90.2		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.62e4		0.256	1635.176	5.04	5.04	16200	38.5384	79.1		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.77e4		0.256	1617.090	5.35	5.35	17700	42.5985	87.4		
33	-1													
34	29	L-MeFOSAA	570 > 419		3.11e3	0.256		5.18						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	3.11e3	0.256		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		3.67e3	0.256		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-44.qld

Last Altered: Friday, February 28, 2020 10:31:38 Pacific Standard Time
Printed: Friday, February 28, 2020 10:31:58 Pacific Standard Time

Name: 200225P1-44, Date: 26-Feb-2020, Time: 01:30:25, ID: 2000321-01 EB02-20200213 0.25641, Description: EB02-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	3.67e3	0.256		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		1.41e4	0.256		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.11e3		0.256	330.310	5.18	5.18	3110	36.7046	75.3		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.11e3		0.256	330.310	5.18	5.18	3110	36.7046	75.3		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.67e3		0.256	395.337	5.32	5.34	3670	36.1710	74.2		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.67e3		0.256	395.337	5.32	5.34	3670	36.1710	74.2		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.41e4		0.256	1686.253	5.62	5.62	14100	32.6346	66.9		
44	-1													
45	37	PFDoA	612.9 > 569.0		1.41e4	0.256		5.62						YES
46	39	PFTrDA	662.9 > 618.9		1.41e4	0.256		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.56e4	0.256		6.07						YES
48	1...	TDCA	498.3>106.9			0.256		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	1.05e4	1.05e4	0.256	1.000	1.42	1.41	12.5	48.7500	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.41e4		0.256	1686.253	5.62	5.62	14100	32.6346	66.9		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.41e4		0.256	1686.253	5.62	5.62	14100	32.6346	66.9		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.56e4		0.256	1896.410	6.05	6.07	15600	32.0879	65.8		
53	71	13C8-PFOS-EIS	507.0 > 79.7	3.29e3		0.256	291.759	4.75	4.75	3290	43.9680	90.2		
54	1...	13C5-PFHxA	318.0 > 272.9	1.76e4	1.76e4	0.256	1.000	3.13	3.13	12.5	48.7500	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.10e3	1.10e3	0.256	1.000	3.86	3.86	12.5	48.7500	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.69e4	1.69e4	0.256	1.000	5.04	5.04	12.5	48.7500	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.91e4	1.91e4	0.256	1.000	5.35	5.35	12.5	48.7500	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.48e3	3.48e3	0.256	1.000	4.75	4.75	12.5	48.7500	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.69e4	1.69e4	0.256	1.000	4.67	4.67	12.5	48.7500	100.0		

GM 2/28/2020

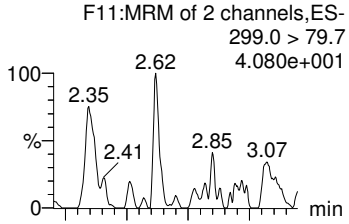
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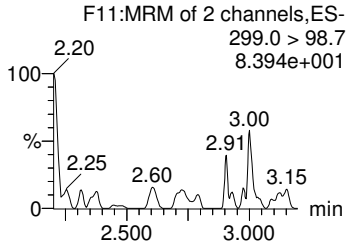
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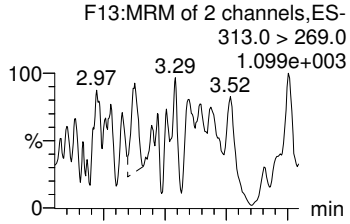
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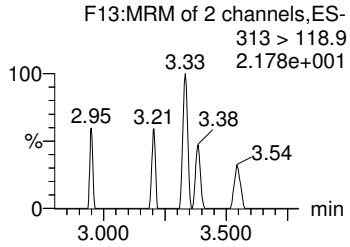
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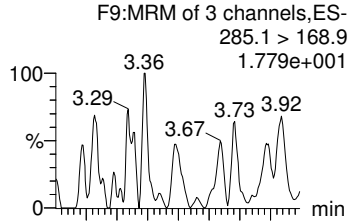


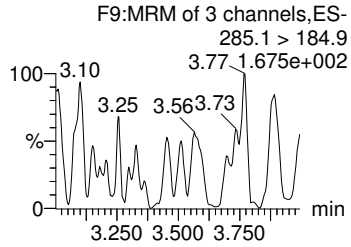
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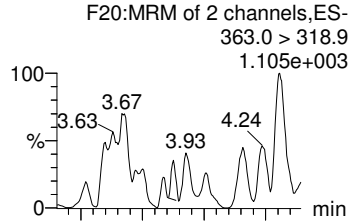


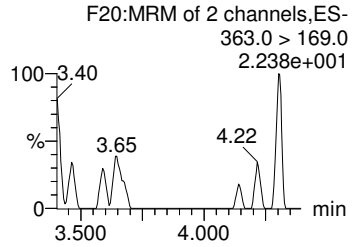
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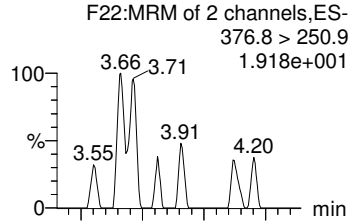


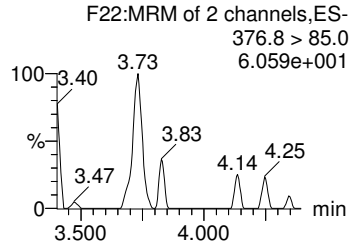
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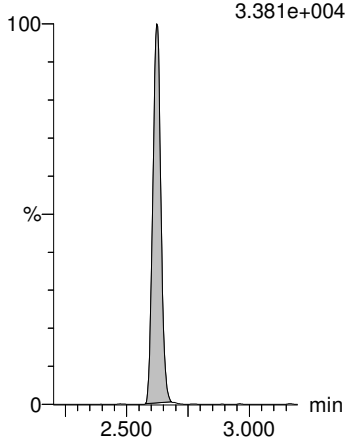


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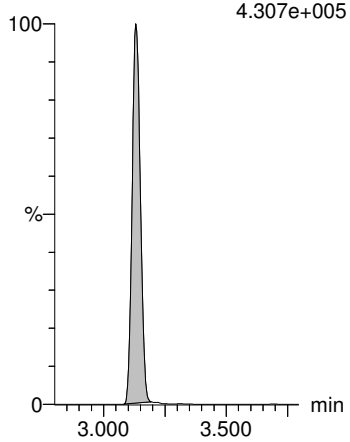




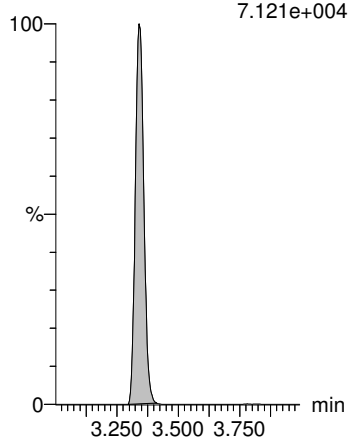
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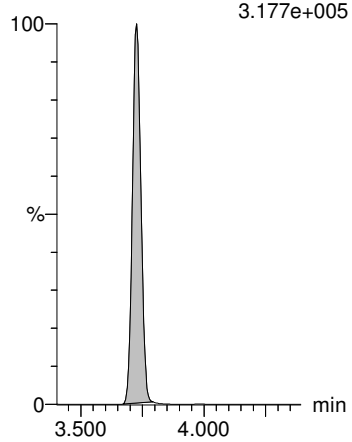
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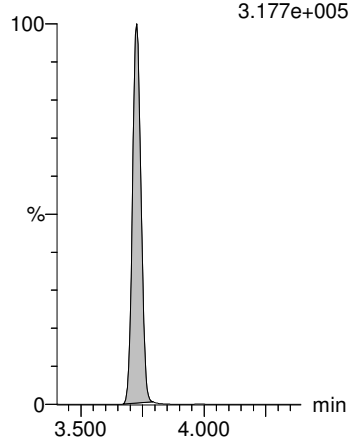
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13C4-PFHpA-EIS



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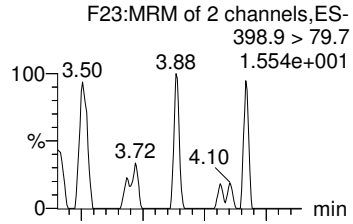


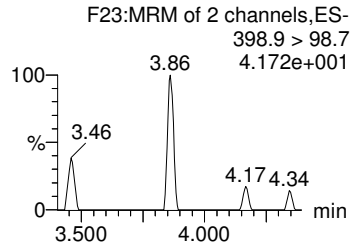
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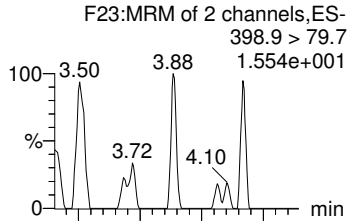
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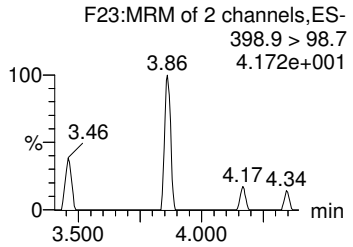
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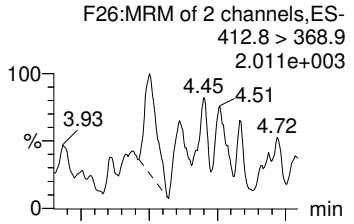


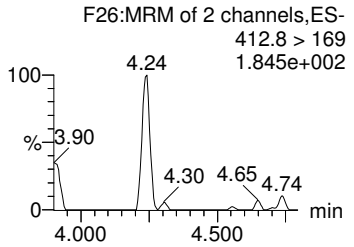
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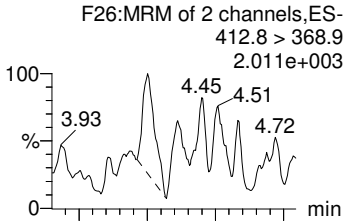


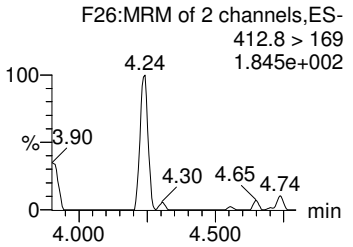
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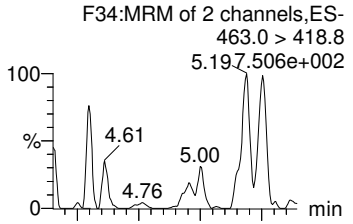


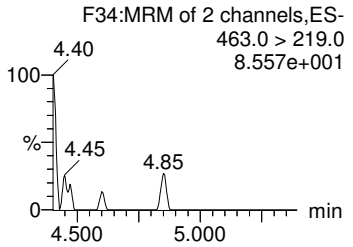
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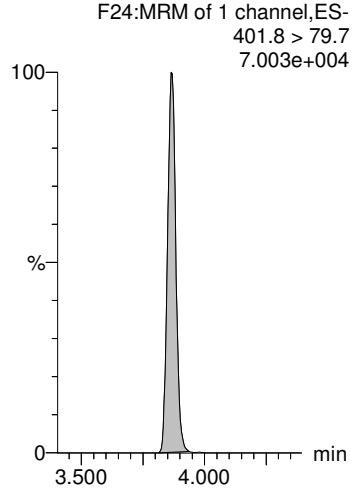


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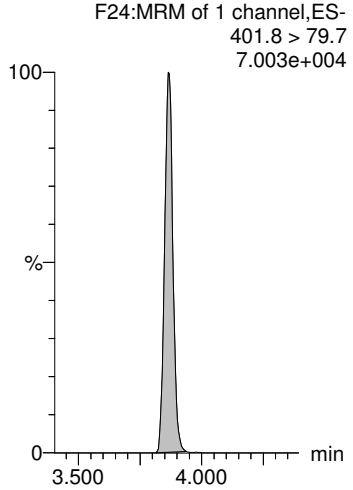




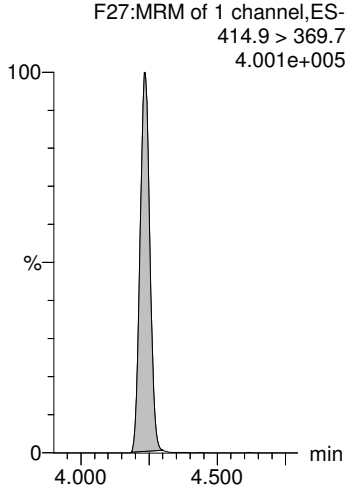
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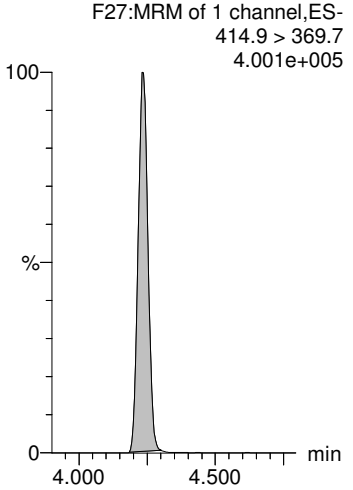
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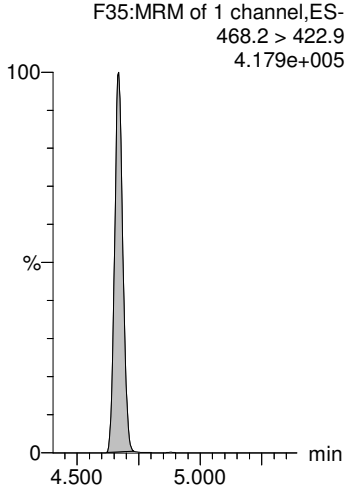
13C2-PFOA-EIS



13C2-PFOA-EIS



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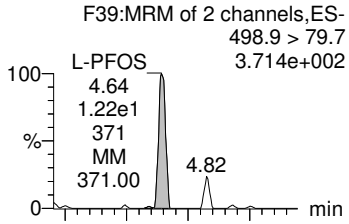


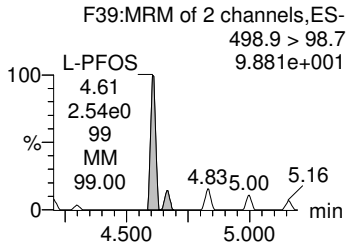
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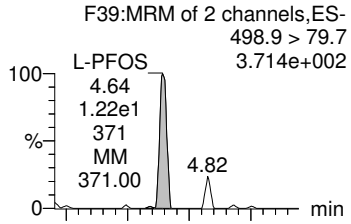
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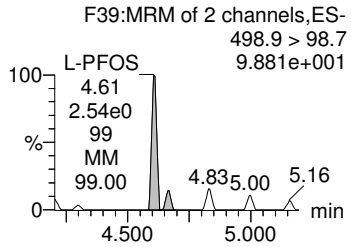
L-PFOS



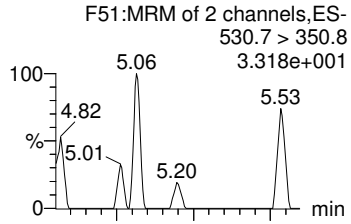


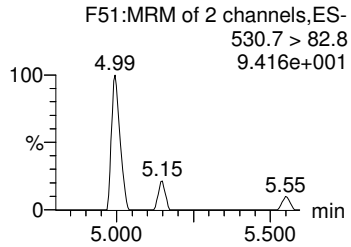
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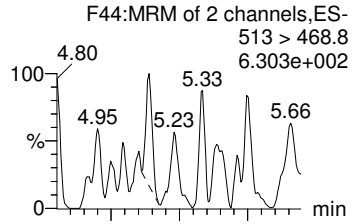


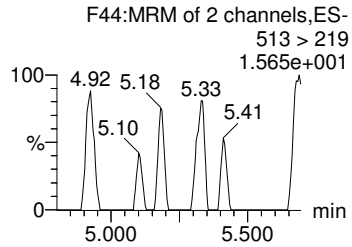
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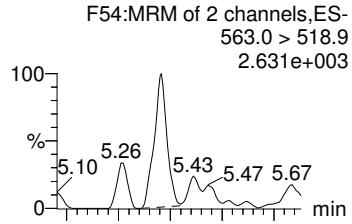


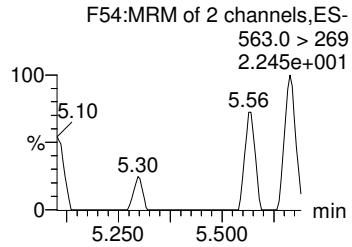
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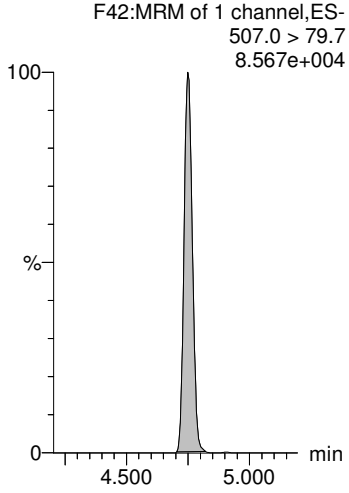


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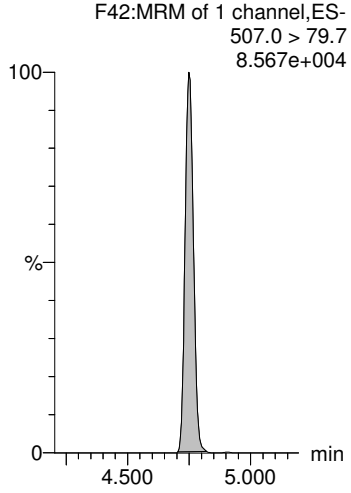




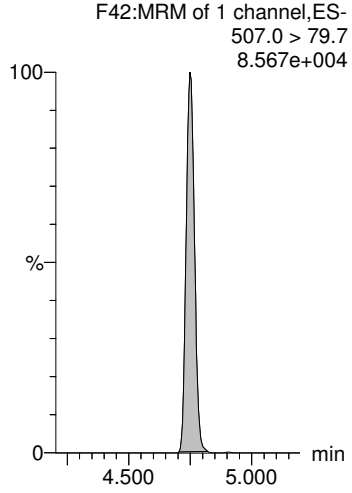
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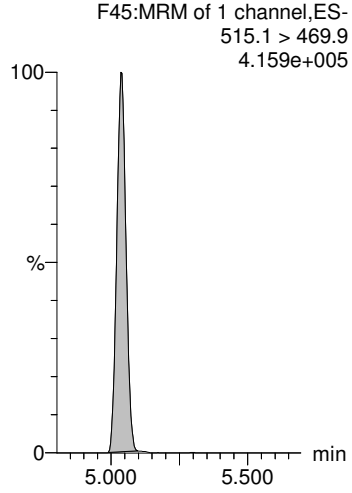
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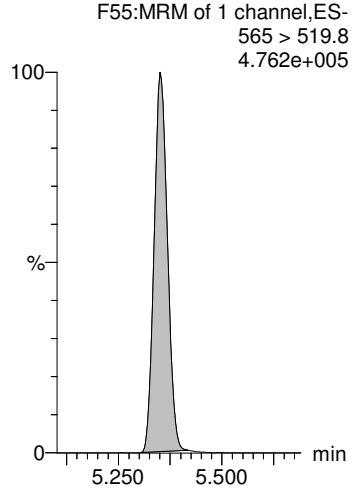
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13C2-PFDA-EIS



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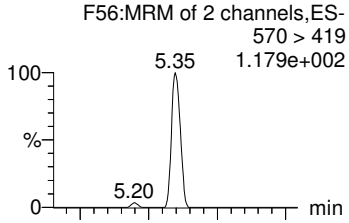


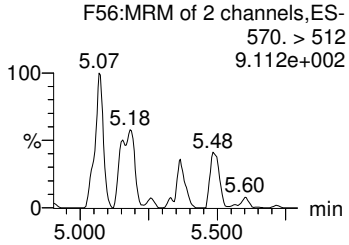
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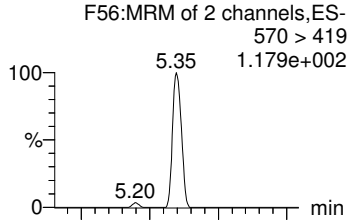
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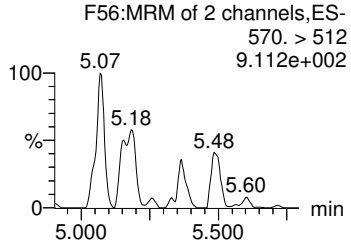
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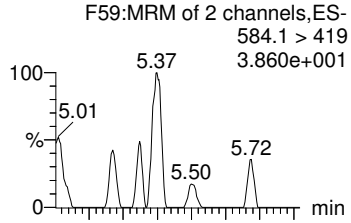


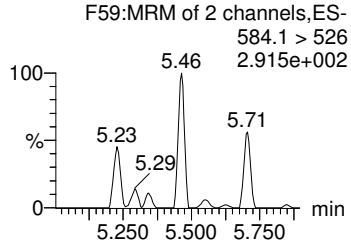
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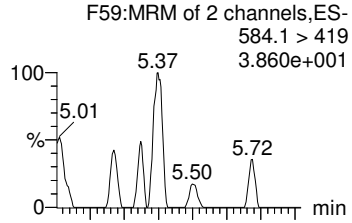


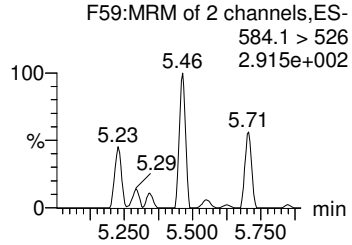
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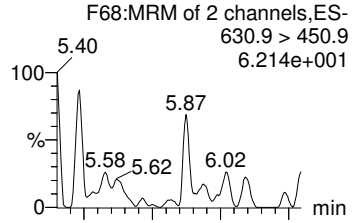


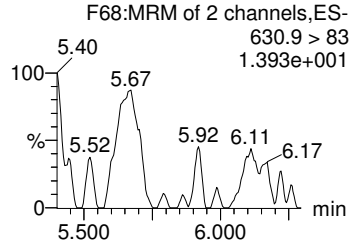
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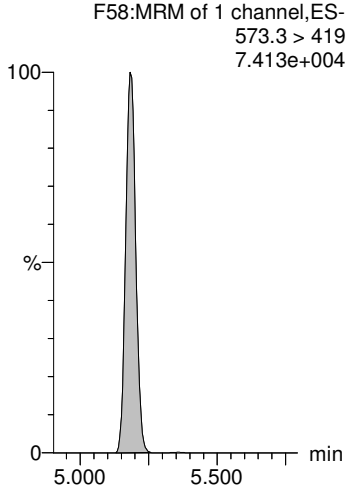


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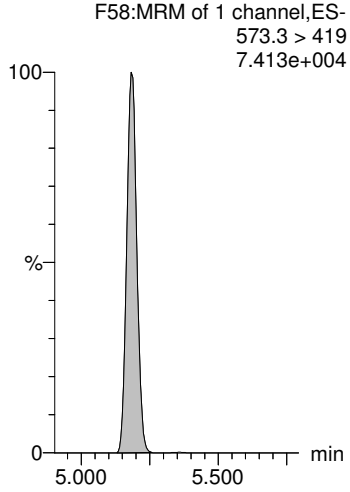




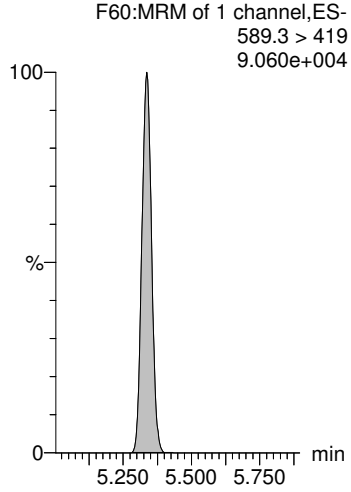
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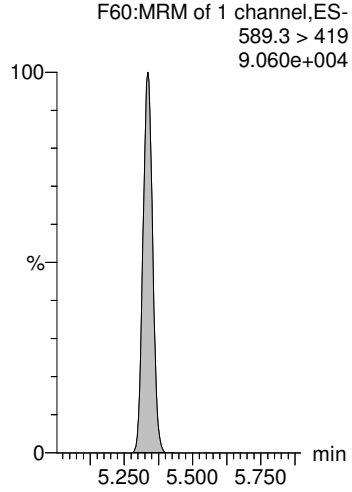
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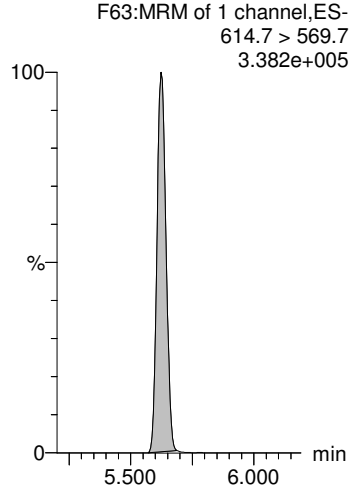
d5-N-EtFOSAA-EIS



d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS

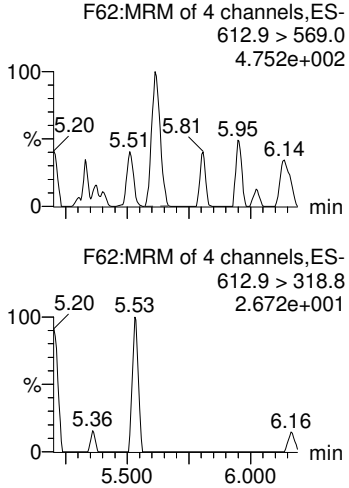


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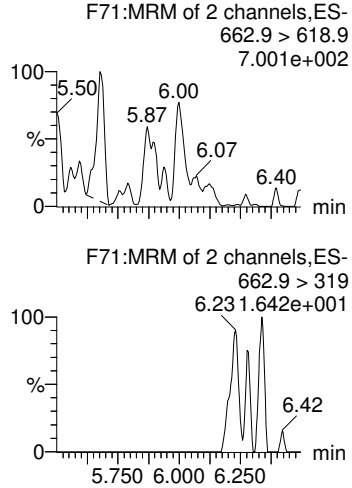
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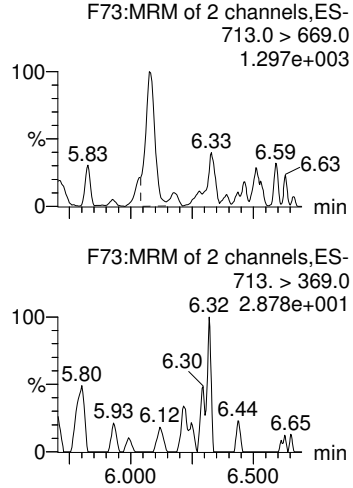
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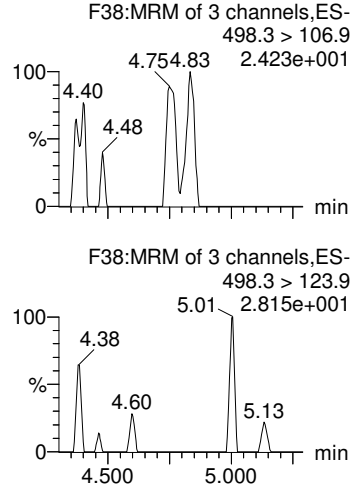
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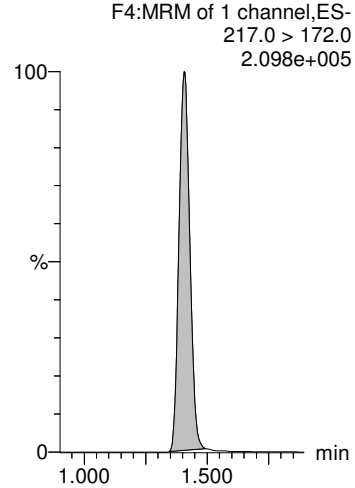
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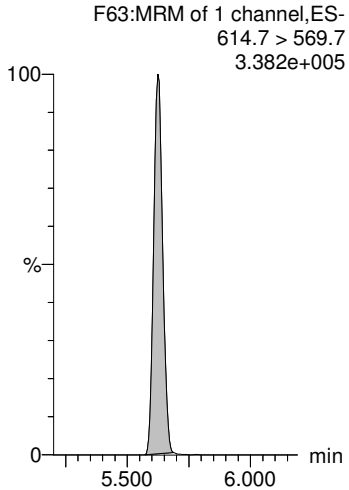
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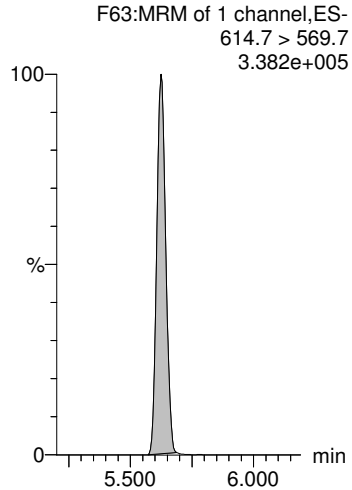
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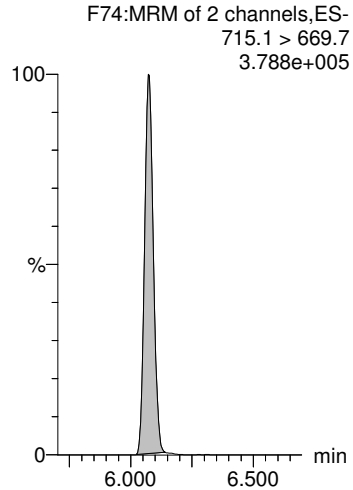
13C2-PFDoA-EIS



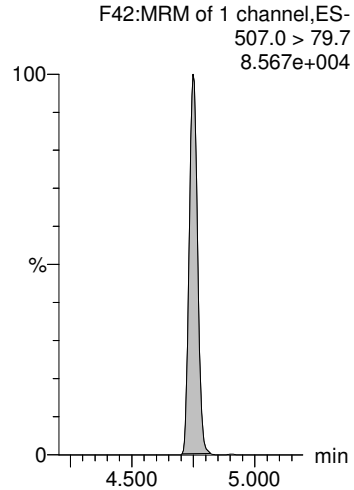
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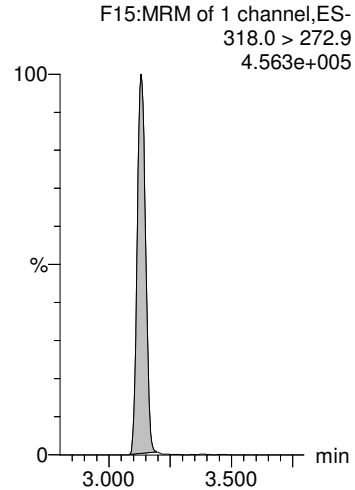
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13C8-PFOS-EIS



13C5-PFHxA



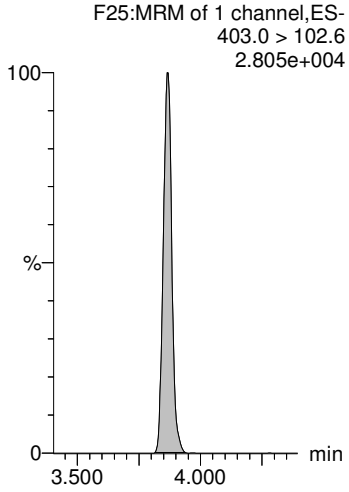
MM 3/2/2020

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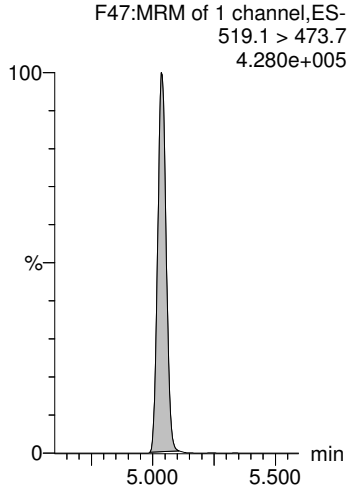
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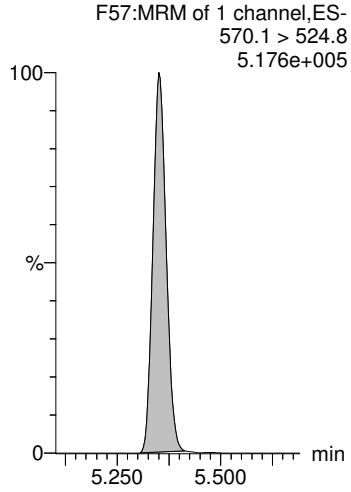
18O2-PFHxS



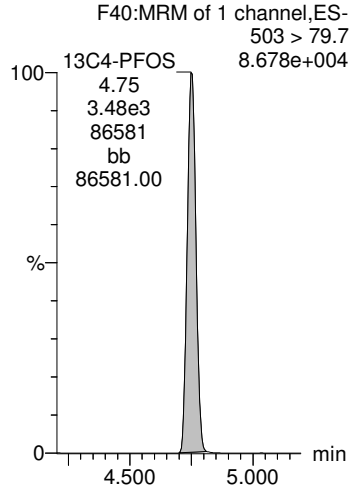
13C6-PFDA



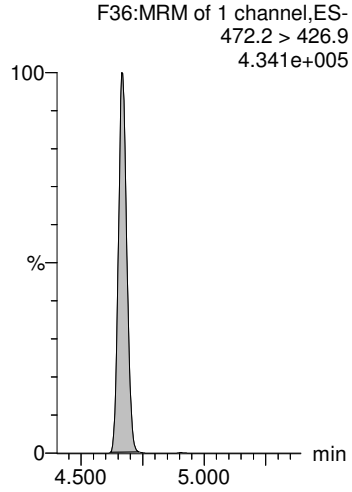
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-46.qld

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Printed: Friday, February 28, 2020 16:53:09 Pacific Standard Time

Name: 200226P1-46, Date: 27-Feb-2020, Time: 00:30:54, ID: 2000321-02 I013WMW02SR-20200213 0.24488, Description: I013WMW02SR-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	9.05e2	1.28e3	0.245		2.63	2.63	8.83	14.3905		3.241	NO
2	7	PFHxA	313.0 > 269.0	3.08e4	1.61e4	0.245		3.14	3.14	23.9	105.5372		15.893	NO
3	9	HFPO-DA	285.1 > 168.9		2.78e3	0.245		3.34						YES
4	11	PFHpA	363.0 > 318.9	9.50e3	1.10e4	0.245		3.73	3.73	10.8	35.4022		48.135	NO
5	12	ADONA	376.8 > 250.9		1.10e4	0.245		3.83						YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.28e3		0.245	109.364	2.66	2.63	1280	47.7984	93.6		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.61e4		0.245	1741.311	3.14	3.14	16100	37.7223	73.9		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.78e3		0.245	306.753	3.39	3.34	2780	37.0195	72.5		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.10e4		0.245	1144.853	3.74	3.73	11000	39.0891	76.6		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.10e4		0.245	1144.853	3.74	3.73	11000	39.0891	76.6		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	1.41e3	2.97e3	0.245		3.87	3.87	5.92	21.4091		2.422	NO
13	1...	Total PFHxS	398.9 > 79.7	1.41e3	2.97e3	0.245		3.93		5.92	21.4091			
14	16	L-PFOA	412.8 > 368.9	2.22e5	1.38e4	0.245		4.24	4.24	201	741.0822		2.684	NO
15	1...	Total PFOA	412.8 > 368.9	2.22e5	1.38e4	0.245		4.60		201	741.0822			
16	21	PFNA	463.0 > 418.8		1.57e4	0.245		4.67						YES
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.97e3		0.245	232.268	3.87	3.87	2970	52.2471	102.4		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.97e3		0.245	232.268	3.87	3.87	2970	52.2471	102.4		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.38e4		0.245	1568.416	4.24	4.24	13800	35.8298	70.2		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.38e4		0.245	1568.416	4.24	4.24	13800	35.8298	70.2		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.57e4		0.245	1457.036	4.67	4.67	15700	43.9187	86.0		
22	-1													
23	23	L-PFOS	498.9 > 79.7	6.34e2	3.00e3	0.245		4.76	4.61	2.64	10.7385		4.901	YES
24	1...	Total PFOS	498.9 > 79.7	6.34e2	3.00e3	0.245		4.61		2.64	10.7385			
25	25	9Cl-PF30NS	530.7 > 350.8		3.00e3	0.245		4.97						YES
26	26	PFDA	513 > 468.8		1.33e4	0.245		5.04						YES
27	33	PFUdA	563.0 > 518.9		1.38e4	0.245		5.36						YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	3.00e3		0.245	280.132	4.76	4.76	3000	43.7290	85.7		
29	71	13C8-PFOS-EIS	507.0 > 79.7	3.00e3		0.245	280.132	4.76	4.76	3000	43.7290	85.7		
30	71	13C8-PFOS-EIS	507.0 > 79.7	3.00e3		0.245	280.132	4.76	4.76	3000	43.7290	85.7		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.33e4		0.245	1595.945	5.04	5.04	13300	33.9042	66.4		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.38e4		0.245	1626.273	5.35	5.36	13800	34.6476	67.9		
33	-1													
34	29	L-MeFOSAA	570 > 419		3.80e3	0.245		5.19						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	3.80e3	0.245		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		4.39e3	0.245		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-46.qld

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Name: 200226P1-46, Date: 27-Feb-2020, Time: 00:30:54, ID: 2000321-02 I013WMW02SR-20200213 0.24488, Description: I013WMW02SR-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	4.39e3	0.245		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		1.07e4	0.245		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.80e3		0.245	397.776	5.18	5.19	3800	38.9864	76.4		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.80e3		0.245	397.776	5.18	5.19	3800	38.9864	76.4		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	4.39e3		0.245	488.229	5.32	5.34	4390	36.7391	72.0		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	4.39e3		0.245	488.229	5.32	5.34	4390	36.7391	72.0		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.07e4		0.245	1456.575	5.62	5.63	10700	29.9174	58.6		
44	-1													
45	37	PFDoA	612.9 > 569.0		1.07e4	0.245		5.63						YES
46	39	PFTrDA	662.9 > 618.9		1.07e4	0.245		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.39e4	0.245		6.07						YES
48	1...	TDCA	498.3>106.9			0.245		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	9.44e3	9.44e3	0.245	1.000	1.42	1.42	12.5	51.0454	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.07e4		0.245	1456.575	5.62	5.63	10700	29.9174	58.6		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.07e4		0.245	1456.575	5.62	5.63	10700	29.9174	58.6		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.39e4		0.245	1697.796	6.05	6.07	13900	33.5096	65.6		
53	71	13C8-PFOS-EIS	507.0 > 79.7	3.00e3		0.245	280.132	4.76	4.76	3000	43.7290	85.7		
54	1...	13C5-PFHxA	318.0 > 272.9	1.60e4	1.60e4	0.245	1.000	3.12	3.14	12.5	51.0454	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.12e3	1.12e3	0.245	1.000	3.86	3.87	12.5	51.0454	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.43e4	1.43e4	0.245	1.000	5.03	5.04	12.5	51.0454	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.46e4	1.46e4	0.245	1.000	5.34	5.35	12.5	51.0454	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.16e3	3.16e3	0.245	1.000	4.74	4.76	12.5	51.0454	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.57e4	1.57e4	0.245	1.000	4.66	4.67	12.5	51.0454	100.0		

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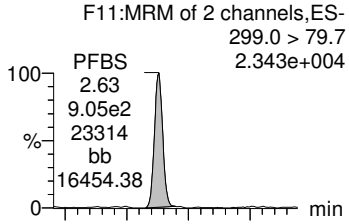
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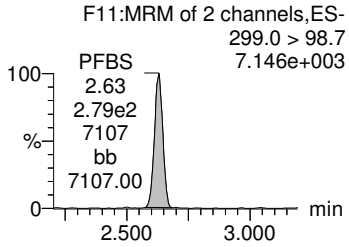
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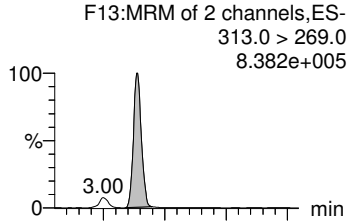
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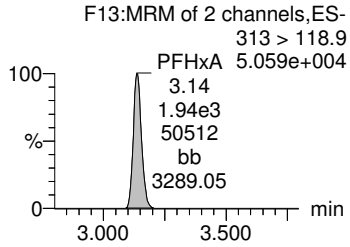
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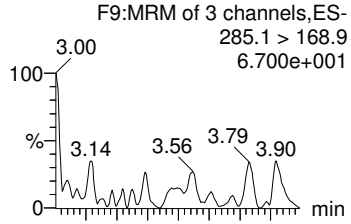


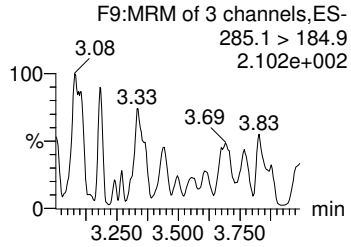
PFHxA



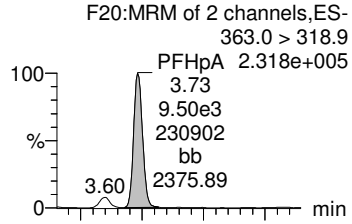


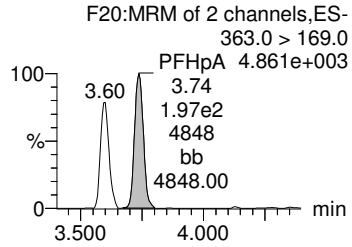
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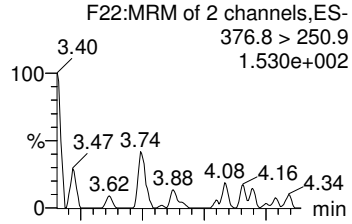


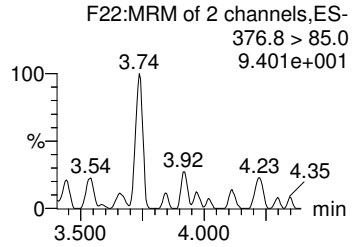
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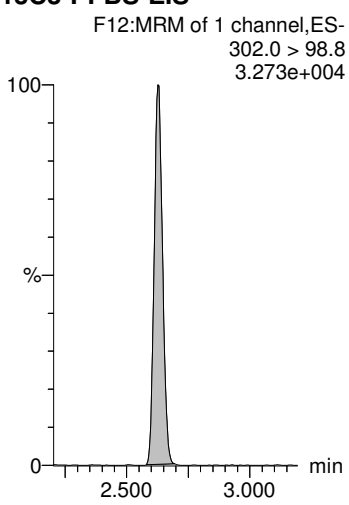


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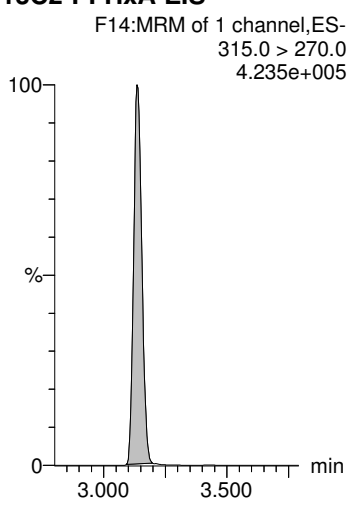




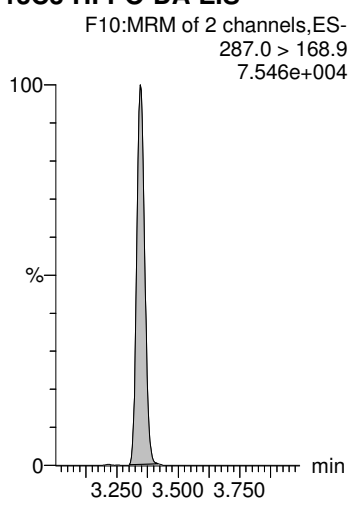
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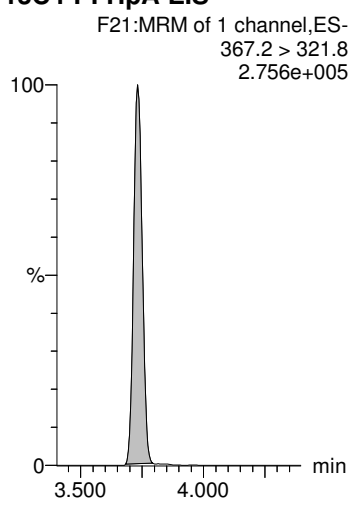
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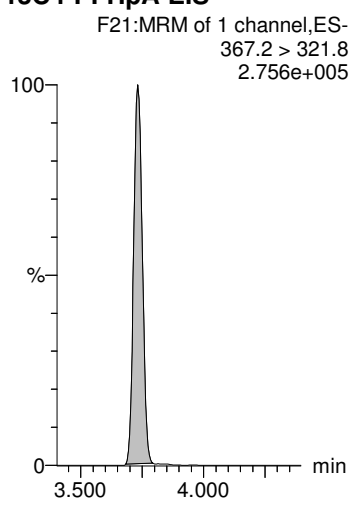
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13C4-PFHpA-EIS



13C4-PFHpA-EIS



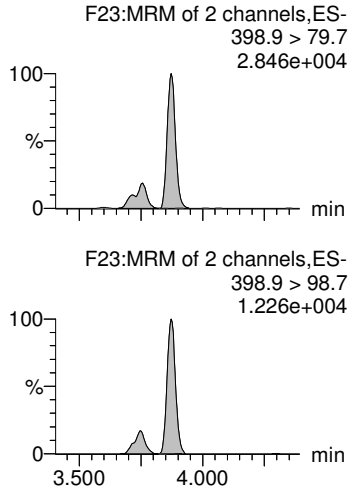
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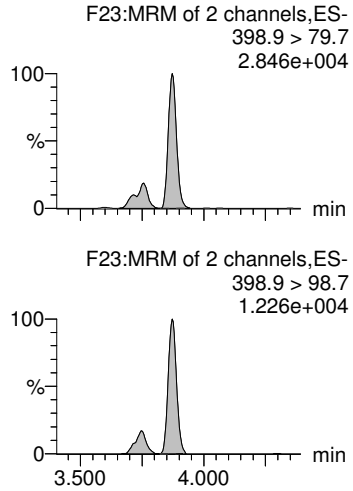
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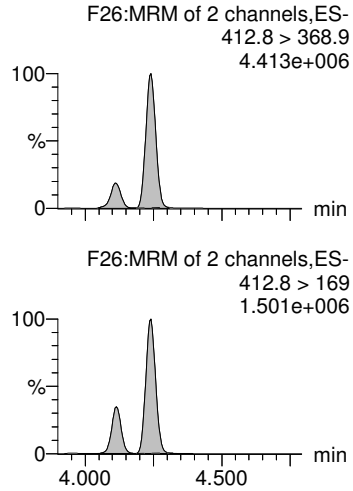
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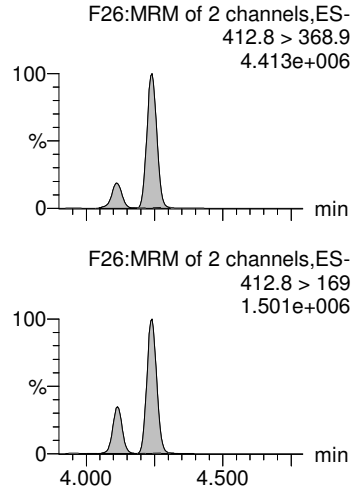
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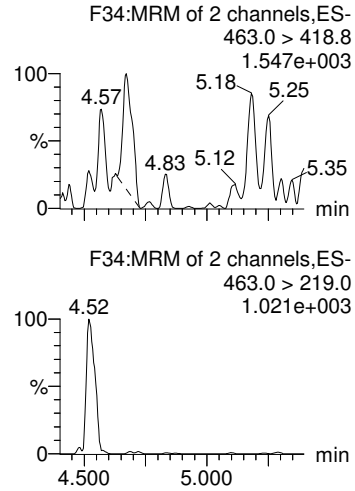
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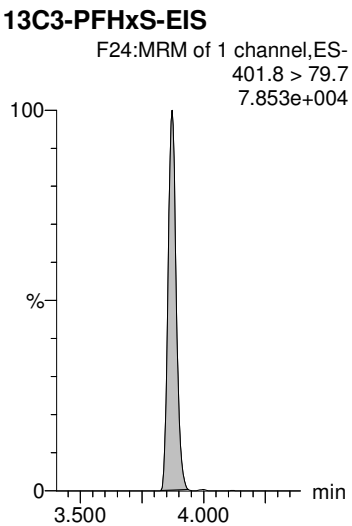
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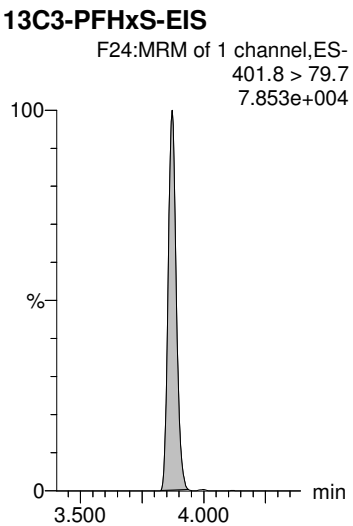
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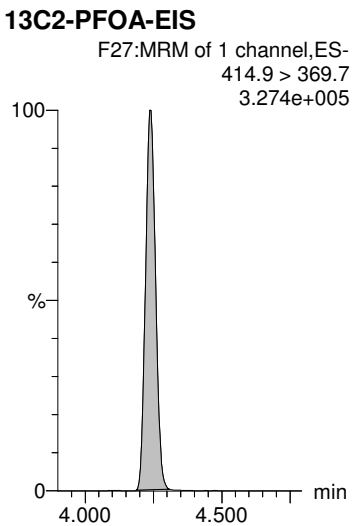
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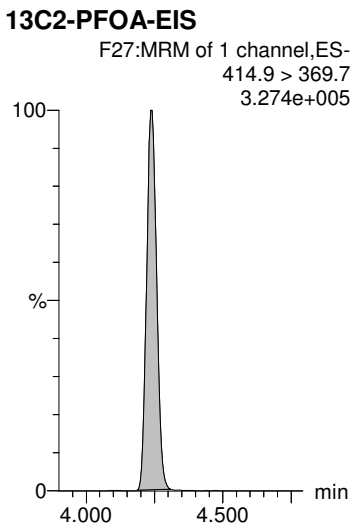
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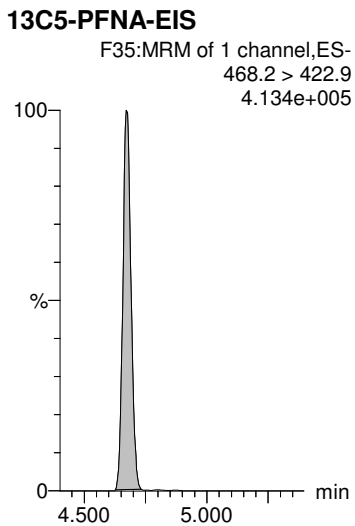
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13C2-PFOA-EIS



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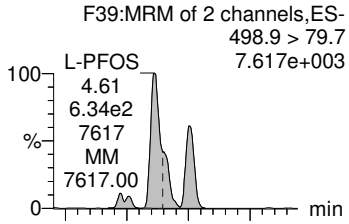


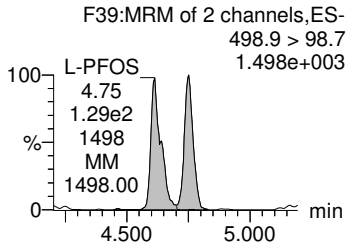
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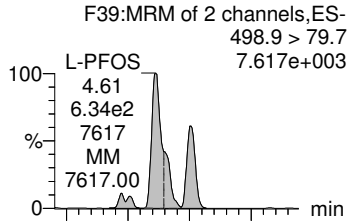
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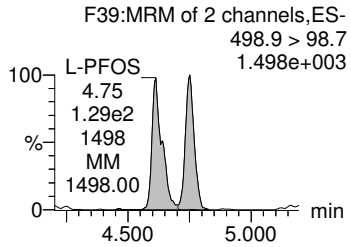
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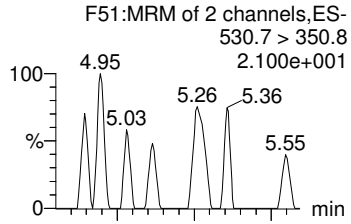


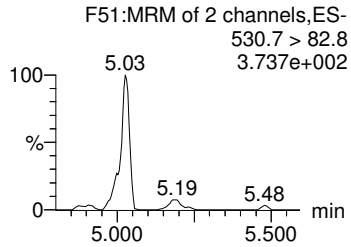
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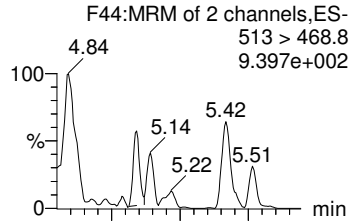


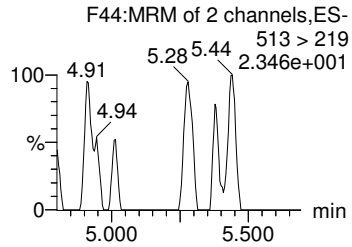
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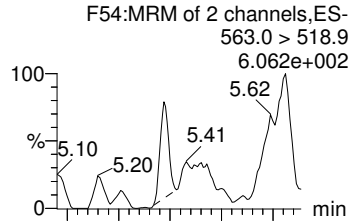


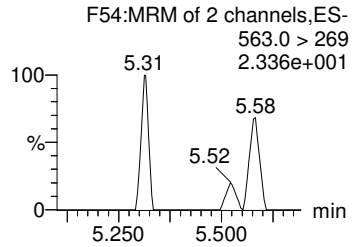
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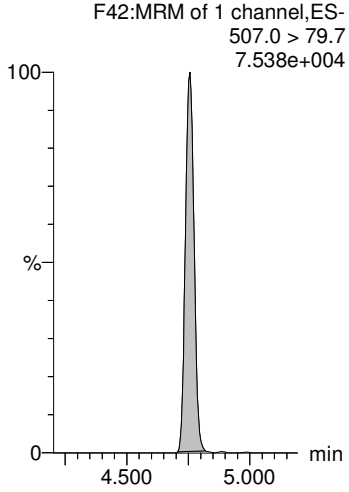


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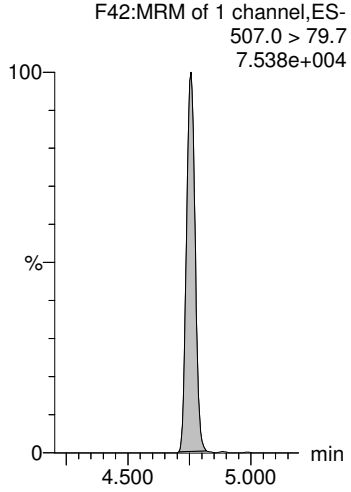




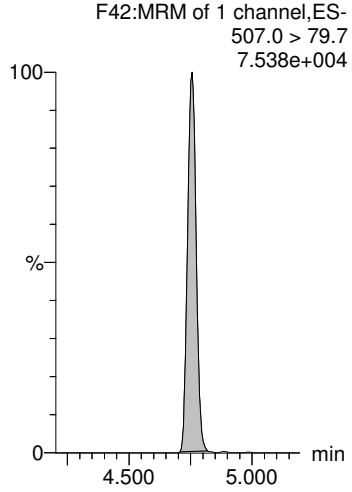
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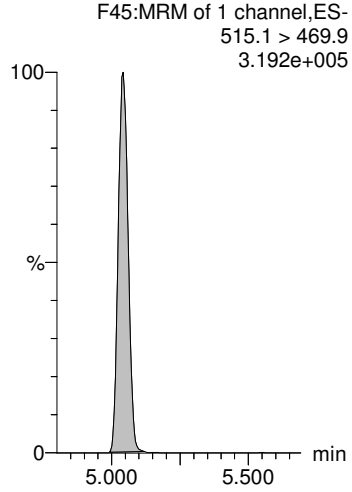
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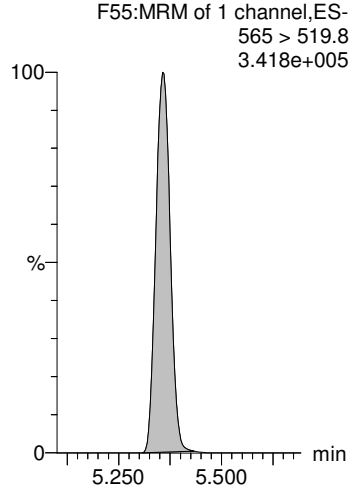
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13C2-PFDA-EIS



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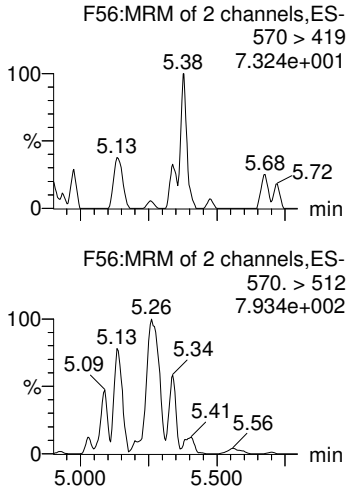


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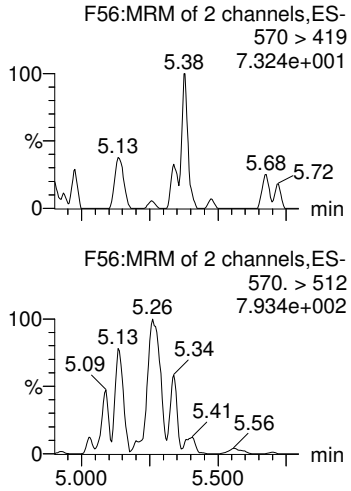
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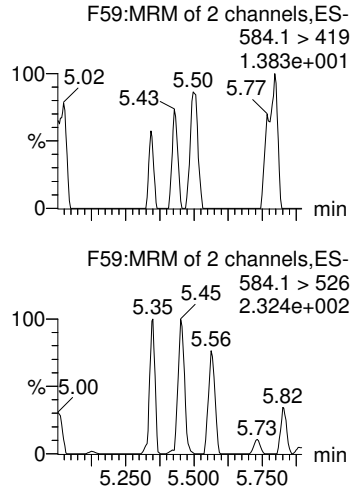
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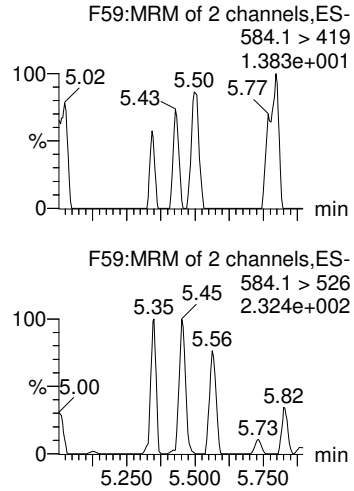
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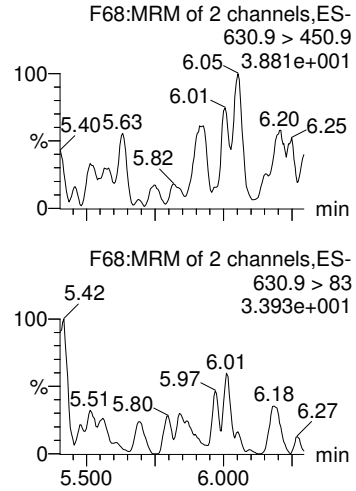
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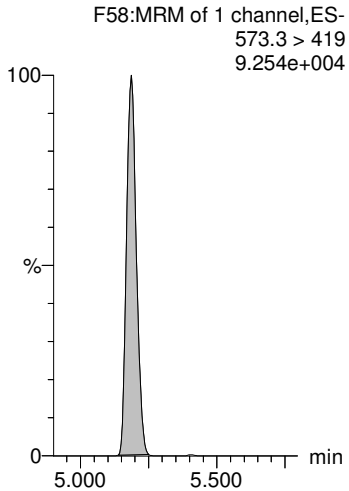
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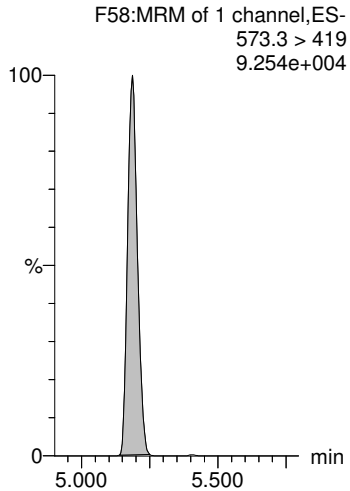
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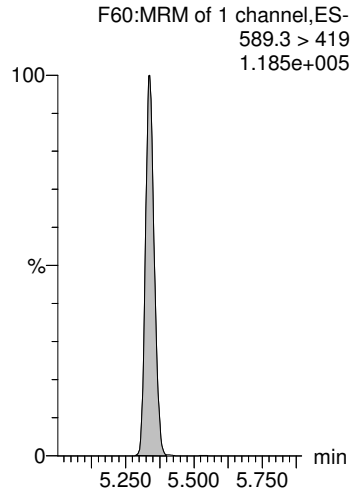
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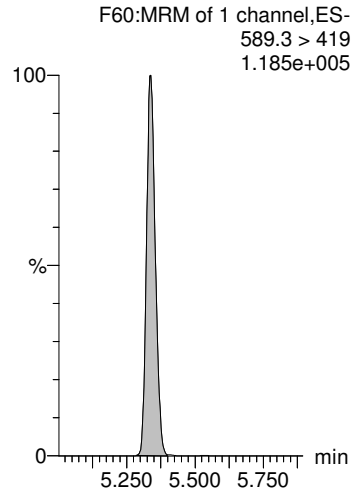
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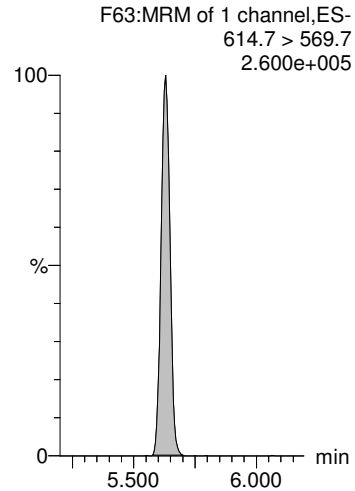
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS

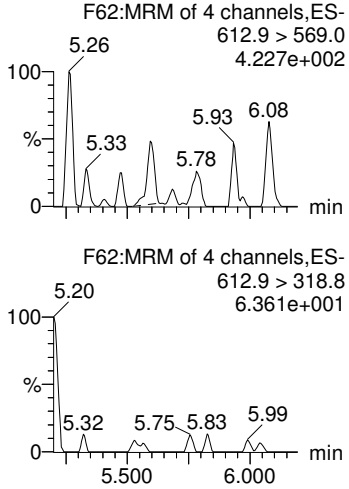


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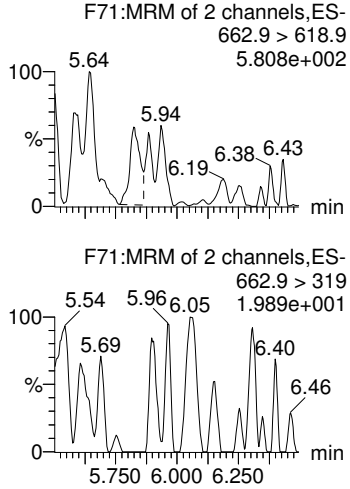
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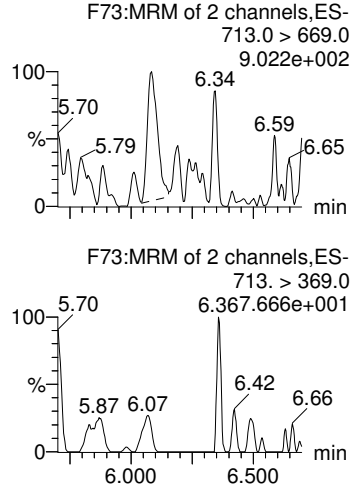
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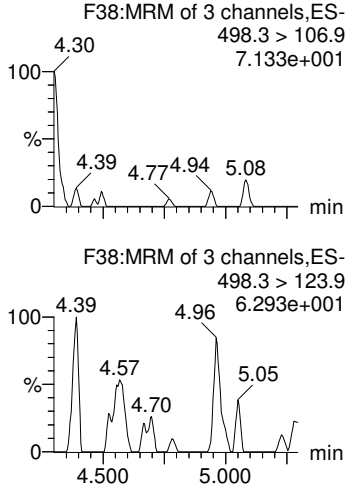
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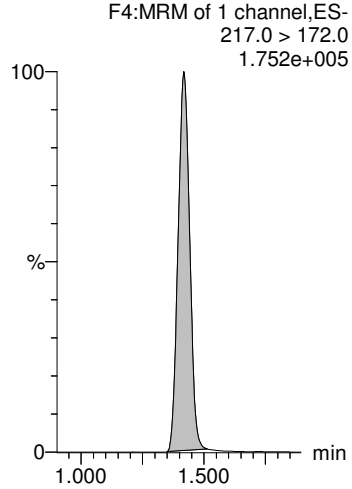
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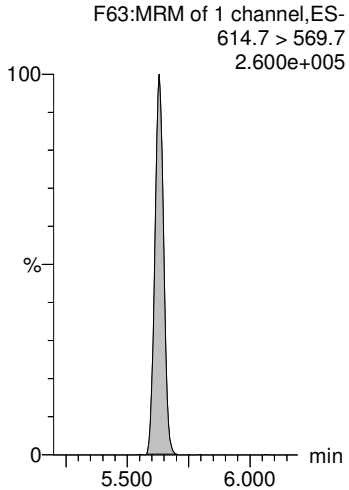
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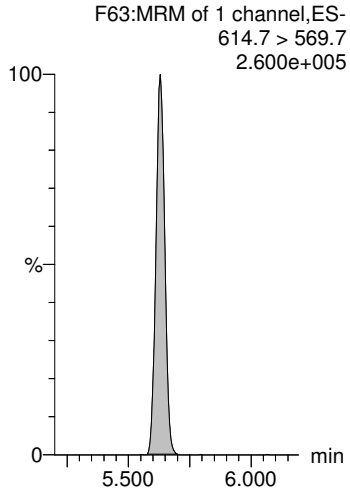
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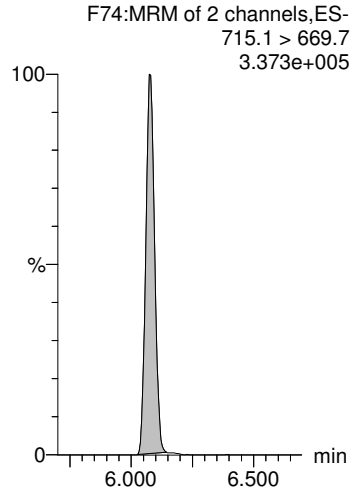
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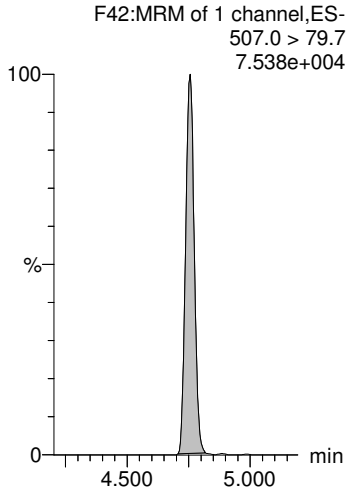
13C2-PFDoA-EIS



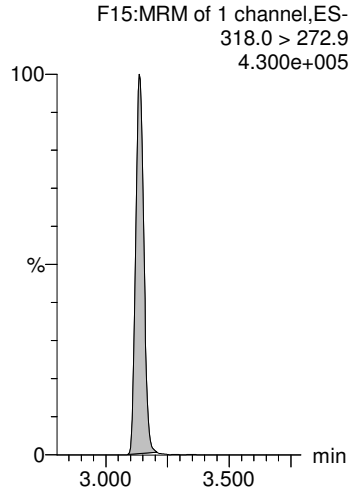
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



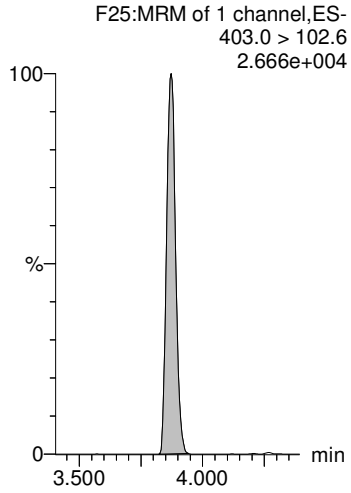
MM 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-46.qld

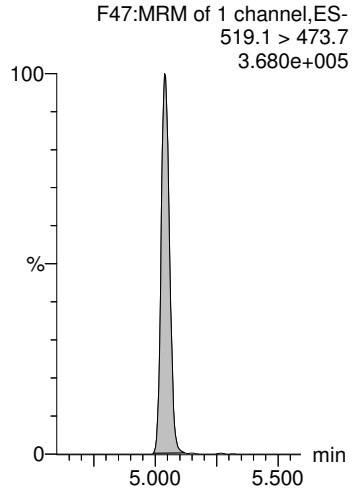
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Printed: Friday, February 28, 2020 16:53:09 Pacific Standard Time

Name: 200226P1-46, Date: 27-Feb-2020, Time: 00:30:54, ID: 2000321-02 I013WMW02SR-20200213 0.24488, Description: I013WMW02SR-20200213

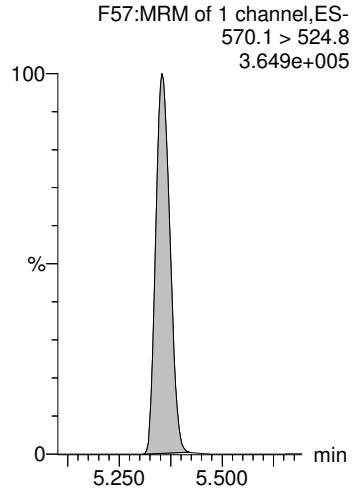
18O2-PFHxS



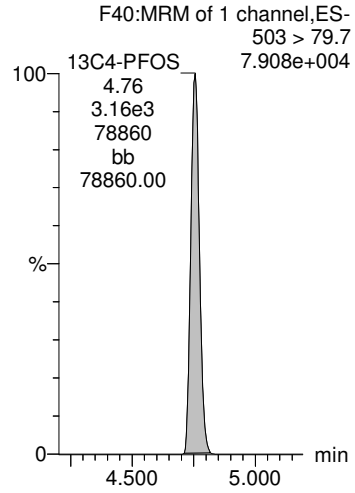
13C6-PFDA



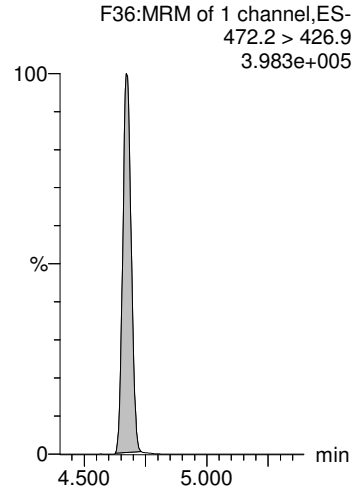
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-47.qld

Last Altered: Friday, February 28, 2020 17:05:09 Pacific Standard Time
Printed: Friday, February 28, 2020 17:05:25 Pacific Standard Time

Name: 200226P1-47, Date: 27-Feb-2020, Time: 00:41:24, ID: 2000321-03 IS72MW17S-20200213 0.24942, Description: IS72MW17S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	4.02e3	1.25e3	0.249		2.63	2.63	40.1	64.4326		2.995	NO
2	7	PFHxA	313.0 > 269.0	7.63e4	1.68e4	0.249		3.14	3.14	56.8	246.8771		16.898	NO
3	9	HFPO-DA	285.1 > 168.9		2.68e3	0.249		3.35						YES
4	11	PFHpA	363.0 > 318.9	2.56e4	1.14e4	0.249		3.73	3.73	27.9	90.1206		34.858	NO
5	12	ADONA	376.8 > 250.9		1.14e4	0.249		3.82						YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.25e3		0.249	109.364	2.66	2.63	1250	45.9049	91.6		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.68e4		0.249	1741.311	3.14	3.14	16800	38.6781	77.2		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.68e3		0.249	306.753	3.39	3.35	2680	35.0218	69.9		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.14e4		0.249	1144.853	3.74	3.73	11400	40.0426	79.9		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.14e4		0.249	1144.853	3.74	3.73	11400	40.0426	79.9		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	1.40e4	2.88e3	0.249		3.87	3.87	60.6	221.1756		2.448	NO
13	1...	Total PFHxS	398.9 > 79.7	1.40e4	2.88e3	0.249		3.93		60.6	221.1756			
14	16	L-PFOA	412.8 > 368.9	3.01e5	1.55e4	0.249		4.24	4.24	242	881.1270		2.732	NO
15	1...	Total PFOA	412.8 > 368.9	3.01e5	1.55e4	0.249		4.60		242	881.1270			
16	21	PFNA	463.0 > 418.8	1.30e3	1.70e4	0.249		4.67	4.67	0.956	3.2905		13.588	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.88e3		0.249	232.268	3.87	3.87	2880	49.6598	99.1		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.88e3		0.249	232.268	3.87	3.87	2880	49.6598	99.1		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.55e4		0.249	1568.416	4.24	4.24	15500	39.7256	79.3		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.55e4		0.249	1568.416	4.24	4.24	15500	39.7256	79.3		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.70e4		0.249	1457.036	4.67	4.67	17000	46.8088	93.4		
22	-1													
23	23	L-PFOS	498.9 > 79.7	7.97e3	2.96e3	0.249		4.75	4.75	33.7	134.4105		2.362	NO
24	1...	Total PFOS	498.9 > 79.7	7.97e3	2.96e3	0.249		4.61		33.7	134.4105			
25	25	9Cl-PF30NS	530.7 > 350.8		2.96e3	0.249		4.96						YES
26	26	PFDA	513 > 468.8	1.50e2	1.42e4	0.249		5.04	5.04	0.132	0.2246		238.656	YES
27	33	PFUdA	563.0 > 518.9	4.53e1	1.56e4	0.249		5.36	5.36	0.0362	0.0621		47.122	YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	2.96e3		0.249	280.132	4.76	4.75	2960	42.2957	84.4		
29	71	13C8-PFOS-EIS	507.0 > 79.7	2.96e3		0.249	280.132	4.76	4.75	2960	42.2957	84.4		
30	71	13C8-PFOS-EIS	507.0 > 79.7	2.96e3		0.249	280.132	4.76	4.75	2960	42.2957	84.4		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.42e4		0.249	1595.945	5.04	5.04	14200	35.7292	71.3		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.56e4		0.249	1626.273	5.35	5.36	15600	38.5475	76.9		
33	-1													
34	29	L-MeFOSAA	570 > 419		4.04e3	0.249		5.19						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	4.04e3	0.249		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		3.92e3	0.249		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-47.qld

Last Altered: Friday, February 28, 2020 17:05:09 Pacific Standard Time
Printed: Friday, February 28, 2020 17:05:25 Pacific Standard Time

Name: 200226P1-47, Date: 27-Feb-2020, Time: 00:41:24, ID: 2000321-03 IS72MW17S-20200213 0.24942, Description: IS72MW17S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	3.92e3	0.249		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		1.09e4	0.249		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.04e3		0.249	397.776	5.18	5.19	4040	40.7084	81.2		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.04e3		0.249	397.776	5.18	5.19	4040	40.7084	81.2		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.92e3		0.249	488.229	5.32	5.34	3920	32.1851	64.2		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.92e3		0.249	488.229	5.32	5.34	3920	32.1851	64.2		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.09e4		0.249	1456.575	5.62	5.63	10900	30.0312	59.9		
44	-1													
45	37	PFDoA	612.9 > 569.0		1.09e4	0.249		5.63						YES
46	39	PFTrDA	662.9 > 618.9		1.09e4	0.249		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.37e4	0.249		6.07						YES
48	1...	TDCA	498.3>106.9			0.249		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	9.33e3	9.33e3	0.249	1.000	1.42	1.42	12.5	50.1163	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.09e4		0.249	1456.575	5.62	5.63	10900	30.0312	59.9		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.09e4		0.249	1456.575	5.62	5.63	10900	30.0312	59.9		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.37e4		0.249	1697.796	6.06	6.07	13700	32.3324	64.5		
53	71	13C8-PFOS-EIS	507.0 > 79.7	2.96e3		0.249	280.132	4.76	4.75	2960	42.2957	84.4		
54	1...	13C5-PFHxA	318.0 > 272.9	1.66e4	1.66e4	0.249	1.000	3.12	3.14	12.5	50.1163	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.02e3	1.02e3	0.249	1.000	3.86	3.87	12.5	50.1163	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.51e4	1.51e4	0.249	1.000	5.03	5.04	12.5	50.1163	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.50e4	1.50e4	0.249	1.000	5.34	5.35	12.5	50.1163	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.11e3	3.11e3	0.249	1.000	4.74	4.76	12.5	50.1163	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.64e4	1.64e4	0.249	1.000	4.66	4.67	12.5	50.1163	100.0		

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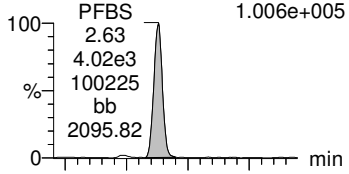
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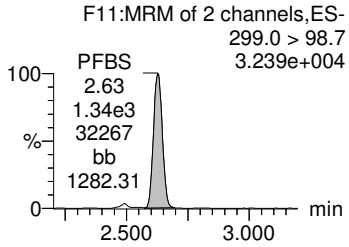
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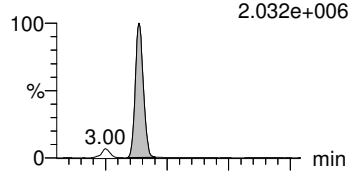
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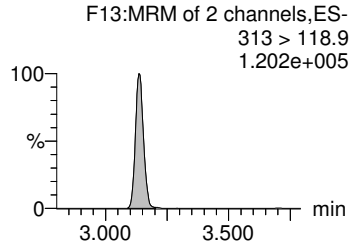
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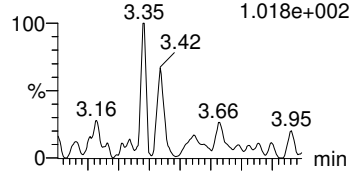


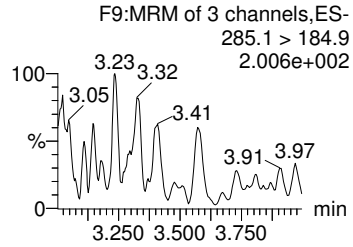
PFHxA



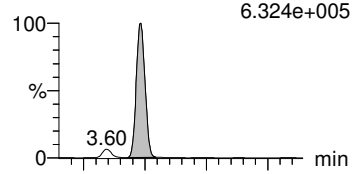


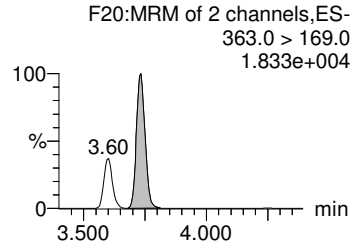
HFPO-DA



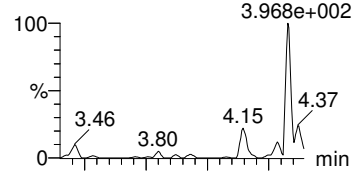


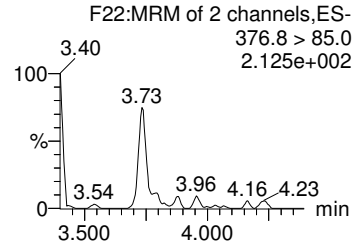
PFHpA



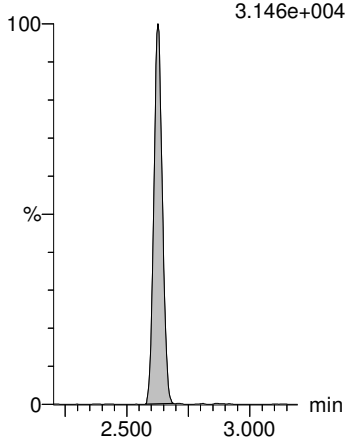


ADONA

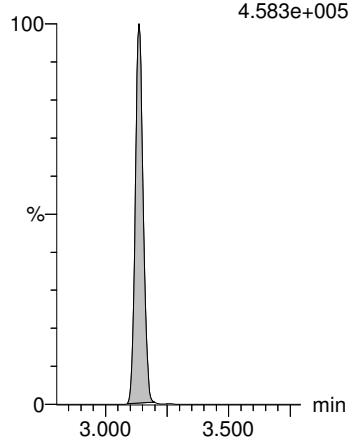




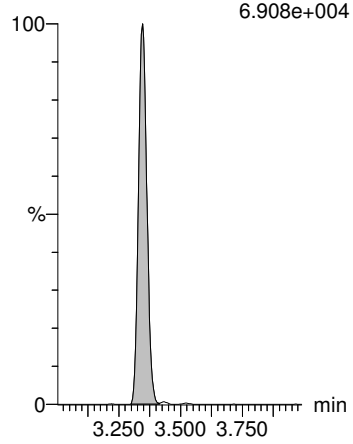
13C3-PFBS-EIS



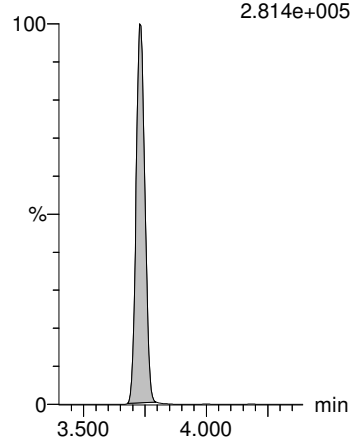
13C2-PFHxA-EIS



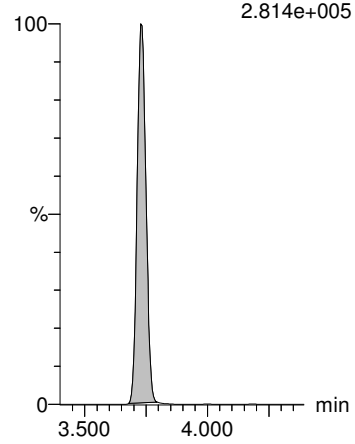
13C3-HFPO-DA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS



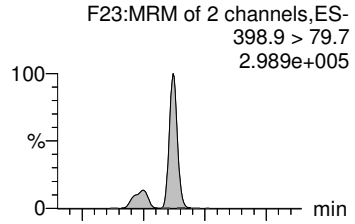
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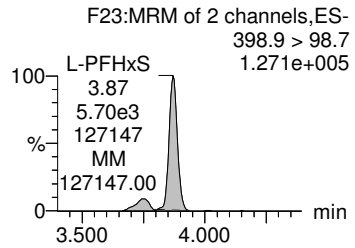
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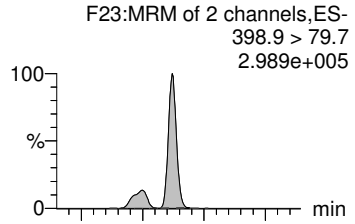
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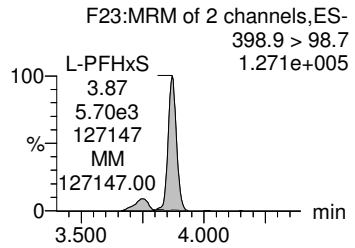
L-PFHxS



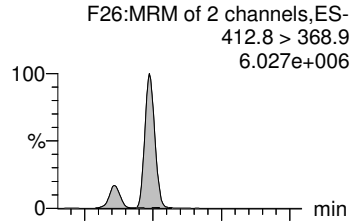


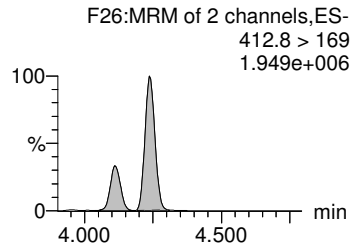
Total PFHxS



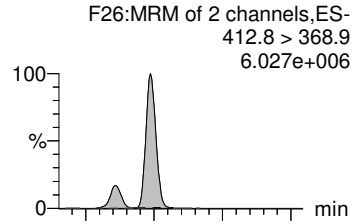


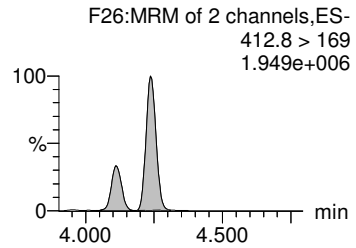
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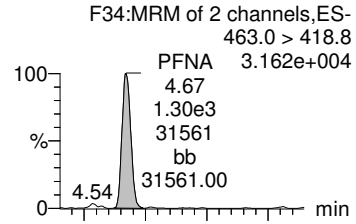


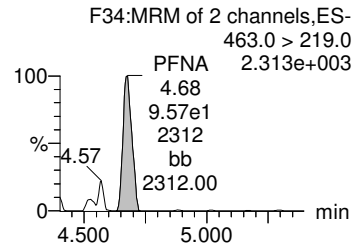
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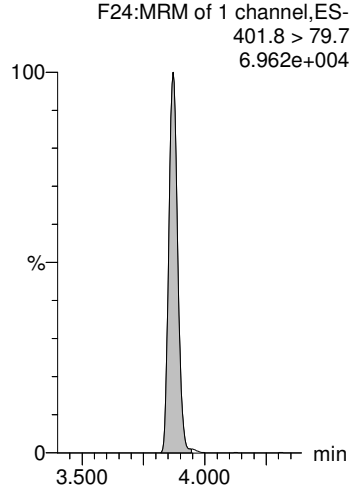


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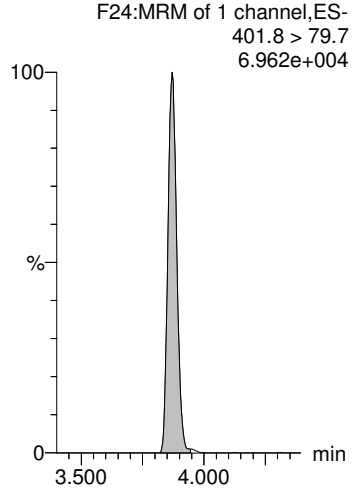




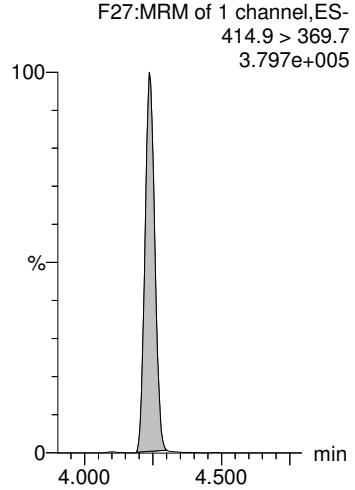
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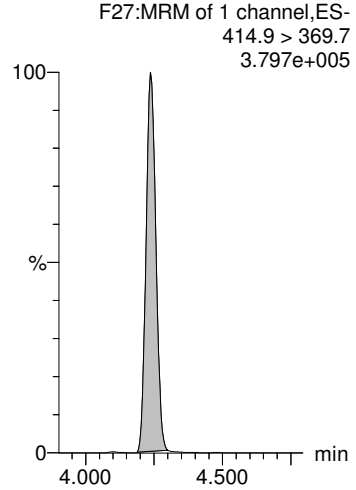
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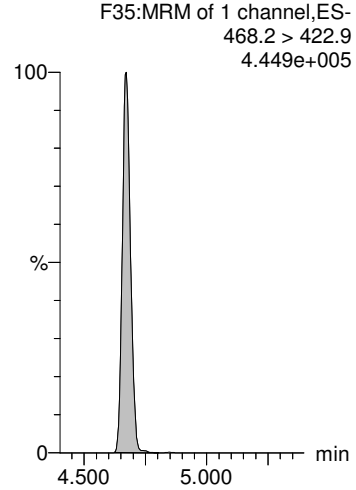
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13C2-PFOA-EIS



13C5-PFNA-EIS

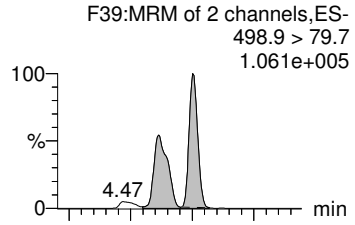


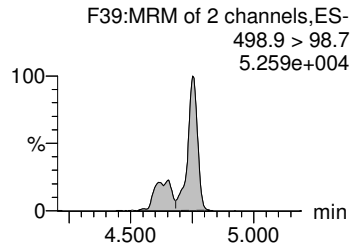
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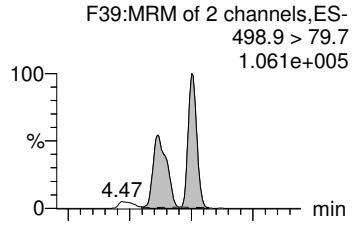
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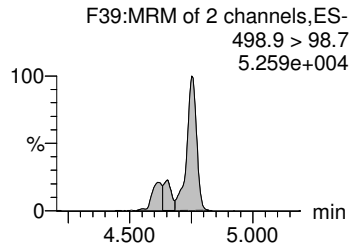
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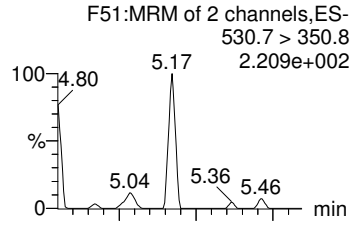


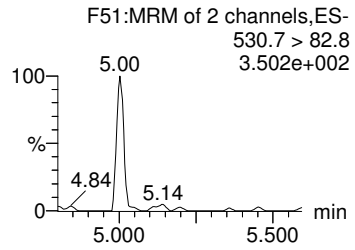
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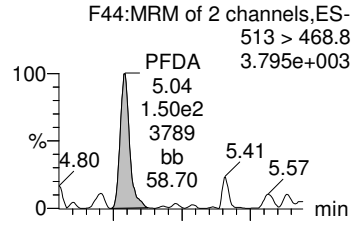


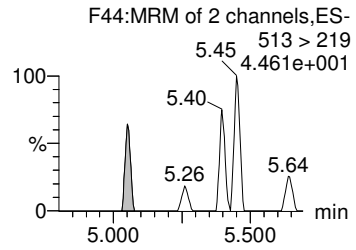
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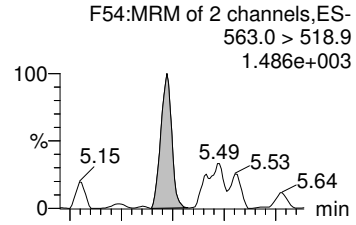


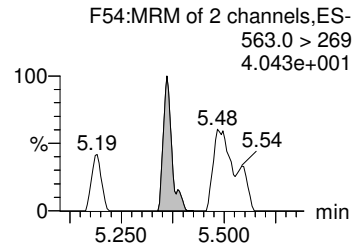
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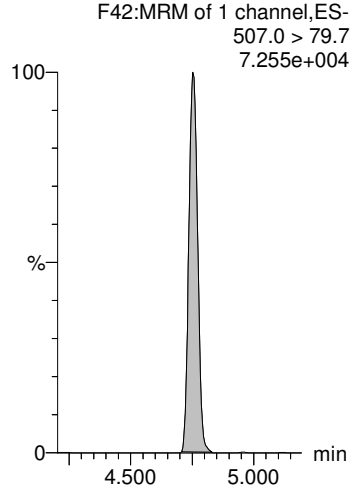


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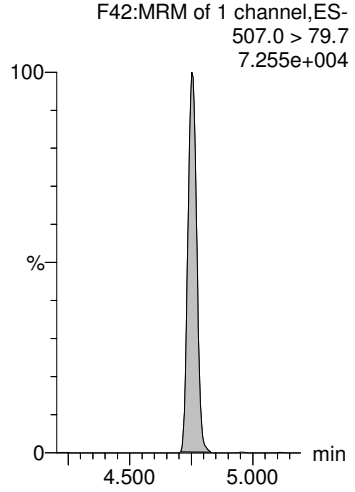




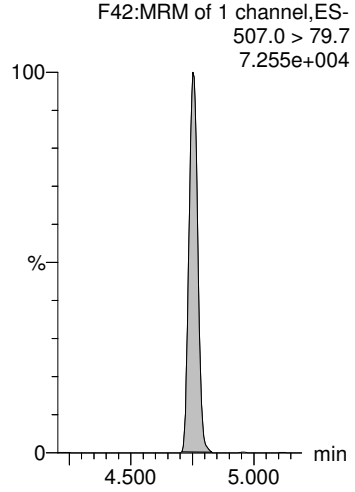
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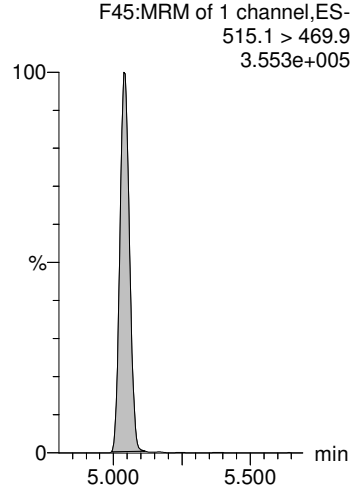
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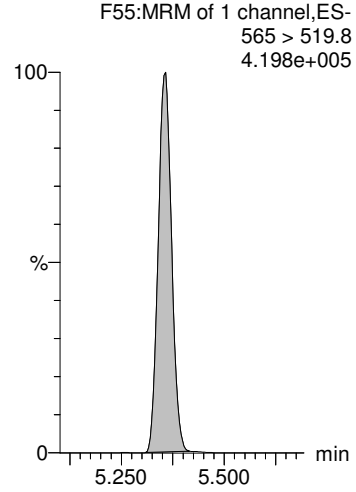
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13C2-PFDA-EIS



13C2-PFUdA-EIS



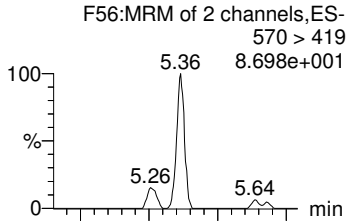
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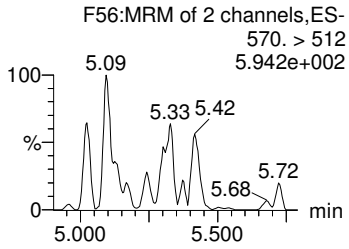
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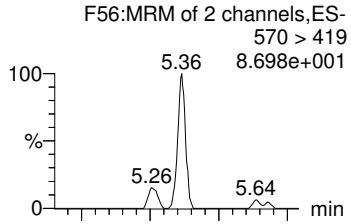
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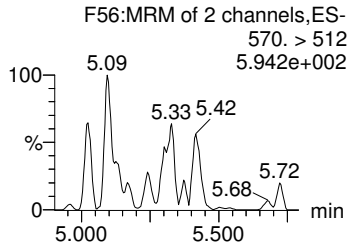
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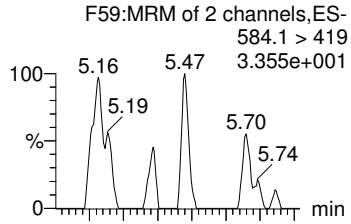


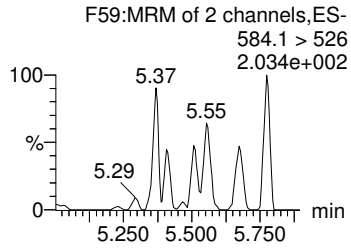
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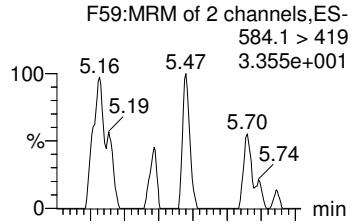


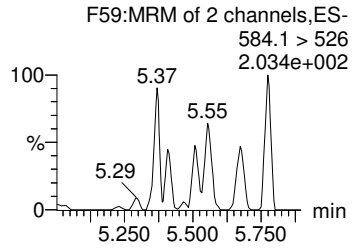
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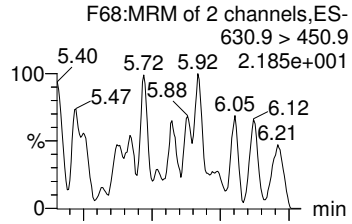


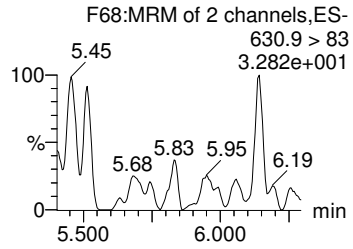
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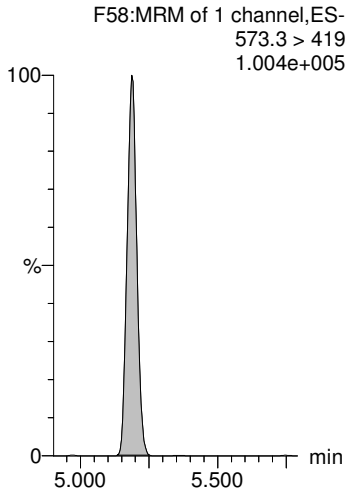


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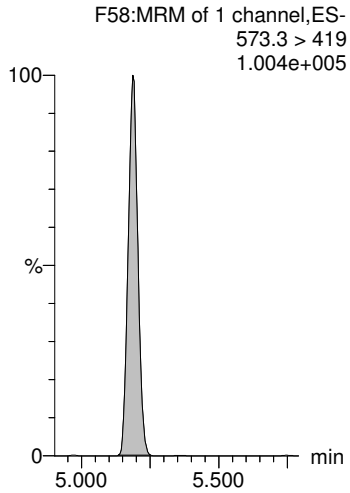




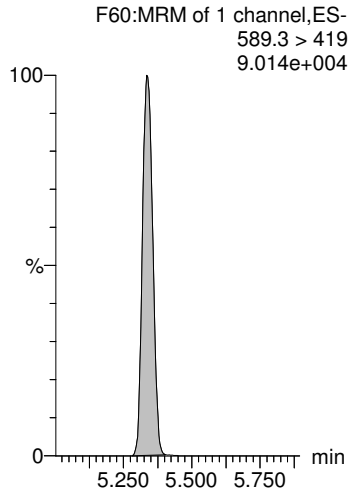
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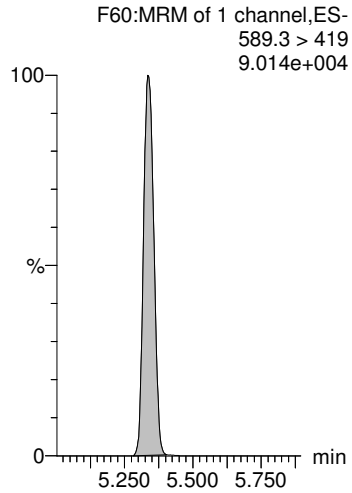
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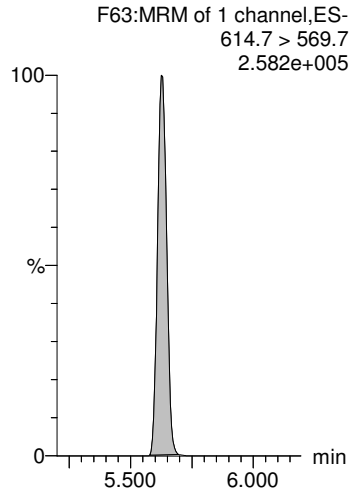
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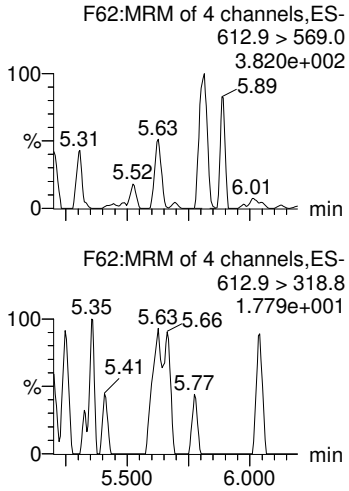


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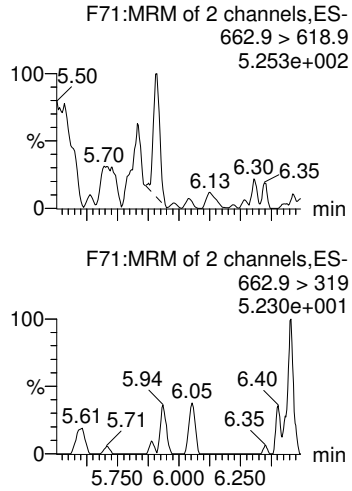
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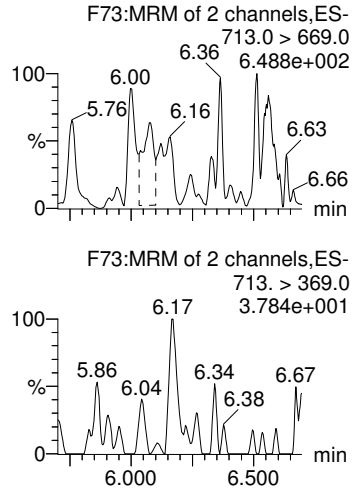
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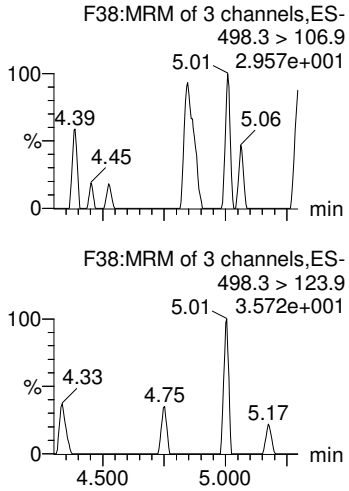
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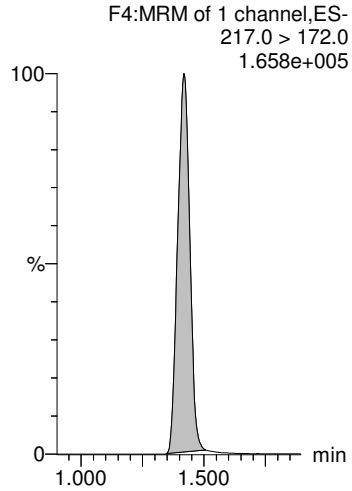
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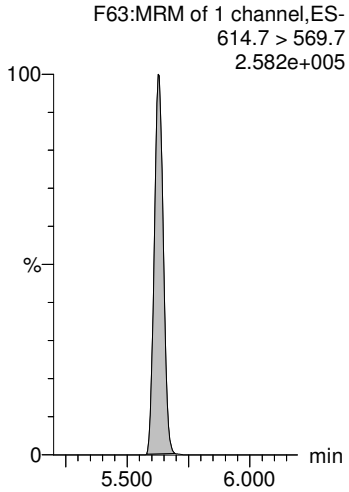
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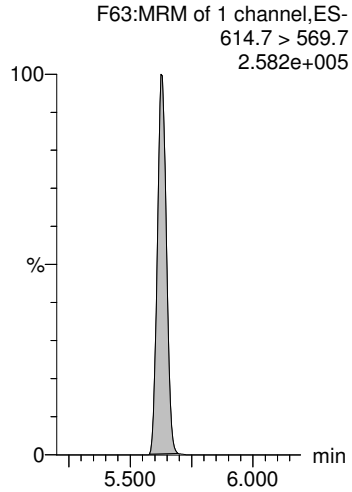
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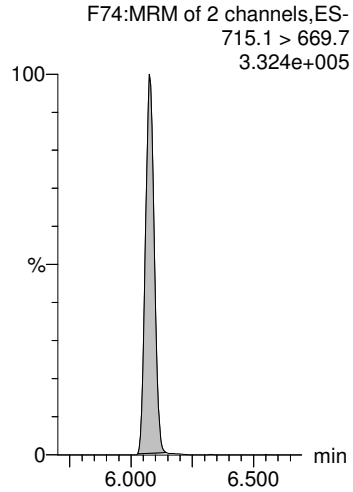
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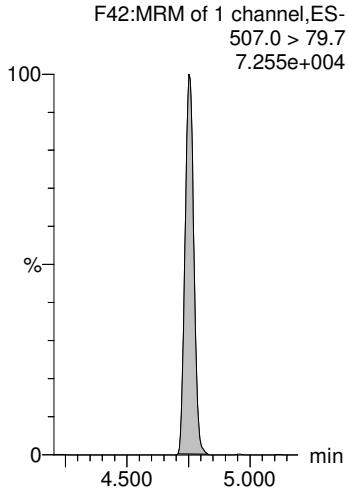
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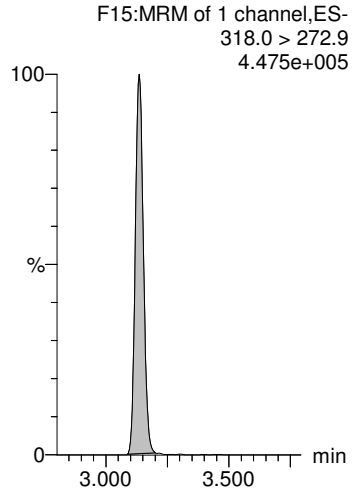
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA

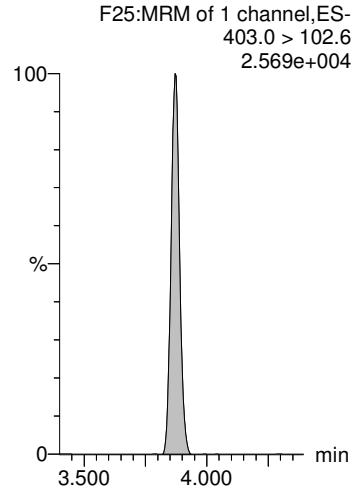


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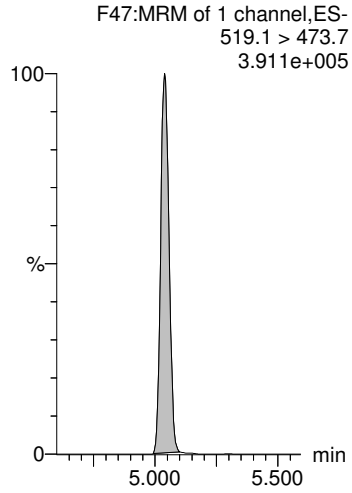
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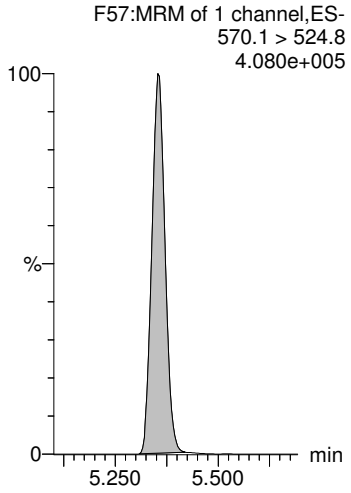
18O2-PFHxS



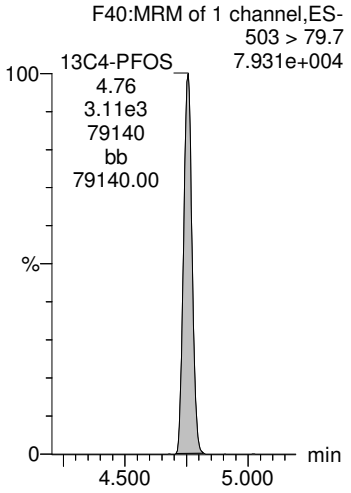
13C6-PFDA



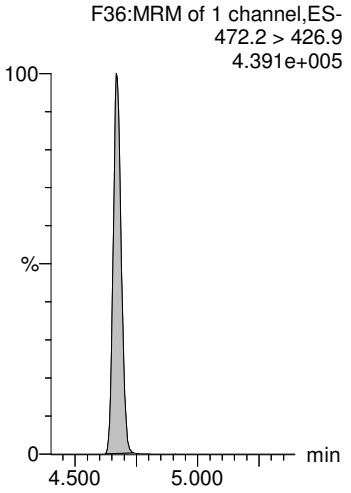
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-44.qld

Last Altered: Friday, February 28, 2020 10:43:40 Pacific Standard Time
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Name: 200226P1-44, Date: 27-Feb-2020, Time: 00:09:53, ID: B0B0127-MS1 Matrix Spike 0.25239, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	6.77e3	1.20e3	0.252		2.63	2.63	70.6	112.5785		3.161	NO
2	7	PFHxA	313.0 > 269.0	9.00e4	1.54e4	0.252		3.14	3.14	73.2	314.7047		17.360	NO
3	9	HFPO-DA	285.1 > 168.9	2.48e3	2.87e3	0.252		3.35	3.34	10.8	42.0828		2.645	NO
4	11	PFHpA	363.0 > 318.9	3.80e4	1.14e4	0.252		3.73	3.73	41.5	132.7312		38.515	NO
5	12	ADONA	376.8 > 250.9	2.38e4	1.14e4	0.252		3.83	3.84	26.0	35.1513		3.839	NO
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.20e3		0.252	109.364	2.66	2.63	1200	43.3965	87.6		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.54e4		0.252	1741.311	3.14	3.14	15400	35.0055	70.7		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.87e3		0.252	306.753	3.39	3.35	2870	37.0609	74.8		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.14e4		0.252	1144.853	3.74	3.73	11400	39.5876	79.9		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.14e4		0.252	1144.853	3.74	3.73	11400	39.5876	79.9		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	1.61e4	2.49e3	0.252		3.87	3.87	81.1	296.8499		2.457	NO
13	1...	Total PFHxS	398.9 > 79.7	1.61e4	2.49e3	0.252		3.93		81.1	296.8499			
14	16	L-PFOA	412.8 > 368.9	3.29e5	1.43e4	0.252		4.24	4.24	288	1047.2363		2.813	NO
15	1...	Total PFOA	412.8 > 368.9	3.29e5	1.43e4	0.252		4.60		288	1047.2363			
16	21	PFNA	463.0 > 418.8	1.51e4	1.49e4	0.252		4.67	4.67	12.7	47.3506		8.210	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.49e3		0.252	232.268	3.87	3.87	2490	42.4211	85.7		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.49e3		0.252	232.268	3.87	3.87	2490	42.4211	85.7		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.43e4		0.252	1568.416	4.24	4.24	14300	36.0239	72.7		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.43e4		0.252	1568.416	4.24	4.24	14300	36.0239	72.7		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.49e4		0.252	1457.036	4.67	4.67	14900	40.5741	81.9		
22	-1													
23	23	L-PFOS	498.9 > 79.7	1.10e4	3.09e3	0.252		4.76	4.76	44.4	175.1870		2.507	NO
24	1...	Total PFOS	498.9 > 79.7	1.10e4	3.09e3	0.252		5.13		44.4	175.1870			
25	25	9Cl-PF30NS	530.7 > 350.8	2.31e3	3.09e3	0.252		4.96	4.97	9.33	37.8216		20.788	NO
26	26	PFDA	513 > 468.8	1.52e4	1.57e4	0.252		5.04	5.04	12.1	43.5145		11.069	NO
27	33	PFUdA	563.0 > 518.9	1.34e4	1.59e4	0.252		5.35	5.35	10.6	39.7566		24.392	NO
28	71	13C8-PFOS-EIS	507.0 > 79.7	3.09e3		0.252	280.132	4.76	4.76	3090	43.6947	88.2		
29	71	13C8-PFOS-EIS	507.0 > 79.7	3.09e3		0.252	280.132	4.76	4.76	3090	43.6947	88.2		
30	71	13C8-PFOS-EIS	507.0 > 79.7	3.09e3		0.252	280.132	4.76	4.76	3090	43.6947	88.2		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.57e4		0.252	1595.945	5.04	5.04	15700	38.9135	78.6		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.59e4		0.252	1626.273	5.35	5.35	15900	38.6449	78.0		
33	-1													
34	29	L-MeFOSAA	570 > 419	4.05e3	4.12e3	0.252		5.18	5.19	12.3	39.0211		1.819	NO
35	1...	Total N-MeFOSAA	570. > 419	4.05e3	4.12e3	0.252		5.19		12.3	39.0211			
36	31	L-EtFOSAA	584.1 > 419	3.91e3	4.28e3	0.252		5.34	5.34	11.4	43.8055		1.412	NO

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-44.qld

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Printed: Friday, February 28, 2020 10:44:19 Pacific Standard Time

Name: 200226P1-44, Date: 27-Feb-2020, Time: 00:09:53, ID: B0B0127-MS1 Matrix Spike 0.25239, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	3.91e3	4.28e3	0.252		5.37		11.4	43.8055			
38	35	11Cl-PF30UdS	630.9 > 450.9	5.60e3	1.08e4	0.252		5.56	5.56	6.49	49.3195		20.446	NO
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.12e3		0.252	397.776	5.18	5.18	4120	41.0321	82.8		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.12e3		0.252	397.776	5.18	5.18	4120	41.0321	82.8		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	4.28e3		0.252	488.229	5.33	5.34	4280	34.7550	70.2		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	4.28e3		0.252	488.229	5.33	5.34	4280	34.7550	70.2		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.08e4		0.252	1456.575	5.62	5.63	10800	29.3557	59.3		
44	-1													
45	37	PFDoA	612.9 > 569.0	1.19e4	1.08e4	0.252		5.63	5.63	13.8	44.5199		12.473	NO
46	39	PFTrDA	662.9 > 618.9	1.20e4	1.08e4	0.252		5.88	5.87	13.9	43.8227		61.511	NO
47	41	PFTeDA	713.0 > 669.0	1.18e4	1.40e4	0.252		6.08	6.08	10.6	43.6410		16.081	NO
48	1...	TDCA	498.3>106.9			0.252		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	9.89e3	9.89e3	0.252	1.000	1.42	1.42	12.5	49.5265	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.08e4		0.252	1456.575	5.62	5.63	10800	29.3557	59.3		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.08e4		0.252	1456.575	5.62	5.63	10800	29.3557	59.3		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.40e4		0.252	1697.796	6.06	6.08	14000	32.6112	65.8		
53	71	13C8-PFOS-EIS	507.0 > 79.7	3.09e3		0.252	280.132	4.76	4.76	3090	43.6947	88.2		
54	1...	13C5-PFHxA	318.0 > 272.9	1.72e4	1.72e4	0.252	1.000	3.12	3.14	12.5	49.5265	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.18e3	1.18e3	0.252	1.000	3.86	3.87	12.5	49.5265	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.69e4	1.69e4	0.252	1.000	5.03	5.04	12.5	49.5265	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.64e4	1.64e4	0.252	1.000	5.34	5.35	12.5	49.5265	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.43e3	3.43e3	0.252	1.000	4.74	4.76	12.5	49.5265	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.64e4	1.64e4	0.252	1.000	4.66	4.67	12.5	49.5265	100.0		

GM 2/28/2020

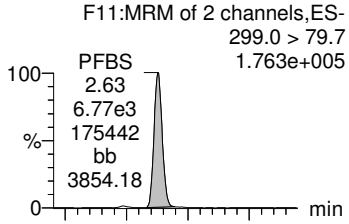
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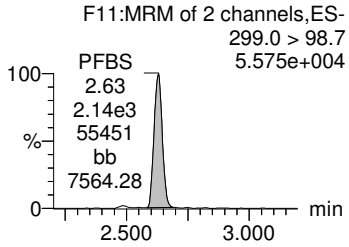
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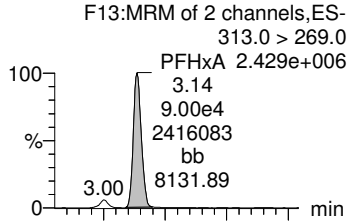
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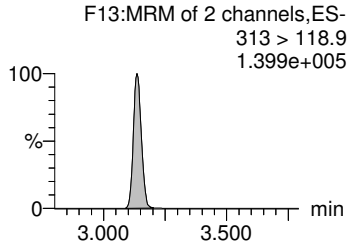
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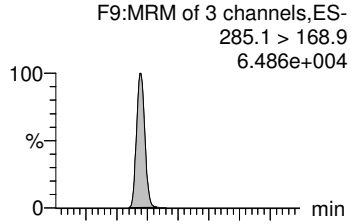


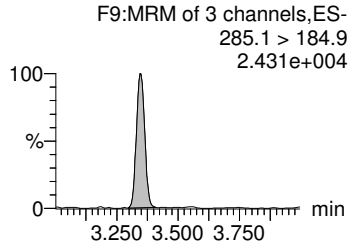
PFHxA



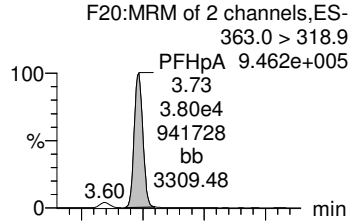


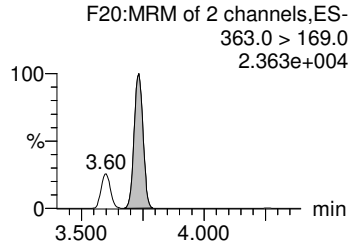
HFPO-DA



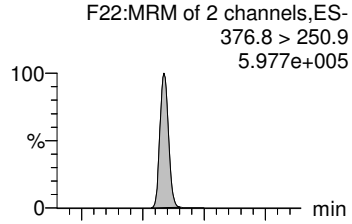


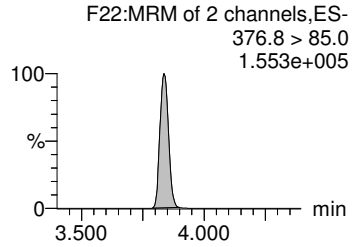
PFHpA



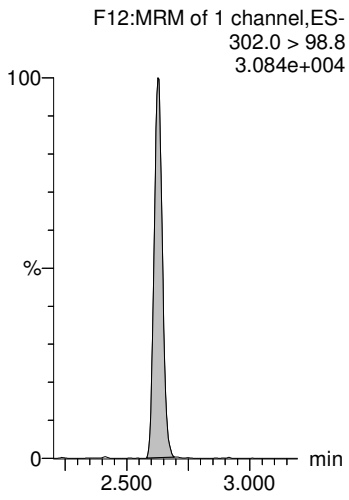


ADONA

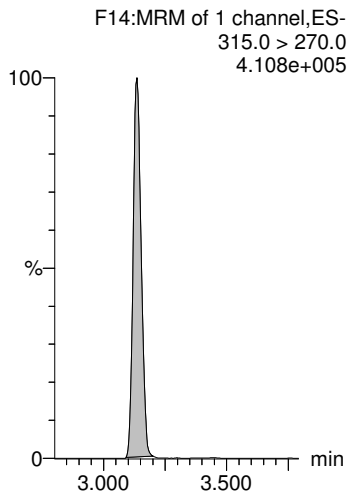




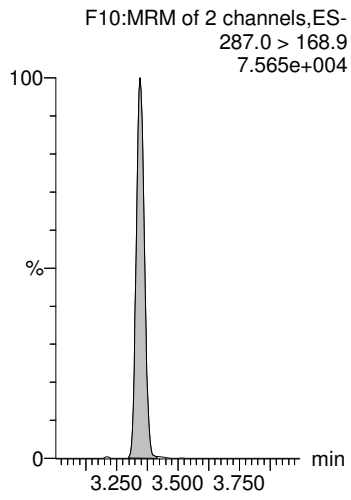
13C3-PFBS-EIS



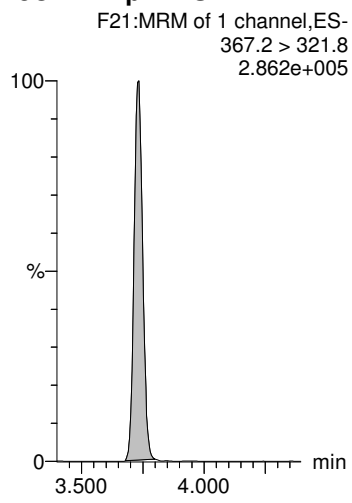
13C2-PFHxA-EIS



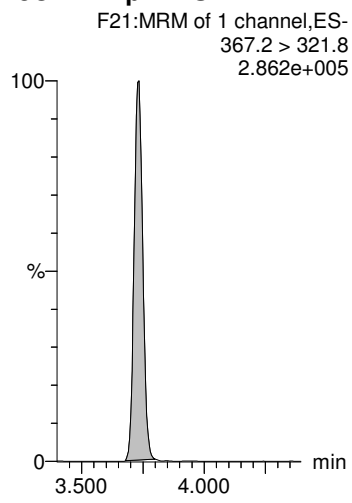
13C3-HFPO-DA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

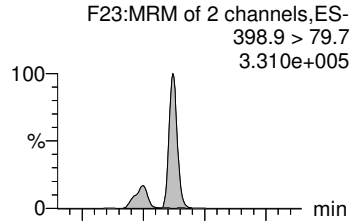


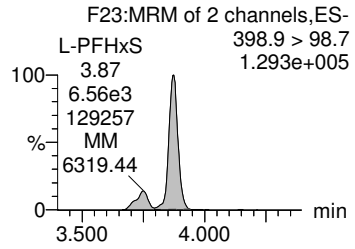
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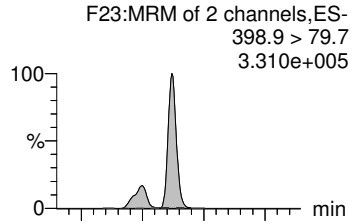
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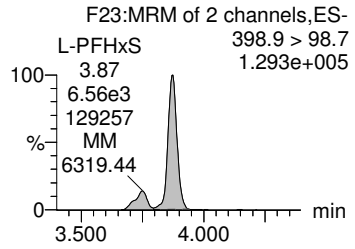
L-PFHxS



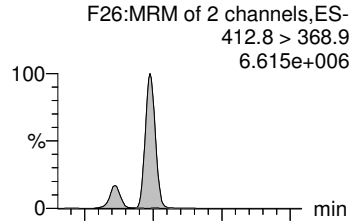


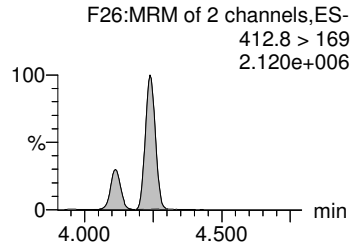
Total PFHxS



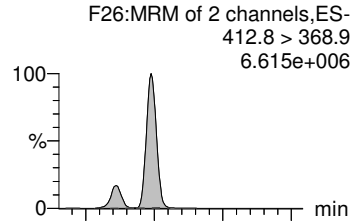


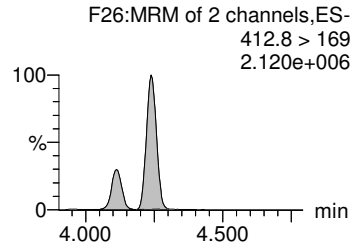
L-PFOA



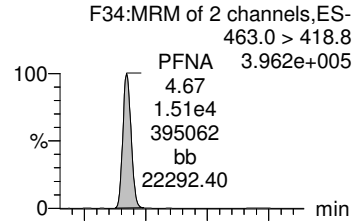


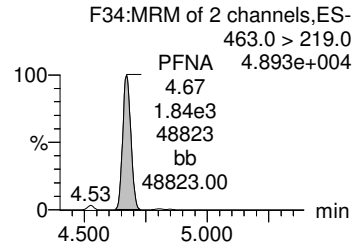
Total PFOA



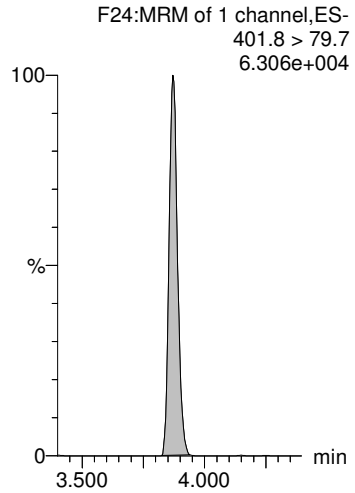


PFNA

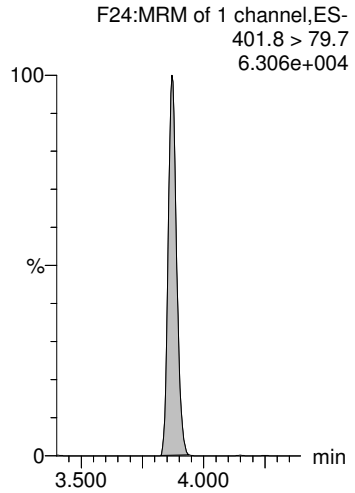




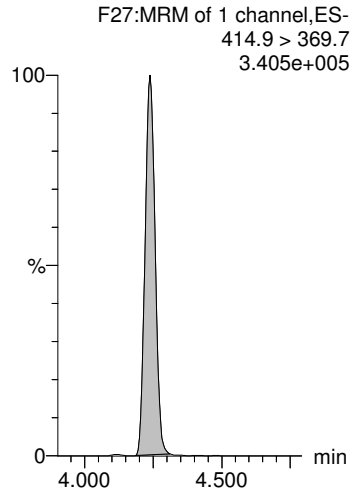
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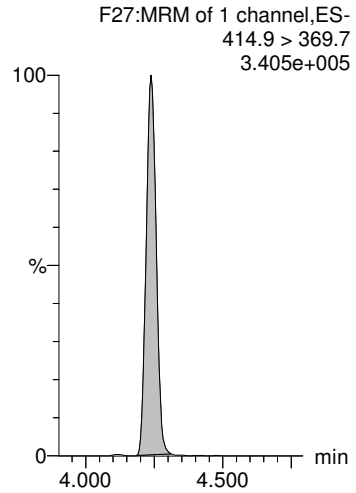
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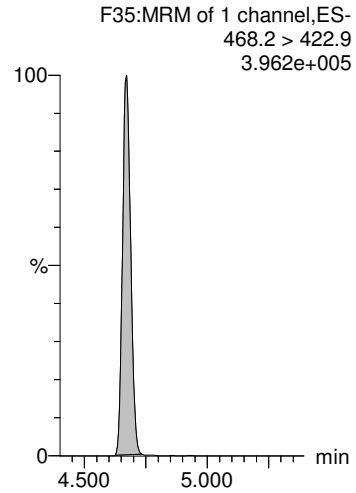
13C2-PFOA-EIS



13C2-PFOA-EIS



13C5-PFNA-EIS

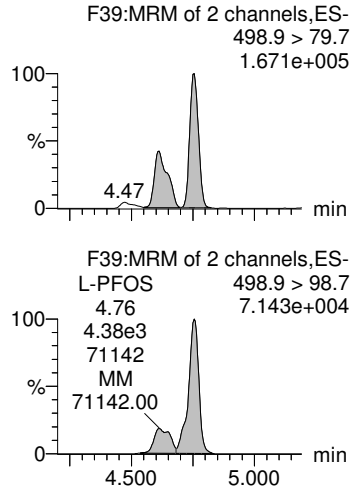


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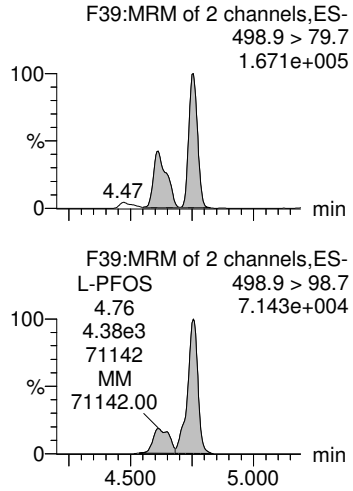
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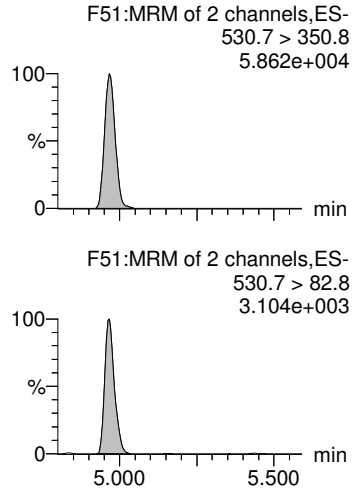
L-PFOS



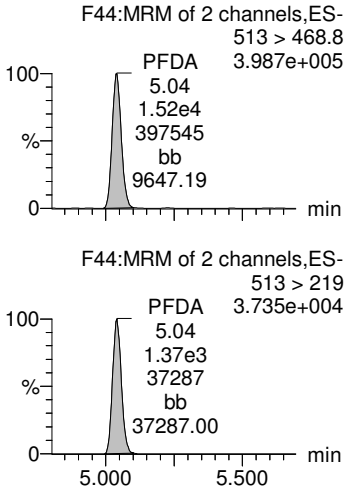
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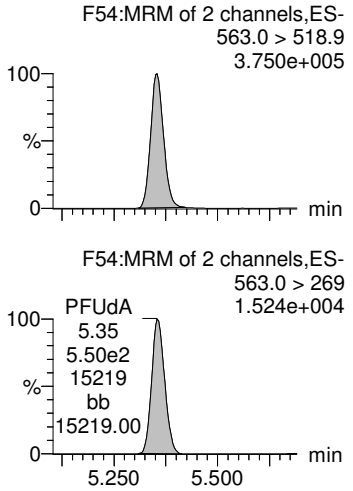
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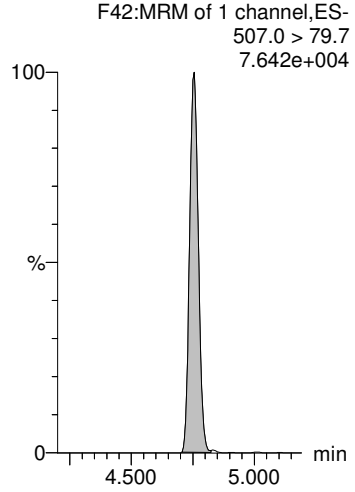
PFDA



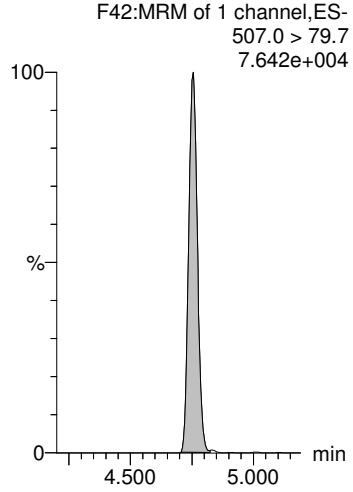
PFUdA



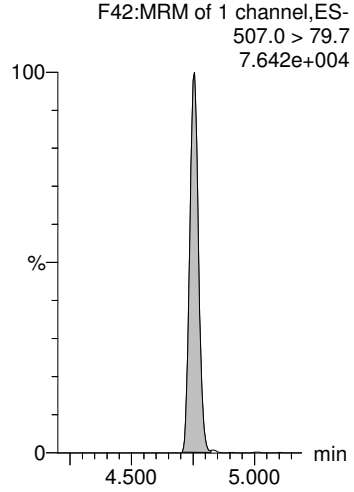
13C8-PFOS-EIS



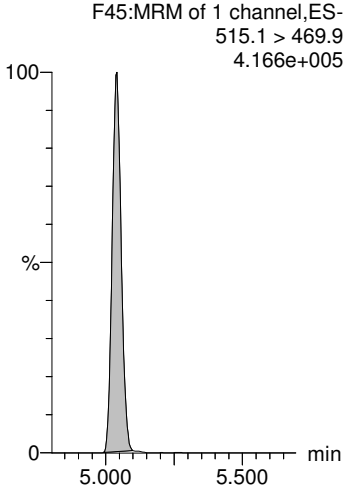
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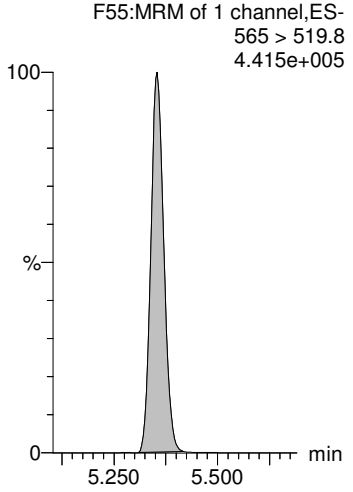
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-PFUdA-EIS

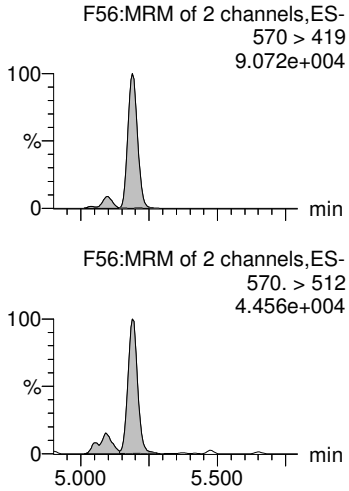


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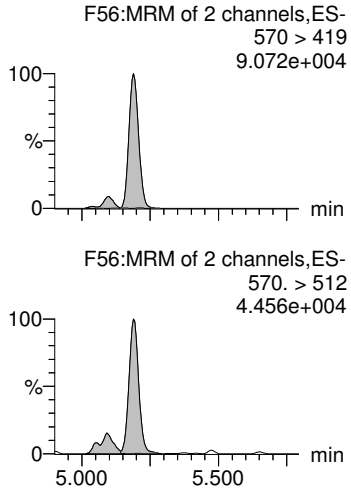
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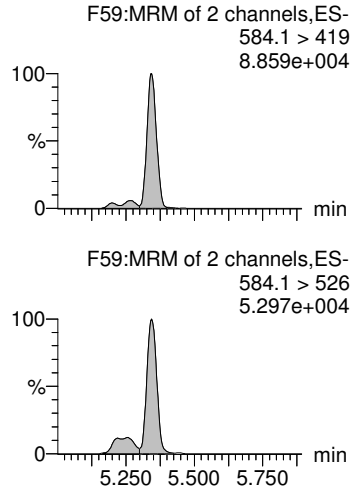
L-MeFOSAA



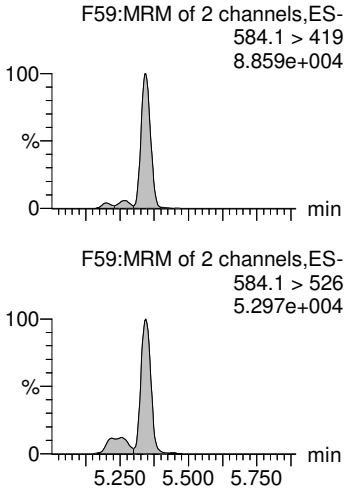
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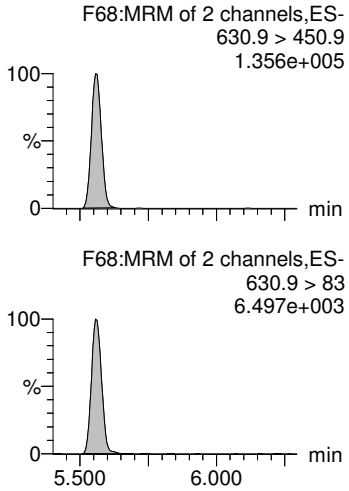
L-EtFOSAA



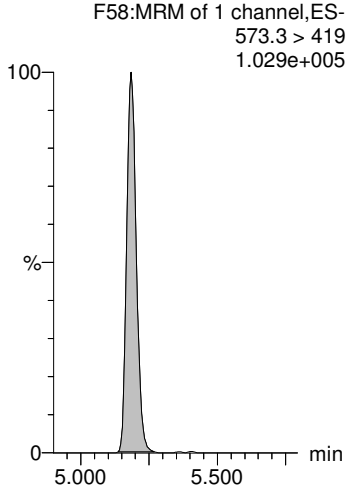
Total N-EtFOSAA



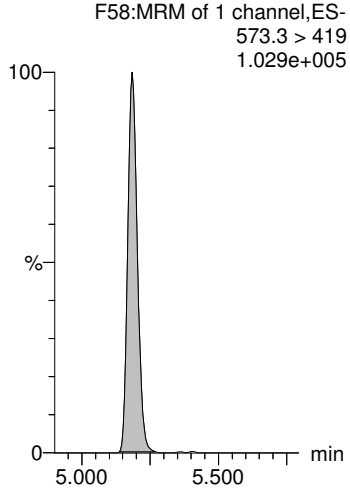
11Cl-PF30UdS



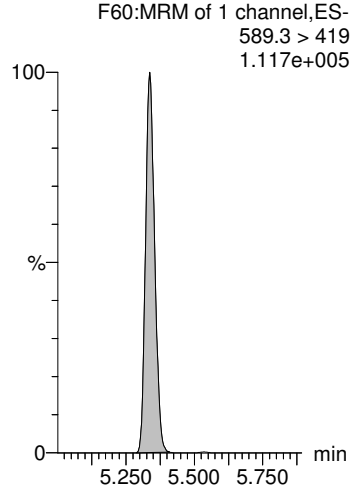
d3-N-MeFOSAA-EIS



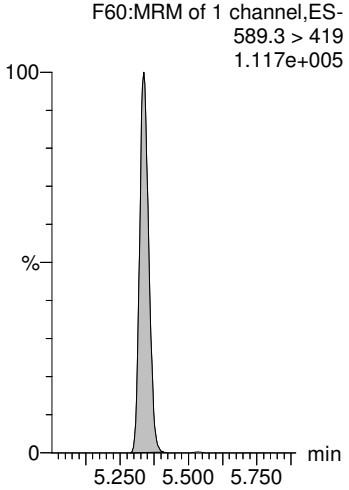
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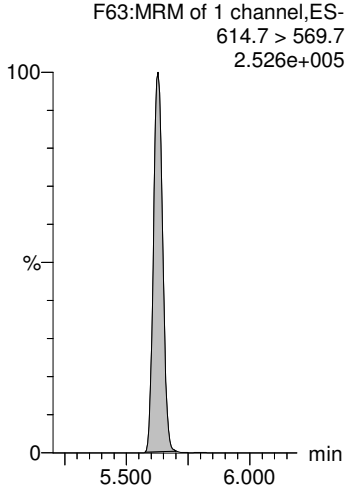
d5-N-EtFOSAA-EIS



d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



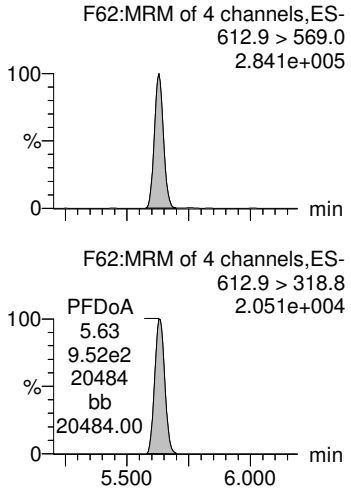
GM 2/28/2020

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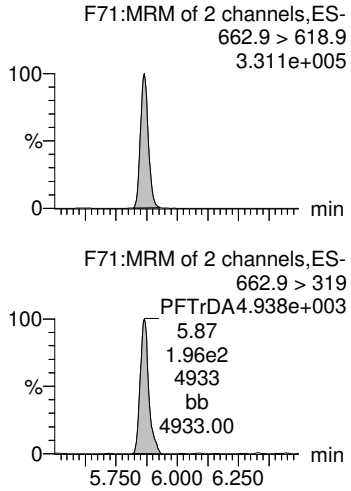
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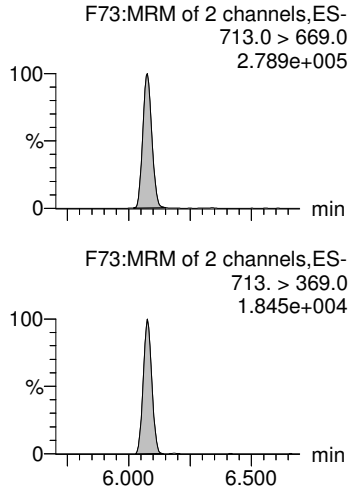
PFDoA



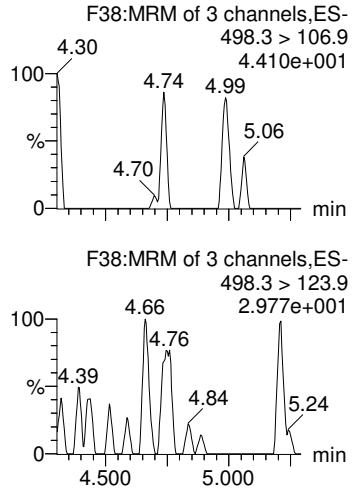
PFTrDA



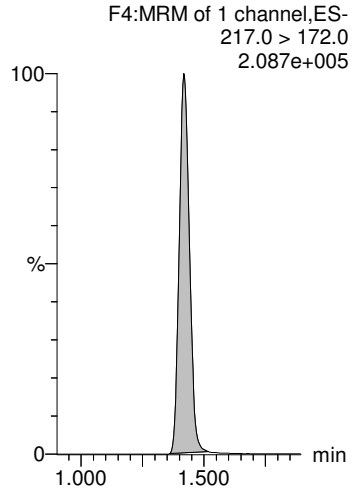
PFTeDA



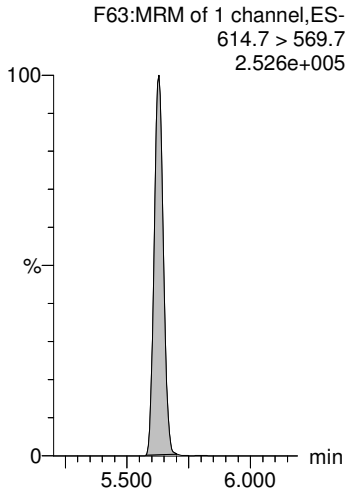
TDCA



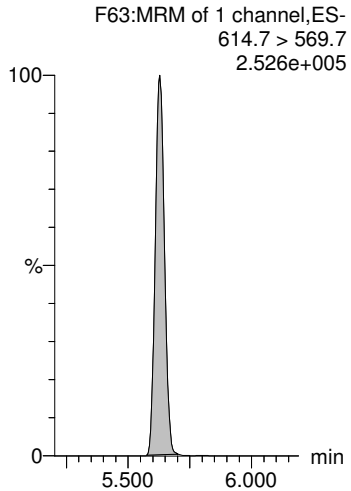
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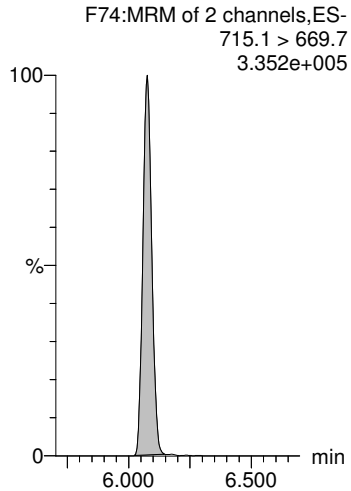
13C2-PFDoA-EIS



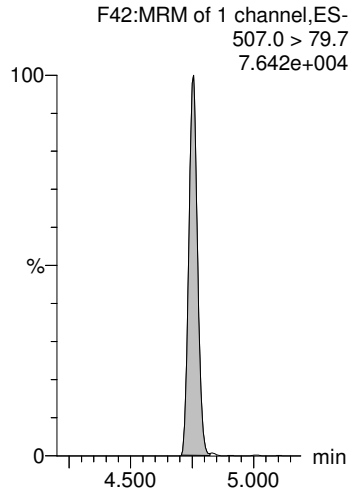
13C2-PFDoA-EIS



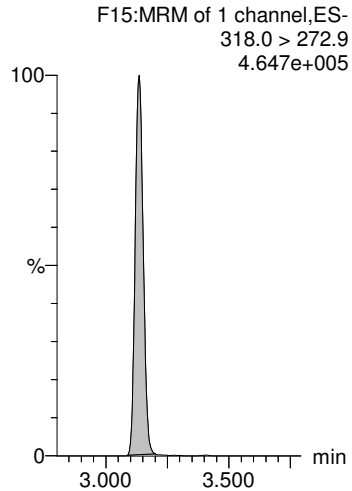
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



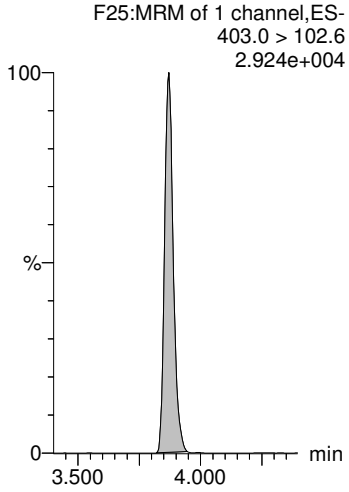
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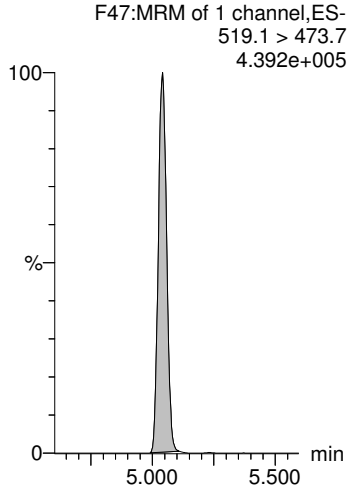
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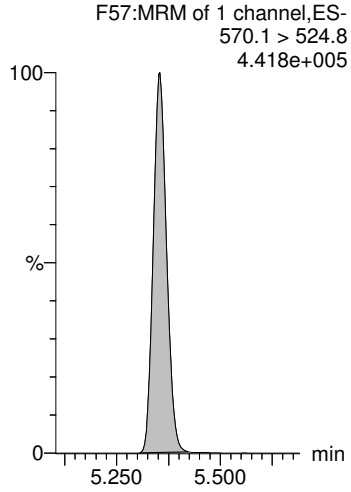
18O2-PFHxS



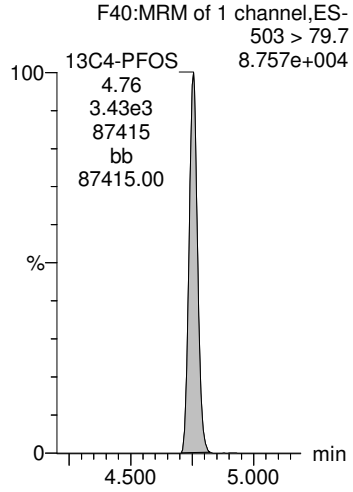
13C6-PFDA



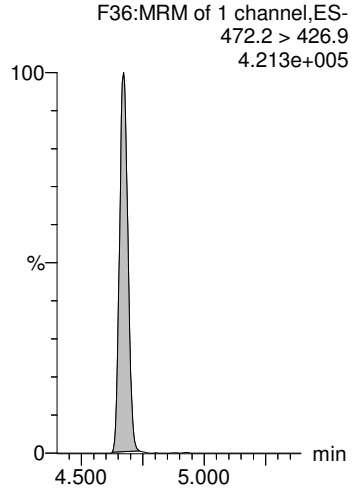
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-45.qld

Last Altered: Friday, February 28, 2020 10:52:24 Pacific Standard Time
Printed: Friday, February 28, 2020 10:54:50 Pacific Standard Time

Name: 200226P1-45, Date: 27-Feb-2020, Time: 00:20:22, ID: B0B0127-MSD1 Matrix Spike Dup 0.24499, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	6.56e3	1.22e3	0.245		2.63	2.63	67.4	110.6645		3.048	NO
2	7	PFHxA	313.0 > 269.0	8.49e4	1.54e4	0.245		3.14	3.14	69.1	306.0321		16.381	NO
3	9	HFPO-DA	285.1 > 168.9	2.50e3	3.01e3	0.245		3.35	3.35	10.4	41.6337		2.544	NO
4	11	PFHpA	363.0 > 318.9	3.64e4	1.10e4	0.245		3.73	3.73	41.4	136.4474		34.429	NO
5	12	ADONA	376.8 > 250.9	2.50e4	1.10e4	0.245		3.83	3.84	28.5	39.7710		4.118	NO
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.22e3		0.245	109.364	2.66	2.63	1220	45.3962	89.0		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.54e4		0.245	1741.311	3.14	3.14	15400	35.9923	70.5		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3.01e3		0.245	306.753	3.39	3.35	3010	40.0363	78.5		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.10e4		0.245	1144.853	3.74	3.73	11000	39.1560	76.7		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.10e4		0.245	1144.853	3.74	3.73	11000	39.1560	76.7		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	1.40e4	2.30e3	0.245		3.87	3.87	76.0	285.5417		2.380	NO
13	1...	Total PFHxS	398.9 > 79.7	1.40e4	2.30e3	0.245		3.93		76.0	285.5417			
14	16	L-PFOA	412.8 > 368.9	3.02e5	1.44e4	0.245		4.24	4.24	261	973.0673		2.711	NO
15	1...	Total PFOA	412.8 > 368.9	3.02e5	1.44e4	0.245		4.60		261	973.0673			
16	21	PFNA	463.0 > 418.8	1.48e4	1.44e4	0.245		4.67	4.67	12.8	49.2652		8.773	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.30e3		0.245	232.268	3.87	3.87	2300	40.3738	79.1		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.30e3		0.245	232.268	3.87	3.87	2300	40.3738	79.1		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.44e4		0.245	1568.416	4.24	4.24	14400	37.5207	73.5		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.44e4		0.245	1568.416	4.24	4.24	14400	37.5207	73.5		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.44e4		0.245	1457.036	4.67	4.67	14400	40.3928	79.2		
22	-1													
23	23	L-PFOS	498.9 > 79.7	9.99e3	2.76e3	0.245		4.76	4.76	45.2	183.5259		2.486	NO
24	1...	Total PFOS	498.9 > 79.7	9.99e3	2.76e3	0.245		5.13		45.2	183.5259			
25	25	9Cl-PF30NS	530.7 > 350.8	1.86e3	2.76e3	0.245		4.96	4.97	8.42	35.1572		15.497	NO
26	26	PFDA	513 > 468.8	1.30e4	1.28e4	0.245		5.04	5.04	12.7	47.0413		10.297	NO
27	33	PFUdA	563.0 > 518.9	1.19e4	1.38e4	0.245		5.35	5.36	10.8	41.7654		21.654	NO
28	71	13C8-PFOS-EIS	507.0 > 79.7	2.76e3		0.245	280.132	4.76	4.76	2760	40.2502	78.9		
29	71	13C8-PFOS-EIS	507.0 > 79.7	2.76e3		0.245	280.132	4.76	4.76	2760	40.2502	78.9		
30	71	13C8-PFOS-EIS	507.0 > 79.7	2.76e3		0.245	280.132	4.76	4.76	2760	40.2502	78.9		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.28e4		0.245	1595.945	5.04	5.04	12800	32.8462	64.4		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.38e4		0.245	1626.273	5.35	5.35	13800	34.6078	67.8		
33	-1													
34	29	L-MeFOSAA	570 > 419	3.87e3	3.70e3	0.245		5.18	5.19	13.1	42.8906		2.381	NO
35	1...	Total N-MeFOSAA	570. > 419	3.87e3	3.70e3	0.245		5.19		13.1	42.8906			
36	31	L-EtFOSAA	584.1 > 419	3.65e3	3.94e3	0.245		5.34	5.34	11.6	45.7967		1.211	NO

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-45.qld

Last Altered: Friday, February 28, 2020 10:52:24 Pacific Standard Time
Printed: Friday, February 28, 2020 10:54:50 Pacific Standard Time

Name: 200226P1-45, Date: 27-Feb-2020, Time: 00:20:22, ID: B0B0127-MSD1 Matrix Spike Dup 0.24499, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	3.65e3	3.94e3	0.245		5.37		11.6	45.7967			
38	35	11Cl-PF30UdS	630.9 > 450.9	4.97e3	1.00e4	0.245		5.56	5.56	6.21	48.6123		19.457	NO
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.70e3		0.245	397.776	5.18	5.18	3700	37.9620	74.4		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.70e3		0.245	397.776	5.18	5.18	3700	37.9620	74.4		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.94e3		0.245	488.229	5.33	5.34	3940	32.9138	64.5		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.94e3		0.245	488.229	5.33	5.34	3940	32.9138	64.5		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.00e4		0.245	1456.575	5.62	5.63	10000	28.0638	55.0		
44	-1													
45	37	PFDoA	612.9 > 569.0	1.06e4	1.00e4	0.245		5.63	5.63	13.2	44.1320		10.443	NO
46	39	PFTrDA	662.9 > 618.9	1.12e4	1.00e4	0.245		5.88	5.87	13.9	45.1256		72.523	NO
47	41	PFTeDA	713.0 > 669.0	1.22e4	1.35e4	0.245		6.08	6.08	11.3	48.0757		18.021	NO
48	1...	TDCA	498.3>106.9			0.245		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	1.04e4	1.04e4	0.245	1.000	1.42	1.42	12.5	51.0225	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.00e4		0.245	1456.575	5.62	5.63	10000	28.0638	55.0		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.00e4		0.245	1456.575	5.62	5.63	10000	28.0638	55.0		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.35e4		0.245	1697.796	6.06	6.08	13500	32.4510	63.6		
53	71	13C8-PFOS-EIS	507.0 > 79.7	2.76e3		0.245	280.132	4.76	4.76	2760	40.2502	78.9		
54	1...	13C5-PFHxA	318.0 > 272.9	1.79e4	1.79e4	0.245	1.000	3.12	3.14	12.5	51.0225	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.13e3	1.13e3	0.245	1.000	3.86	3.87	12.5	51.0225	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.55e4	1.55e4	0.245	1.000	5.03	5.04	12.5	51.0225	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.55e4	1.55e4	0.245	1.000	5.34	5.35	12.5	51.0225	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.44e3	3.44e3	0.245	1.000	4.74	4.76	12.5	51.0225	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.61e4	1.61e4	0.245	1.000	4.66	4.67	12.5	51.0225	100.0		

GM 2/28/2020

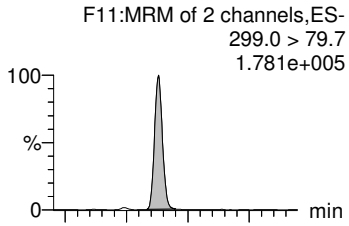
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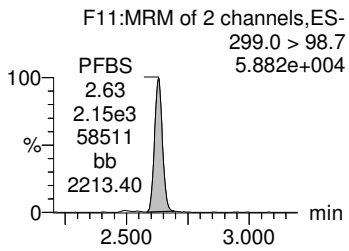
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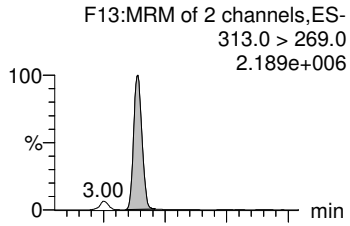
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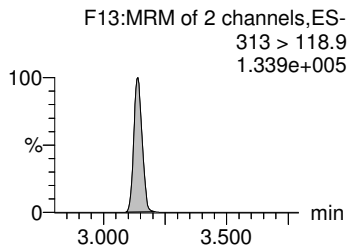
PFBS



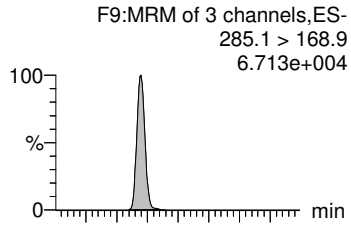


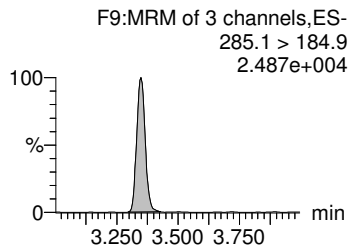
PFHxA



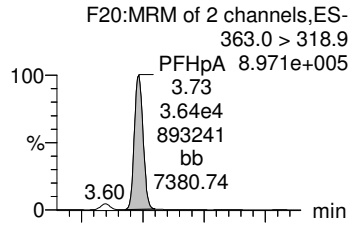


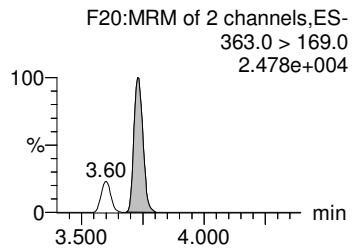
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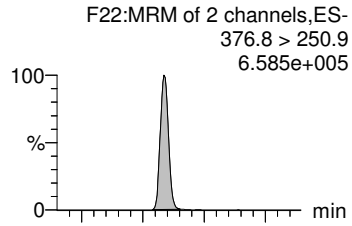


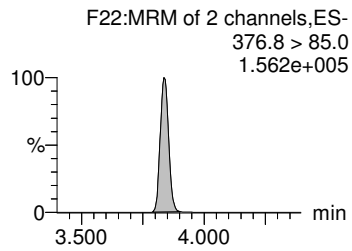
PFHpA



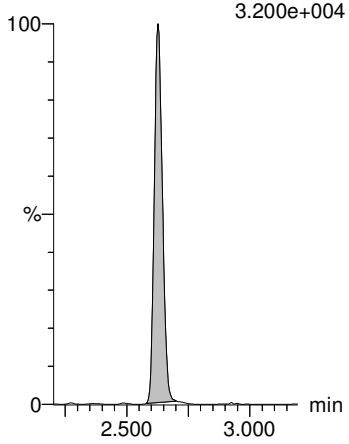


ADONA

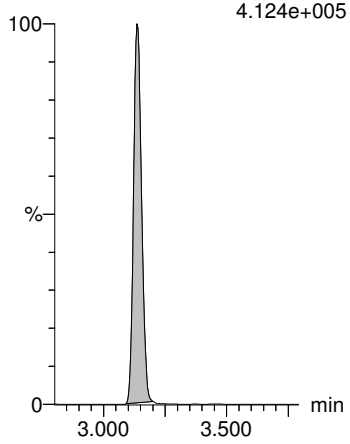




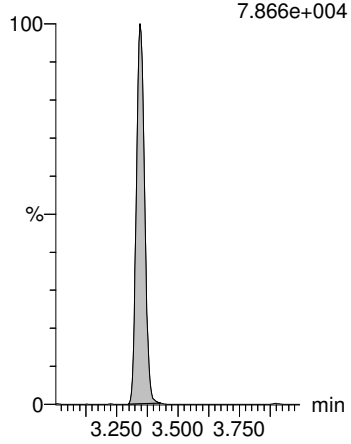
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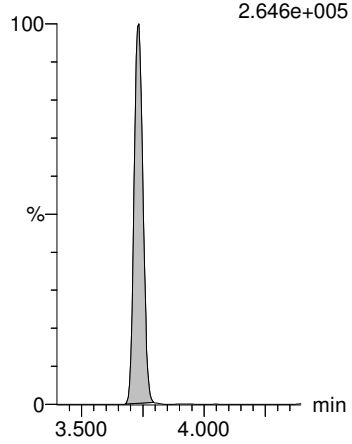
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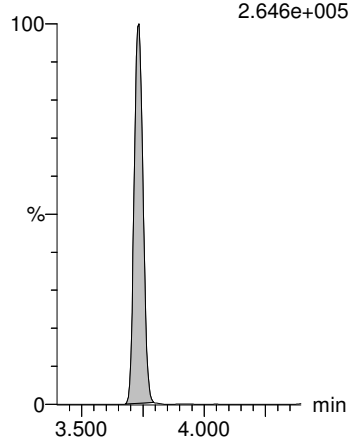
13C3-HFPO-DA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

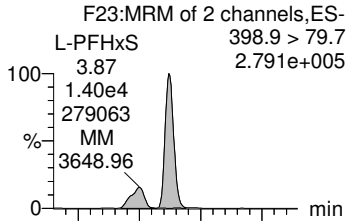


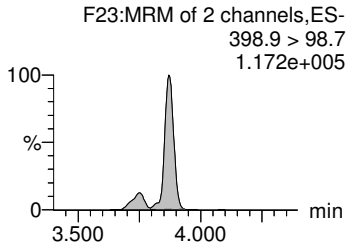
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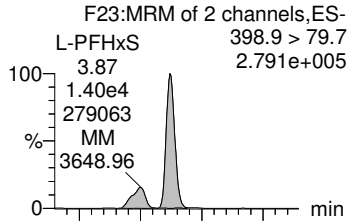
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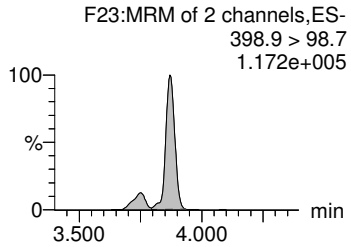
L-PFHxS



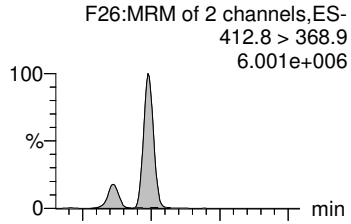


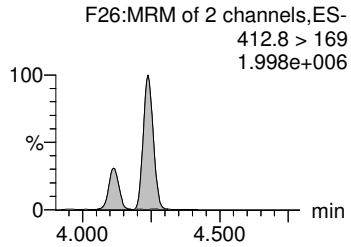
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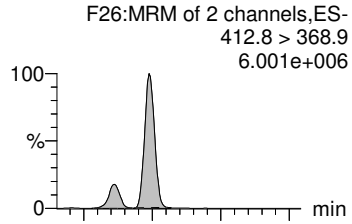


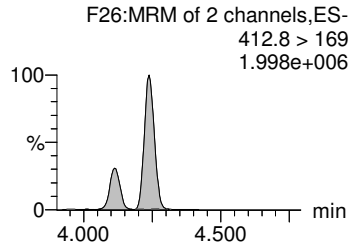
L-PFOA



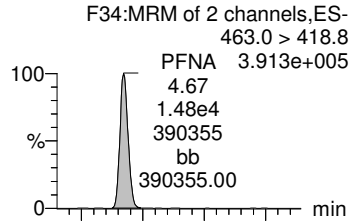


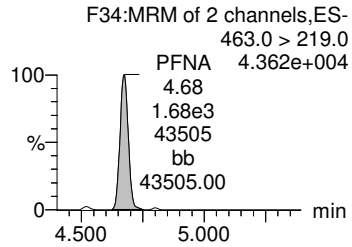
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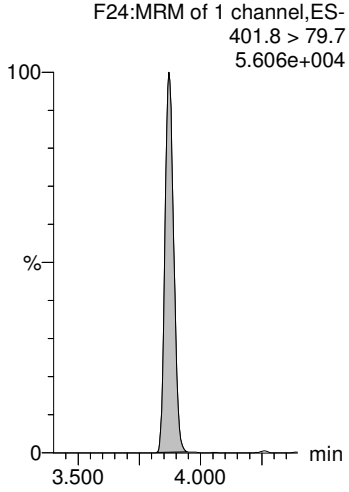


PFNA

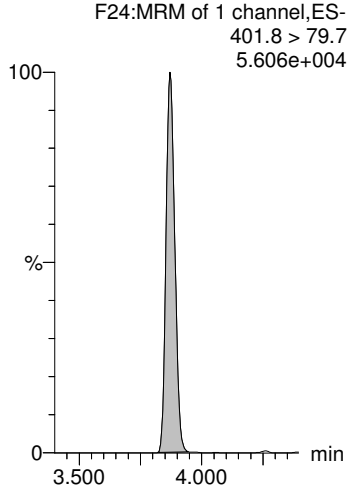




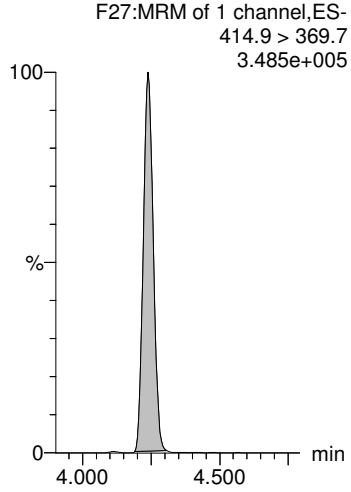
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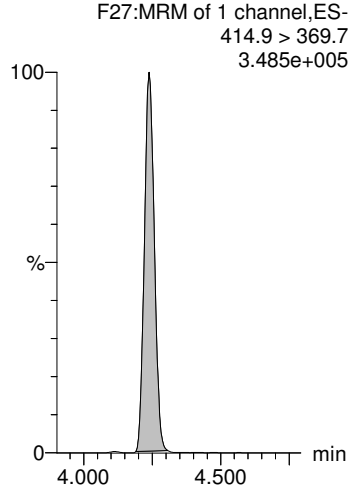
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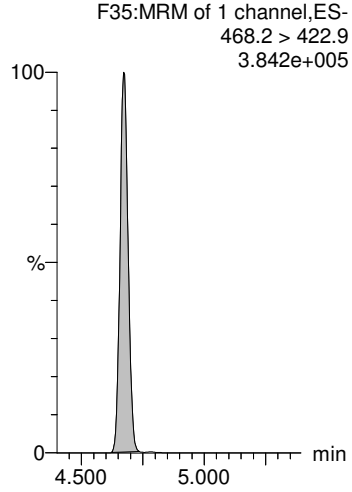
13C2-PFOA-EIS



13C2-PFOA-EIS



13C5-PFNA-EIS

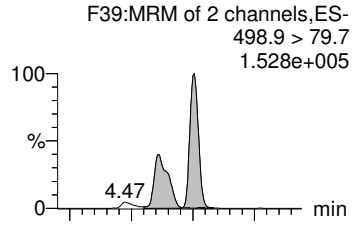


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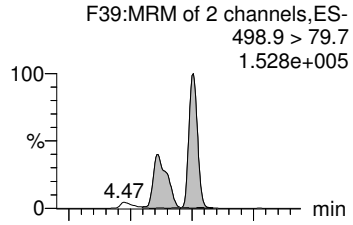
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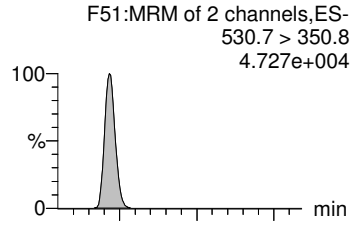
L-PFOS



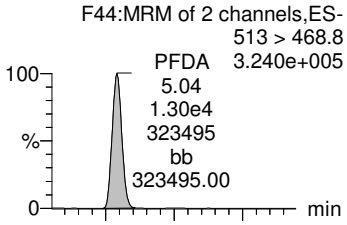
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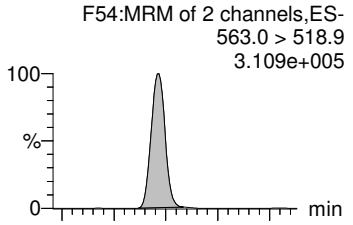
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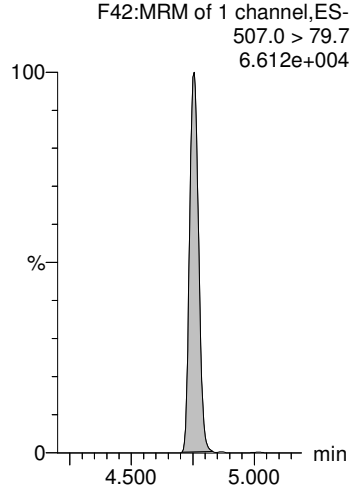
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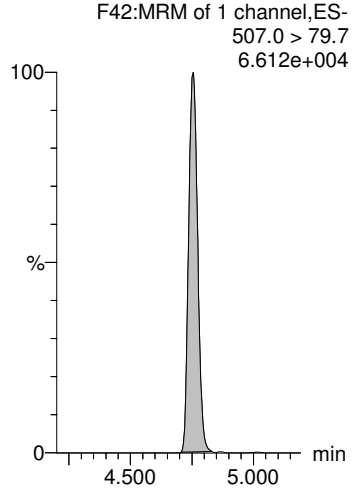
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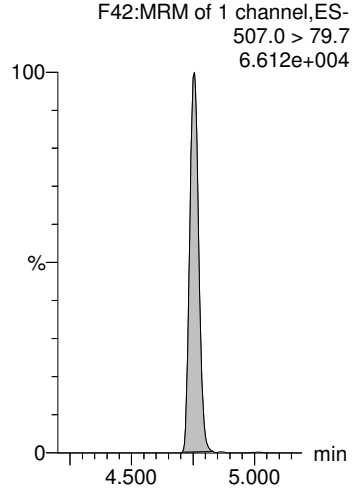
13C8-PFOS-EIS



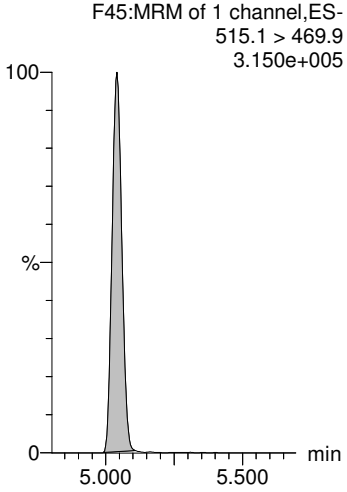
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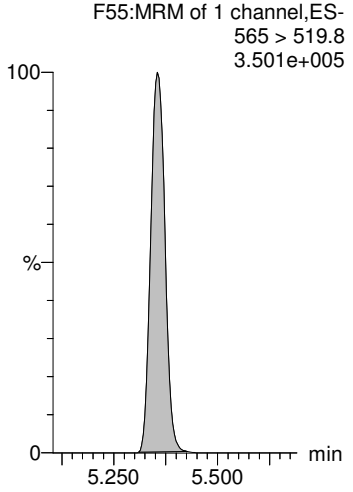
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-PFUdA-EIS



GM 2/28/2020

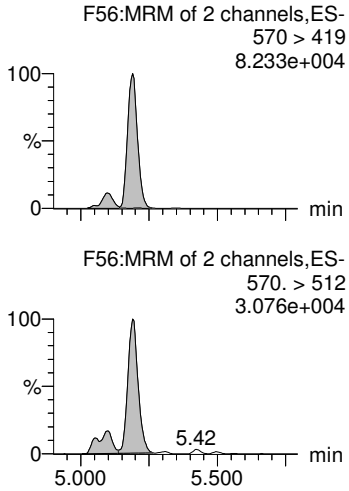
MM 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-45.qld

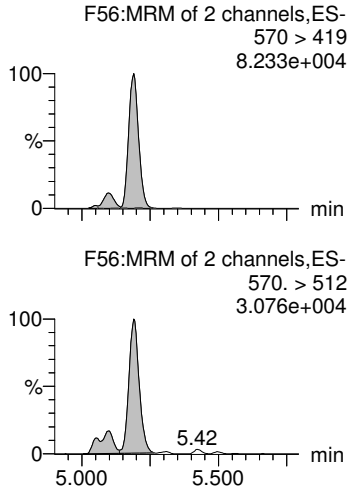
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Name: 200226P1-45, Date: 27-Feb-2020, Time: 00:20:22, ID: B0B0127-MSD1 Matrix Spike Dup 0.24499, Description: Matrix Spike Dup

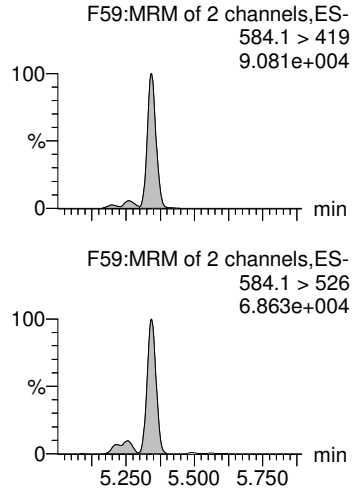
L-MeFOSAA



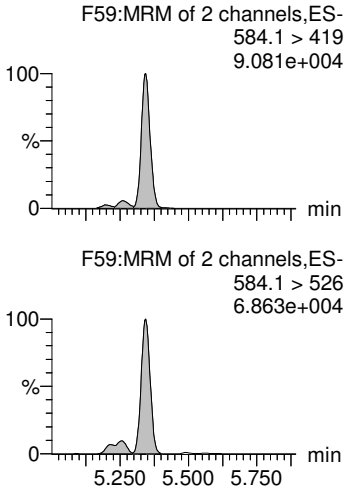
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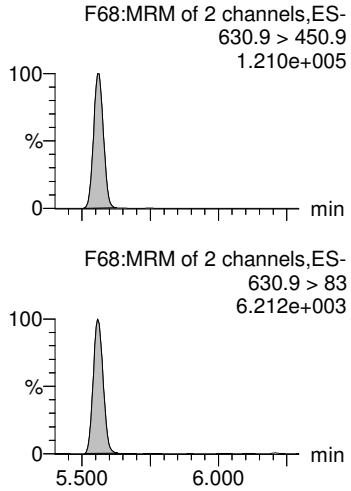
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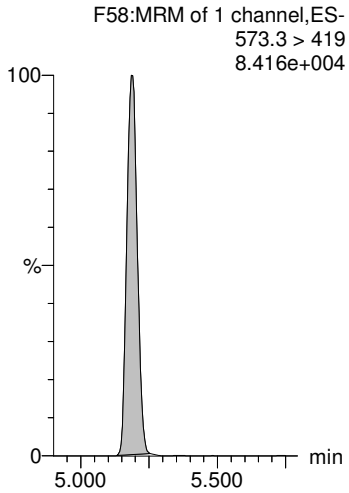
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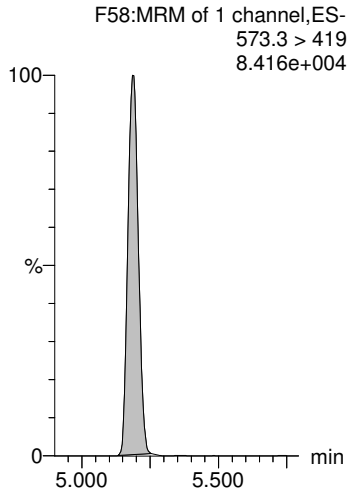
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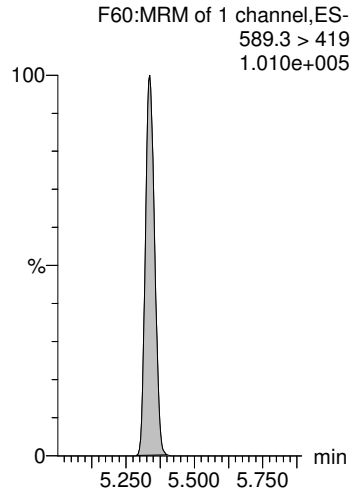
d3-N-MeFOSAA-EIS



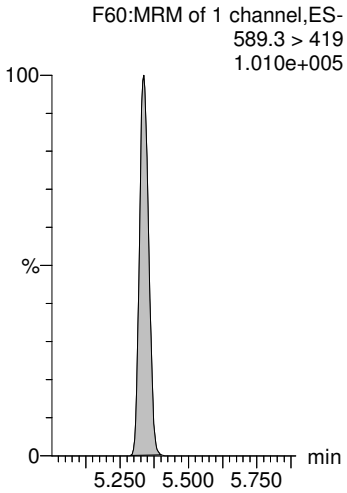
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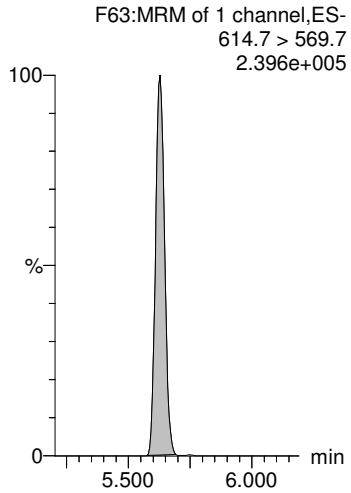
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



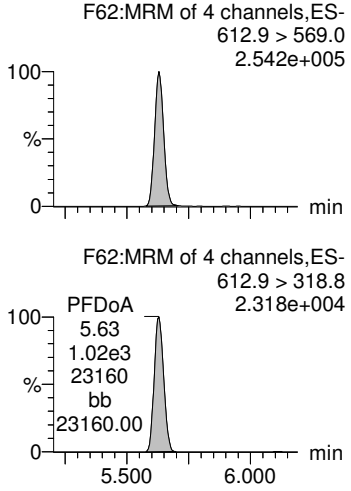
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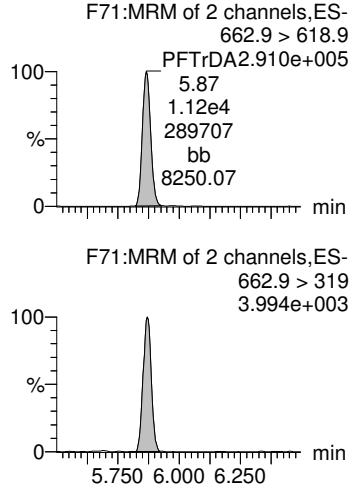
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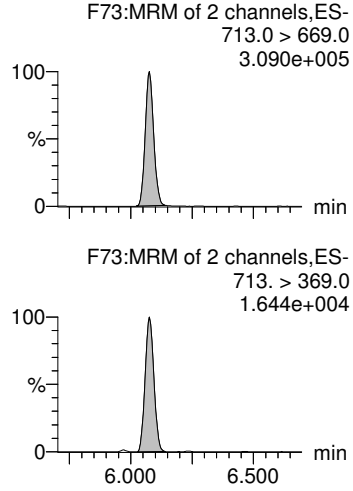
PFDoA



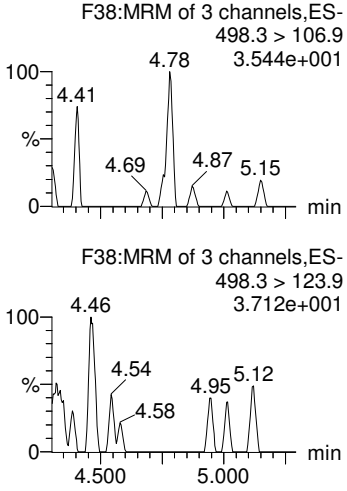
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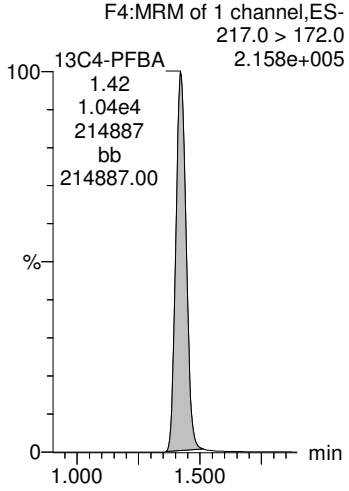
PFTeDA



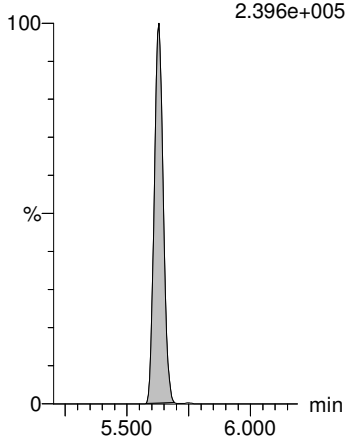
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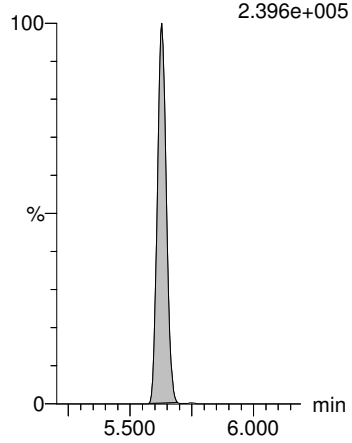
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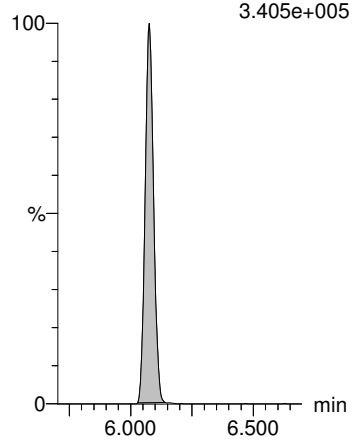
13C2-PFDoA-EIS



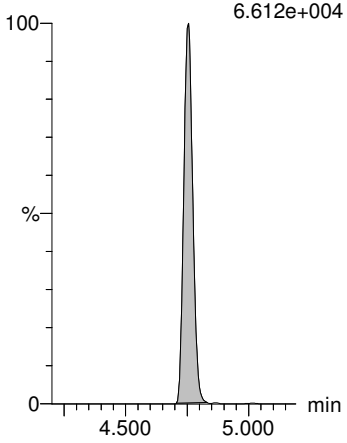
13C2-PFDoA-EIS



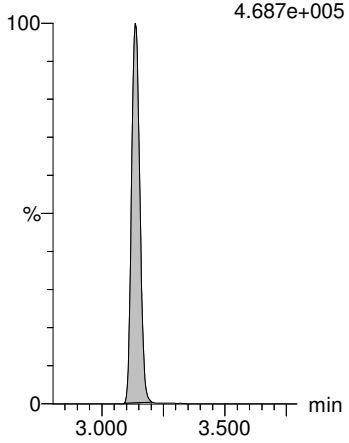
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



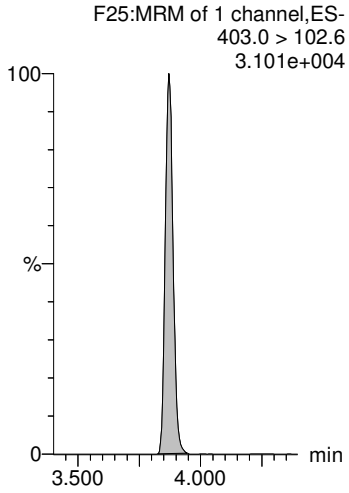
MM 3/2/2020

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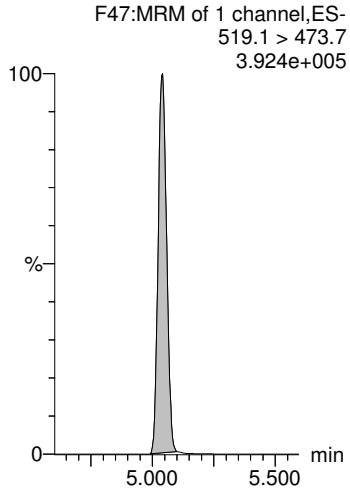
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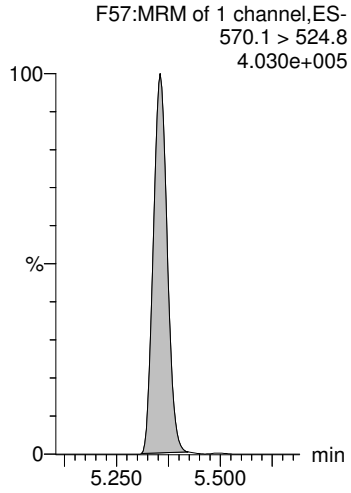
18O2-PFHxS



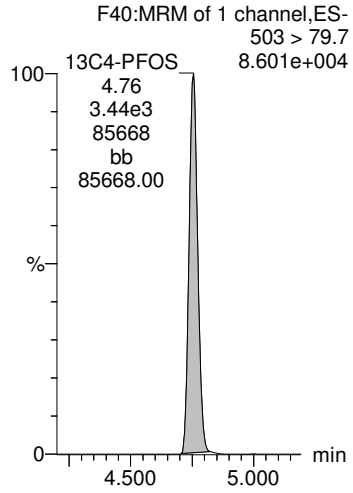
13C6-PFDA



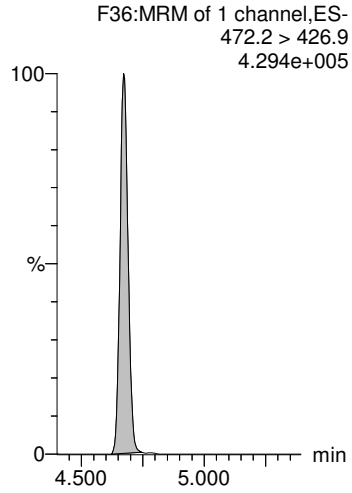
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-48.qld

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Name: 200226P1-48, Date: 27-Feb-2020, Time: 00:51:53, ID: 2000321-04 I012MW01SR-20200213 0.24804, Description: I012MW01SR-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	7.76e2	1.19e3	0.248		2.63	2.63	8.13	13.0792		2.896	NO
2	7	PFHxA	313.0 > 269.0	1.58e4	1.50e4	0.248		3.14	3.14	13.1	57.0412		18.197	NO
3	9	HFPO-DA	285.1 > 168.9		2.59e3	0.248		3.35						YES
4	11	PFHpA	363.0 > 318.9	4.46e3	1.01e4	0.248		3.73	3.73	5.50	17.6304		31.159	NO
5	12	ADONA	376.8 > 250.9		1.01e4	0.248		3.83						YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.19e3		0.248	109.364	2.66	2.63	1190	43.9479	87.2		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.50e4		0.248	1741.311	3.14	3.14	15000	34.7149	68.9		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.59e3		0.248	306.753	3.39	3.35	2590	34.0984	67.7		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.01e4		0.248	1144.853	3.74	3.73	10100	35.7056	70.9		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.01e4		0.248	1144.853	3.74	3.73	10100	35.7056	70.9		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	1.69e3	2.46e3	0.248		3.87	3.87	8.58	30.5798		2.275	NO
13	1...	Total PFHxS	398.9 > 79.7	1.69e3	2.46e3	0.248		3.93		8.58	30.5798			
14	16	L-PFOA	412.8 > 368.9	1.09e5	1.31e4	0.248		4.24	4.24	104	370.3364		2.695	NO
15	1...	Total PFOA	412.8 > 368.9	1.09e5	1.31e4	0.248		4.60		104	370.3364			
16	21	PFNA	463.0 > 418.8	2.48e2	1.30e4	0.248		4.67	4.67	0.239	0.5662		7.041	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.46e3		0.248	232.268	3.87	3.87	2460	42.6658	84.7		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.46e3		0.248	232.268	3.87	3.87	2460	42.6658	84.7		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.31e4		0.248	1568.416	4.24	4.24	13100	33.7741	67.0		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.31e4		0.248	1568.416	4.24	4.24	13100	33.7741	67.0		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.30e4		0.248	1457.036	4.67	4.67	13000	35.9371	71.3		
22	-1													
23	23	L-PFOS	498.9 > 79.7	3.91e3	2.65e3	0.248		4.76	4.76	18.5	73.9535		2.175	NO
24	1...	Total PFOS	498.9 > 79.7	3.91e3	2.65e3	0.248		4.61		18.5	73.9535			
25	25	9Cl-PF30NS	530.7 > 350.8		2.65e3	0.248		4.97						YES
26	26	PFDA	513 > 468.8		1.39e4	0.248		5.04						YES
27	33	PFUdA	563.0 > 518.9		1.30e4	0.248		5.36						YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	2.65e3		0.248	280.132	4.76	4.76	2650	38.0840	75.6		
29	71	13C8-PFOS-EIS	507.0 > 79.7	2.65e3		0.248	280.132	4.76	4.76	2650	38.0840	75.6		
30	71	13C8-PFOS-EIS	507.0 > 79.7	2.65e3		0.248	280.132	4.76	4.76	2650	38.0840	75.6		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.39e4		0.248	1595.945	5.04	5.04	13900	34.9940	69.4		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.30e4		0.248	1626.273	5.35	5.36	13000	32.1458	63.8		
33	-1													
34	29	L-MeFOSAA	570 > 419		3.72e3	0.248		5.19						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	3.72e3	0.248		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		3.97e3	0.248		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-48.qld

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Name: 200226P1-48, Date: 27-Feb-2020, Time: 00:51:53, ID: 2000321-04 I012MW01SR-20200213 0.24804, Description: I012MW01SR-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	3.97e3	0.248		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		9.18e3	0.248		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.72e3		0.248	397.776	5.18	5.19	3720	37.7466	74.9		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.72e3		0.248	397.776	5.18	5.19	3720	37.7466	74.9		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.97e3		0.248	488.229	5.32	5.34	3970	32.7907	65.1		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.97e3		0.248	488.229	5.32	5.34	3970	32.7907	65.1		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	9.18e3		0.248	1456.575	5.62	5.63	9180	25.4045	50.4		
44	-1													
45	37	PFDoA	612.9 > 569.0		9.18e3	0.248		5.63						YES
46	39	PFTrDA	662.9 > 618.9		9.18e3	0.248		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.37e4	0.248		6.08						YES
48	1...	TDCA	498.3>106.9			0.248		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	8.82e3	8.82e3	0.248	1.000	1.42	1.42	12.5	50.3951	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	9.18e3		0.248	1456.575	5.62	5.63	9180	25.4045	50.4		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	9.18e3		0.248	1456.575	5.62	5.63	9180	25.4045	50.4		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.37e4		0.248	1697.796	6.06	6.08	13700	32.5045	64.5		
53	71	13C8-PFOS-EIS	507.0 > 79.7	2.65e3		0.248	280.132	4.76	4.76	2650	38.0840	75.6		
54	1...	13C5-PFHxA	318.0 > 272.9	1.60e4	1.60e4	0.248	1.000	3.12	3.14	12.5	50.3951	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.01e3	1.01e3	0.248	1.000	3.86	3.87	12.5	50.3951	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.53e4	1.53e4	0.248	1.000	5.03	5.04	12.5	50.3951	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.50e4	1.50e4	0.248	1.000	5.34	5.35	12.5	50.3951	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.19e3	3.19e3	0.248	1.000	4.74	4.76	12.5	50.3951	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.44e4	1.44e4	0.248	1.000	4.66	4.67	12.5	50.3951	100.0		

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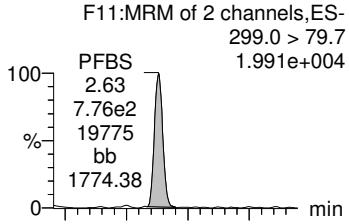
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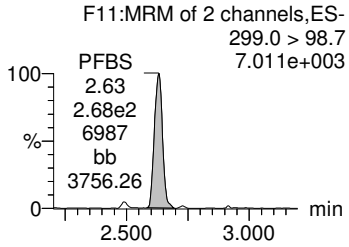
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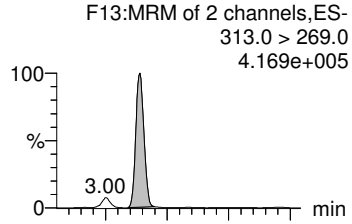
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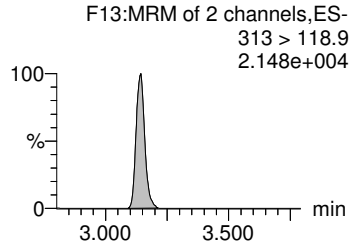
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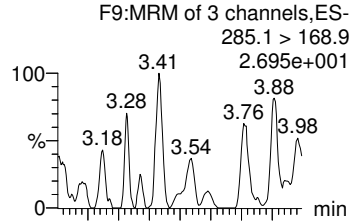


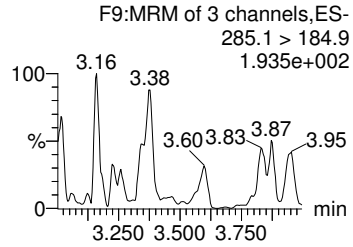
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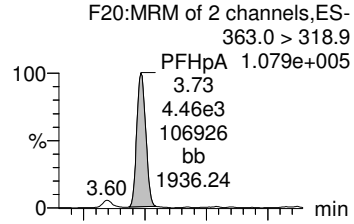


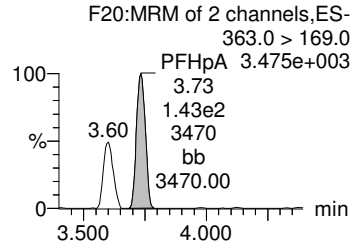
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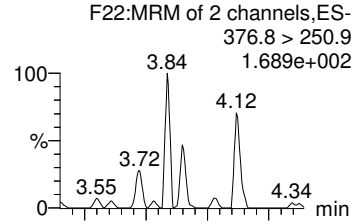


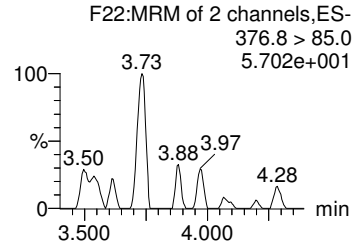
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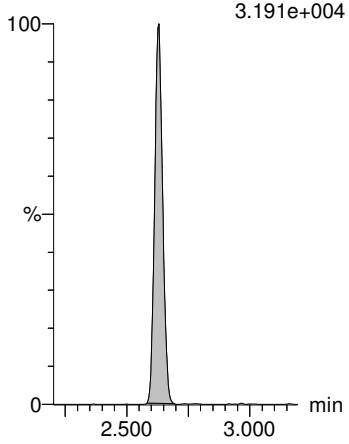


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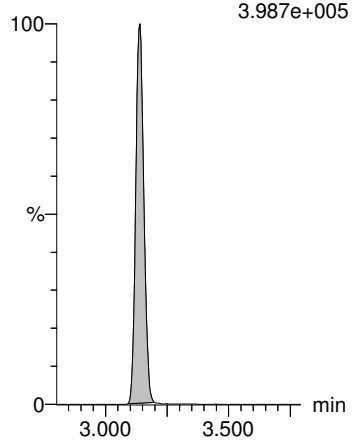




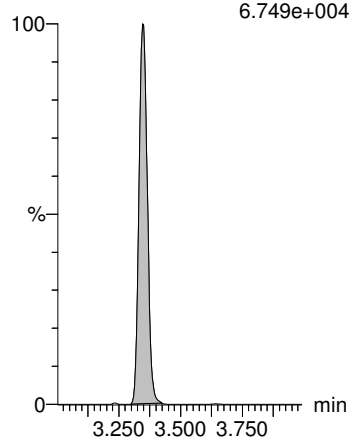
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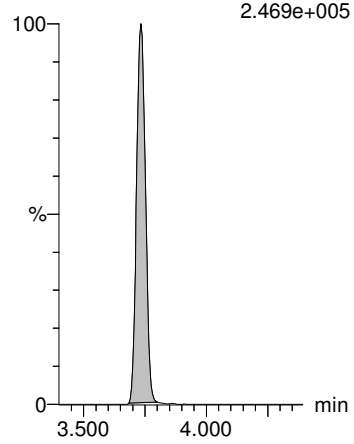
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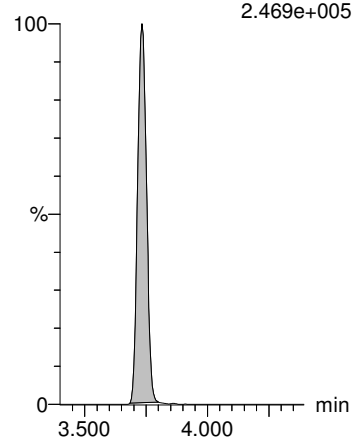
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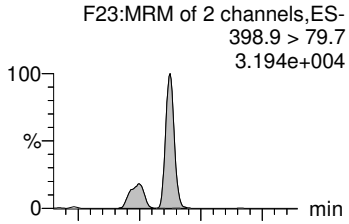


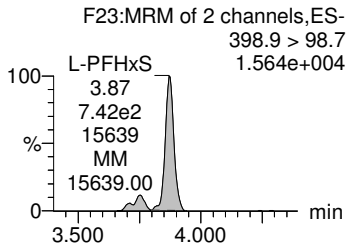
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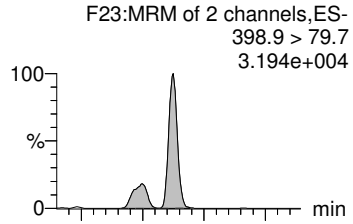
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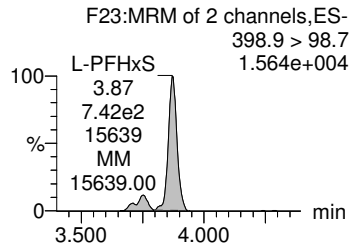
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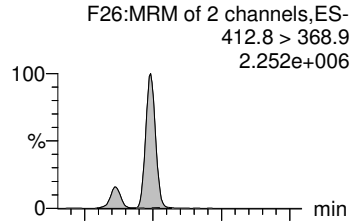


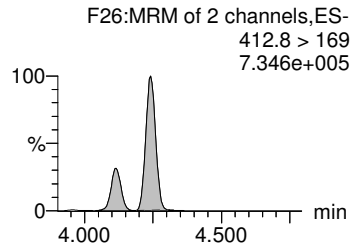
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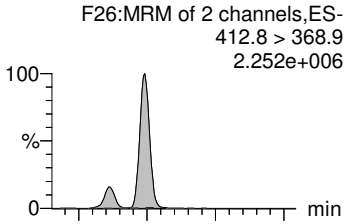


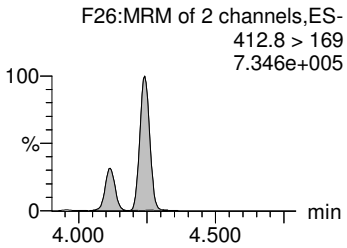
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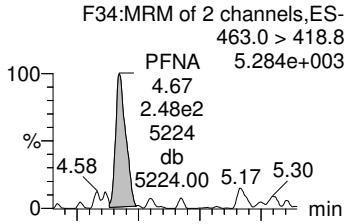


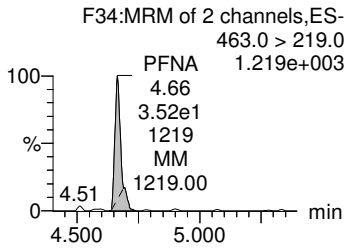
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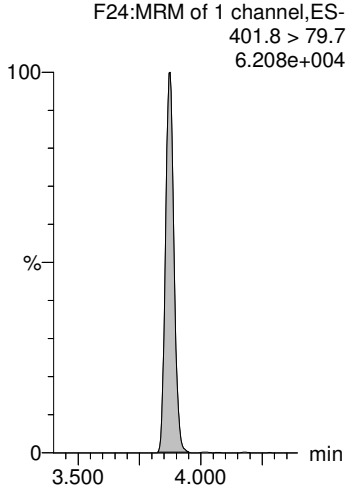


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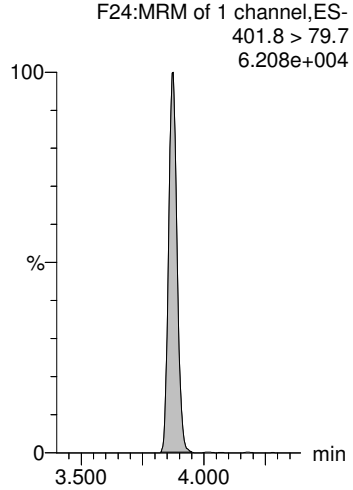




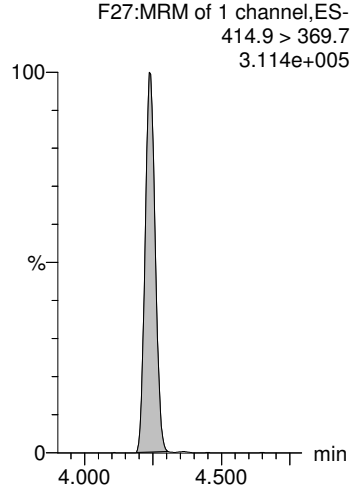
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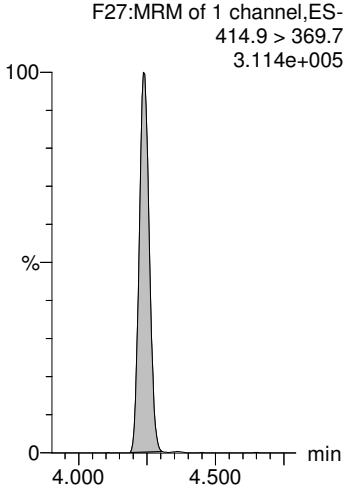
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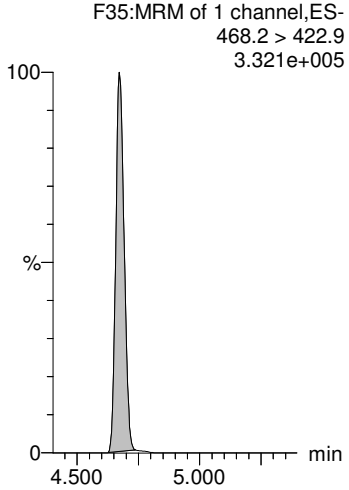
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13C2-PFOA-EIS



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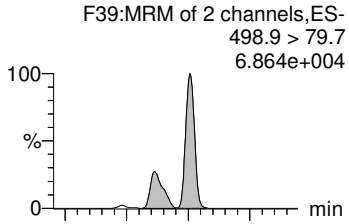


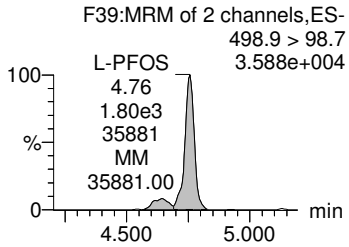
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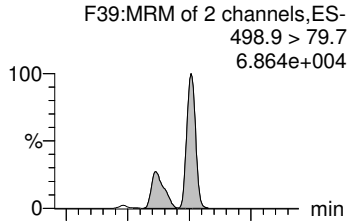
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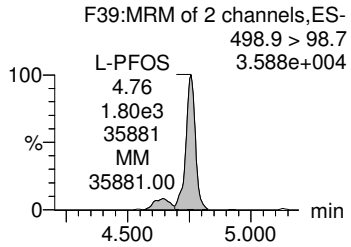
L-PFOS



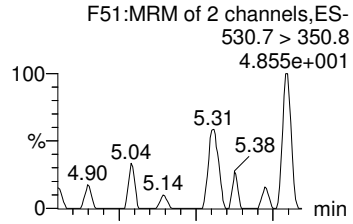


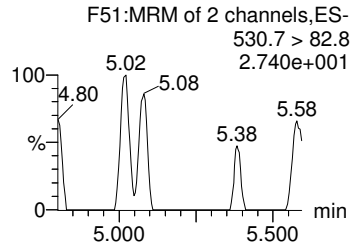
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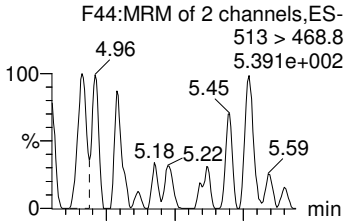


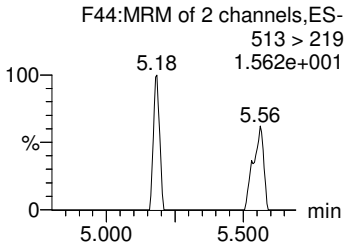
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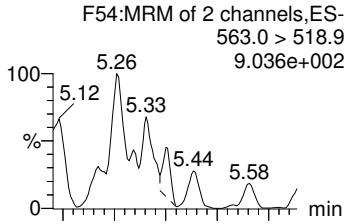


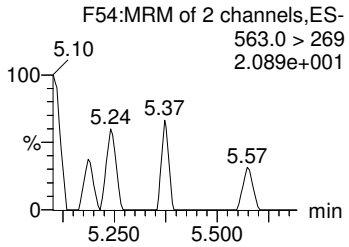
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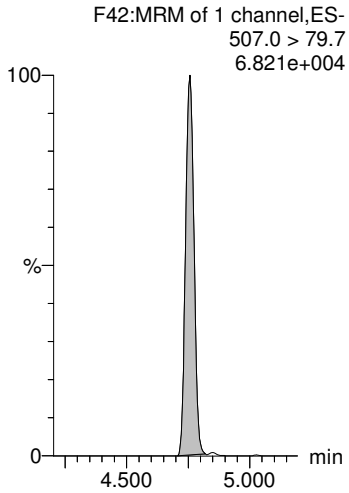


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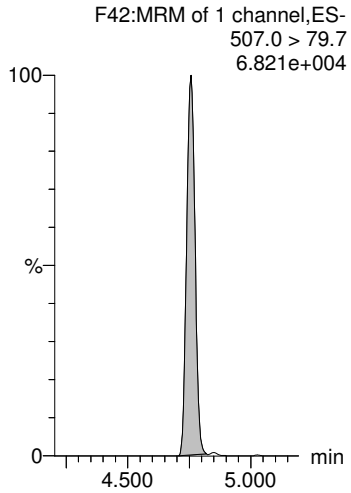




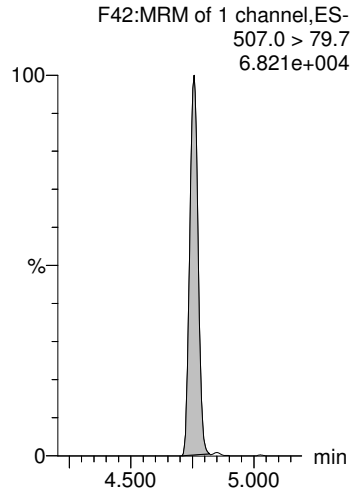
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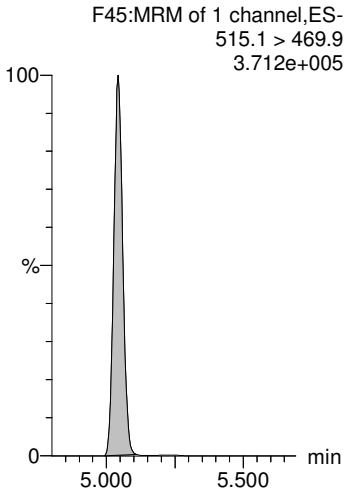
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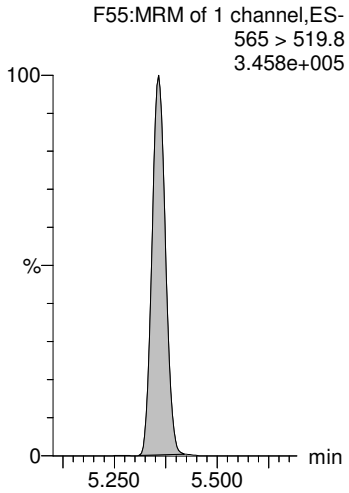
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13C2-PFDA-EIS



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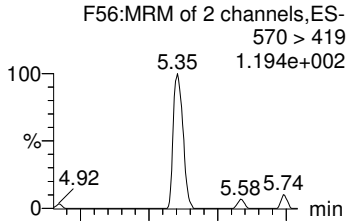
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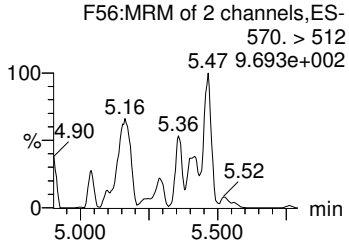
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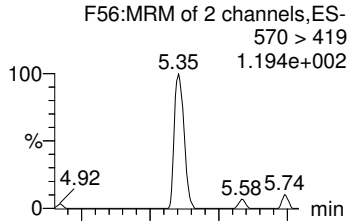
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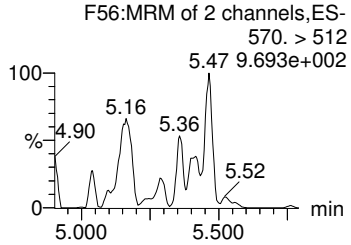
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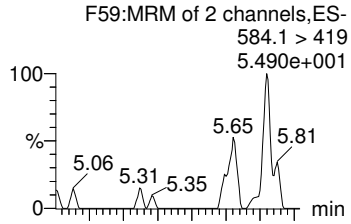


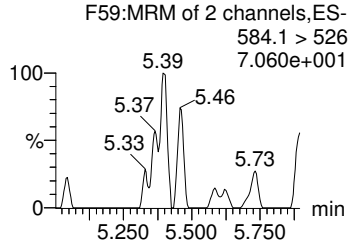
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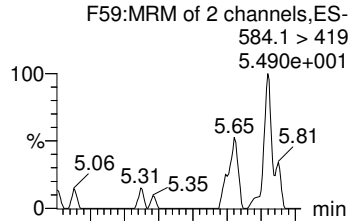


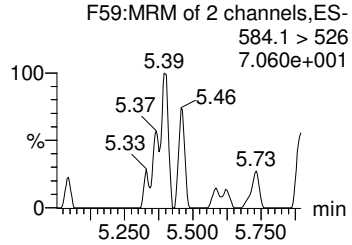
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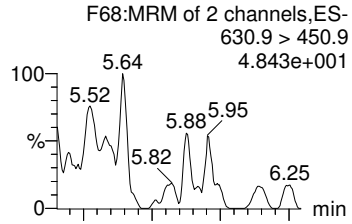


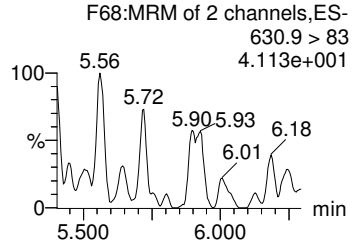
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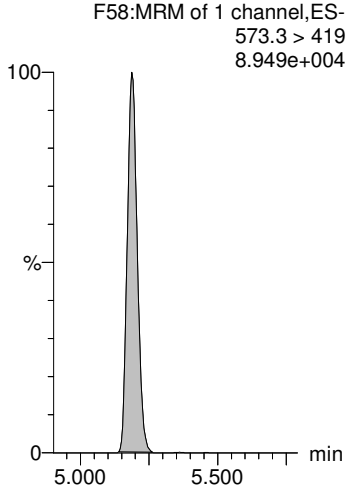


11Cl-PF30UdS

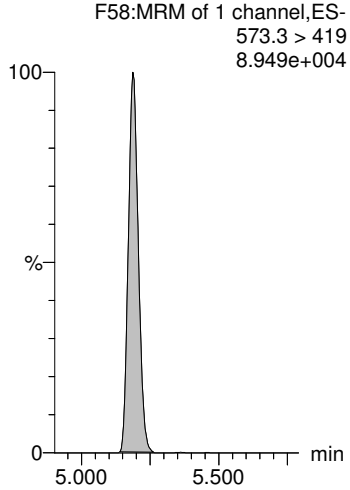




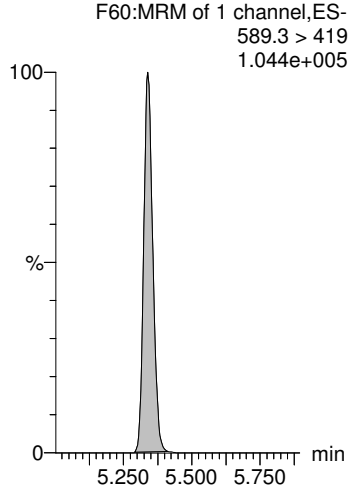
d3-N-MeFOSAA-EIS



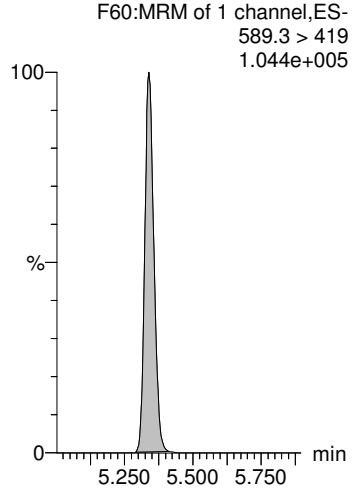
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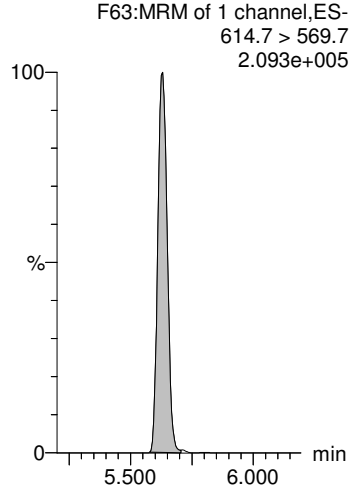
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



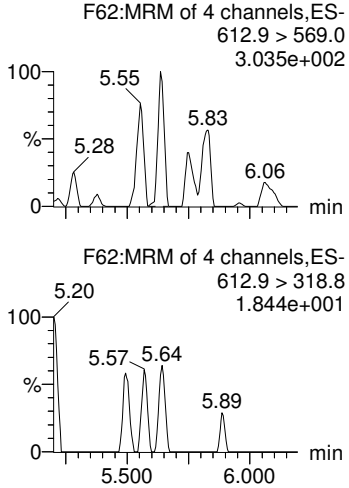
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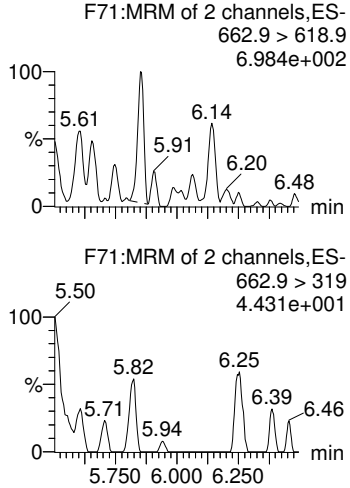
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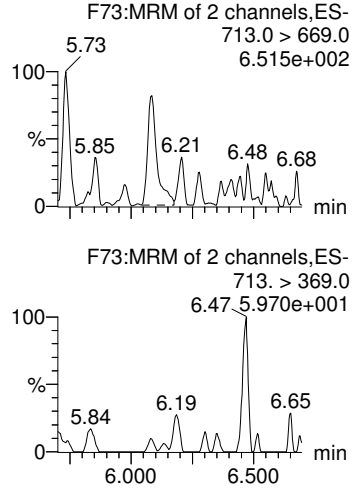
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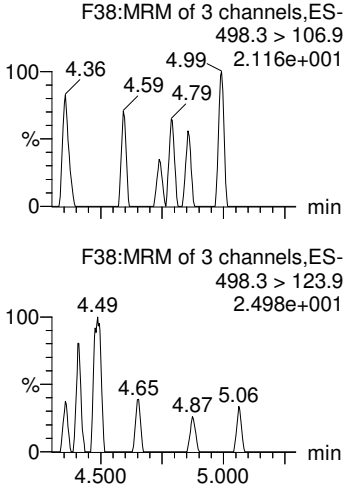
PFTrDA



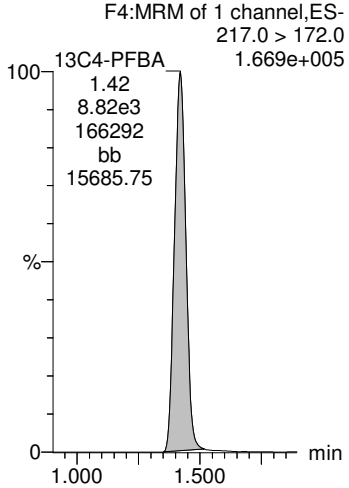
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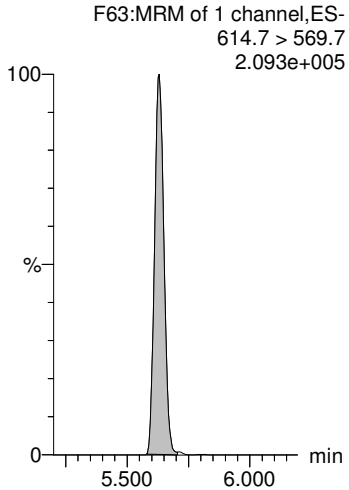
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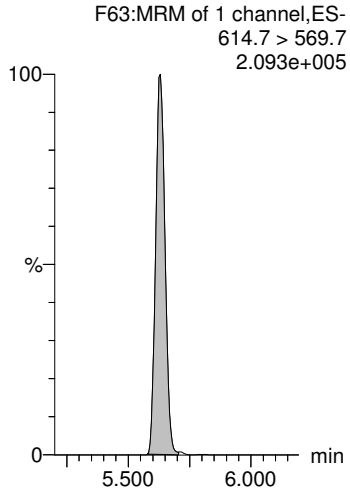
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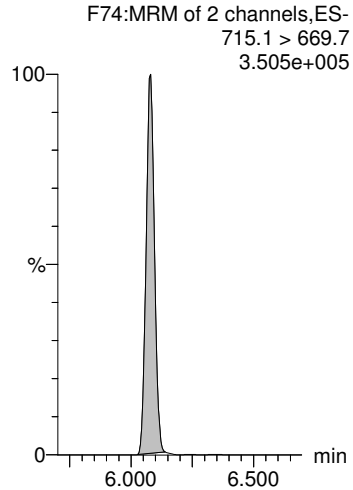
13C2-PFDoA-EIS



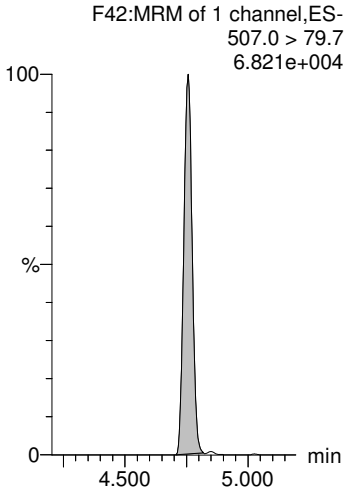
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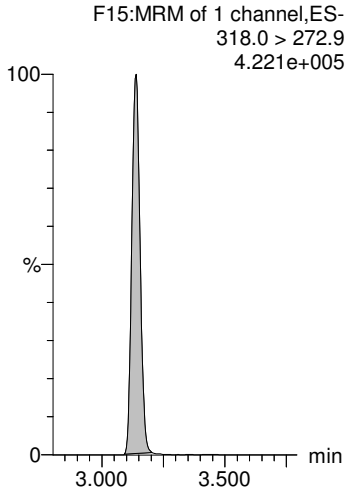
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



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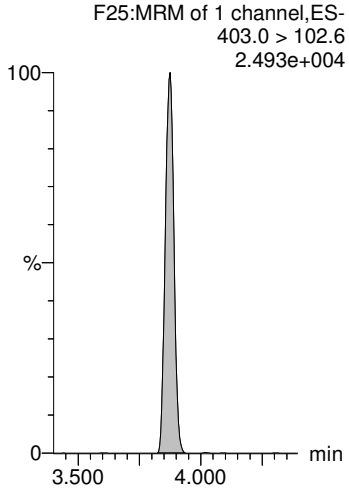
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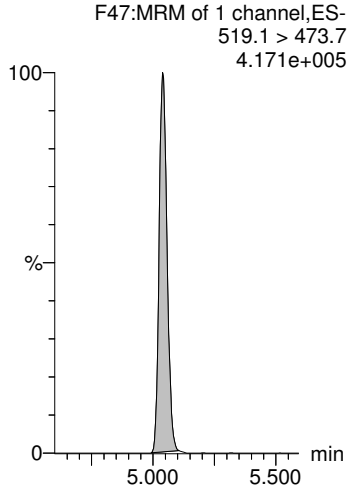
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Name: 200226P1-48, Date: 27-Feb-2020, Time: 00:51:53, ID: 2000321-04 I012MW01SR-20200213 0.24804, Description: I012MW01SR-20200213

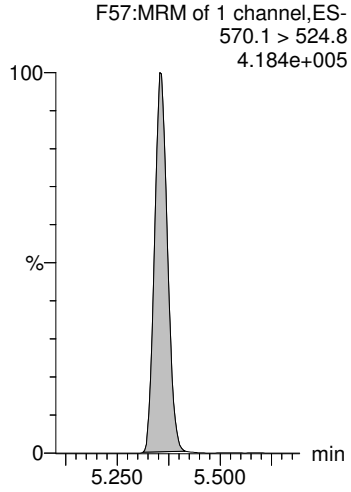
18O2-PFHxS



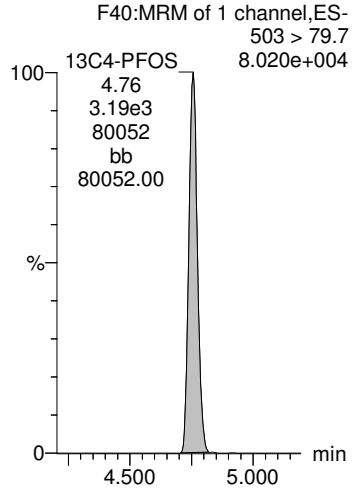
13C6-PFDA



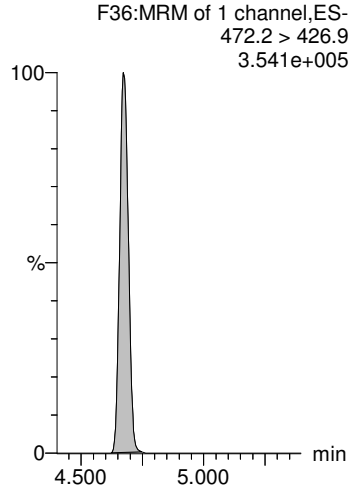
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-49.qld

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Printed: Friday, February 28, 2020 17:03:26 Pacific Standard Time

Name: 200226P1-49, Date: 27-Feb-2020, Time: 01:02:24, ID: 2000321-05 I012MW10S-20200213 0.24821, Description: I012MW10S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	2.05e3	1.21e3	0.248		2.63	2.63	21.2	34.0407		2.906	NO
2	7	PFHxA	313.0 > 269.0	2.23e4	1.58e4	0.248		3.14	3.14	17.6	76.4743		17.451	NO
3	9	HFPO-DA	285.1 > 168.9		2.64e3	0.248		3.35						YES
4	11	PFHpA	363.0 > 318.9	6.09e3	1.15e4	0.248		3.73	3.73	6.62	21.2555		39.628	NO
5	12	ADONA	376.8 > 250.9		1.15e4	0.248		3.83						YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.21e3		0.248	109.364	2.66	2.63	1210	44.7306	88.8		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.58e4		0.248	1741.311	3.14	3.14	15800	36.6506	72.8		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.64e3		0.248	306.753	3.39	3.35	2640	34.7241	69.0		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.15e4		0.248	1144.853	3.74	3.73	11500	40.4480	80.3		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.15e4		0.248	1144.853	3.74	3.73	11500	40.4480	80.3		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	7.80e3	2.52e3	0.248		3.87	3.87	38.7	139.6777		2.682	NO
13	1...	Total PFHxS	398.9 > 79.7	7.80e3	2.52e3	0.248		3.93		38.7	139.6777			
14	16	L-PFOA	412.8 > 368.9	2.05e5	1.57e4	0.248		4.24	4.24	164	590.5753		2.666	NO
15	1...	Total PFOA	412.8 > 368.9	2.05e5	1.57e4	0.248		4.60		164	590.5753			
16	21	PFNA	463.0 > 418.8	2.97e2	1.69e4	0.248		4.68	4.68	0.220	0.4931		6.891	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.52e3		0.248	232.268	3.87	3.87	2520	43.6992	86.8		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.52e3		0.248	232.268	3.87	3.87	2520	43.6992	86.8		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.57e4		0.248	1568.416	4.24	4.24	15700	40.2576	79.9		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.57e4		0.248	1568.416	4.24	4.24	15700	40.2576	79.9		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.69e4		0.248	1457.036	4.67	4.68	16900	46.6452	92.6		
22	-1													
23	23	L-PFOS	498.9 > 79.7	2.19e3	3.35e3	0.248		4.76	4.76	8.17	32.6966		2.971	NO
24	1...	Total PFOS	498.9 > 79.7	2.19e3	3.35e3	0.248		4.61		8.17	32.6966			
25	25	9Cl-PF30NS	530.7 > 350.8		3.35e3	0.248		4.96						YES
26	26	PFDA	513 > 468.8		1.39e4	0.248		5.04						YES
27	33	PFUdA	563.0 > 518.9		1.40e4	0.248		5.35						YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	3.35e3		0.248	280.132	4.76	4.76	3350	48.1970	95.7		
29	71	13C8-PFOS-EIS	507.0 > 79.7	3.35e3		0.248	280.132	4.76	4.76	3350	48.1970	95.7		
30	71	13C8-PFOS-EIS	507.0 > 79.7	3.35e3		0.248	280.132	4.76	4.76	3350	48.1970	95.7		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.39e4		0.248	1595.945	5.04	5.04	13900	35.0813	69.7		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.40e4		0.248	1626.273	5.35	5.35	14000	34.6466	68.8		
33	-1													
34	29	L-MeFOSAA	570 > 419		4.37e3	0.248		5.19						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	4.37e3	0.248		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		4.38e3	0.248		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-49.qld

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Name: 200226P1-49, Date: 27-Feb-2020, Time: 01:02:24, ID: 2000321-05 I012MW10S-20200213 0.24821, Description: I012MW10S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	4.38e3	0.248		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		1.18e4	0.248		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.37e3		0.248	397.776	5.18	5.19	4370	44.2668	87.9		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.37e3		0.248	397.776	5.18	5.19	4370	44.2668	87.9		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	4.38e3		0.248	488.229	5.33	5.34	4380	36.1742	71.8		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	4.38e3		0.248	488.229	5.33	5.34	4380	36.1742	71.8		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.18e4		0.248	1456.575	5.62	5.63	11800	32.5612	64.7		
44	-1													
45	37	PFDoA	612.9 > 569.0		1.18e4	0.248		5.63						YES
46	39	PFTrDA	662.9 > 618.9		1.18e4	0.248		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.40e4	0.248		6.08						YES
48	1...	TDCA	498.3>106.9			0.248		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	9.19e3	9.19e3	0.248	1.000	1.42	1.42	12.5	50.3606	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.18e4		0.248	1456.575	5.62	5.63	11800	32.5612	64.7		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.18e4		0.248	1456.575	5.62	5.63	11800	32.5612	64.7		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.40e4		0.248	1697.796	6.06	6.08	14000	33.1824	65.9		
53	71	13C8-PFOS-EIS	507.0 > 79.7	3.35e3		0.248	280.132	4.76	4.76	3350	48.1970	95.7		
54	1...	13C5-PFHxA	318.0 > 272.9	1.58e4	1.58e4	0.248	1.000	3.12	3.14	12.5	50.3606	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.10e3	1.10e3	0.248	1.000	3.86	3.87	12.5	50.3606	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.59e4	1.59e4	0.248	1.000	5.03	5.04	12.5	50.3606	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.53e4	1.53e4	0.248	1.000	5.34	5.35	12.5	50.3606	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.46e3	3.46e3	0.248	1.000	4.74	4.76	12.5	50.3606	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.80e4	1.80e4	0.248	1.000	4.66	4.67	12.5	50.3606	100.0		

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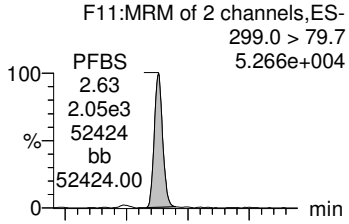
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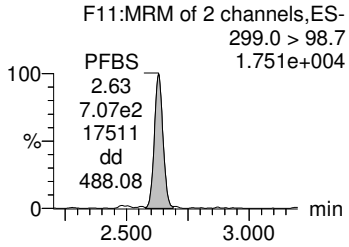
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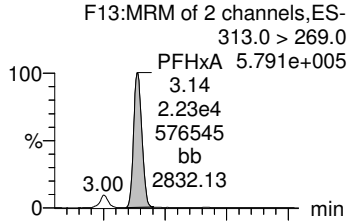
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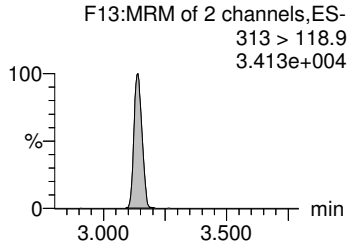
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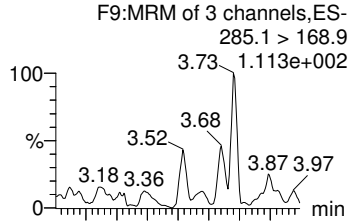


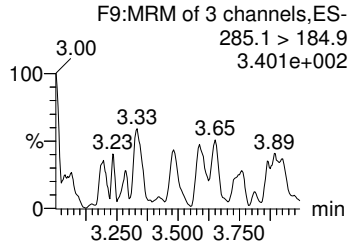
PFHxA



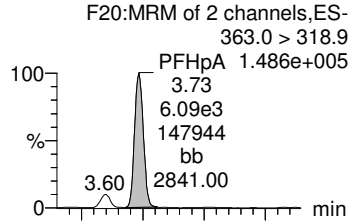


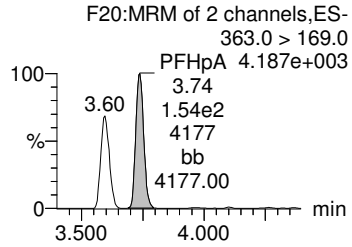
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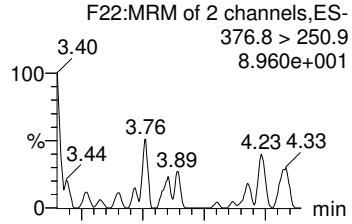


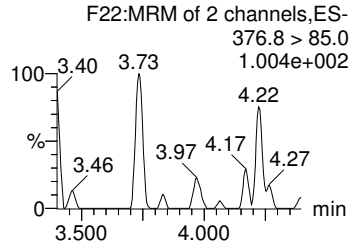
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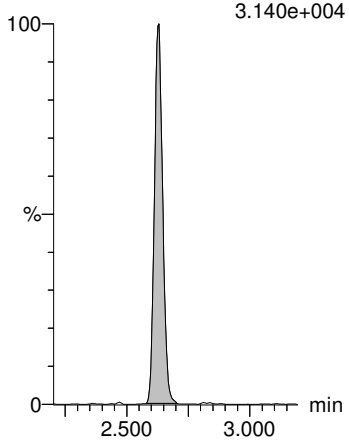


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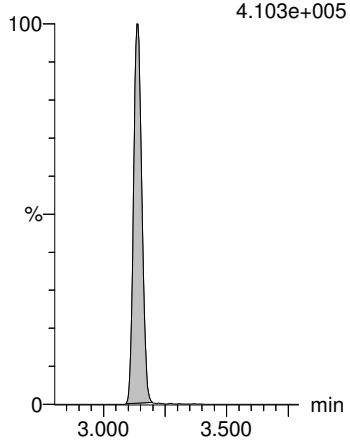




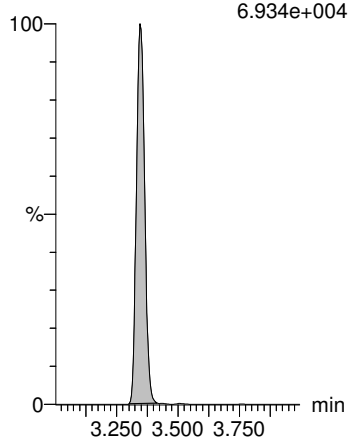
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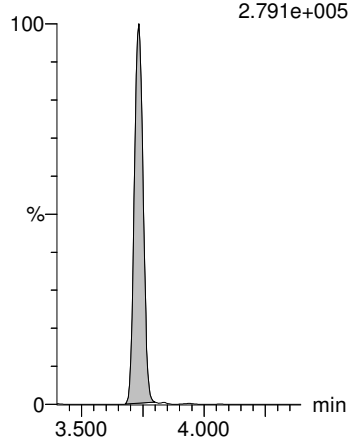
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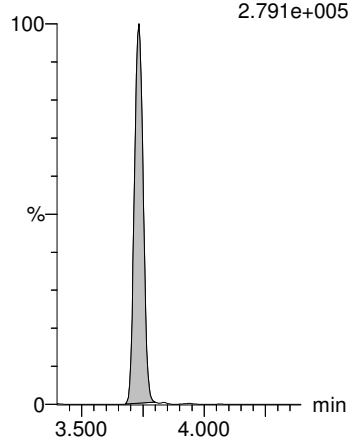
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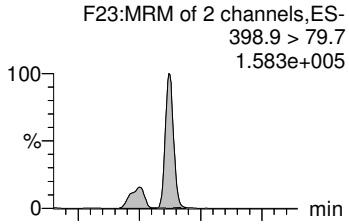


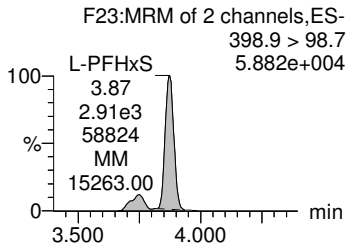
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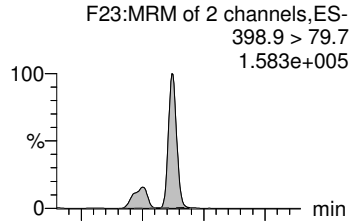
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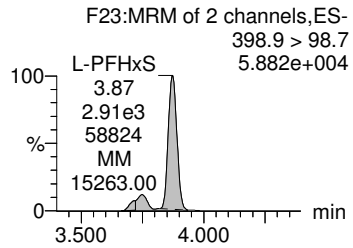
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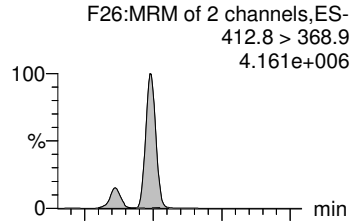


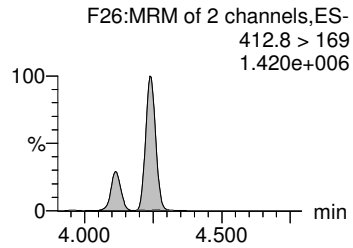
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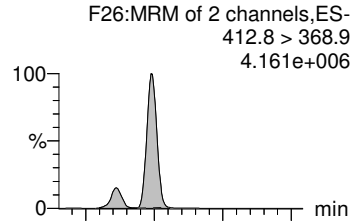


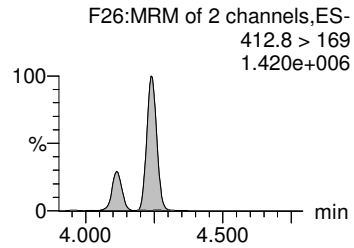
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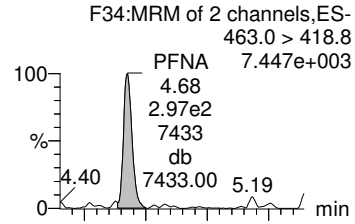


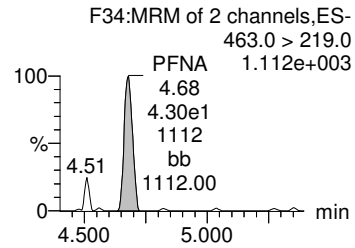
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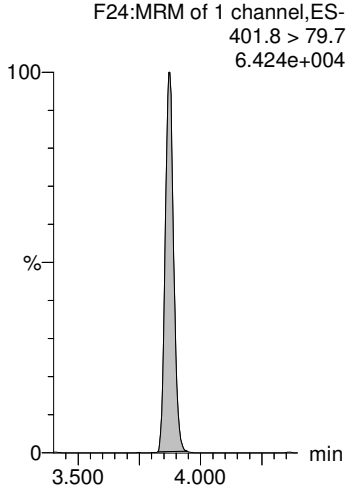


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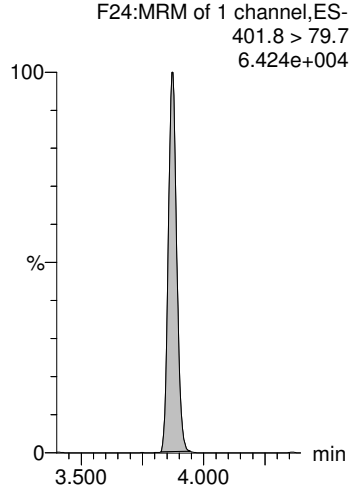




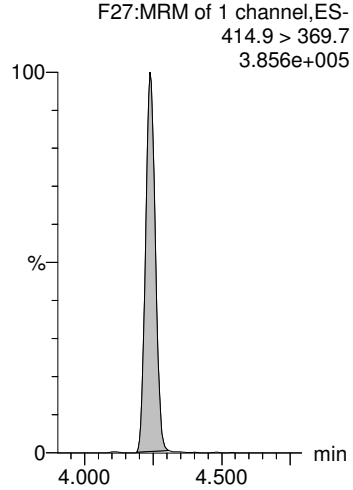
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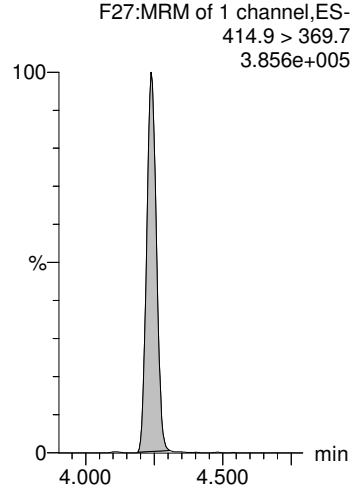
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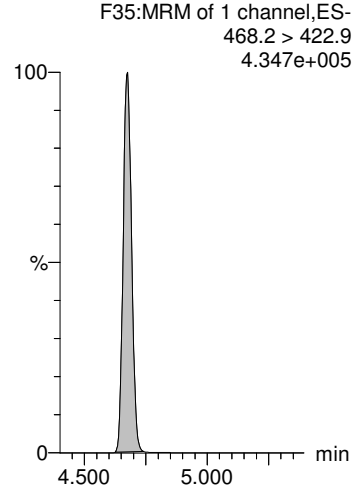
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13C2-PFOA-EIS



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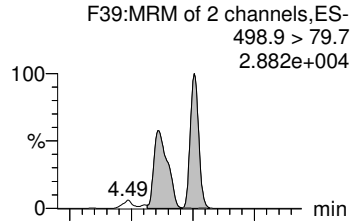
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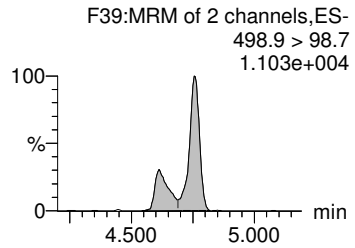
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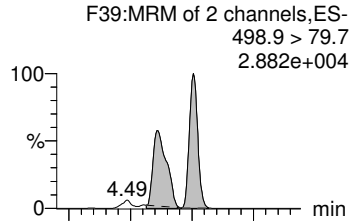
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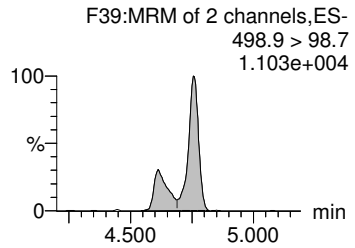
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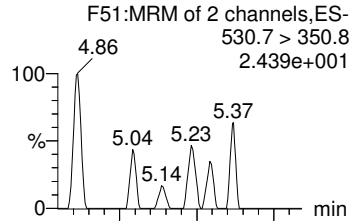


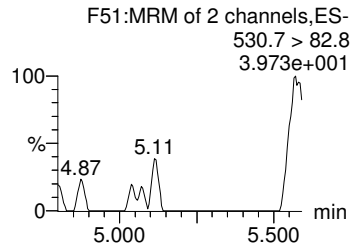
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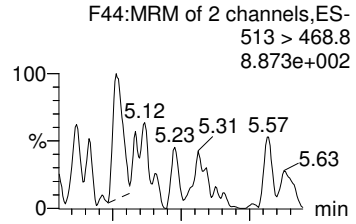


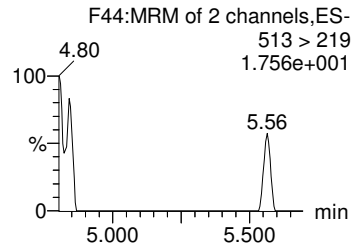
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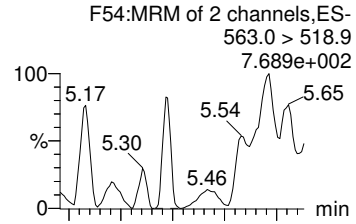


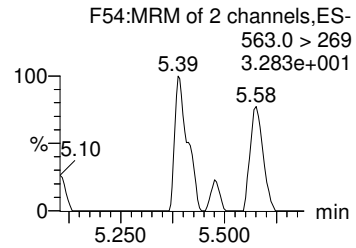
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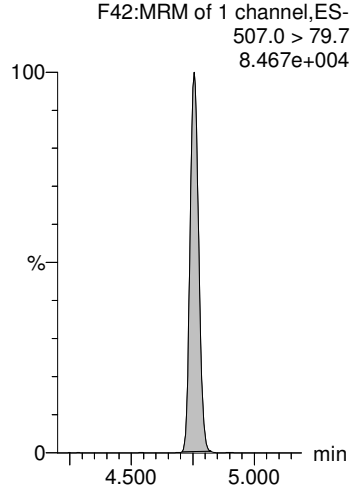


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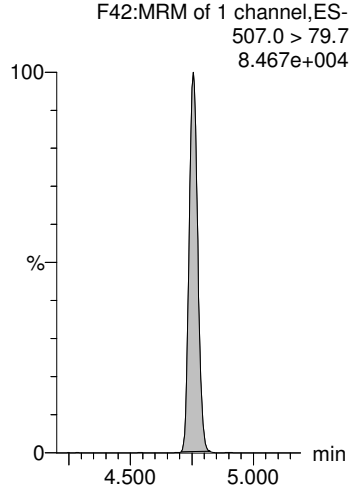




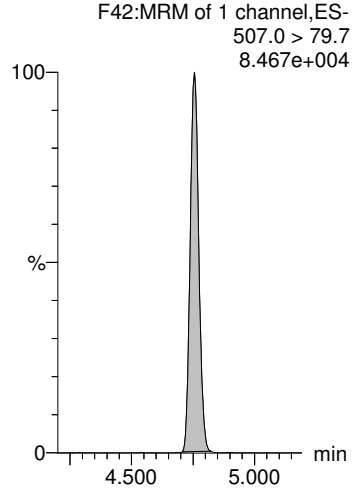
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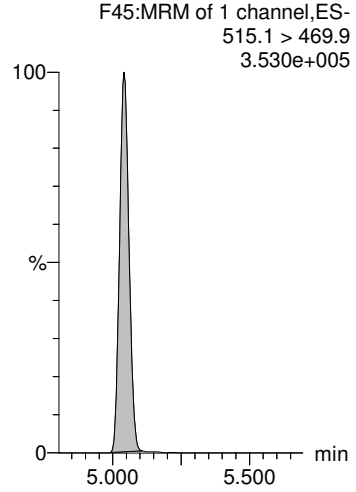
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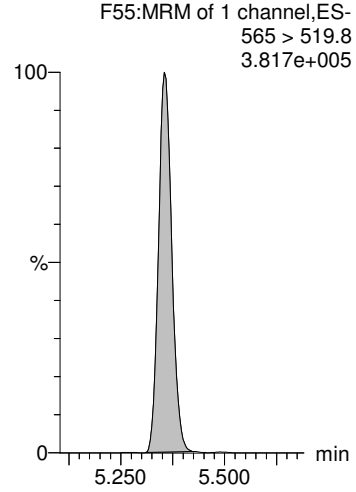
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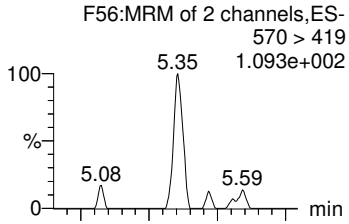
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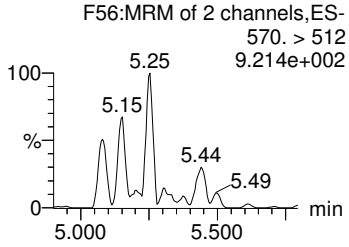
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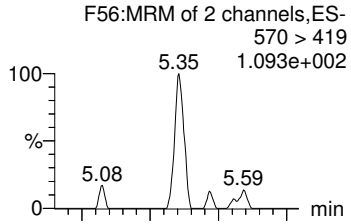
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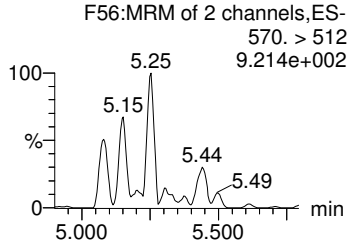
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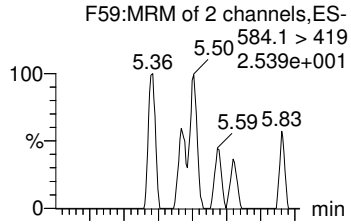


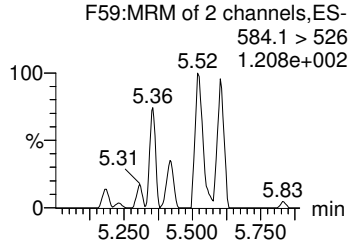
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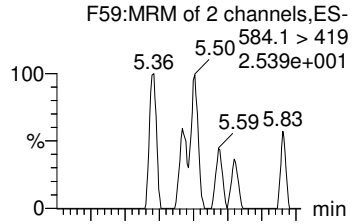


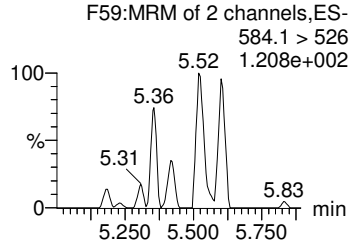
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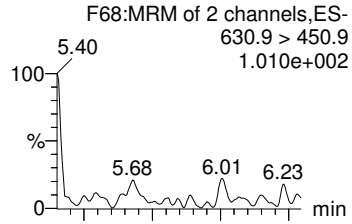


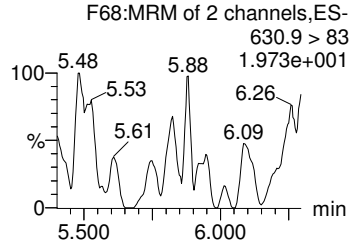
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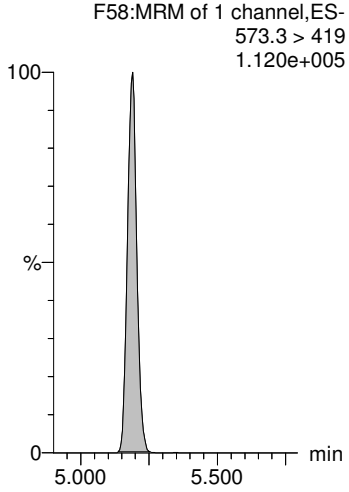


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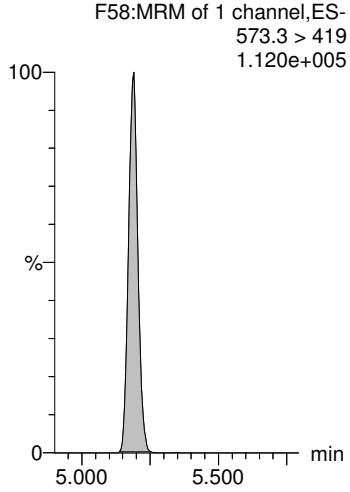




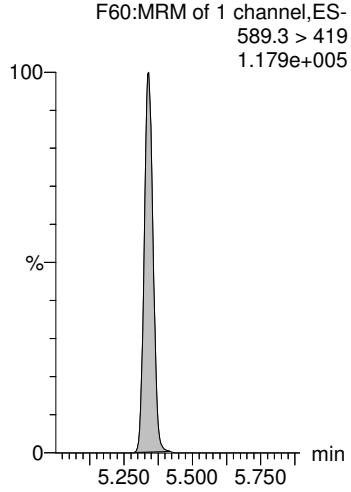
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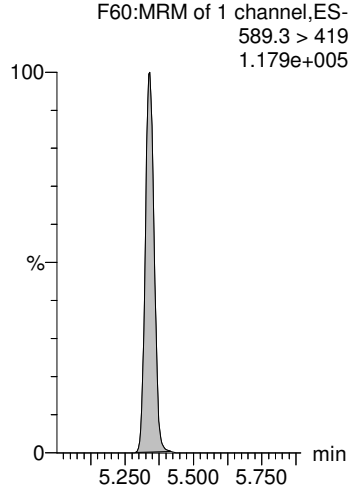
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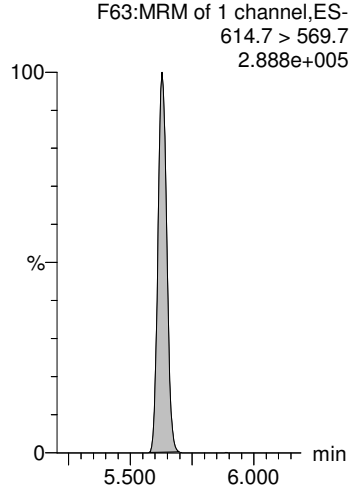
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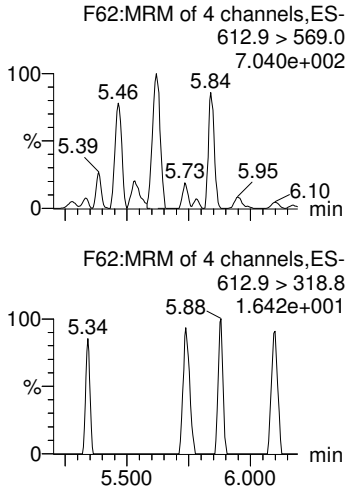
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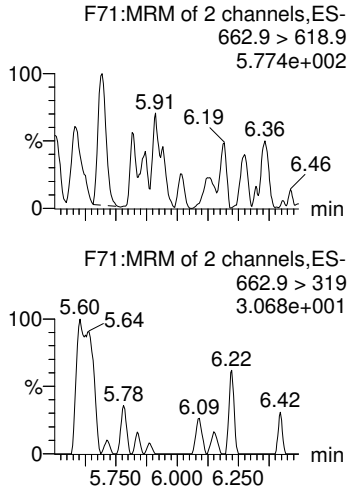
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Name: 200226P1-49, Date: 27-Feb-2020, Time: 01:02:24, ID: 2000321-05 I012MW10S-20200213 0.24821, Description: I012MW10S-20200213

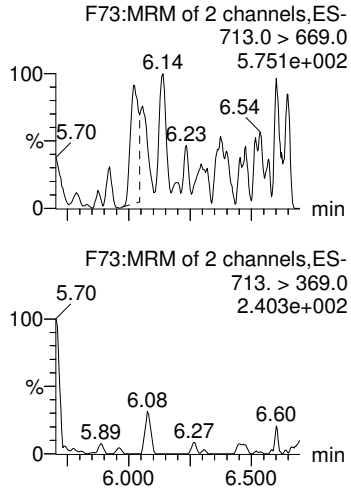
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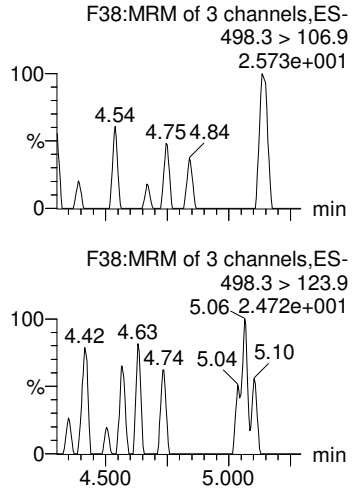
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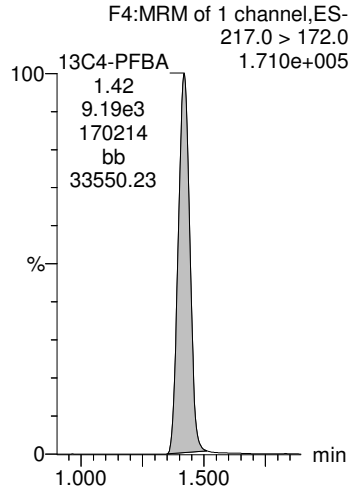
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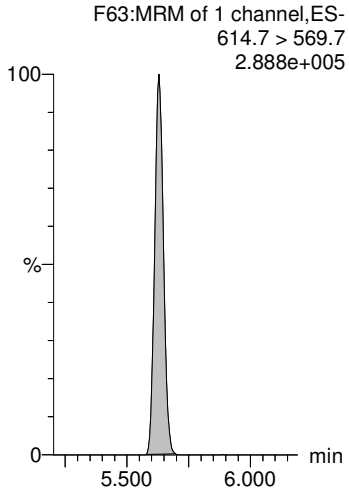
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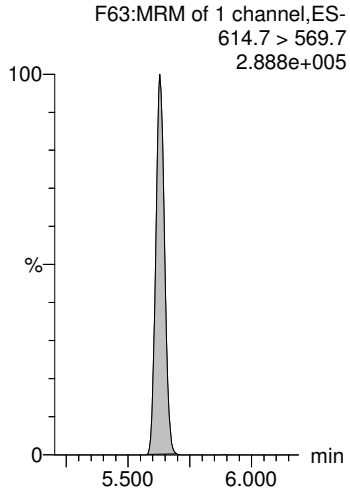
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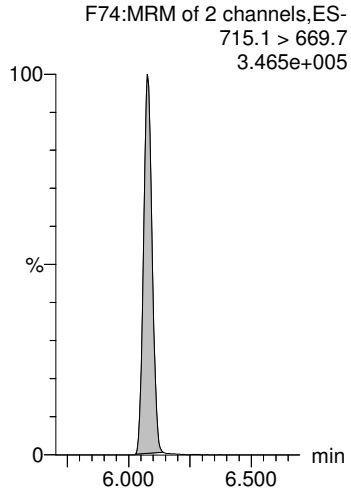
13C2-PFDoA-EIS



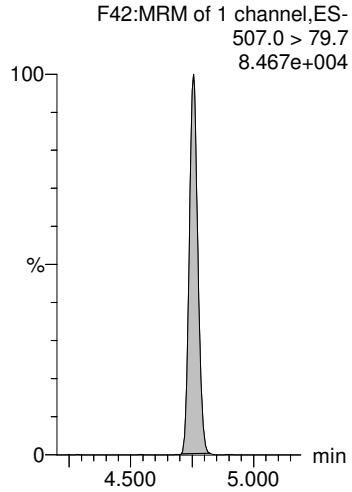
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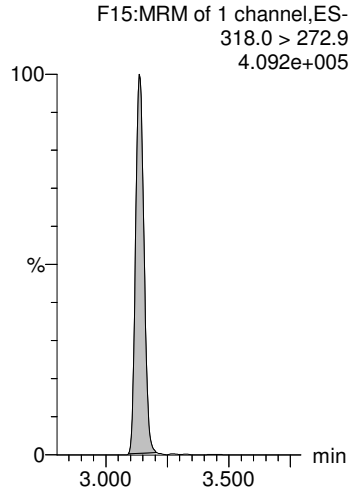
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



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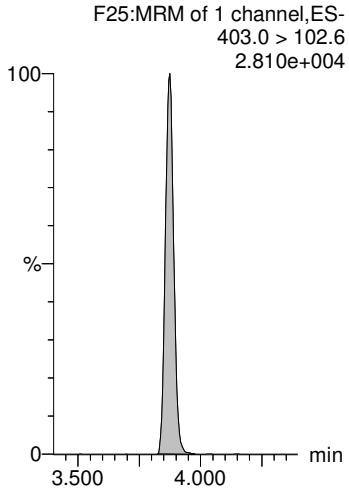
MM 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-49.qld

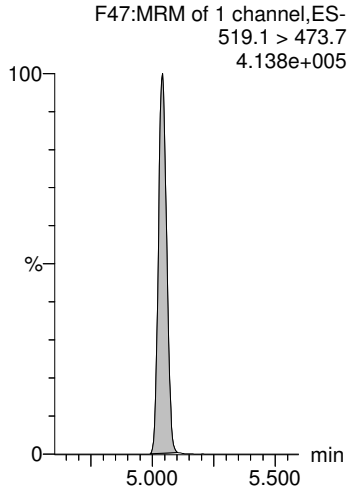
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Name: 200226P1-49, Date: 27-Feb-2020, Time: 01:02:24, ID: 2000321-05 I012MW10S-20200213 0.24821, Description: I012MW10S-20200213

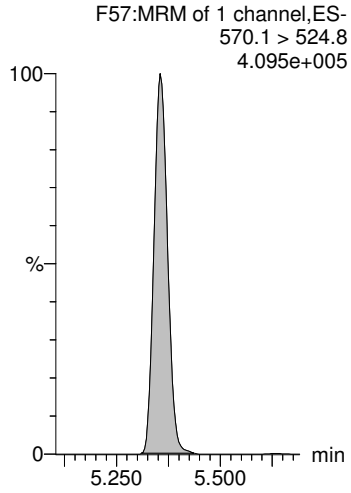
18O2-PFHxS



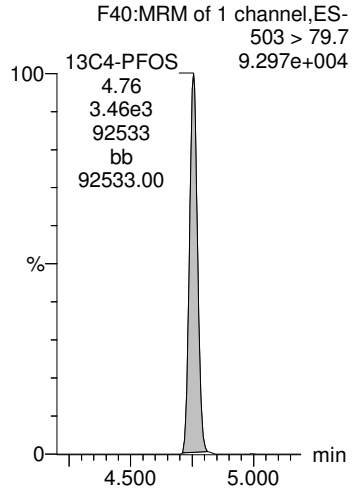
13C6-PFDA



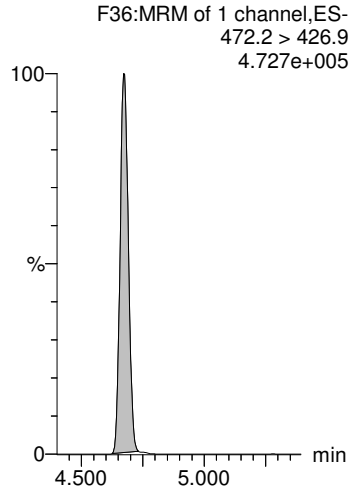
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-53.qld

Last Altered: Saturday, February 29, 2020 08:57:07 Pacific Standard Time
Printed: Saturday, February 29, 2020 08:57:23 Pacific Standard Time

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Name: 200226P1-53, Date: 27-Feb-2020, Time: 01:44:26, ID: 2000321-06 I012MW11S-20200213 0.25358, Description: I012MW11S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	2.71e4	1.19e3	0.254		2.63	2.63	285	467.2991		3.226	NO
2	7	PFHxA	313.0 > 269.0	5.90e5	1.55e4	0.254		3.14	3.14	475	2119.3917 *E		16.632	NO
3	9	HFPO-DA	285.1 > 168.9		2.99e3	0.254		3.35						YES
4	11	PFHpA	363.0 > 318.9	2.76e5	1.06e4	0.254		3.73	3.73	326	1091.1665		34.044	NO
5	12	ADONA	376.8 > 250.9	6.55e0	1.06e4	0.254		3.83	3.73	0.00773			0.277	YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.19e3		0.254	109.364	2.66	2.63	1190	42.8459	86.9		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.55e4		0.254	1741.311	3.14	3.14	15500	35.1275	71.3		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.99e3		0.254	306.753	3.40	3.35	2990	38.3874	77.9		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.06e4		0.254	1144.853	3.75	3.73	10600	36.4462	73.9		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.06e4		0.254	1144.853	3.75	3.73	10600	36.4462	73.9		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	1.26e5	2.06e3	0.254		3.87	3.87	765	**		2.372	NO
13	1...	Total PFHxS	398.9 > 79.7	1.26e5	2.06e3	0.254		3.93		0.000				
14	16	L-PFOA	412.8 > 368.9	4.27e5	1.43e4	0.254		4.24	4.24	373	1371.1106		2.879	NO
15	1...	Total PFOA	412.8 > 368.9	4.27e5	1.43e4	0.254		4.60		373	1371.1106			
16	21	PFNA	463.0 > 418.8	1.59e4	1.51e4	0.254		4.68	4.68	13.1	48.8203		9.026	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.06e3		0.254	232.268	3.87	3.87	2060	34.9142	70.8		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.06e3		0.254	232.268	3.87	3.87	2060	34.9142	70.8		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.43e4		0.254	1568.416	4.24	4.24	14300	35.9716	73.0		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.43e4		0.254	1568.416	4.24	4.24	14300	35.9716	73.0		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.51e4		0.254	1457.036	4.68	4.68	15100	40.9171	83.0		
22	-1													
23	23	L-PFOS	498.9 > 79.7	9.40e4	2.72e3	0.254		4.76	4.76	432	1722.0922		2.203	NO
24	1...	Total PFOS	498.9 > 79.7	9.40e4	2.72e3	0.254		4.61		432	1722.0922			
25	25	9Cl-PF30NS	530.7 > 350.8		2.72e3	0.254		4.97						YES
26	26	PFDA	513 > 468.8	1.33e3	1.47e4	0.254		5.04	5.04	1.13	3.8164		13.949	NO
27	33	PFUdA	563.0 > 518.9		1.41e4	0.254		5.36						YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	2.72e3		0.254	280.132	4.76	4.76	2720	38.3214	77.7		
29	71	13C8-PFOS-EIS	507.0 > 79.7	2.72e3		0.254	280.132	4.76	4.76	2720	38.3214	77.7		
30	71	13C8-PFOS-EIS	507.0 > 79.7	2.72e3		0.254	280.132	4.76	4.76	2720	38.3214	77.7		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.47e4		0.254	1595.945	5.04	5.04	14700	36.3822	73.8		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.41e4		0.254	1626.273	5.36	5.36	14100	34.1388	69.3		
33	-1													
34	29	L-MeFOSAA	570 > 419		3.42e3	0.254		5.19						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	3.42e3	0.254		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		3.97e3	0.254		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-53.qld

Last Altered: Saturday, February 29, 2020 08:57:07 Pacific Standard Time
Printed: Saturday, February 29, 2020 08:57:23 Pacific Standard Time

Name: 200226P1-53, Date: 27-Feb-2020, Time: 01:44:26, ID: 2000321-06 I012MW11S-20200213 0.25358, Description: I012MW11S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	3.97e3	0.254		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		9.78e3	0.254		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.42e3		0.254	397.776	5.18	5.19	3420	33.9436	68.9		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.42e3		0.254	397.776	5.18	5.19	3420	33.9436	68.9		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.97e3		0.254	488.229	5.33	5.34	3970	32.0378	65.0		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.97e3		0.254	488.229	5.33	5.34	3970	32.0378	65.0		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	9.78e3		0.254	1456.575	5.63	5.63	9780	26.4680	53.7		
44	-1													
45	37	PFDoA	612.9 > 569.0		9.78e3	0.254		5.63						YES
46	39	PFTrDA	662.9 > 618.9		9.78e3	0.254		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.33e4	0.254		6.08						YES
48	1...	TDCA	498.3>106.9			0.254		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	1.01e4	1.01e4	0.254	1.000	1.42	1.42	12.5	49.2941	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	9.78e3		0.254	1456.575	5.63	5.63	9780	26.4680	53.7		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	9.78e3		0.254	1456.575	5.63	5.63	9780	26.4680	53.7		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.33e4		0.254	1697.796	6.06	6.08	13300	30.9554	62.8		
53	71	13C8-PFOS-EIS	507.0 > 79.7	2.72e3		0.254	280.132	4.76	4.76	2720	38.3214	77.7		
54	1...	13C5-PFHxA	318.0 > 272.9	1.67e4	1.67e4	0.254	1.000	3.12	3.14	12.5	49.2941	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	8.61e2	8.61e2	0.254	1.000	3.86	3.87	12.5	49.2941	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.55e4	1.55e4	0.254	1.000	5.03	5.04	12.5	49.2941	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.58e4	1.58e4	0.254	1.000	5.34	5.36	12.5	49.2941	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.06e3	3.06e3	0.254	1.000	4.74	4.76	12.5	49.2941	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.63e4	1.63e4	0.254	1.000	4.66	4.68	12.5	49.2941	100.0		

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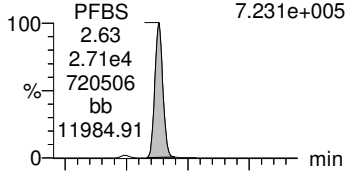
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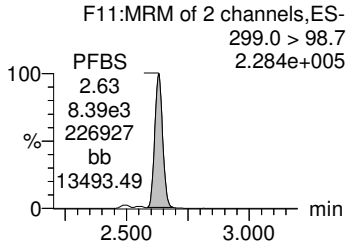
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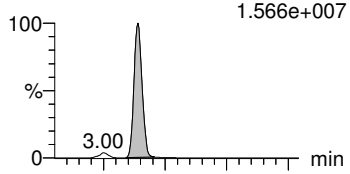
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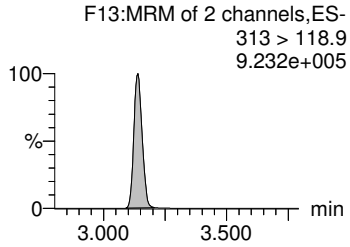
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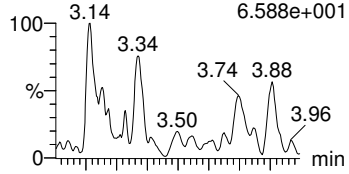


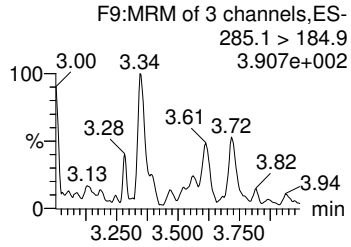
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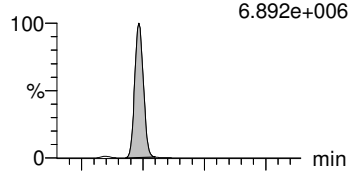


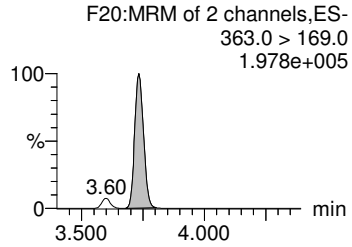
HFPO-DA



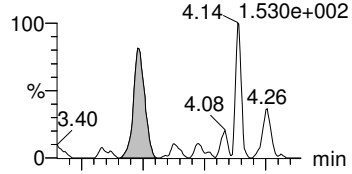


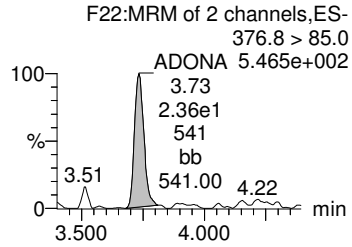
PFHpA



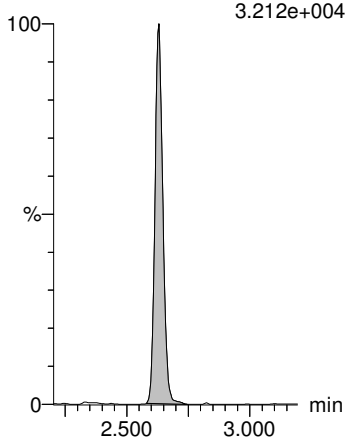


ADONA

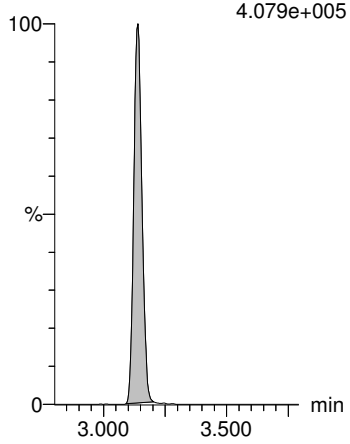




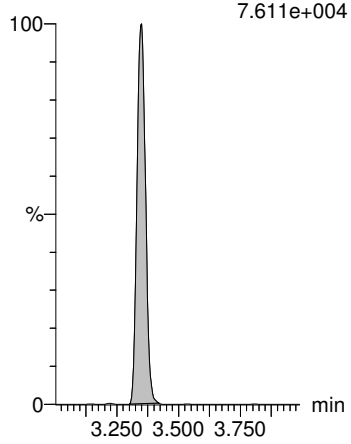
13C3-PFBS-EIS



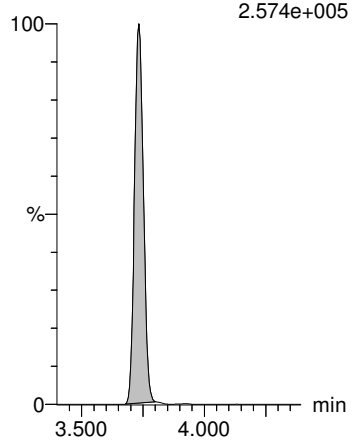
13C2-PFHxA-EIS



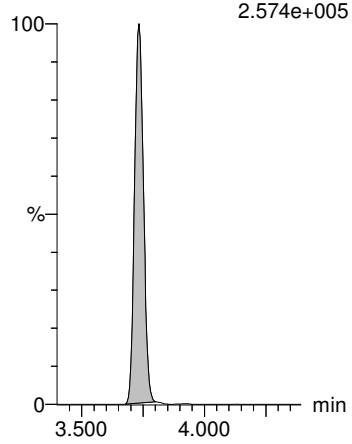
13C3-HFPO-DA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS



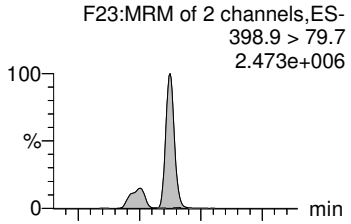
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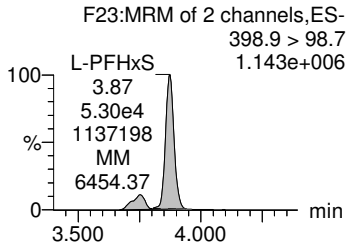
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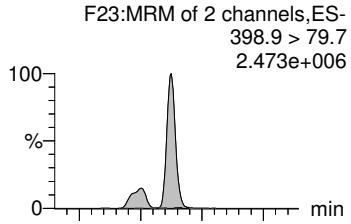
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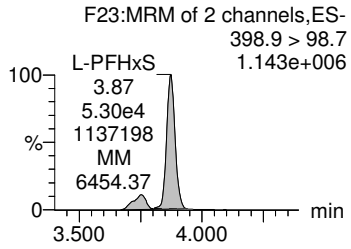
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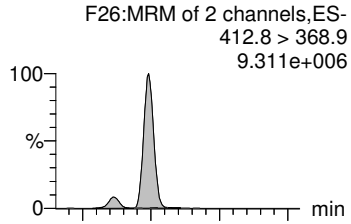


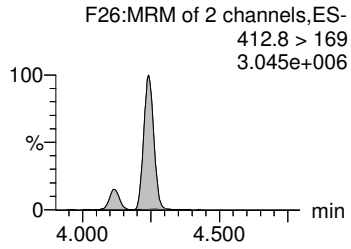
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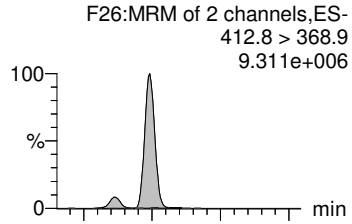


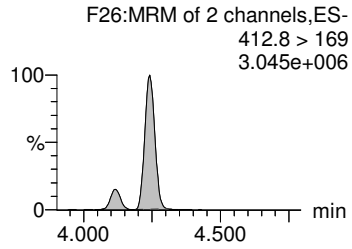
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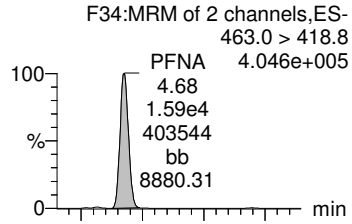


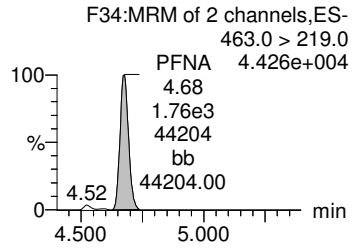
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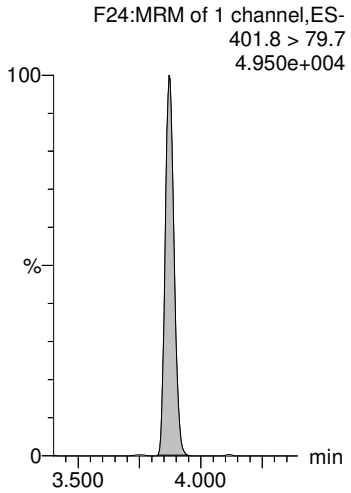


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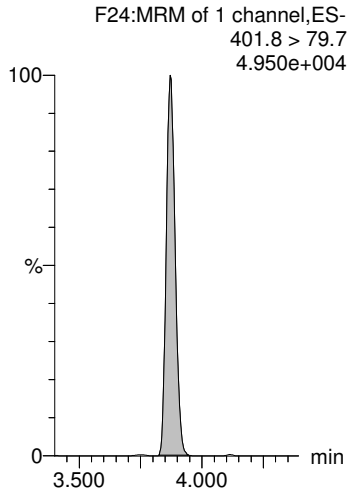




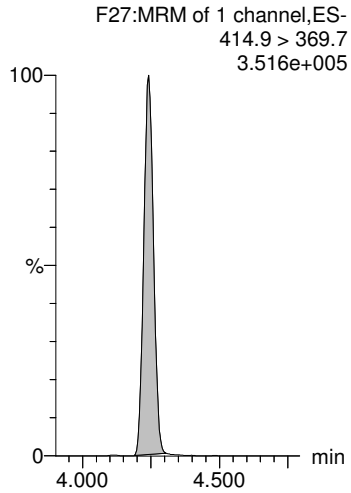
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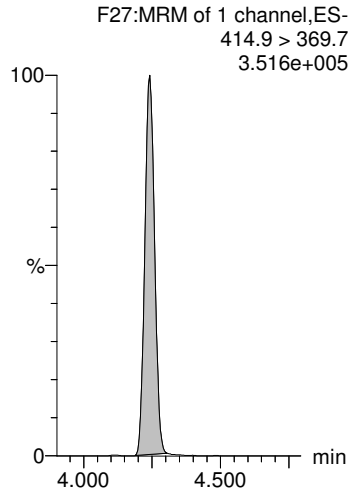
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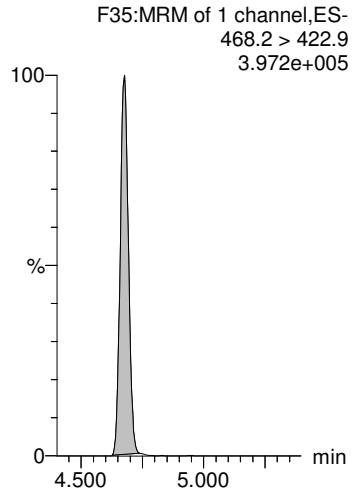
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13C2-PFOA-EIS



13C5-PFNA-EIS

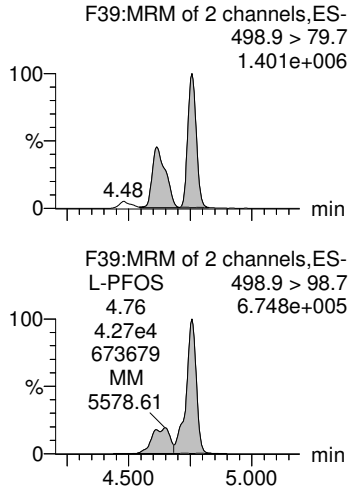


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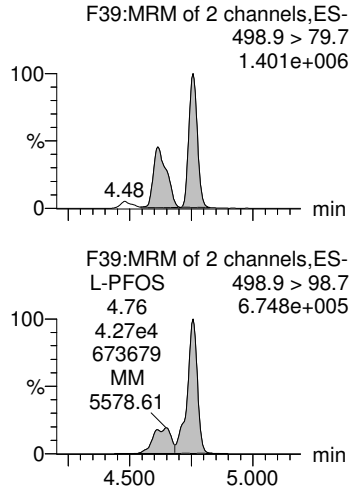
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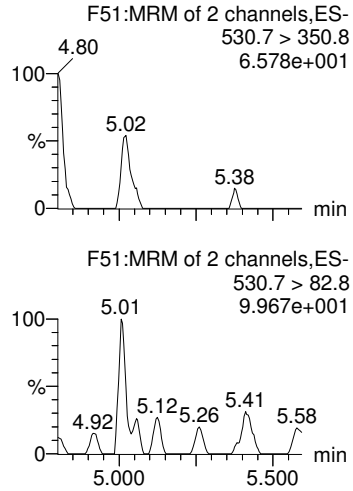
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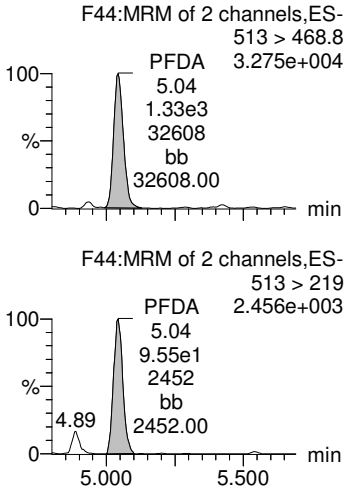
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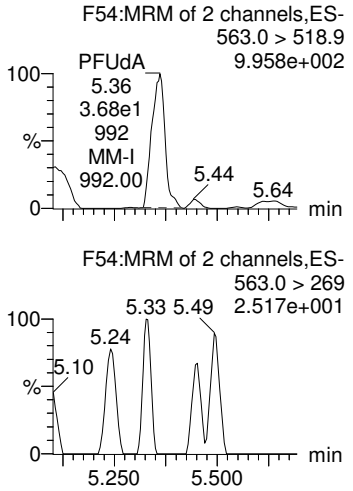
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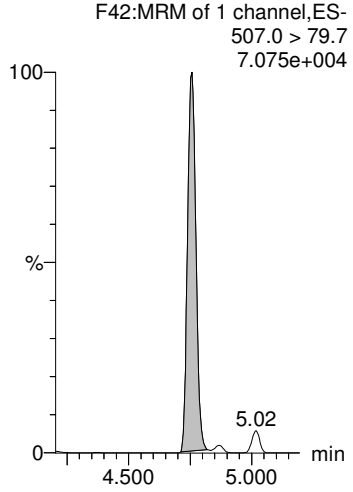
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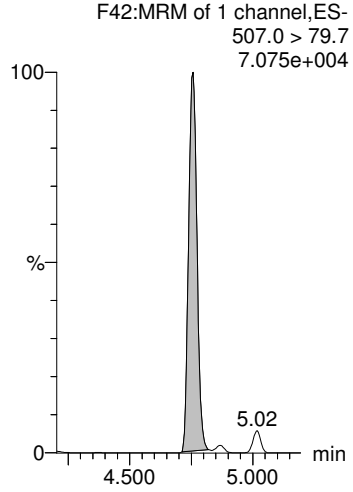
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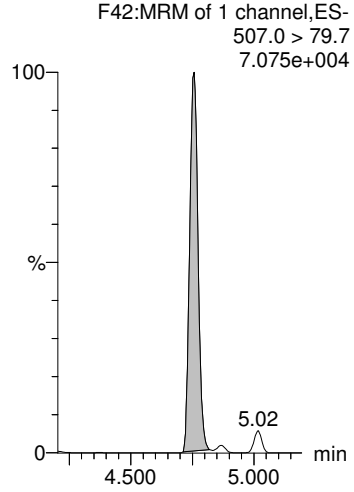
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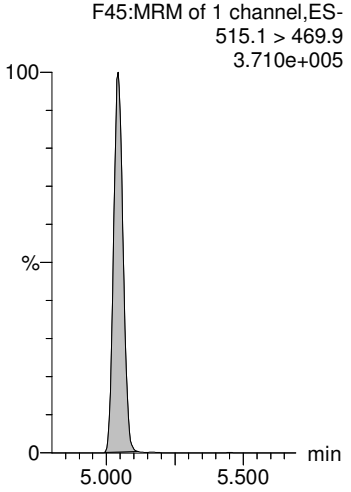
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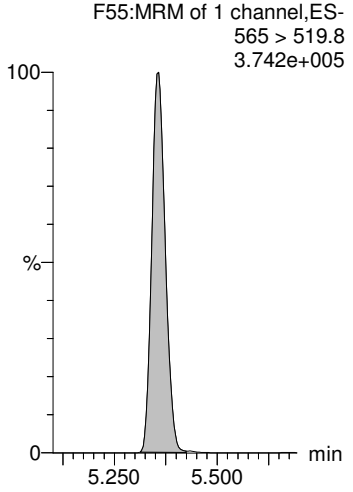
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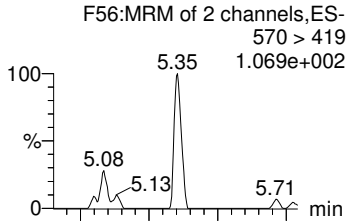


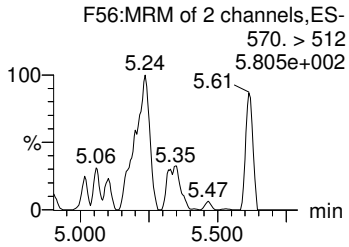
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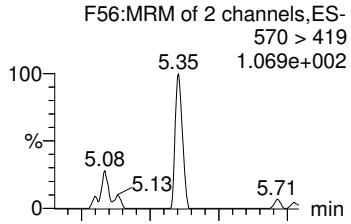
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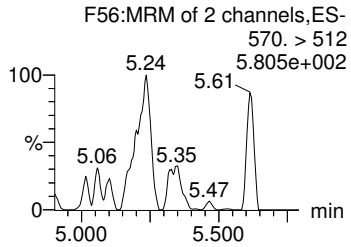
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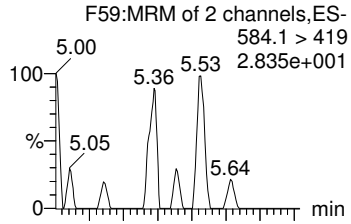


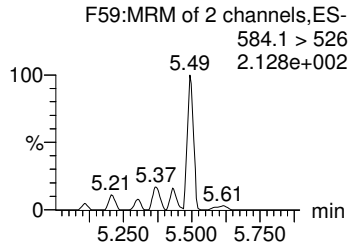
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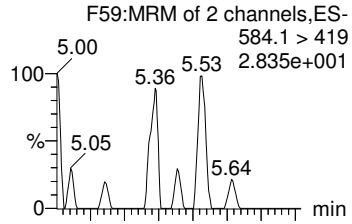


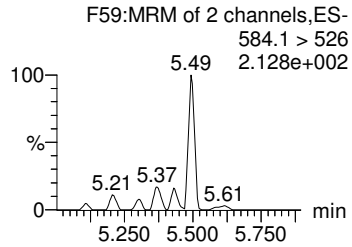
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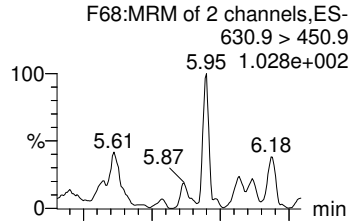


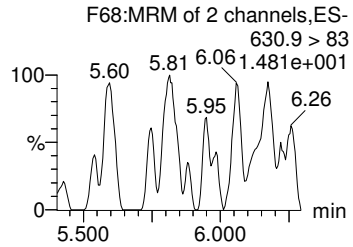
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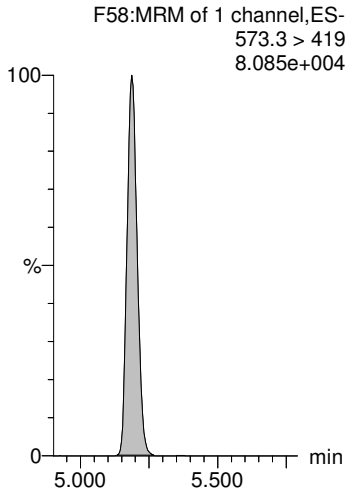


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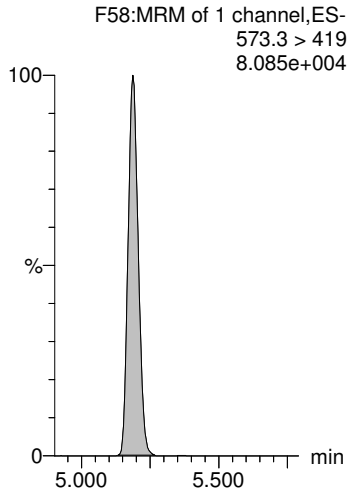




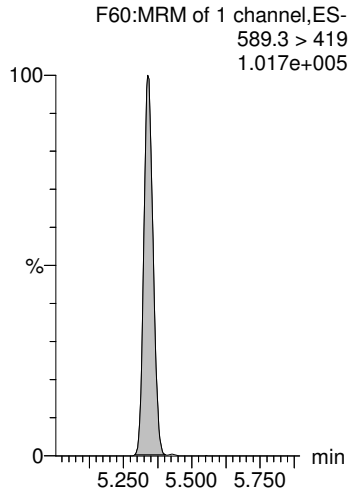
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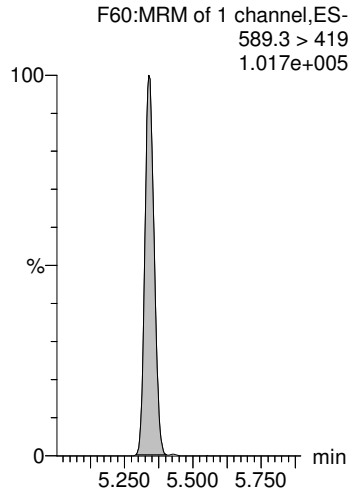
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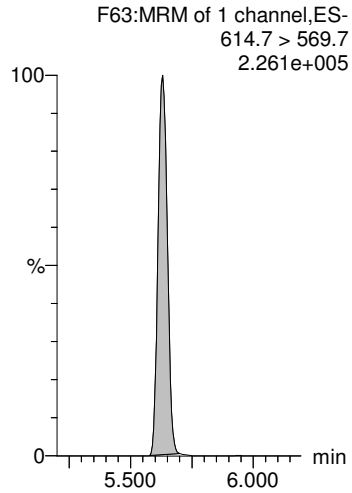
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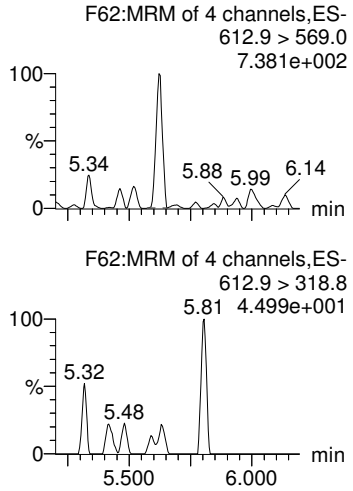


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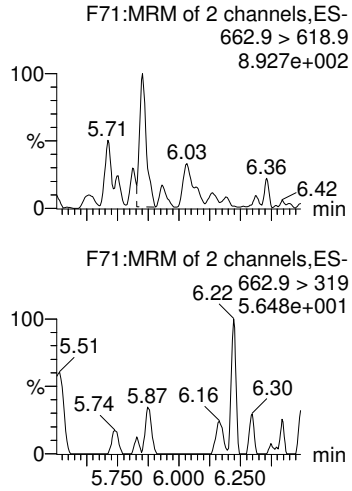
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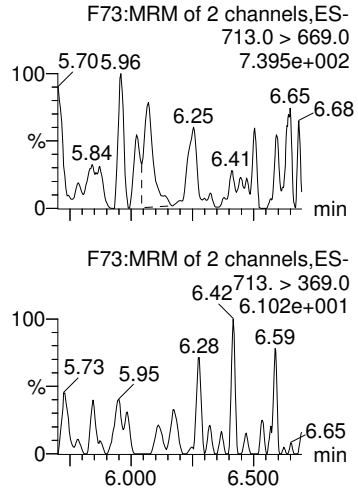
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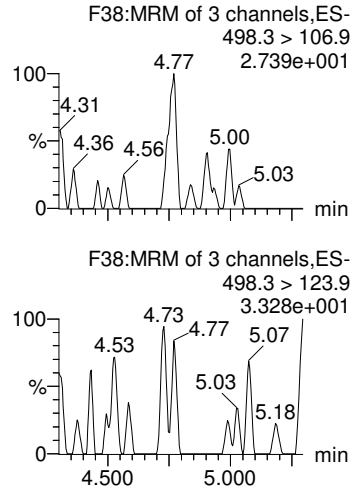
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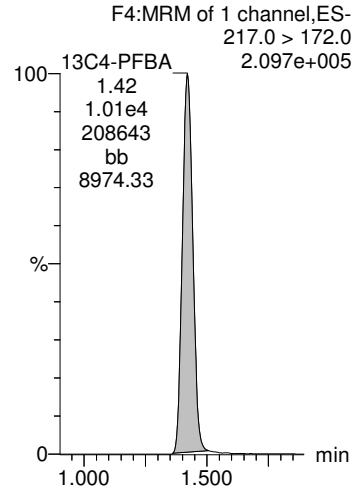
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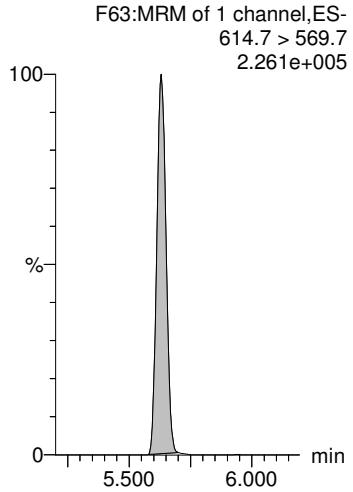
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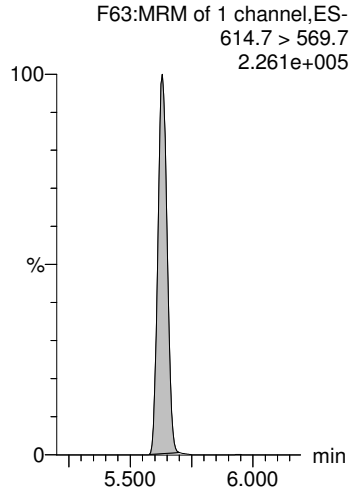
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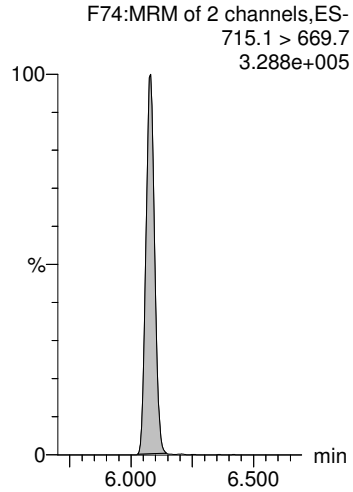
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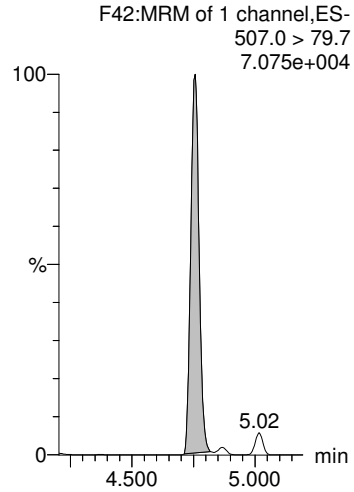
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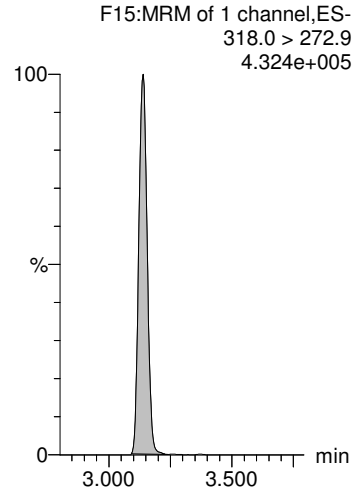
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13C8-PFOS-EIS



13C5-PFHxA



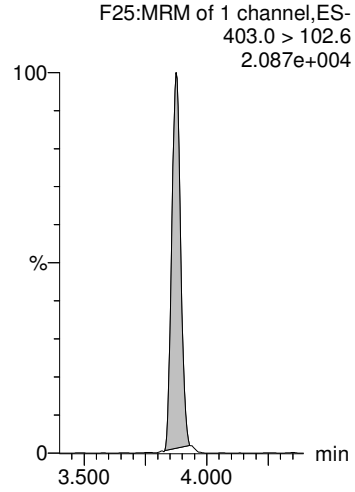
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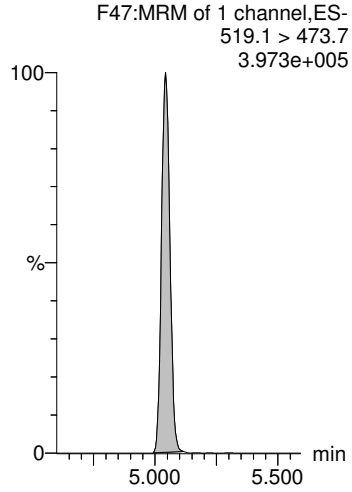
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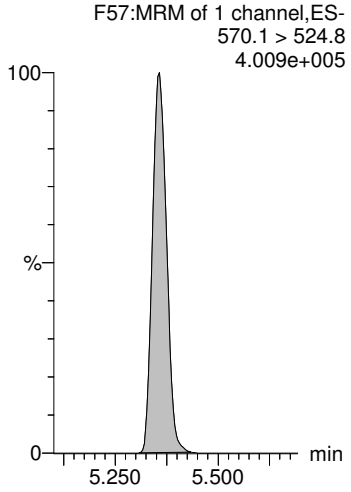
18O2-PFHxS



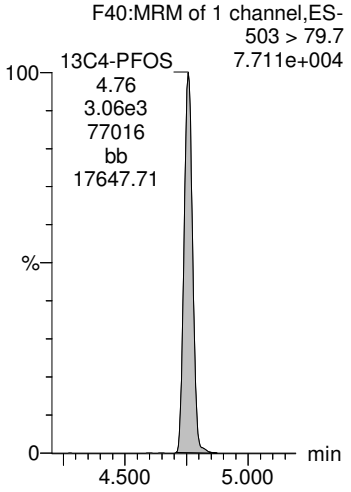
13C6-PFDA



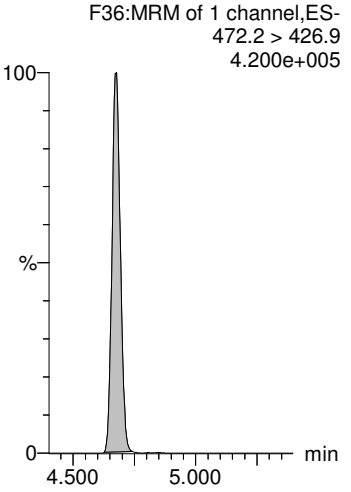
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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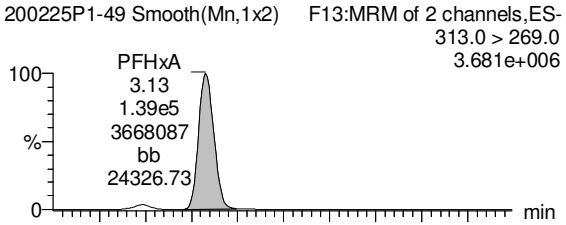
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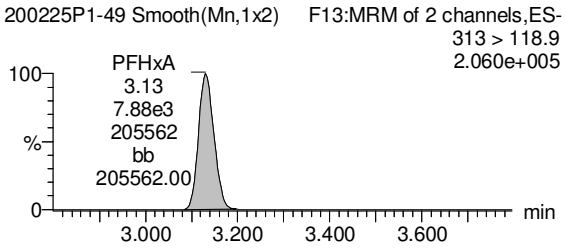
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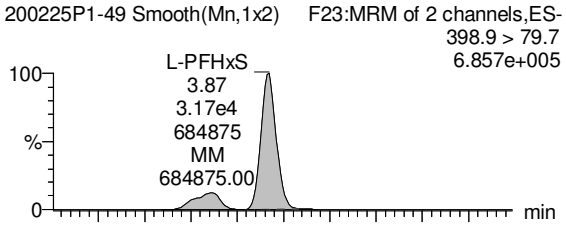
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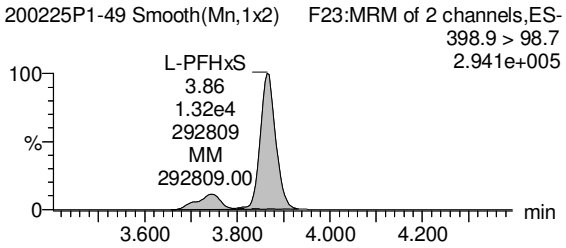
PFHxA



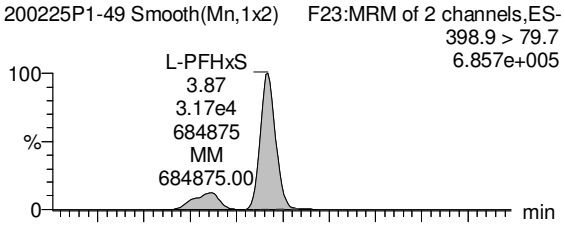


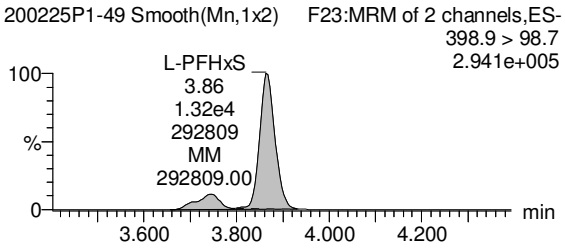
L-PFHxS



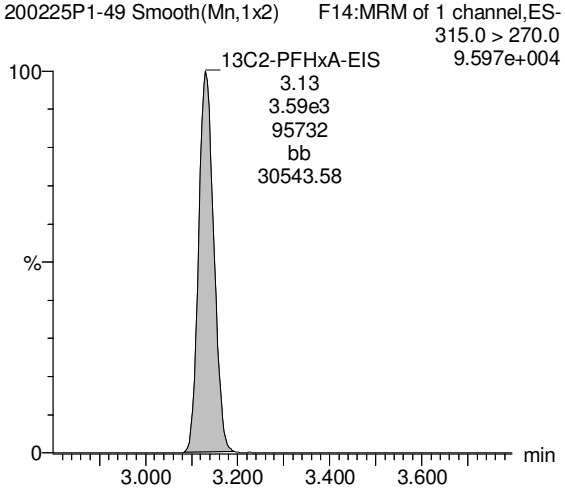


Total PFHxS

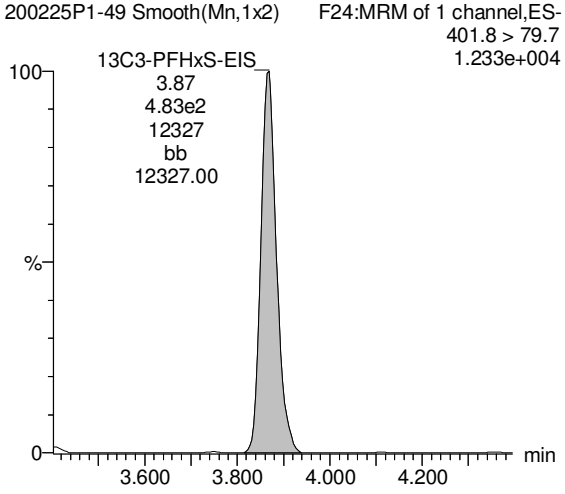




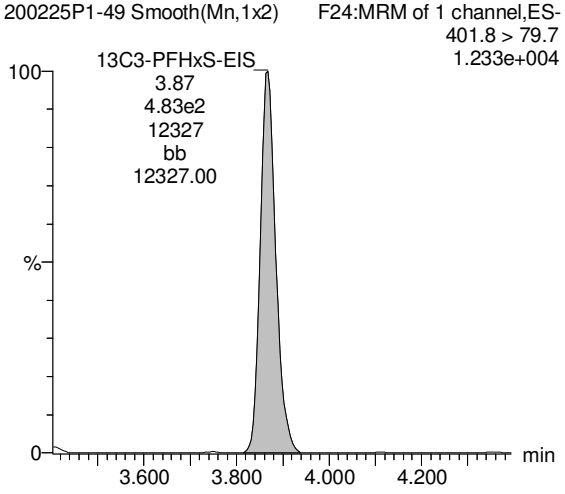
13C2-PFHxA-EIS



13C3-PFHxS-EIS



13C3-PFHxS-EIS

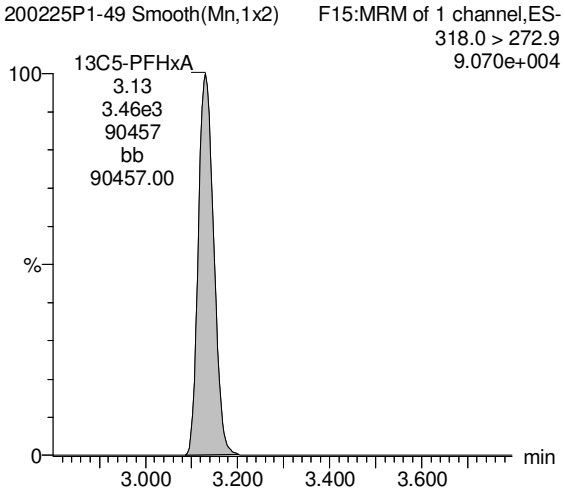


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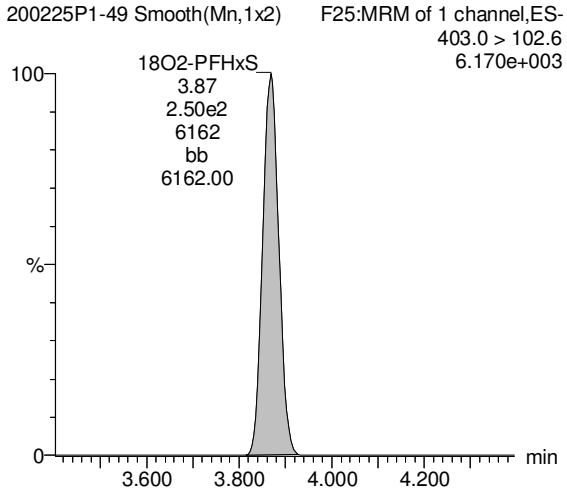
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Name: 200225P1-49, Date: 26-Feb-2020, Time: 02:22:55, ID: 2000321-06@5X I012MW11S-20200213 0.25358, Description: I012MW11S-20200213

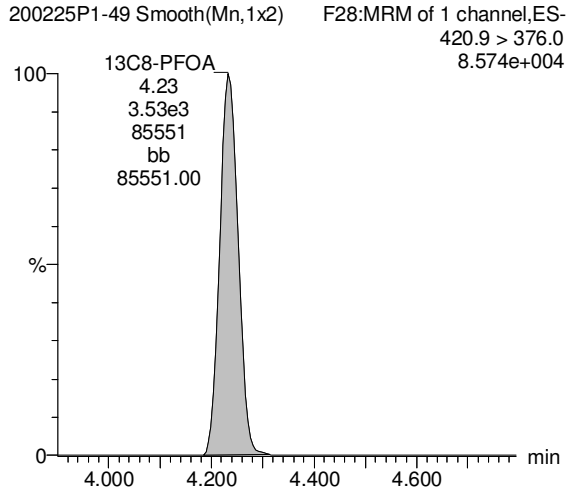
13C5-PFHxA



18O2-PFHxS



13C8-PFOA



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Name: 200225P1-49, Date: 26-Feb-2020, Time: 02:22:55, ID: 2000321-06@5X I012MW11S-20200213 0.25358, Description: I012MW11S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	7	PFHxA	313.0 > 269.0	138918.781	3591.437	0.254		3.13	483.507	2134.5		NO	17.627	NO
2	13	L-PFHxS	398.9 > 79.7	31679.238	483.267	0.254		3.87	819.403	3171.4		NO	2.400	NO
3	1...	Total PFHxS	398.9 > 79.7	31679.238	483.267	0.254			819.403	3171.4		NO		
4	57	13C2-PFHxA-EIS	315.0 > 270.0	3591.437		0.254	1794.782	3.13	3591.437	7.9	16.0	YES		
5	61	13C3-PFHxS-EIS	401.8 > 79.7	483.267		0.254	273.316	3.87	483.267	7.0	14.1	YES		
6	61	13C3-PFHxS-EIS	401.8 > 79.7	483.267		0.254	273.316	3.87	483.267	7.0	14.1	YES		
7	-1													
8	1...	13C5-PFHxA	318.0 > 272.9	3457.572	3457.572	0.254	1.000	3.13	12.500	49.3	100.0	NO		
9	1...	18O2-PFHxS	403.0 > 102.6	250.185	250.185	0.254	1.000	3.87	12.500	49.3	100.0	NO		
10	1...	13C8-PFOA	420.9 > 376.0	3533.172	3533.172	0.254	1.000	4.23	12.500	49.3	100.0	NO		
11	-1													

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-55.qld

Last Altered: Saturday, February 29, 2020 09:16:43 Pacific Standard Time
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Name: 200226P1-55, Date: 27-Feb-2020, Time: 02:05:26, ID: 2000321-07 I012MW15S-20200213 0.25036, Description: I012MW15S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	9.76e3	1.10e3	0.250		2.63	2.63	111	178.8269		3.204	NO
2	7	PFHxA	313.0 > 269.0	2.23e5	1.35e4	0.250		3.14	3.14	207	908.0888		17.217	NO
3	9	HFPO-DA	285.1 > 168.9		2.36e3	0.250		3.35						YES
4	11	PFHpA	363.0 > 318.9	4.55e4	9.21e3	0.250		3.73	3.73	61.7	199.7290		35.278	NO
5	12	ADONA	376.8 > 250.9		9.21e3	0.250		3.83						YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.10e3		0.250	109.364	2.66	2.63	1100	40.2881	80.7		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.35e4		0.250	1741.311	3.14	3.14	13500	30.9912	62.1		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.36e3		0.250	306.753	3.39	3.35	2360	30.7521	61.6		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	9.21e3		0.250	1144.853	3.74	3.73	9210	32.1214	64.3		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	9.21e3		0.250	1144.853	3.74	3.73	9210	32.1214	64.3		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	2.78e4	2.56e3	0.250		3.87	3.87	136	525.5839		2.460	NO
13	1...	Total PFHxS	398.9 > 79.7	2.78e4	2.56e3	0.250		3.93		136	525.5839			
14	16	L-PFOA	412.8 > 368.9	8.96e4	1.27e4	0.250		4.24	4.24	88.3	311.5424		2.806	NO
15	1...	Total PFOA	412.8 > 368.9	8.96e4	1.27e4	0.250		4.60		88.3	311.5424			
16	21	PFNA	463.0 > 418.8	9.13e2	1.33e4	0.250		4.67	4.67	0.861	2.9175		10.556	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.56e3		0.250	232.268	3.87	3.87	2560	44.0235	88.2		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.56e3		0.250	232.268	3.87	3.87	2560	44.0235	88.2		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.27e4		0.250	1568.416	4.24	4.24	12700	32.3214	64.7		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.27e4		0.250	1568.416	4.24	4.24	12700	32.3214	64.7		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.33e4		0.250	1457.036	4.67	4.67	13300	36.3359	72.8		
22	-1													
23	23	L-PFOS	498.9 > 79.7	6.34e3	2.89e3	0.250		4.76	4.76	27.4	108.9506		2.309	NO
24	1...	Total PFOS	498.9 > 79.7	6.34e3	2.89e3	0.250		4.61		27.4	108.9506			
25	25	9Cl-PF30NS	530.7 > 350.8		2.89e3	0.250		4.97						YES
26	26	PFDA	513 > 468.8		1.33e4	0.250		5.04						YES
27	33	PFUdA	563.0 > 518.9		1.19e4	0.250		5.35						YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	2.89e3		0.250	280.132	4.76	4.76	2890	41.1709	82.5		
29	71	13C8-PFOS-EIS	507.0 > 79.7	2.89e3		0.250	280.132	4.76	4.76	2890	41.1709	82.5		
30	71	13C8-PFOS-EIS	507.0 > 79.7	2.89e3		0.250	280.132	4.76	4.76	2890	41.1709	82.5		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.33e4		0.250	1595.945	5.04	5.04	13300	33.3713	66.8		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.19e4		0.250	1626.273	5.35	5.35	11900	29.1386	58.4		
33	-1													
34	29	L-MeFOSAA	570 > 419		3.82e3	0.250		5.19						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	3.82e3	0.250		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		3.85e3	0.250		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-55.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	584.1 > 419	0.00e0	3.85e3	0.250		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		9.28e3	0.250		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.82e3		0.250	397.776	5.18	5.19	3820	38.4047	76.9		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	3.82e3		0.250	397.776	5.18	5.19	3820	38.4047	76.9		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.85e3		0.250	488.229	5.32	5.34	3850	31.5233	63.1		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.85e3		0.250	488.229	5.32	5.34	3850	31.5233	63.1		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	9.28e3		0.250	1456.575	5.62	5.63	9280	25.4549	51.0		
44	-1													
45	37	PFDoA	612.9 > 569.0		9.28e3	0.250		5.63						YES
46	39	PFTrDA	662.9 > 618.9		9.28e3	0.250		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.25e4	0.250		6.07						YES
48	1...	TDCA	498.3>106.9			0.250		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	8.67e3	8.67e3	0.250	1.000	1.42	1.42	12.5	49.9281	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	9.28e3		0.250	1456.575	5.62	5.63	9280	25.4549	51.0		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	9.28e3		0.250	1456.575	5.62	5.63	9280	25.4549	51.0		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.25e4		0.250	1697.796	6.06	6.07	12500	29.3932	58.9		
53	71	13C8-PFOS-EIS	507.0 > 79.7	2.89e3		0.250	280.132	4.76	4.76	2890	41.1709	82.5		
54	1...	13C5-PFHxA	318.0 > 272.9	1.50e4	1.50e4	0.250	1.000	3.12	3.14	12.5	49.9281	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.04e3	1.04e3	0.250	1.000	3.86	3.87	12.5	49.9281	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.47e4	1.47e4	0.250	1.000	5.03	5.04	12.5	49.9281	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.53e4	1.53e4	0.250	1.000	5.34	5.35	12.5	49.9281	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.25e3	3.25e3	0.250	1.000	4.74	4.76	12.5	49.9281	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.46e4	1.46e4	0.250	1.000	4.66	4.67	12.5	49.9281	100.0		

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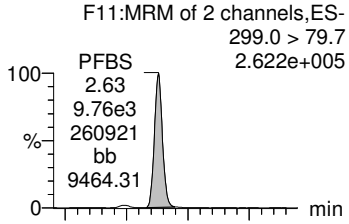
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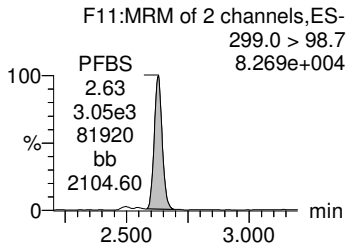
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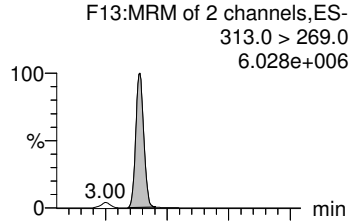
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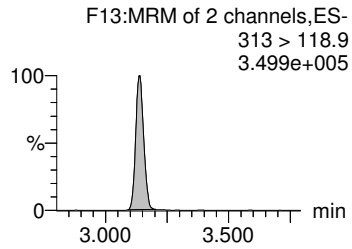
PFBS



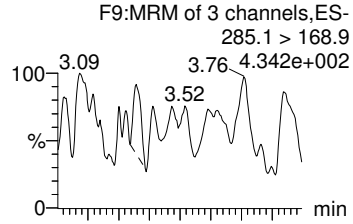


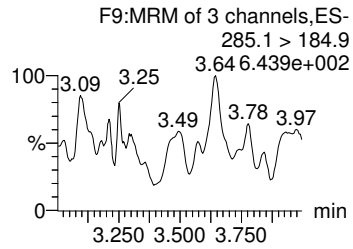
PFHxA



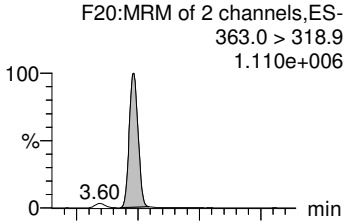


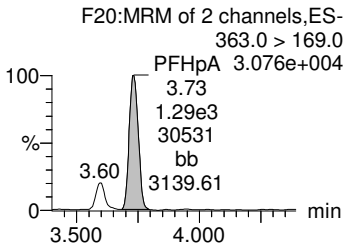
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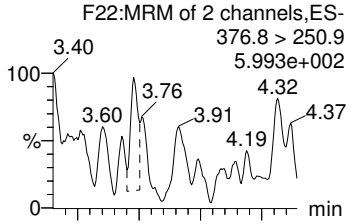


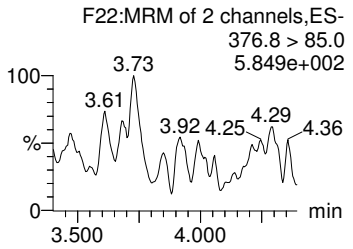
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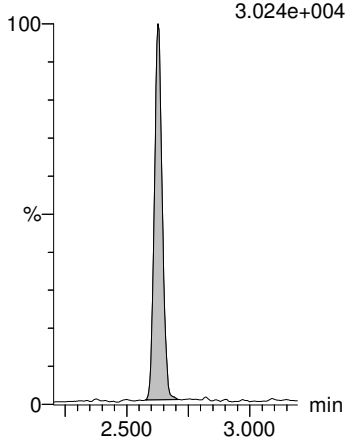


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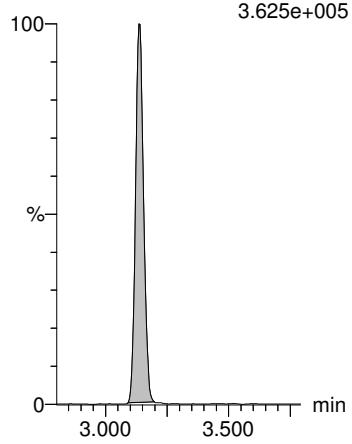




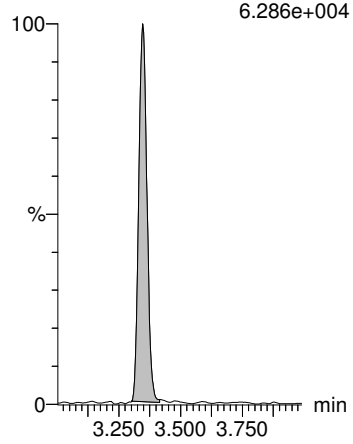
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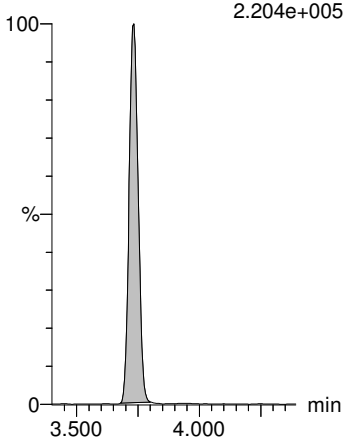
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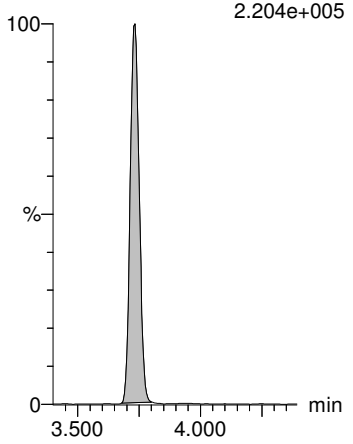
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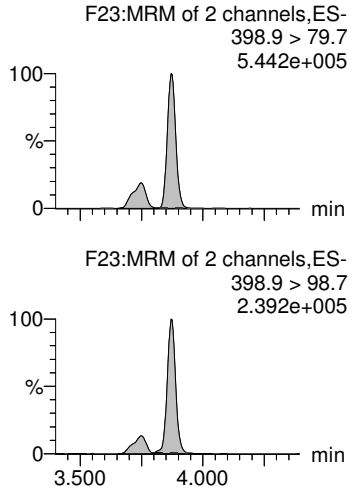
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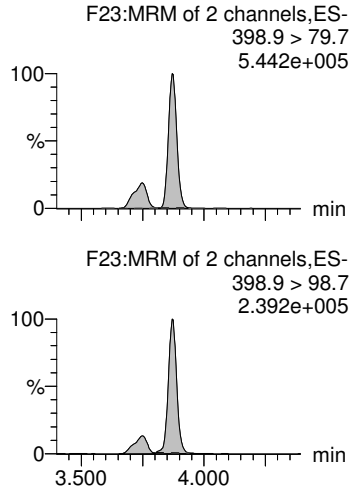
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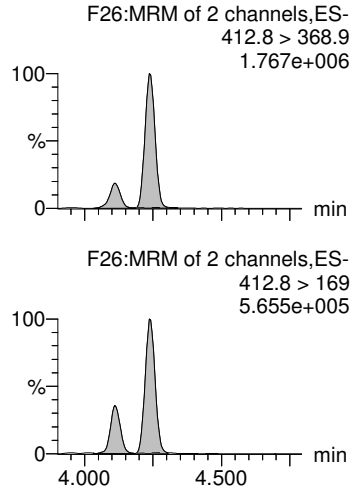
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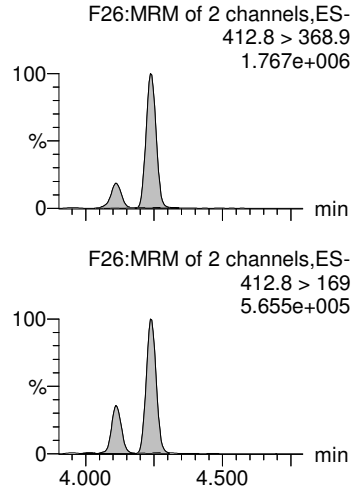
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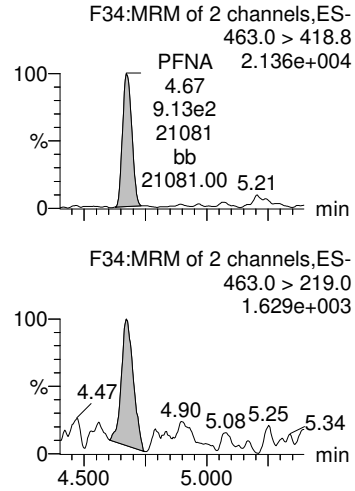
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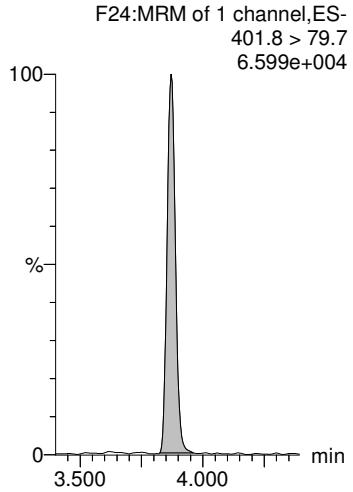
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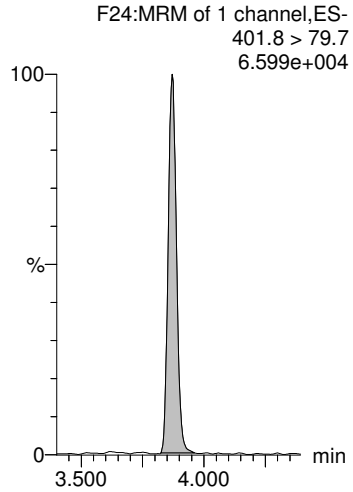
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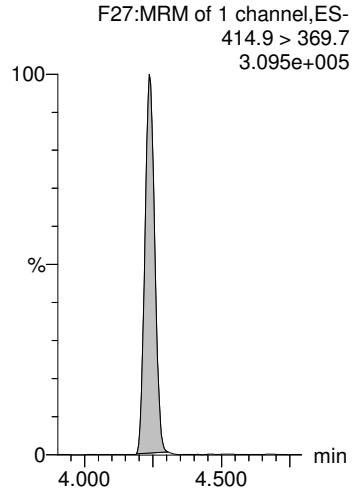
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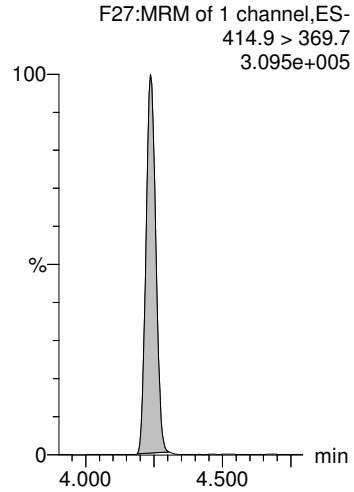
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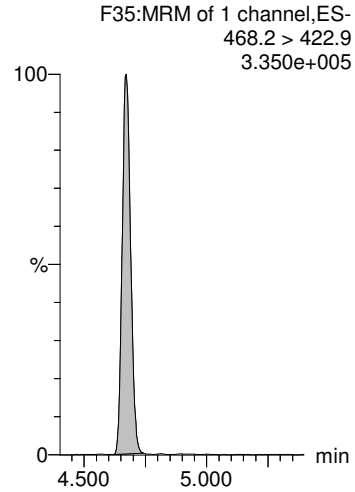
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13C2-PFOA-EIS



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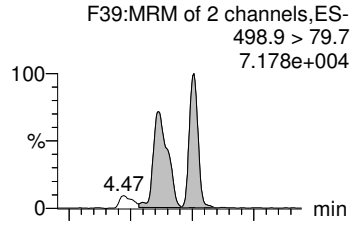
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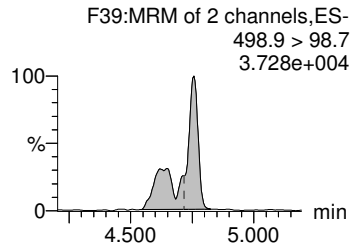
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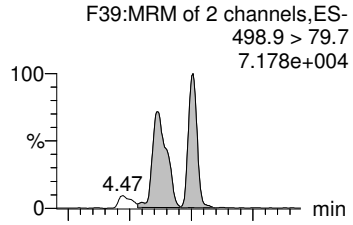
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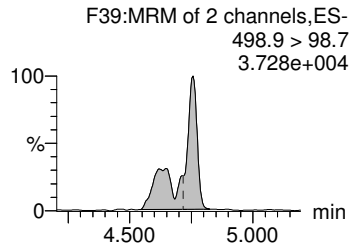
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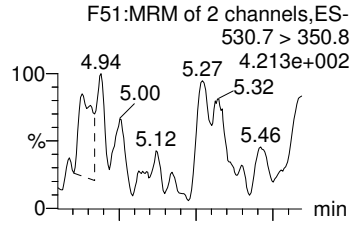


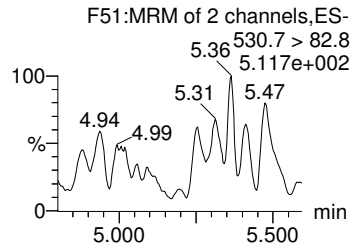
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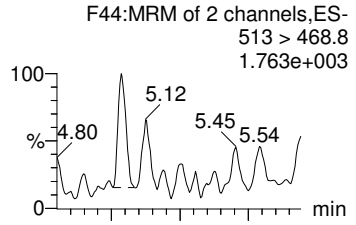


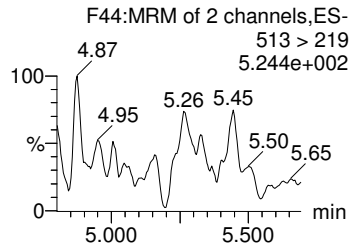
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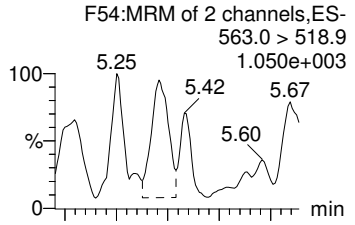


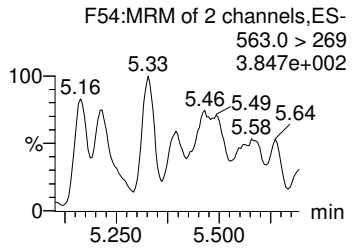
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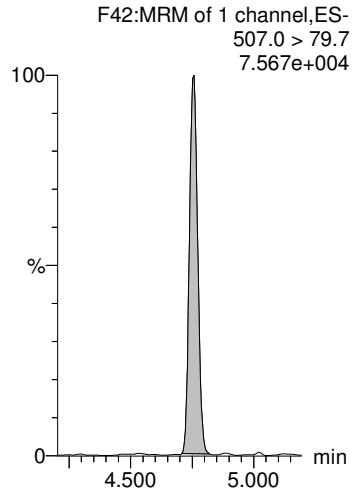


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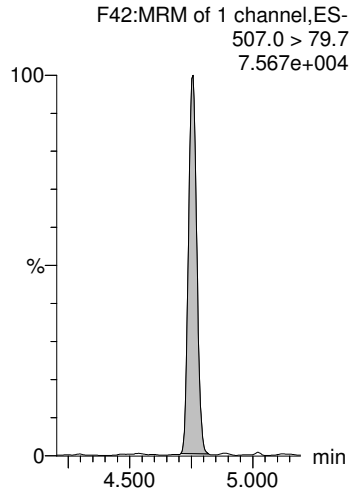




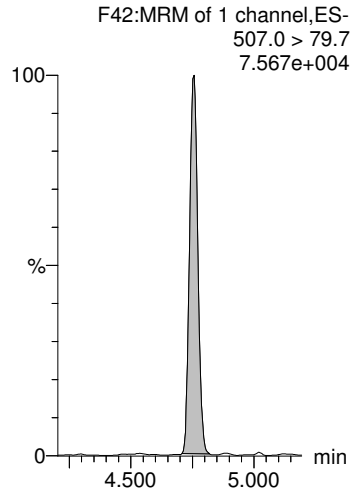
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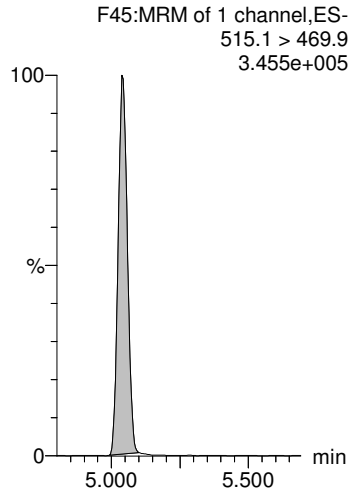
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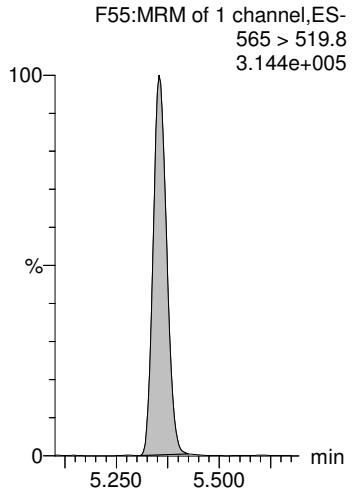
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13C2-PFDA-EIS



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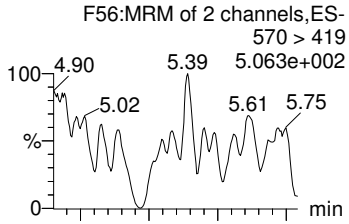
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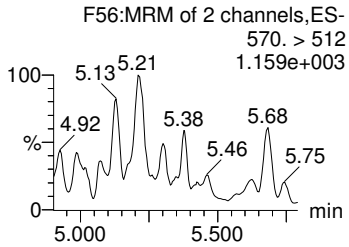
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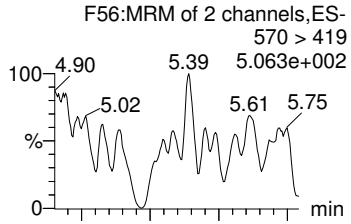
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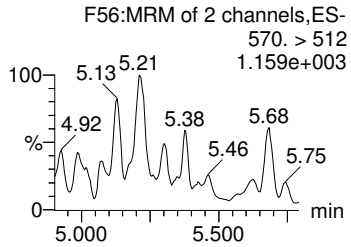
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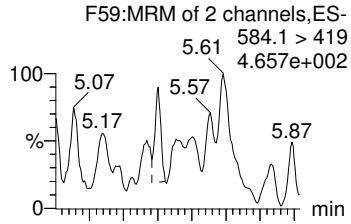


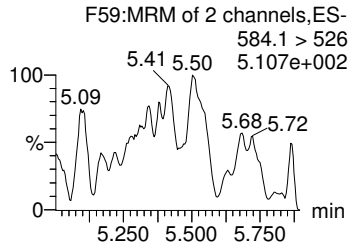
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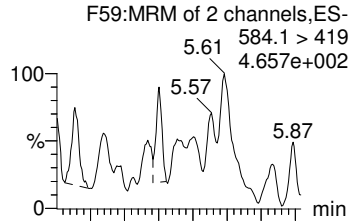


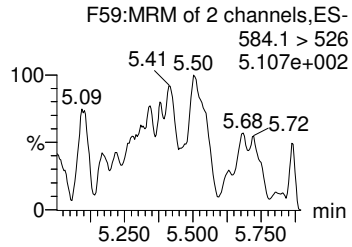
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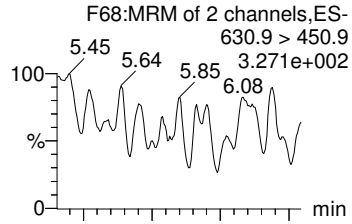


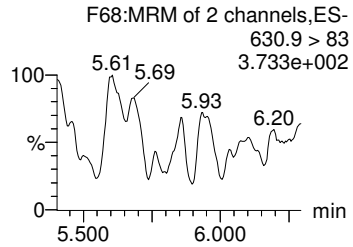
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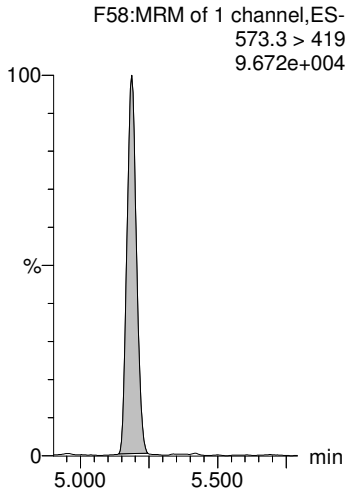


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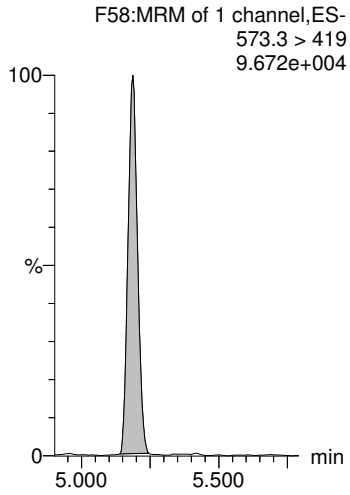




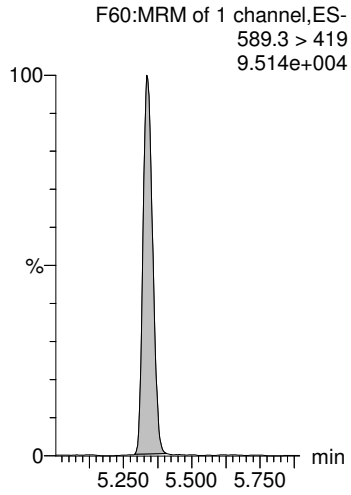
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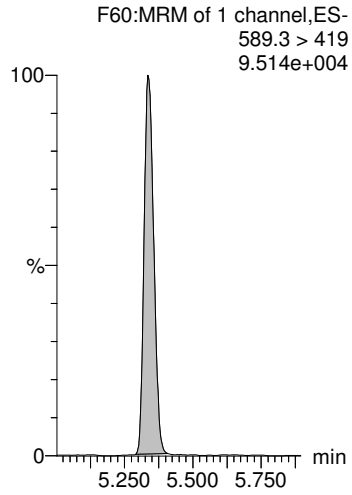
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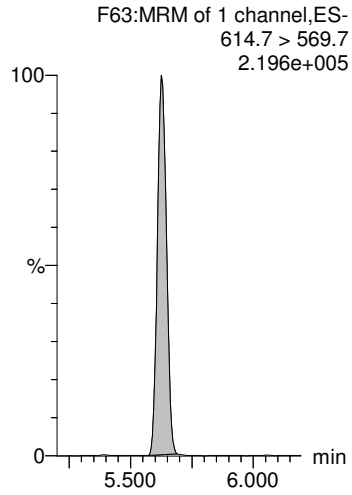
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d5-N-EtFOSAA-EIS



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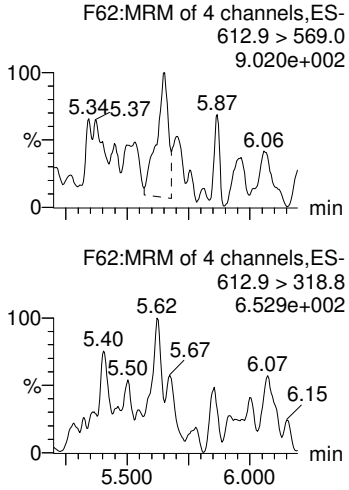


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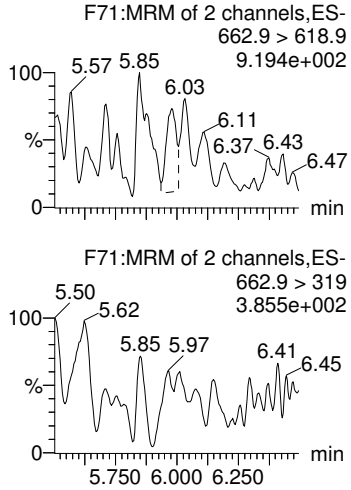
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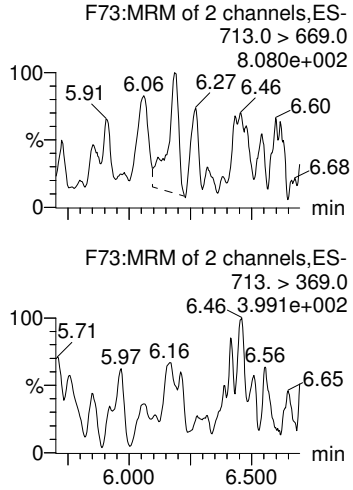
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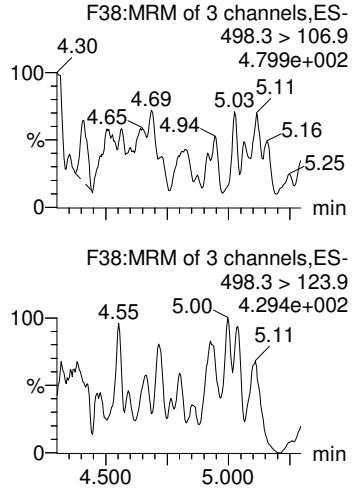
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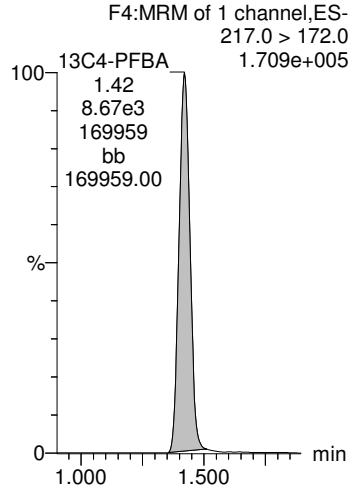
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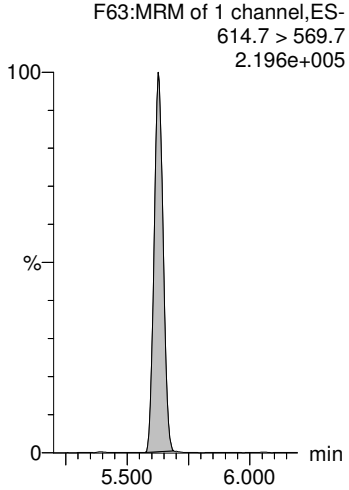
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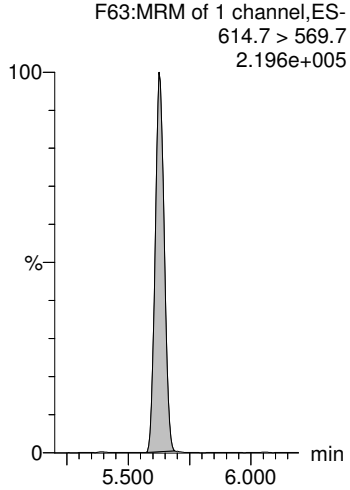
13C4-PFBA



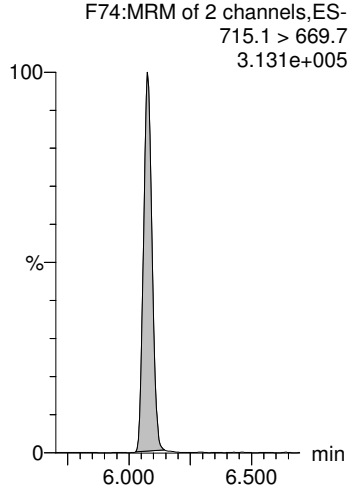
13C2-PFDoA-EIS



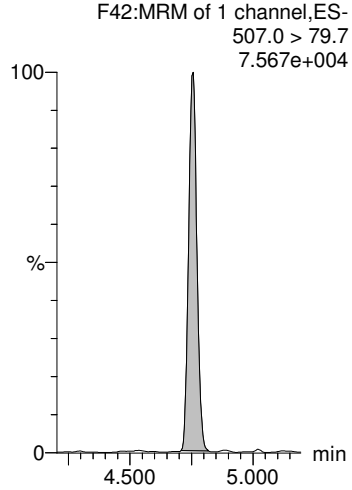
13C2-PFDoA-EIS



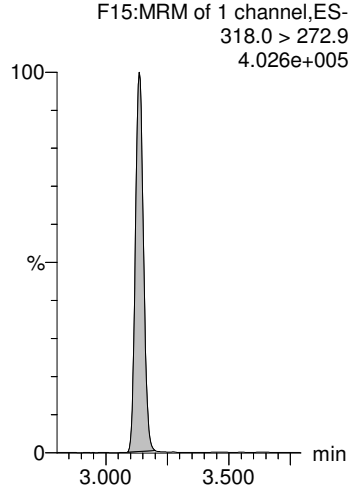
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



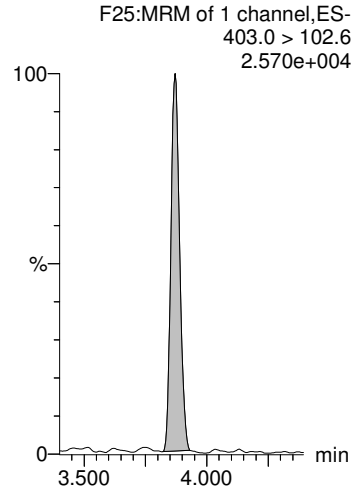
MM 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-55.qld

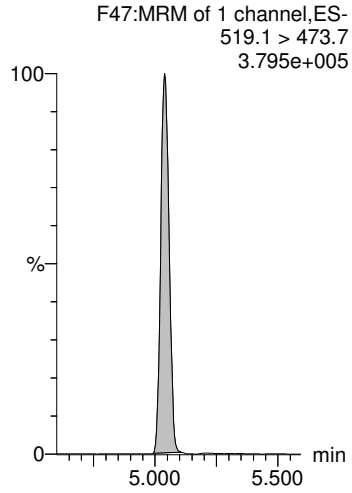
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Name: 200226P1-55, Date: 27-Feb-2020, Time: 02:05:26, ID: 2000321-07 I012MW15S-20200213 0.25036, Description: I012MW15S-20200213

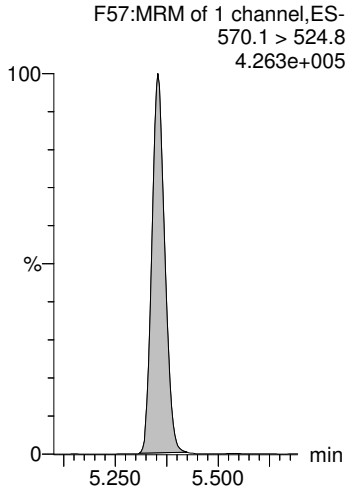
18O2-PFHxS



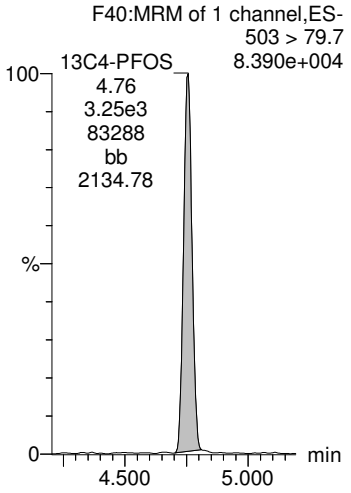
13C6-PFDA



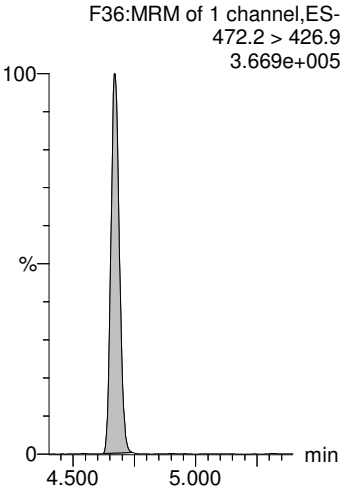
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-56.qld

Last Altered: Saturday, February 29, 2020 09:25:53 Pacific Standard Time
Printed: Saturday, February 29, 2020 09:26:02 Pacific Standard Time

Name: 200226P1-56, Date: 27-Feb-2020, Time: 02:15:55, ID: 2000321-08 DUP02-20200213 0.2466, Description: DUP02-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	1.06e4	1.21e3	0.247		2.63	2.63	110	180.8127		3.101	NO
2	7	PFHxA	313.0 > 269.0	2.53e5	1.60e4	0.247		3.14	3.14	198	881.2740		16.492	NO
3	9	HFPO-DA	285.1 > 168.9		2.91e3	0.247		3.35						YES
4	11	PFHpA	363.0 > 318.9	5.21e4	1.12e4	0.247		3.73	3.73	58.2	190.9279		31.686	NO
5	12	ADONA	376.8 > 250.9		1.12e4	0.247		3.83						YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.21e3		0.247	109.364	2.66	2.63	1210	44.7133	88.2		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.60e4		0.247	1741.311	3.14	3.14	16000	37.2147	73.4		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.91e3		0.247	306.753	3.39	3.35	2910	38.4743	75.9		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.12e4		0.247	1144.853	3.74	3.73	11200	39.6462	78.2		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.12e4		0.247	1144.853	3.74	3.73	11200	39.6462	78.2		
11	-1													
12	13	L-PFHxS	398.9 > 79.7	2.82e4	2.73e3	0.247		3.87	3.87	129	504.7079		2.349	NO
13	1...	Total PFHxS	398.9 > 79.7	2.82e4	2.73e3	0.247		3.93		129	504.7079			
14	16	L-PFOA	412.8 > 368.9	1.02e5	1.49e4	0.247		4.24	4.24	85.6	306.4811		2.699	NO
15	1...	Total PFOA	412.8 > 368.9	1.02e5	1.49e4	0.247		4.60		85.6	306.4811			
16	21	PFNA	463.0 > 418.8	8.71e2	1.47e4	0.247		4.67	4.67	0.743	2.5086		10.021	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.73e3		0.247	232.268	3.87	3.87	2730	47.6073	93.9		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.73e3		0.247	232.268	3.87	3.87	2730	47.6073	93.9		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.49e4		0.247	1568.416	4.24	4.24	14900	38.5842	76.1		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.49e4		0.247	1568.416	4.24	4.24	14900	38.5842	76.1		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.47e4		0.247	1457.036	4.67	4.67	14700	40.8163	80.5		
22	-1													
23	23	L-PFOS	498.9 > 79.7	6.87e3	3.10e3	0.247		4.76	4.61	27.7	111.5415		2.246	NO
24	1...	Total PFOS	498.9 > 79.7	6.87e3	3.10e3	0.247		4.61		27.7	111.5415			
25	25	9Cl-PF30NS	530.7 > 350.8		3.10e3	0.247		4.96						YES
26	26	PFDA	513 > 468.8		1.48e4	0.247		5.04						YES
27	33	PFUdA	563.0 > 518.9		1.28e4	0.247		5.35						YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	3.10e3		0.247	280.132	4.76	4.76	3100	44.9454	88.7		
29	71	13C8-PFOS-EIS	507.0 > 79.7	3.10e3		0.247	280.132	4.76	4.76	3100	44.9454	88.7		
30	71	13C8-PFOS-EIS	507.0 > 79.7	3.10e3		0.247	280.132	4.76	4.76	3100	44.9454	88.7		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.48e4		0.247	1595.945	5.04	5.04	14800	37.4910	74.0		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.28e4		0.247	1626.273	5.35	5.35	12800	31.9843	63.1		
33	-1													
34	29	L-MeFOSAA	570 > 419		4.51e3	0.247		5.19						YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	4.51e3	0.247		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		3.80e3	0.247		5.34						YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-56.qld

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Name: 200226P1-56, Date: 27-Feb-2020, Time: 02:15:55, ID: 2000321-08 DUP02-20200213 0.2466, Description: DUP02-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	3.80e3	0.247		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		1.09e4	0.247		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.51e3		0.247	397.776	5.18	5.19	4510	46.0140	90.8		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.51e3		0.247	397.776	5.18	5.19	4510	46.0140	90.8		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.80e3		0.247	488.229	5.33	5.34	3800	31.5873	62.3		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	3.80e3		0.247	488.229	5.33	5.34	3800	31.5873	62.3		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.09e4		0.247	1456.575	5.62	5.63	10900	30.4637	60.1		
44	-1													
45	37	PFDoA	612.9 > 569.0		1.09e4	0.247		5.63						YES
46	39	PFTrDA	662.9 > 618.9		1.09e4	0.247		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.39e4	0.247		6.08						YES
48	1...	TDCA	498.3>106.9			0.247		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	1.02e4	1.02e4	0.247	1.000	1.42	1.42	12.5	50.6894	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.09e4		0.247	1456.575	5.62	5.63	10900	30.4637	60.1		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.09e4		0.247	1456.575	5.62	5.63	10900	30.4637	60.1		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.39e4		0.247	1697.796	6.06	6.08	13900	33.2950	65.7		
53	71	13C8-PFOS-EIS	507.0 > 79.7	3.10e3		0.247	280.132	4.76	4.76	3100	44.9454	88.7		
54	1...	13C5-PFHxA	318.0 > 272.9	1.71e4	1.71e4	0.247	1.000	3.12	3.14	12.5	50.6894	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.28e3	1.28e3	0.247	1.000	3.86	3.87	12.5	50.6894	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.63e4	1.63e4	0.247	1.000	5.03	5.04	12.5	50.6894	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.59e4	1.59e4	0.247	1.000	5.34	5.35	12.5	50.6894	100.0		
59	1...	13C4-PFOS	503 > 79.7	2.83e3	2.83e3	0.247	1.000	4.74	4.76	12.5	50.6894	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.73e4	1.73e4	0.247	1.000	4.66	4.67	12.5	50.6894	100.0		

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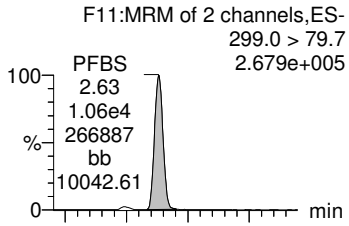
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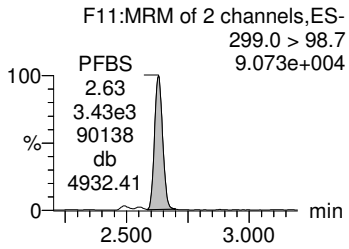
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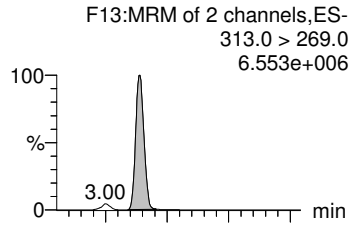
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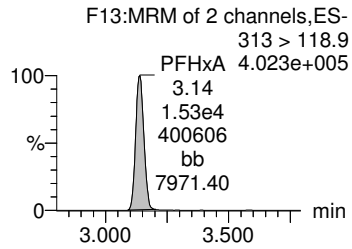
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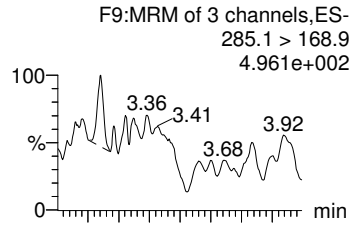


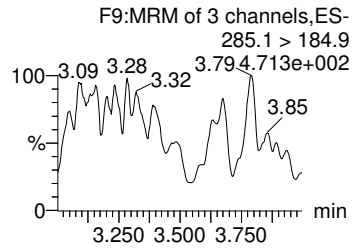
PFHxA



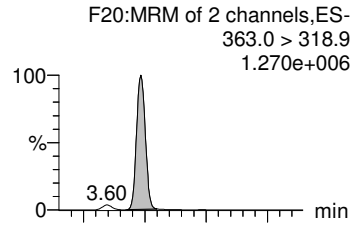


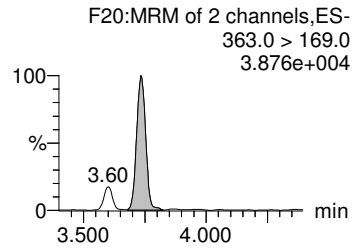
HFPO-DA



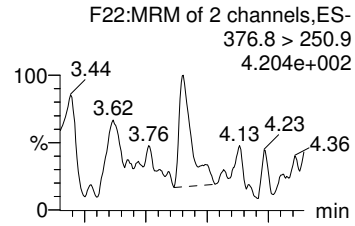


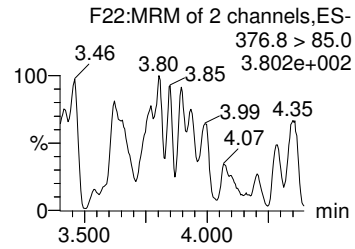
PFHpA



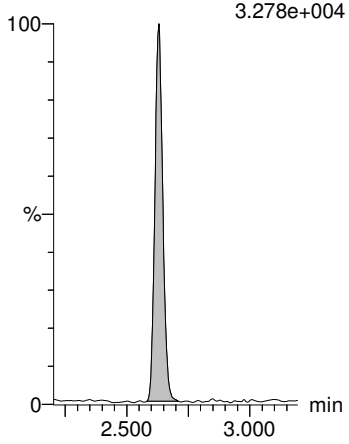


ADONA

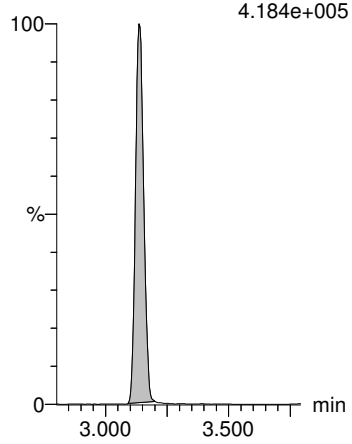




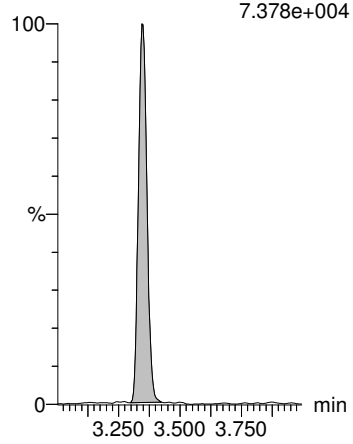
13C3-PFBS-EIS



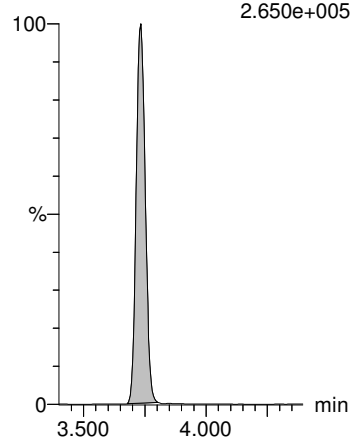
13C2-PFHxA-EIS



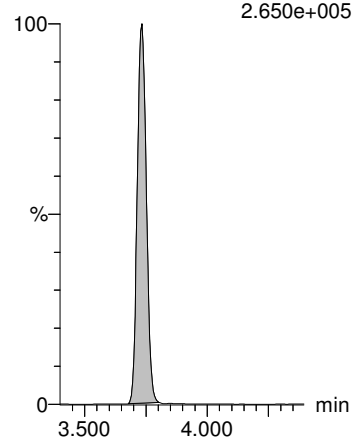
13C3-HFPO-DA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS



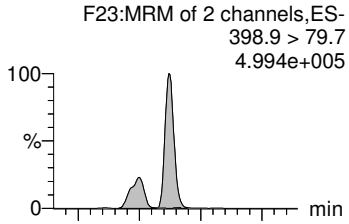
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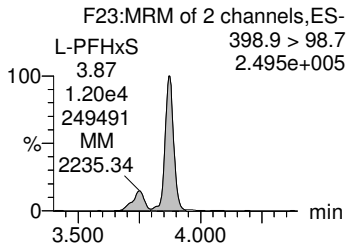
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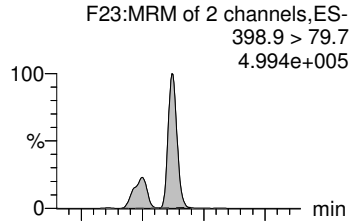
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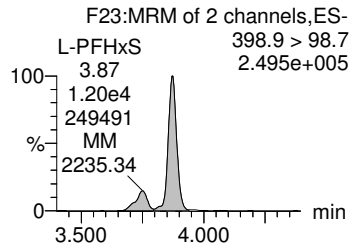
L-PFHxS



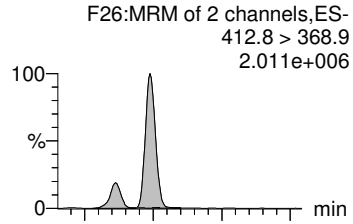


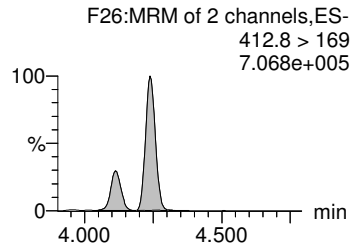
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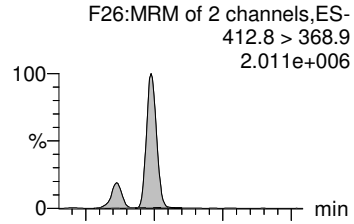


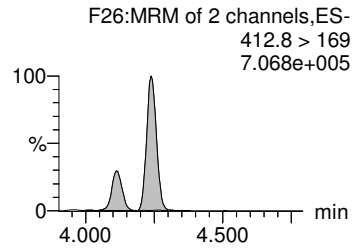
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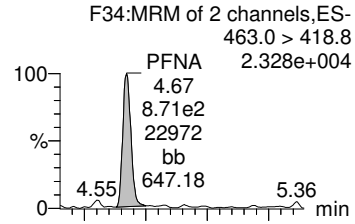


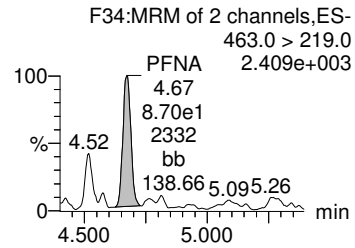
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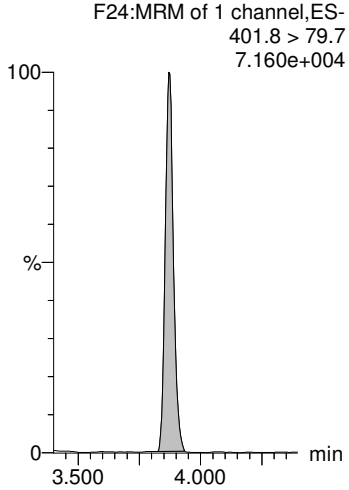


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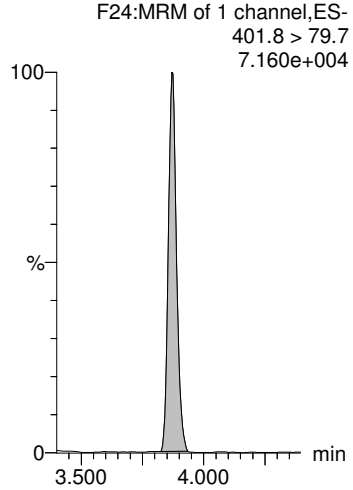




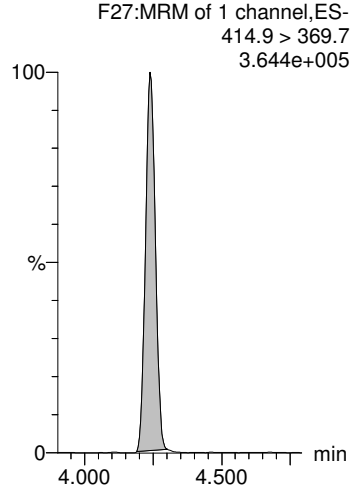
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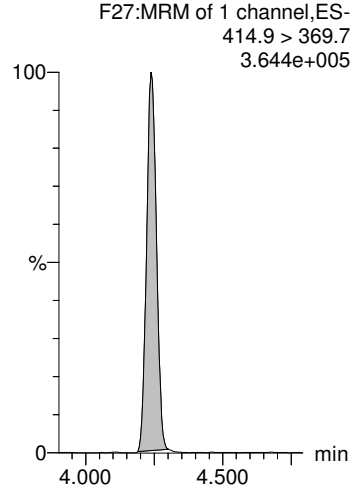
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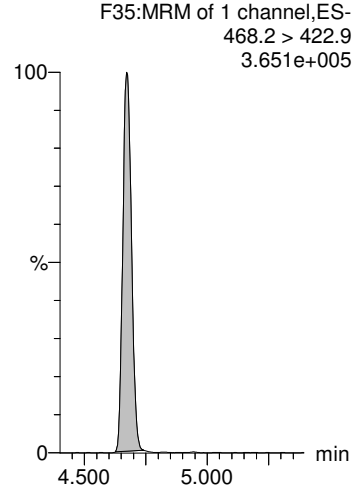
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13C2-PFOA-EIS



13C5-PFNA-EIS

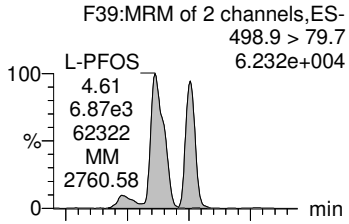


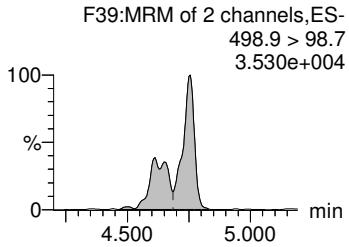
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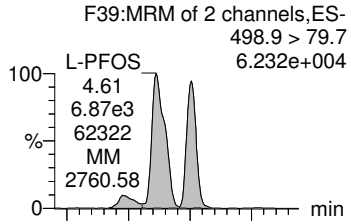
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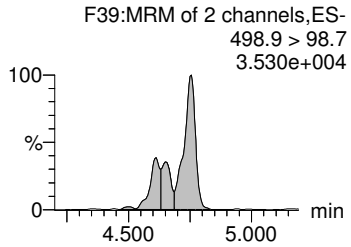
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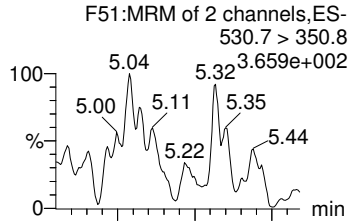


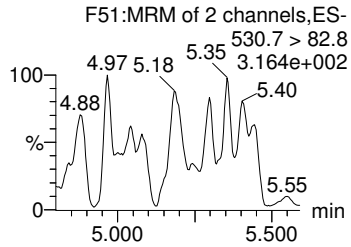
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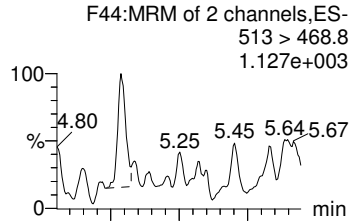


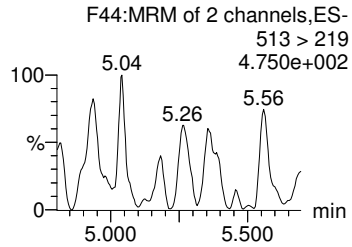
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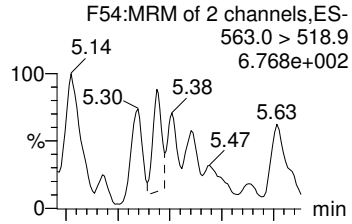


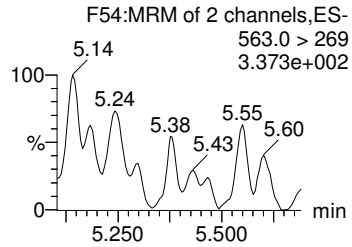
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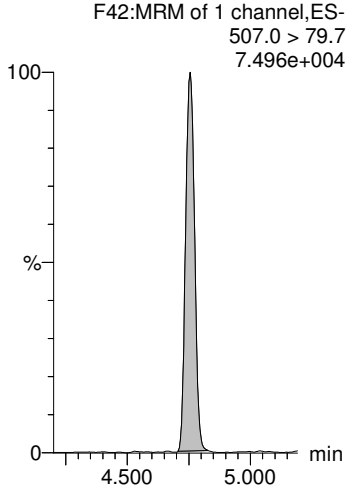


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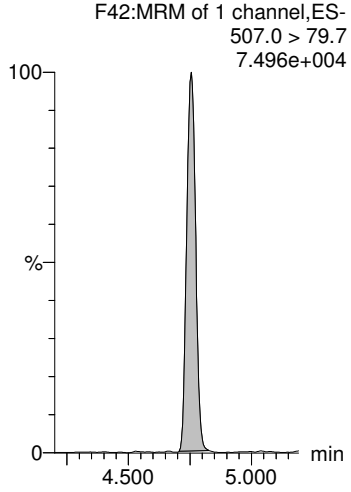




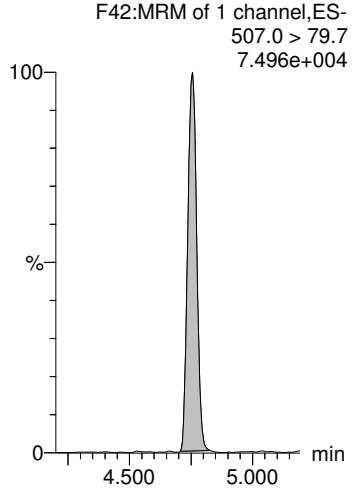
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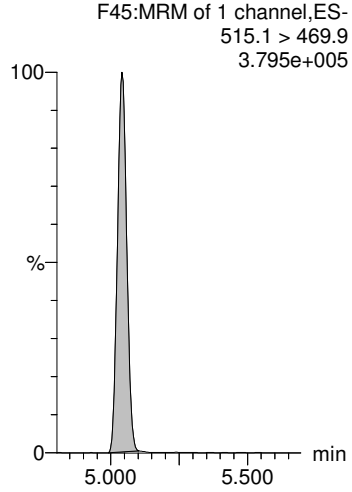
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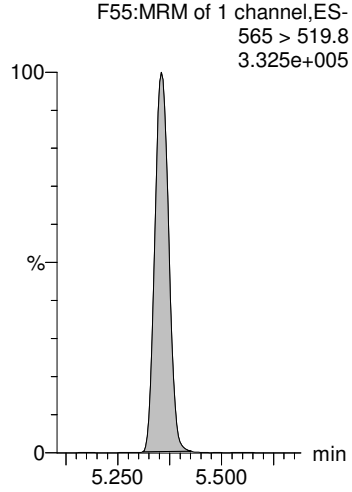
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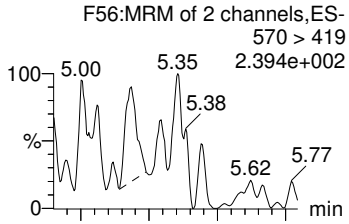
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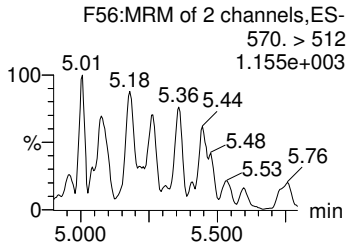
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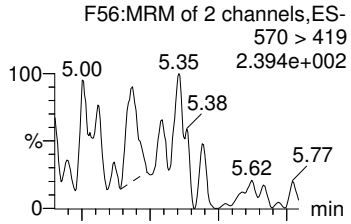
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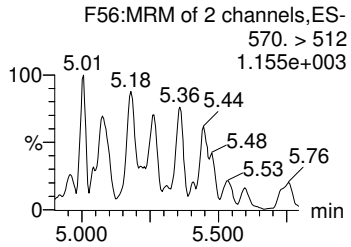
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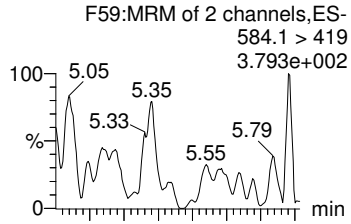


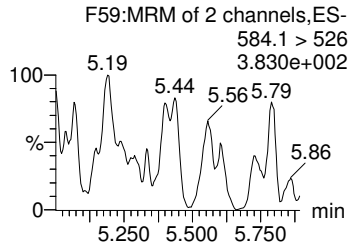
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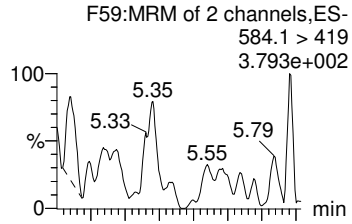


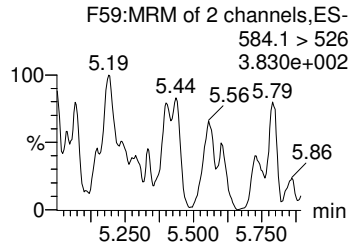
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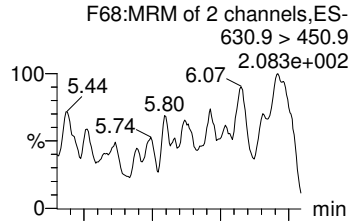


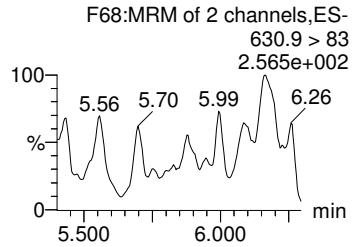
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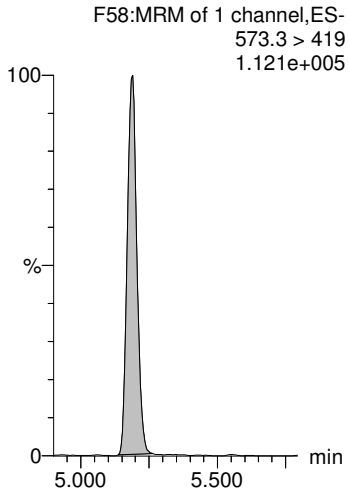


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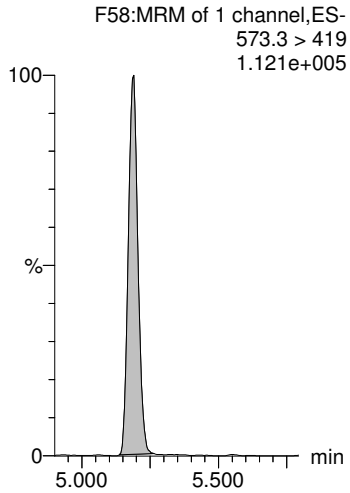




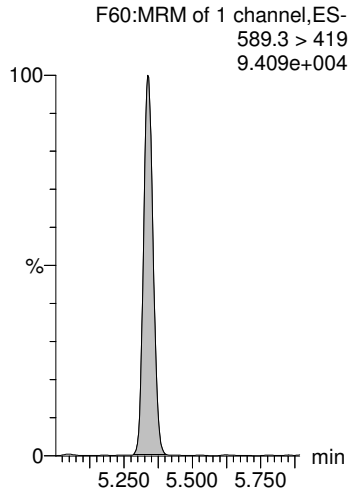
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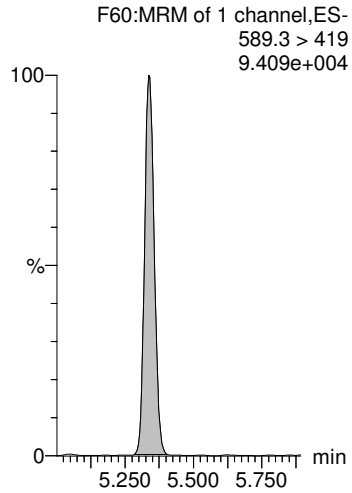
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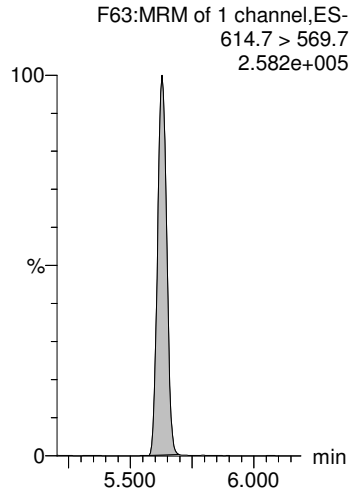
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d5-N-EtFOSAA-EIS



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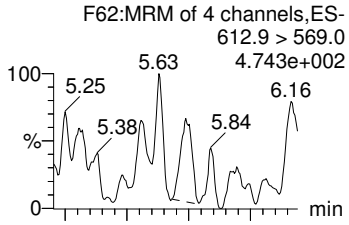
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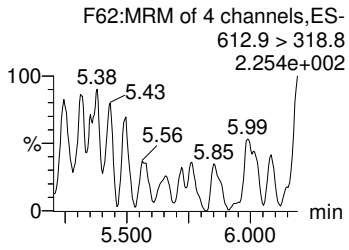
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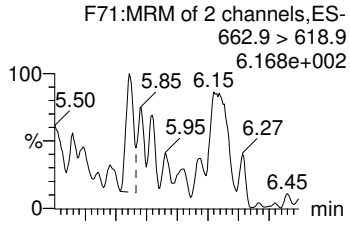
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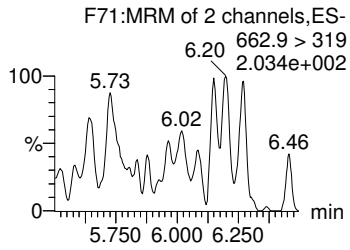
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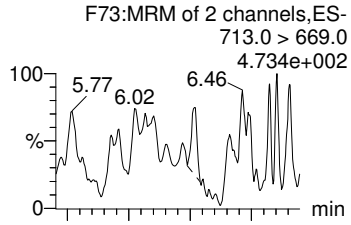


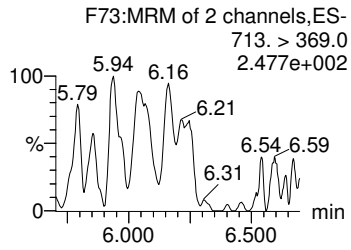
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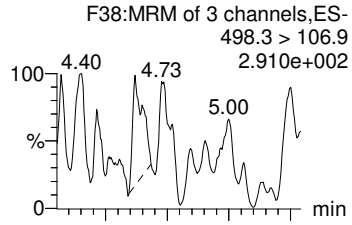


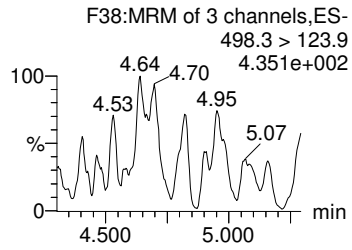
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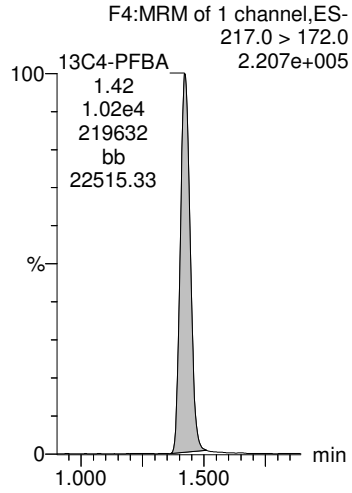


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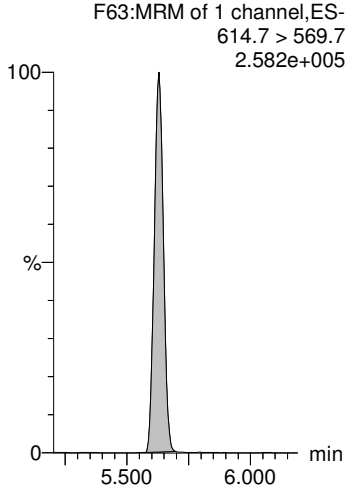




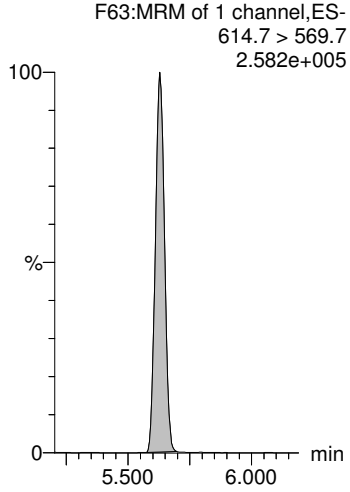
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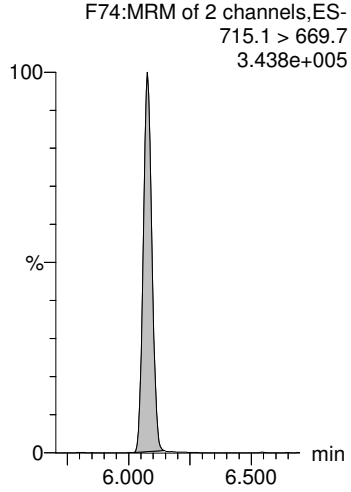
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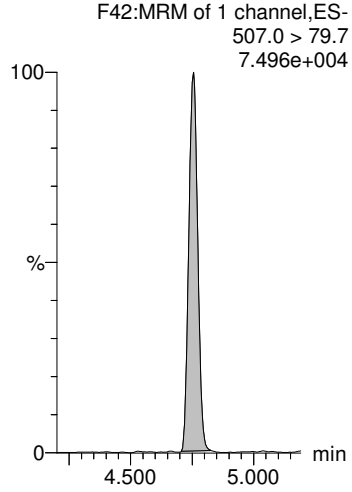
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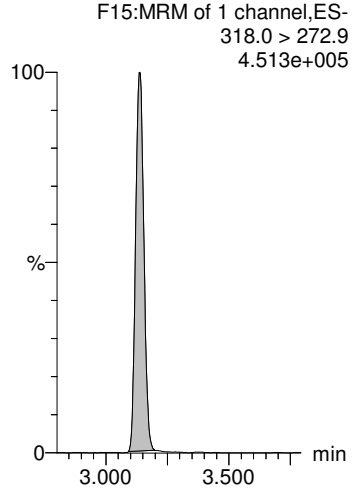
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13C8-PFOS-EIS



13C5-PFHxA



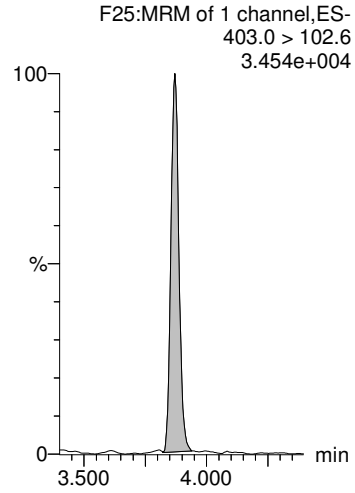
MM 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-56.qld

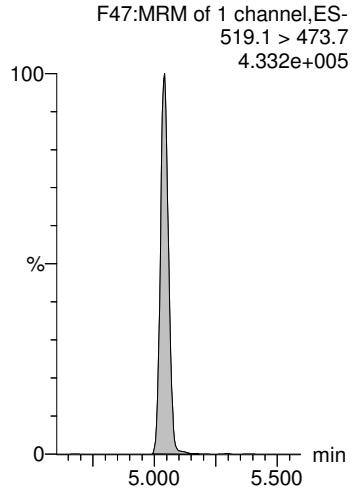
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Printed: Saturday, February 29, 2020 09:26:02 Pacific Standard Time

Name: 200226P1-56, Date: 27-Feb-2020, Time: 02:15:55, ID: 2000321-08 DUP02-20200213 0.2466, Description: DUP02-20200213

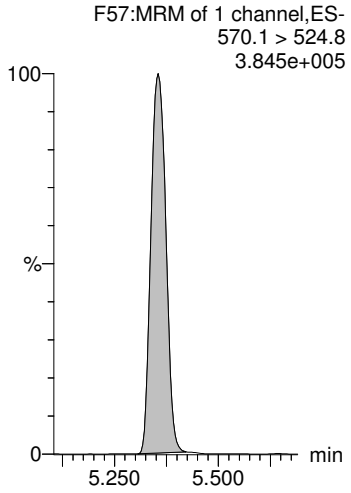
18O2-PFHxS



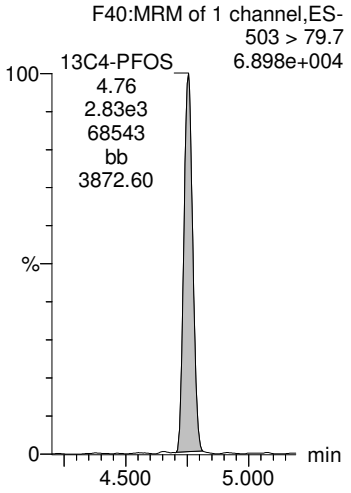
13C6-PFDA



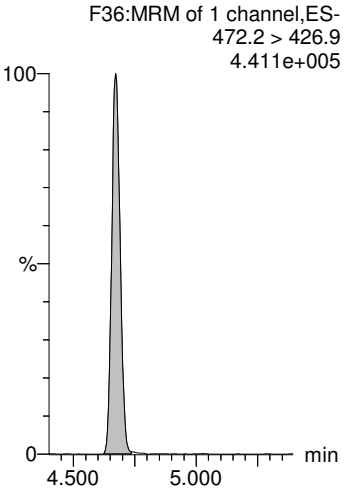
13C7-PFUdA



13C4-PFOS



13C9-PFNA



GM 2/29/2020

MM 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-25.qld

*See dilution
**See ug/L

Last Altered: Friday, February 28, 2020 10:35:58 Pacific Standard Time
Printed: Friday, February 28, 2020 10:36:09 Pacific Standard Time

Name: 200225P1-52, Date: 26-Feb-2020, Time: 02:54:28, ID: 2000321-09@5X I003MW01S-20200213 0.25107, Description: I003MW01S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.		%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	2.67e4	2.74e2	0.251		2.62	2.62	1220	2106.3430			3.112	NO
2	7	PFHxA	313.0 > 269.0	5.43e5	4.20e3	0.251		3.13	3.13	1610	7197.8045			16.697	NO
3	9	HFPO-DA	285.1 > 168.9		6.57e2	0.251		3.34							YES
4	11	PFHpA	363.0 > 318.9	9.90e4	2.75e3	0.251		3.73	3.73	450	1551.4085			33.492	NO
5	12	ADONA	376.8 > 250.9	3.49e0	2.75e3	0.251		3.82	3.73	0.0159				0.544	YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	2.74e2		0.251	120.043	2.66	2.62	274	9.0783		18.2		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	4.20e3		0.251	1794.782	3.13	3.13	4200	9.3253		18.7		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	6.57e2		0.251	314.205	3.39	3.34	657	8.3225		16.7		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	2.75e3		0.251	1233.447	3.74	3.73	2750	8.8816		17.8		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	2.75e3		0.251	1233.447	3.74	3.73	2750	8.8816		17.8		
11	-1														
12	13	L-PFHxS	398.9 > 79.7	1.22e5	5.93e2	0.251		3.86	3.86	2580	10082.8142	E*		2.358	NO
13	1...	Total PFHxS	398.9 > 79.7	1.22e5	5.93e2	0.251		3.93		2580	10082.8142				
14	16	L-PFOA	412.8 > 368.9	1.37e6	4.46e3	0.251		4.23	4.23	3850		**		2.929	NO
15	1...	Total PFOA	412.8 > 368.9	1.37e6	4.46e3	0.251		4.60		0.000					
16	21	PFNA	463.0 > 418.8	2.74e3	3.31e3	0.251		4.67	4.67	10.3	34.3904			8.177	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	5.93e2		0.251	273.316	3.86	3.86	593	8.6481		17.4		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	5.93e2		0.251	273.316	3.86	3.86	593	8.6481		17.4		
19	69	13C2-PFOA-EIS	414.9 > 369.7	4.46e3		0.251	1593.567	4.23	4.23	4460	11.1395		22.4		
20	69	13C2-PFOA-EIS	414.9 > 369.7	4.46e3		0.251	1593.567	4.23	4.23	4460	11.1395		22.4		
21	65	13C5-PFNA-EIS	468.2 > 422.9	3.31e3		0.251	1492.001	4.67	4.67	3310	8.8428		17.8		
22	-1														
23	23	L-PFOS	498.9 > 79.7	1.02e5	5.54e2	0.251		4.75	4.75	2290	10084.8141	*E		2.277	NO
24	1...	Total PFOS	498.9 > 79.7	1.02e5	5.54e2	0.251		5.13		2290	10084.8141				
25	25	9Cl-PF30NS	530.7 > 350.8		5.54e2	0.251		4.96							YES
26	26	PFDA	513 > 468.8	2.33e2	3.93e3	0.251		5.04	5.04	0.741	2.2916			14.394	NO
27	33	PFUdA	563.0 > 518.9		3.48e3	0.251		5.35							YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	5.54e2		0.251	291.759	4.75	4.75	554	7.5669		15.2		
29	71	13C8-PFOS-EIS	507.0 > 79.7	5.54e2		0.251	291.759	4.75	4.75	554	7.5669		15.2		
30	71	13C8-PFOS-EIS	507.0 > 79.7	5.54e2		0.251	291.759	4.75	4.75	554	7.5669		15.2		
31	73	13C2-PFDA-EIS	515.1 > 469.9	3.93e3		0.251	1635.176	5.04	5.04	3930	9.5685		19.2		
32	79	13C2-PFUdA-EIS	565 > 519.8	3.48e3		0.251	1617.090	5.35	5.35	3480	8.5789		17.2		
33	-1														
34	29	L-MeFOSAA	570 > 419		8.98e2	0.251		5.18							YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	8.98e2	0.251		5.19		0.000					
36	31	L-EtFOSAA	584.1 > 419		9.48e2	0.251		5.33							YES

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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-25.qld

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Printed: Friday, February 28, 2020 10:36:09 Pacific Standard Time

Name: 200225P1-52, Date: 26-Feb-2020, Time: 02:54:28, ID: 2000321-09@5X I003MW01S-20200213 0.25107, Description: I003MW01S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	9.48e2	0.251		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		2.65e3	0.251		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	8.98e2		0.251	330.310	5.18	5.18	898	10.8301	21.8		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	8.98e2		0.251	330.310	5.18	5.18	898	10.8301	21.8		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	9.48e2		0.251	395.337	5.32	5.33	948	9.5525	19.2		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	9.48e2		0.251	395.337	5.32	5.33	948	9.5525	19.2		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	2.65e3		0.251	1686.253	5.62	5.62	2650	6.2492	12.6		
44	-1													
45	37	PFDoA	612.9 > 569.0		2.65e3	0.251		5.62						YES
46	39	PFTrDA	662.9 > 618.9		2.65e3	0.251		5.88						YES
47	41	PFTeDA	713.0 > 669.0		3.48e3	0.251		6.07						YES
48	1...	TDCA	498.3>106.9			0.251		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	2.37e3	2.37e3	0.251	1.000	1.42	1.42	12.5	49.7869	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	2.65e3		0.251	1686.253	5.62	5.62	2650	6.2492	12.6		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	2.65e3		0.251	1686.253	5.62	5.62	2650	6.2492	12.6		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	3.48e3		0.251	1896.410	6.05	6.07	3480	7.3064	14.7		
53	71	13C8-PFOS-EIS	507.0 > 79.7	5.54e2		0.251	291.759	4.75	4.75	554	7.5669	15.2		
54	1...	13C5-PFHxA	318.0 > 272.9	3.83e3	3.83e3	0.251	1.000	3.13	3.13	12.5	49.7869	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	3.15e2	3.15e2	0.251	1.000	3.86	3.86	12.5	49.7869	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	3.95e3	3.95e3	0.251	1.000	5.04	5.04	12.5	49.7869	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	4.22e3	4.22e3	0.251	1.000	5.35	5.35	12.5	49.7869	100.0		
59	1...	13C4-PFOS	503 > 79.7	8.03e2	8.03e2	0.251	1.000	4.75	4.75	12.5	49.7869	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	3.36e3	3.36e3	0.251	1.000	4.67	4.67	12.5	49.7869	100.0		

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MM 3/2/2020

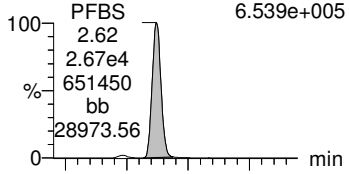
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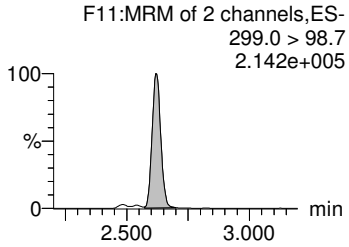
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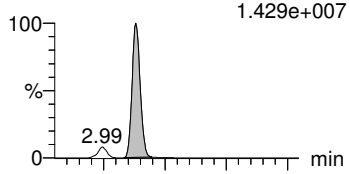
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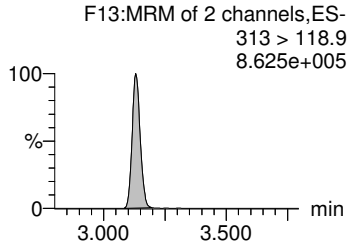
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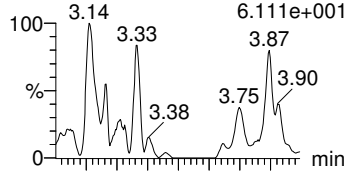


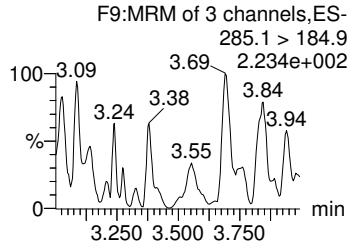
PFHxA



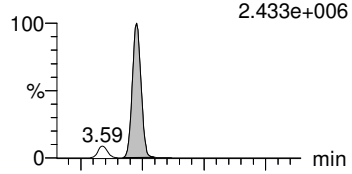


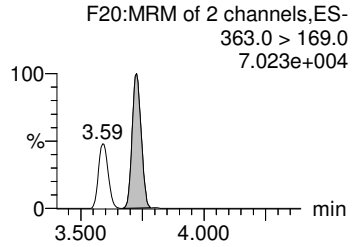
HFPO-DA



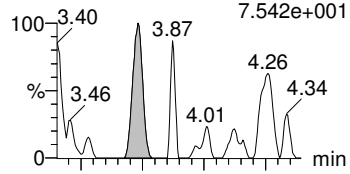


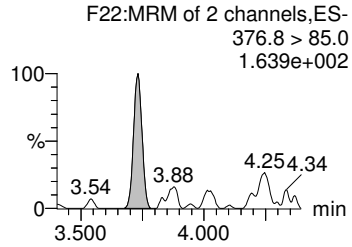
PFHpA



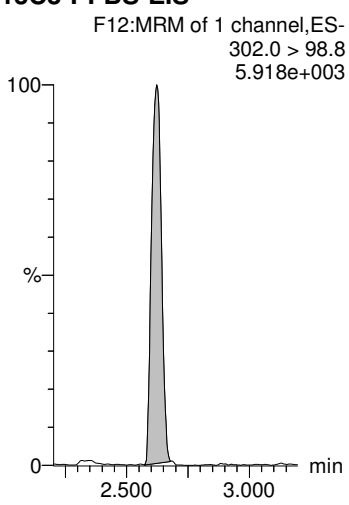


ADONA

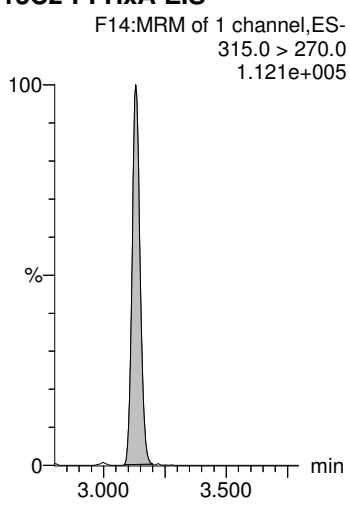




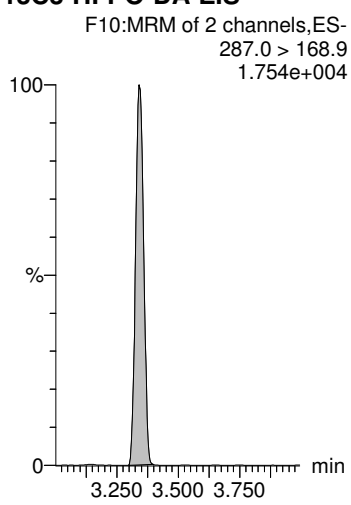
13C3-PFBS-EIS



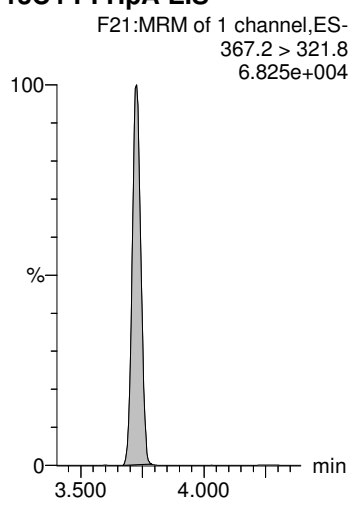
13C2-PFHxA-EIS



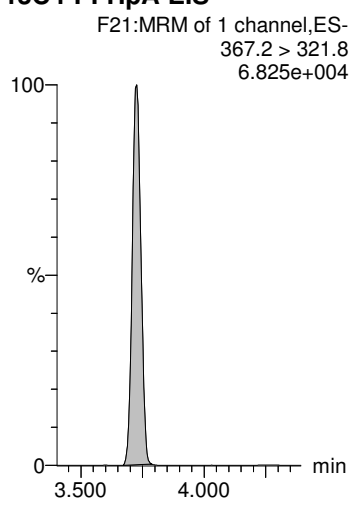
13C3-HFPO-DA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

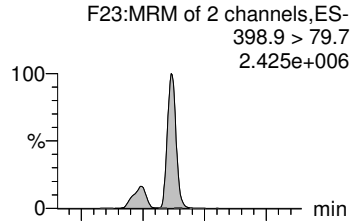


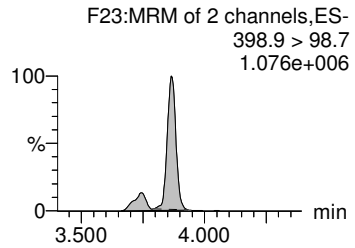
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Printed: Friday, February 28, 2020 10:36:09 Pacific Standard Time

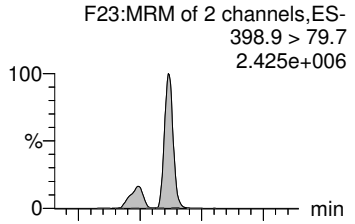
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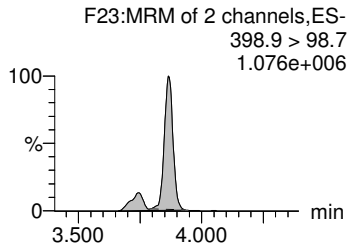
L-PFHxS



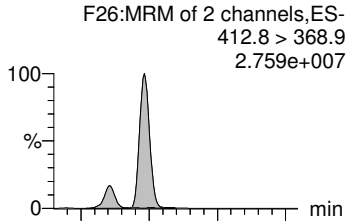


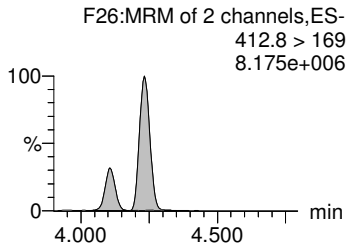
Total PFHxS



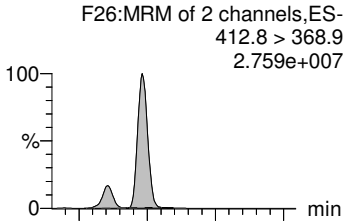


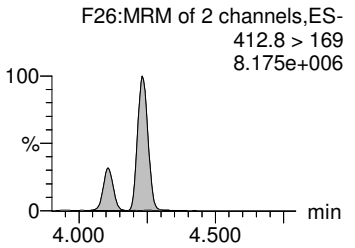
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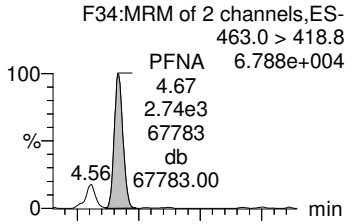


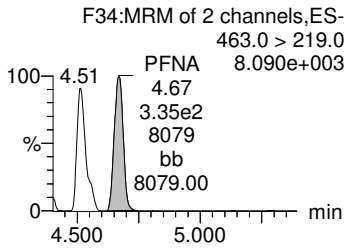
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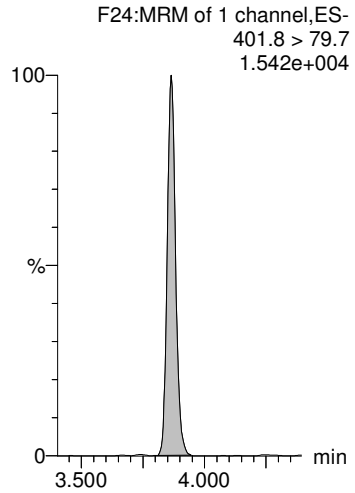


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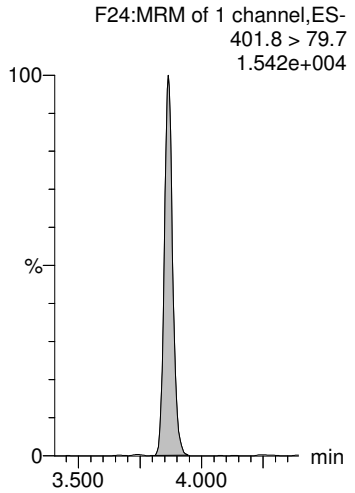




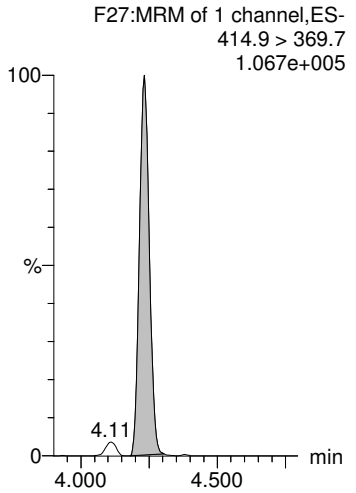
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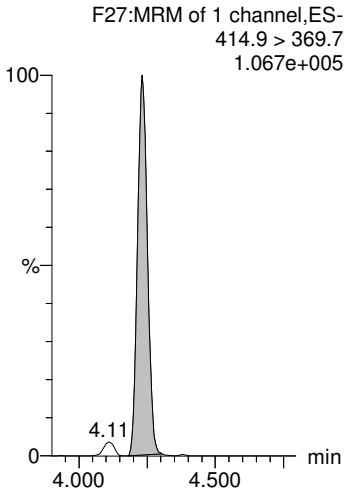
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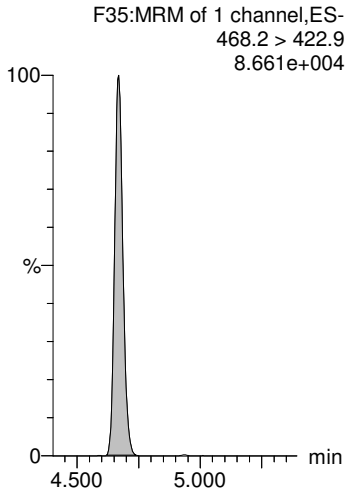
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13C2-PFOA-EIS



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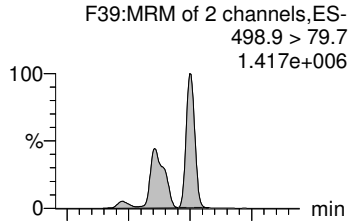


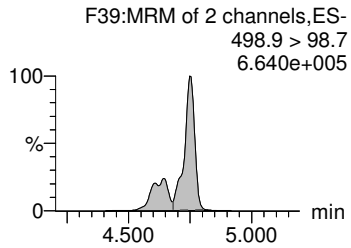
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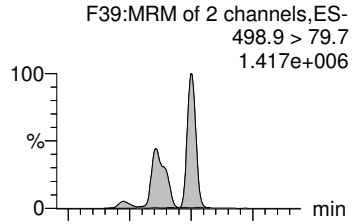
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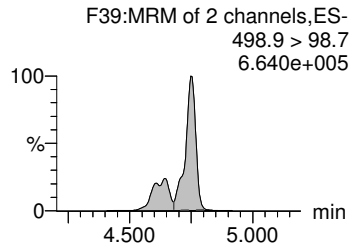
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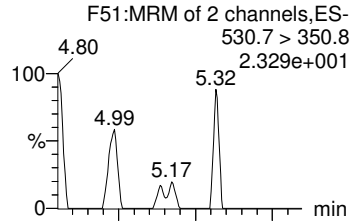


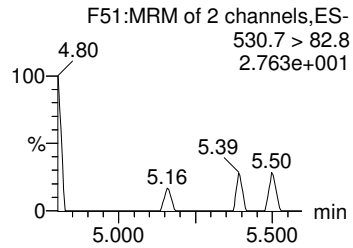
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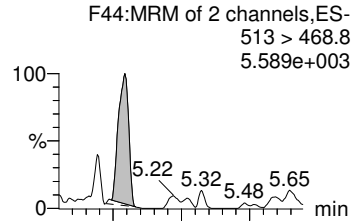


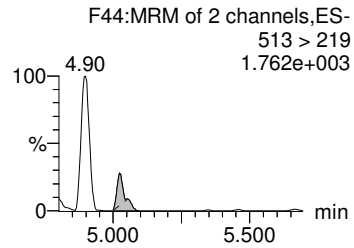
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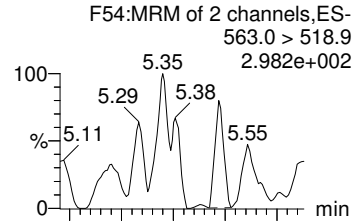


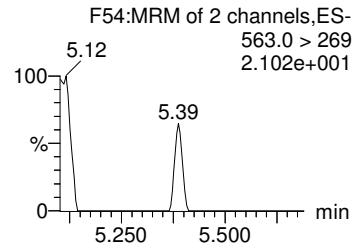
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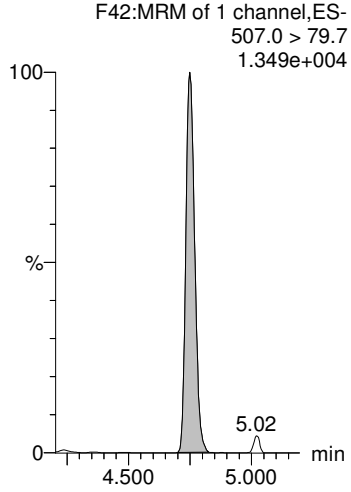


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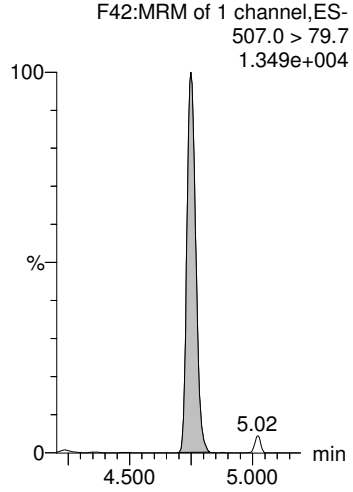




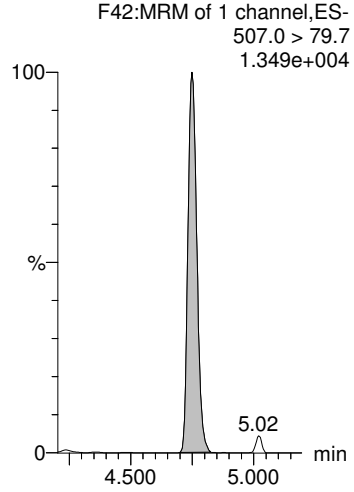
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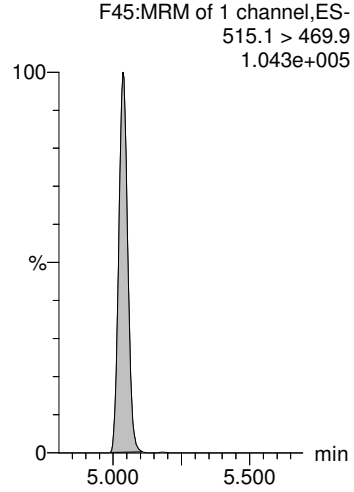
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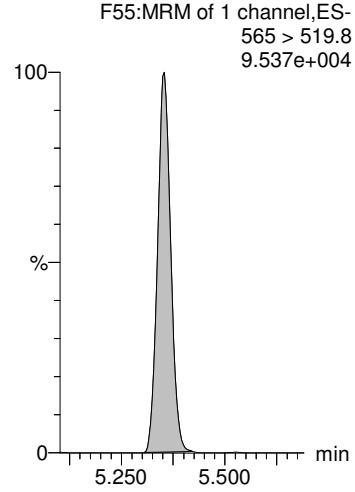
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13C2-PFDA-EIS



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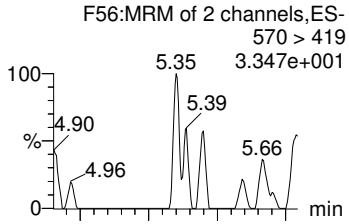
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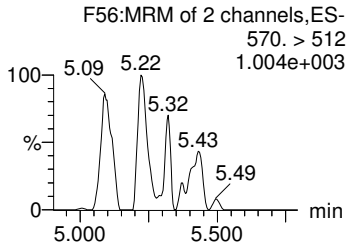
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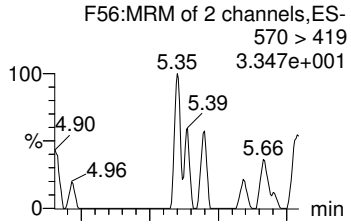
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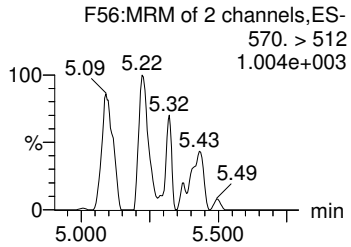
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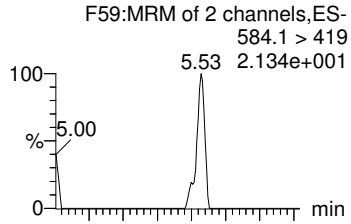


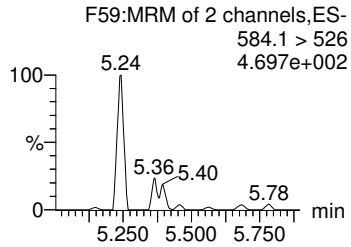
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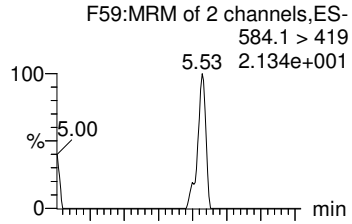


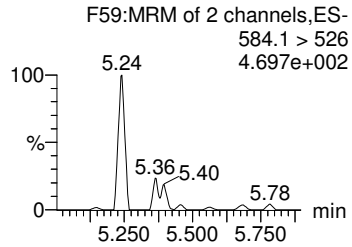
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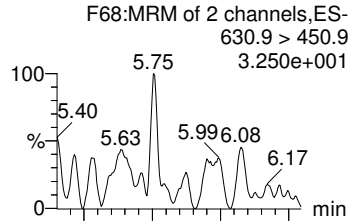


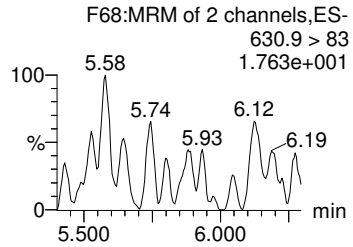
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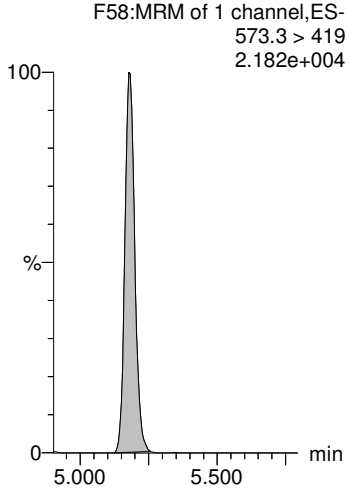


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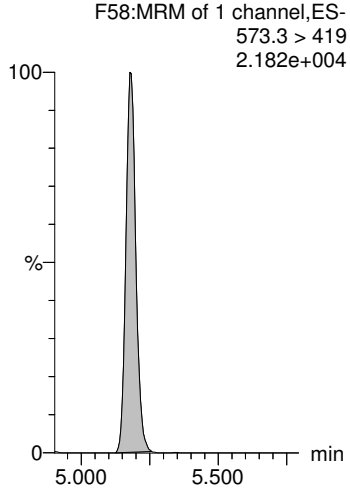




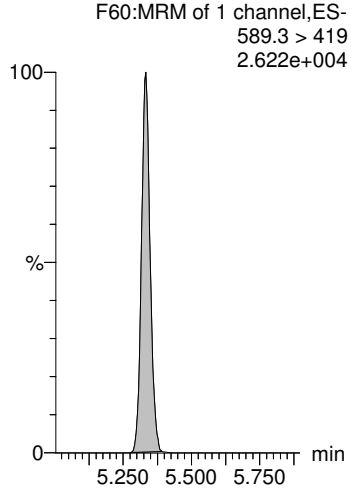
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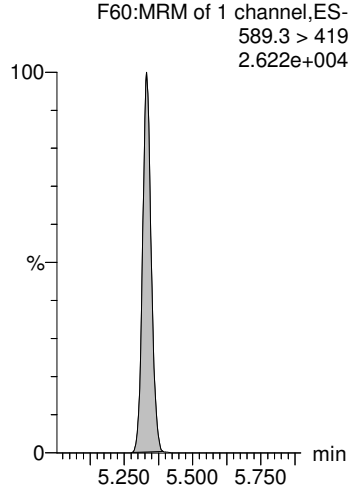
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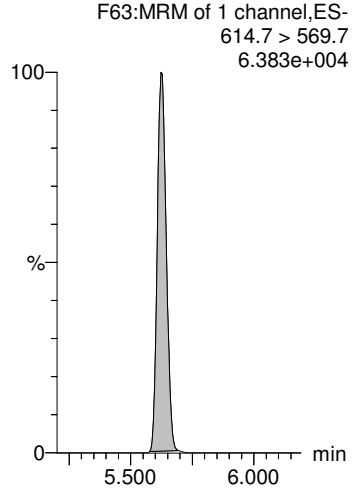
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS



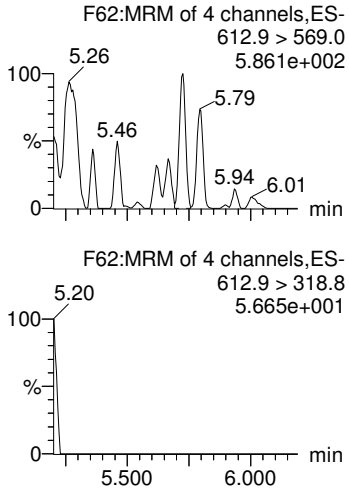
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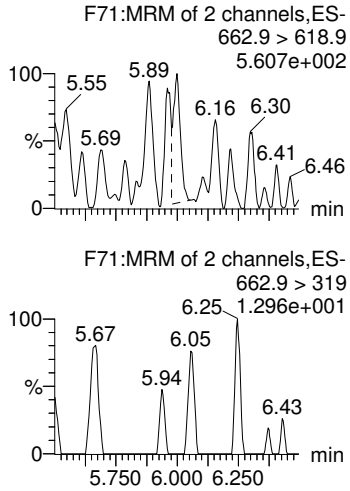
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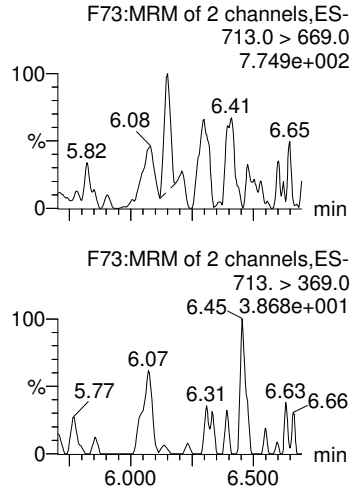
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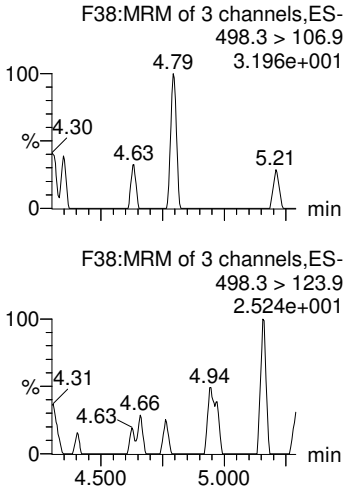
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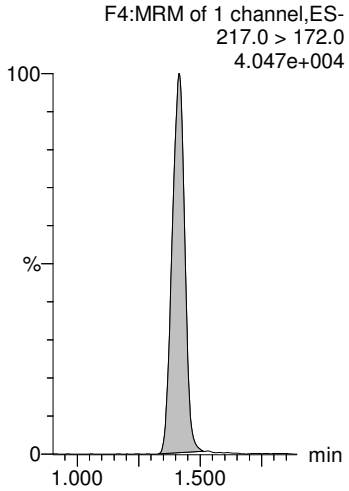
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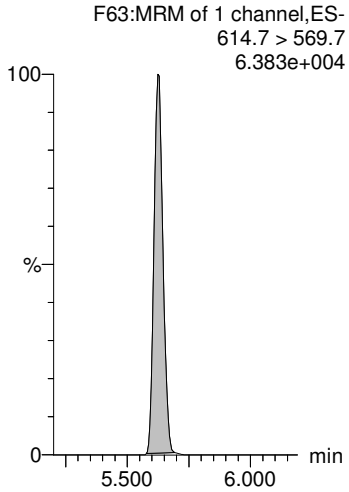
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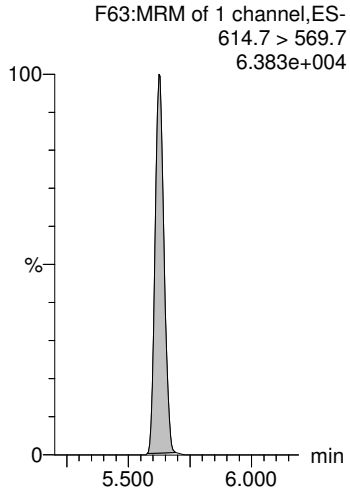
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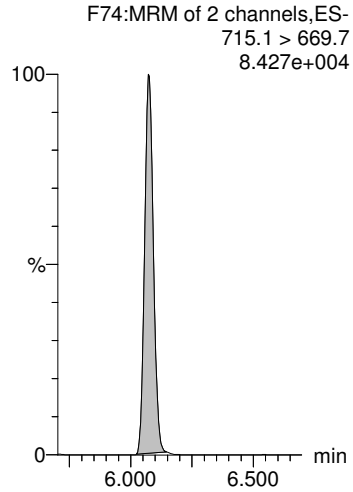
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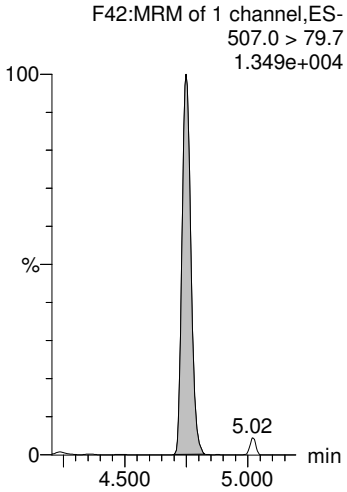
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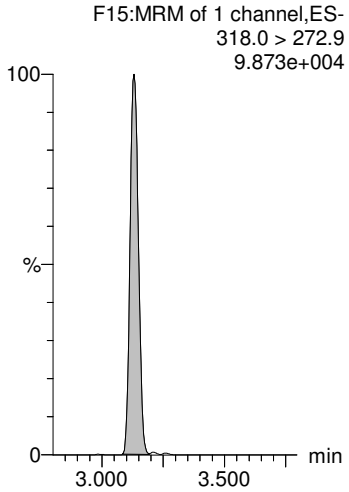
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



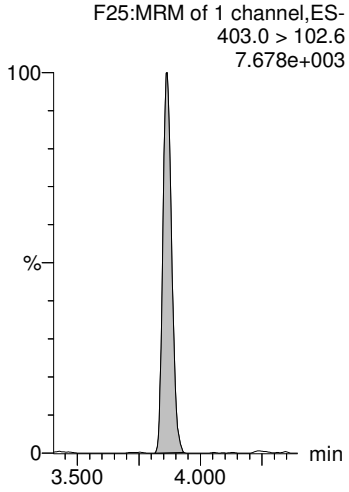
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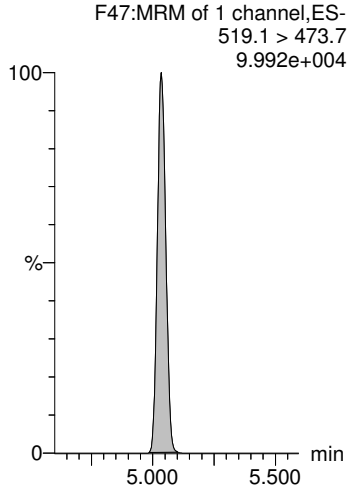
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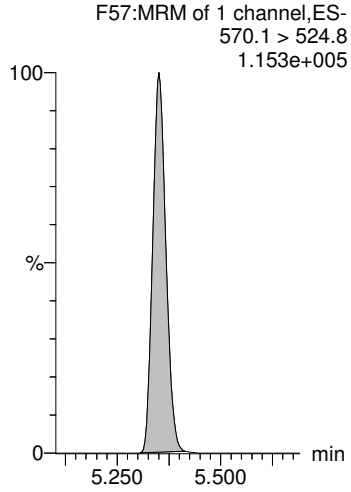
18O2-PFHxS



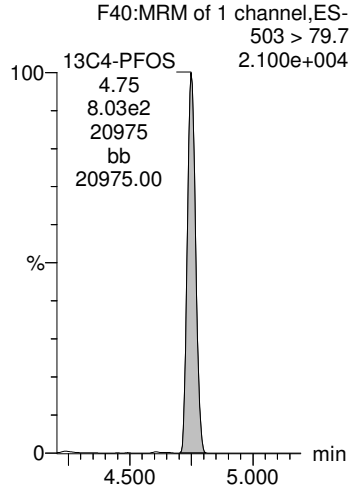
13C6-PFDA



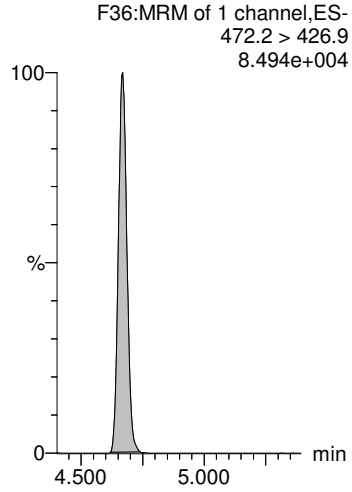
13C7-PFUdA



13C4-PFOS



13C9-PFNA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-57.qld

Last Altered: Saturday, February 29, 2020 09:40:17 Pacific Standard Time
Printed: Saturday, February 29, 2020 09:40:39 Pacific Standard Time

Name: 200226P1-57, Date: 27-Feb-2020, Time: 02:26:27, ID: 2000321-09@10X I003MW01S-20200213 0.25107, Description: I003MW01S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	RT	Response	Conc.	%Rec	Recov...	Ion Ratio	Ratio Out?
1	23	L-PFOS	498.9 > 79.7	80426.664	544.826	0.251		4.76	1845.237	7968.420		NO	2.337	NO
2	1...	Total PFOS	498.9 > 79.7	80426.664	544.826	0.251			1845.237	7968.420		NO		
3	1...	TDCA	498.3>106.9			0.251						NO		YES
4	71	13C8-PFOS-EIS	507.0 > 79.7	544.826		0.251	280.132	4.76	544.826	7.746	15.6	YES		
5	71	13C8-PFOS-EIS	507.0 > 79.7	544.826		0.251	280.132	4.76	544.826	7.746	15.6	YES		
6	71	13C8-PFOS-EIS	507.0 > 79.7	544.826		0.251	280.132	4.76	544.826	7.746	15.6	YES		
7	-1													
8	1...	13C4-PFOS	503 > 79.7	524.816	524.816	0.251	1.000	4.76	12.500	49.787	100.0	NO		
9	-1													

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MM 3/2/2020

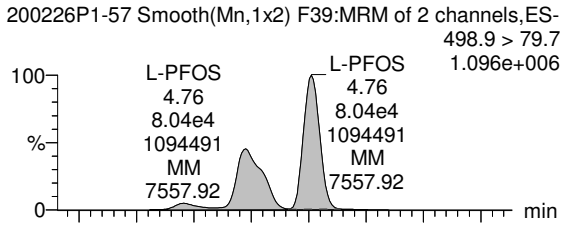
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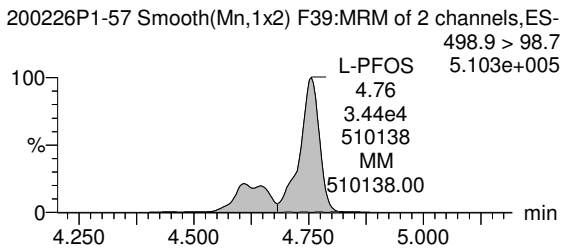
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Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

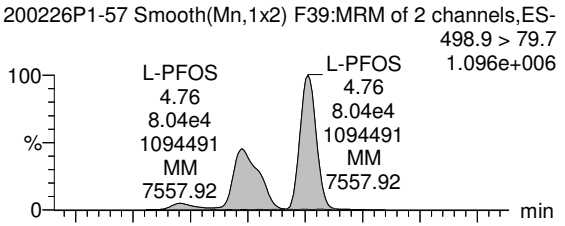
Name: 200226P1-57, Date: 27-Feb-2020, Time: 02:26:27, ID: 2000321-09@10X I003MW01S-20200213 0.25107, Description: I003MW01S-20200213

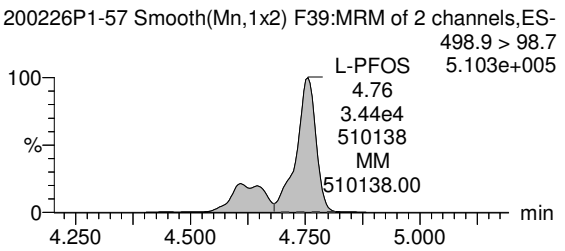
L-PFOS



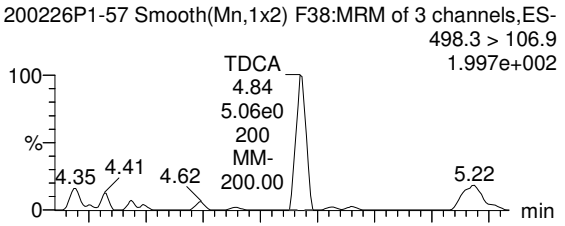


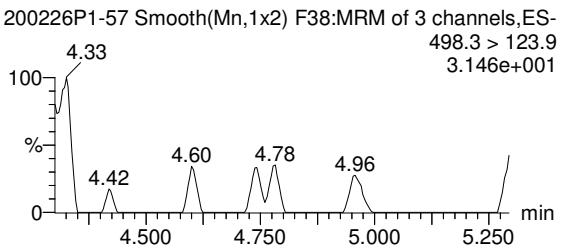
Total PFOS



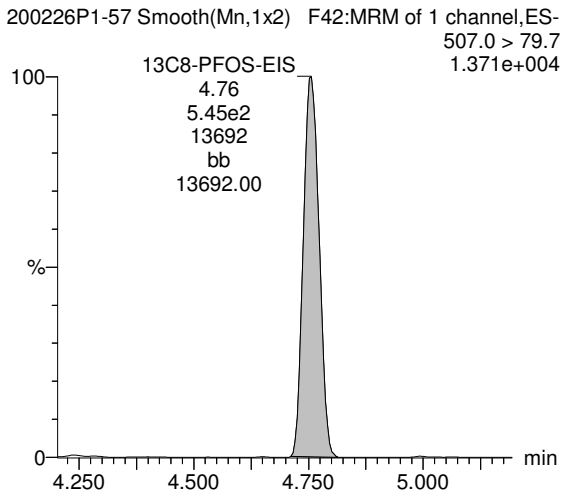


TDCA

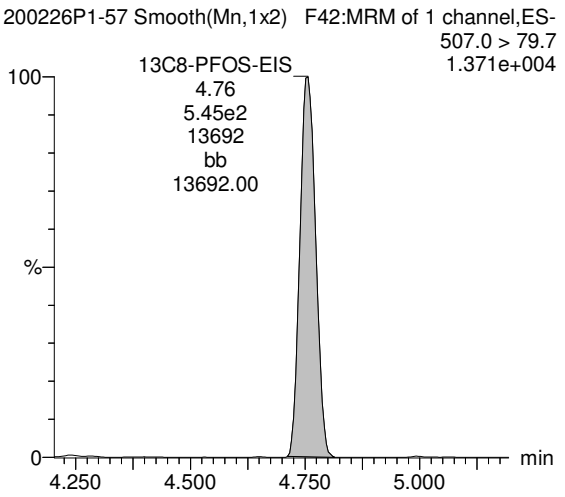




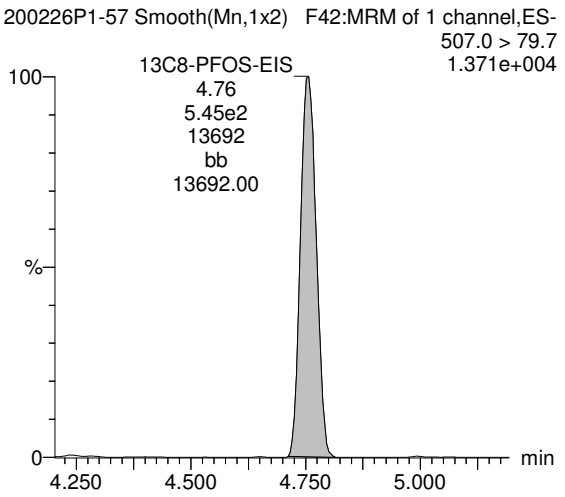
13C8-PFOS-EIS



13C8-PFOS-EIS



13C8-PFOS-EIS



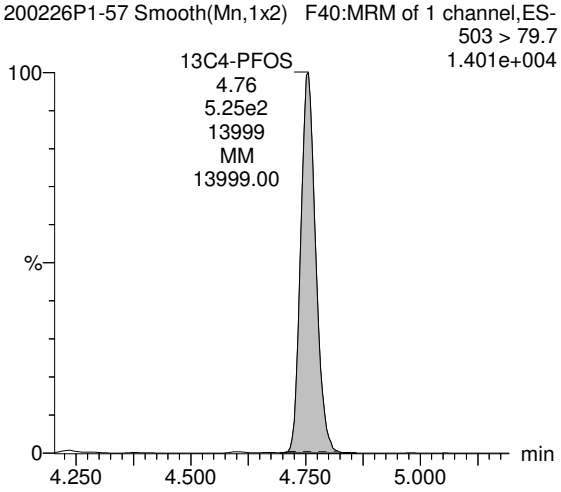
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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-57.qld

Last Altered: Saturday, February 29, 2020 09:40:17 Pacific Standard Time
Printed: Saturday, February 29, 2020 09:40:39 Pacific Standard Time

Name: 200226P1-57, Date: 27-Feb-2020, Time: 02:26:27, ID: 2000321-09@10X I003MW01S-20200213 0.25107, Description: I003MW01S-20200213

13C4-PFOS



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Dataset: P:\PFAS5.PRO\RESULTS\200229P1\200229P1-16UG.qld

Last Altered: Monday, March 02, 2020 14:16:43 Pacific Standard Time
Printed: Monday, March 02, 2020 14:18:08 Pacific Standard Time

*ug/L

Name: 200229P1-16, Date: 29-Feb-2020, Time: 18:02:31, ID: 2000321-09@20X I003MW01S-20200213 0.25107, Description: I003MW01S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	RT	Response	Conc.*	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	13	L-PFHxS	398.9 > 79.7	19225.188	37.329	0.251		3.78	6.438	23.9		NO	2.474	NO
2	1...	Total PFHxS	398.9 > 79.7	19225.188	37.329	0.251			6.438	23.9		NO		
3	16	L-PFOA	412.8 > 368.9	227729.234	631.010	0.251		4.15	4.511	14.1		NO	2.915	NO
4	1...	Total PFOA	412.8 > 368.9	227729.234	631.010	0.251			4.511	14.1		NO		
5	61	13C3-PFHxS-EIS	401.8 > 79.7	37.329		0.251	169.524	3.79	37.329	0.877	1761.6	YES		
6	61	13C3-PFHxS-EIS	401.8 > 79.7	37.329		0.251	169.524	3.79	37.329	0.877	1761.6	YES		
7	69	13C2-PFOA-EIS	414.9 > 369.7	631.010		0.251	1020.218	4.15	631.010	2.46	4948.0	YES		
8	69	13C2-PFOA-EIS	414.9 > 369.7	631.010		0.251	1020.218	4.15	631.010	2.46	4948.0	YES		
9	-1													
10	1...	18O2-PFHxS	403.0 > 102.6	22.514	22.514	0.251	1.000	3.78	0.013	0.0498	100.0	NO		
11	1...	13C8-PFOA	420.9 > 376.0	603.839	603.839	0.251	1.000	4.15	0.013	0.0498	100.0	NO		
12	-1													

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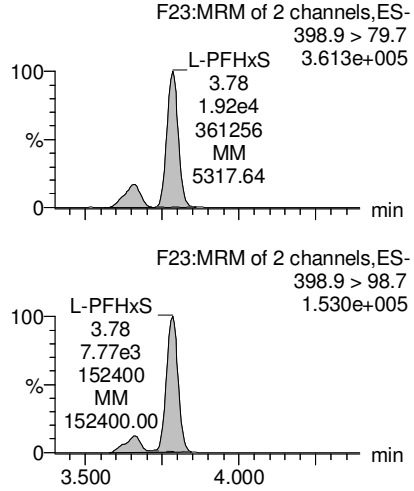
Dataset: P:\PFAS5.PRO\RESULTS\200229P1\200229P1-16UG.qld

Last Altered: Monday, March 02, 2020 14:16:43 Pacific Standard Time
Printed: Monday, March 02, 2020 14:18:08 Pacific Standard Time

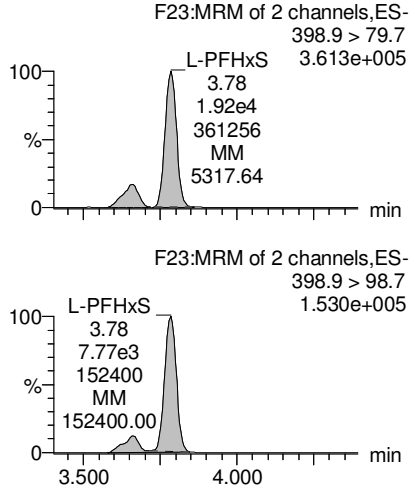
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Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Name: 200229P1-16, Date: 29-Feb-2020, Time: 18:02:31, ID: 2000321-09@20X I003MW01S-20200213 0.25107, Description: I003MW01S-20200213

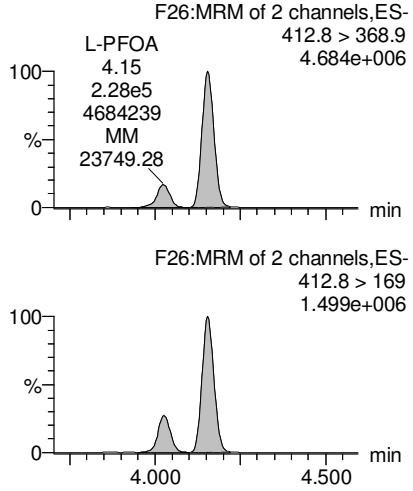
L-PFHxS



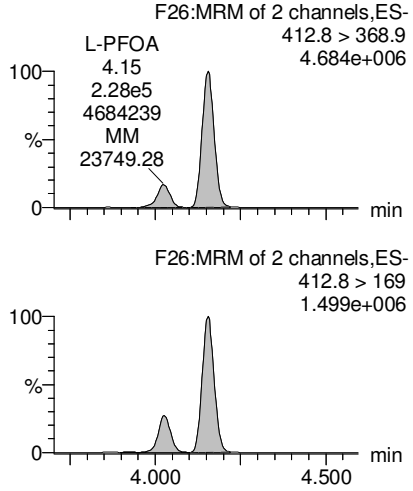
Total PFHxS



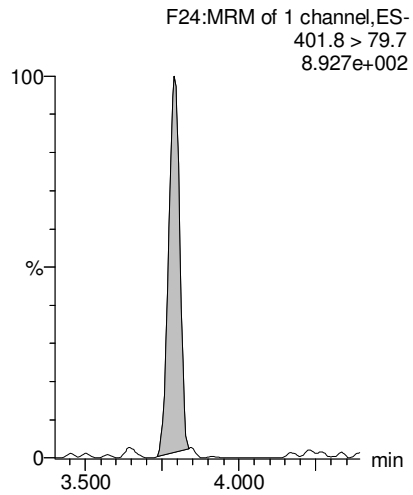
L-PFOA



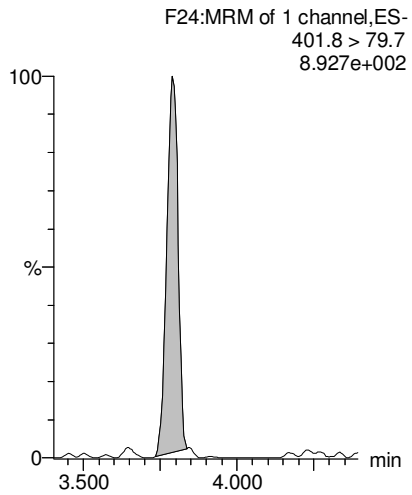
Total PFOA



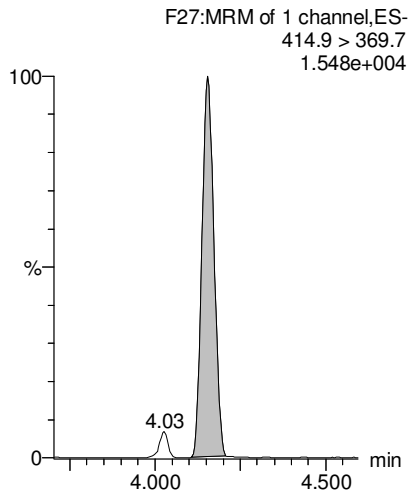
13C3-PFHxS-EIS



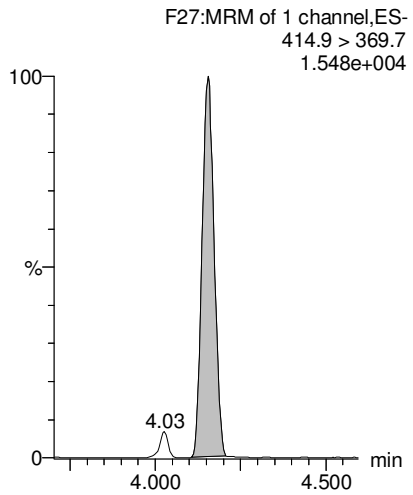
13C3-PFHxS-EIS



13C2-PFOA-EIS



13C2-PFOA-EIS

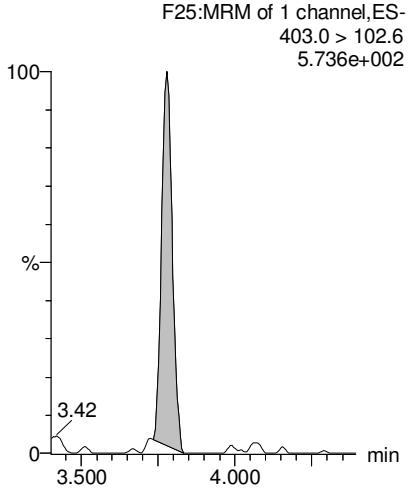


Dataset: P:\PFAS5.PRO\RESULTS\200229P1\200229P1-16UG.qld

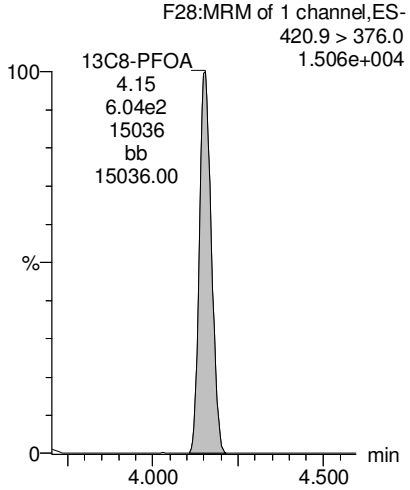
Last Altered: Monday, March 02, 2020 14:16:43 Pacific Standard Time
Printed: Monday, March 02, 2020 14:18:08 Pacific Standard Time

Name: 200229P1-16, Date: 29-Feb-2020, Time: 18:02:31, ID: 2000321-09@20X I003MW01S-20200213 0.25107, Description: I003MW01S-20200213

18O2-PFHxS



13C8-PFOA



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-58.qld

Last Altered: Saturday, February 29, 2020 09:49:27 Pacific Standard Time
Printed: Saturday, February 29, 2020 09:56:28 Pacific Standard Time

*See dilution

**See ug/L

Name: 200226P1-58, Date: 27-Feb-2020, Time: 02:36:57, ID: 2000321-10 I003MW15S-20200213 0.24522, Description: I003MW15S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.		%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	2.38e4	1.29e3	0.245		2.63	2.63	232	389.6583			3.077	NO
2	7	PFHxA	313.0 > 269.0	7.52e5	1.67e4	0.245		3.14	3.14	563	2620.7637	E*		17.564	NO
3	9	HFPO-DA	285.1 > 168.9		3.14e3	0.245		3.35							YES
4	11	PFHpA	363.0 > 318.9	1.67e5	1.25e4	0.245		3.73	3.73	167	562.2294			34.334	NO
5	12	ADONA	376.8 > 250.9		1.25e4	0.245		3.83							YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.29e3		0.245	109.364	2.66	2.63	1290	47.9691		94.1		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.67e4		0.245	1741.311	3.14	3.14	16700	39.0670		76.6		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3.14e3		0.245	306.753	3.39	3.35	3140	41.7085		81.8		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.25e4		0.245	1144.853	3.74	3.73	12500	44.5560		87.4		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.25e4		0.245	1144.853	3.74	3.73	12500	44.5560		87.4		
11	-1														
12	13	L-PFHxS	398.9 > 79.7	1.09e5	2.51e3	0.245		3.87	3.87	544	**			2.352	NO
13	1...	Total PFHxS	398.9 > 79.7	1.09e5	2.51e3	0.245		3.93		0.000					
14	16	L-PFOA	412.8 > 368.9	1.38e6	1.42e4	0.245		4.24	4.24	1210	5856.6823	E*		2.798	NO
15	1...	Total PFOA	412.8 > 368.9	1.38e6	1.42e4	0.245		4.60		1210	5856.6823				
16	21	PFNA	463.0 > 418.8	9.32e3	1.49e4	0.245		4.67	4.68	7.82	29.9080			7.224	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.51e3		0.245	232.268	3.87	3.87	2510	44.1547		86.6		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.51e3		0.245	232.268	3.87	3.87	2510	44.1547		86.6		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.42e4		0.245	1568.416	4.24	4.24	14200	36.9002		72.4		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.42e4		0.245	1568.416	4.24	4.24	14200	36.9002		72.4		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.49e4		0.245	1457.036	4.67	4.67	14900	41.7016		81.8		
22	-1														
23	23	L-PFOS	498.9 > 79.7	1.36e5	2.79e3	0.245		4.75	4.76	609	2533.6428	E*		2.184	NO
24	1...	Total PFOS	498.9 > 79.7	1.36e5	2.79e3	0.245		4.61		609	2533.6428				
25	25	9Cl-PF30NS	530.7 > 350.8		2.79e3	0.245		4.96							YES
26	26	PFDA	513 > 468.8	3.22e3	1.73e4	0.245		5.04	5.04	2.33	8.4020			10.931	NO
27	33	PFUdA	563.0 > 518.9		1.52e4	0.245		5.35							YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	2.79e3		0.245	280.132	4.75	4.75	2790	40.5779		79.6		
29	71	13C8-PFOS-EIS	507.0 > 79.7	2.79e3		0.245	280.132	4.75	4.75	2790	40.5779		79.6		
30	71	13C8-PFOS-EIS	507.0 > 79.7	2.79e3		0.245	280.132	4.75	4.75	2790	40.5779		79.6		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.73e4		0.245	1595.945	5.04	5.04	17300	44.1224		86.6		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.52e4		0.245	1626.273	5.35	5.35	15200	38.1544		74.8		
33	-1														
34	29	L-MeFOSAA	570 > 419		4.88e3	0.245		5.19							YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	4.88e3	0.245		5.19		0.000					
36	31	L-EtFOSAA	584.1 > 419		5.26e3	0.245		5.34							YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-58.qld

Last Altered: Saturday, February 29, 2020 09:49:27 Pacific Standard Time
Printed: Saturday, February 29, 2020 09:56:28 Pacific Standard Time

Name: 200226P1-58, Date: 27-Feb-2020, Time: 02:36:57, ID: 2000321-10 I003MW15S-20200213 0.24522, Description: I003MW15S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	5.26e3	0.245		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		1.03e4	0.245		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.88e3		0.245	397.776	5.18	5.19	4880	49.9836	98.1		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.88e3		0.245	397.776	5.18	5.19	4880	49.9836	98.1		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	5.26e3		0.245	488.229	5.32	5.34	5260	43.9751	86.3		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	5.26e3		0.245	488.229	5.32	5.34	5260	43.9751	86.3		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.03e4		0.245	1456.575	5.62	5.63	10300	28.9486	56.8		
44	-1													
45	37	PFDoA	612.9 > 569.0		1.03e4	0.245		5.63						YES
46	39	PFTrDA	662.9 > 618.9		1.03e4	0.245		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.50e4	0.245		6.07						YES
48	1...	TDCA	498.3>106.9			0.245		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	1.08e4	1.08e4	0.245	1.000	1.42	1.43	12.5	50.9746	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.03e4		0.245	1456.575	5.62	5.63	10300	28.9486	56.8		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.03e4		0.245	1456.575	5.62	5.63	10300	28.9486	56.8		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.50e4		0.245	1697.796	6.06	6.07	15000	36.1456	70.9		
53	71	13C8-PFOS-EIS	507.0 > 79.7	2.79e3		0.245	280.132	4.75	4.75	2790	40.5779	79.6		
54	1...	13C5-PFHxA	318.0 > 272.9	1.72e4	1.72e4	0.245	1.000	3.12	3.14	12.5	50.9746	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.21e3	1.21e3	0.245	1.000	3.86	3.87	12.5	50.9746	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.70e4	1.70e4	0.245	1.000	5.03	5.04	12.5	50.9746	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.71e4	1.71e4	0.245	1.000	5.34	5.35	12.5	50.9746	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.28e3	3.28e3	0.245	1.000	4.74	4.75	12.5	50.9746	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.66e4	1.66e4	0.245	1.000	4.66	4.67	12.5	50.9746	100.0		

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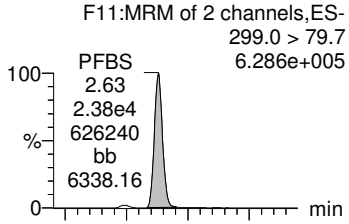
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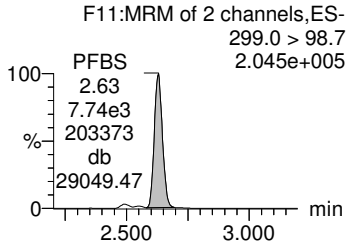
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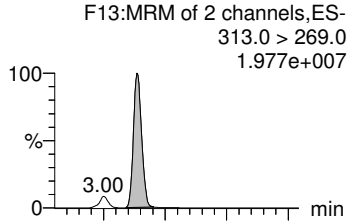
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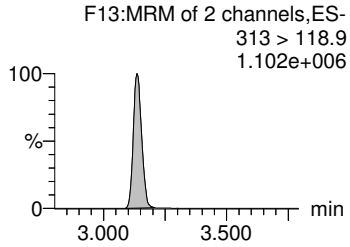
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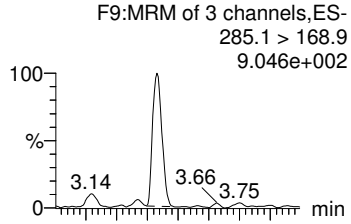


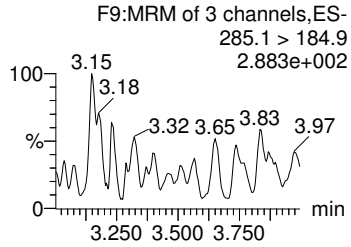
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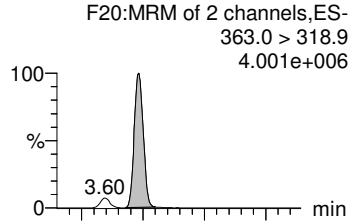


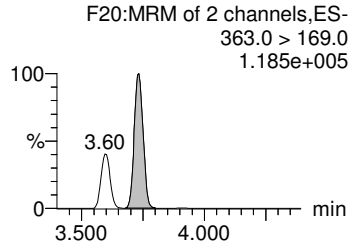
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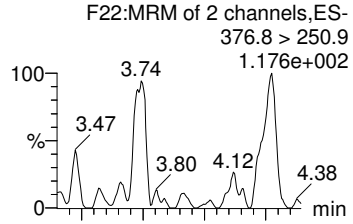


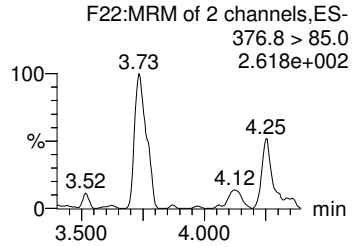
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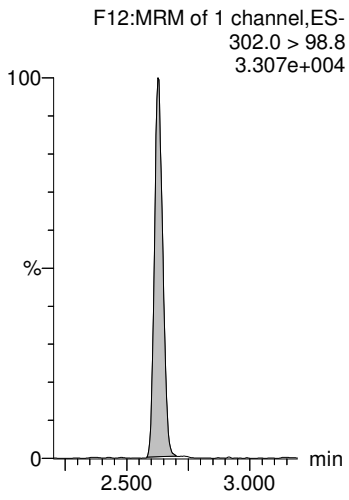


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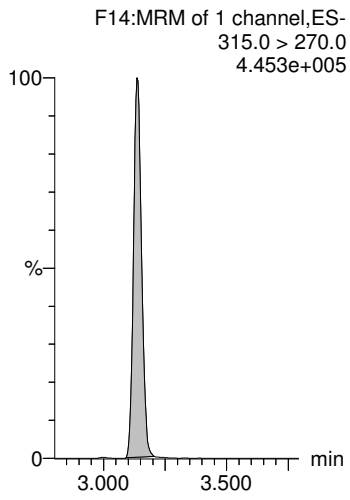




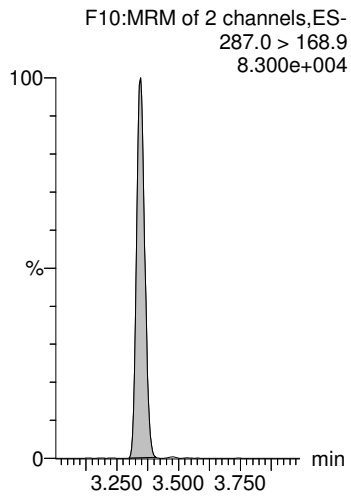
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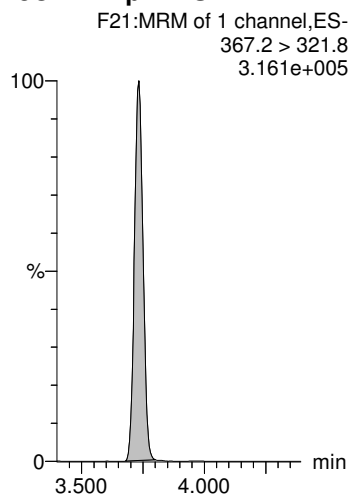
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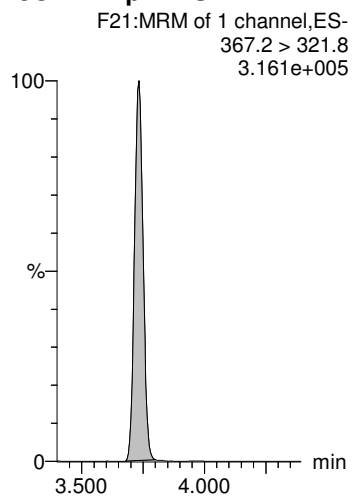
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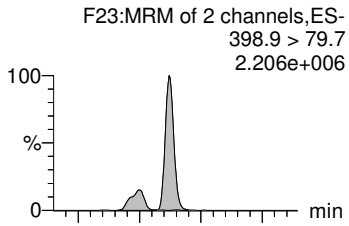


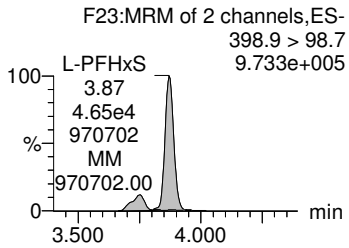
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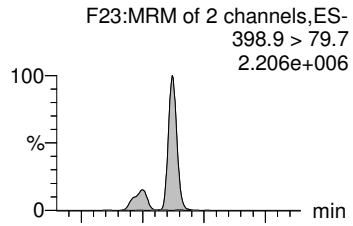
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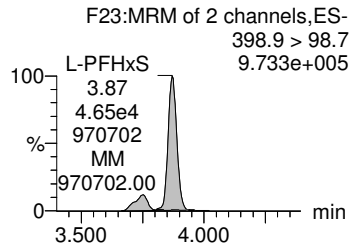
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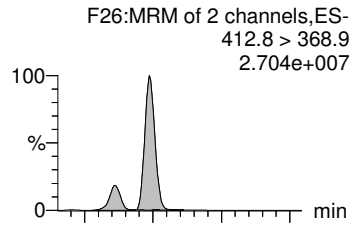


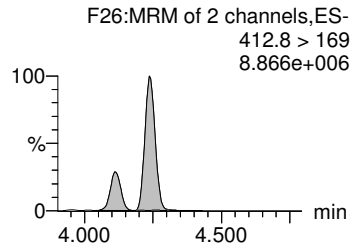
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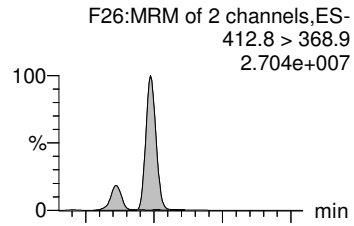


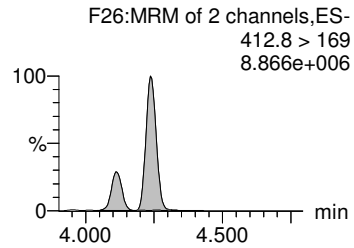
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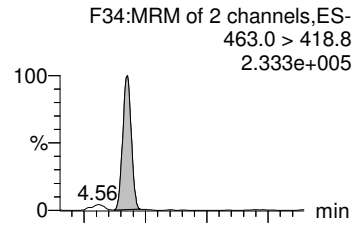


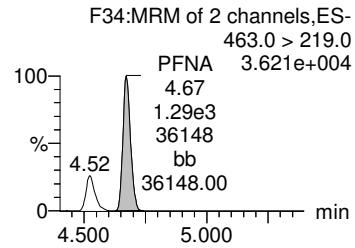
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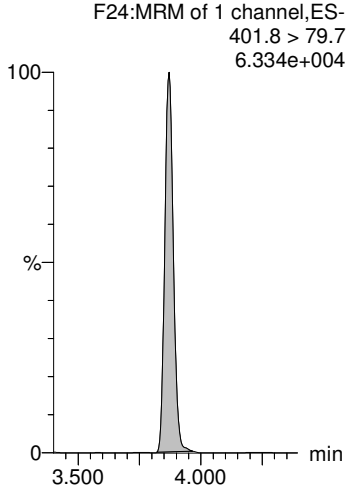


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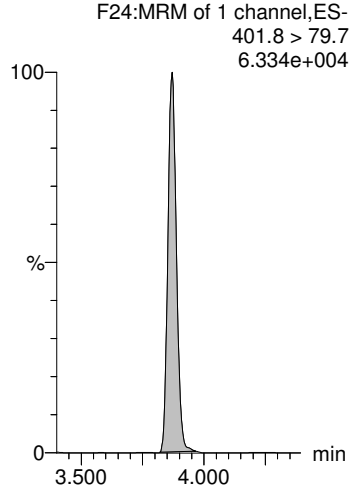




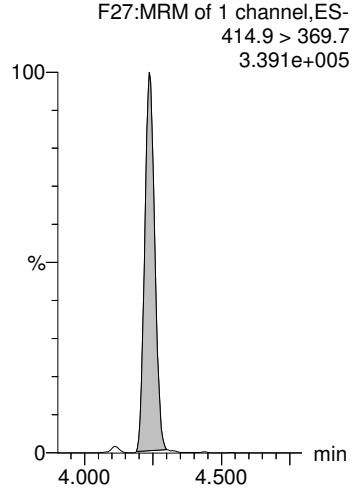
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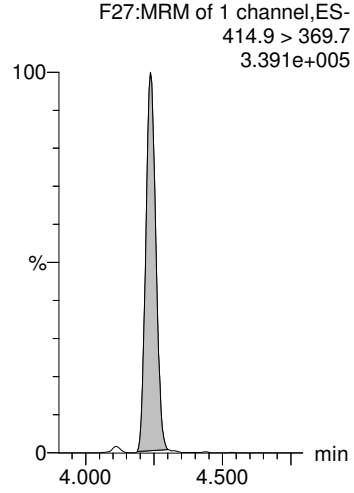
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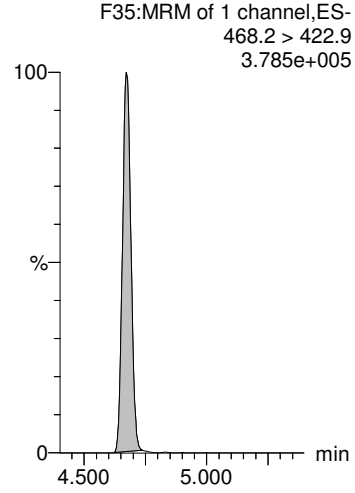
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13C2-PFOA-EIS



13C5-PFNA-EIS



Vista Analytical Laboratory L18

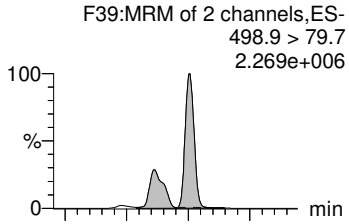
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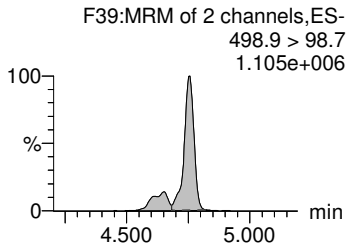
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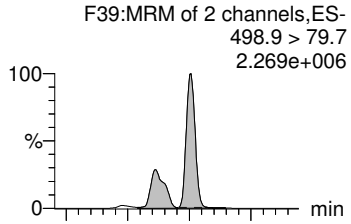
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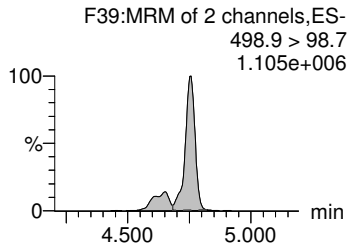
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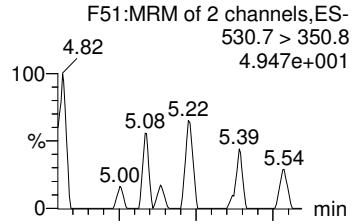


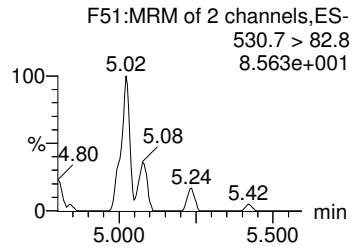
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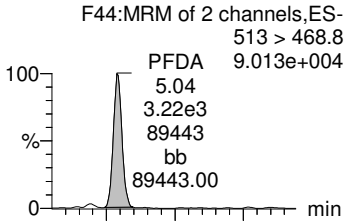


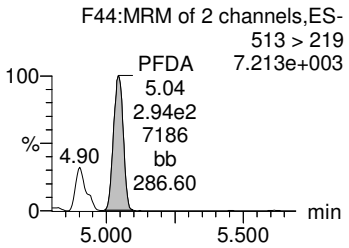
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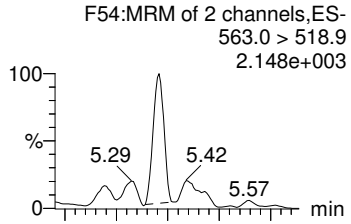


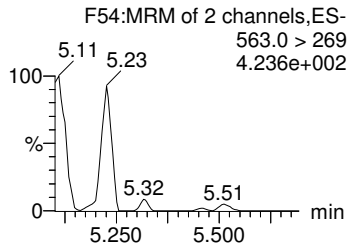
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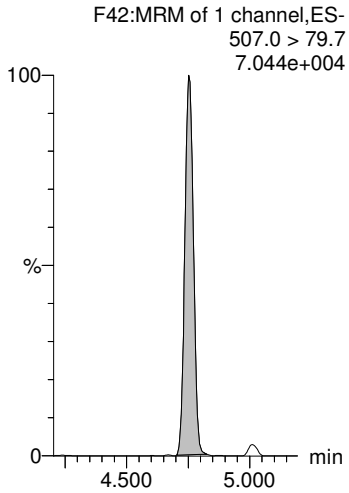


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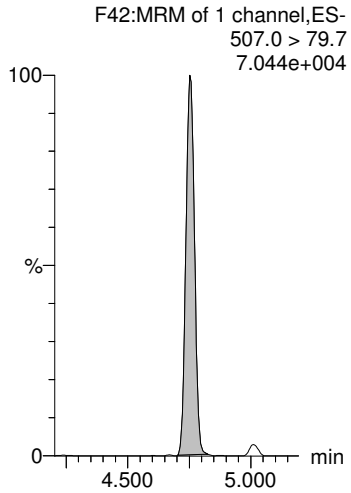




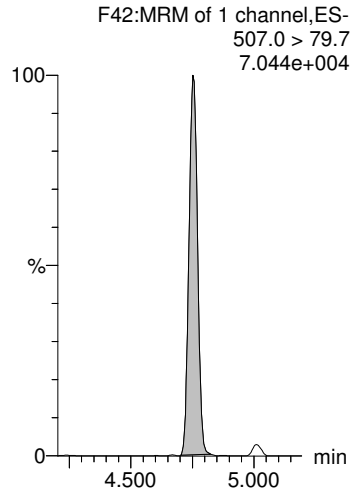
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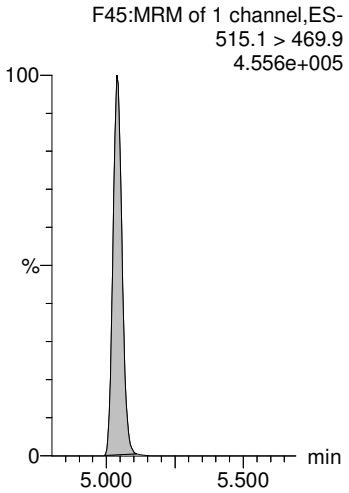
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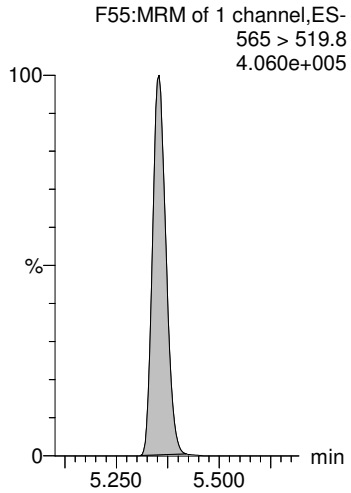
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13C2-PFDA-EIS



13C2-PFUdA-EIS



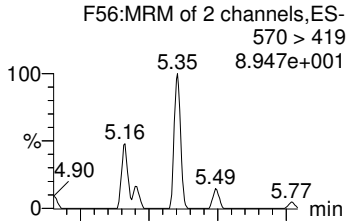
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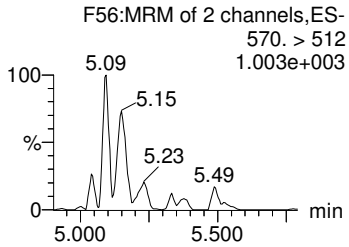
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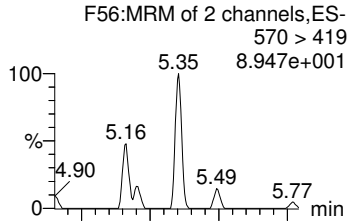
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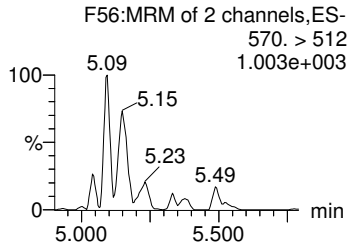
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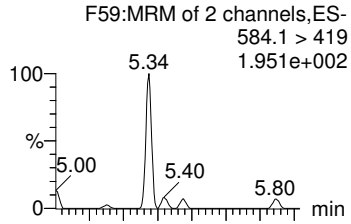


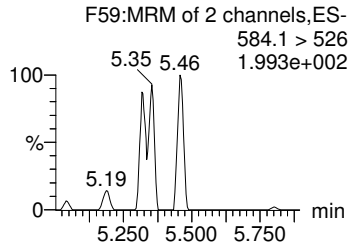
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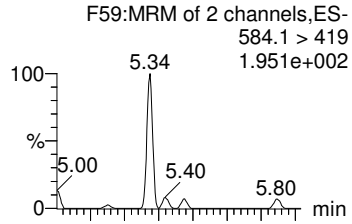


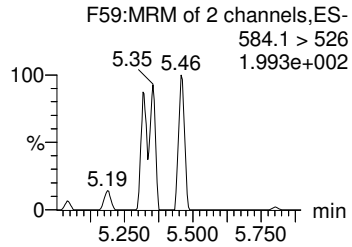
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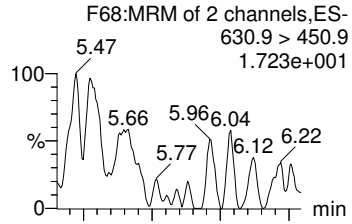


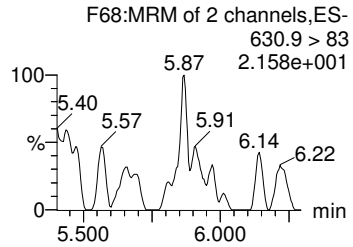
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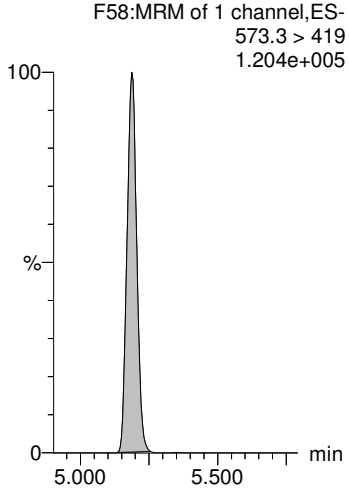


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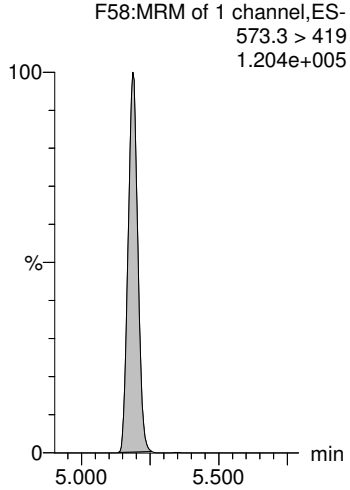




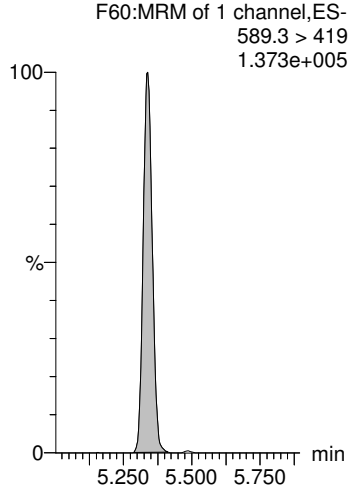
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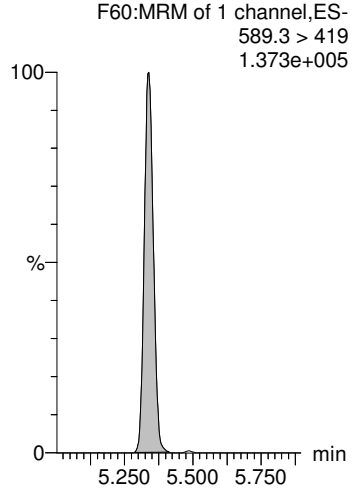
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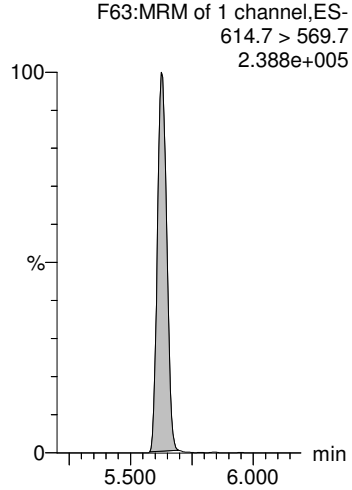
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS

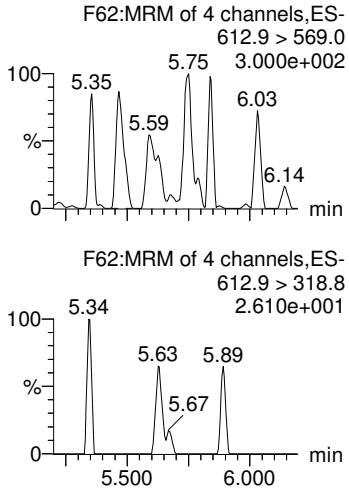


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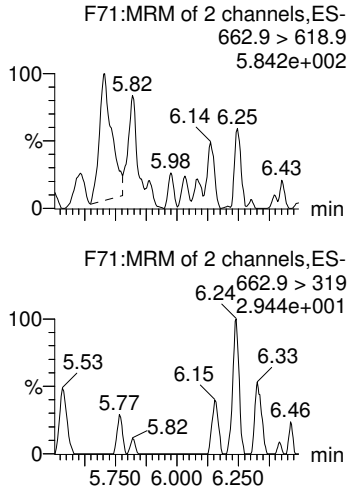
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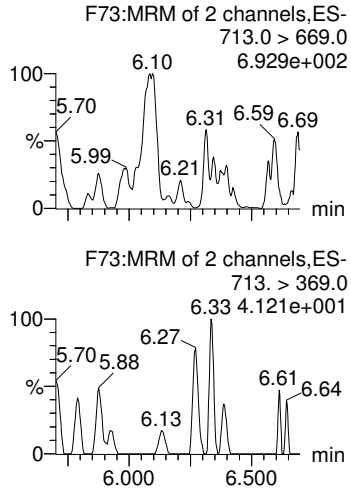
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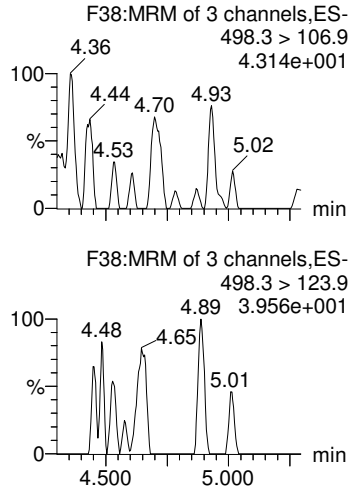
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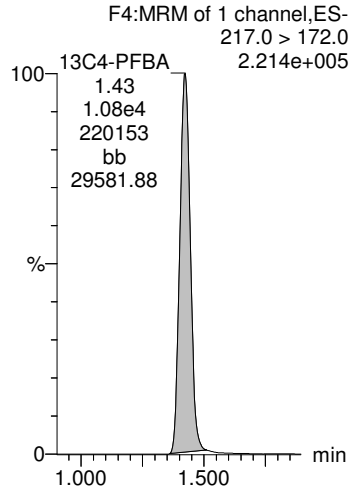
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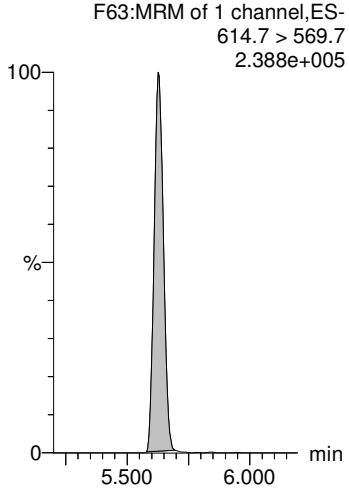
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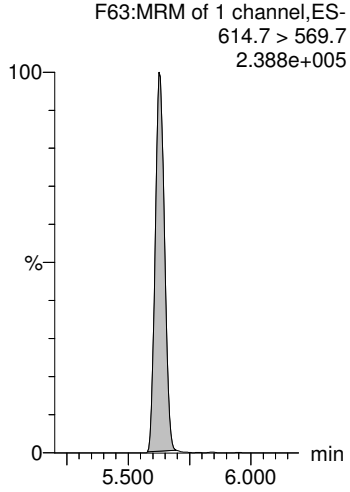
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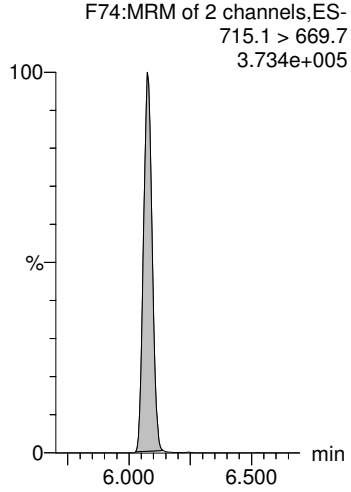
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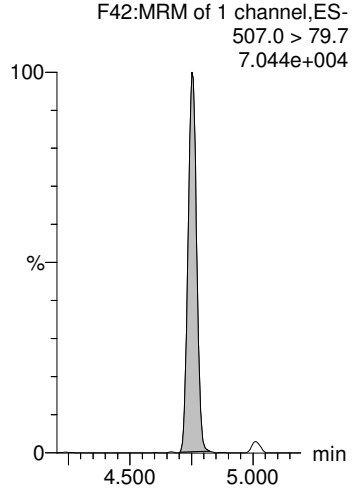
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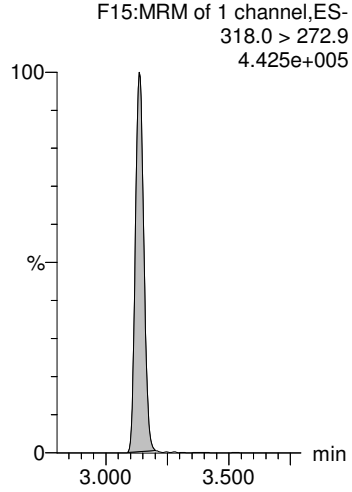
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13C8-PFOS-EIS



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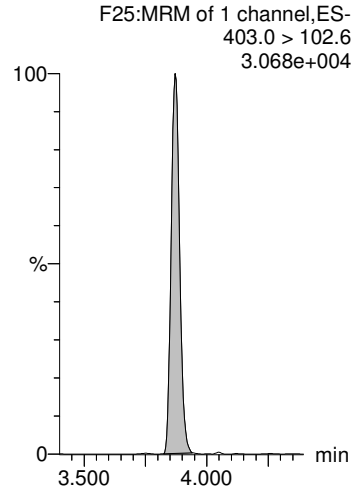
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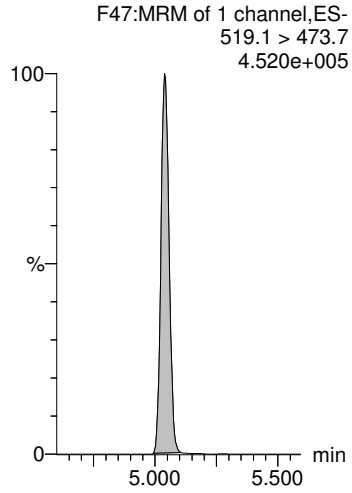
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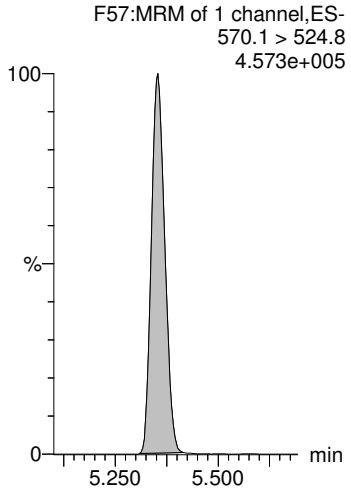
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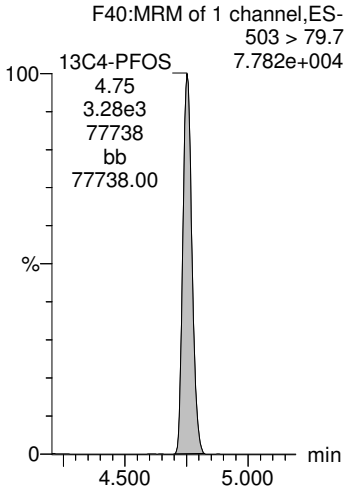
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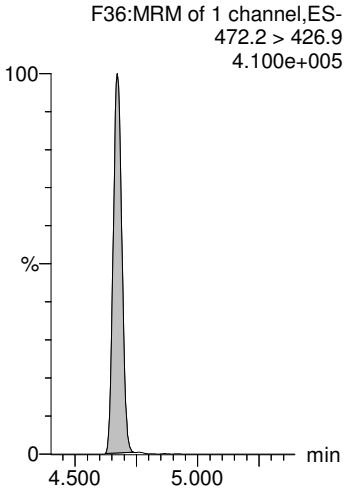
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13C4-PFOS



13C9-PFNA



GM 2/29/2020

Vista Analytical Laboratory

OC 3/2/2020

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Name: 200225P1-55, Date: 26-Feb-2020, Time: 03:25:58, ID: 2000321-10@5X I003MW15S-20200213 0.24522, Description: I003MW15S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	7	PFHxA	313.0 > 269.0	169394.328	3913.548	0.245		3.13	541.051	2470.0		NO	17.506	NO
2	13	L-PFHxS	398.9 > 79.7	25290.262	536.849	0.245		3.86	588.859	2356.7		NO	2.402	NO
3	1...	Total PFHxS	398.9 > 79.7	25290.262	536.849	0.245			588.859	2356.7		NO		
4	16	L-PFOA	412.8 > 368.9	318178.469	3503.340	0.245		4.23	1135.268	4918.5		NO	2.725	NO
5	1...	Total PFOA	412.8 > 368.9	318178.469	3503.340	0.245			1135.268	4918.5		NO		
6	57	13C2-PFHxA-EIS	315.0 > 270.0	3913.548		0.245	1794.782	3.13	3913.548	8.9	17.4	YES		
7	61	13C3-PFHxS-EIS	401.8 > 79.7	536.849		0.245	273.316	3.86	536.849	8.0	15.7	YES		
8	61	13C3-PFHxS-EIS	401.8 > 79.7	536.849		0.245	273.316	3.86	536.849	8.0	15.7	YES		
9	69	13C2-PFOA-EIS	414.9 > 369.7	3503.340		0.245	1593.567	4.23	3503.340	9.0	17.6	YES		
10	69	13C2-PFOA-EIS	414.9 > 369.7	3503.340		0.245	1593.567	4.23	3503.340	9.0	17.6	YES		
11	-1													
12	23	L-PFOS	498.9 > 79.7	29042.510	658.482	0.245		4.75	551.316	2420.2		NO	2.197	NO
13	1...	Total PFOS	498.9 > 79.7	29042.510	658.482	0.245			551.316	2420.2		NO		
14	1...	13C5-PFHxA	318.0 > 272.9	4068.905	4068.905	0.245	1.000	3.13	12.500	51.0	100.0	NO		
15	1...	18O2-PFHxS	403.0 > 102.6	269.363	269.363	0.245	1.000	3.86	12.500	51.0	100.0	NO		
16	1...	13C8-PFOA	420.9 > 376.0	3911.692	3911.692	0.245	1.000	4.23	12.500	51.0	100.0	NO		
17	71	13C8-PFOS-EIS	507.0 > 79.7	658.482		0.245	291.759	4.75	658.482	9.2	18.1	YES		
18	71	13C8-PFOS-EIS	507.0 > 79.7	658.482		0.245	291.759	4.75	658.482	9.2	18.1	YES		
19	1...	13C4-PFOS	503 > 79.7	720.136	720.136	0.245	1.000	4.75	12.500	51.0	100.0	NO		
20	-1													

GM 3/2/2020

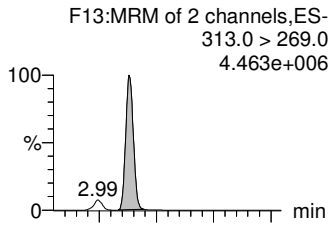
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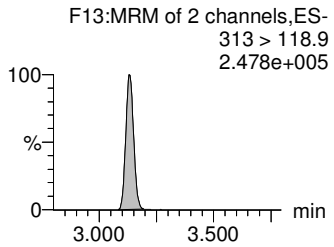
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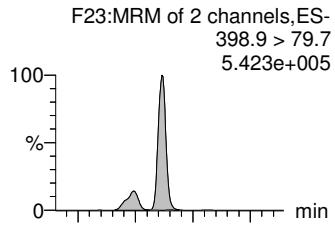
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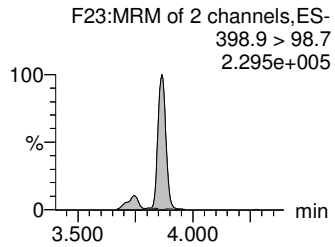
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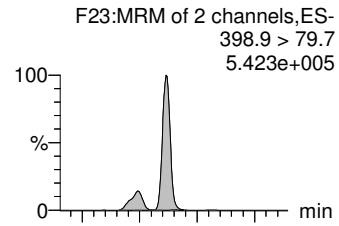


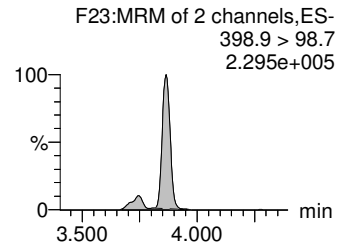
L-PFHxS



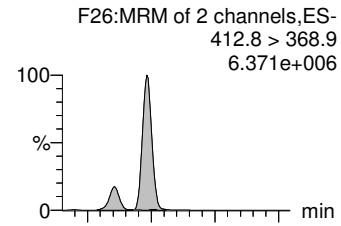


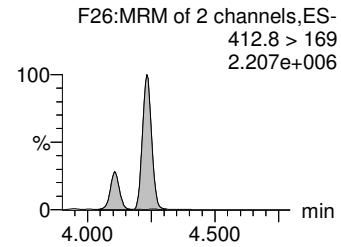
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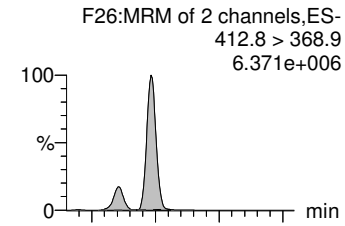


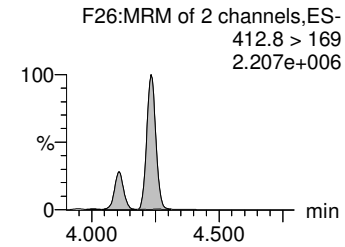
L-PFOA



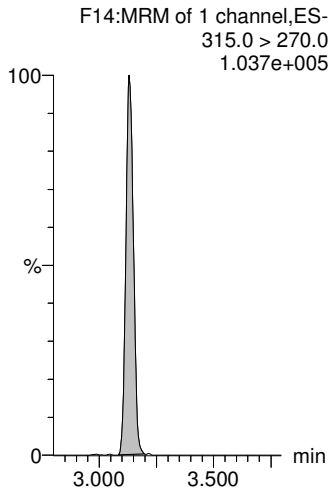


Total PFOA

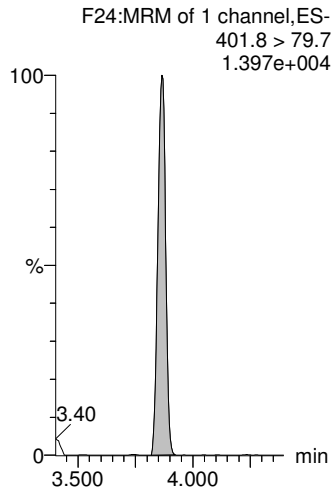




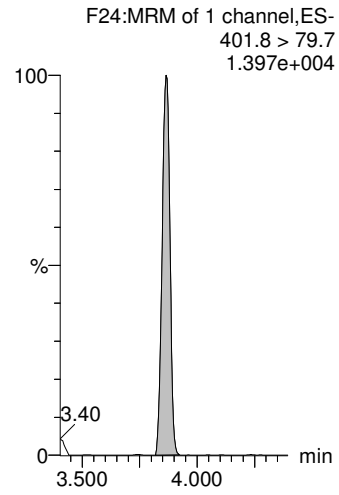
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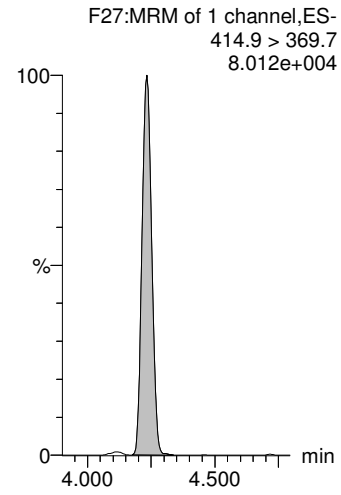
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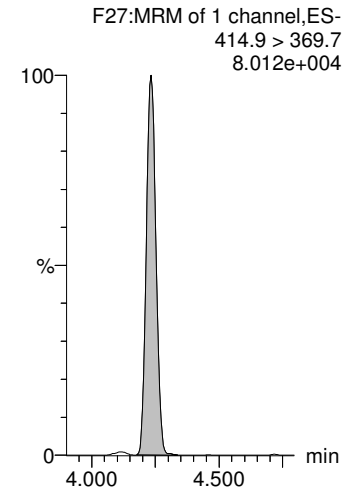
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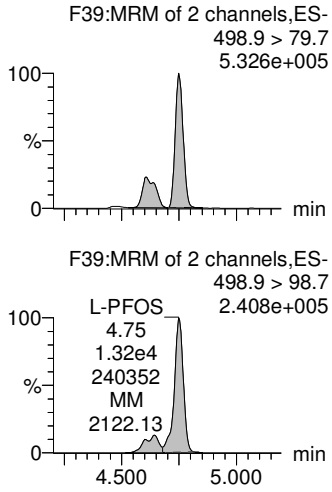


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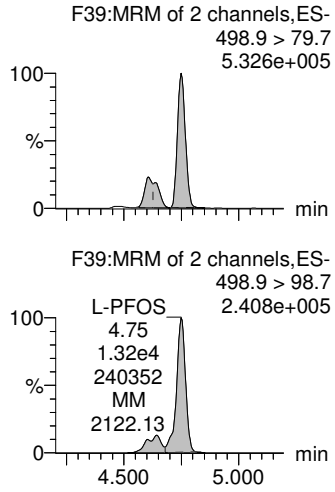
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Printed: Monday, March 02, 2020 16:37:18 Pacific Standard Time

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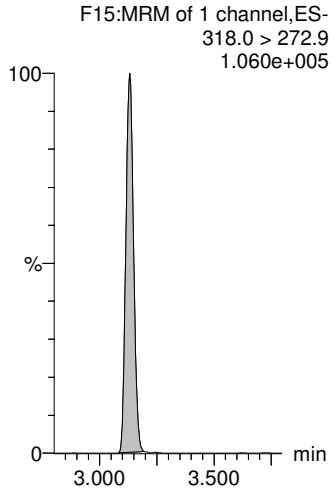
L-PFOS



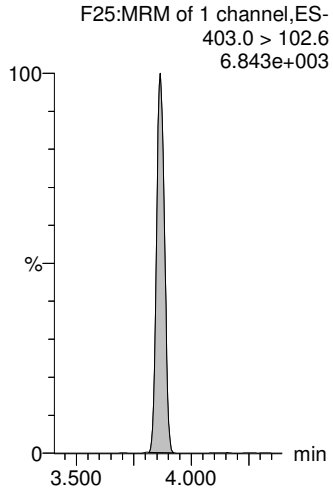
Total PFOS



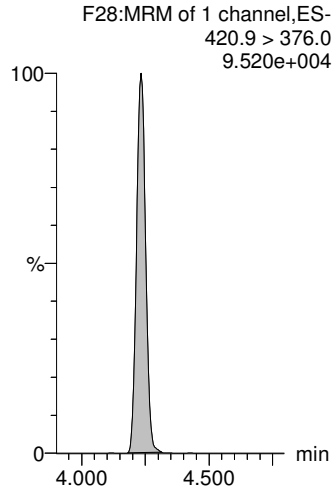
13C5-PFHxA



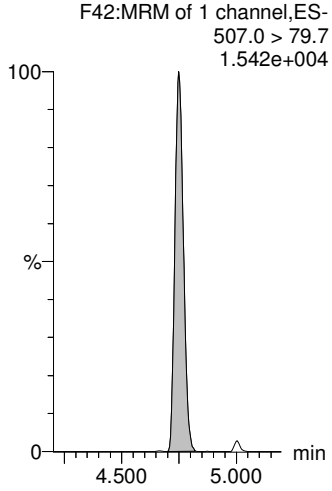
18O2-PFHxS



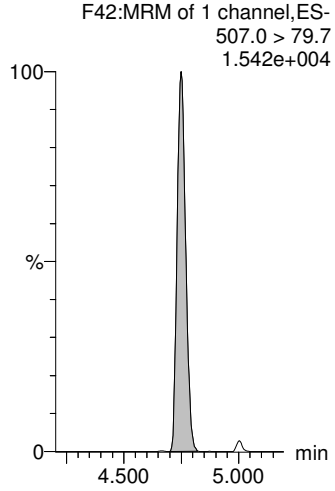
13C8-PFOA



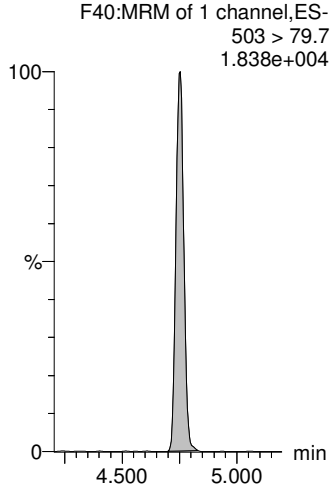
13C8-PFOS-EIS



13C8-PFOS-EIS



13C4-PFOS



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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-60.qld

*See dilution
**See ug/L

Last Altered: Saturday, February 29, 2020 09:52:24 Pacific Standard Time
Printed: Saturday, February 29, 2020 09:52:56 Pacific Standard Time

Name: 200226P1-60, Date: 27-Feb-2020, Time: 02:57:58, ID: 2000321-11 I003MW02S-20200213 0.24704, Description: I003MW02S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.		%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	2.08e4	1.20e3	0.247		2.63	2.63	216	360.3838			3.114	NO
2	7	PFHxA	313.0 > 269.0	4.03e5	1.60e4	0.247		3.14	3.14	314	1413.7960			17.565	NO
3	9	HFPO-DA	285.1 > 168.9		2.94e3	0.247		3.35							YES
4	11	PFHpA	363.0 > 318.9	8.58e4	1.18e4	0.247		3.73	3.73	91.1	300.2100			33.152	NO
5	12	ADONA	376.8 > 250.9		1.18e4	0.247		3.83							YES
6	51	13C3-PFBS-EIS	302.0 > 98.8	1.20e3		0.247	109.364	2.66	2.63	1200	44.5054		88.0		
7	57	13C2-PFHxA-EIS	315.0 > 270.0	1.60e4		0.247	1741.311	3.14	3.14	16000	37.3007		73.7		
8	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2.94e3		0.247	306.753	3.39	3.35	2940	38.8576		76.8		
9	59	13C4-PFHpA-EIS	367.2 > 321.8	1.18e4		0.247	1144.853	3.74	3.73	11800	41.6056		82.2		
10	59	13C4-PFHpA-EIS	367.2 > 321.8	1.18e4		0.247	1144.853	3.74	3.73	11800	41.6056		82.2		
11	-1														
12	13	L-PFHxS	398.9 > 79.7	8.13e4	2.46e3	0.247		3.87	3.87	413	**			2.529	NO
13	1...	Total PFHxS	398.9 > 79.7	8.13e4	2.46e3	0.247		3.93		0.000					
14	16	L-PFOA	412.8 > 368.9	7.22e5	1.42e4	0.247		4.24	4.24	638	2543.6897	E*		2.714	NO
15	1...	Total PFOA	412.8 > 368.9	7.22e5	1.42e4	0.247		4.60		638	2543.6897				
16	21	PFNA	463.0 > 418.8	3.72e3	1.51e4	0.247		4.68	4.68	3.07	11.4301			8.635	NO
17	61	13C3-PFHxS-EIS	401.8 > 79.7	2.46e3		0.247	232.268	3.87	3.87	2460	42.9181		84.8		
18	61	13C3-PFHxS-EIS	401.8 > 79.7	2.46e3		0.247	232.268	3.87	3.87	2460	42.9181		84.8		
19	69	13C2-PFOA-EIS	414.9 > 369.7	1.42e4		0.247	1568.416	4.24	4.24	14200	36.5251		72.2		
20	69	13C2-PFOA-EIS	414.9 > 369.7	1.42e4		0.247	1568.416	4.24	4.24	14200	36.5251		72.2		
21	65	13C5-PFNA-EIS	468.2 > 422.9	1.51e4		0.247	1457.036	4.68	4.68	15100	42.0793		83.2		
22	-1														
23	23	L-PFOS	498.9 > 79.7	3.52e4	2.97e3	0.247		4.76	4.76	148	599.1128			2.290	NO
24	1...	Total PFOS	498.9 > 79.7	3.52e4	2.97e3	0.247		4.61		148	599.1128				
25	25	9Cl-PF30NS	530.7 > 350.8		2.97e3	0.247		4.96							YES
26	26	PFDA	513 > 468.8	2.38e2	1.57e4	0.247		5.04	5.04	0.189	0.4375			18.594	YES
27	33	PFUdA	563.0 > 518.9		1.45e4	0.247		5.35							YES
28	71	13C8-PFOS-EIS	507.0 > 79.7	2.97e3		0.247	280.132	4.76	4.76	2970	42.9561		84.9		
29	71	13C8-PFOS-EIS	507.0 > 79.7	2.97e3		0.247	280.132	4.76	4.76	2970	42.9561		84.9		
30	71	13C8-PFOS-EIS	507.0 > 79.7	2.97e3		0.247	280.132	4.76	4.76	2970	42.9561		84.9		
31	73	13C2-PFDA-EIS	515.1 > 469.9	1.57e4		0.247	1595.945	5.04	5.04	15700	39.9205		78.9		
32	79	13C2-PFUdA-EIS	565 > 519.8	1.45e4		0.247	1626.273	5.35	5.35	14500	36.1141		71.4		
33	-1														
34	29	L-MeFOSAA	570 > 419		4.19e3	0.247		5.19							YES
35	1...	Total N-MeFOSAA	570. > 419	0.00e0	4.19e3	0.247		5.19		0.000					
36	31	L-EtFOSAA	584.1 > 419		4.26e3	0.247		5.34							YES

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Dataset: P:\PFAS5.PRO\RESULTS\200226P1\200226P1-60.qld

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Printed: Saturday, February 29, 2020 09:52:56 Pacific Standard Time

Name: 200226P1-60, Date: 27-Feb-2020, Time: 02:57:58, ID: 2000321-11 I003MW02S-20200213 0.24704, Description: I003MW02S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	1...	Total N-EtFOSAA	584.1 > 419	0.00e0	4.26e3	0.247		5.37		0.000				
38	35	11Cl-PF30UdS	630.9 > 450.9		1.16e4	0.247		5.56						YES
39	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.19e3		0.247	397.776	5.18	5.19	4190	42.6498	84.3		
40	77	d3-N-MeFOSAA-EIS	573.3 > 419	4.19e3		0.247	397.776	5.18	5.19	4190	42.6498	84.3		
41	81	d5-N-EtFOSAA-EIS	589.3 > 419	4.26e3		0.247	488.229	5.33	5.34	4260	35.3084	69.8		
42	81	d5-N-EtFOSAA-EIS	589.3 > 419	4.26e3		0.247	488.229	5.33	5.34	4260	35.3084	69.8		
43	83	13C2-PFDoA-EIS	614.7 > 569.7	1.16e4		0.247	1456.575	5.62	5.63	11600	32.1938	63.6		
44	-1													
45	37	PFDoA	612.9 > 569.0		1.16e4	0.247		5.63						YES
46	39	PFTrDA	662.9 > 618.9		1.16e4	0.247		5.88						YES
47	41	PFTeDA	713.0 > 669.0		1.47e4	0.247		6.08						YES
48	1...	TDCA	498.3>106.9			0.247		4.59						YES
49	99	13C4-PFBA	217.0 > 172.0	1.04e4	1.04e4	0.247	1.000	1.42	1.42	12.5	50.5991	100.0		
50	83	13C2-PFDoA-EIS	614.7 > 569.7	1.16e4		0.247	1456.575	5.62	5.63	11600	32.1938	63.6		
51	83	13C2-PFDoA-EIS	614.7 > 569.7	1.16e4		0.247	1456.575	5.62	5.63	11600	32.1938	63.6		
52	89	13C2-PFTeDA-EIS	715.1 > 669.7	1.47e4		0.247	1697.796	6.06	6.08	14700	35.0929	69.4		
53	71	13C8-PFOS-EIS	507.0 > 79.7	2.97e3		0.247	280.132	4.76	4.76	2970	42.9561	84.9		
54	1...	13C5-PFHxA	318.0 > 272.9	1.78e4	1.78e4	0.247	1.000	3.12	3.14	12.5	50.5991	100.0		
55	-1													
56	1...	18O2-PFHxS	403.0 > 102.6	1.13e3	1.13e3	0.247	1.000	3.86	3.87	12.5	50.5991	100.0		
57	1...	13C6-PFDA	519.1 > 473.7	1.80e4	1.80e4	0.247	1.000	5.03	5.04	12.5	50.5991	100.0		
58	1...	13C7-PFUdA	570.1 > 524.8	1.73e4	1.73e4	0.247	1.000	5.34	5.35	12.5	50.5991	100.0		
59	1...	13C4-PFOS	503 > 79.7	3.58e3	3.58e3	0.247	1.000	4.74	4.76	12.5	50.5991	100.0		
60	1...	13C9-PFNA	472.2 > 426.9	1.60e4	1.60e4	0.247	1.000	4.66	4.68	12.5	50.5991	100.0		

GM 2/29/2020

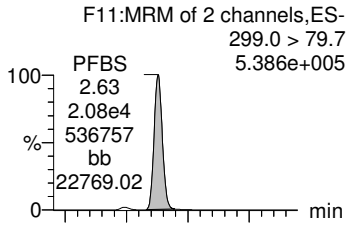
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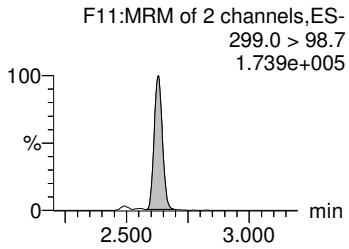
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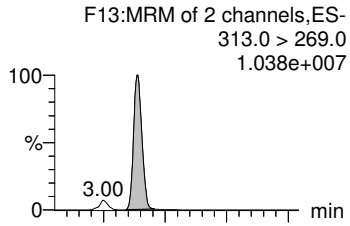
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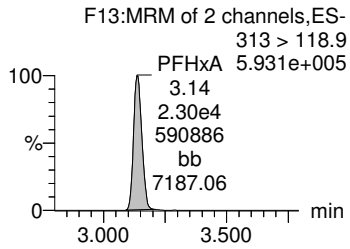
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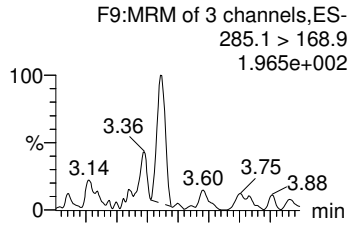


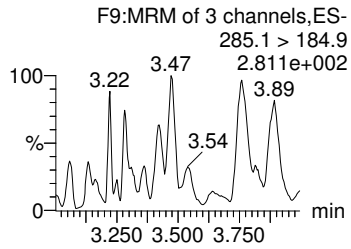
PFHxA



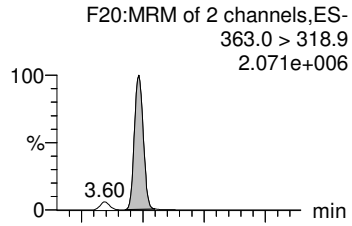


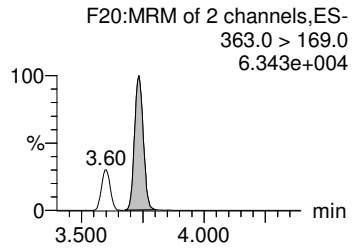
HFPO-DA



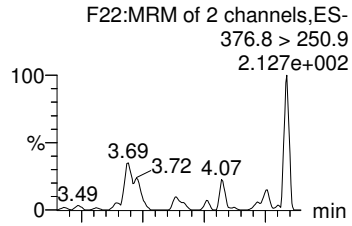


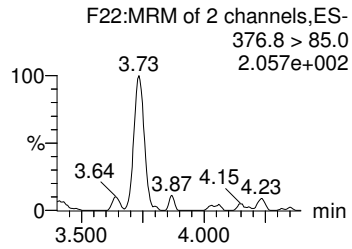
PFHpA



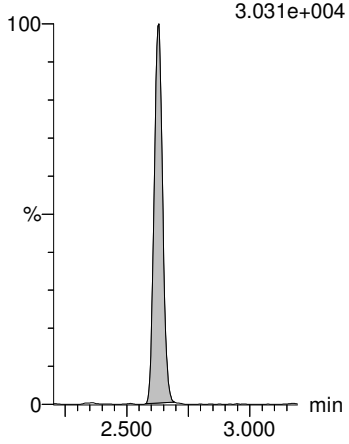


ADONA

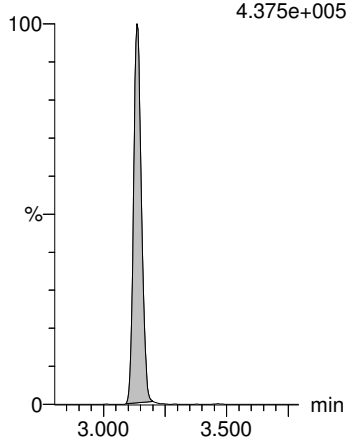




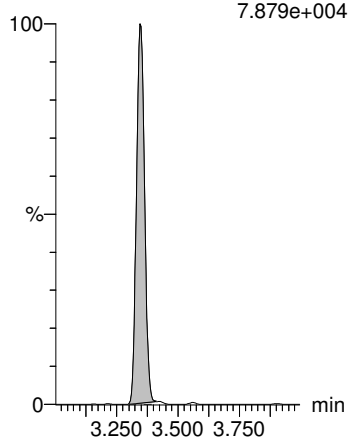
13C3-PFBS-EIS



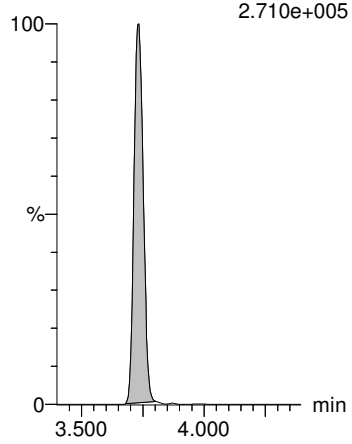
13C2-PFHxA-EIS



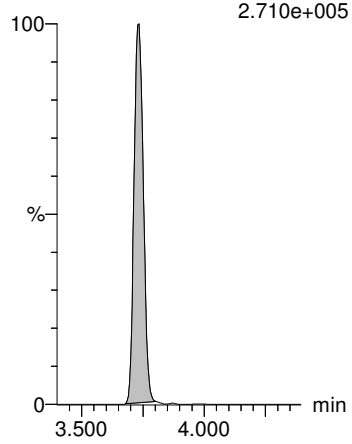
13C3-HFPO-DA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

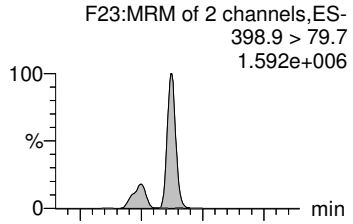


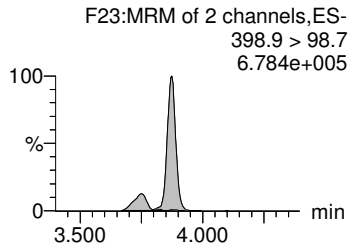
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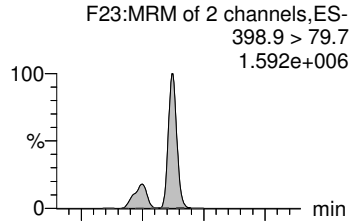
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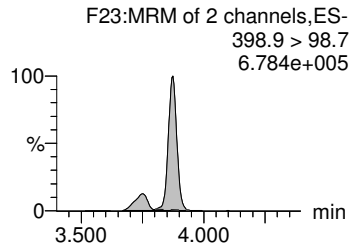
L-PFHxS



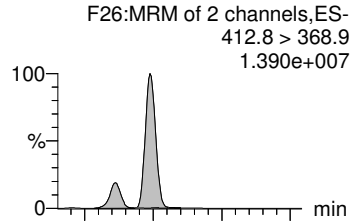


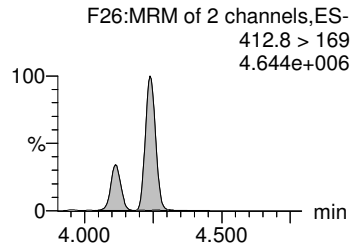
Total PFHxS



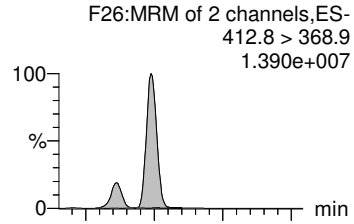


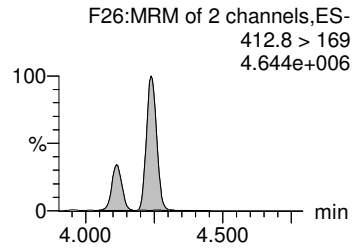
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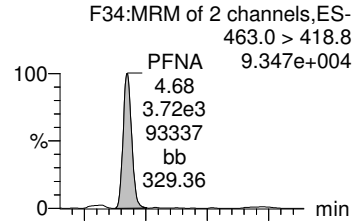


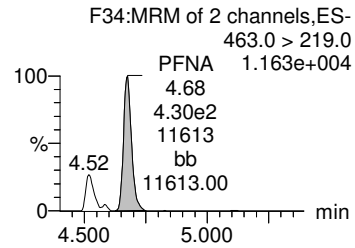
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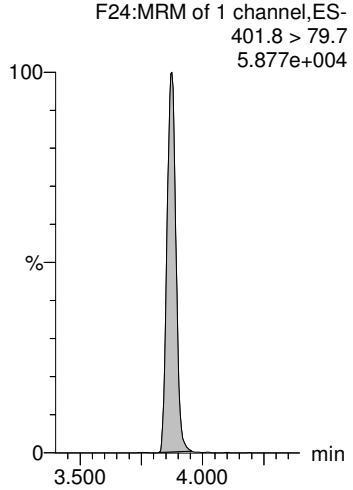


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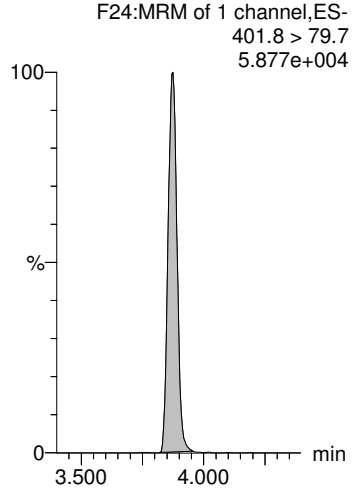




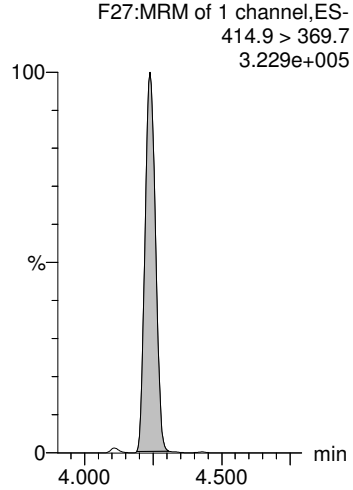
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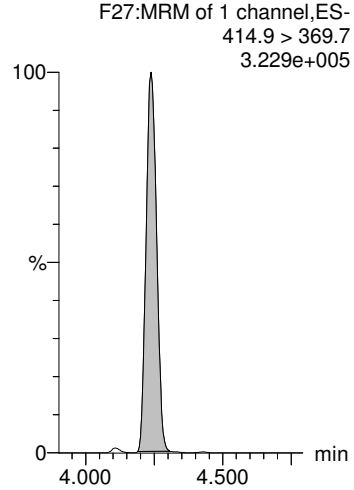
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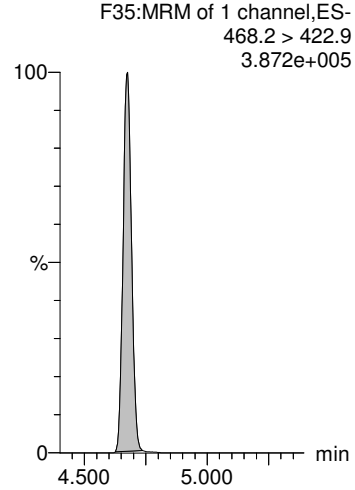
13C2-PFOA-EIS



13C2-PFOA-EIS



13C5-PFNA-EIS

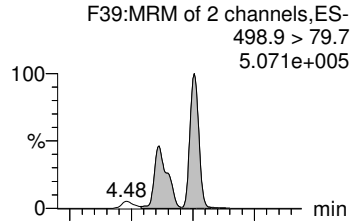


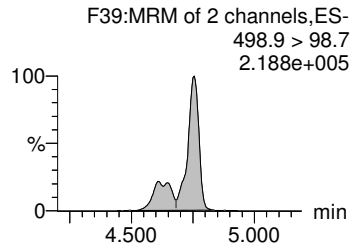
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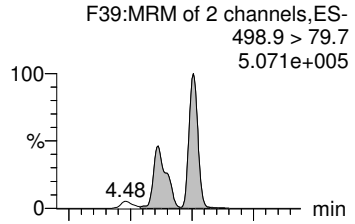
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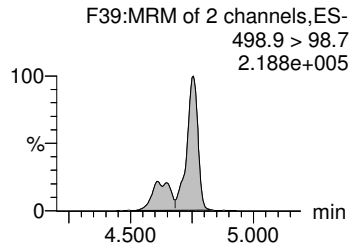
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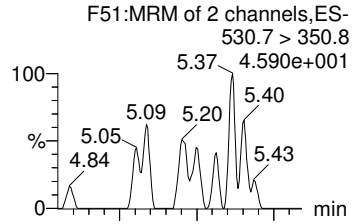


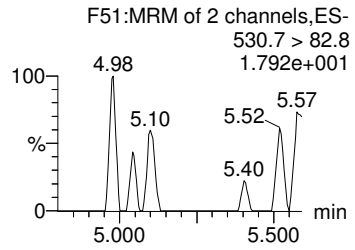
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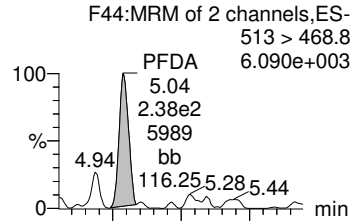


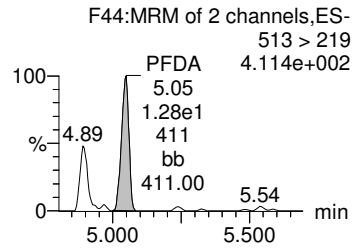
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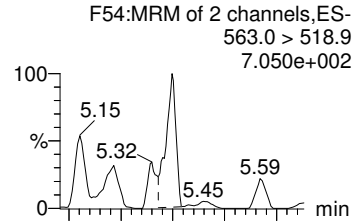


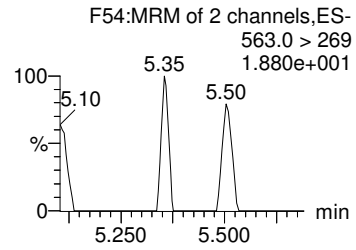
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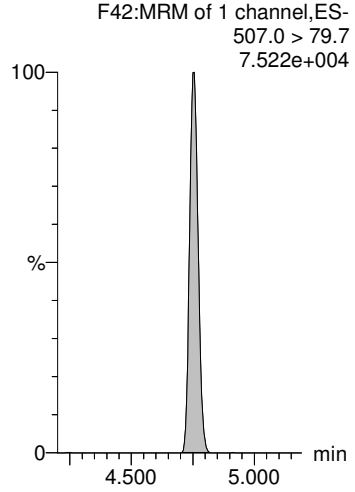


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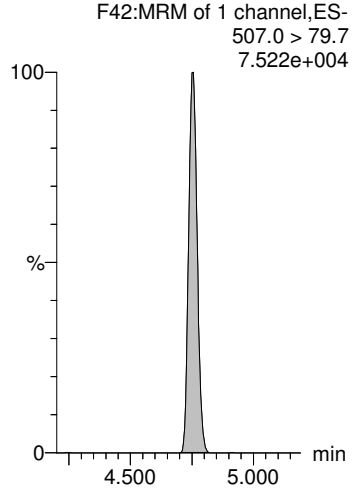




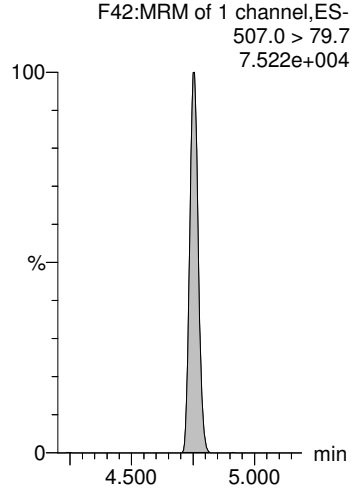
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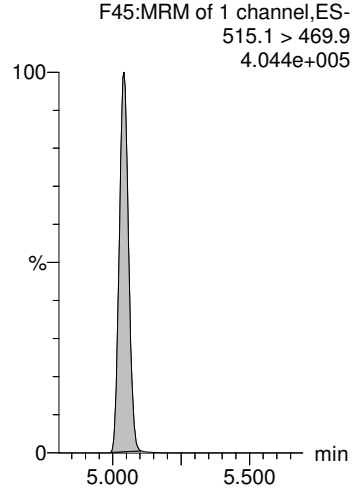
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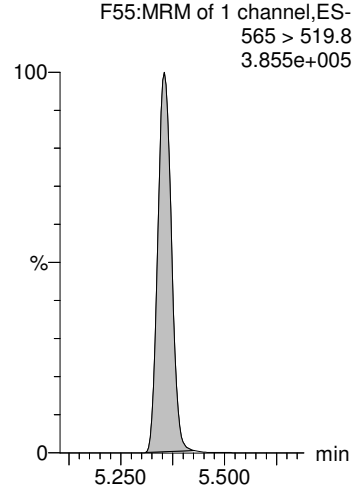
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13C2-PFDA-EIS



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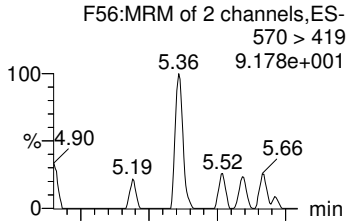


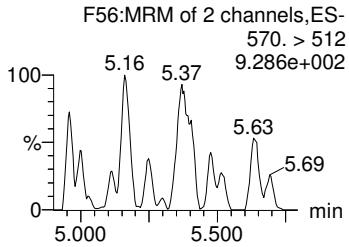
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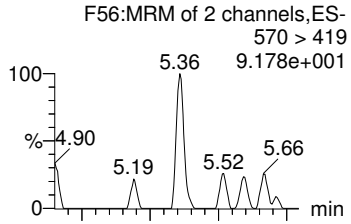
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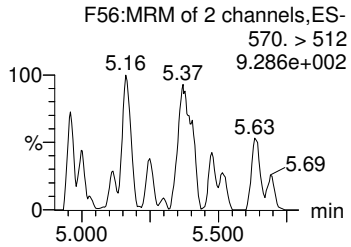
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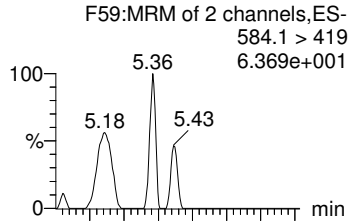


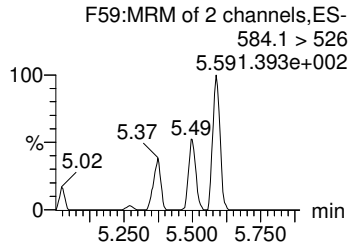
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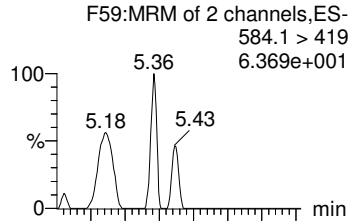


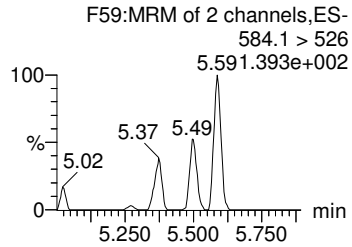
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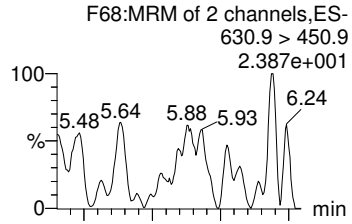


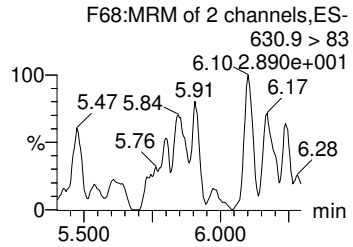
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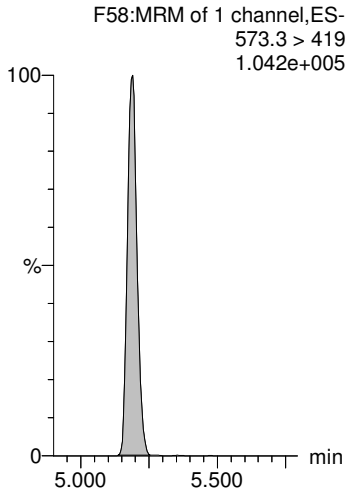


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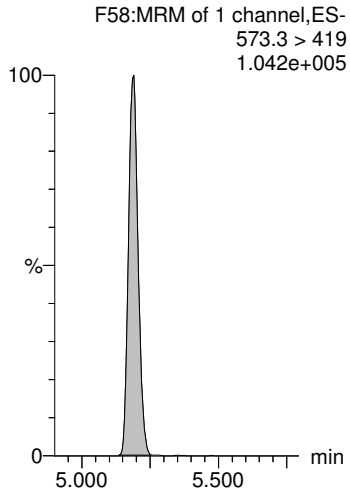




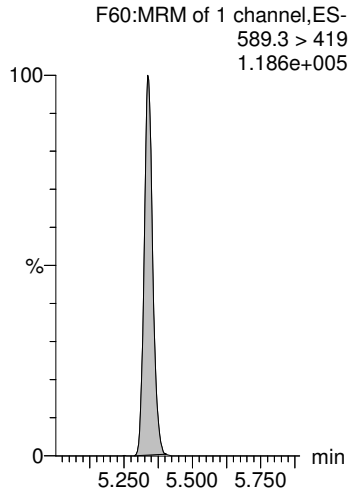
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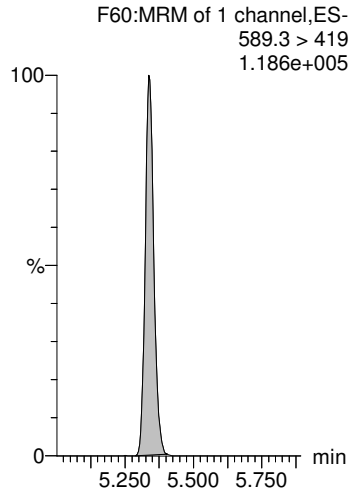
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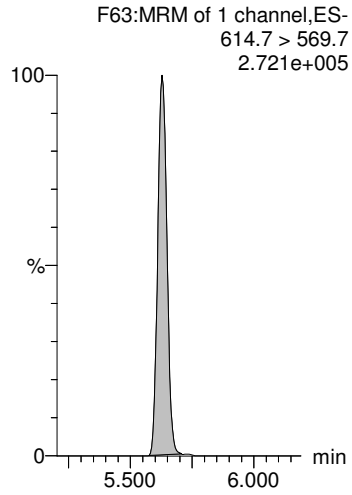
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d5-N-EtFOSAA-EIS



13C2-PFDoA-EIS

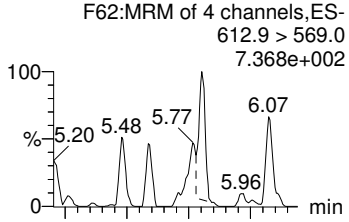


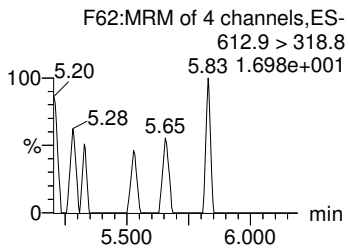
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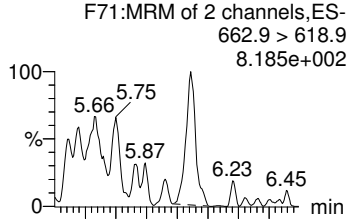
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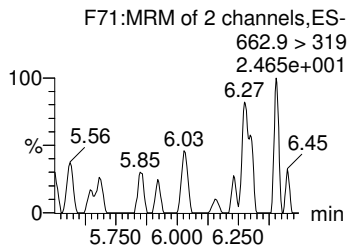
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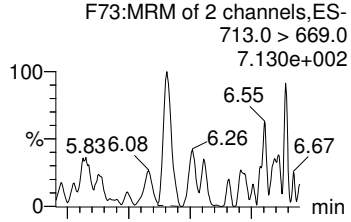


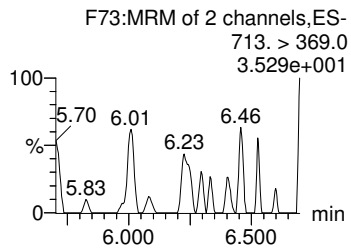
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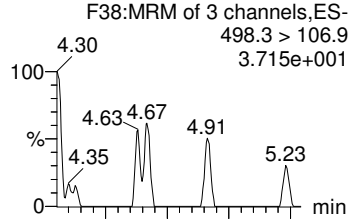


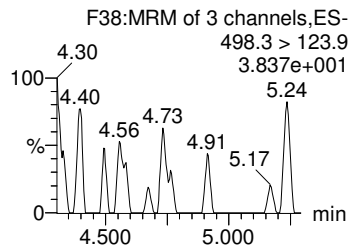
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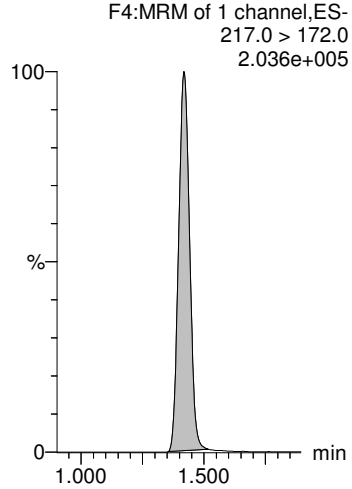


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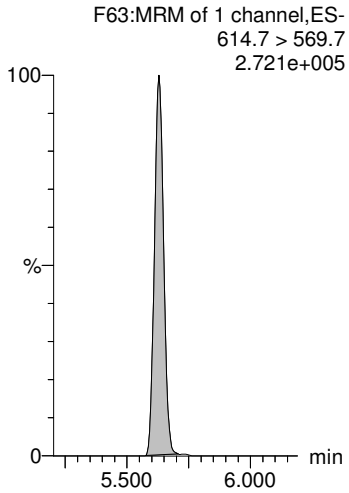




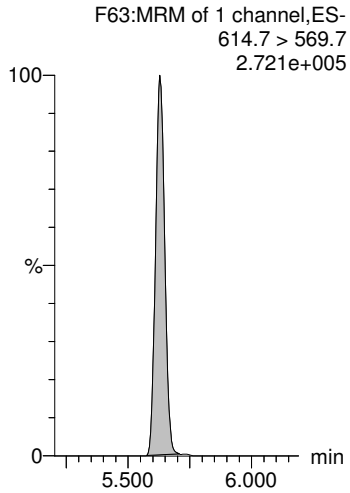
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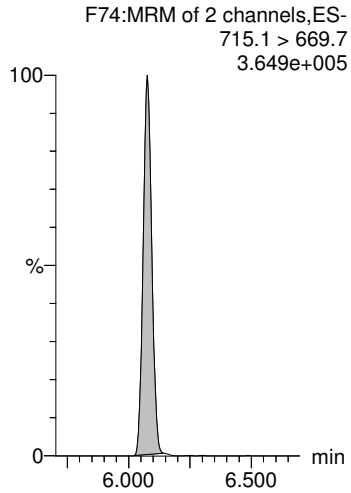
13C2-PFDoA-EIS



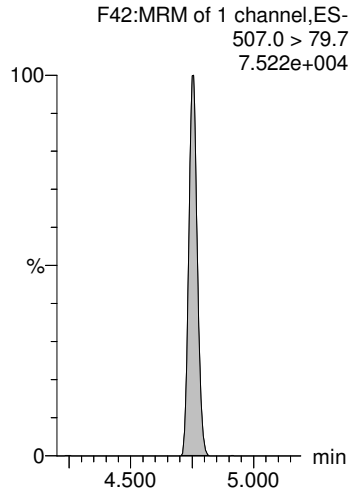
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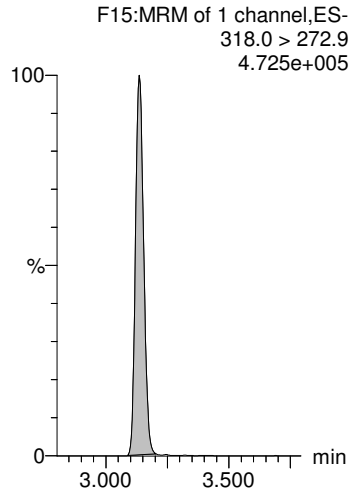
13C2-PFTeDA-EIS



13C8-PFOS-EIS



13C5-PFHxA



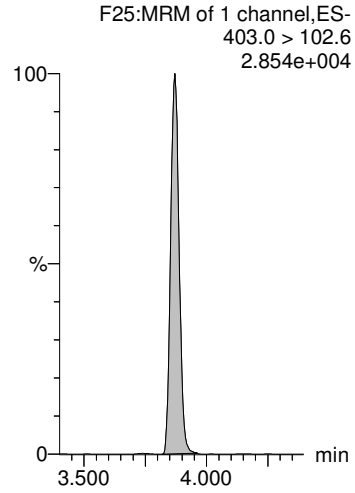
MM 3/2/2020

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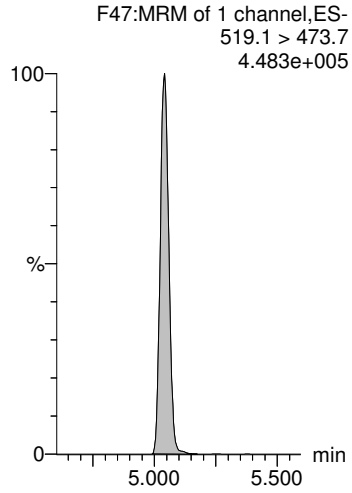
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Name: 200226P1-60, Date: 27-Feb-2020, Time: 02:57:58, ID: 2000321-11 I003MW02S-20200213 0.24704, Description: I003MW02S-20200213

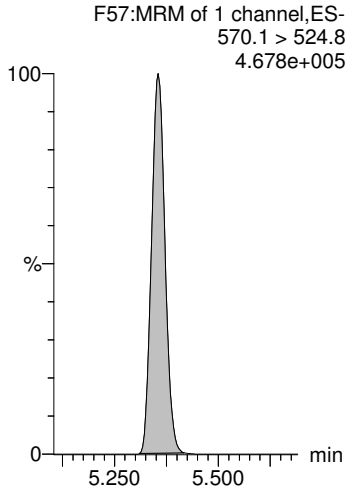
18O2-PFHxS



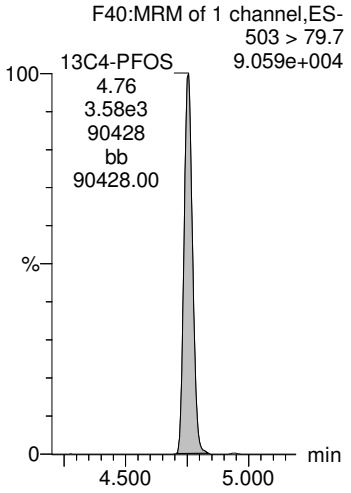
13C6-PFDA



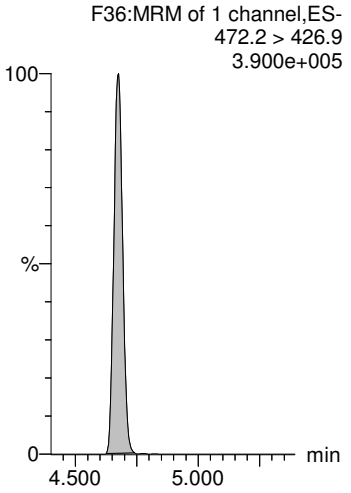
13C7-PFUdA



13C4-PFOS



13C9-PFNA



 GM 2/29/2020

Vista Analytical Laboratory

OC 3/2/2020

Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-56.qld

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Name: 200225P1-56, Date: 26-Feb-2020, Time: 03:36:27, ID: 2000321-11@5X I003MW02S-20200213 0.24704, Description: I003MW02S-20200213

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	13	L-PFHxS	398.9 > 79.7	16209.280	545.984	0.247		3.86	371.102	1470		NO	2.260	NO
2	1...	Total PFHxS	398.9 > 79.7	16209.280	545.984	0.247			371.102	1470		NO		
3	16	L-PFOA	412.8 > 368.9	161949.500	3620.354	0.247		4.23	559.163	2160		NO	2.813	NO
4	1...	Total PFOA	412.8 > 368.9	161949.500	3620.354	0.247			559.163	2160		NO		
5	61	13C3-PFHxS-EIS	401.8 > 79.7	545.984		0.247	273.316	3.86	545.984	8.09	16.0	YES		
6	61	13C3-PFHxS-EIS	401.8 > 79.7	545.984		0.247	273.316	3.86	545.984	8.09	16.0	YES		
7	69	13C2-PFOA-EIS	414.9 > 369.7	3620.354		0.247	1593.567	4.23	3620.354	9.20	18.2	YES		
8	69	13C2-PFOA-EIS	414.9 > 369.7	3620.354		0.247	1593.567	4.23	3620.354	9.20	18.2	YES		
9	-1													
10	99	13C4-PFBA	217.0 > 172.0	2111.773	2111.773	0.247	1.000	1.41	12.500	50.6	100.0	NO		
11	1...	18O2-PFHxS	403.0 > 102.6	222.573	222.573	0.247	1.000	3.87	12.500	50.6	100.0	NO		
12	1...	13C8-PFOA	420.9 > 376.0	3444.132	3444.132	0.247	1.000	4.23	12.500	50.6	100.0	NO		
13	-1													

GM 2/29/2020

Vista Analytical Laboratory

OC 3/2/2020

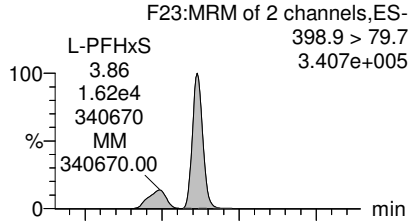
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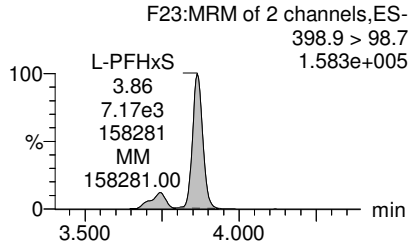
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Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

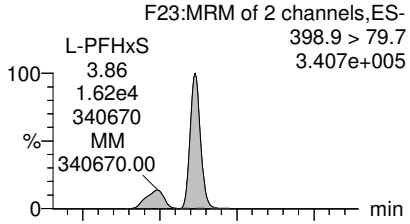
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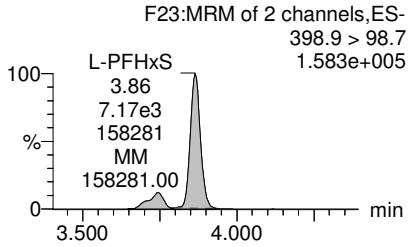
L-PFHxS



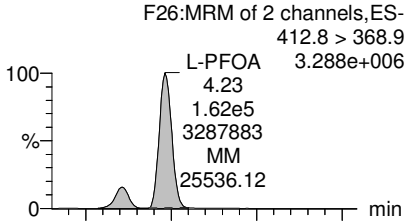


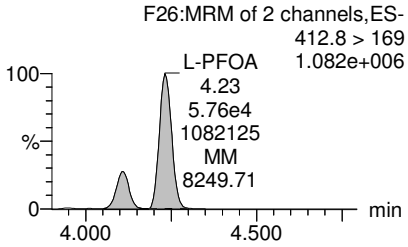
Total PFHxS



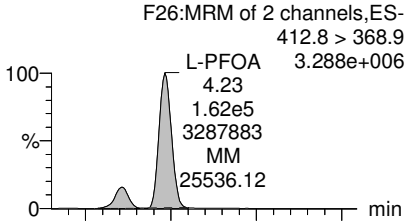


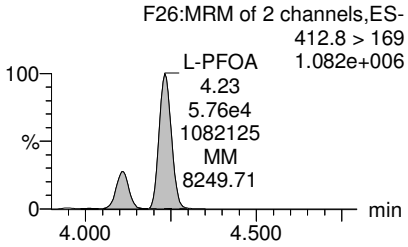
L-PFOA



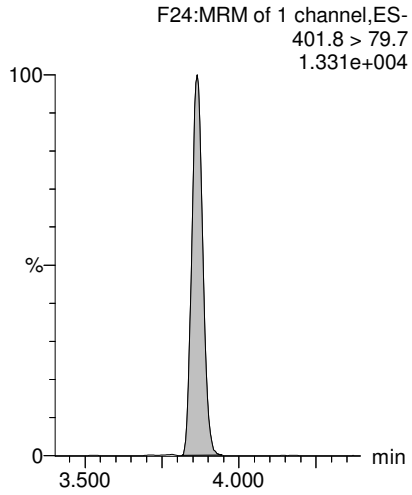


Total PFOA

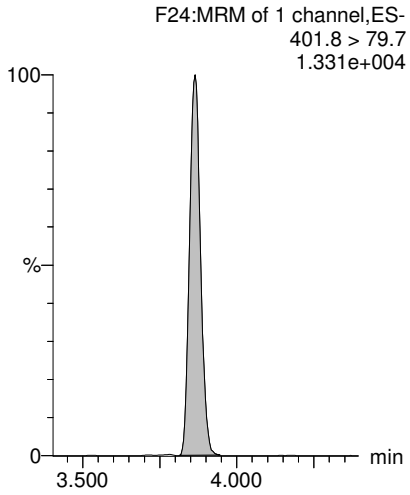




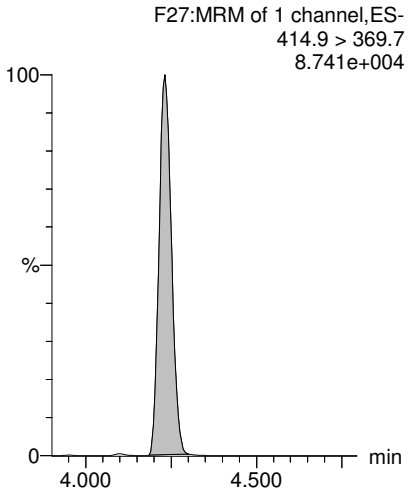
13C3-PFHxS-EIS



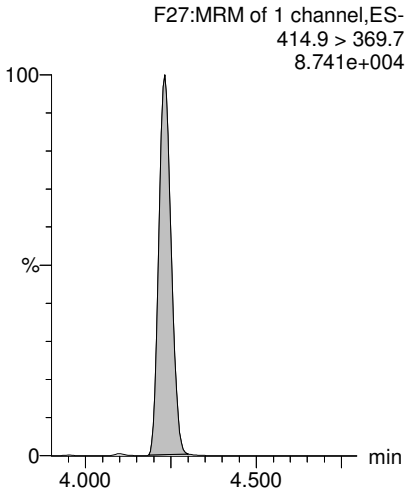
13C3-PFHxS-EIS



13C2-PFOA-EIS



13C2-PFOA-EIS



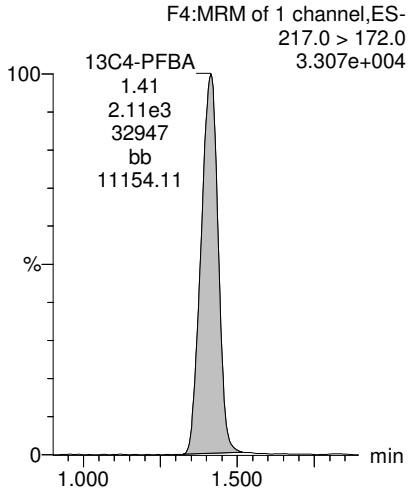
 GM 2/29/2020

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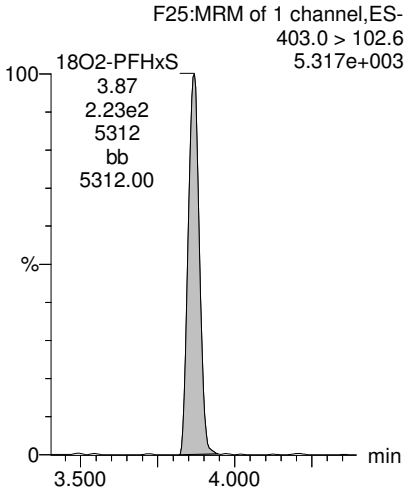
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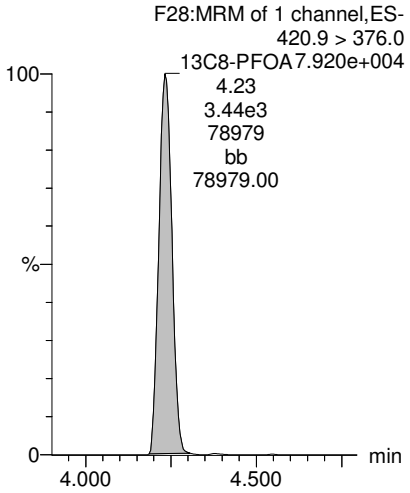
13C4-PFBA



18O2-PFHxS



13C8-PFOA



INSTRUMENT BLANKS (IB)

AND

CONTINUTING CALIBRATION VERIFICATIONS (CCV)

Vista Analytical Laboratory

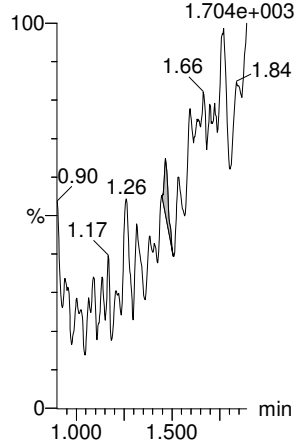
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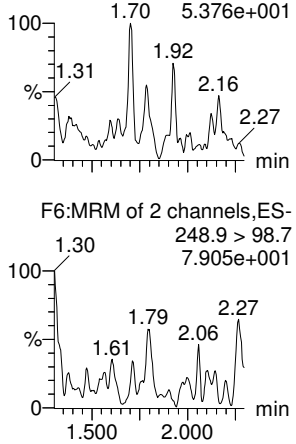
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Name: 200225P1-13, Date: 25-Feb-2020, Time: 20:04:45, ID: IB, Description: IB

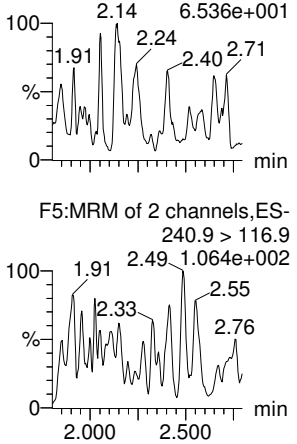
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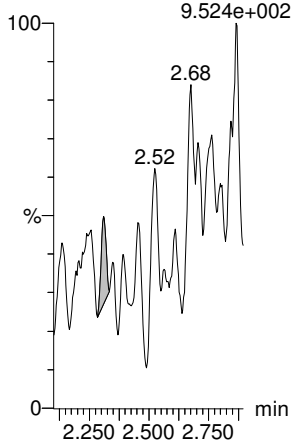
PFPrS



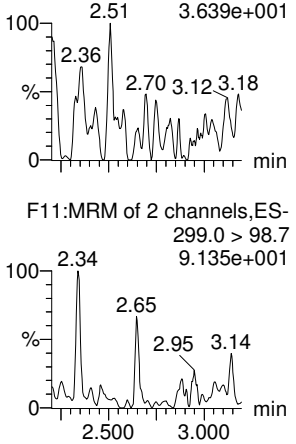
3:3 FTCA



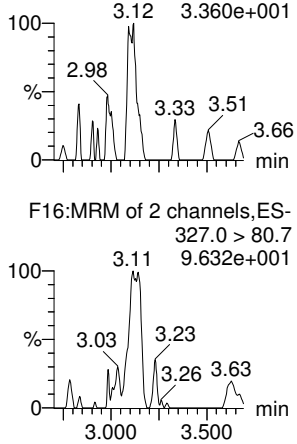
PFPeA



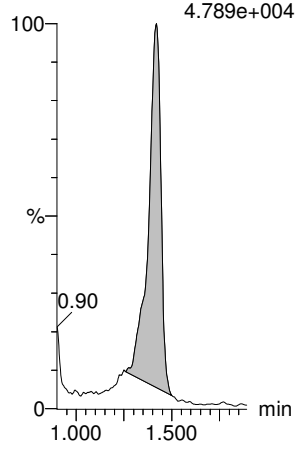
PFBS



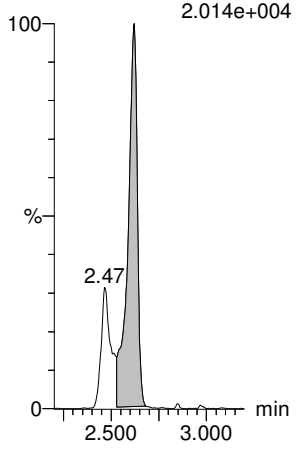
4:2 FTS



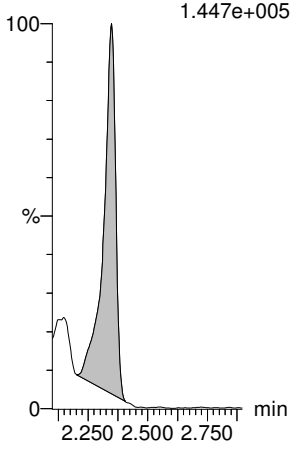
13C3-PFBA-EIS



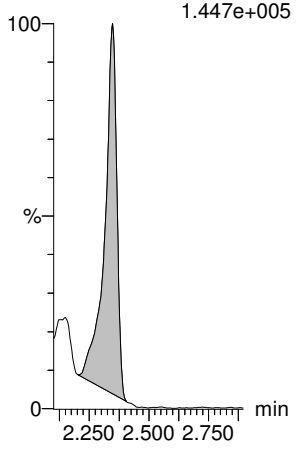
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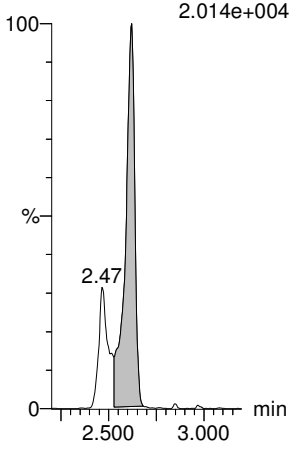
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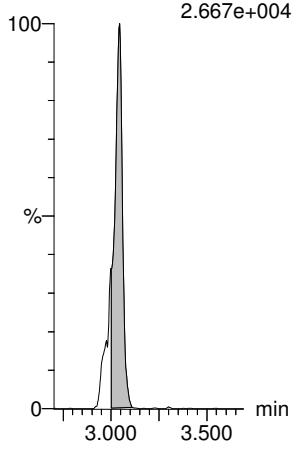
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS



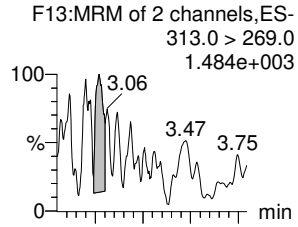
Vista Analytical Laboratory

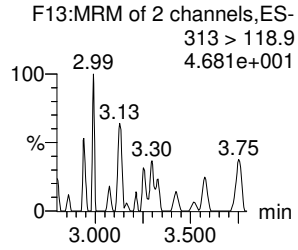
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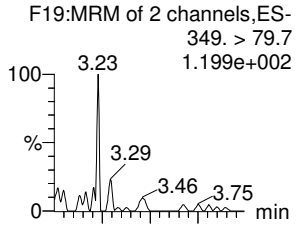
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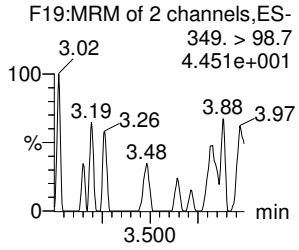
PFHxA



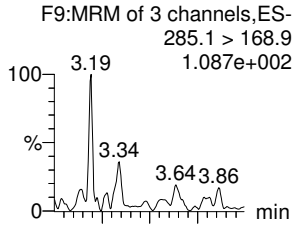


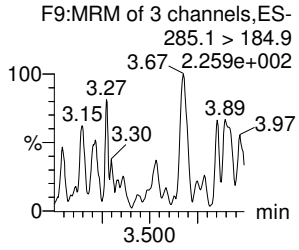
PFPeS



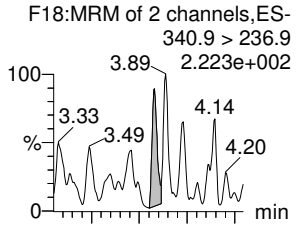


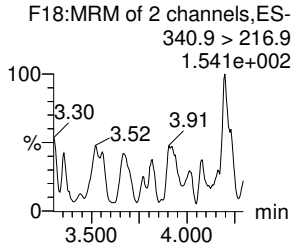
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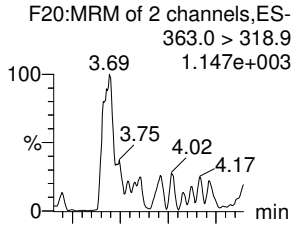


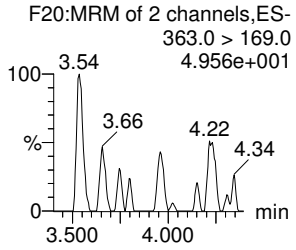
5:3 FTCA



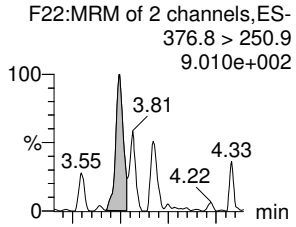


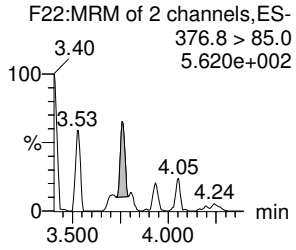
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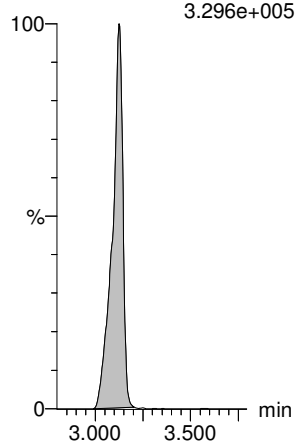


ADONA

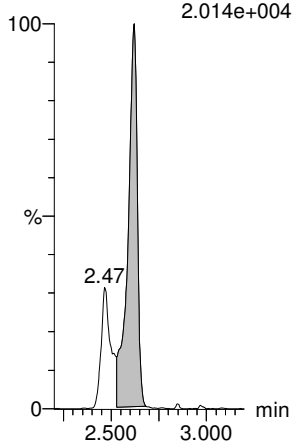




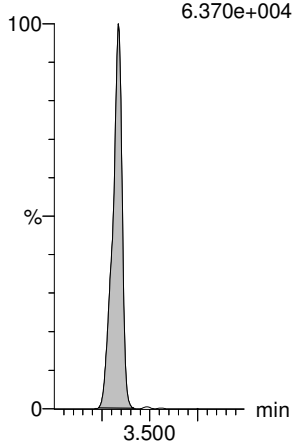
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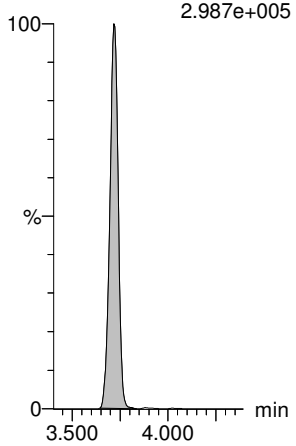
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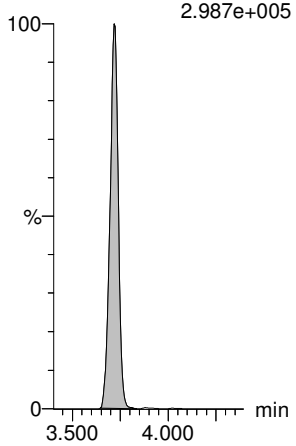
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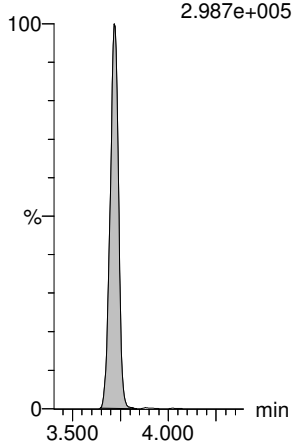
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13C4-PFHpA-EIS



13C4-PFHpA-EIS



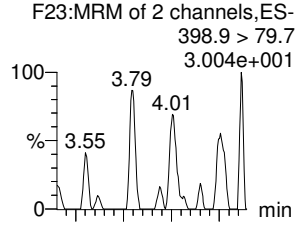
Vista Analytical Laboratory

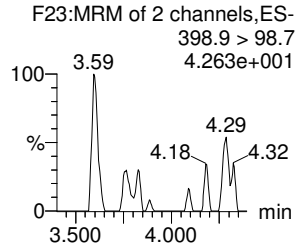
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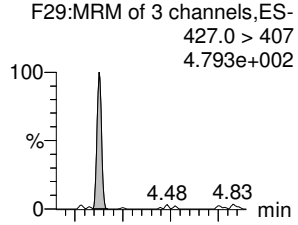
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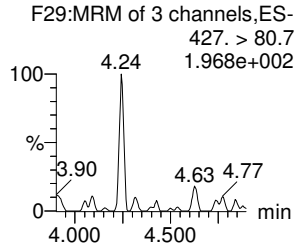
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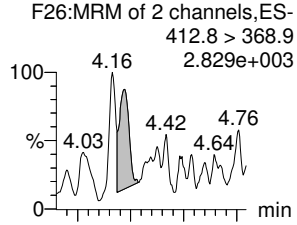


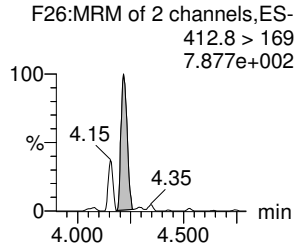
6:2 FTS



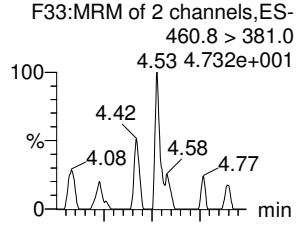


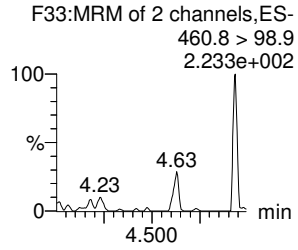
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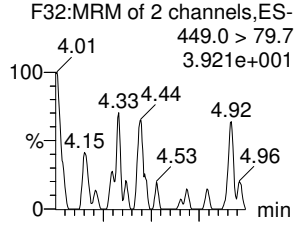


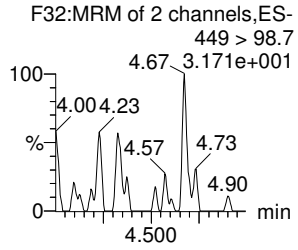
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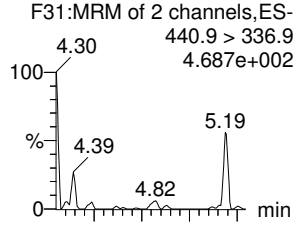


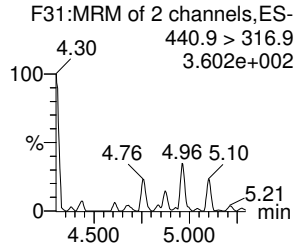
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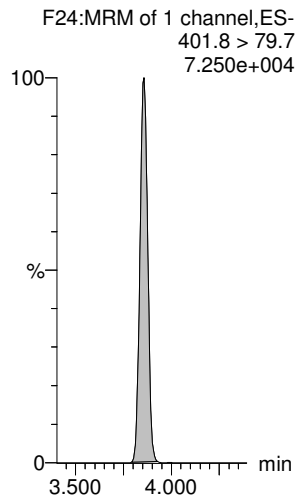


7:3 FTCA

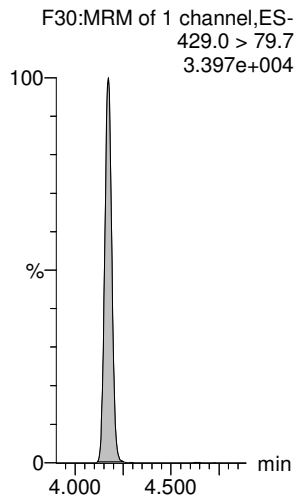




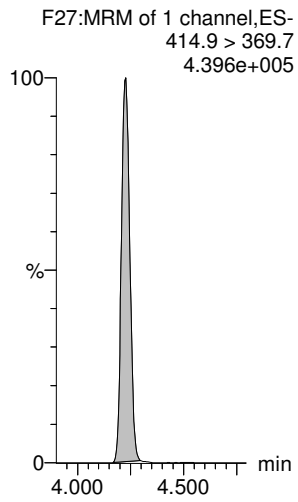
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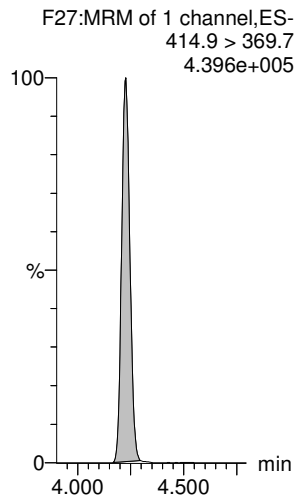
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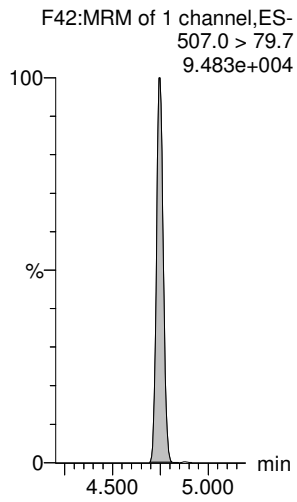
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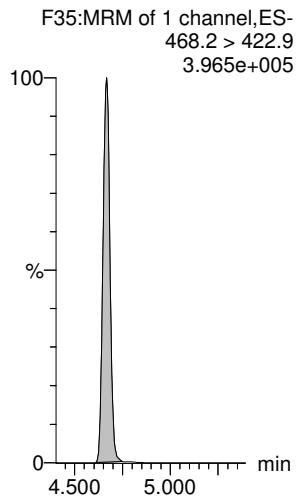
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

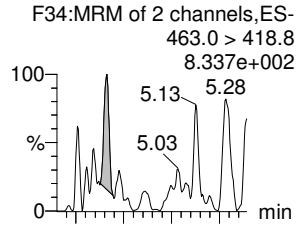


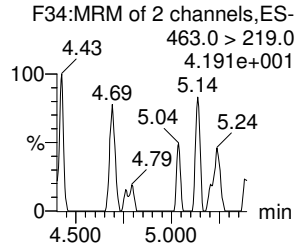
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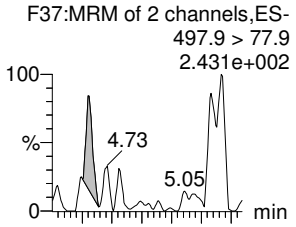
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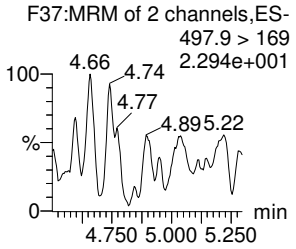
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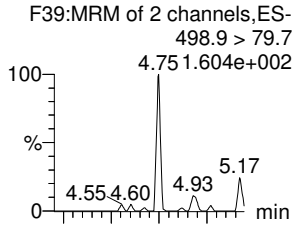


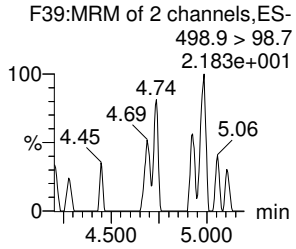
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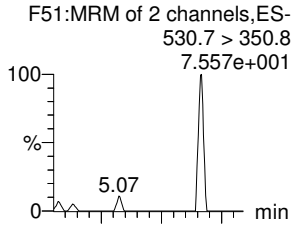


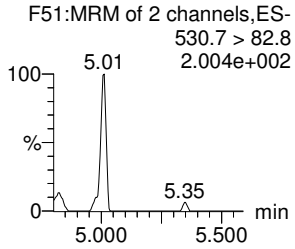
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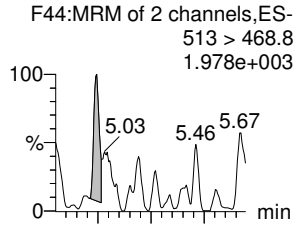


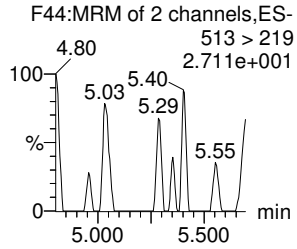
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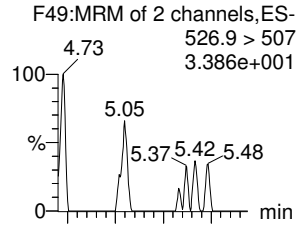


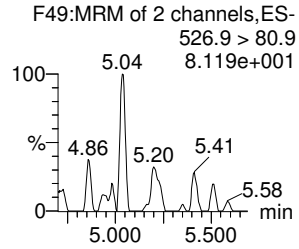
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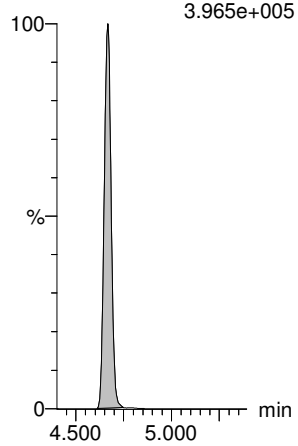


8:2 FTS

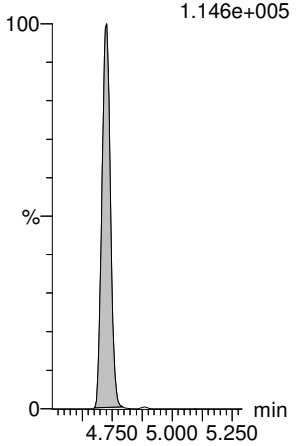




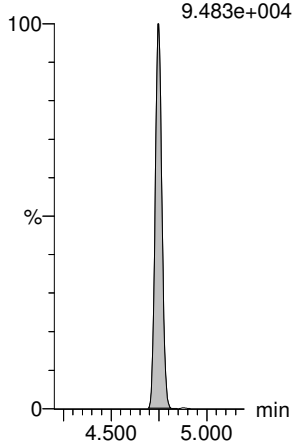
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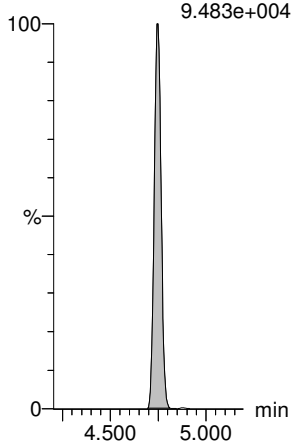
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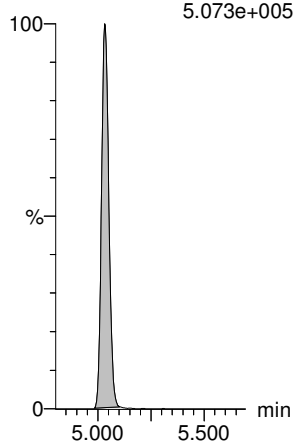
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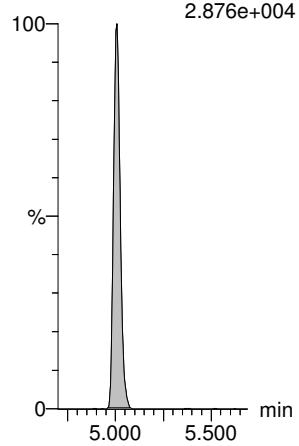
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

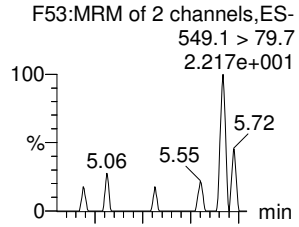


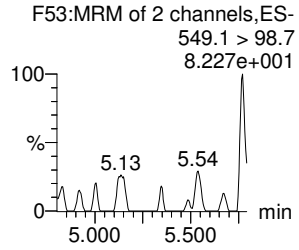
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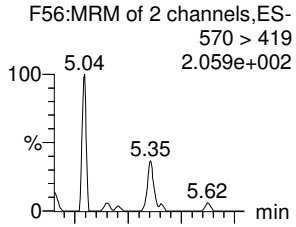
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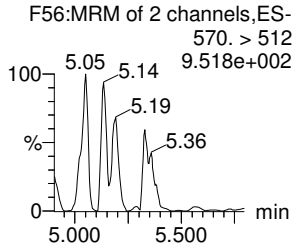
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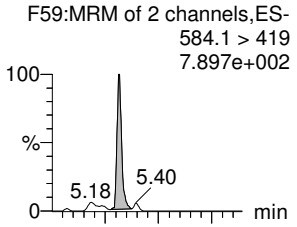


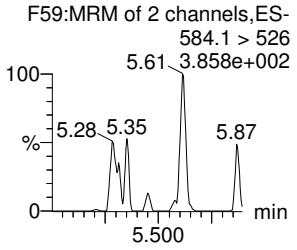
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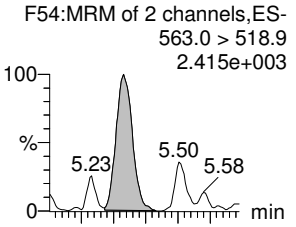


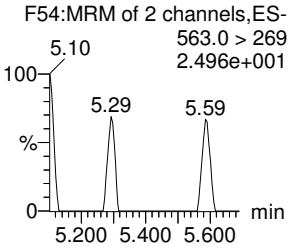
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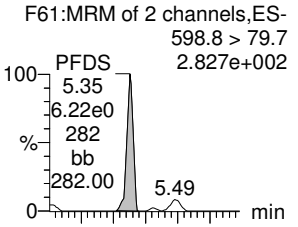


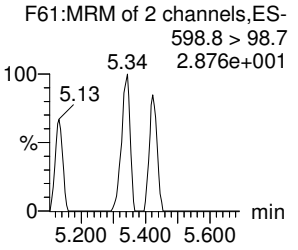
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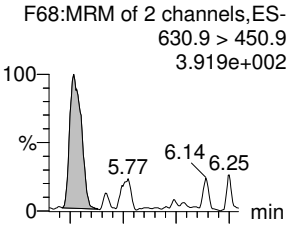


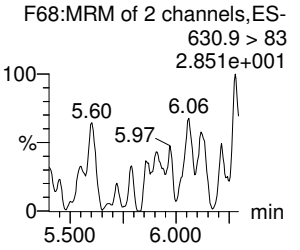
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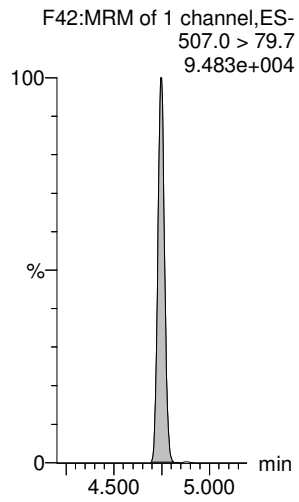


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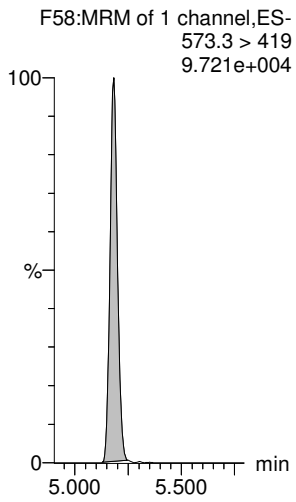




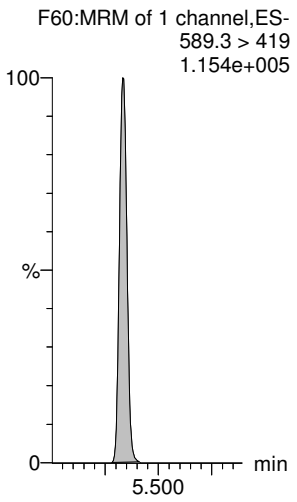
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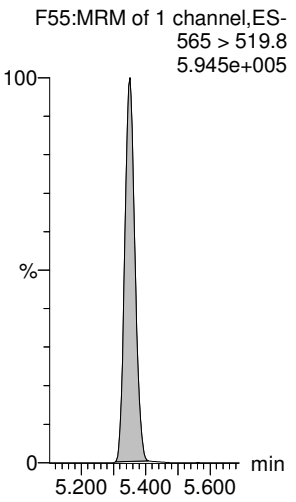
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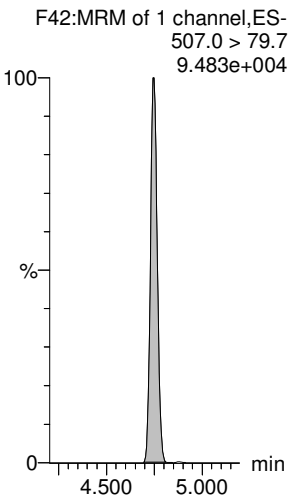
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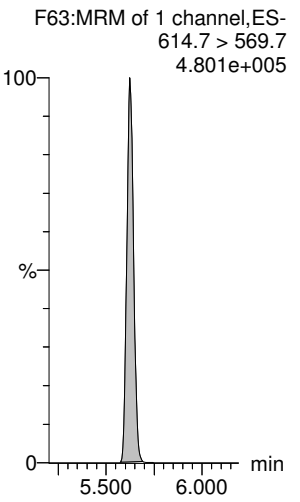
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13C8-PFOS-EIS



13C2-PFDoA-EIS

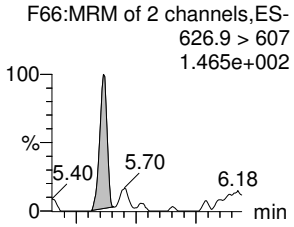


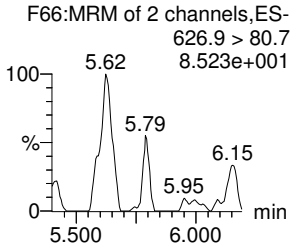
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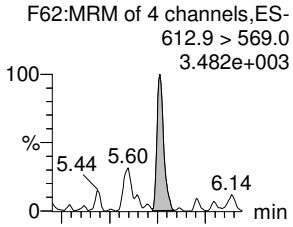
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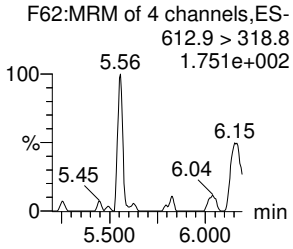
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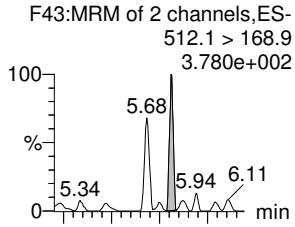


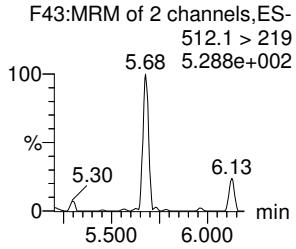
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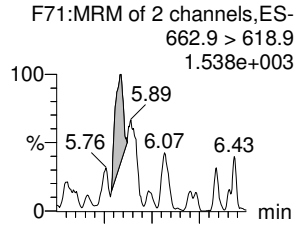


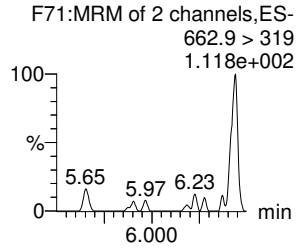
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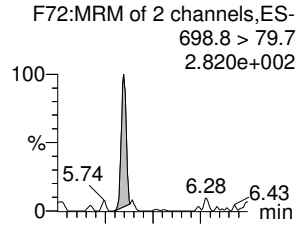


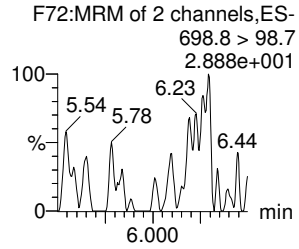
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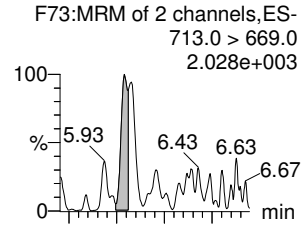


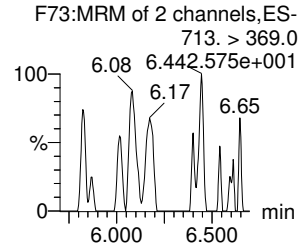
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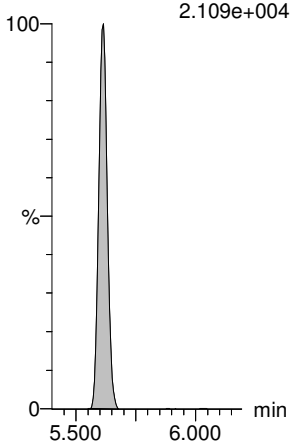


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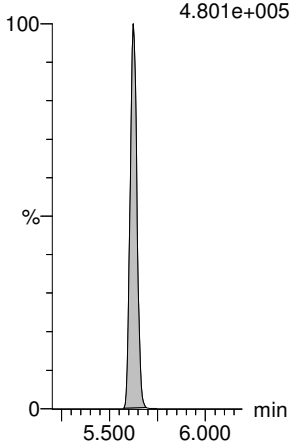




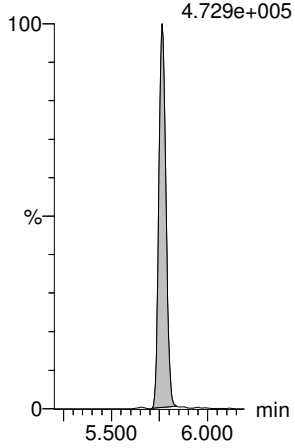
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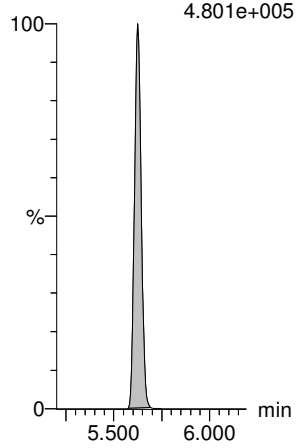
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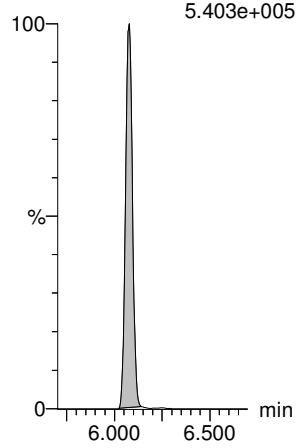
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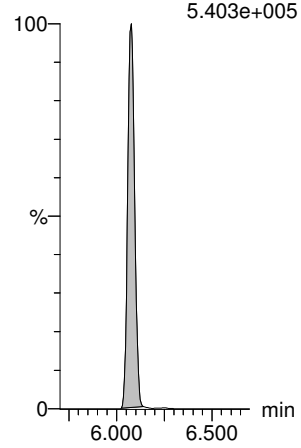
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

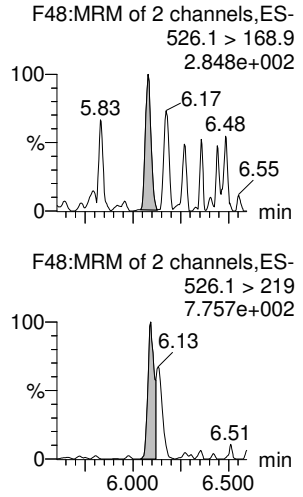


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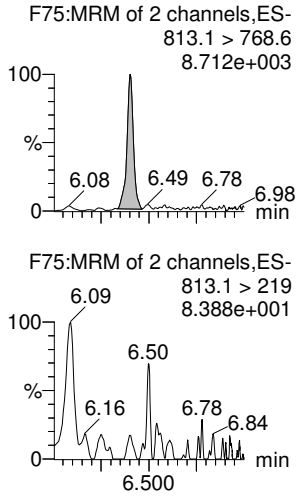
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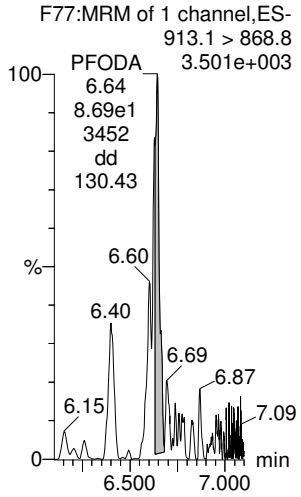
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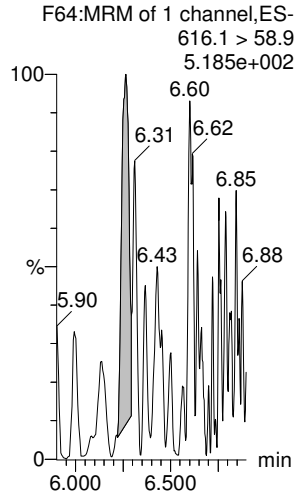
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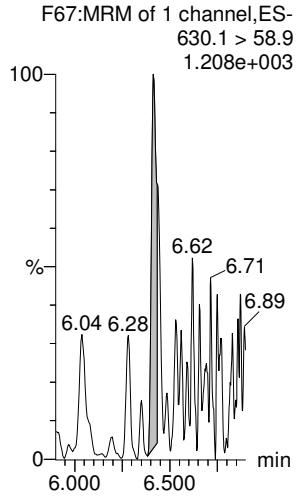
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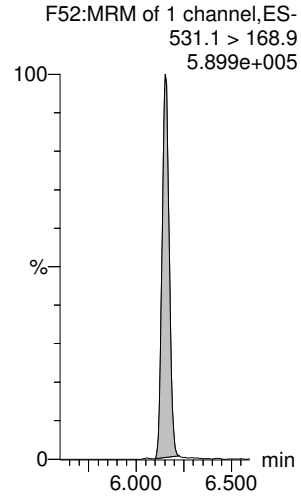
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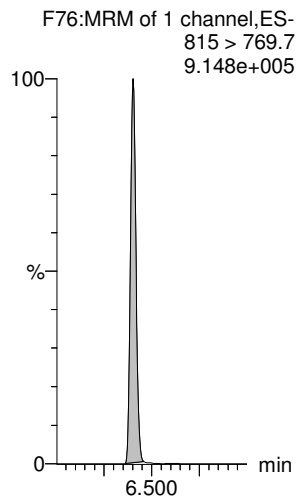
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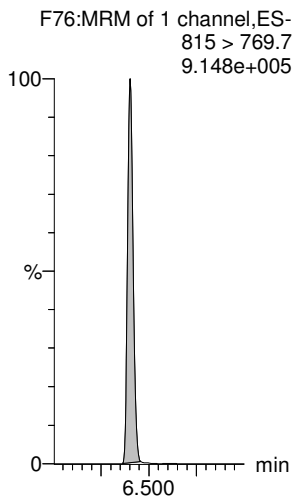
d5-N-ETFOSA-EIS



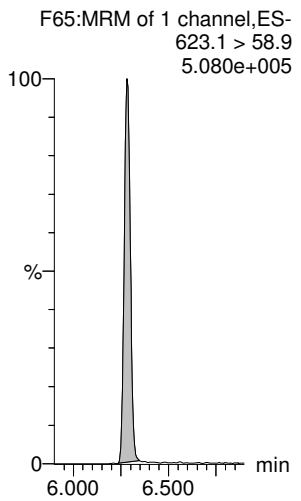
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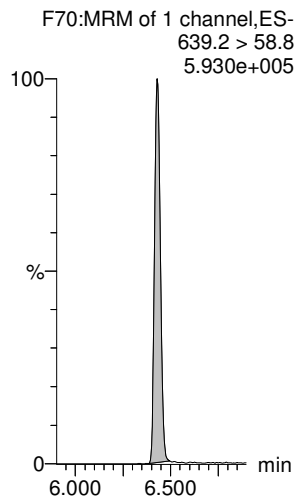
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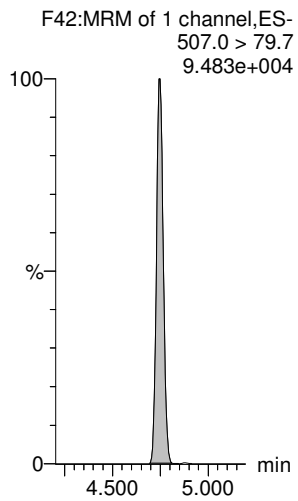
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d9-N-EtFOSE-EIS



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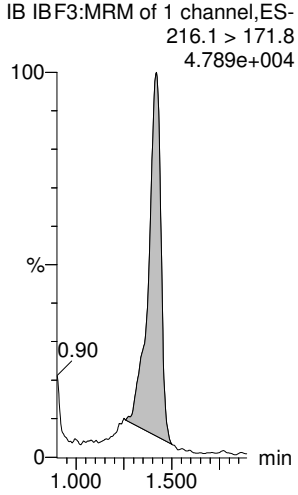


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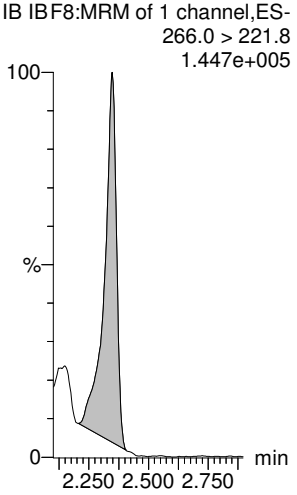
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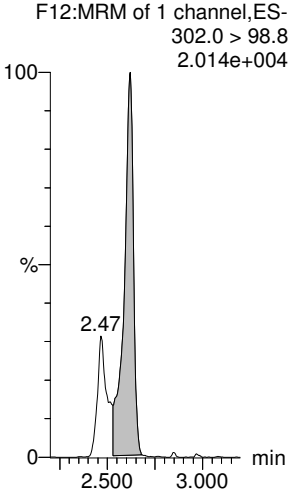
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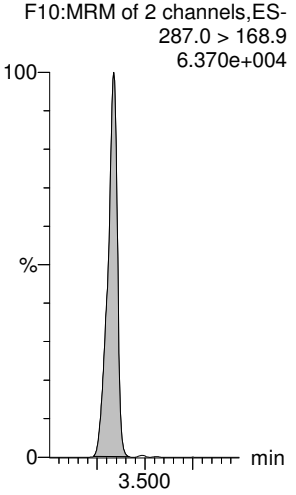
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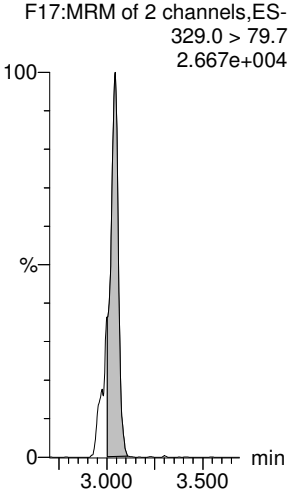
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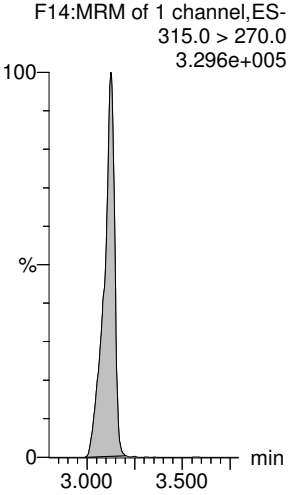
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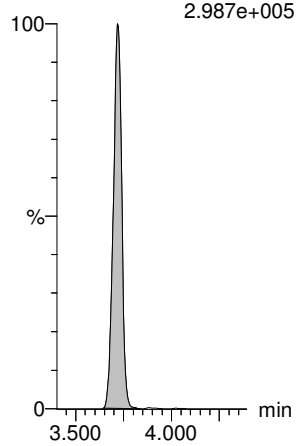
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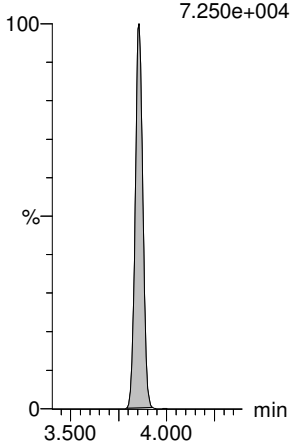
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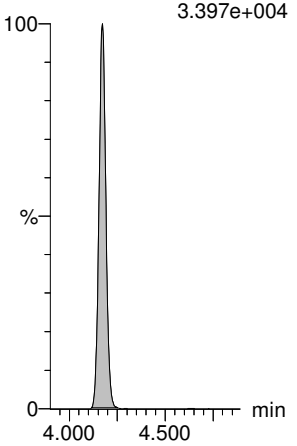
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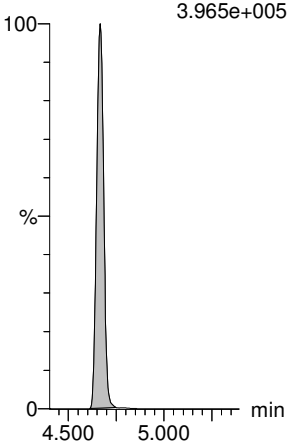
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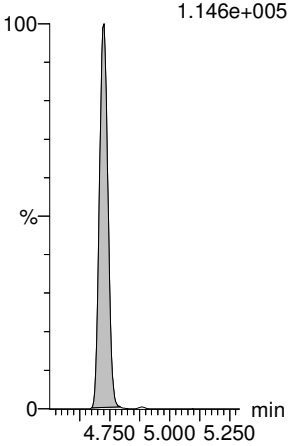
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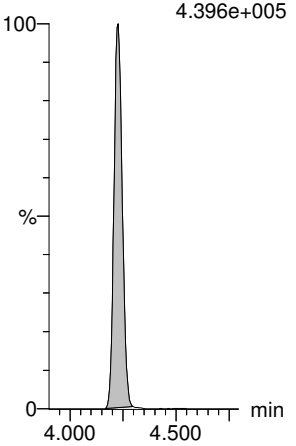
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13C8-PFOSA-RSD



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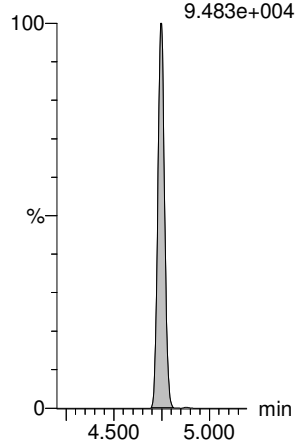


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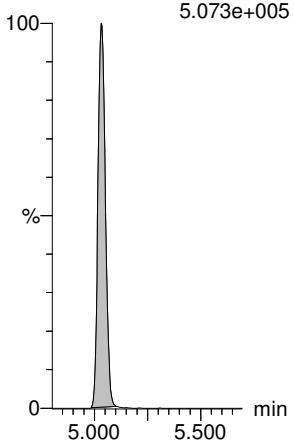
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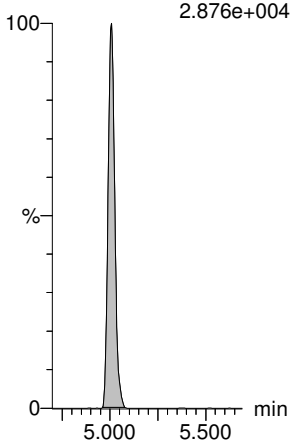
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F42:MRM of 1 channel,ES-
507.0 > 79.7
9.483e+004



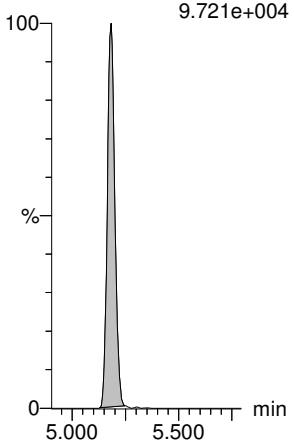
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F45:MRM of 1 channel,ES-
515.1 > 469.9
5.073e+005



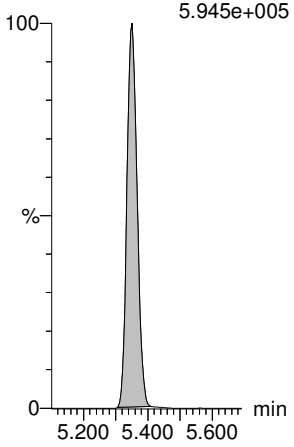
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F50:MRM of 1 channel,ES-
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2.876e+004



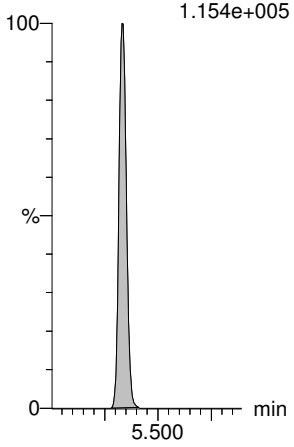
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F58:MRM of 1 channel,ES-
573.3 > 419
9.721e+004



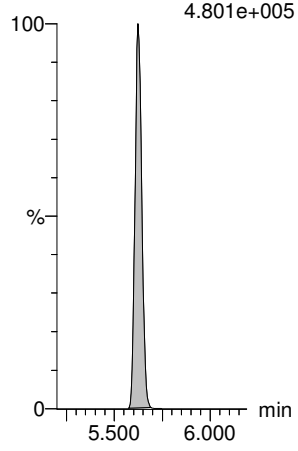
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.945e+005



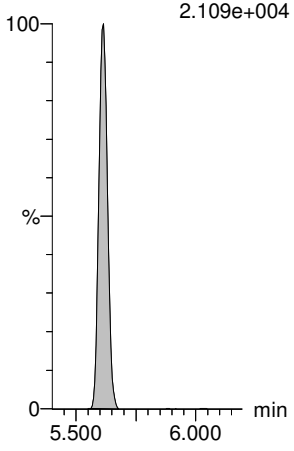
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.154e+005



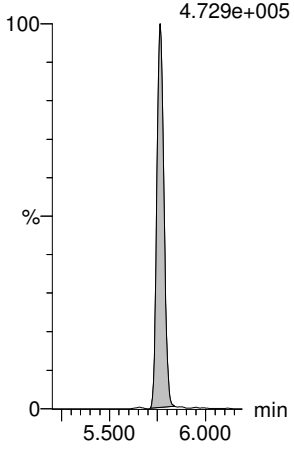
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.801e+005



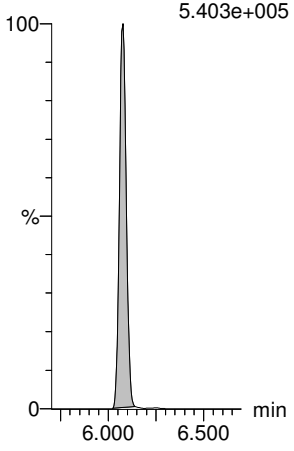
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.109e+004



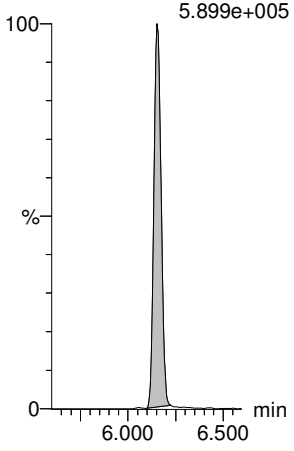
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.729e+005



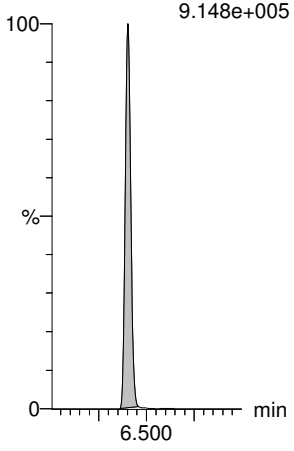
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.403e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.899e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.148e+005

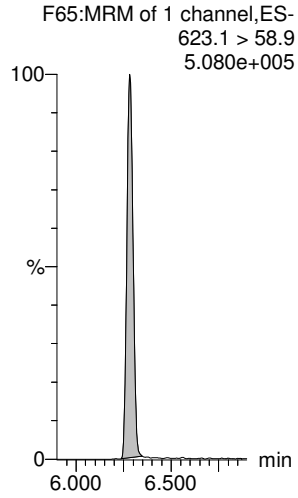


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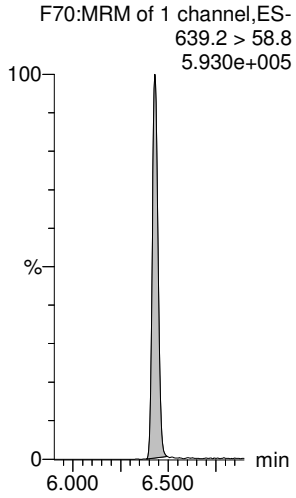
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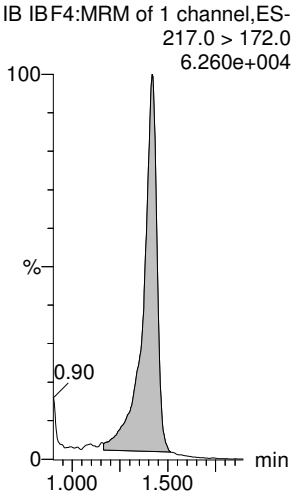
d7-N-MeFOSE-RSD



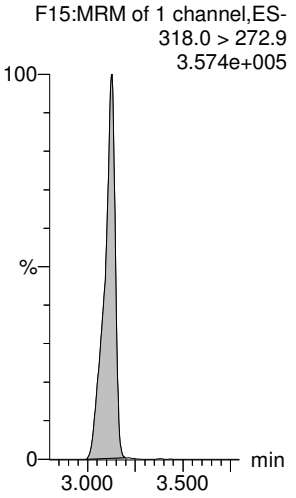
d9-N-EtFOSE-RSD



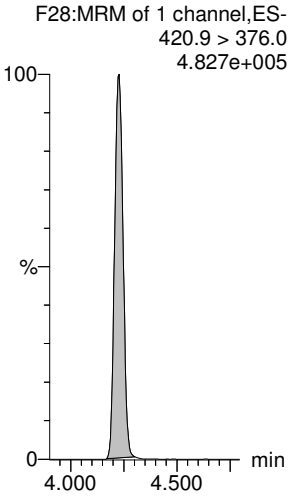
13C4-PFBA



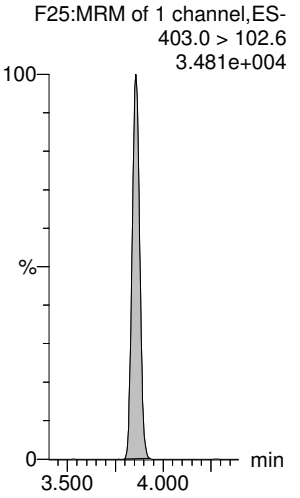
13C5-PFHxA



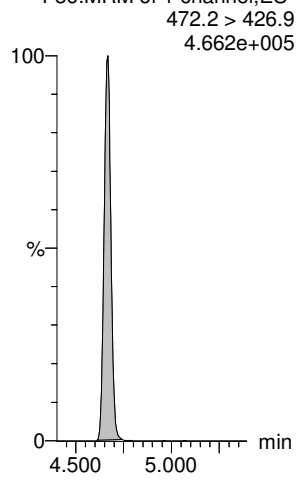
13C8-PFOA



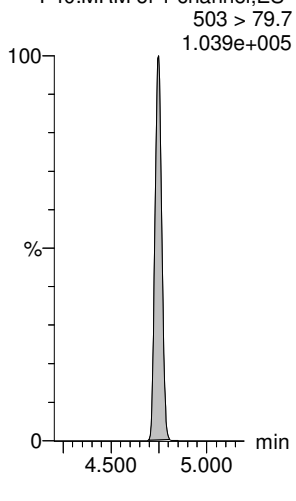
18O2-PFHxS



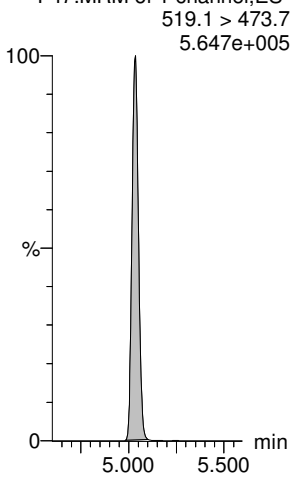
13C9-PFNA



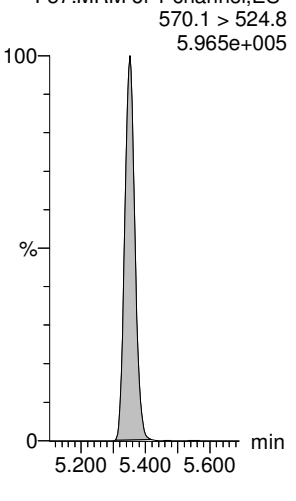
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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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	6.087	3374.603	1.00	1.47	0.023				NO		
2	2	PFPrS	248.9 > 79.7		1117.574	1.00						NO		
3	3	3:3 FTCA	240.9 > 176.9		8162.300	1.00						NO		
4	4	PFPeA	263.1 > 218.9	5.105	8162.300	1.00	2.31	0.008				NO		
5	5	PFBS	299.0 > 79.7		1117.574	1.00						NO		
6	6	4:2 FTS	327.0 > 307		1218.698	1.00						NO		
7	47	13C3-PFBA-EIS	216.1 > 171.8	3374.603		1.00	1.42	3374.603	12.500	3.77	30.2	YES		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1117.574		1.00	2.62	1117.574	12.500	9.31	74.5	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	8162.300		1.00	2.35	8162.300	12.500	7.21	57.7	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	8162.300		1.00	2.35	8162.300	12.500	7.21	57.7	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1117.574		1.00	2.62	1117.574	12.500	9.31	74.5	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1218.698		1.00	3.04	1218.698	12.500	8.18	65.4	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	59.331	20717.152	1.00	3.02	0.036				NO		
15	8	PFPeS	349.>79.7		1117.574	1.00						NO		
16	9	HFPO-DA	285.1 > 168.9		3623.440	1.00						NO		
17	10	5:3 FTCA	340.9 > 236.9	5.697	14782.707	1.00	3.83	0.005		0.0705		NO		
18	11	PFHpA	363.0 > 318.9		14782.707	1.00						NO		
19	12	ADONA	376.8 > 250.9	41.141	14782.707	1.00	3.75	0.035				NO	4.883	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	20717.152		1.00	3.12	20717.152	12.500	11.5	92.3	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1117.574		1.00	2.62	1117.574	12.500	9.31	74.5	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3623.440		1.00	3.34	3623.440	12.500	11.5	92.3	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	14782.707		1.00	3.72	14782.707	12.500	12.0	95.9	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	14782.707		1.00	3.72	14782.707	12.500	12.0	95.9	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	14782.707		1.00	3.72	14782.707	12.500	12.0	95.9	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7		3320.766	1.00						NO		
28	15	6:2 FTS	427.0 > 407	13.202	1390.905	1.00	4.13	0.119				NO		
29	16	L-PFOA	412.8 > 368.9	110.780	19666.736	1.00	4.22	0.070				NO	4.336	YES
30	18	PFecHS	460.8 > 381.0		19666.736	1.00						NO		
31	19	PFHpS	449.0 > 79.7		3852.213	1.00						NO		
32	20	7:3 FTCA	440.9 > 336.9		16544.805	1.00						NO		
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3320.766		1.00	3.86	3320.766	12.500	12.1	97.2	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1390.905		1.00	4.17	1390.905	12.500	11.3	90.6	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	19666.736		1.00	4.23	19666.736	12.500	12.3	98.7	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	19666.736		1.00	4.23	19666.736	12.500	12.3	98.7	NO		

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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	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	16544.805		1.00	4.67	16544.805	12.500	11.1	88.7	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	21.350	16544.805	1.00	4.66	0.016				NO		
41	22	PFOSA	497.9 > 77.9	5.084	4592.565	1.00	4.65	0.014		0.0480		NO		
42	23	L-PFOS	498.9 > 79.7		3852.213	1.00						NO		
43	25	9Cl-PF30NS	530.7 > 350.8		3852.213	1.00						NO		
44	26	PFDA	513 > 468.8	52.535	20059.008	1.00	4.99	0.033				NO		
45	27	8:2 FTS	526.9 > 507		1123.938	1.00						NO		
46	65	13C5-PFNA-EIS	468.2 > 422.9	16544.805		1.00	4.67	16544.805	12.500	11.1	88.7	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4592.565		1.00	4.73	4592.565	12.500	12.2	97.8	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	20059.008		1.00	5.03	20059.008	12.500	12.3	98.1	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1123.938		1.00	5.01	1123.938	12.500	11.0	88.0	NO		
52	-1													
53	28	PFNS	549.1 > 79.7		3852.213	1.00						NO		
54	29	L-MeFOSAA	570 > 419		3885.093	1.00						NO		
55	31	L-EtFOSAA	584.1 > 419	19.145	4576.282	1.00	5.32	0.052		0.0133		NO		
56	33	PFUdA	563.0 > 518.9	141.371	21489.662	1.00	5.33	0.082				NO		
57	34	PFDS	598.8 > 79.7	6.220	3852.213	1.00	5.35	0.020		0.0111		NO		
58	35	11Cl-PF30UdS	630.9 > 450.9	24.052	19587.941	1.00	5.52	0.015				NO		
59	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	3885.093		1.00	5.18	3885.093	12.500	11.8	94.1	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	4576.282		1.00	5.33	4576.282	12.500	11.6	92.6	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	21489.662		1.00	5.35	21489.662	12.500	13.3	106.3	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	19587.941		1.00	5.62	19587.941	12.500	11.6	92.9	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	5.157	873.436	1.00	5.61	0.074				NO		
67	37	PFDoA	612.9 > 569.0	139.302	19587.941	1.00	5.76	0.089		0.0106		NO		
68	38	N-MeFOSA	512.1 > 168.9	8.689	19895.789	1.00	5.81	0.065		0.0855		NO		
69	39	PFTrDA	662.9 > 618.9	48.682	19587.941	1.00	5.84	0.031				NO		
70	40	PFDoS	698.8 > 79.7	7.948	22213.631	1.00	5.85	0.004				NO		
71	41	PFTeDA	713.0 > 669.0	80.025	22213.631	1.00	6.04	0.045				NO		
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	873.436		1.00	5.61	873.436	12.500	12.1	97.1	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	614.7 > 569.7	19587.941		1.00	5.62	19587.941	12.500	11.6	92.9	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	19895.789		1.00	5.76	19895.789	149.200	141	94.2	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	19587.941		1.00	5.62	19587.941	12.500	11.6	92.9	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	22213.631		1.00	6.08	22213.631	12.500	11.7	93.7	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	22213.631		1.00	6.08	22213.631	12.500	11.7	93.7	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	9.688	25288.002	1.00	6.08	0.057				NO	0.330	YES
80	43	PFHxDA	813.1 > 768.6	332.756	29914.744	1.00	6.40	0.139				NO		
81	44	PFODA	913.1 > 868.8	86.946	29914.744	1.00	6.64	0.036		0.00864		NO		
82	45	N-MeFOSE	616.1 > 58.9	21.383	18268.793	1.00	6.27	0.175		0.142		NO		
83	46	N-EtFOSE	630.1 > 58.9	32.575	20460.025	1.00	6.41	0.238				NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	25288.002		1.00	6.15	25288.002	149.200	140	93.8	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	29914.744		1.00	6.40	29914.744	12.500	11.5	92.3	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	29914.744		1.00	6.40	29914.744	12.500	11.5	92.3	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	18268.793		1.00	6.28	18268.793	149.200	151	101.4	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	20460.025		1.00	6.43	20460.025	149.200	137	91.9	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	3374.603	5063.513	1.00	1.42	8.331	12.500	10.4	83.3	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	8143.700	22758.422	1.00	2.35	4.473	12.500	7.59	60.7	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1117.574	1564.224	1.00	2.62	8.931	12.500	7.92	63.4	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	3623.440	22758.422	1.00	3.34	1.990	12.500	11.4	91.3	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1218.698	1564.224	1.00	3.04	9.739	12.500	7.41	59.3	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	20717.152	22758.422	1.00	3.12	11.379	12.500	11.7	93.5	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	14782.707	22758.422	1.00	3.72	8.119	12.500	12.3	98.6	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3320.766	1564.224	1.00	3.86	26.537	12.500	10.5	84.3	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1390.905	4144.186	1.00	4.17	4.195	12.500	10.9	87.3	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	16544.805	19038.262	1.00	4.67	10.863	12.500	11.6	92.6	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4592.565	21475.115	1.00	4.73	2.673	12.500	12.7	101.8	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	19666.736	21630.061	1.00	4.23	11.365	12.500	12.3	98.6	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3852.213	4144.186	1.00	4.75	11.619	12.500	12.2	97.9	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	20059.008	21429.576	1.00	5.03	11.701	12.500	12.1	97.0	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1123.938	4144.186	1.00	5.01	3.390	12.500	10.3	82.2	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	3885.093	21475.115	1.00	5.18	2.261	12.500	13.0	103.9	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	21489.662	21475.115	1.00	5.35	12.508	12.500	12.4	99.2	NO		

Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 11:58:03 Pacific Standard Time
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Name: 200225P1-13, Date: 25-Feb-2020, Time: 20:04:45, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	4576.282	21475.115	1.00	5.33	2.664	12.500	11.5	92.0	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	19587.941	21429.576	1.00	5.62	11.426	12.500	11.8	94.4	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	873.436	4144.186	1.00	5.61	2.635	12.500	11.1	88.4	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	19895.789	21475.115	1.00	5.76	11.581	149.200	144	96.7	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	22213.631	21475.115	1.00	6.08	12.930	12.500	12.3	98.8	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	25288.002	21475.115	1.00	6.15	14.719	149.200	148	99.5	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	29914.744	21475.115	1.00	6.40	17.412	12.500	11.6	93.2	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	18268.793	21475.115	1.00	6.28	10.634	149.200	146	97.8	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	20460.025	21475.115	1.00	6.43	11.909	149.200	139	93.0	NO		
119	99	13C4-PFBA	217.0 > 172.0	5063.513	5063.513	1.00	1.42	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	22758.422	22758.422	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	21630.061	21630.061	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1564.224	1564.224	1.00	3.86	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	19038.262	19038.262	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	4144.186	4144.186	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	21429.576	21429.576	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	21475.115	21475.115	1.00	5.35	12.500	12.500	12.5	100.0	NO		

LC Calibration Standards Review Checklist Q5

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
Calibration ID:	ST200225P1-11	L M H	☑	☑	☑	☑	☑	☑	☐
Calibration ID:	-12	L M H	☑	☑	☑	☑	☑	☑	☐
Calibration ID:	-13	L M H	☑	☑	☑	☑	☑	☑	☐
Calibration ID:	-14	L M H	☑	☑ (A)	☑	☑	☑	☑	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 20200207

Run Log Present: ☑

of Samples per Sequence Checked: ☑

Instrument Blank Saved ☑

All Branches in Acquisition Window ☑

IIS Area Saved ☑

Reviewed By: DPV 02/26/20
Initials/Date

Comments:

(A): 10:2 FTS : High criteria limit
PFNS NOT VALID FOR CURVE

Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-35.qld

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PFNS not valid.

✓opv 02/26/20

Name: 200225P1-35, Date: 25-Feb-2020, Time: 23:55:50, ID: ST200225P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	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	10536.147	11349.741	1.00	1.42	11.604	10.000	10.4	104.0	NO		
2	2	PFPrS	248.9 > 79.7	2255.786	1532.492	1.00	1.75	18.400	10.000	11.1	111.3	NO	2.602	NO
3	3	3:3 FTCA	240.9 > 176.9	865.597	13732.229	1.00	2.20	0.788	10.000	10.2	102.0	NO	3.389	NO
4	4	PFPeA	263.1 > 218.9	11273.917	13732.229	1.00	2.35	10.262	10.000	10.5	104.8	NO		
5	5	PFBS	299.0 > 79.7	3103.234	1532.492	1.00	2.62	25.312	10.000	10.9	109.3	NO	3.354	NO
6	6	4:2 FTS	327.0 > 307	1864.429	1802.180	1.00	3.04	12.932	10.000	9.47	94.7	NO	0.862	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	11349.741		1.00	1.42	11349.741	12.500	12.7	101.5	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1532.492		1.00	2.62	1532.492	12.500	12.8	102.1	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	13732.229		1.00	2.35	13732.229	12.500	12.1	97.1	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	13732.229		1.00	2.35	13732.229	12.500	12.1	97.1	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1532.492		1.00	2.62	1532.492	12.500	12.8	102.1	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1802.180		1.00	3.04	1802.180	12.500	12.1	96.7	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	17768.063	22672.285	1.00	3.13	9.796	10.000	10.9	108.7	NO	17.487	NO
15	8	PFPeS	349.>79.7	2892.961	1532.492	1.00	3.33	23.597	10.000	9.96	99.6	NO	2.392	NO
16	9	HFPO-DA	285.1 > 168.9	3402.553	4105.450	1.00	3.34	10.360	10.000	10.4	104.1	NO	2.634	NO
17	10	5:3 FTCA	340.9 > 236.9	2281.890	15748.495	1.00	3.67	1.811	10.000	9.77	97.7	NO	1.780	NO
18	11	PFHpA	363.0 > 318.9	15590.375	15748.495	1.00	3.73	12.374	10.000	9.97	99.7	NO	33.468	NO
19	12	ADONA	376.8 > 250.9	36446.266	15748.495	1.00	3.83	28.928	10.000	10.1	101.3	NO	4.007	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	22672.285		1.00	3.13	22672.285	12.500	12.6	101.1	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1532.492		1.00	2.62	1532.492	12.500	12.8	102.1	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	4105.450		1.00	3.34	4105.450	12.500	13.1	104.5	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	15748.495		1.00	3.73	15748.495	12.500	12.8	102.1	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	15748.495		1.00	3.73	15748.495	12.500	12.8	102.1	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	15748.495		1.00	3.73	15748.495	12.500	12.8	102.1	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	3182.328	3526.958	1.00	3.86	11.279	10.000	11.0	110.3	NO	2.447	NO
28	15	6:2 FTS	427.0 > 407	1958.603	1509.448	1.00	4.18	16.220	10.000	10.3	102.8	NO	1.138	NO
29	16	L-PFOA	412.8 > 368.9	21233.873	22115.354	1.00	4.23	12.002	10.000	10.5	105.2	NO	3.322	NO
30	18	PFecHS	460.8 > 381.0	2994.177	22115.354	1.00	4.24	1.692	10.000	11.3	113.5	NO	0.516	NO
31	19	PFHpS	449.0 > 79.7	3162.209	3878.258	1.00	4.35	10.192	10.000	11.0	109.7	NO	2.076	NO
32	20	7:3 FTCA	440.9 > 336.9	2491.909	18827.068	1.00	4.66	1.654	10.000	10.7	106.9	NO	1.670	NO
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3526.958		1.00	3.86	3526.958	12.500	12.9	103.2	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1509.448		1.00	4.18	1509.448	12.500	12.3	98.3	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	22115.354		1.00	4.23	22115.354	12.500	13.9	111.0	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	22115.354		1.00	4.23	22115.354	12.500	13.9	111.0	NO		

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Name: 200225P1-35, Date: 25-Feb-2020, Time: 23:55:50, ID: ST200225P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	3878.258		1.00	4.75	3878.258	12.500	13.3	106.3	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	18827.068		1.00	4.67	18827.068	12.500	12.6	100.9	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	16820.586	18827.068	1.00	4.67	11.168	10.000	9.33	93.3	NO	8.188	NO
41	22	PFOSA	497.9 > 77.9	2996.148	4456.766	1.00	4.73	8.403	10.000	10.3	102.6	NO	23.119	NO
42	23	L-PFOS	498.9 > 79.7	3062.696	3878.258	1.00	4.75	9.871	10.000	10.6	105.5	NO	2.258	NO
43	25	9Cl-PF30NS	530.7 > 350.8	3172.193	3878.258	1.00	4.96	10.224	10.000	10.2	101.5	NO	13.579	NO
44	26	PFDA	513 > 468.8	20788.994	21187.010	1.00	5.04	12.265	10.000	10.4	104.2	NO	10.434	NO
45	27	8:2 FTS	526.9 > 507	1363.472	1245.549	1.00	5.01	13.683	10.000	10.9	109.0	NO	3.241	NO
46	65	13C5-PFNA-EIS	468.2 > 422.9	18827.068		1.00	4.67	18827.068	12.500	12.6	100.9	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4456.766		1.00	4.73	4456.766	12.500	11.9	94.9	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3878.258		1.00	4.75	3878.258	12.500	13.3	106.3	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3878.258		1.00	4.75	3878.258	12.500	13.3	106.3	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	21187.010		1.00	5.04	21187.010	12.500	13.0	103.7	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1245.549		1.00	5.01	1245.549	12.500	12.2	97.5	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	2796.370	3878.258	1.00	5.10	9.013	10.000	10.1	100.5	NO	2.024	NO
54	29	L-MeFOSAA	570 > 419	5714.125	4947.920	1.00	5.18	14.436	10.000	7.47	74.7	NO	1.852	NO
55	31	L-EtFOSAA	584.1 > 419	4818.179	5612.860	1.00	5.34	10.730	10.000	8.97	89.7	NO	1.124	NO
56	33	PFUdA	563.0 > 518.9	17874.787	20486.691	1.00	5.35	10.906	10.000	11.7	116.8	NO	24.491	NO
57	34	PFDS	598.8 > 79.7	2555.571	3878.258	1.00	5.40	8.237	10.000	10.7	107.2	NO	1.751	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	7563.466	18701.250	1.00	5.56	5.055	10.000	11.1	110.6	NO	19.483	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	3878.258		1.00	4.75	3878.258	12.500	13.3	106.3	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	4947.920		1.00	5.18	4947.920	12.500	15.0	119.8	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5612.860		1.00	5.34	5612.860	12.500	14.2	113.6	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	20486.691		1.00	5.35	20486.691	12.500	12.7	101.4	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3878.258		1.00	4.75	3878.258	12.500	13.3	106.3	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	18701.250		1.00	5.62	18701.250	12.500	11.1	88.7	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	1729.649	984.858	1.00	5.61	21.953	10.000	9.80	98.0	NO	1.012	NO
67	37	PFDoA	612.9 > 569.0	17561.729	18701.250	1.00	5.63	11.738	10.000	10.8	108.4	NO	10.862	NO
68	38	N-MeFOSA	512.1 > 168.9	7832.847	21467.566	1.00	5.74	54.438	50.000	51.8	103.5	NO	1.631	NO
69	39	PFTrDA	662.9 > 618.9	20171.350	18701.250	1.00	5.87	13.483	10.000	12.1	120.7	NO	62.608	NO
70	40	PFDoS	698.8 > 79.7	3140.568	22419.002	1.00	5.89	1.751	10.000	10.8	108.1	NO	3.427	NO
71	41	PFTeDA	713.0 > 669.0	19247.078	22419.002	1.00	6.08	10.731	10.000	11.3	112.7	NO	15.725	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	984.858		1.00	5.61	984.858	12.500	13.7	109.5	NO		

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Name: 200225P1-35, Date: 25-Feb-2020, Time: 23:55:50, ID: ST200225P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	18701.250		1.00	5.62	18701.250	12.500	11.1	88.7	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	21467.566		1.00	5.76	21467.566	149.200	152	101.7	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	18701.250		1.00	5.62	18701.250	12.500	11.1	88.7	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	22419.002		1.00	6.08	22419.002	12.500	11.8	94.6	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	22419.002		1.00	6.08	22419.002	12.500	11.8	94.6	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	10028.024	27610.295	1.00	6.14	54.189	50.000	52.4	104.8	NO	1.645	NO
80	43	PFHxDA	813.1 > 768.6	19186.219	29339.063	1.00	6.40	8.174	10.000	10.9	108.9	NO	179.820	NO
81	44	PFODA	913.1 > 868.8	24131.086	29339.063	1.00	6.63	10.281	10.000	11.6	116.3	NO		
82	45	N-MeFOSE	616.1 > 58.9	7519.145	19279.162	1.00	6.29	58.190	50.000	54.2	108.4	NO		
83	46	N-EtFOSE	630.1 > 58.9	7593.020	23256.705	1.00	6.44	48.712	50.000	49.3	98.6	NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	27610.295		1.00	6.15	27610.295	149.200	153	102.4	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	29339.063		1.00	6.40	29339.063	12.500	11.3	90.6	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	29339.063		1.00	6.40	29339.063	12.500	11.3	90.6	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	19279.162		1.00	6.28	19279.162	149.200	160	107.0	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	23256.705		1.00	6.43	23256.705	149.200	156	104.4	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3878.258		1.00	4.75	3878.258	12.500	13.3	106.3	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	11349.741	13923.475	1.00	1.42	10.189	12.500	12.7	101.9	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	13732.229	24182.164	1.00	2.35	7.098	12.500	12.0	96.3	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1532.492	1464.006	1.00	2.62	13.085	12.500	11.6	92.9	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	4105.450	24182.164	1.00	3.34	2.122	12.500	12.2	97.3	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1802.180	1464.006	1.00	3.04	15.387	12.500	11.7	93.7	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	22672.285	24182.164	1.00	3.13	11.720	12.500	12.0	96.3	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	15748.495	24182.164	1.00	3.73	8.141	12.500	12.4	98.9	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3526.958	1464.006	1.00	3.86	30.114	12.500	12.0	95.7	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1509.448	4426.062	1.00	4.18	4.263	12.500	11.1	88.7	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	18827.068	20522.742	1.00	4.67	11.467	12.500	12.2	97.8	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4456.766	20674.877	1.00	4.73	2.695	12.500	12.8	102.6	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	22115.354	24141.570	1.00	4.23	11.451	12.500	12.4	99.3	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3878.258	4426.062	1.00	4.75	10.953	12.500	11.5	92.3	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	21187.010	20986.670	1.00	5.04	12.619	12.500	13.1	104.6	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1245.549	4426.062	1.00	5.01	3.518	12.500	10.7	85.3	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	4947.920	20674.877	1.00	5.18	2.992	12.500	17.2	137.5	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	20486.691	20674.877	1.00	5.35	12.386	12.500	12.3	98.3	NO		

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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-35.qld

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Name: 200225P1-35, Date: 25-Feb-2020, Time: 23:55:50, ID: ST200225P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	5612.860	20674.877	1.00	5.34	3.394	12.500	14.7	117.3	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	18701.250	20986.670	1.00	5.62	11.139	12.500	11.5	92.0	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	984.858	4426.062	1.00	5.61	2.781	12.500	11.7	93.4	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	21467.566	20674.877	1.00	5.76	12.979	149.200	162	108.3	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	22419.002	20674.877	1.00	6.08	13.554	12.500	12.9	103.5	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	27610.295	20674.877	1.00	6.15	16.693	149.200	168	112.8	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	29339.063	20674.877	1.00	6.40	17.738	12.500	11.9	94.9	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	19279.162	20674.877	1.00	6.28	11.656	149.200	160	107.2	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	23256.705	20674.877	1.00	6.43	14.061	149.200	164	109.8	NO		
119	99	13C4-PFBA	217.0 > 172.0	13923.475	13923.475	1.00	1.42	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	24182.164	24182.164	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	24141.570	24141.570	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1464.006	1464.006	1.00	3.87	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	20522.742	20522.742	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	4426.062	4426.062	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	20986.670	20986.670	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	20674.877	20674.877	1.00	5.35	12.500	12.500	12.5	100.0	NO		

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Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 14:31:44 Pacific Standard Time
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Calibration: P:\PFAS5.pro\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Compound name: PFBA

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2	2 200225P1-2	IPA	25-Feb-20	18:09:11
3	3 200225P1-3	ST200225P1-1 PFC CS-2 20B1102	25-Feb-20	18:19:42
4	4 200225P1-4	ST200225P1-2 PFC CS-1 20B1103	25-Feb-20	18:30:13
5	5 200225P1-5	ST200225P1-3 PFC CS0 20B1104	25-Feb-20	18:40:42
6	6 200225P1-6	ST200225P1-4 PFC CS1 20B1105	25-Feb-20	18:51:13
7	7 200225P1-7	ST200225P1-5 PFC CS2 20B1106	25-Feb-20	19:01:42
8	8 200225P1-8	ST200225P1-6 PFC CS3 20B1107	25-Feb-20	19:12:14
9	9 200225P1-9	ST200225P1-7 PFC CS4 20B1108	25-Feb-20	19:22:44
10	10 200225P1-10	ST200225P1-8 PFC CS5 20B1109	25-Feb-20	19:33:15
11	11 200225P1-11	ST200225P1-9 PFC CS6 20B1110	25-Feb-20	19:43:44
12	12 200225P1-12	ST200225P1-10 PFC CS7 20B1111	25-Feb-20	19:54:16
13	13 200225P1-13	IB	25-Feb-20	20:04:45
14	14 200225P1-14	ICV200225P1-1 PFC ICV 20B1112	25-Feb-20	20:15:16
15	15 200225P1-15	IB	25-Feb-20	20:25:46
16	16 200225P1-16	2000305-01 8 Chestnut Dr 0.11658	25-Feb-20	20:36:14
17	17 200225P1-17	2000305-02 10 Chestnut Dr 0.11788	25-Feb-20	20:46:46
18	18 200225P1-18	B0B0146-BLK1 Method Blank 0.25	25-Feb-20	20:57:15
19	19 200225P1-19	B0B0146-BS1 OPR 0.25	25-Feb-20	21:07:48
20	20 200225P1-20	B0B0146-BSD1 LCSD 0.25	25-Feb-20	21:18:16
21	21 200225P1-21	2000322-10 3EFF 0.25804	25-Feb-20	21:28:47
22	22 200225P1-22	2000322-11 3INF FRB 0.24918	25-Feb-20	21:39:19
23	23 200225P1-23	2000322-12 3INF 0.24453	25-Feb-20	21:49:47
24	24 200225P1-24	2000322-13 2EFF 0.25549	25-Feb-20	22:00:18
25	25 200225P1-25	2000322-14 2INF FRB 0.24928	25-Feb-20	22:10:49
26	26 200225P1-26	2000322-15 2INF 0.24263	25-Feb-20	22:21:18
27	27 200225P1-27	2000322-16 Post CCB 1BEFF 0.25545	25-Feb-20	22:31:50
28	28 200225P1-28	2000322-17 1INF FRB 0.18612	25-Feb-20	22:42:20
29	29 200225P1-29	2000322-18 1INF 0.25095	25-Feb-20	22:52:49
30	30 200225P1-30	2000322-19 1EFF 0.24912	25-Feb-20	23:03:20
31	31 200225P1-31	B0B0123-BLK1 Method Blank 0.25	25-Feb-20	23:13:50
32	32 200225P1-32	B0B0123-BS1 OPR 0.25	25-Feb-20	23:24:19

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Compound name: PFBA

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34	34 200225P1-34	2000318-01 RW-9 0.2508	25-Feb-20	23:45:22
35	35 200225P1-35	ST200225P1-11 PFC CS3 20B1107	25-Feb-20	23:55:50
36	36 200225P1-36	IB	26-Feb-20	00:06:22
37	37 200225P1-37	2000318-02 RW-10 0.25656	26-Feb-20	00:16:53
38	38 200225P1-38	2000318-03 RW-11 0.25855	26-Feb-20	00:27:22
39	39 200225P1-39	2000318-04 FRB-5 0.2568	26-Feb-20	00:37:53
40	40 200225P1-40	B0B0127-BLK1 Method Blank 0.25	26-Feb-20	00:48:24
41	41 200225P1-41	B0B0127-BS1 OPR 0.25	26-Feb-20	00:58:53
42	42 200225P1-42	B0B0127-MS1@5X Matrix Spike 0.25239	26-Feb-20	01:09:24
43	43 200225P1-43	B0B0127-MSD1@5X Matrix Spike Dup 0.24499	26-Feb-20	01:19:53
44	44 200225P1-44	2000321-01 EB02-20200213 0.25641	26-Feb-20	01:30:25
45	45 200225P1-45	2000321-02@5X I013WMW02SR-20200213 0.24488	26-Feb-20	01:40:55
46	46 200225P1-46	2000321-03@5X IS72MW17S-20200213 0.24942	26-Feb-20	01:51:24
47	47 200225P1-47	2000321-04@5X I012MW01SR-20200213 0.24804	26-Feb-20	02:01:56
48	48 200225P1-48	2000321-05@5X I012MW10S-20200213 0.24821	26-Feb-20	02:12:26
49	49 200225P1-49	2000321-06@5X I012MW11S-20200213 0.25358	26-Feb-20	02:22:55
50	50 200225P1-50	2000321-07@5X I012MW15S-20200213 0.25036	26-Feb-20	02:33:27
51	51 200225P1-51	2000321-08@5X DUP02-20200213 0.2466	26-Feb-20	02:43:55
52	52 200225P1-52	2000321-09@5X I003MW01S-20200213 0.25107	26-Feb-20	02:54:28
53	53 200225P1-53	ST200225P1-12 PFC CS3 20B1107	26-Feb-20	03:04:57
54	54 200225P1-54	IB	26-Feb-20	03:15:28
55	55 200225P1-55	2000321-10@5X I003MW15S-20200213 0.24522	26-Feb-20	03:25:58
56	56 200225P1-56	2000321-11@5X I003MW02S-20200213 0.24704	26-Feb-20	03:36:27
57	57 200225P1-57	2000314-06@5X I006MW01S-20200212 0.2551	26-Feb-20	03:46:59
58	58 200225P1-58	2000314-07@5X I006MW08S-20200212 0.25052	26-Feb-20	03:57:28
59	59 200225P1-59	2000314-07 I006MW08S-20200212 0.25052	26-Feb-20	04:07:59
60	60 200225P1-60	IB	26-Feb-20	04:18:30
61	61 200225P1-61	2000314-08@5X BMW07S-20200212 0.2539	26-Feb-20	04:28:59
62	62 200225P1-62	2000314-09@5X I005MW01SR-20200212 0.25498	26-Feb-20	04:39:30
63	63 200225P1-63	2000314-09 I005MW01SR-20200212 0.25498	26-Feb-20	04:50:01
64	64 200225P1-64	IB	26-Feb-20	05:00:30
65	65 200225P1-65	2000314-10@5X DUP05-20200212 0.25284	26-Feb-20	05:11:00
66	66 200225P1-66	2000314-11 IS72MW15S-20200212 0.25446	26-Feb-20	05:21:31
67	67 200225P1-67	ST200225P1-13 PFC CS3 20B1107	26-Feb-20	05:32:00
68	68 200225P1-68	IB	26-Feb-20	05:42:31

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Dataset: Untitled

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Compound name: PFBA

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69	69 200225P1-69	2000292-02 11535BFR POE Midpoint-1 0.25829	26-Feb-20	05:53:02
70	70 200225P1-70	2000292-03 11535BFR POE Effluent-1 0.25426	26-Feb-20	06:03:31
71	71 200225P1-71	B0B0102-BS2 OPR 0.125	26-Feb-20	06:14:03
72	72 200225P1-72	ST200225P1-14 PFC CS3 20B1107	26-Feb-20	06:24:33
73	73 200225P1-73	IB	26-Feb-20	06:35:02

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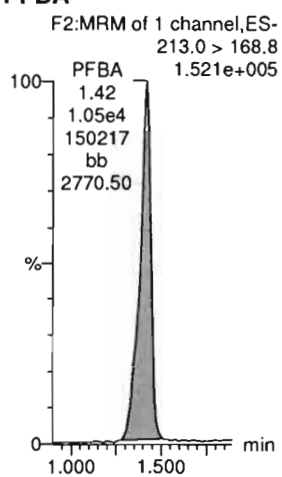
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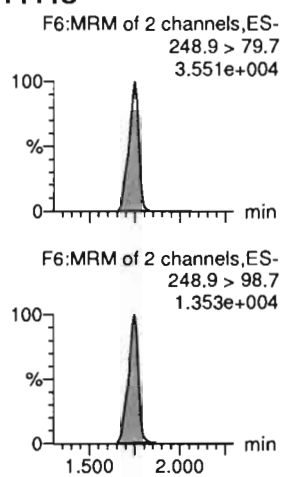
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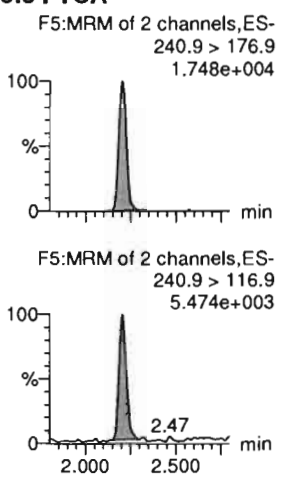
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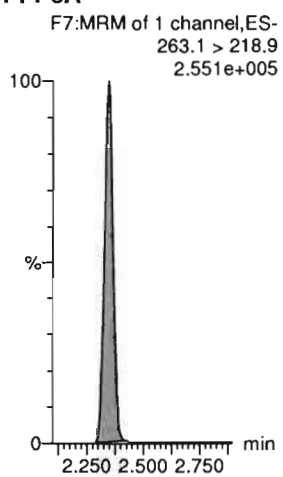
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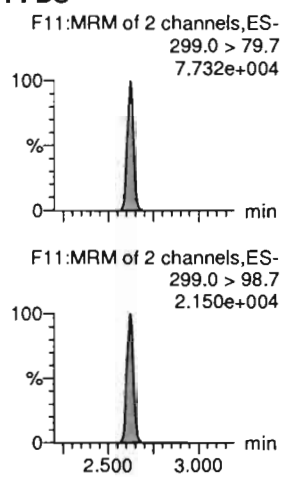
3:3 FTCA



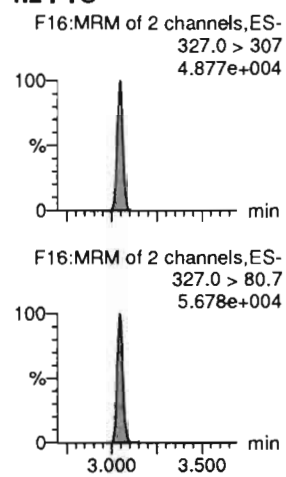
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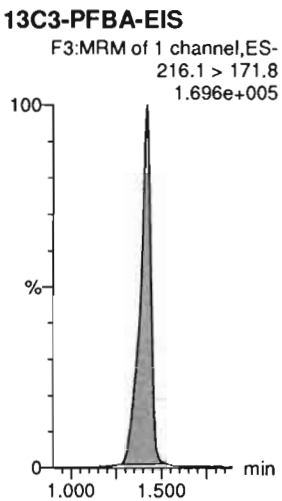
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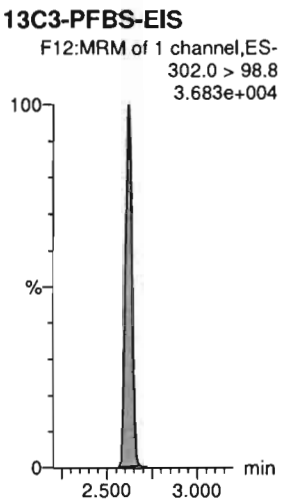
4:2 FTS



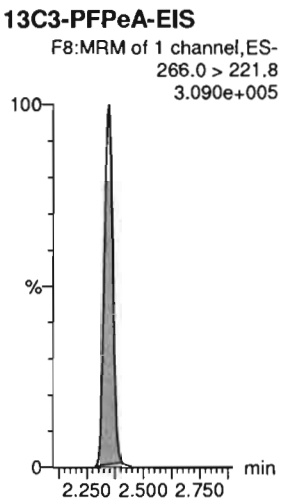
13C3-PFBA-EIS



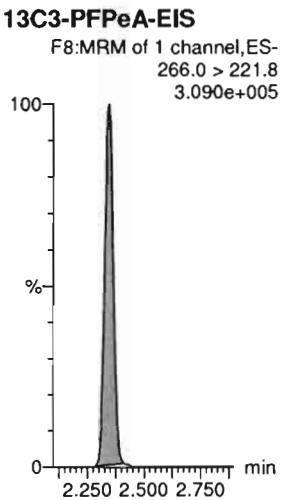
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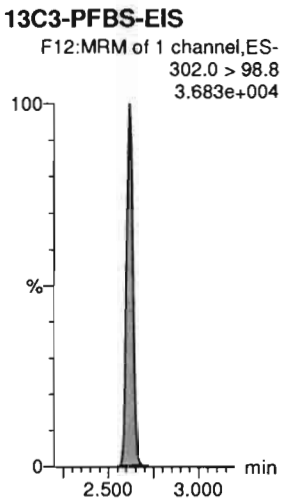
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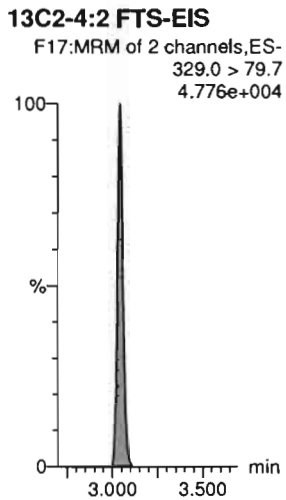
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS



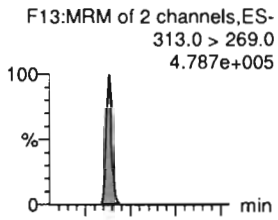
RK 2/26/2020

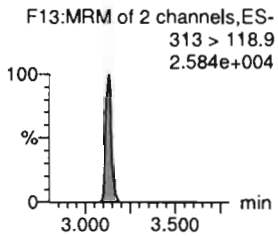
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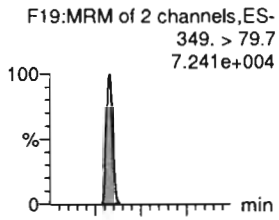
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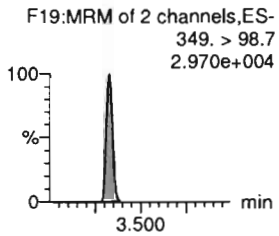
PFHxA



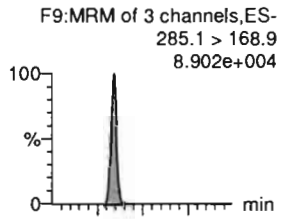


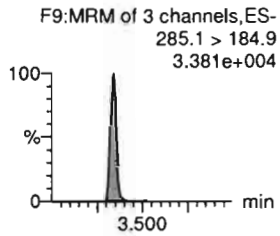
PFPeS



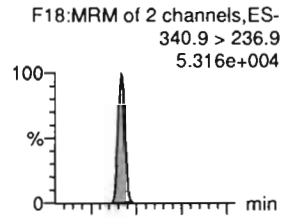


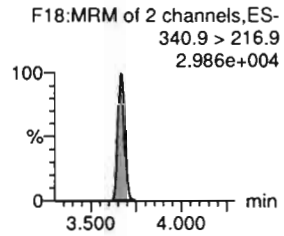
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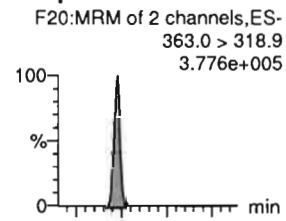


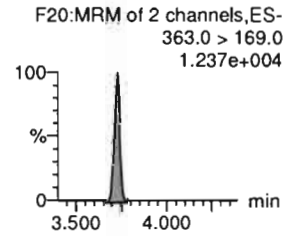
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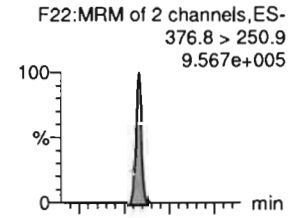


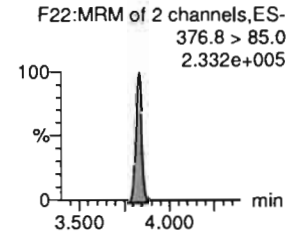
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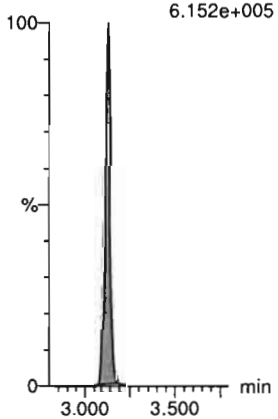


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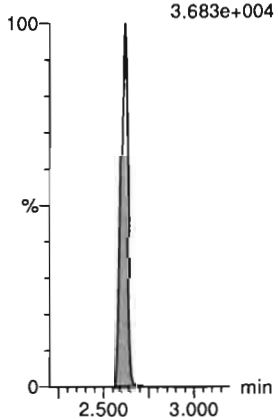




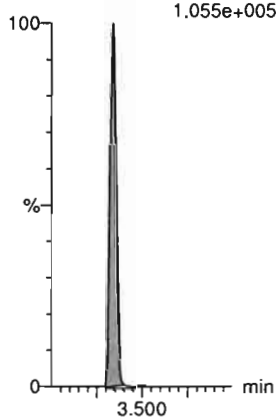
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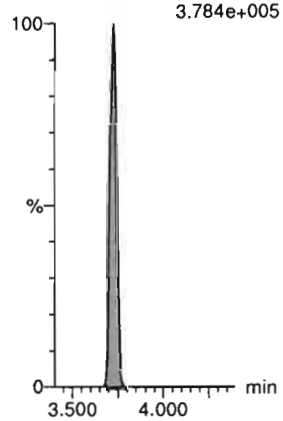
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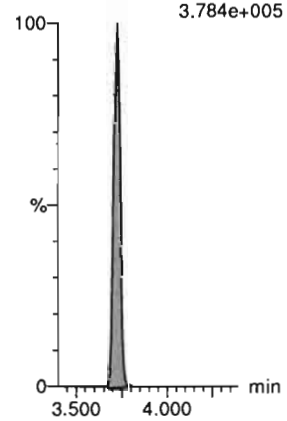
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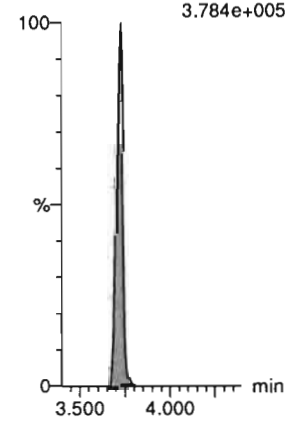
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13C4-PFHpA-EIS



13C4-PFHpA-EIS



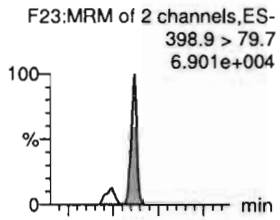
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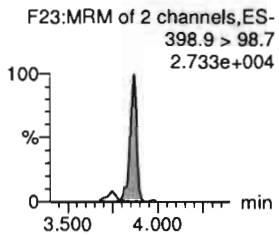
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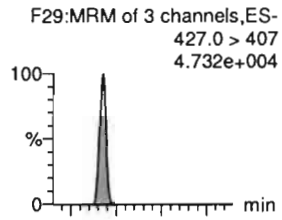
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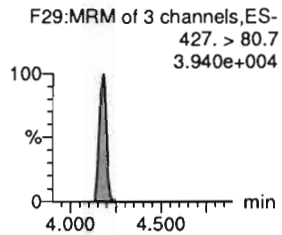
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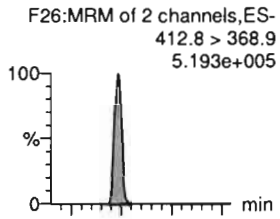


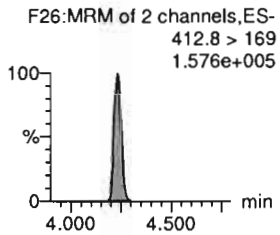
6:2 FTS



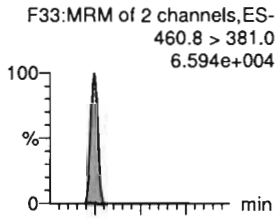


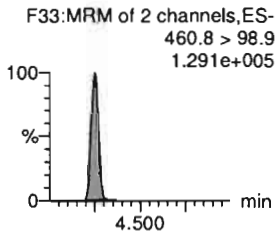
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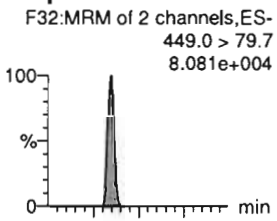


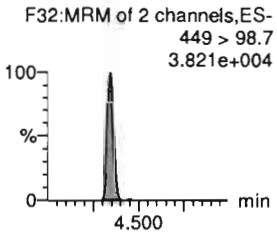
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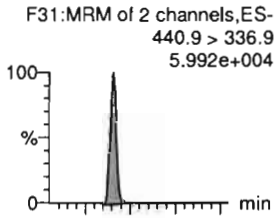


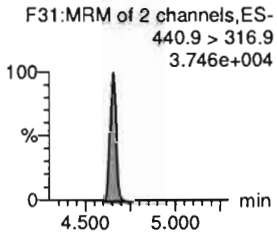
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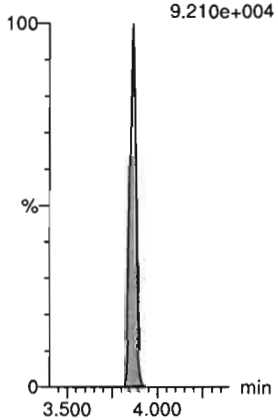


7:3 FTCA

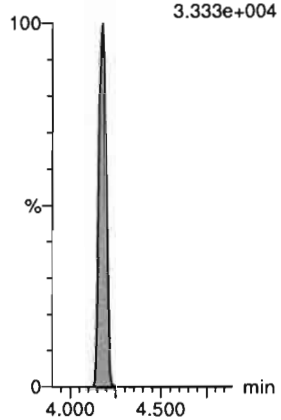




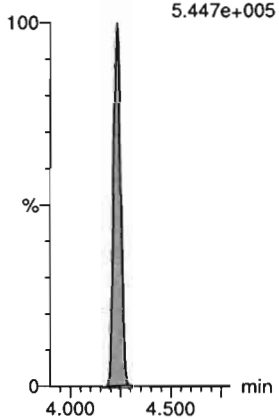
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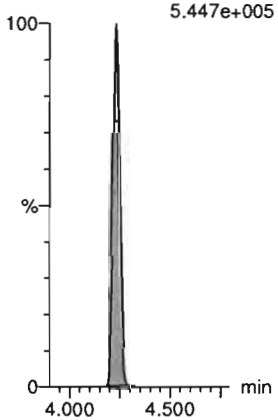
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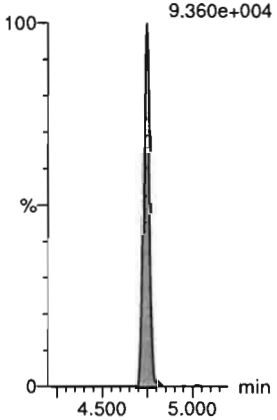
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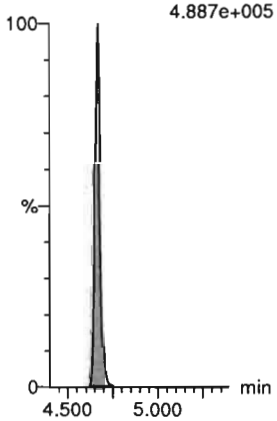
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13C8-PFOS-EIS



13C5-PFNA-EIS



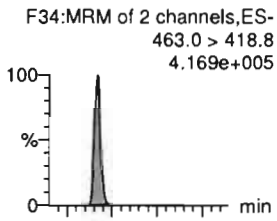
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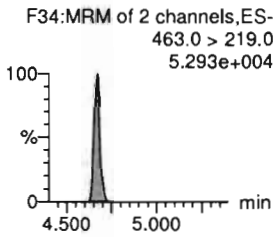
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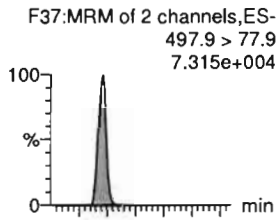
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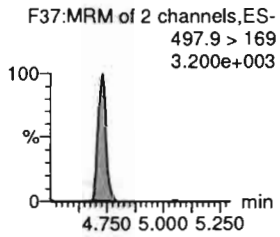
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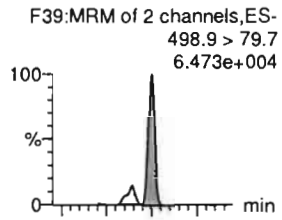


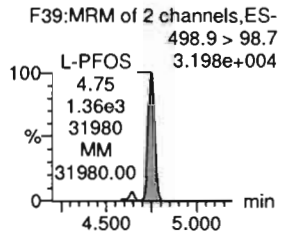
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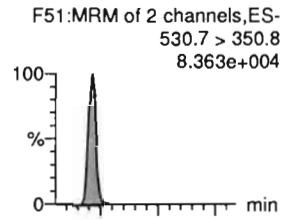


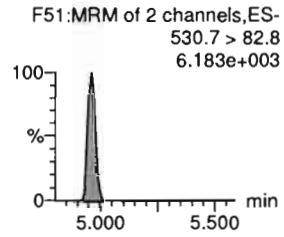
L-PFOS



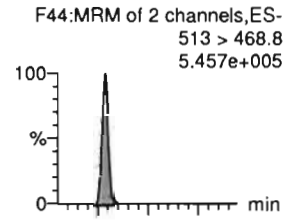


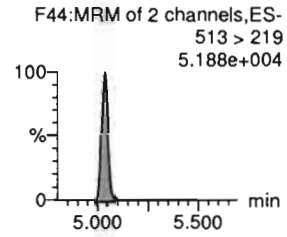
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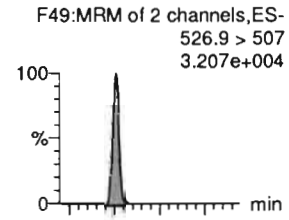


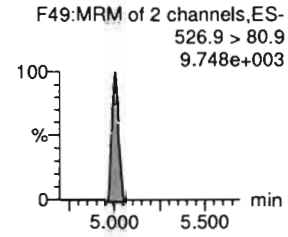
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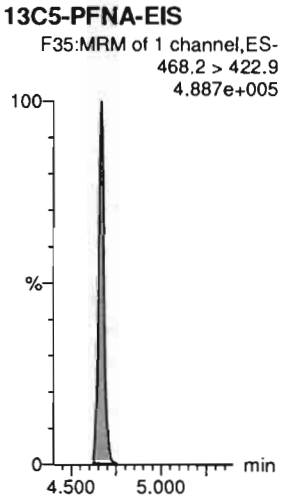


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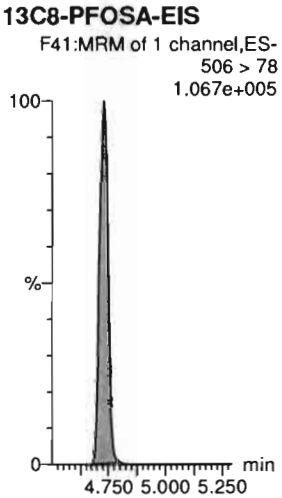




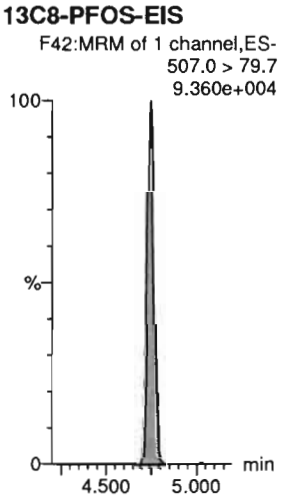
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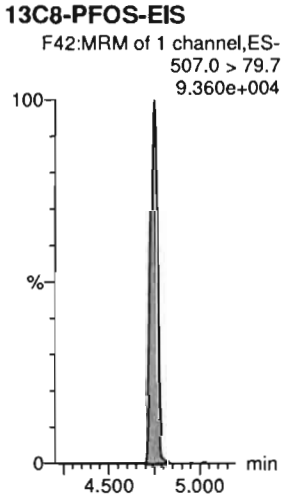
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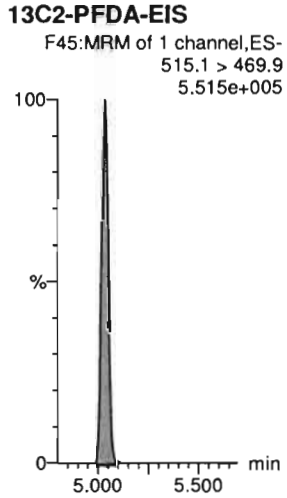
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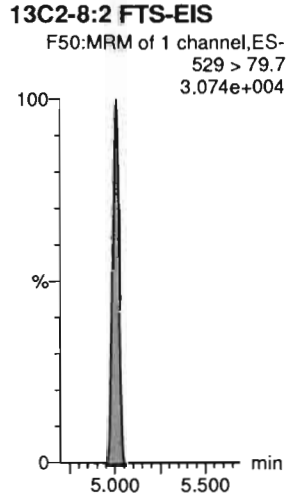
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS



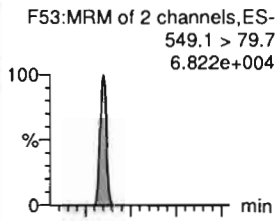
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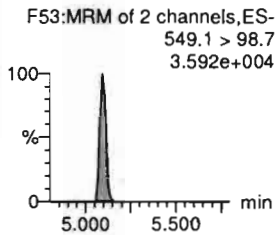
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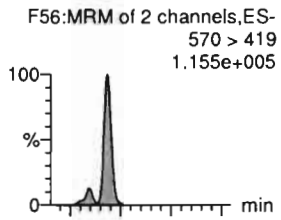
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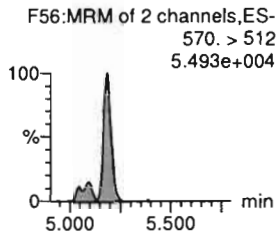
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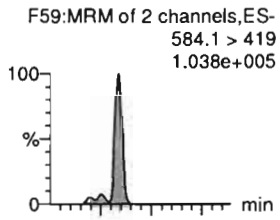


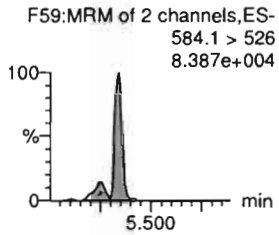
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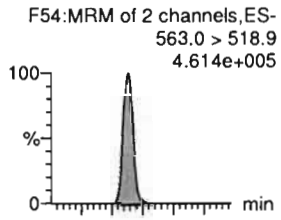


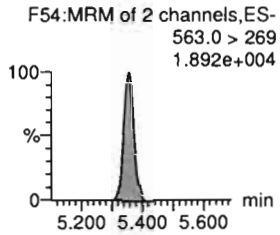
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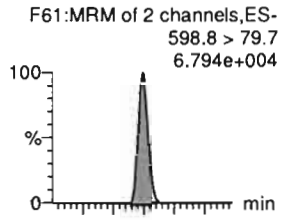


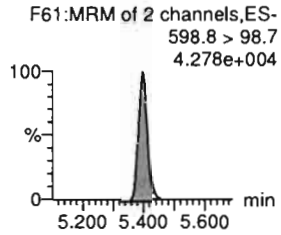
PFUdA



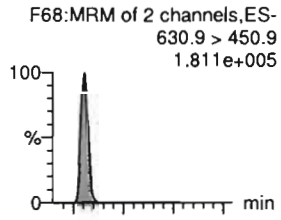


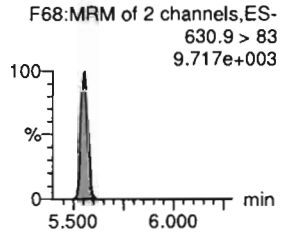
PFDS



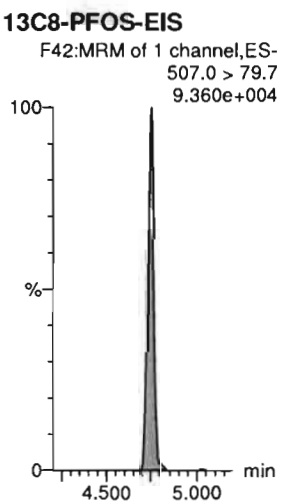


11Cl-PF30UdS

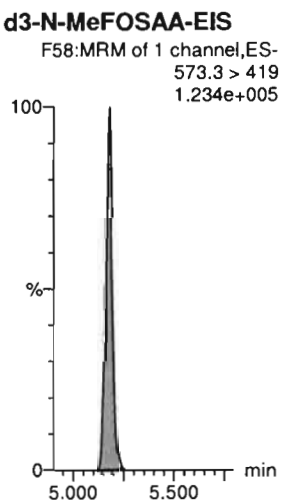




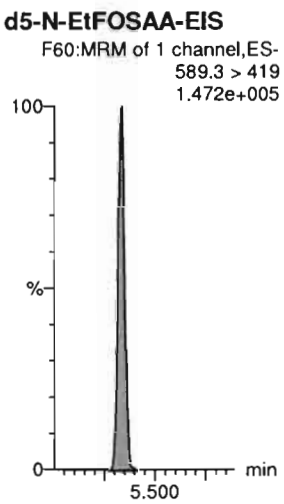
13C8-PFOS-EIS



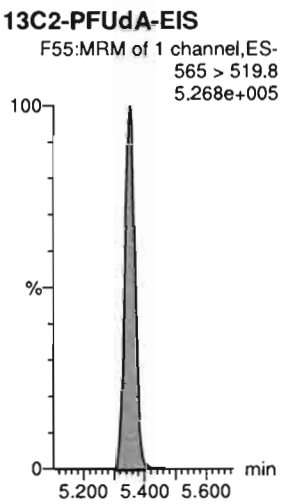
d3-N-MeFOSAA-EIS



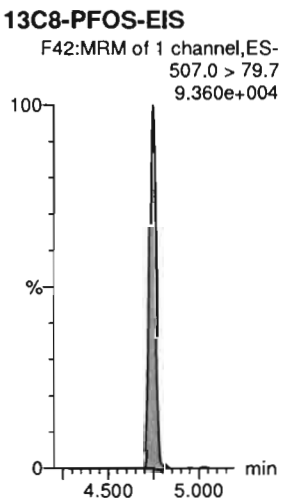
d5-N-EtFOSAA-EIS



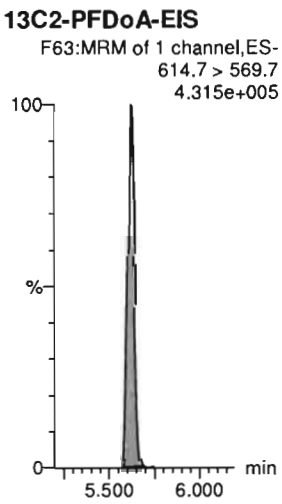
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



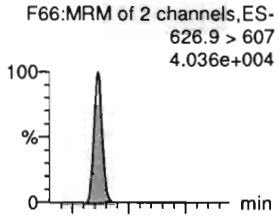
RK 2/26/2020

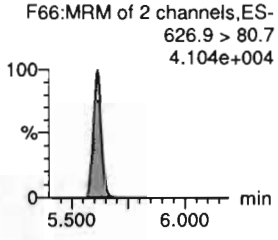
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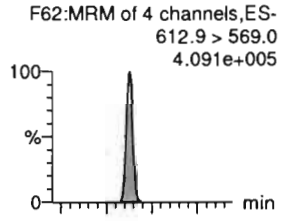
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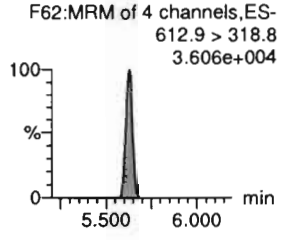
10:2 FTS



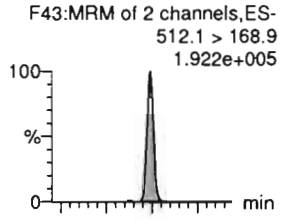


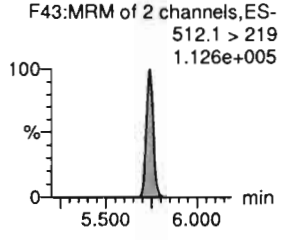
PFDoA



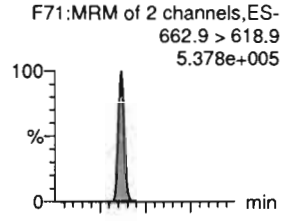


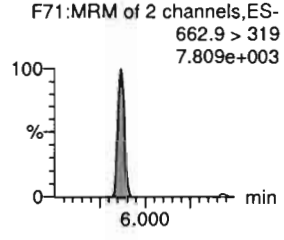
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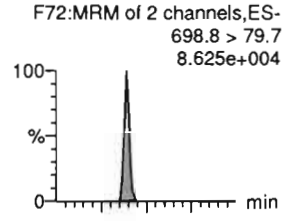


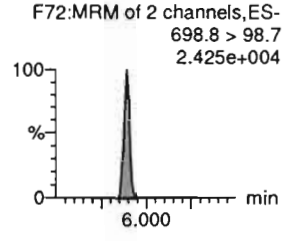
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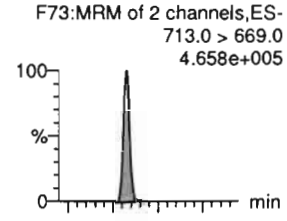


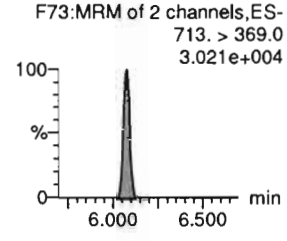
PFDoS



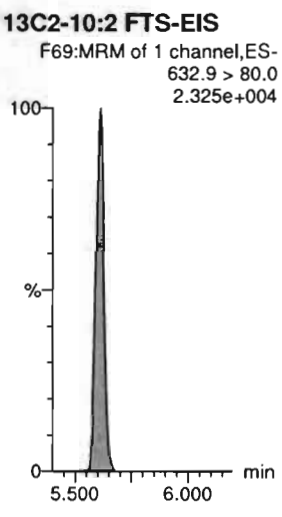


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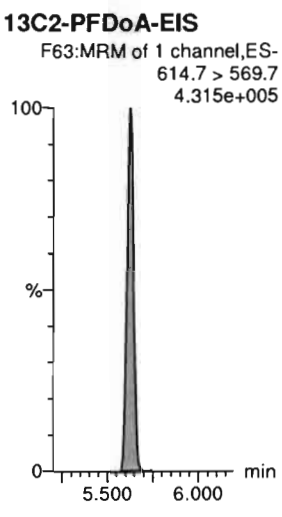




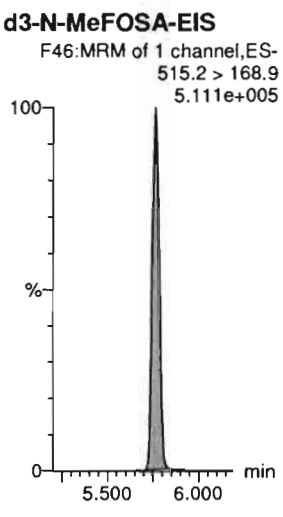
13C2-10:2 FTS-EIS



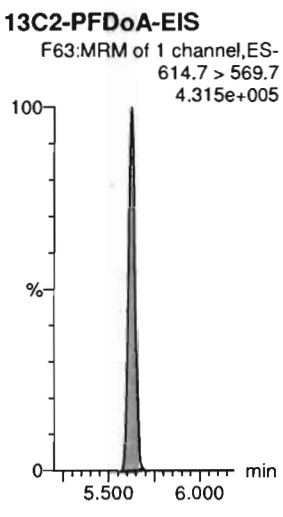
13C2-PFDoA-EIS



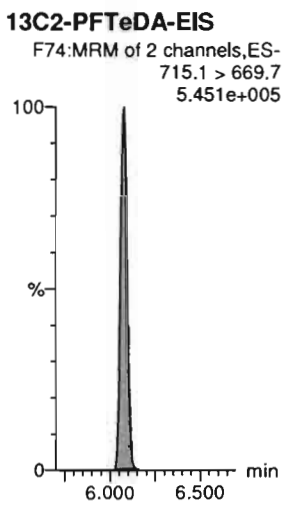
d3-N-MeFOSA-EIS



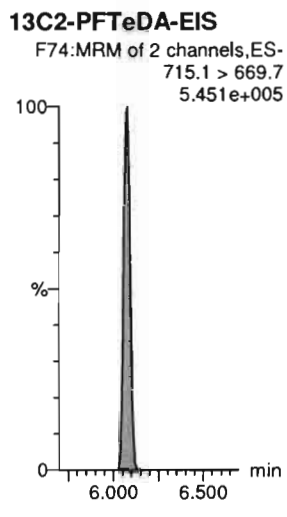
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



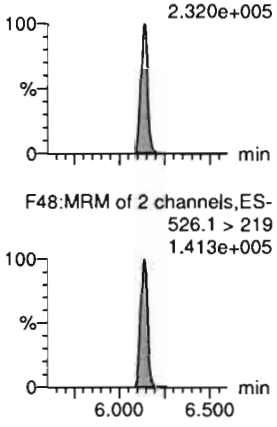
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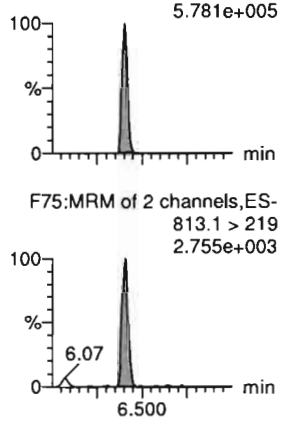
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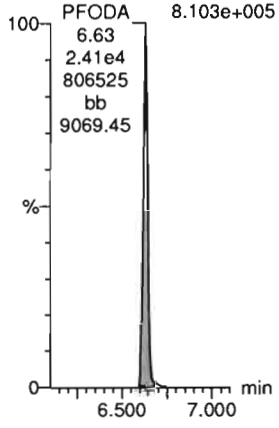
N-EtFOSA



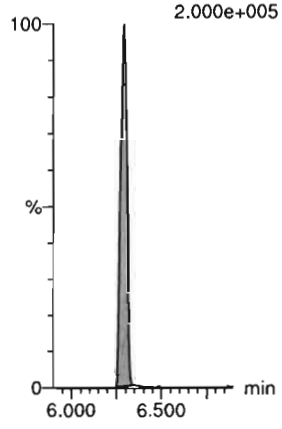
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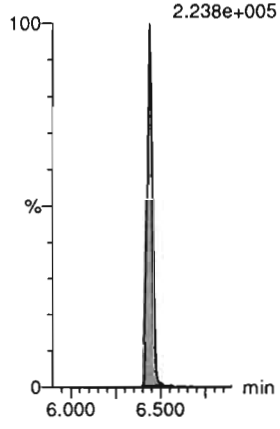
PFODA



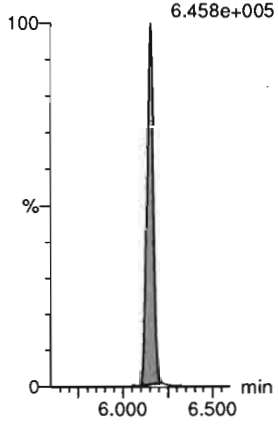
N-MeFOSE



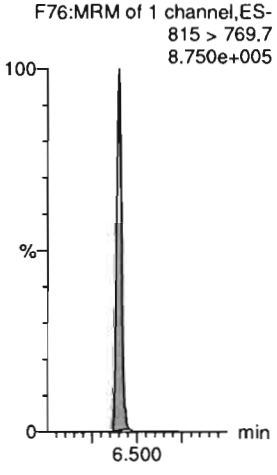
N-EtFOSE



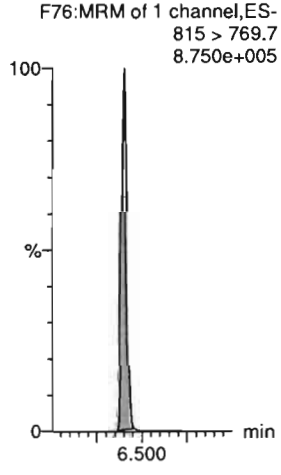
d5-N-ETFOSA-EIS



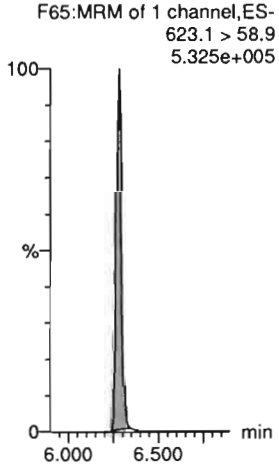
13C2-PFHxDA-EIS



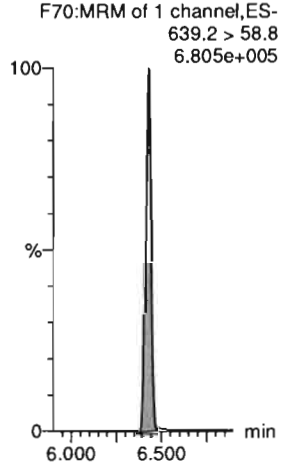
13C2-PFHxDA-EIS



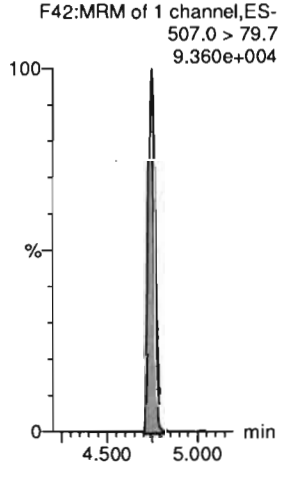
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C8-PFOS-EIS



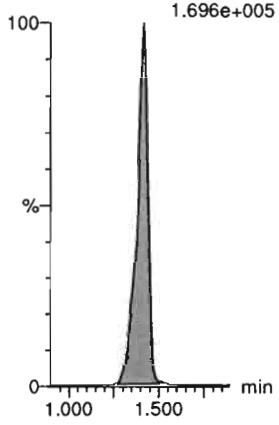
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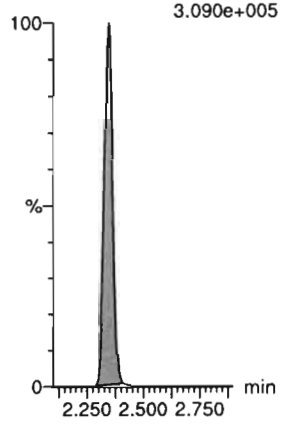
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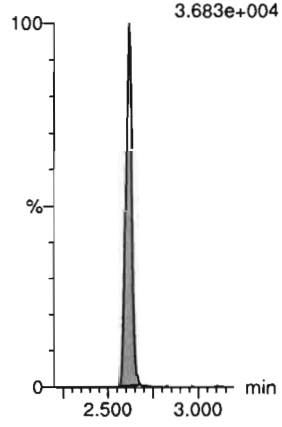
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F3:MRM of 1 channel,ES-
216.1 > 171.8
1.696e+005



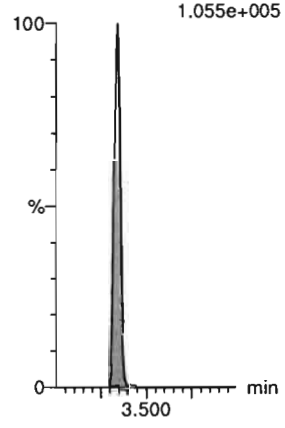
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
266.0 > 221.8
3.090e+005



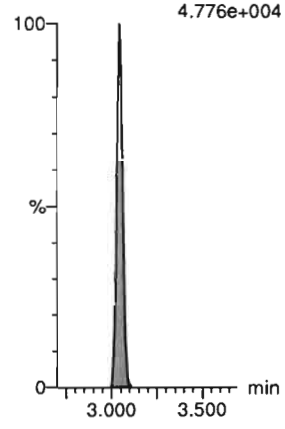
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F12:MRM of 1 channel,ES-
302.0 > 98.8
3.683e+004



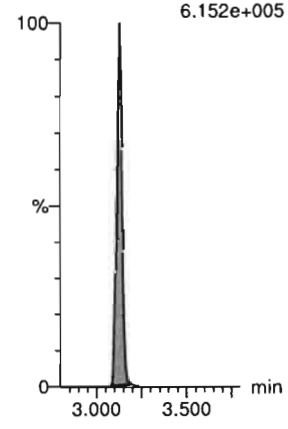
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F10:MRM of 2 channels,ES-
287.0 > 168.9
1.055e+005



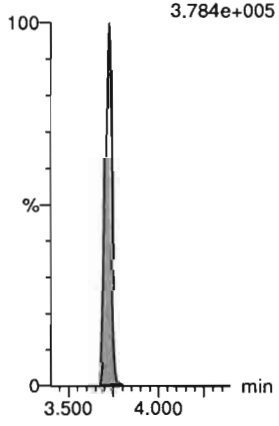
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.776e+004



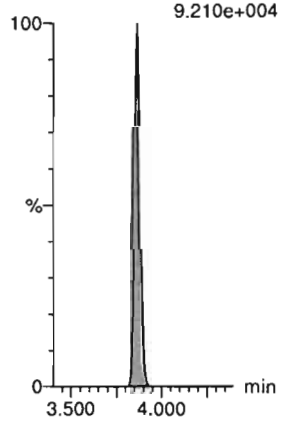
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
6.152e+005



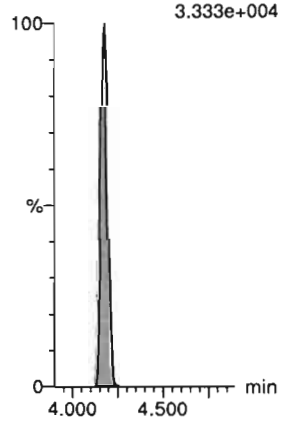
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.784e+005



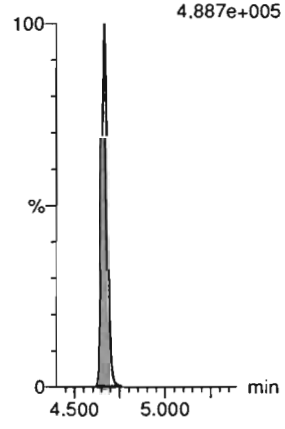
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
9.210e+004



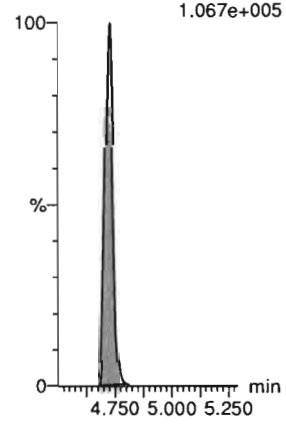
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.333e+004



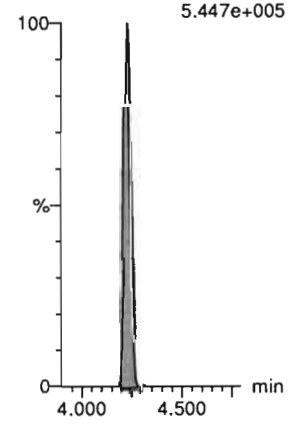
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.887e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.067e+005



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
5.447e+005



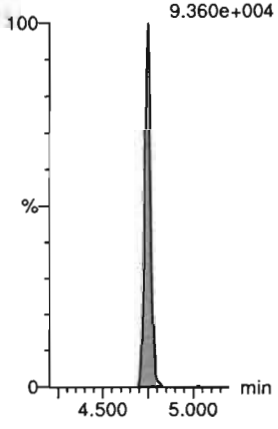
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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-35.qld

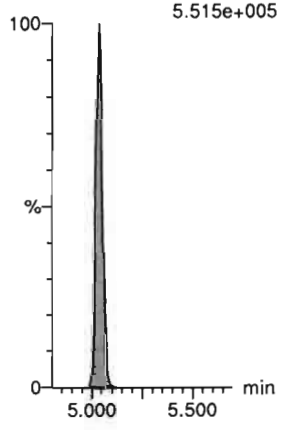
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Name: 200225P1-35, Date: 25-Feb-2020, Time: 23:55:50, ID: ST200225P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

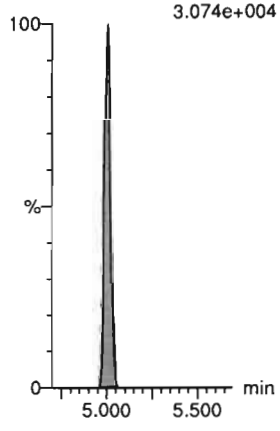
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.360e+004



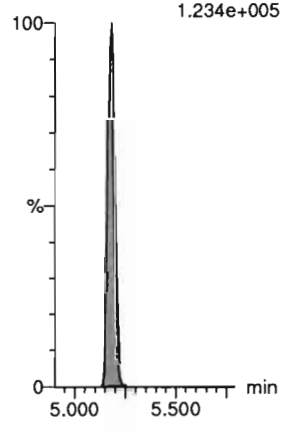
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.515e+005



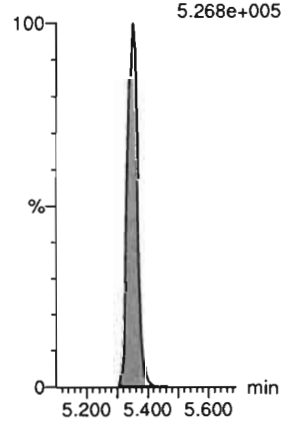
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.074e+004



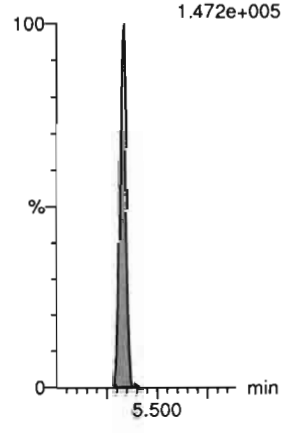
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.234e+005



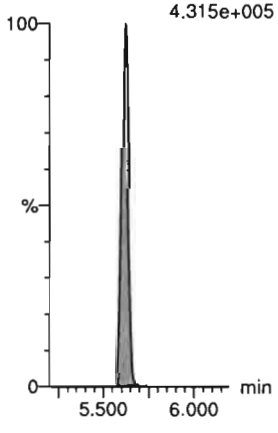
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.268e+005



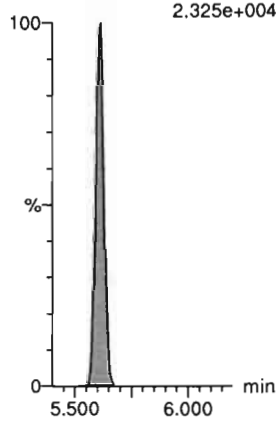
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.472e+005



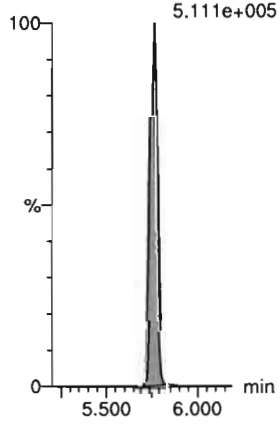
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.315e+005



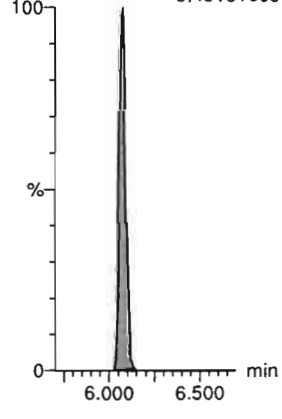
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.325e+004



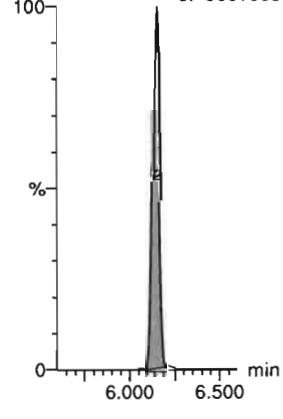
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
5.111e+005



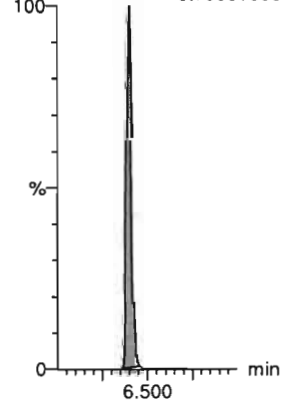
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.451e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
6.458e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.750e+005



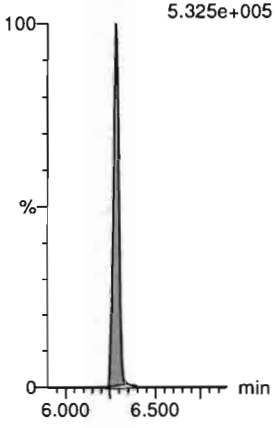
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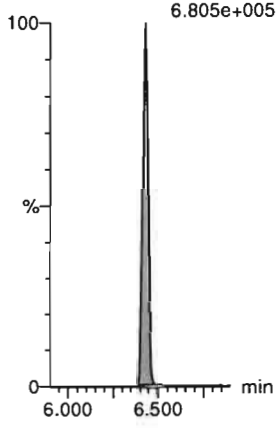
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Printed: Wednesday, February 26, 2020 13:29:36 Pacific Standard Time

Name: 200225P1-35, Date: 25-Feb-2020, Time: 23:55:50, ID: ST200225P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

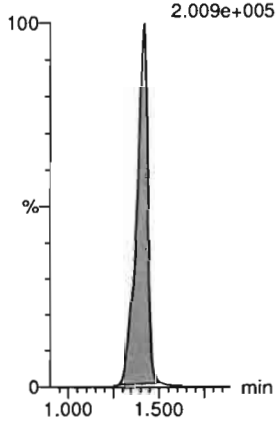
d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.325e+005



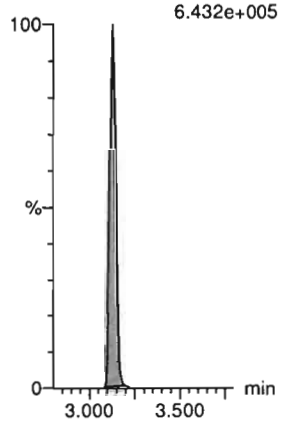
d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.805e+005



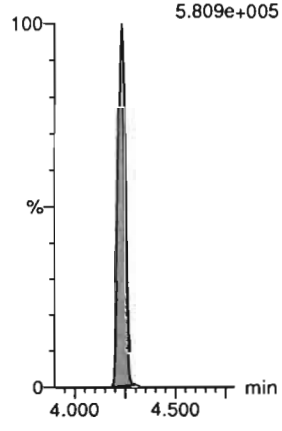
13C4-PFBA
F4:MRM of 1 channel,ES-
217.0 > 172.0
2.009e+005



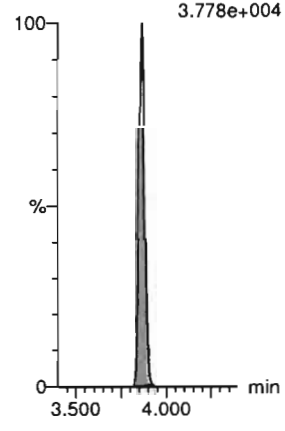
13C5-PFHxA
F15:MRM of 1 channel,ES-
318.0 > 272.9
6.432e+005



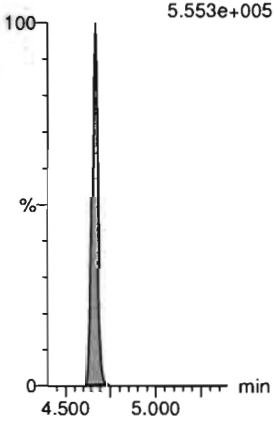
13C8-PFOA
F28:MRM of 1 channel,ES-
420.9 > 376.0
5.809e+005



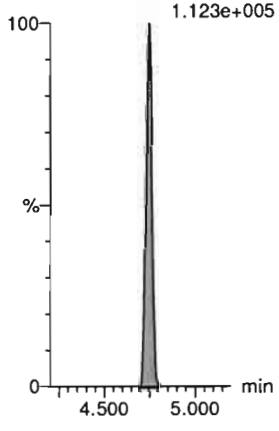
18O2-PFHxS
F25:MRM of 1 channel,ES-
403.0 > 102.6
3.778e+004



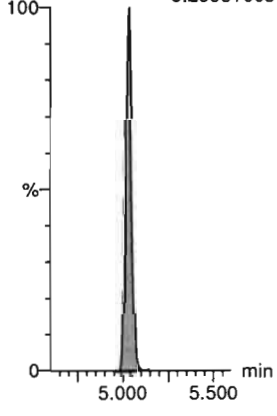
13C9-PFNA
F36:MRM of 1 channel,ES-
472.2 > 426.9
5.553e+005



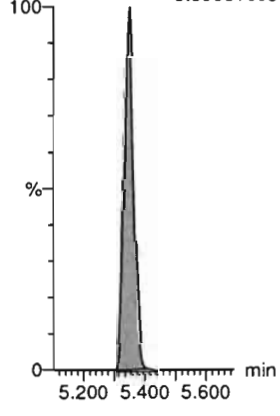
13C4-PFOS
F40:MRM of 1 channel,ES-
503 > 79.7
1.123e+005



13C6-PFDA
F47:MRM of 1 channel,ES-
519.1 > 473.7
5.296e+005



13C7-PFUdA
F57:MRM of 1 channel,ES-
570.1 > 524.8
5.596e+005



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PFNS not valid

√ JPV 02/26/20

Name: 200225P1-53, Date: 26-Feb-2020, Time: 03:04:57, ID: ST200225P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	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	10138.624	11104.702	1.00	1.42	11.413	10.000	10.2	102.3	NO		
2	2	PFPrS	248.9 > 79.7	2142.382	1538.521	1.00	1.75	17.406	10.000	10.5	105.3	NO	2.382	NO
3	3	3:3 FTCA	240.9 > 176.9	912.257	14167.407	1.00	2.20	0.805	10.000	10.4	104.2	NO	4.004	NO
4	4	PFPeA	263.1 > 218.9	11858.240	14167.407	1.00	2.34	10.463	10.000	10.7	106.9	NO		
5	5	PFBS	299.0 > 79.7	2993.937	1538.521	1.00	2.62	24.325	10.000	10.5	105.0	NO	3.006	NO
6	6	4:2 FTS	327.0 > 307	1871.148	1718.875	1.00	3.04	13.607	10.000	9.96	99.6	NO	0.896	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	11104.702		1.00	1.42	11104.702	12.500	12.4	99.3	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1538.521		1.00	2.62	1538.521	12.500	12.8	102.5	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	14167.407		1.00	2.34	14167.407	12.500	12.5	100.1	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	14167.407		1.00	2.34	14167.407	12.500	12.5	100.1	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1538.521		1.00	2.62	1538.521	12.500	12.8	102.5	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1718.875		1.00	3.04	1718.875	12.500	11.5	92.3	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	18673.750	23428.365	1.00	3.13	9.963	10.000	11.1	110.6	NO	16.219	NO
15	8	PFPeS	349.>79.7	3168.291	1538.521	1.00	3.32	25.741	10.000	10.9	108.7	NO	2.648	NO
16	9	HFPO-DA	285.1 > 168.9	3659.602	4034.481	1.00	3.34	11.339	10.000	11.4	113.9	NO	2.769	NO
17	10	5:3 FTCA	340.9 > 236.9	2236.564	15984.586	1.00	3.67	1.749	10.000	9.44	94.4	NO	1.734	NO
18	11	PFHpA	363.0 > 318.9	15986.570	15984.586	1.00	3.73	12.502	10.000	10.1	100.7	NO	29.422	NO
19	12	ADONA	376.8 > 250.9	34532.645	15984.586	1.00	3.83	27.005	10.000	9.46	94.6	NO	3.785	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	23428.365		1.00	3.13	23428.365	12.500	13.1	104.4	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1538.521		1.00	2.62	1538.521	12.500	12.8	102.5	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	4034.481		1.00	3.34	4034.481	12.500	12.8	102.7	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	15984.586		1.00	3.72	15984.586	12.500	13.0	103.7	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	15984.586		1.00	3.72	15984.586	12.500	13.0	103.7	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	15984.586		1.00	3.72	15984.586	12.500	13.0	103.7	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	2773.517	3211.341	1.00	3.86	10.796	10.000	10.6	105.5	NO	2.027	NO
28	15	6:2 FTS	427.0 > 407	2036.926	1442.435	1.00	4.17	17.652	10.000	11.2	112.0	NO	1.132	NO
29	16	L-PFOA	412.8 > 368.9	19583.383	21224.543	1.00	4.23	11.533	10.000	10.1	101.1	NO	2.920	NO
30	18	PFecHS	460.8 > 381.0	2760.345	21224.543	1.00	4.25	1.626	10.000	10.9	109.0	NO	0.465	NO
31	19	PFHpS	449.0 > 79.7	3159.228	3684.929	1.00	4.34	10.717	10.000	11.5	115.3	NO	2.039	NO
32	20	7:3 FTCA	440.9 > 336.9	2414.791	20823.170	1.00	4.66	1.450	10.000	9.39	93.9	NO	1.481	NO
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3211.341		1.00	3.86	3211.341	12.500	11.7	94.0	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1442.435		1.00	4.18	1442.435	12.500	11.7	94.0	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	21224.543		1.00	4.23	21224.543	12.500	13.3	106.6	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	21224.543		1.00	4.23	21224.543	12.500	13.3	106.6	NO		

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Name: 200225P1-53, Date: 26-Feb-2020, Time: 03:04:57, ID: ST200225P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	3684.929		1.00	4.75	3684.929	12.500	12.6	101.0	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	20823.170		1.00	4.67	20823.170	12.500	14.0	111.7	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	18180.563	20823.170	1.00	4.67	10.914	10.000	9.12	91.2	NO	7.293	NO
41	22	PFOSA	497.9 > 77.9	3185.529	4923.242	1.00	4.73	8.088	10.000	9.88	98.8	NO	24.084	NO
42	23	L-PFOS	498.9 > 79.7	3090.084	3684.929	1.00	4.75	10.482	10.000	11.2	112.0	NO	2.151	NO
43	25	9Cl-PF30NS	530.7 > 350.8	3008.673	3684.929	1.00	4.96	10.206	10.000	10.1	101.3	NO	14.117	NO
44	26	PFDA	513 > 468.8	19288.559	20819.160	1.00	5.04	11.581	10.000	9.84	98.4	NO	10.368	NO
45	27	8:2 FTS	526.9 > 507	1454.139	1323.310	1.00	5.01	13.736	10.000	10.9	109.4	NO	3.437	NO
46	65	13C5-PFNA-EIS	468.2 > 422.9	20823.170		1.00	4.67	20823.170	12.500	14.0	111.7	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4923.242		1.00	4.73	4923.242	12.500	13.1	104.8	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3684.929		1.00	4.75	3684.929	12.500	12.6	101.0	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3684.929		1.00	4.75	3684.929	12.500	12.6	101.0	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	20819.160		1.00	5.04	20819.160	12.500	12.7	101.9	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1323.310		1.00	5.00	1323.310	12.500	13.0	103.6	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	3165.731	3684.929	1.00	5.10	10.739	10.000	12.0	120.4	NO	2.383	NO
54	29	L-MeFOSAA	570 > 419	5643.036	4484.013	1.00	5.19	15.731	10.000	8.14	81.4	NO	2.163	NO
55	31	L-EtFOSAA	584.1 > 419	5483.549	5729.217	1.00	5.34	11.964	10.000	10.0	100.0	NO	1.161	NO
56	33	PFUdA	563.0 > 518.9	16407.303	21343.498	1.00	5.35	9.609	10.000	10.3	102.7	NO	25.691	NO
57	34	PFDS	598.8 > 79.7	2722.575	3684.929	1.00	5.40	9.236	10.000	12.0	120.3	NO	1.899	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	7506.242	19140.156	1.00	5.56	4.902	10.000	10.7	107.2	NO	18.381	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	3684.929		1.00	4.75	3684.929	12.500	12.6	101.0	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	4484.013		1.00	5.18	4484.013	12.500	13.6	108.6	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5729.217		1.00	5.34	5729.217	12.500	14.5	115.9	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	21343.498		1.00	5.35	21343.498	12.500	13.2	105.6	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3684.929		1.00	4.75	3684.929	12.500	12.6	101.0	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	19140.156		1.00	5.63	19140.156	12.500	11.4	90.8	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	1629.179	936.011	1.00	5.61	21.757	10.000	9.71	97.1	NO	1.015	NO
67	37	PFDoA	612.9 > 569.0	18397.139	19140.156	1.00	5.63	12.015	10.000	11.1	111.0	NO	10.636	NO
68	38	N-MeFOSA	512.1 > 168.9	7852.328	21849.549	1.00	5.74	53.620	50.000	51.0	101.9	NO	1.675	NO
69	39	PFTrDA	662.9 > 618.9	18880.117	19140.156	1.00	5.87	12.330	10.000	11.0	110.1	NO	64.676	NO
70	40	PFDoS	698.8 > 79.7	3169.839	20588.139	1.00	5.89	1.925	10.000	11.9	118.9	NO	2.855	NO
71	41	PFTeDA	713.0 > 669.0	15924.633	20588.139	1.00	6.08	9.669	10.000	10.2	101.5	NO	21.045	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	936.011		1.00	5.61	936.011	12.500	13.0	104.1	NO		

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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-53.qld

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Name: 200225P1-53, Date: 26-Feb-2020, Time: 03:04:57, ID: ST200225P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	19140.156		1.00	5.63	19140.156	12.500	11.4	90.8	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	21849.549		1.00	5.76	21849.549	149.200	154	103.5	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	19140.156		1.00	5.63	19140.156	12.500	11.4	90.8	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	20588.139		1.00	6.07	20588.139	12.500	10.9	86.9	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	20588.139		1.00	6.07	20588.139	12.500	10.9	86.9	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	9626.319	27826.098	1.00	6.14	51.615	50.000	49.9	99.8	NO	1.651	NO
80	43	PFHxDA	813.1 > 768.6	18972.604	28575.182	1.00	6.40	8.299	10.000	11.1	110.6	NO	194.487	NO
81	44	PFODA	913.1 > 868.8	25324.531	28575.182	1.00	6.63	11.078	10.000	12.5	125.3	NO		
82	45	N-MeFOSE	616.1 > 58.9	7010.353	19512.000	1.00	6.29	53.605	50.000	49.9	99.9	NO		
83	46	N-EtFOSE	630.1 > 58.9	8291.110	23608.133	1.00	6.44	52.399	50.000	53.0	106.1	NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	27826.098		1.00	6.15	27826.098	149.200	154	103.2	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	28575.182		1.00	6.40	28575.182	12.500	11.0	88.2	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	28575.182		1.00	6.40	28575.182	12.500	11.0	88.2	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	19512.000		1.00	6.28	19512.000	149.200	162	108.3	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	23608.133		1.00	6.43	23608.133	149.200	158	106.0	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3684.929		1.00	4.75	3684.929	12.500	12.6	101.0	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	11104.702	13524.131	1.00	1.42	10.264	12.500	12.8	102.7	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	14167.407	23890.418	1.00	2.34	7.413	12.500	12.6	100.6	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1538.521	1469.114	1.00	2.62	13.091	12.500	11.6	92.9	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	4034.481	23890.418	1.00	3.34	2.111	12.500	12.1	96.8	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1718.875	1469.114	1.00	3.04	14.625	12.500	11.1	89.1	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	23428.365	23890.418	1.00	3.13	12.258	12.500	12.6	100.7	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	15984.586	23890.418	1.00	3.72	8.363	12.500	12.7	101.6	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3211.341	1469.114	1.00	3.86	27.324	12.500	10.8	86.8	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1442.435	4090.575	1.00	4.18	4.408	12.500	11.5	91.7	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	20823.170	22192.109	1.00	4.67	11.729	12.500	12.5	100.0	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4923.242	22470.008	1.00	4.73	2.739	12.500	13.0	104.3	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	21224.543	23414.926	1.00	4.23	11.331	12.500	12.3	98.3	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3684.929	4090.575	1.00	4.75	11.260	12.500	11.9	94.9	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	20819.160	21244.740	1.00	5.04	12.250	12.500	12.7	101.5	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1323.310	4090.575	1.00	5.00	4.044	12.500	12.3	98.1	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	4484.013	22470.008	1.00	5.18	2.494	12.500	14.3	114.6	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	21343.498	22470.008	1.00	5.35	11.873	12.500	11.8	94.2	NO		

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Name: 200225P1-53, Date: 26-Feb-2020, Time: 03:04:57, ID: ST200225P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	5729.217	22470.008	1.00	5.34	3.187	12.500	13.8	110.1	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	19140.156	21244.740	1.00	5.63	11.262	12.500	11.6	93.0	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	936.011	4090.575	1.00	5.61	2.860	12.500	12.0	96.0	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	21849.549	22470.008	1.00	5.76	12.155	149.200	151	101.5	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	20588.139	22470.008	1.00	6.07	11.453	12.500	10.9	87.5	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	27826.098	22470.008	1.00	6.15	15.480	149.200	156	104.6	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	28575.182	22470.008	1.00	6.40	15.896	12.500	10.6	85.1	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	19512.000	22470.008	1.00	6.28	10.854	149.200	149	99.8	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	23608.133	22470.008	1.00	6.43	13.133	149.200	153	102.6	NO		
119	99	13C4-PFBA	217.0 > 172.0	13524.131	13524.131	1.00	1.42	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	23890.418	23890.418	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	23414.926	23414.926	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1469.114	1469.114	1.00	3.86	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	22192.109	22192.109	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	4090.575	4090.575	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	21244.740	21244.740	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	22470.008	22470.008	1.00	5.35	12.500	12.500	12.5	100.0	NO		

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Dataset: Untitled

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Method: P:\PFAS5.pro\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.pro\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	200225P1-1	IPA	25-Feb-20	17:58:29
2	2	200225P1-2	IPA	25-Feb-20	18:09:11
3	3	200225P1-3	ST200225P1-1 PFC CS-2 20B1102	25-Feb-20	18:19:42
4	4	200225P1-4	ST200225P1-2 PFC CS-1 20B1103	25-Feb-20	18:30:13
5	5	200225P1-5	ST200225P1-3 PFC CS0 20B1104	25-Feb-20	18:40:42
6	6	200225P1-6	ST200225P1-4 PFC CS1 20B1105	25-Feb-20	18:51:13
7	7	200225P1-7	ST200225P1-5 PFC CS2 20B1106	25-Feb-20	19:01:42
8	8	200225P1-8	ST200225P1-6 PFC CS3 20B1107	25-Feb-20	19:12:14
9	9	200225P1-9	ST200225P1-7 PFC CS4 20B1108	25-Feb-20	19:22:44
10	10	200225P1-10	ST200225P1-8 PFC CS5 20B1109	25-Feb-20	19:33:15
11	11	200225P1-11	ST200225P1-9 PFC CS6 20B1110	25-Feb-20	19:43:44
12	12	200225P1-12	ST200225P1-10 PFC CS7 20B1111	25-Feb-20	19:54:16
13	13	200225P1-13	IB	25-Feb-20	20:04:45
14	14	200225P1-14	ICV200225P1-1 PFC ICV 20B1112	25-Feb-20	20:15:16
15	15	200225P1-15	IB	25-Feb-20	20:25:46
16	16	200225P1-16	2000305-01 8 Chestnut Dr 0.11658	25-Feb-20	20:36:14
17	17	200225P1-17	2000305-02 10 Chestnut Dr 0.11788	25-Feb-20	20:46:46
18	18	200225P1-18	B0B0146-BLK1 Method Blank 0.25	25-Feb-20	20:57:15
19	19	200225P1-19	B0B0146-BS1 OPR 0.25	25-Feb-20	21:07:48
20	20	200225P1-20	B0B0146-BSD1 LCSD 0.25	25-Feb-20	21:18:16
21	21	200225P1-21	2000322-10 3EFF 0.25804	25-Feb-20	21:28:47
22	22	200225P1-22	2000322-11 3INF FRB 0.24918	25-Feb-20	21:39:19
23	23	200225P1-23	2000322-12 3INF 0.24453	25-Feb-20	21:49:47
24	24	200225P1-24	2000322-13 2EFF 0.25549	25-Feb-20	22:00:18
25	25	200225P1-25	2000322-14 2INF FRB 0.24928	25-Feb-20	22:10:49
26	26	200225P1-26	2000322-15 2INF 0.24263	25-Feb-20	22:21:18
27	27	200225P1-27	2000322-16 Post CCB 1BEFF 0.25545	25-Feb-20	22:31:50
28	28	200225P1-28	2000322-17 1INF FRB 0.18612	25-Feb-20	22:42:20
29	29	200225P1-29	2000322-18 1INF 0.25095	25-Feb-20	22:52:49
30	30	200225P1-30	2000322-19 1EFF 0.24912	25-Feb-20	23:03:20
31	31	200225P1-31	B0B0123-BLK1 Method Blank 0.25	25-Feb-20	23:13:50
32	32	200225P1-32	B0B0123-BS1 OPR 0.25	25-Feb-20	23:24:19

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Compound name: PFBA

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33	33	200225P1-33	B0B0123-BSD1 LCSD 0.25	25-Feb-20	23:34:51
34	34	200225P1-34	2000318-01 RW-9 0.2508	25-Feb-20	23:45:22
35	35	200225P1-35	ST200225P1-11 PFC CS3 20B1107	25-Feb-20	23:55:50
36	36	200225P1-36	IB	26-Feb-20	00:06:22
37	37	200225P1-37	2000318-02 RW-10 0.25656	26-Feb-20	00:16:53
38	38	200225P1-38	2000318-03 RW-11 0.25855	26-Feb-20	00:27:22
39	39	200225P1-39	2000318-04 FRB-5 0.2568	26-Feb-20	00:37:53
40	40	200225P1-40	B0B0127-BLK1 Method Blank 0.25	26-Feb-20	00:48:24
41	41	200225P1-41	B0B0127-BS1 OPR 0.25	26-Feb-20	00:58:53
42	42	200225P1-42	B0B0127-MS1@5X Matrix Spike 0.25239	26-Feb-20	01:09:24
43	43	200225P1-43	B0B0127-MSD1@5X Matrix Spike Dup 0.24499	26-Feb-20	01:19:53
44	44	200225P1-44	2000321-01 EB02-20200213 0.25641	26-Feb-20	01:30:25
45	45	200225P1-45	2000321-02@5X I013WMW02SR-20200213 0.24488	26-Feb-20	01:40:55
46	46	200225P1-46	2000321-03@5X IS72MW17S-20200213 0.24942	26-Feb-20	01:51:24
47	47	200225P1-47	2000321-04@5X I012MW01SR-20200213 0.24804	26-Feb-20	02:01:56
48	48	200225P1-48	2000321-05@5X I012MW10S-20200213 0.24821	26-Feb-20	02:12:26
49	49	200225P1-49	2000321-06@5X I012MW11S-20200213 0.25358	26-Feb-20	02:22:55
50	50	200225P1-50	2000321-07@5X I012MW15S-20200213 0.25036	26-Feb-20	02:33:27
51	51	200225P1-51	2000321-08@5X DUP02-20200213 0.2466	26-Feb-20	02:43:55
52	52	200225P1-52	2000321-09@5X I003MW01S-20200213 0.25107	26-Feb-20	02:54:28
53	53	200225P1-53	ST200225P1-12 PFC CS3 20B1107	26-Feb-20	03:04:57
54	54	200225P1-54	IB	26-Feb-20	03:15:28
55	55	200225P1-55	2000321-10@5X I003MW15S-20200213 0.24522	26-Feb-20	03:25:58
56	56	200225P1-56	2000321-11@5X I003MW02S-20200213 0.24704	26-Feb-20	03:36:27
57	57	200225P1-57	2000314-06@5X I006MW01S-20200212 0.2551	26-Feb-20	03:46:59
58	58	200225P1-58	2000314-07@5X I006MW08S-20200212 0.25052	26-Feb-20	03:57:28
59	59	200225P1-59	2000314-07 I006MW08S-20200212 0.25052	26-Feb-20	04:07:59
60	60	200225P1-60	IB	26-Feb-20	04:18:30
61	61	200225P1-61	2000314-08@5X BMW07S-20200212 0.2539	26-Feb-20	04:28:59
62	62	200225P1-62	2000314-09@5X I005MW01SR-20200212 0.25498	26-Feb-20	04:39:30
63	63	200225P1-63	2000314-09 I005MW01SR-20200212 0.25498	26-Feb-20	04:50:01
64	64	200225P1-64	IB	26-Feb-20	05:00:30
65	65	200225P1-65	2000314-10@5X DUP05-20200212 0.25284	26-Feb-20	05:11:00
66	66	200225P1-66	2000314-11 IS72MW15S-20200212 0.25446	26-Feb-20	05:21:31
67	67	200225P1-67	ST200225P1-13 PFC CS3 20B1107	26-Feb-20	05:32:00
68	68	200225P1-68	IB	26-Feb-20	05:42:31

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Compound name: PFBA

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69	69 200225P1-69	2000292-02 11535BFR POE Midpoint-1 0.25829	26-Feb-20	05:53:02
70	70 200225P1-70	2000292-03 11535BFR POE Effluent-1 0.25426	26-Feb-20	06:03:31
71	71 200225P1-71	B0B0102-BS2 OPR 0.125	26-Feb-20	06:14:03
72	72 200225P1-72	ST200225P1-14 PFC CS3 20B1107	26-Feb-20	06:24:33
73	73 200225P1-73	IB	26-Feb-20	06:35:02

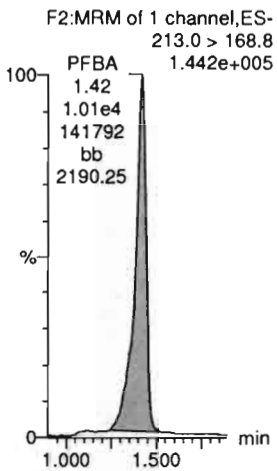
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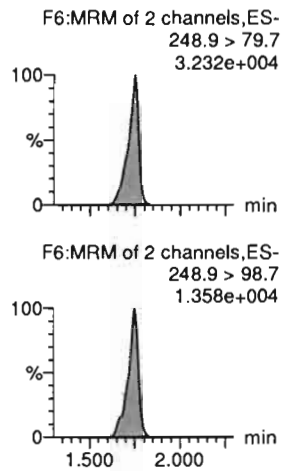
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Name: 200225P1-53, Date: 26-Feb-2020, Time: 03:04:57, ID: ST200225P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

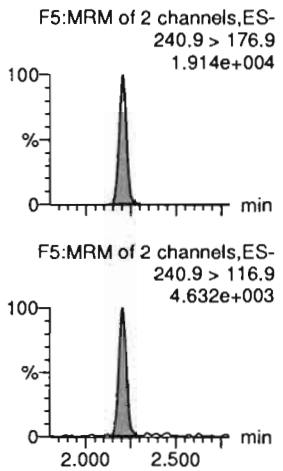
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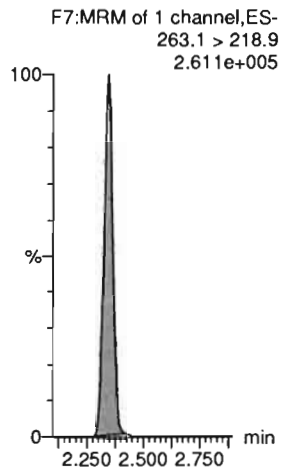
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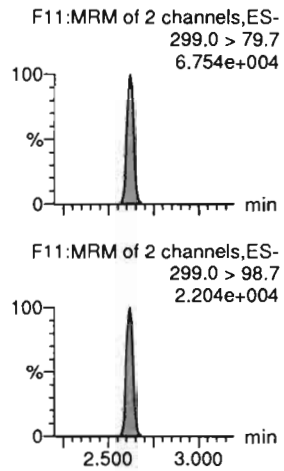
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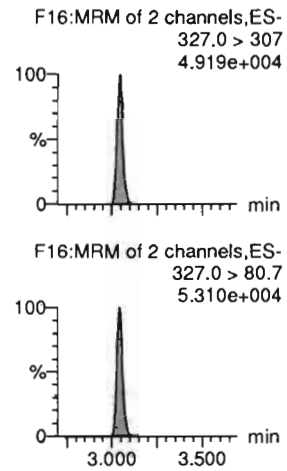
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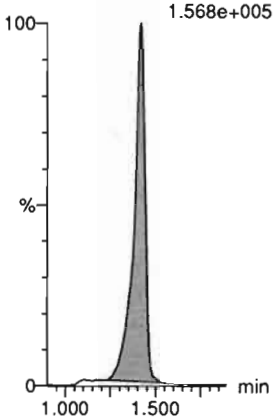
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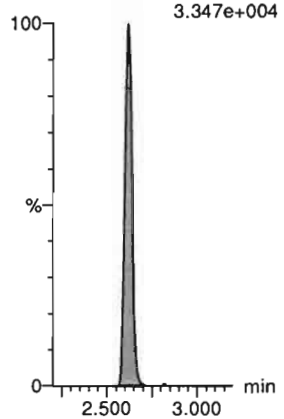
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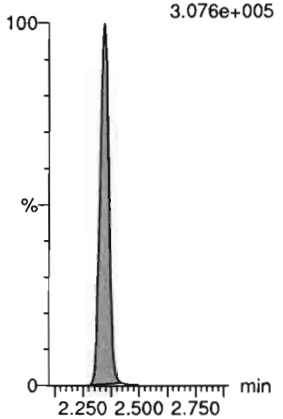
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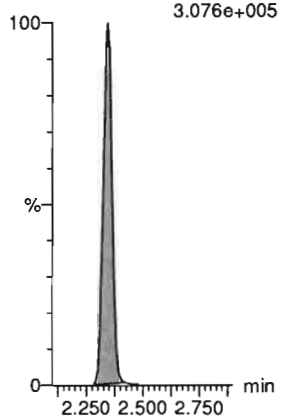
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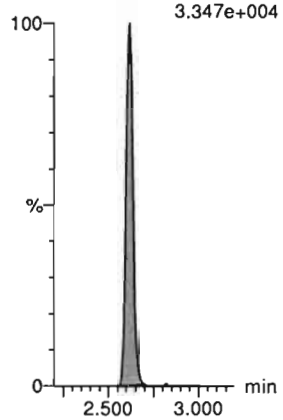
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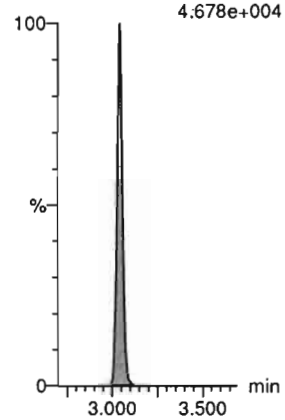
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13C3-PFBS-EIS



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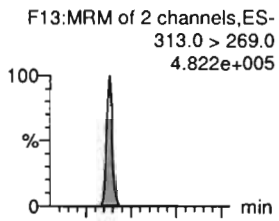
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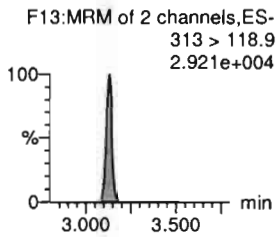
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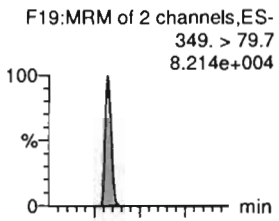
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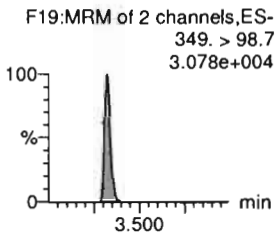
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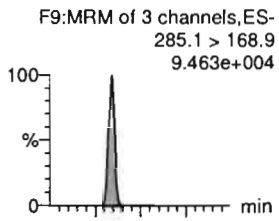


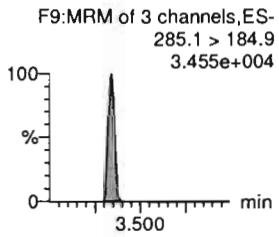
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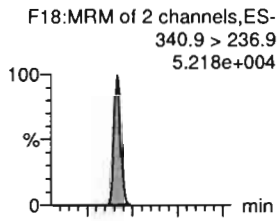


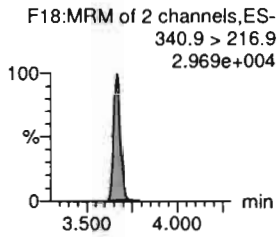
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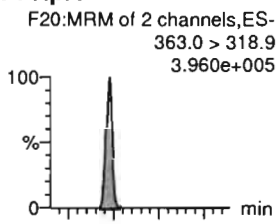


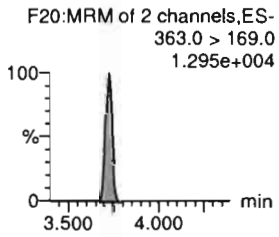
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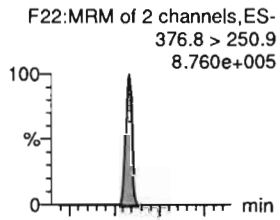


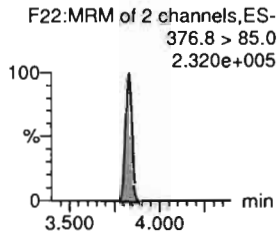
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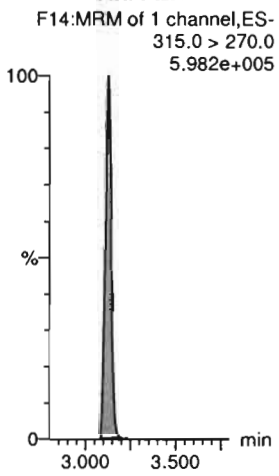


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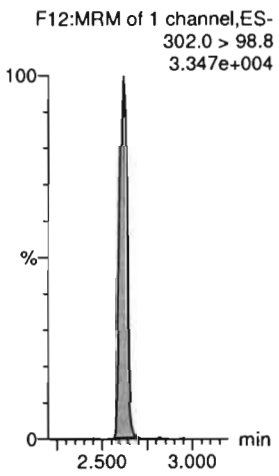




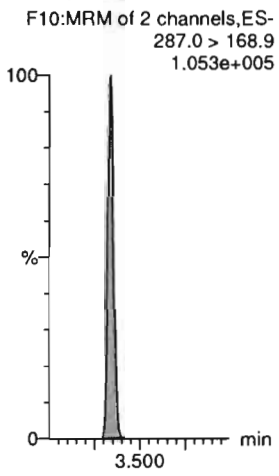
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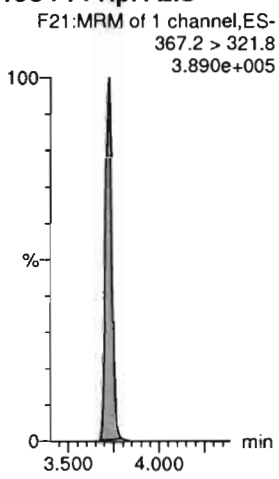
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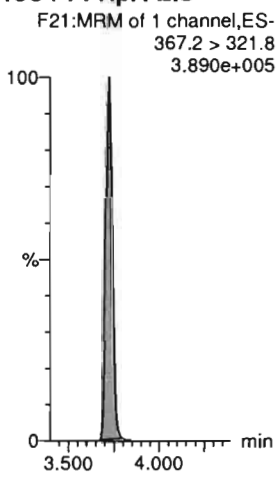
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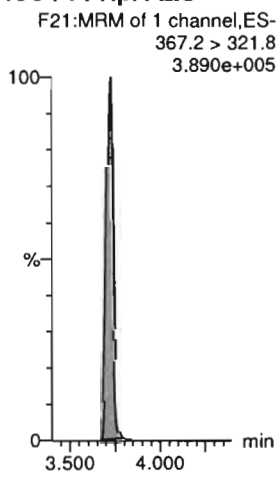
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13C4-PFHpA-EIS



13C4-PFHpA-EIS



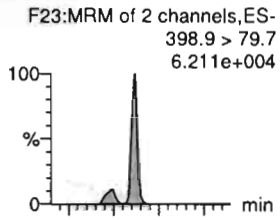
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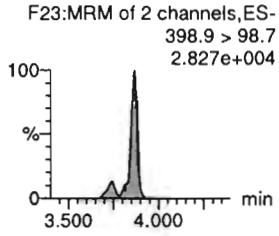
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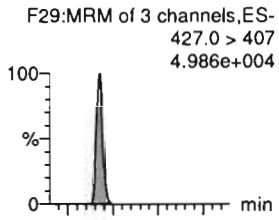
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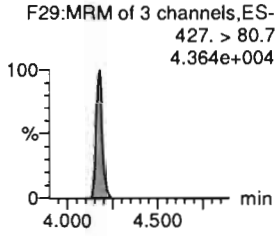
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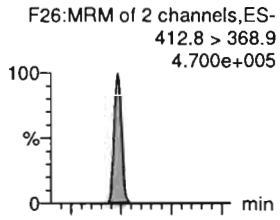


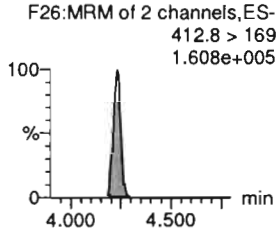
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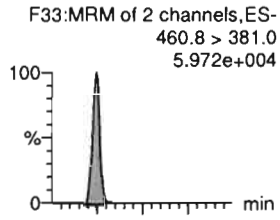


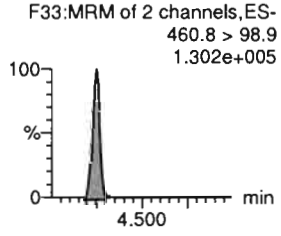
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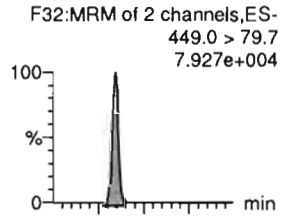


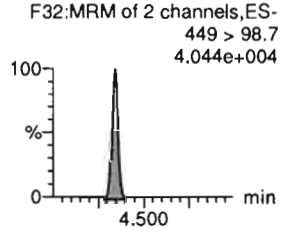
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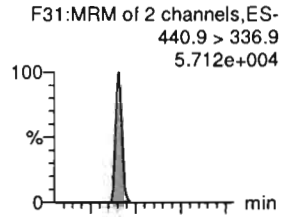


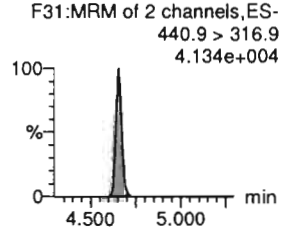
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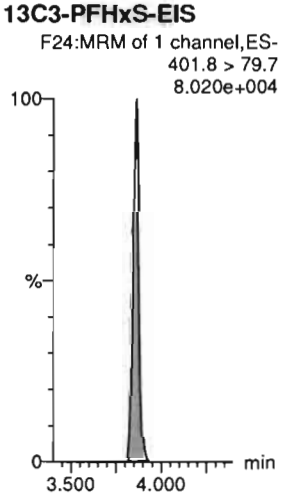


7:3 FTCA

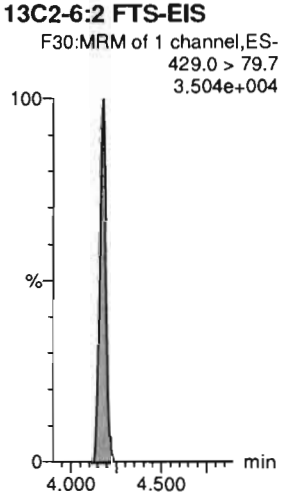




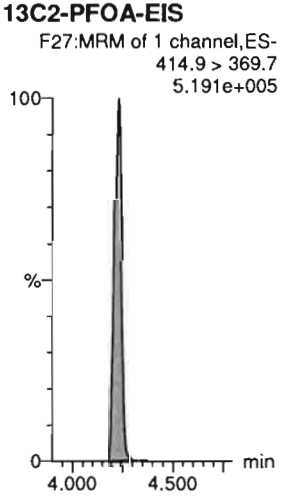
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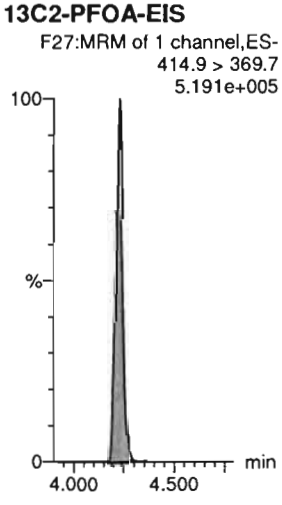
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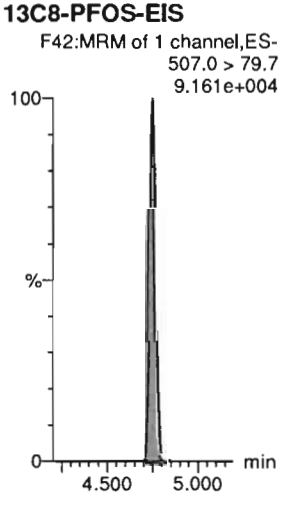
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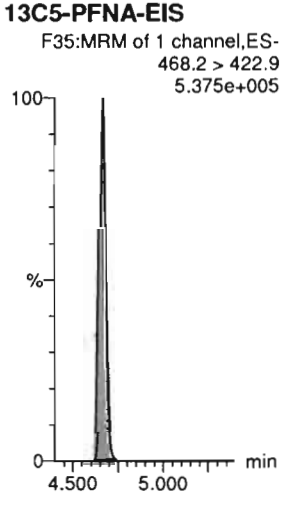
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13C8-PFOS-EIS



13C5-PFNA-EIS



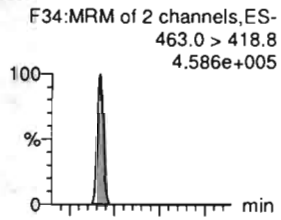
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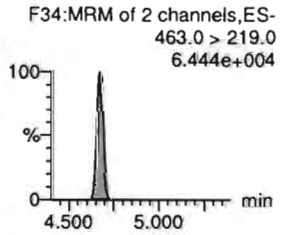
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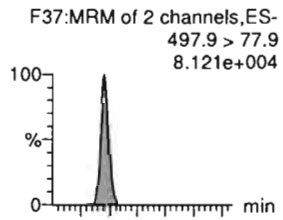
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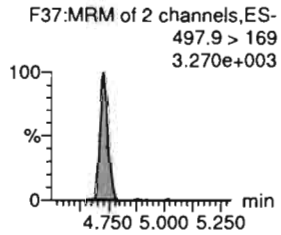
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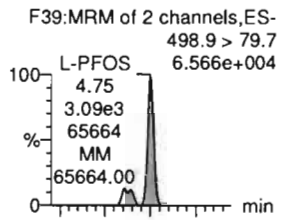


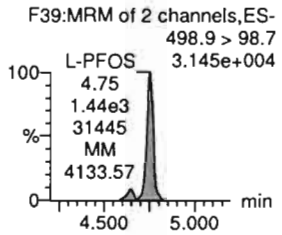
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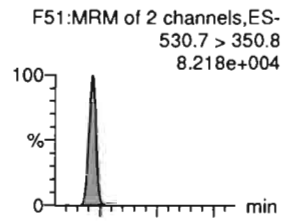


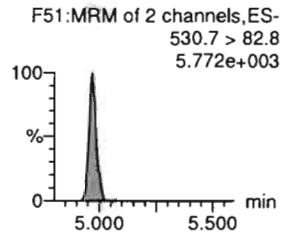
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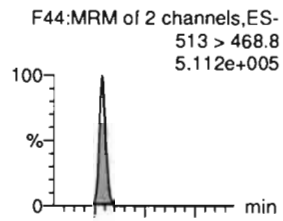


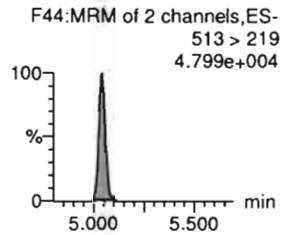
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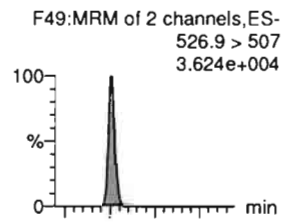


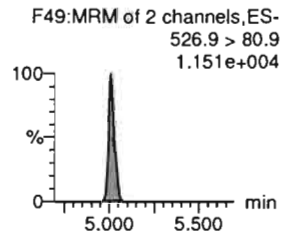
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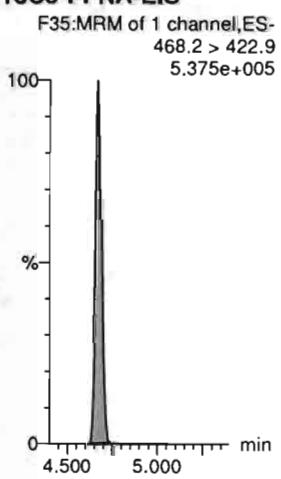


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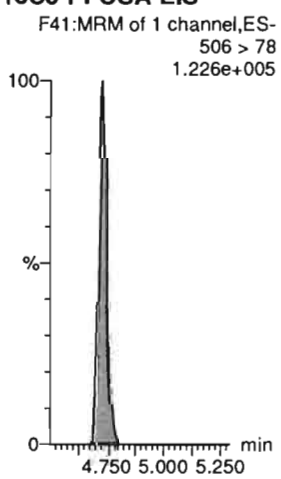




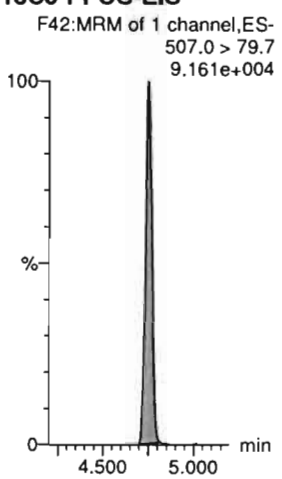
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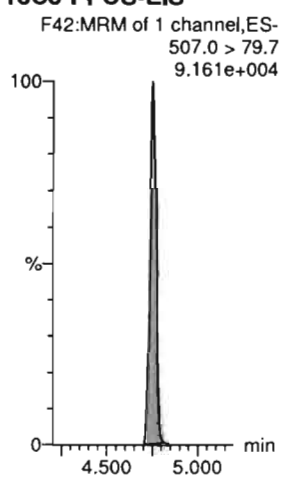
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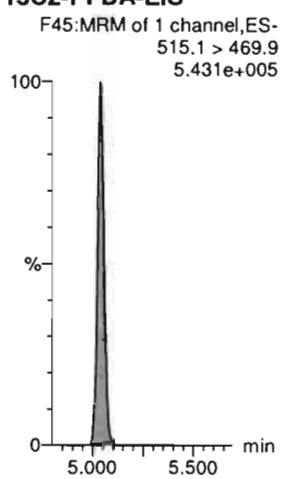
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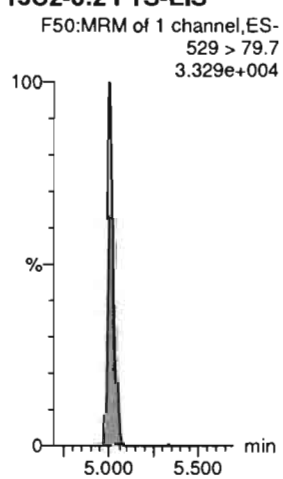
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13C2-8:2 FTS-EIS



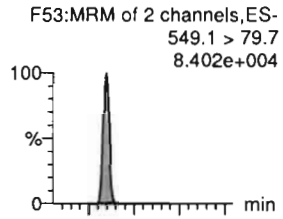
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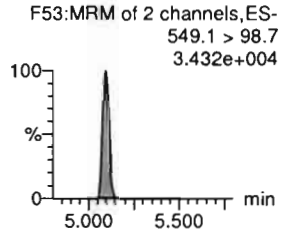
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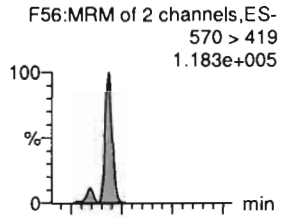
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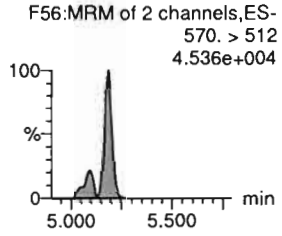
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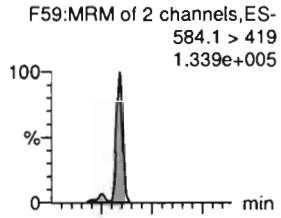


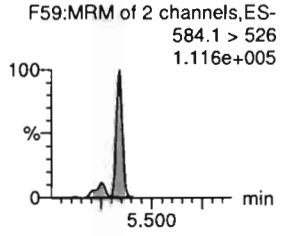
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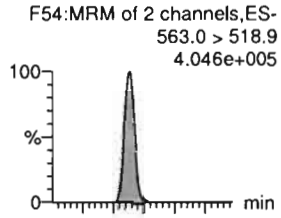


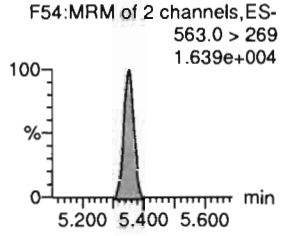
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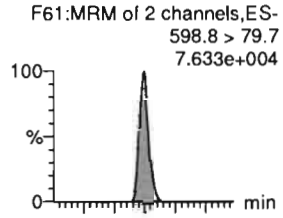


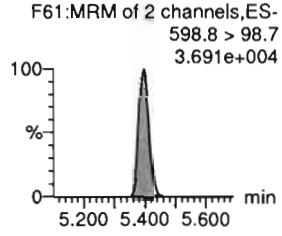
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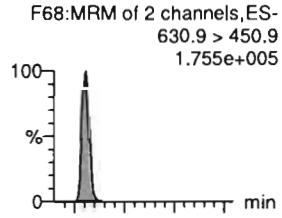


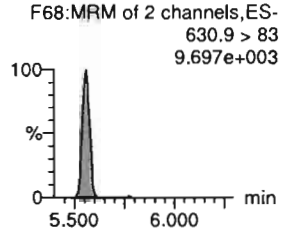
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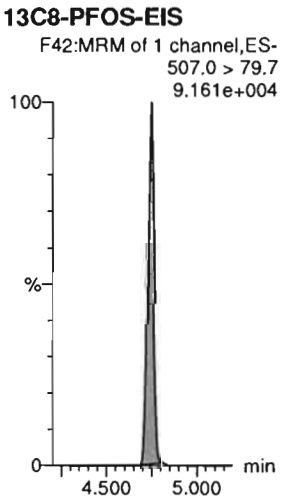


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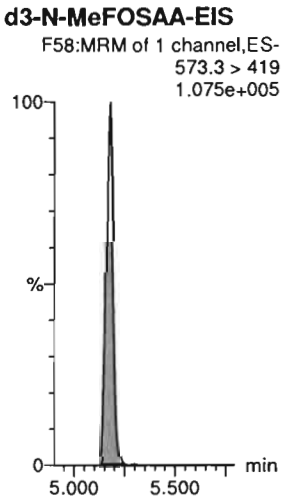




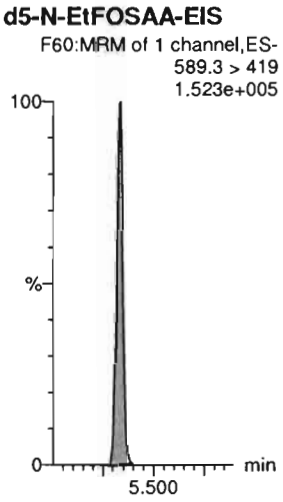
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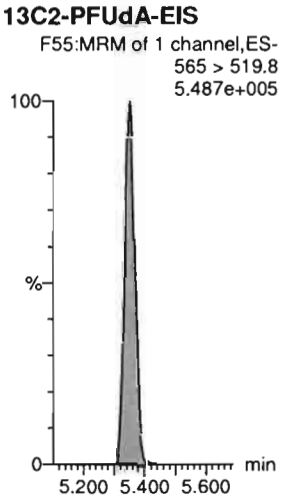
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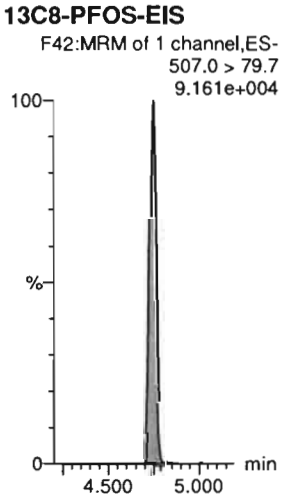
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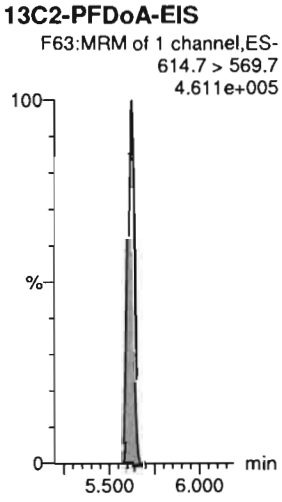
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13C8-PFOS-EIS



13C2-PFDoA-EIS



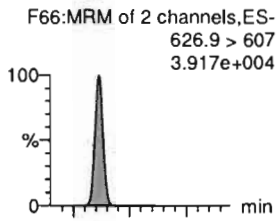
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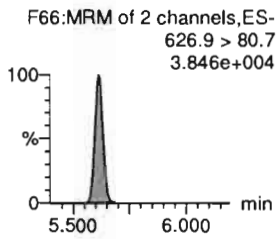
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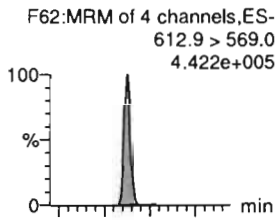
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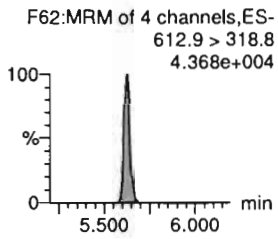
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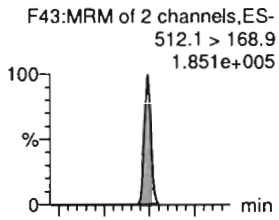


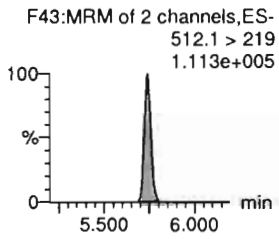
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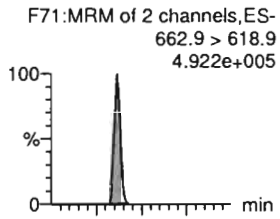


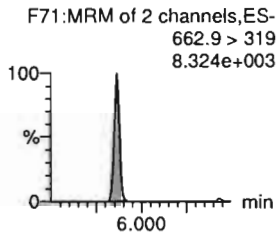
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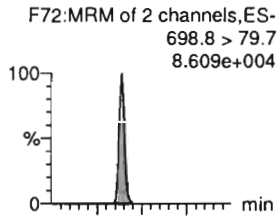


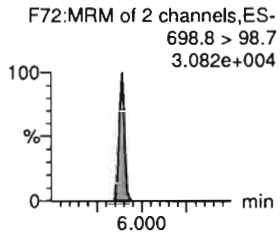
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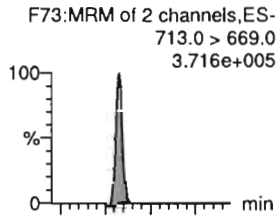


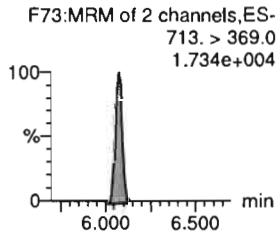
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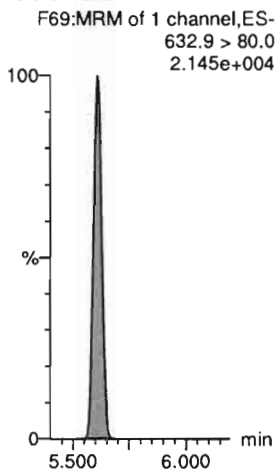


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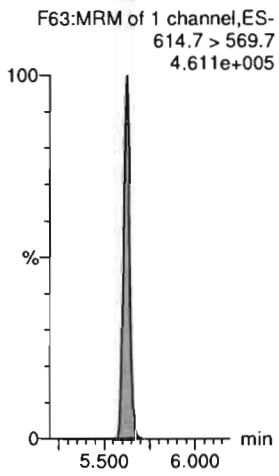




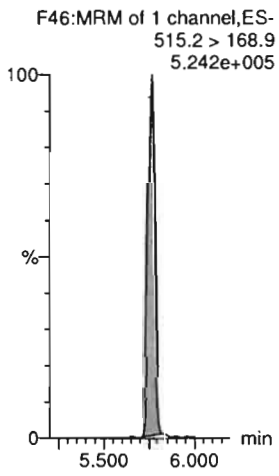
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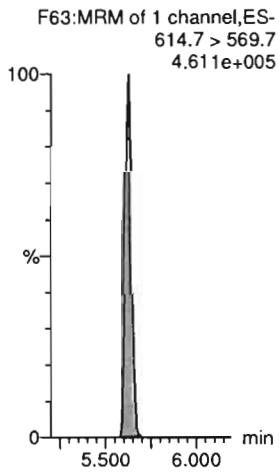
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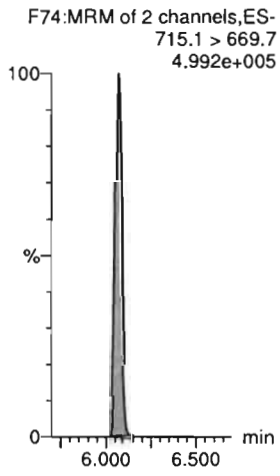
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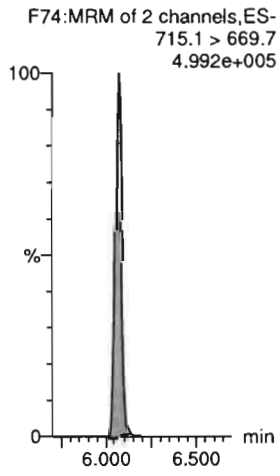
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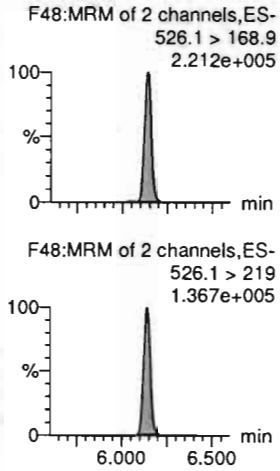
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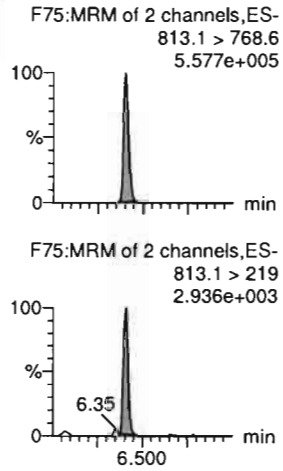
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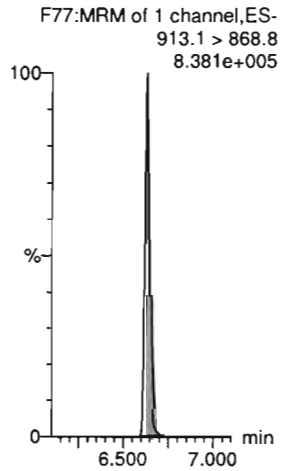
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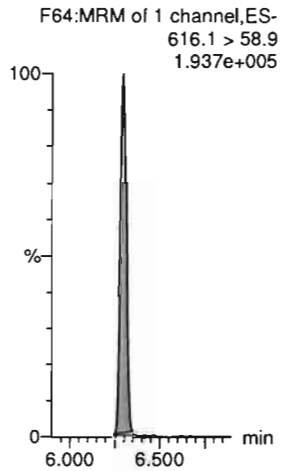
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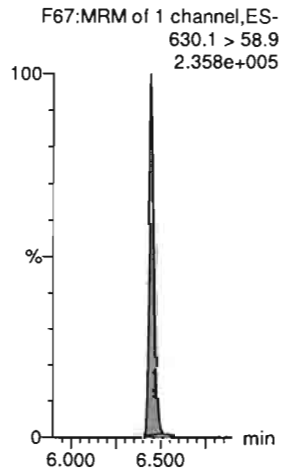
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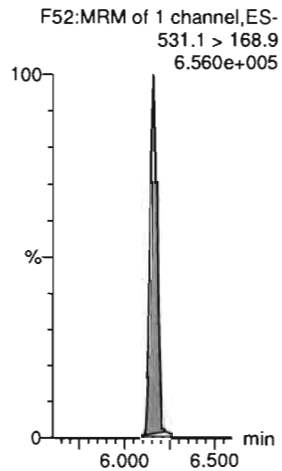
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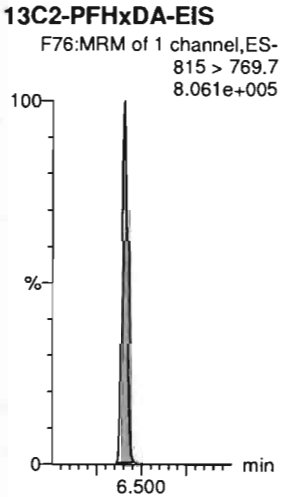
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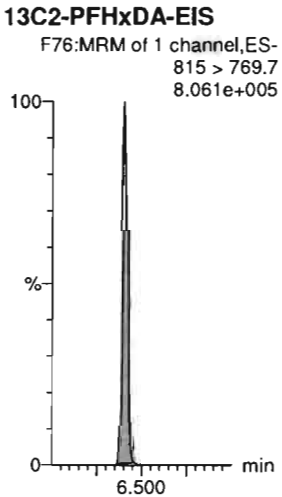
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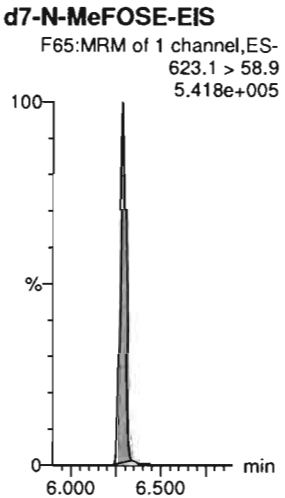
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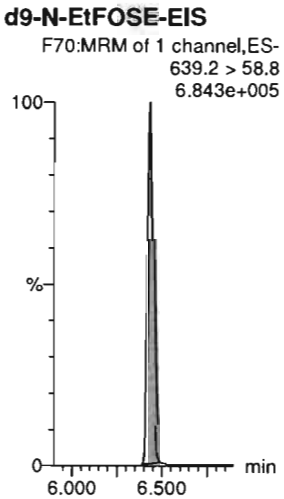
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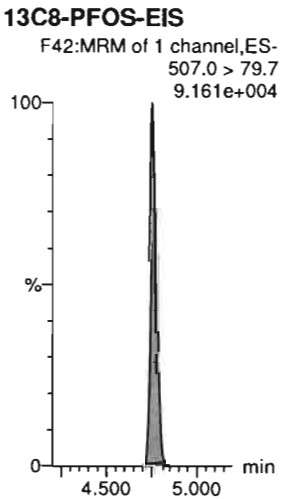
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C8-PFOS-EIS



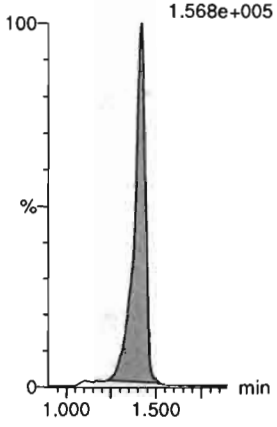
RK 2/26/2020

Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-53.qld

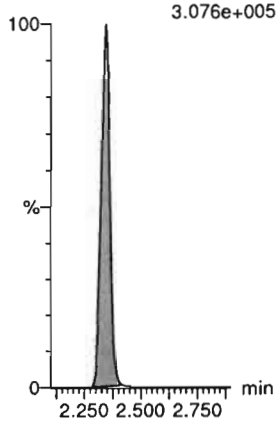
Last Altered: Wednesday, February 26, 2020 13:43:08 Pacific Standard Time
Printed: Wednesday, February 26, 2020 13:46:21 Pacific Standard Time

Name: 200225P1-53, Date: 26-Feb-2020, Time: 03:04:57, ID: ST200225P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

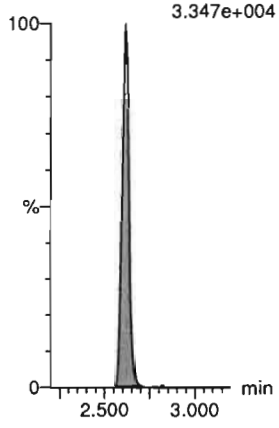
13C3-PFBA-RSD
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.568e+005



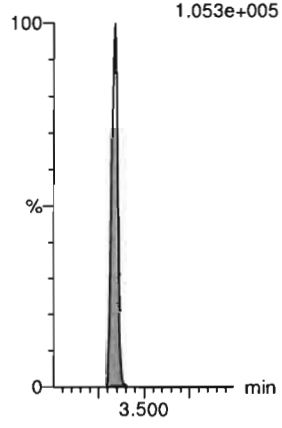
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
266.0 > 221.8
3.076e+005



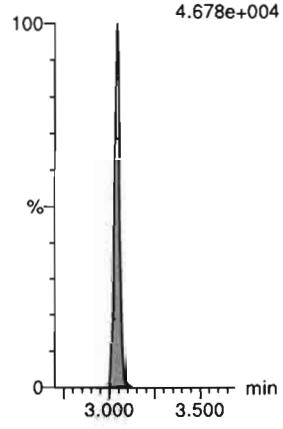
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.347e+004



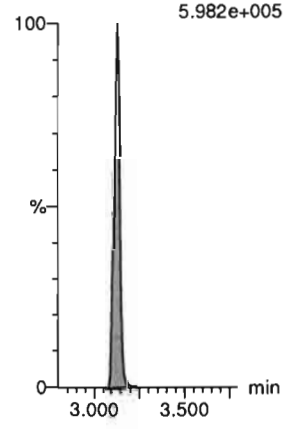
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.053e+005



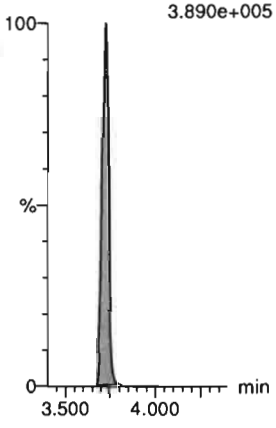
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.678e+004



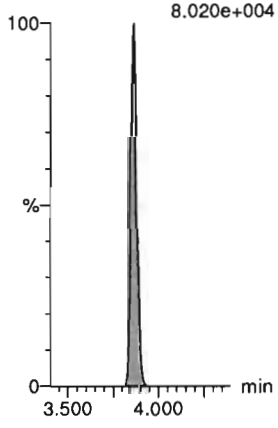
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.982e+005



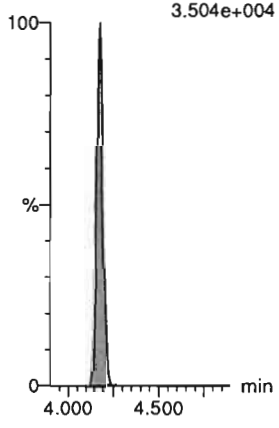
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.890e+005



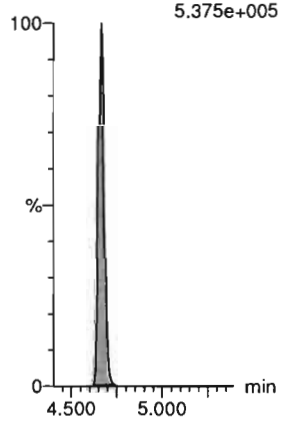
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.020e+004



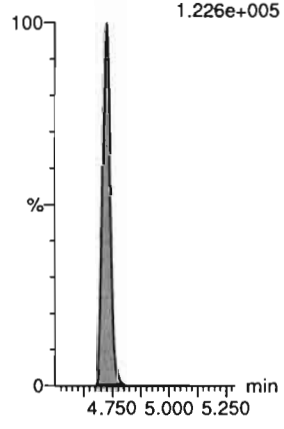
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.504e+004



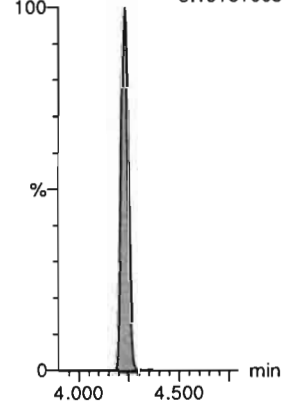
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
5.375e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.226e+005



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
5.191e+005



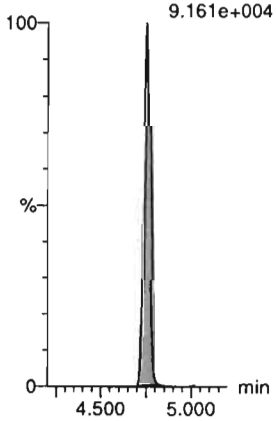
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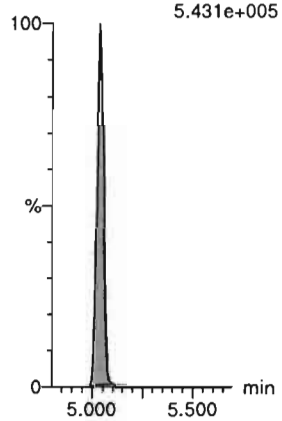
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Name: 200225P1-53, Date: 26-Feb-2020, Time: 03:04:57, ID: ST200225P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

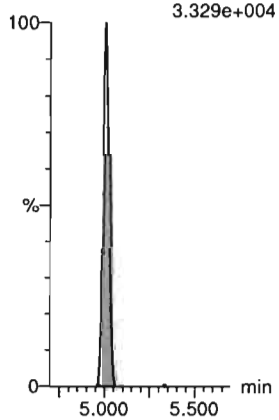
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.161e+004



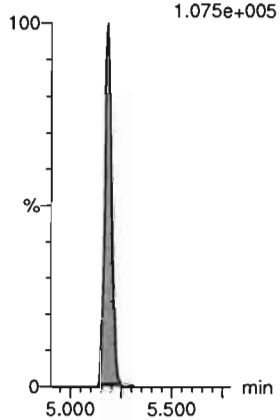
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.431e+005



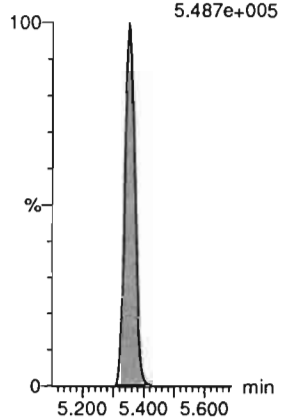
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.329e+004



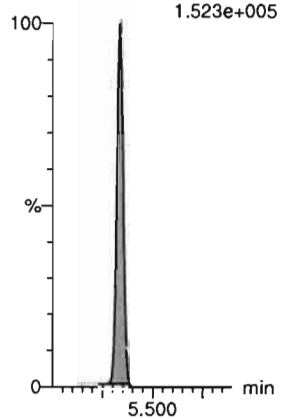
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.075e+005



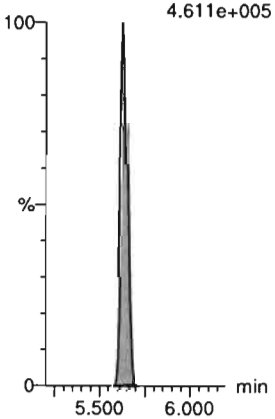
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.487e+005



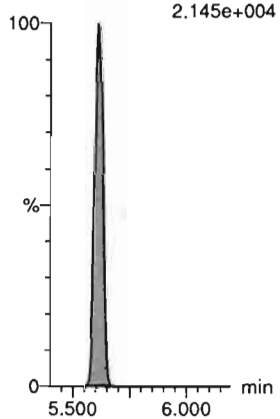
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.523e+005



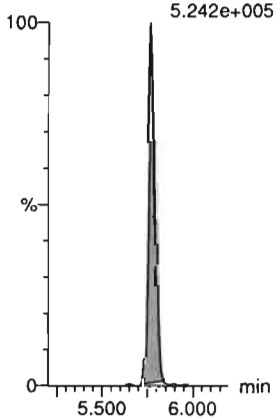
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.611e+005



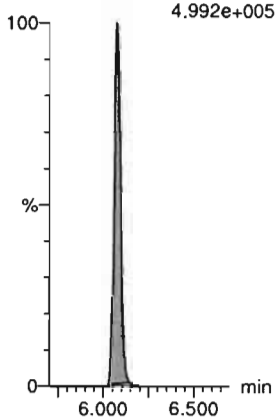
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.145e+004



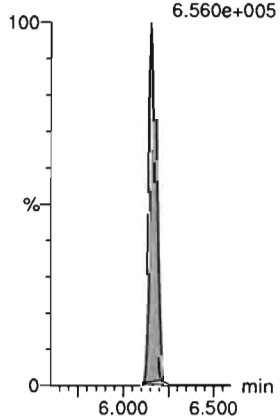
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
5.242e+005



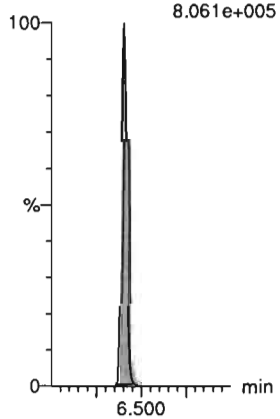
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.992e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
6.560e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.061e+005



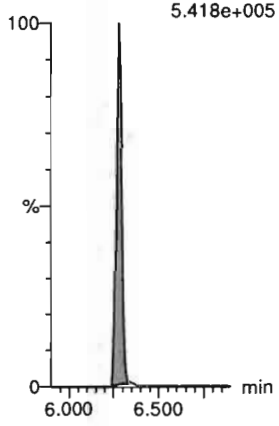
RK 2/26/2020

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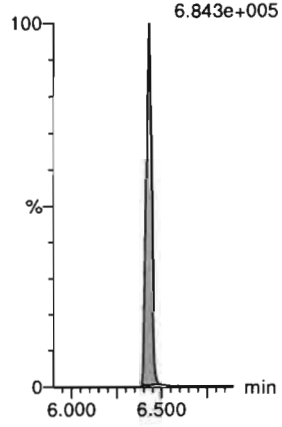
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Printed: Wednesday, February 26, 2020 13:46:21 Pacific Standard Time

Name: 200225P1-53, Date: 26-Feb-2020, Time: 03:04:57, ID: ST200225P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

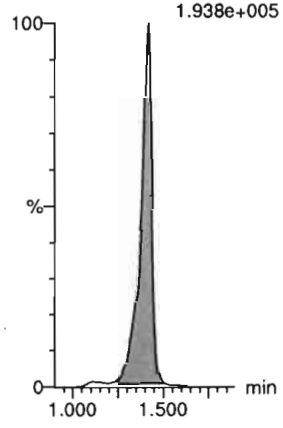
d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.418e+005



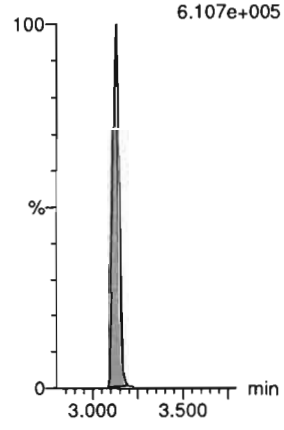
d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.843e+005



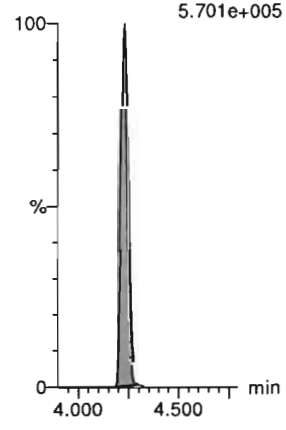
13C4-PFBA
F4:MRM of 1 channel,ES-
217.0 > 172.0
1.938e+005



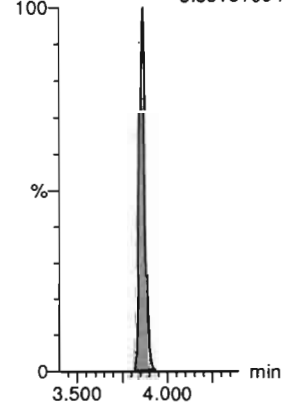
13C5-PFHxA
F15:MRM of 1 channel,ES-
318.0 > 272.9
6.107e+005



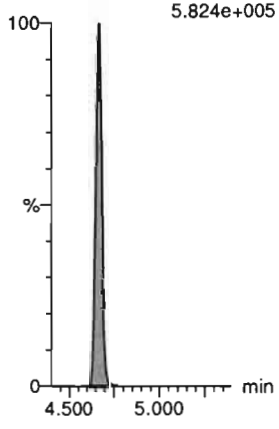
13C8-PFOA
F28:MRM of 1 channel,ES-
420.9 > 376.0
5.701e+005



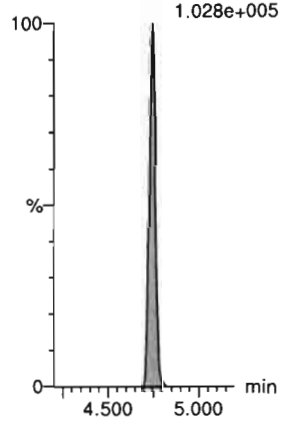
18O2-PFHxS
F25:MRM of 1 channel,ES-
403.0 > 102.6
3.891e+004



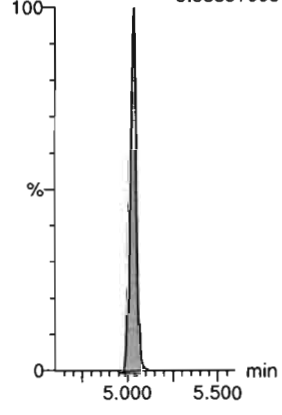
13C9-PFNA
F36:MRM of 1 channel,ES-
472.2 > 426.9
5.824e+005



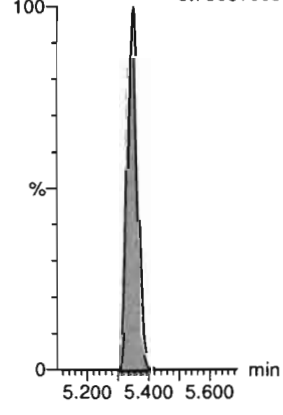
13C4-PFOS
F40:MRM of 1 channel,ES-
503 > 79.7
1.028e+005



13C6-PFDA
F47:MRM of 1 channel,ES-
519.1 > 473.7
5.533e+005



13C7-PFUdA
F57:MRM of 1 channel,ES-
570.1 > 524.8
5.796e+005



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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-67.qld

Last Altered: Wednesday, February 26, 2020 13:54:11 Pacific Standard Time
Printed: Wednesday, February 26, 2020 13:59:06 Pacific Standard Time

PFNS Not Valid
✓ QPV 02/26/20

Name: 200225P1-67, Date: 26-Feb-2020, Time: 05:32:00, ID: ST200225P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	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	10527.850	11192.481	1.00	1.42	11.758	10.000	10.5	105.4	NO		
2	2	PFPrS	248.9 > 79.7	2124.962	1631.545	1.00	1.75	16.280	10.000	9.85	98.5	NO	2.278	NO
3	3	3:3 FTCA	240.9 > 176.9	927.099	14650.454	1.00	2.20	0.791	10.000	10.2	102.4	NO	3.902	NO
4	4	PFPeA	263.1 > 218.9	11130.188	14650.454	1.00	2.34	9.496	10.000	9.70	97.0	NO		
5	5	PFBS	299.0 > 79.7	3178.774	1631.545	1.00	2.62	24.354	10.000	10.5	105.2	NO	3.185	NO
6	6	4:2 FTS	327.0 > 307	1971.903	1783.152	1.00	3.04	13.823	10.000	10.1	101.2	NO	0.891	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	11192.481		1.00	1.42	11192.481	12.500	12.5	100.1	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1631.545		1.00	2.62	1631.545	12.500	13.6	108.7	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	14650.454		1.00	2.34	14650.454	12.500	12.9	103.6	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	14650.454		1.00	2.34	14650.454	12.500	12.9	103.6	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1631.545		1.00	2.62	1631.545	12.500	13.6	108.7	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1783.152		1.00	3.04	1783.152	12.500	12.0	95.7	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	18859.014	23603.199	1.00	3.13	9.988	10.000	11.1	110.9	NO	17.922	NO
15	8	PFPeS	349.>79.7	2965.565	1631.545	1.00	3.32	22.721	10.000	9.59	95.9	NO	2.351	NO
16	9	HFPO-DA	285.1 > 168.9	3515.313	4032.421	1.00	3.34	10.897	10.000	10.9	109.5	NO	2.683	NO
17	10	5:3 FTCA	340.9 > 236.9	2237.988	15621.605	1.00	3.67	1.791	10.000	9.66	96.6	NO	1.784	NO
18	11	PFHpA	363.0 > 318.9	15455.003	15621.605	1.00	3.73	12.367	10.000	9.96	99.6	NO	30.188	NO
19	12	ADONA	376.8 > 250.9	36290.680	15621.605	1.00	3.83	29.039	10.000	10.2	101.7	NO	3.945	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	23603.199		1.00	3.13	23603.199	12.500	13.2	105.2	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1631.545		1.00	2.62	1631.545	12.500	13.6	108.7	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	4032.421		1.00	3.34	4032.421	12.500	12.8	102.7	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	15621.605		1.00	3.72	15621.605	12.500	12.7	101.3	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	15621.605		1.00	3.72	15621.605	12.500	12.7	101.3	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	15621.605		1.00	3.72	15621.605	12.500	12.7	101.3	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	2916.746	3463.990	1.00	3.86	10.525	10.000	10.3	102.9	NO	2.217	NO
28	15	6:2 FTS	427.0 > 407	1964.268	1347.166	1.00	4.17	18.226	10.000	11.6	115.7	NO	1.068	NO
29	16	L-PFOA	412.8 > 368.9	20714.396	20881.248	1.00	4.23	12.400	10.000	10.9	108.8	NO	3.191	NO
30	18	PFecHS	460.8 > 381.0	2854.803	20881.248	1.00	4.25	1.709	10.000	11.5	114.6	NO	0.461	NO
31	19	PFHpS	449.0 > 79.7	3060.497	3870.242	1.00	4.34	9.885	10.000	10.6	106.4	NO	1.952	NO
32	20	7:3 FTCA	440.9 > 336.9	2457.427	20112.873	1.00	4.66	1.527	10.000	9.88	98.8	NO	1.504	NO
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3463.990		1.00	3.86	3463.990	12.500	12.7	101.4	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1347.166		1.00	4.18	1347.166	12.500	11.0	87.8	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	20881.248		1.00	4.23	20881.248	12.500	13.1	104.8	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	20881.248		1.00	4.23	20881.248	12.500	13.1	104.8	NO		

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Name: 200225P1-67, Date: 26-Feb-2020, Time: 05:32:00, ID: ST200225P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	3870.242		1.00	4.75	3870.242	12.500	13.3	106.1	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	20112.873		1.00	4.67	20112.873	12.500	13.5	107.8	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	18801.826	20112.873	1.00	4.67	11.685	10.000	9.77	97.7	NO	7.962	NO
41	22	PFOSA	497.9 > 77.9	3141.098	4119.056	1.00	4.73	9.532	10.000	11.6	116.4	NO	27.223	NO
42	23	L-PFOS	498.9 > 79.7	3415.367	3870.242	1.00	4.75	11.031	10.000	11.8	117.9	NO	2.531	NO
43	25	9Cl-PF30NS	530.7 > 350.8	3441.140	3870.242	1.00	4.96	11.114	10.000	11.1	110.5	NO	13.479	NO
44	26	PFDA	513 > 468.8	19625.305	21405.105	1.00	5.04	11.461	10.000	9.73	97.3	NO	9.266	NO
45	27	8:2 FTS	526.9 > 507	1332.760	1162.328	1.00	5.01	14.333	10.000	11.4	113.9	NO	2.207	NO
46	65	13C5-PFNA-EIS	468.2 > 422.9	20112.873		1.00	4.67	20112.873	12.500	13.5	107.8	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4119.056		1.00	4.73	4119.056	12.500	11.0	87.7	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3870.242		1.00	4.75	3870.242	12.500	13.3	106.1	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3870.242		1.00	4.75	3870.242	12.500	13.3	106.1	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	21405.105		1.00	5.04	21405.105	12.500	13.1	104.7	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1162.328		1.00	5.01	1162.328	12.500	11.4	91.0	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	3098.123	3870.242	1.00	5.10	10.006	10.000	11.2	112.0	NO	2.253	NO
54	29	L-MeFOSAA	570 > 419	5565.233	4855.387	1.00	5.19	14.327	10.000	7.41	74.1	NO	2.000	NO
55	31	L-EtFOSAA	584.1 > 419	5491.423	6071.760	1.00	5.34	11.305	10.000	9.45	94.5	NO	1.259	NO
56	33	PFUdA	563.0 > 518.9	17000.434	20265.061	1.00	5.35	10.486	10.000	11.2	112.2	NO	24.407	NO
57	34	PFDS	598.8 > 79.7	2704.333	3870.242	1.00	5.40	8.734	10.000	11.4	113.7	NO	1.860	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	8104.744	19837.098	1.00	5.56	5.107	10.000	11.2	111.7	NO	18.377	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	3870.242		1.00	4.75	3870.242	12.500	13.3	106.1	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	4855.387		1.00	5.18	4855.387	12.500	14.7	117.6	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	6071.760		1.00	5.33	6071.760	12.500	15.4	122.9	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	20265.061		1.00	5.35	20265.061	12.500	12.5	100.3	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3870.242		1.00	4.75	3870.242	12.500	13.3	106.1	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	19837.098		1.00	5.63	19837.098	12.500	11.8	94.1	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	1577.949	947.298	1.00	5.61	20.822	10.000	9.28	92.8	NO	1.059	NO
67	37	PFDoA	612.9 > 569.0	17861.154	19837.098	1.00	5.63	11.255	10.000	10.4	103.9	NO	10.626	NO
68	38	N-MeFOSA	512.1 > 168.9	7666.929	22071.490	1.00	5.74	51.827	50.000	49.3	98.5	NO	1.657	NO
69	39	PFTrDA	662.9 > 618.9	18722.510	19837.098	1.00	5.87	11.798	10.000	10.5	105.2	NO	60.432	NO
70	40	PFDoS	698.8 > 79.7	3181.187	22948.188	1.00	5.89	1.733	10.000	10.7	106.9	NO	2.881	NO
71	41	PFTeDA	713.0 > 669.0	18749.666	22948.188	1.00	6.08	10.213	10.000	10.7	107.3	NO	15.706	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	947.298		1.00	5.61	947.298	12.500	13.2	105.3	NO		

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Name: 200225P1-67, Date: 26-Feb-2020, Time: 05:32:00, ID: ST200225P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	19837.098		1.00	5.63	19837.098	12.500	11.8	94.1	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	22071.490		1.00	5.76	22071.490	149.200	156	104.5	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	19837.098		1.00	5.63	19837.098	12.500	11.8	94.1	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	22948.188		1.00	6.08	22948.188	12.500	12.1	96.8	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	22948.188		1.00	6.08	22948.188	12.500	12.1	96.8	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	9791.660	27339.668	1.00	6.14	53.436	50.000	51.7	103.3	NO	1.725	NO
80	43	PFHxDA	813.1 > 768.6	18242.189	30138.533	1.00	6.40	7.566	10.000	10.1	100.6	NO	139.737	NO
81	44	PFODA	913.1 > 868.8	24749.172	30138.533	1.00	6.63	10.265	10.000	11.6	116.1	NO		
82	45	N-MeFOSE	616.1 > 58.9	7186.412	19243.689	1.00	6.29	55.718	50.000	51.9	103.8	NO		
83	46	N-EtFOSE	630.1 > 58.9	7910.896	23162.246	1.00	6.44	50.958	50.000	51.6	103.2	NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	27339.668		1.00	6.15	27339.668	149.200	151	101.4	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	30138.533		1.00	6.40	30138.533	12.500	11.6	93.0	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	30138.533		1.00	6.40	30138.533	12.500	11.6	93.0	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	19243.689		1.00	6.28	19243.689	149.200	159	106.8	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	23162.246		1.00	6.43	23162.246	149.200	155	104.0	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3870.242		1.00	4.75	3870.242	12.500	13.3	106.1	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	11192.481	13845.522	1.00	1.42	10.105	12.500	12.6	101.1	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	14650.454	25495.596	1.00	2.34	7.183	12.500	12.2	97.5	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1631.545	1561.886	1.00	2.62	13.057	12.500	11.6	92.7	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	4032.421	25495.596	1.00	3.34	1.977	12.500	11.3	90.7	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1783.152	1561.886	1.00	3.04	14.271	12.500	10.9	86.9	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	23603.199	25495.596	1.00	3.13	11.572	12.500	11.9	95.1	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	15621.605	25495.596	1.00	3.72	7.659	12.500	11.6	93.0	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3463.990	1561.886	1.00	3.86	27.723	12.500	11.0	88.1	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1347.166	4128.350	1.00	4.18	4.079	12.500	10.6	84.9	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	20112.873	21707.621	1.00	4.67	11.582	12.500	12.3	98.8	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4157.723	20498.439	1.00	4.73	2.535	12.500	12.1	96.6	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	20881.248	23645.109	1.00	4.23	11.039	12.500	12.0	95.8	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3870.242	4128.350	1.00	4.75	11.718	12.500	12.3	98.7	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	21405.105	22146.008	1.00	5.04	12.082	12.500	12.5	100.1	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1162.328	4128.350	1.00	5.01	3.519	12.500	10.7	85.4	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	4855.387	20498.439	1.00	5.18	2.961	12.500	17.0	136.1	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	20265.061	20498.439	1.00	5.35	12.358	12.500	12.3	98.0	NO		

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Name: 200225P1-67, Date: 26-Feb-2020, Time: 05:32:00, ID: ST200225P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	6071.760	20498.439	1.00	5.33	3.703	12.500	16.0	127.9	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	19837.098	22146.008	1.00	5.63	11.197	12.500	11.6	92.5	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	947.298	4128.350	1.00	5.61	2.868	12.500	12.0	96.3	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	22071.490	20498.439	1.00	5.76	13.459	149.200	168	112.3	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	22948.188	20498.439	1.00	6.08	13.994	12.500	13.4	106.9	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	27339.668	20498.439	1.00	6.15	16.672	149.200	168	112.7	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	30138.533	20498.439	1.00	6.40	18.379	12.500	12.3	98.4	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	19243.689	20498.439	1.00	6.28	11.735	149.200	161	107.9	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	23162.246	20498.439	1.00	6.43	14.124	149.200	165	110.3	NO		
119	99	13C4-PFBA	217.0 > 172.0	13845.522	13845.522	1.00	1.42	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	25495.596	25495.596	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	23645.109	23645.109	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1561.886	1561.886	1.00	3.86	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	21707.621	21707.621	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	4128.350	4128.350	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	22146.008	22146.008	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	20498.439	20498.439	1.00	5.35	12.500	12.500	12.5	100.0	NO		

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Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 14:31:44 Pacific Standard Time
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Method: P:\PFAS5.pro\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.pro\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
1	1 200225P1-1	IPA	25-Feb-20	17:58:29
2	2 200225P1-2	IPA	25-Feb-20	18:09:11
3	3 200225P1-3	ST200225P1-1 PFC CS-2 20B1102	25-Feb-20	18:19:42
4	4 200225P1-4	ST200225P1-2 PFC CS-1 20B1103	25-Feb-20	18:30:13
5	5 200225P1-5	ST200225P1-3 PFC CS0 20B1104	25-Feb-20	18:40:42
6	6 200225P1-6	ST200225P1-4 PFC CS1 20B1105	25-Feb-20	18:51:13
7	7 200225P1-7	ST200225P1-5 PFC CS2 20B1106	25-Feb-20	19:01:42
8	8 200225P1-8	ST200225P1-6 PFC CS3 20B1107	25-Feb-20	19:12:14
9	9 200225P1-9	ST200225P1-7 PFC CS4 20B1108	25-Feb-20	19:22:44
10	10 200225P1-10	ST200225P1-8 PFC CS5 20B1109	25-Feb-20	19:33:15
11	11 200225P1-11	ST200225P1-9 PFC CS6 20B1110	25-Feb-20	19:43:44
12	12 200225P1-12	ST200225P1-10 PFC CS7 20B1111	25-Feb-20	19:54:16
13	13 200225P1-13	IB	25-Feb-20	20:04:45
14	14 200225P1-14	ICV200225P1-1 PFC ICV 20B1112	25-Feb-20	20:15:16
15	15 200225P1-15	IB	25-Feb-20	20:25:46
16	16 200225P1-16	2000305-01 8 Chestnut Dr 0.11658	25-Feb-20	20:36:14
17	17 200225P1-17	2000305-02 10 Chestnut Dr 0.11788	25-Feb-20	20:46:46
18	18 200225P1-18	B0B0146-BLK1 Method Blank 0.25	25-Feb-20	20:57:15
19	19 200225P1-19	B0B0146-BS1 OPR 0.25	25-Feb-20	21:07:48
20	20 200225P1-20	B0B0146-BSD1 LCSD 0.25	25-Feb-20	21:18:16
21	21 200225P1-21	2000322-10 3EFF 0.25804	25-Feb-20	21:28:47
22	22 200225P1-22	2000322-11 3INF FRB 0.24918	25-Feb-20	21:39:19
23	23 200225P1-23	2000322-12 3INF 0.24453	25-Feb-20	21:49:47
24	24 200225P1-24	2000322-13 2EFF 0.25549	25-Feb-20	22:00:18
25	25 200225P1-25	2000322-14 2INF FRB 0.24928	25-Feb-20	22:10:49
26	26 200225P1-26	2000322-15 2INF 0.24263	25-Feb-20	22:21:18
27	27 200225P1-27	2000322-16 Post CCB 1BEFF 0.25545	25-Feb-20	22:31:50
28	28 200225P1-28	2000322-17 1INF FRB 0.18612	25-Feb-20	22:42:20
29	29 200225P1-29	2000322-18 1INF 0.25095	25-Feb-20	22:52:49
30	30 200225P1-30	2000322-19 1EFF 0.24912	25-Feb-20	23:03:20
31	31 200225P1-31	B0B0123-BLK1 Method Blank 0.25	25-Feb-20	23:13:50
32	32 200225P1-32	B0B0123-BS1 OPR 0.25	25-Feb-20	23:24:19

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Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
33	33 200225P1-33	B0B0123-BSD1 LCSD 0.25	25-Feb-20	23:34:51
34	34 200225P1-34	2000318-01 RW-9 0.2508	25-Feb-20	23:45:22
35	35 200225P1-35	ST200225P1-11 PFC CS3 20B1107	25-Feb-20	23:55:50
36	36 200225P1-36	IB	26-Feb-20	00:06:22
37	37 200225P1-37	2000318-02 RW-10 0.25656	26-Feb-20	00:16:53
38	38 200225P1-38	2000318-03 RW-11 0.25855	26-Feb-20	00:27:22
39	39 200225P1-39	2000318-04 FRB-5 0.2568	26-Feb-20	00:37:53
40	40 200225P1-40	B0B0127-BLK1 Method Blank 0.25	26-Feb-20	00:48:24
41	41 200225P1-41	B0B0127-BS1 OPR 0.25	26-Feb-20	00:58:53
42	42 200225P1-42	B0B0127-MS1@5X Matrix Spike 0.25239	26-Feb-20	01:09:24
43	43 200225P1-43	B0B0127-MSD1@5X Matrix Spike Dup 0.24499	26-Feb-20	01:19:53
44	44 200225P1-44	2000321-01 EB02-20200213 0.25641	26-Feb-20	01:30:25
45	45 200225P1-45	2000321-02@5X I013WMW02SR-20200213 0.24488	26-Feb-20	01:40:55
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Vista Analytical Laboratory

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71	71 200225P1-71	B0B0102-BS2 OPR 0.125	26-Feb-20	06:14:03
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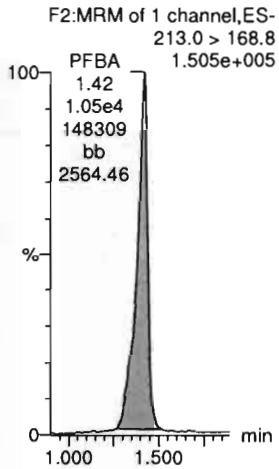
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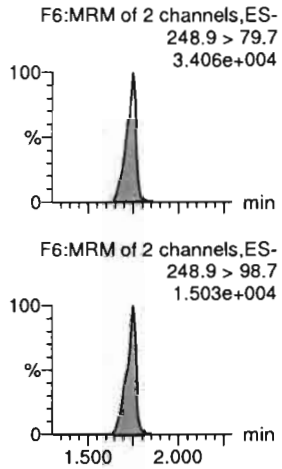
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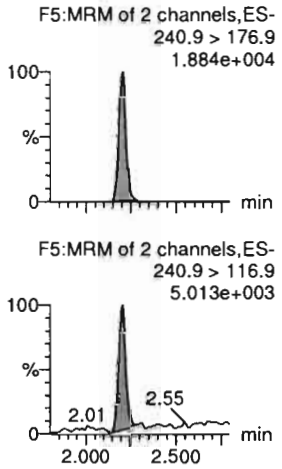
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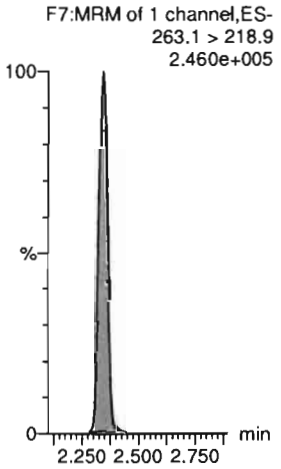
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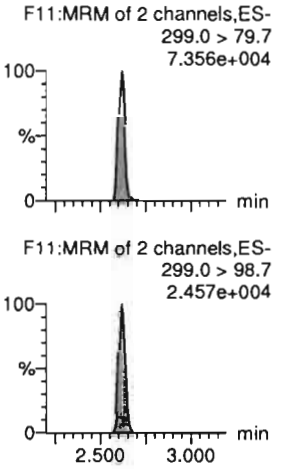
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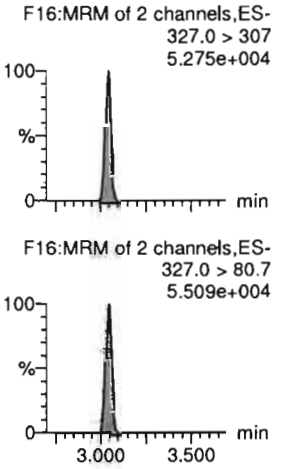
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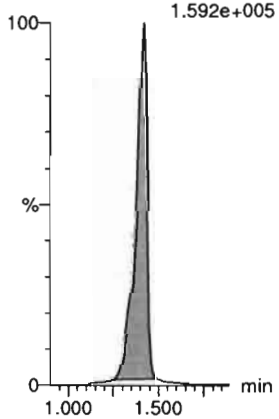
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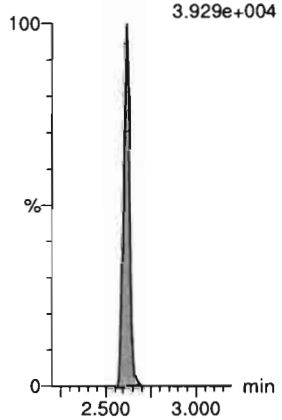
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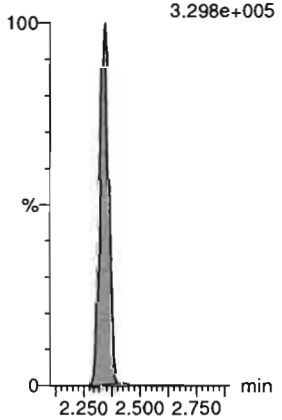
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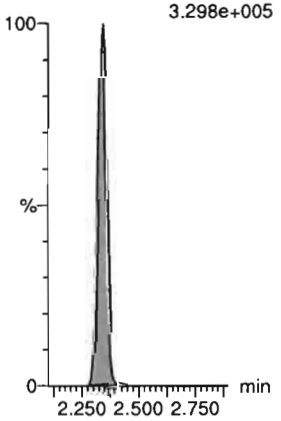
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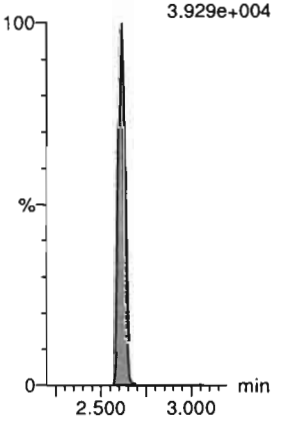
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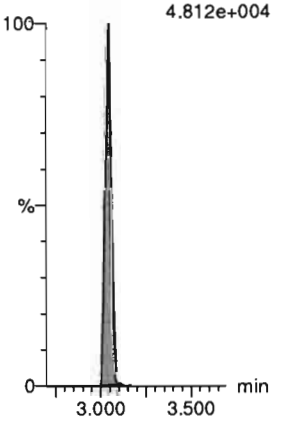
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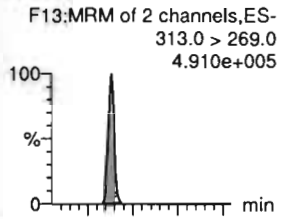
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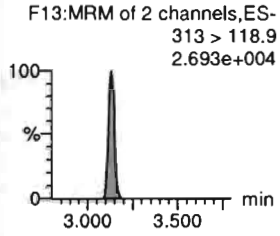
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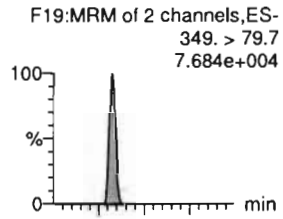
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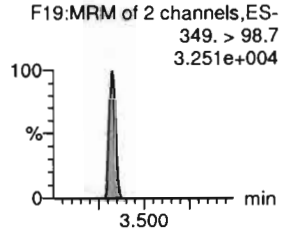
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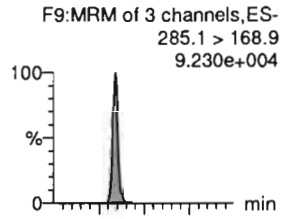


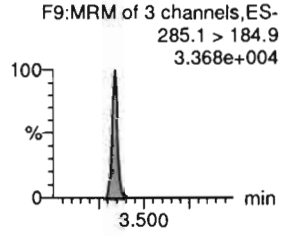
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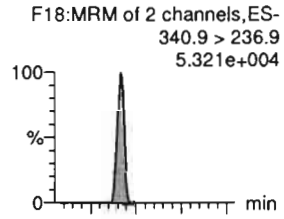


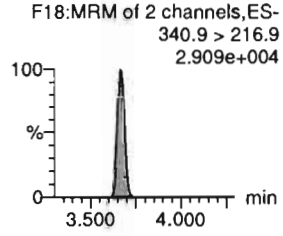
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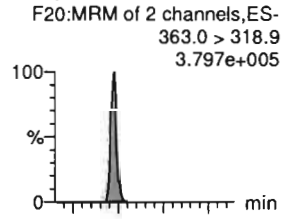


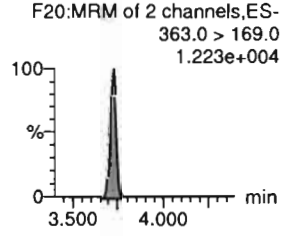
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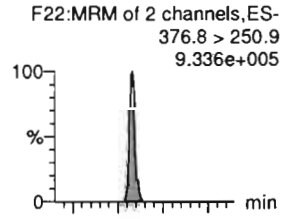


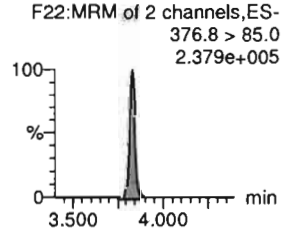
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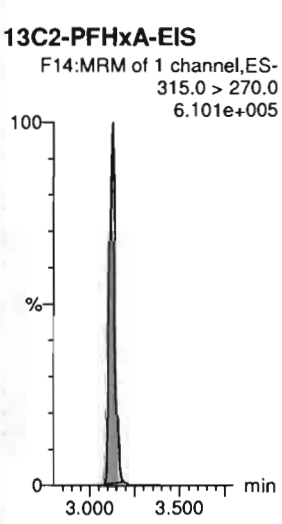


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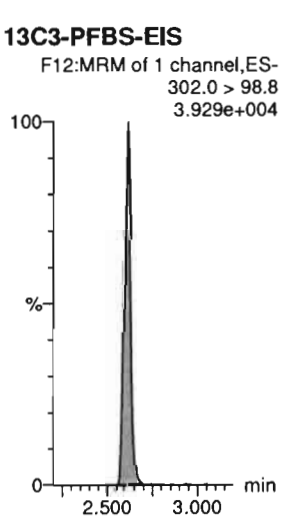




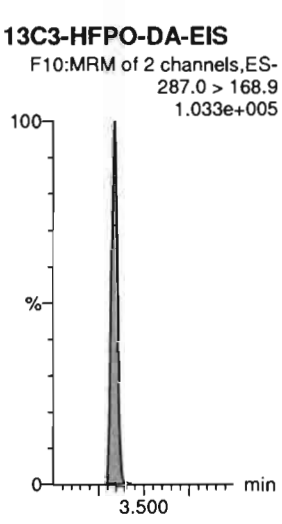
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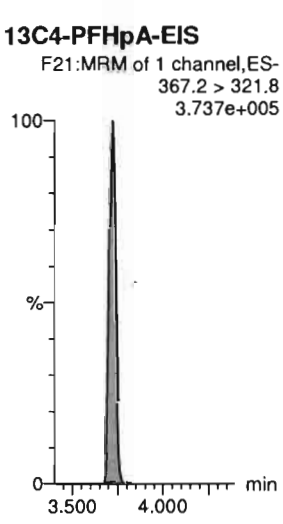
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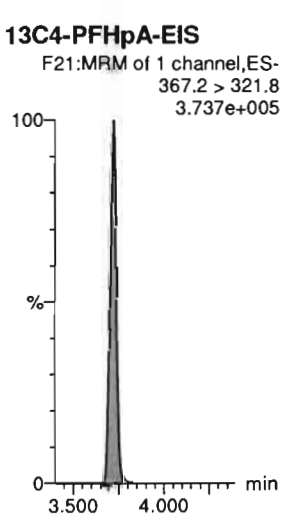
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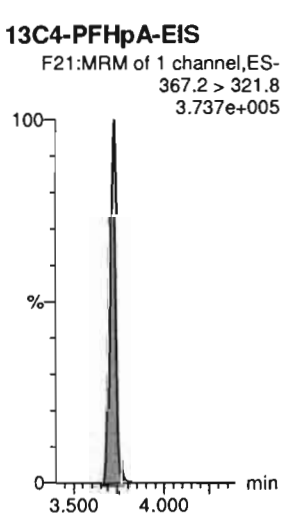
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13C4-PFHpA-EIS



13C4-PFHpA-EIS



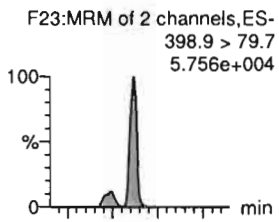
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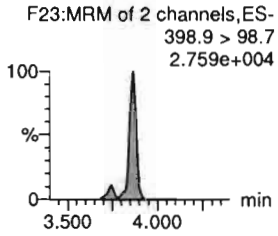
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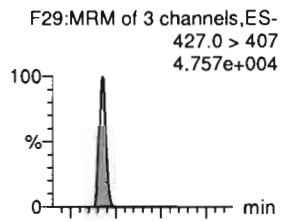
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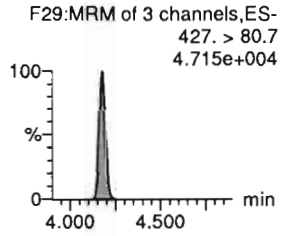
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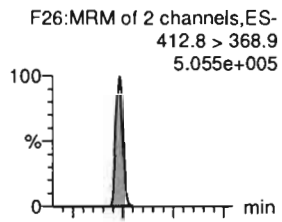


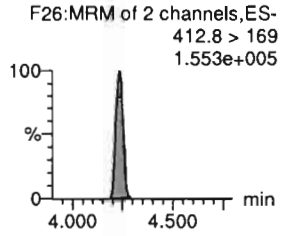
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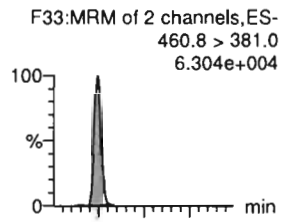


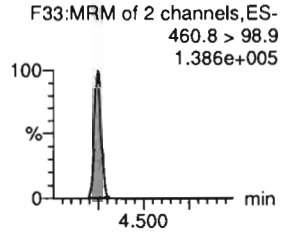
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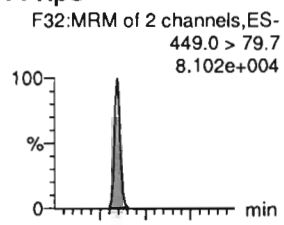


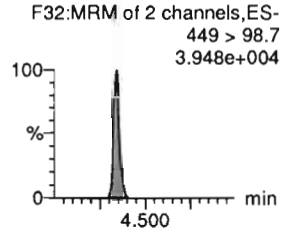
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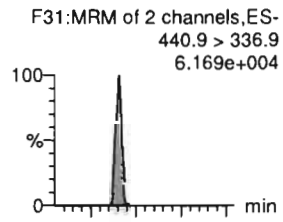


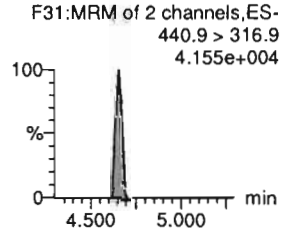
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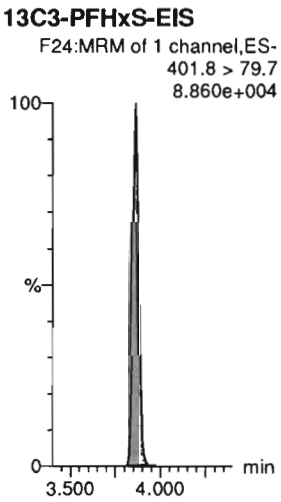


7:3 FTCA

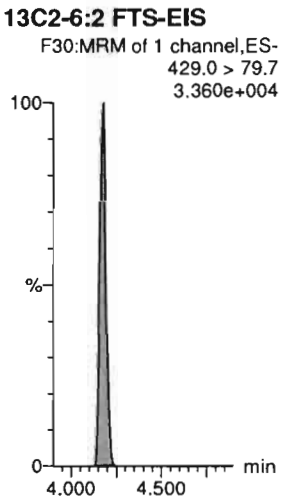




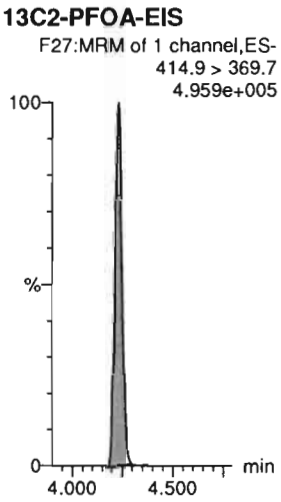
13C3-PFHxS-EIS



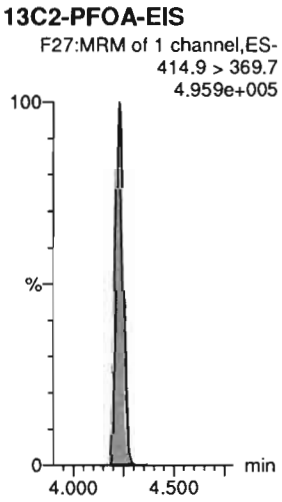
13C2-6:2 FTS-EIS



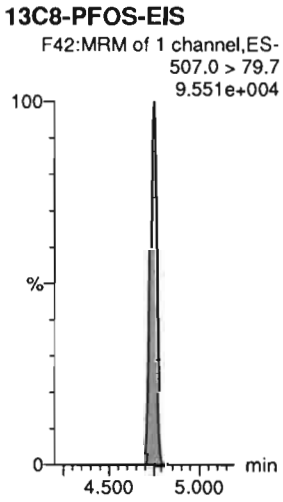
13C2-PFOA-EIS



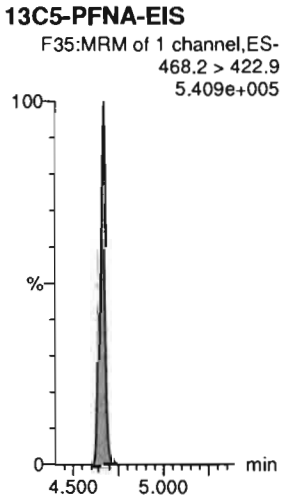
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS



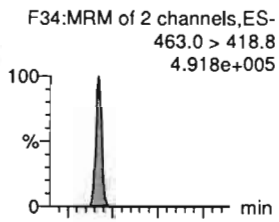
RK 2/26/2020

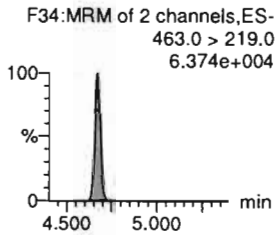
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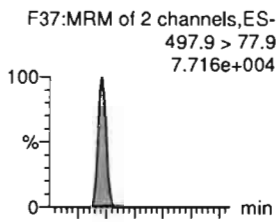
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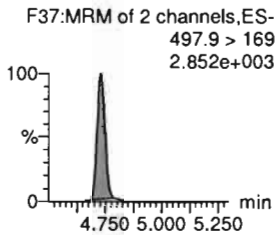
PFNA



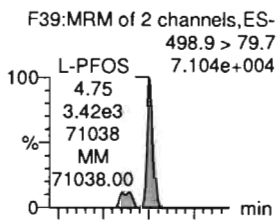


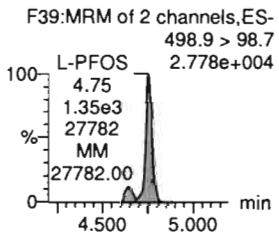
PFOSA



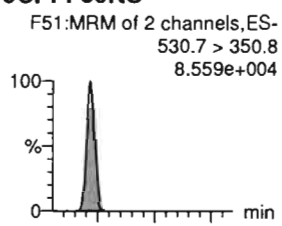


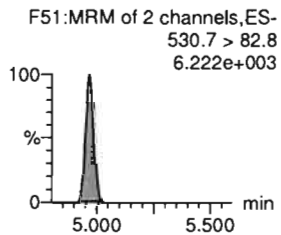
L-PFOS



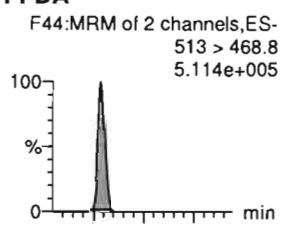


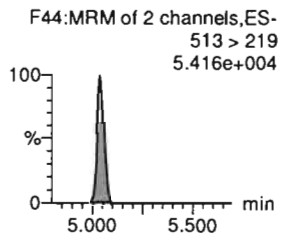
9Cl-PF30NS



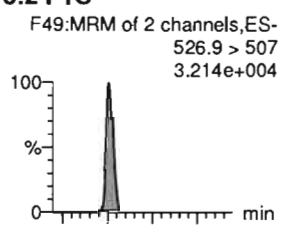


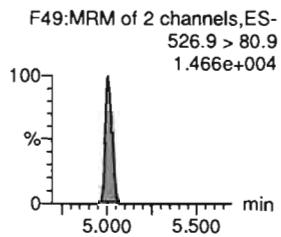
PFDA



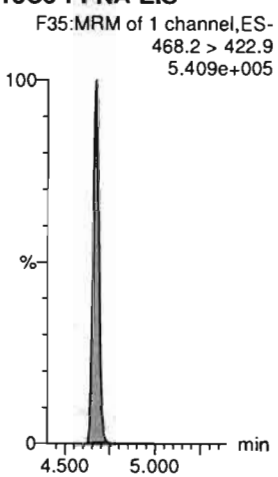


8:2 FTS

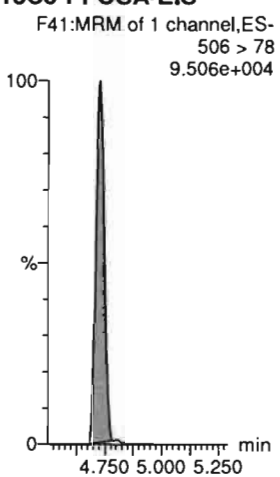




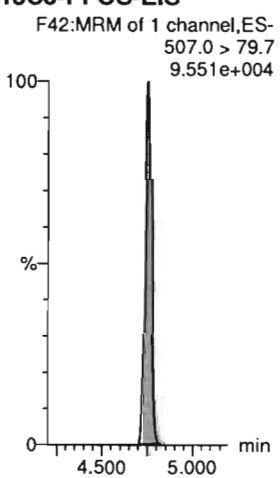
13C5-PFNA-EIS



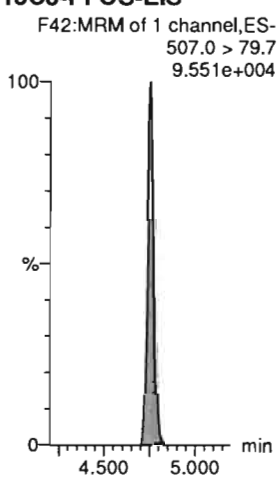
13C8-PFOSA-EIS



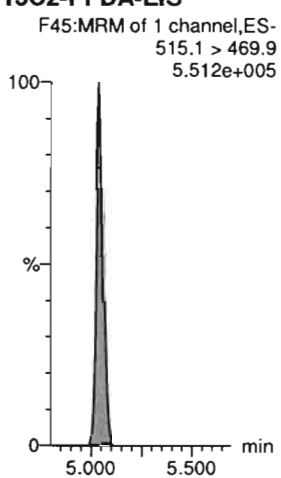
13C8-PFOS-EIS



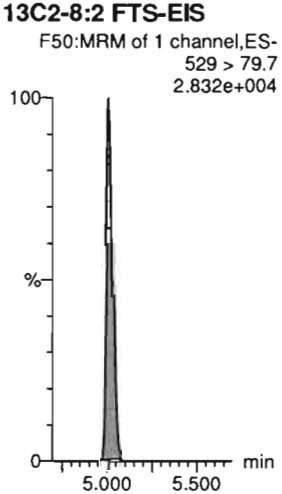
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS



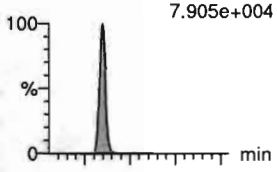
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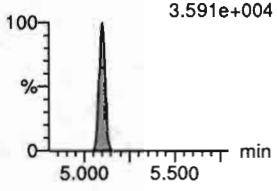
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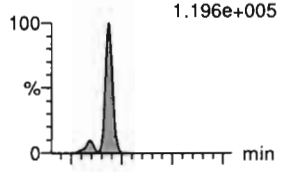
PFNS
F53:MRM of 2 channels,ES-
549.1 > 79.7
7.905e+004



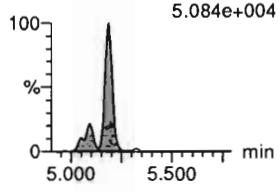
F53:MRM of 2 channels,ES-
549.1 > 98.7
3.591e+004



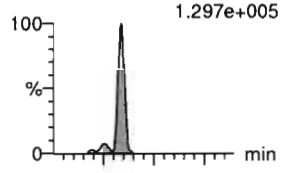
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
1.196e+005



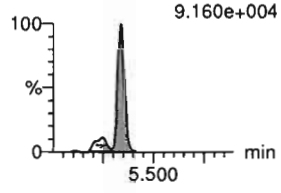
F56:MRM of 2 channels,ES-
570. > 512
5.084e+004



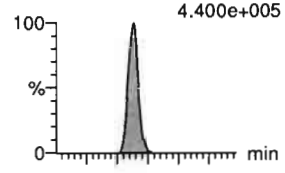
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
1.297e+005



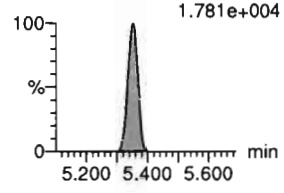
F59:MRM of 2 channels,ES-
584.1 > 526
9.160e+004



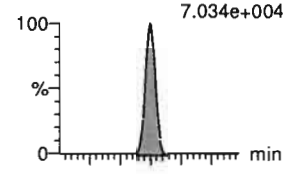
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
4.400e+005



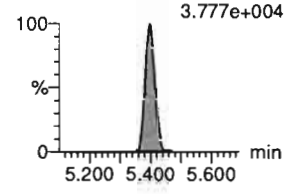
F54:MRM of 2 channels,ES-
563.0 > 269
1.781e+004



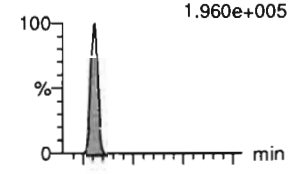
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.7
7.034e+004



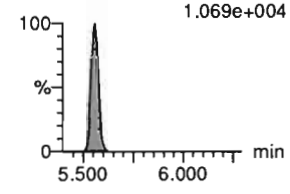
F61:MRM of 2 channels,ES-
598.8 > 98.7
3.777e+004



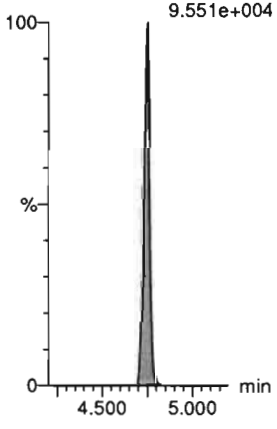
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
630.9 > 450.9
1.960e+005



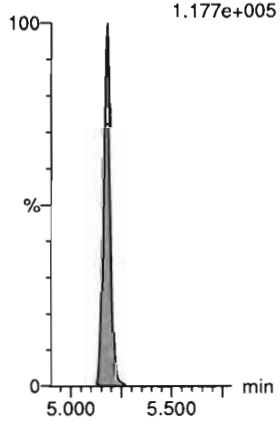
F68:MRM of 2 channels,ES-
630.9 > 83
1.069e+004



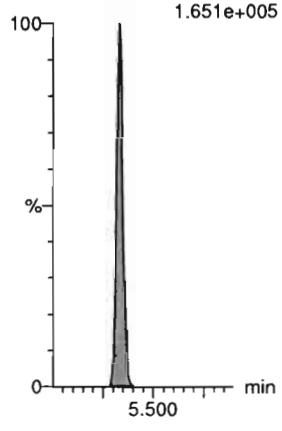
13C8-PFOS-EIS
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.551e+004



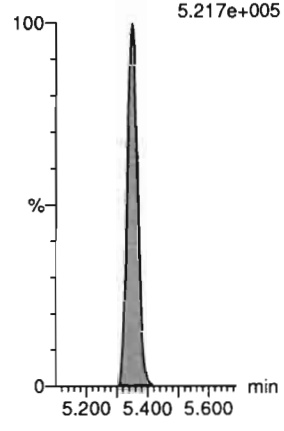
d3-N-MeFOSAA-EIS
F58:MRM of 1 channel,ES-
573.3 > 419
1.177e+005



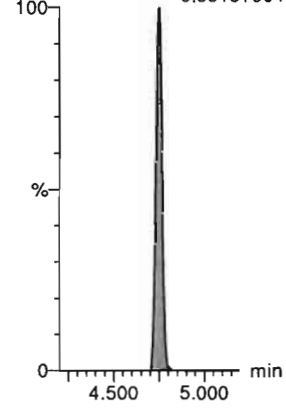
d5-N-EtFOSAA-EIS
F60:MRM of 1 channel,ES-
589.3 > 419
1.651e+005



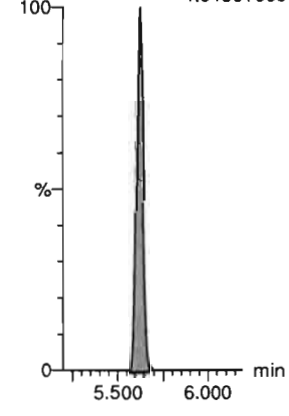
13C2-PFUdA-EIS
F55:MRM of 1 channel,ES-
565 > 519.8
5.217e+005



13C8-PFOS-EIS
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.551e+004



13C2-PFDoA-EIS
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.643e+005



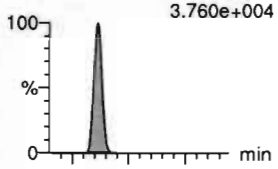
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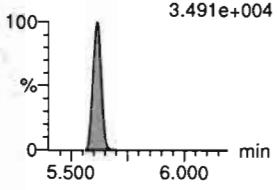
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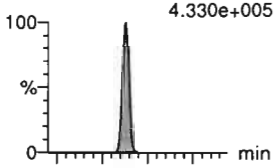
10:2 FTS
F66:MRM of 2 channels,ES-
626.9 > 607
3.760e+004



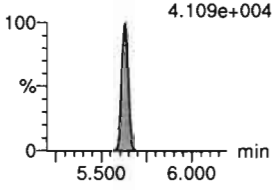
F66:MRM of 2 channels,ES-
626.9 > 80.7
3.491e+004



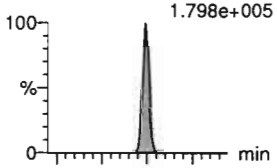
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
4.330e+005



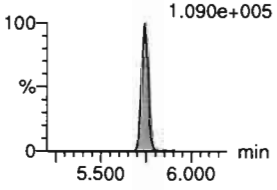
F62:MRM of 4 channels,ES-
612.9 > 318.8
4.109e+004



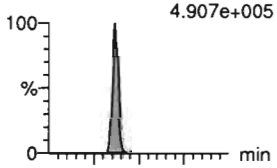
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
1.798e+005



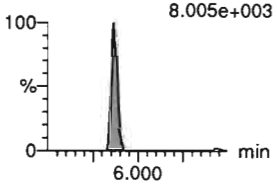
F43:MRM of 2 channels,ES-
512.1 > 219
1.090e+005



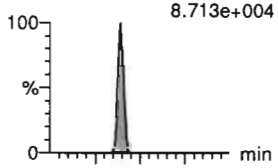
PFTrDA
F71:MRM of 2 channels,ES-
662.9 > 618.9
4.907e+005



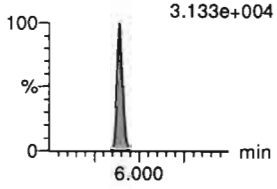
F71:MRM of 2 channels,ES-
662.9 > 319
8.005e+003



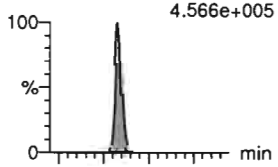
PFDoS
F72:MRM of 2 channels,ES-
698.8 > 79.7
8.713e+004



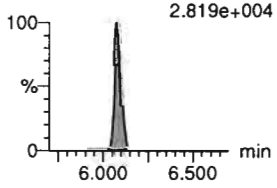
F72:MRM of 2 channels,ES-
698.8 > 98.7
3.133e+004



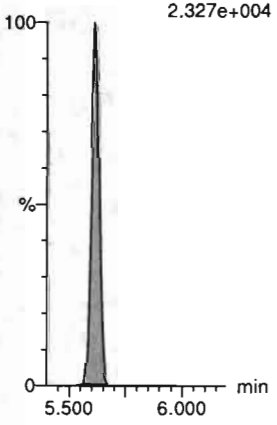
PFTeDA
F73:MRM of 2 channels,ES-
713.0 > 669.0
4.566e+005



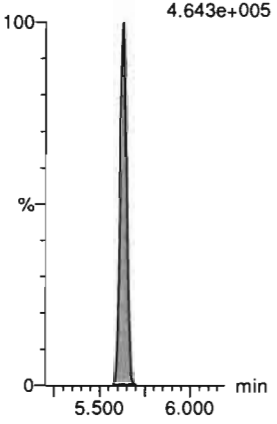
F73:MRM of 2 channels,ES-
713. > 369.0
2.819e+004



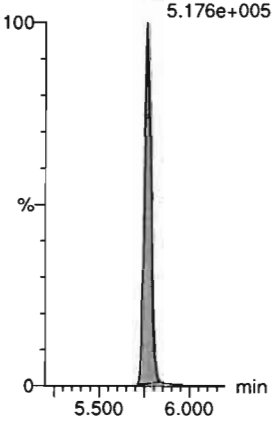
13C2-10:2 FTS-EIS
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.327e+004



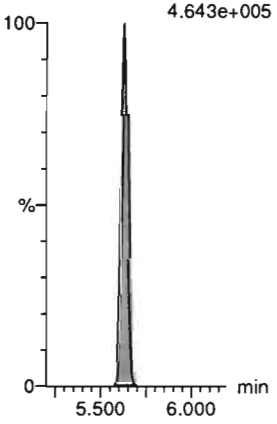
13C2-PFDoA-EIS
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.643e+005



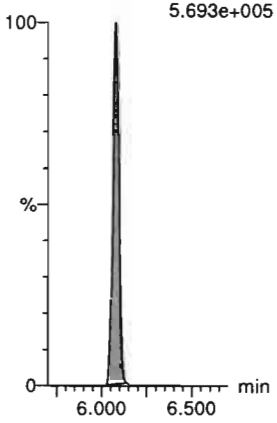
d3-N-MeFOSA-EIS
F46:MRM of 1 channel,ES-
515.2 > 168.9
5.176e+005



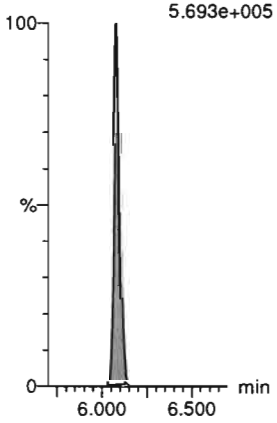
13C2-PFDoA-EIS
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.643e+005



13C2-PFTeDA-EIS
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.693e+005



13C2-PFTeDA-EIS
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.693e+005



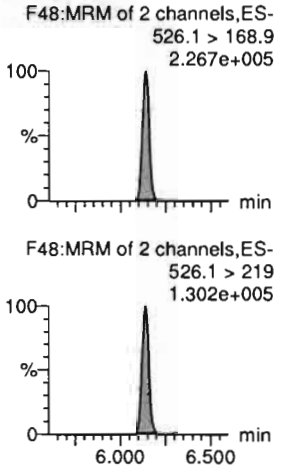
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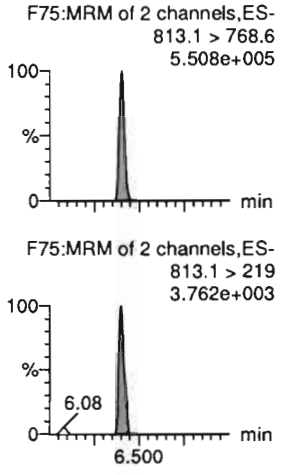
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Name: 200225P1-67, Date: 26-Feb-2020, Time: 05:32:00, ID: ST200225P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

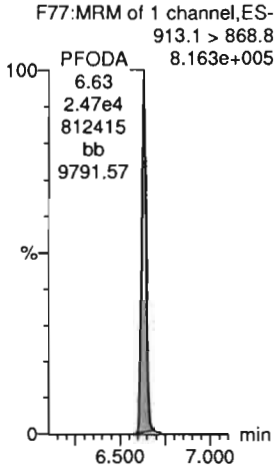
N-EtFOSA



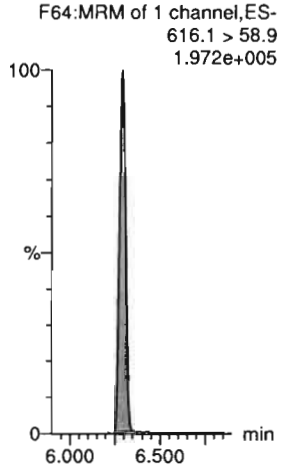
PFHxDA



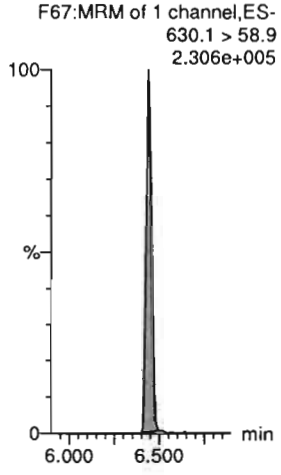
PFODA



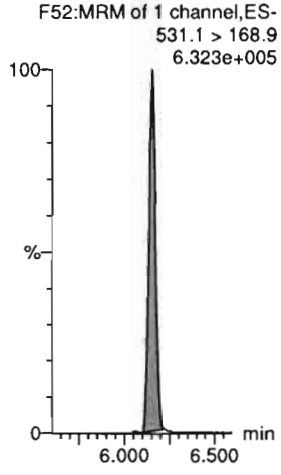
N-MeFOSE



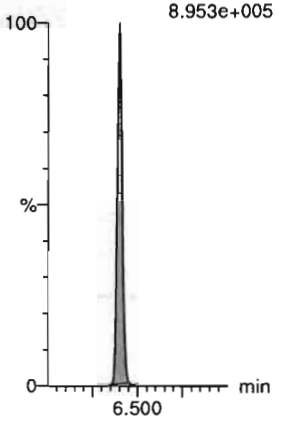
N-EtFOSE



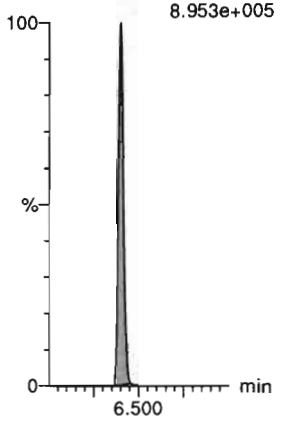
d5-N-ETFOSA-EIS



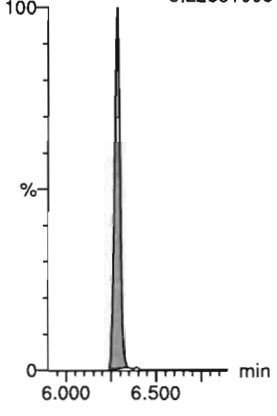
13C2-PFHxDA-EIS



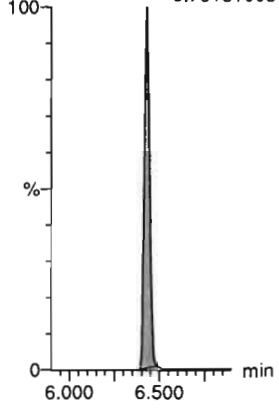
13C2-PFHxDA-EIS



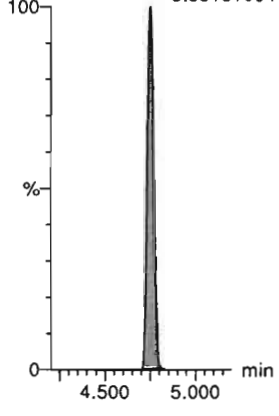
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C8-PFOS-EIS



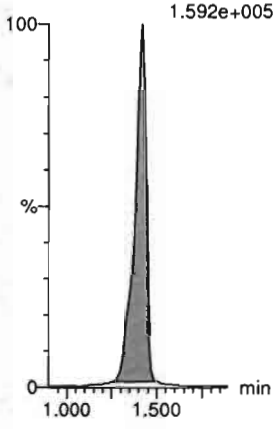
RK 2/26/2020

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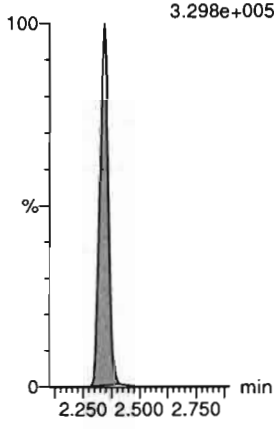
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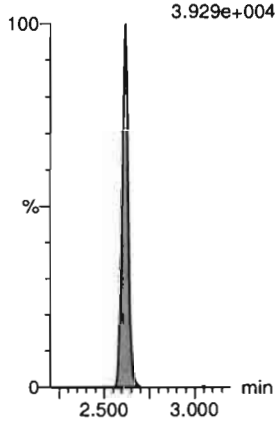
13C3-PFBA-RSD
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.592e+005



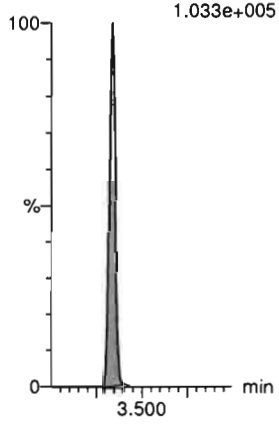
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
266.0 > 221.8
3.298e+005



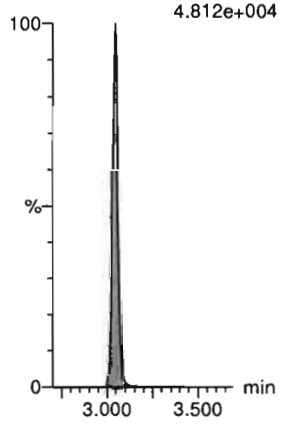
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.929e+004



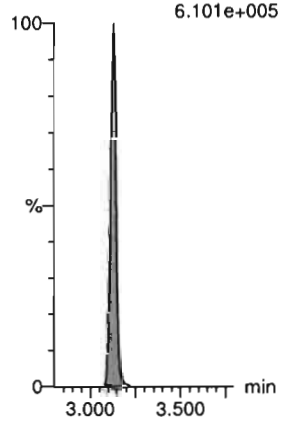
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.033e+005



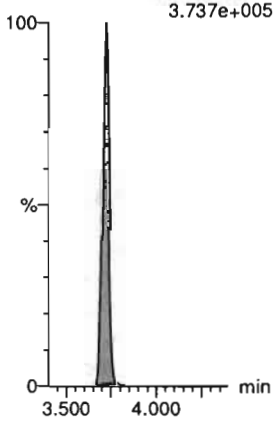
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.812e+004



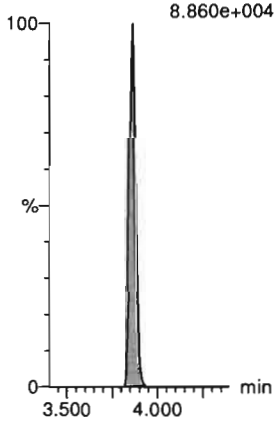
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
6.101e+005



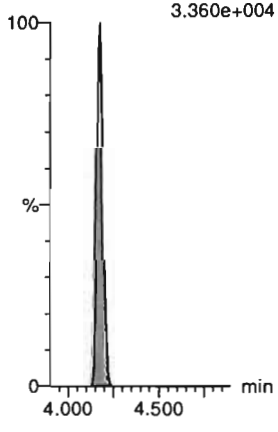
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.737e+005



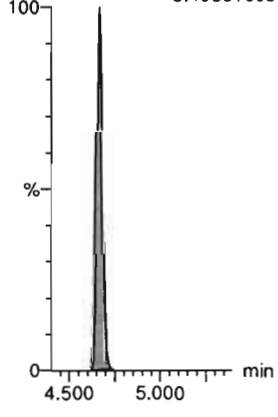
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.860e+004



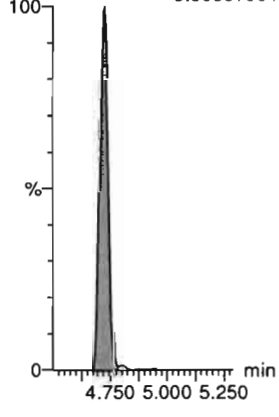
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.360e+004



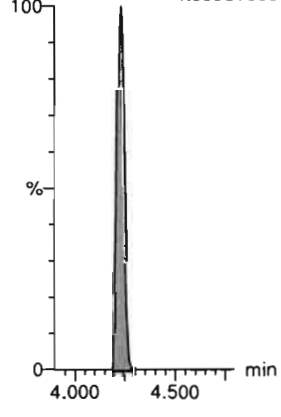
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
5.409e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.506e+004



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.959e+005



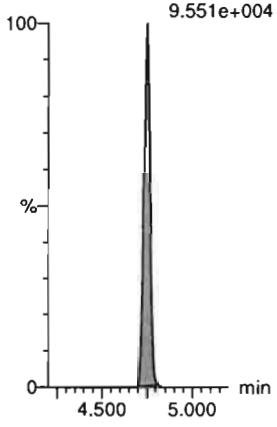
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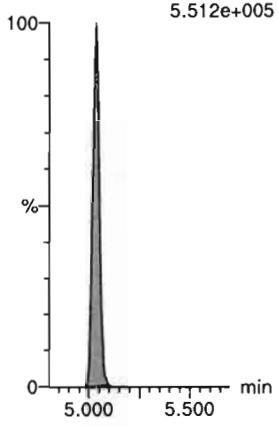
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Name: 200225P1-67, Date: 26-Feb-2020, Time: 05:32:00, ID: ST200225P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

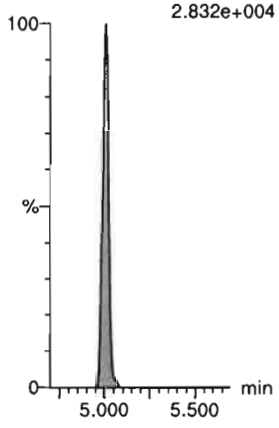
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.551e+004



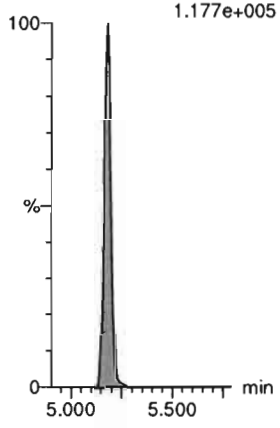
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.512e+005



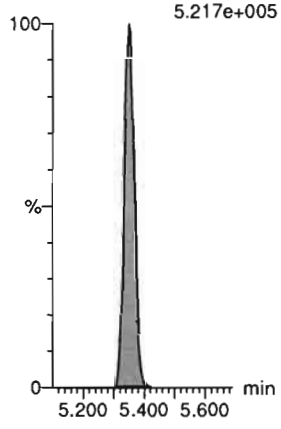
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.832e+004



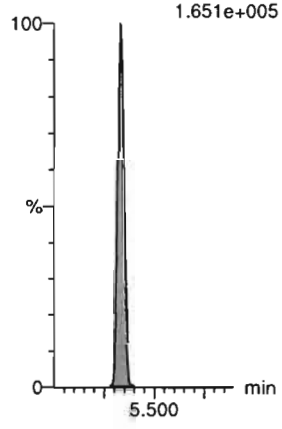
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.177e+005



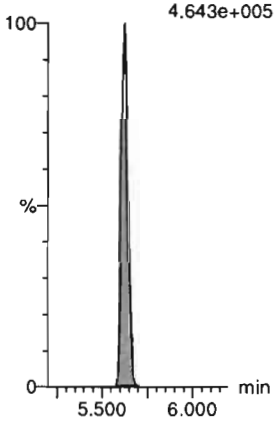
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.217e+005



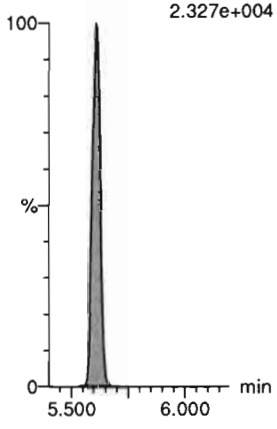
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.651e+005



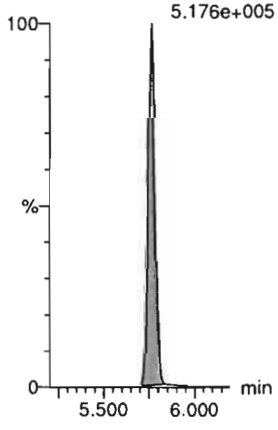
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.643e+005



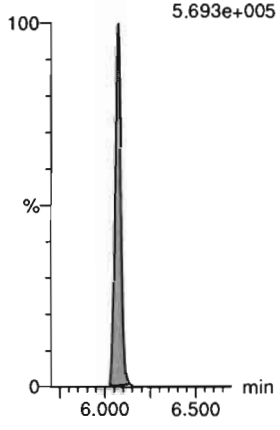
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.327e+004



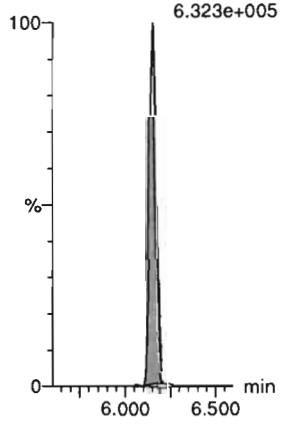
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
5.176e+005



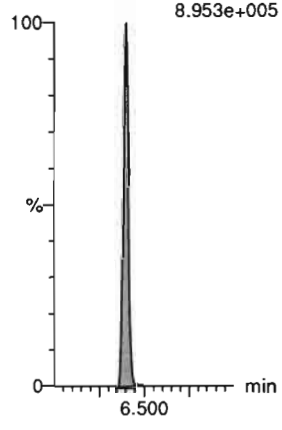
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.693e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
6.323e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.953e+005



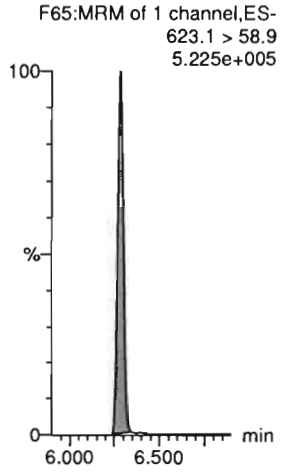
RK 2/26/2020

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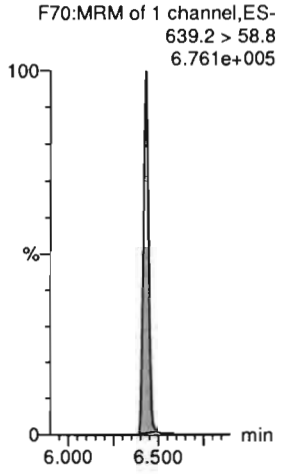
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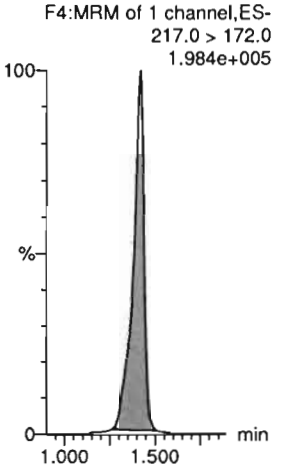
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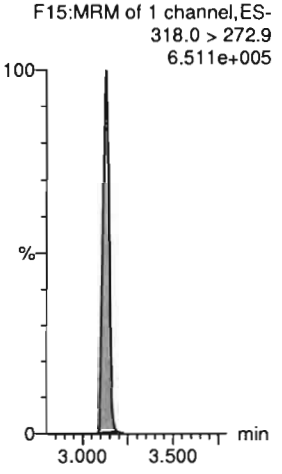
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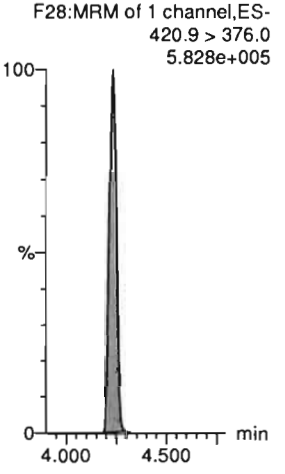
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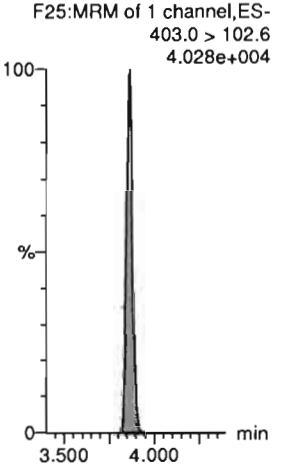
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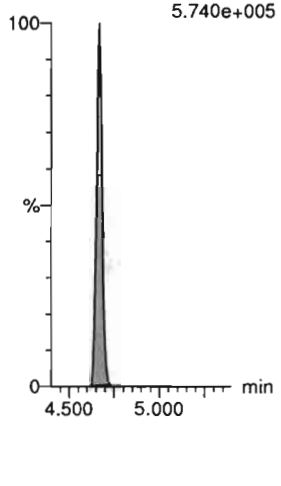
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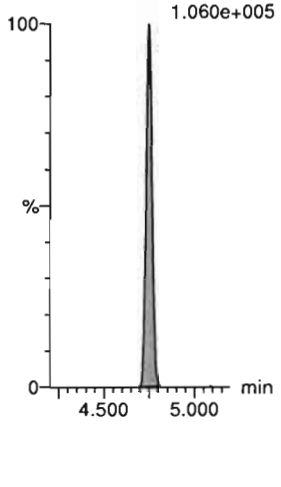
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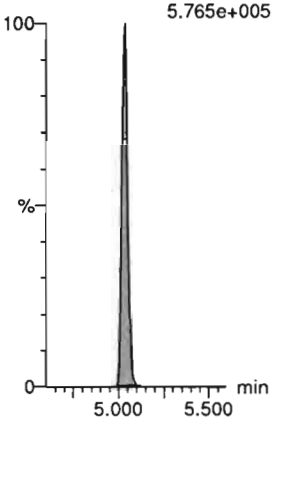
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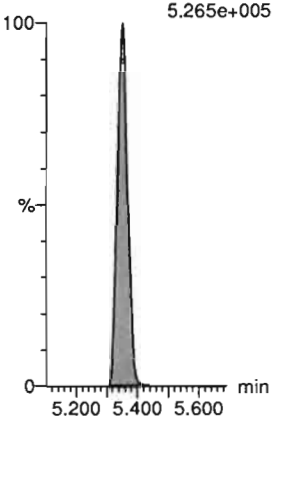
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RK 2/26/2020

Vista Analytical Laboratory

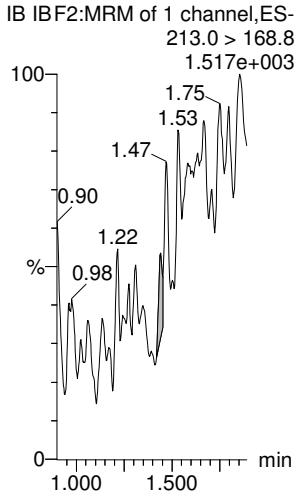
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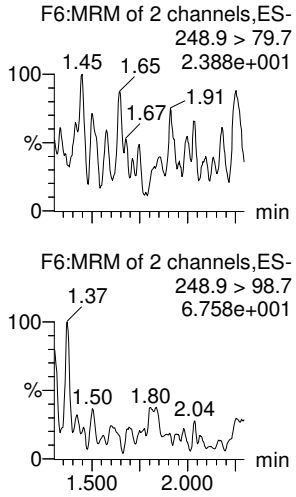
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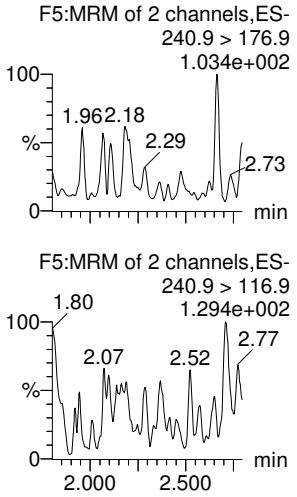
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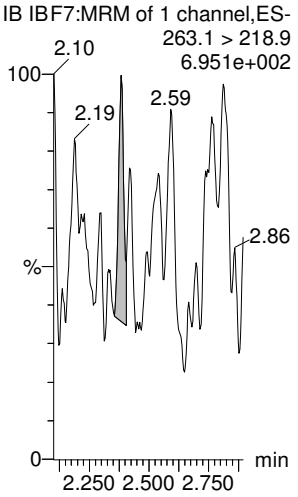
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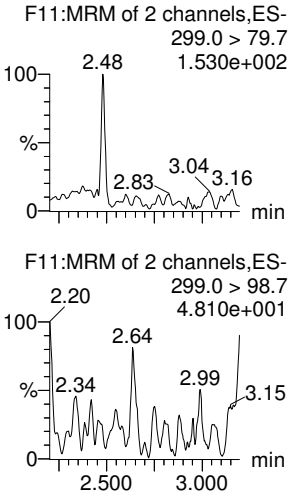
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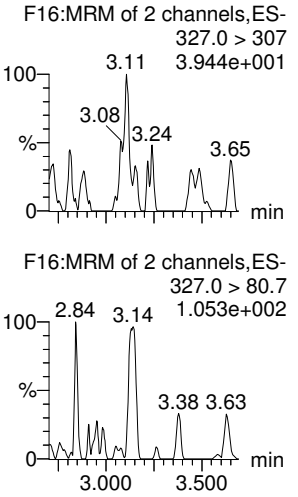
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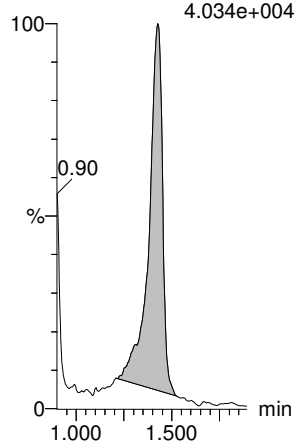
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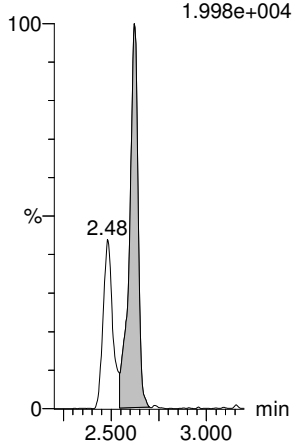
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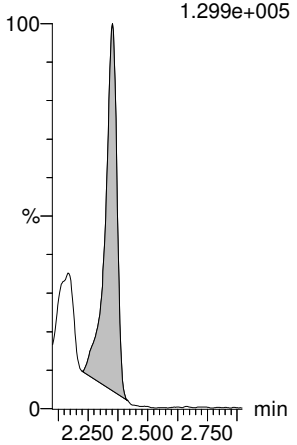
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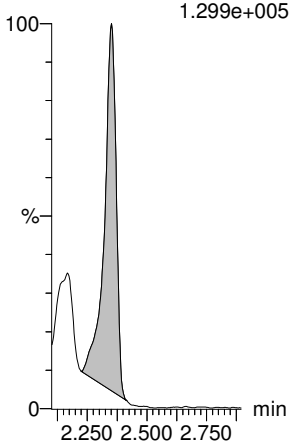
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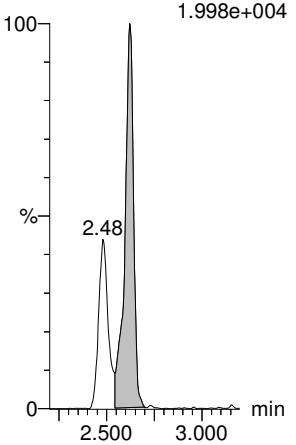
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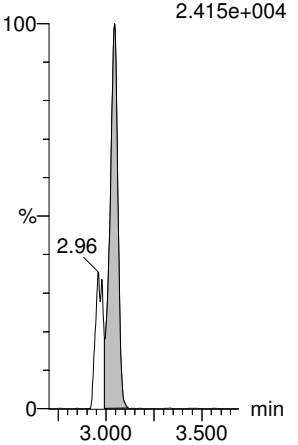
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

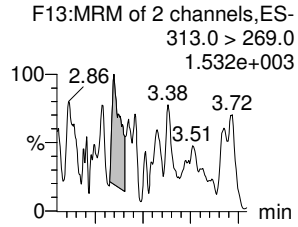


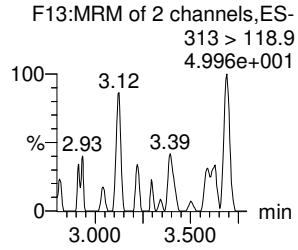
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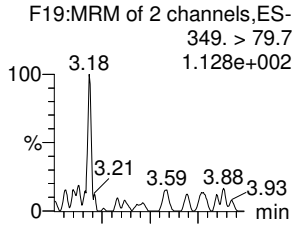
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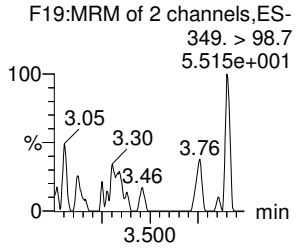
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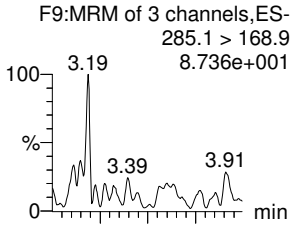


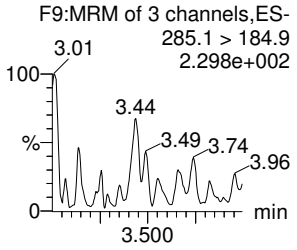
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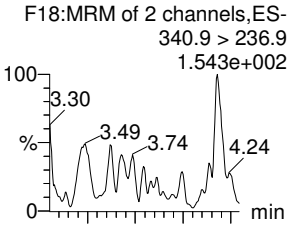


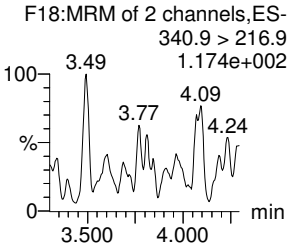
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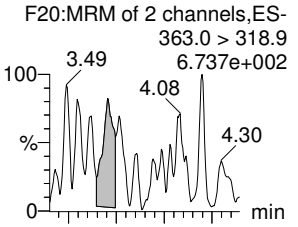


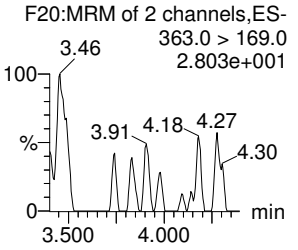
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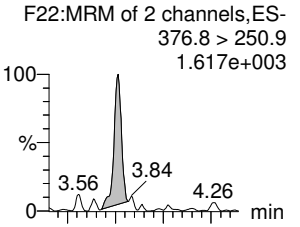


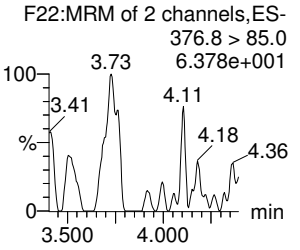
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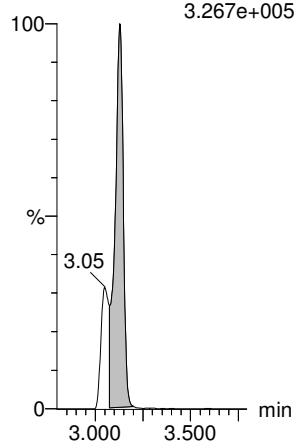


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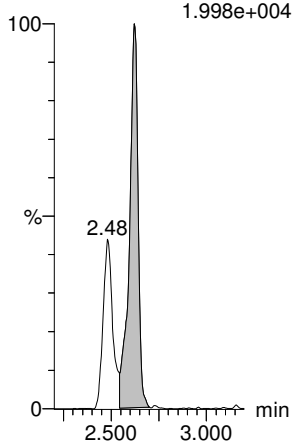




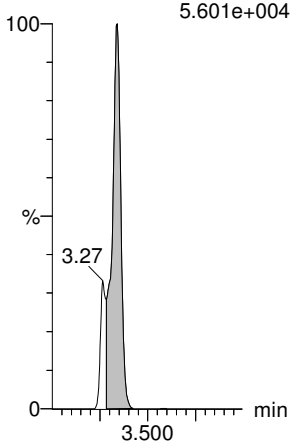
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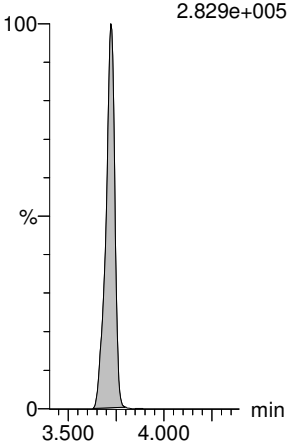
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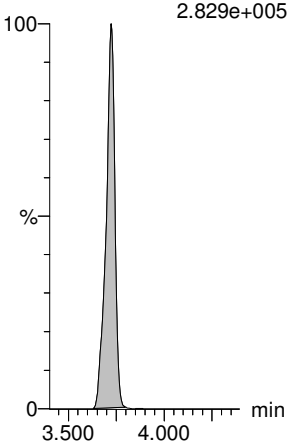
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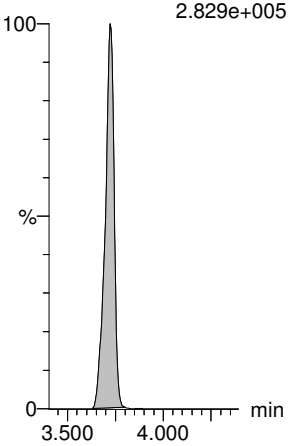
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13C4-PFHpA-EIS



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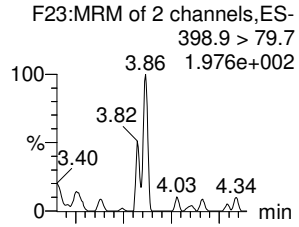


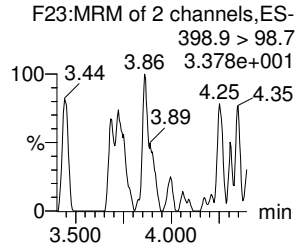
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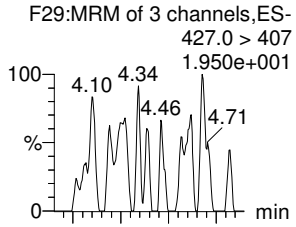
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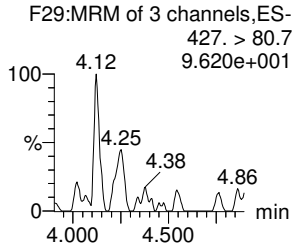
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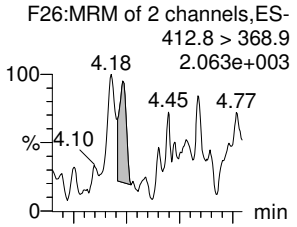


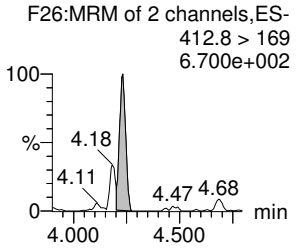
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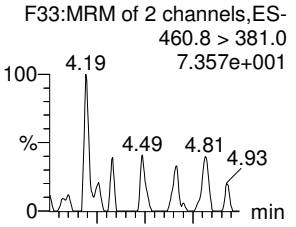


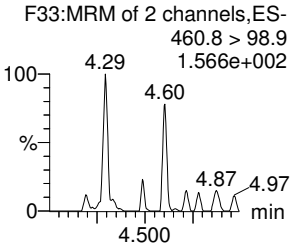
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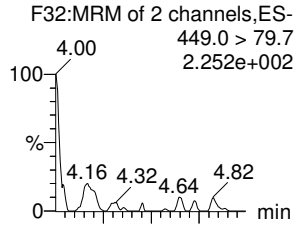


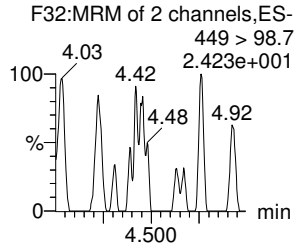
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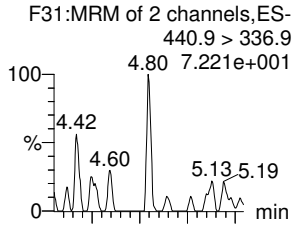


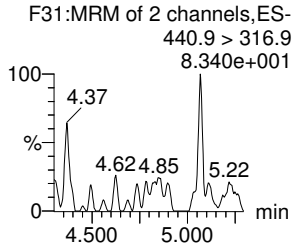
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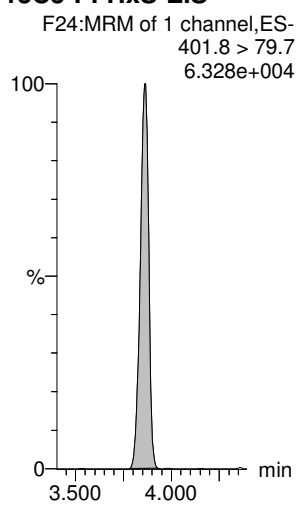


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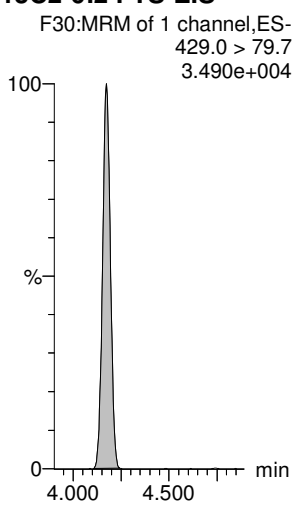




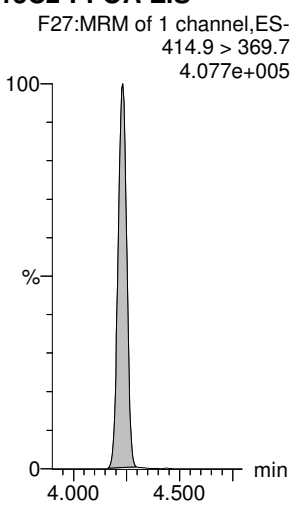
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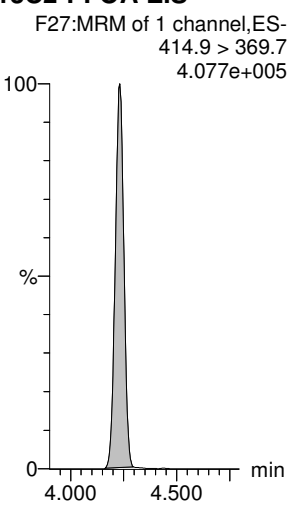
13C2-6:2 FTS-EIS



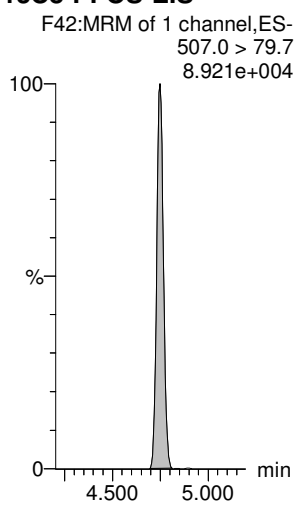
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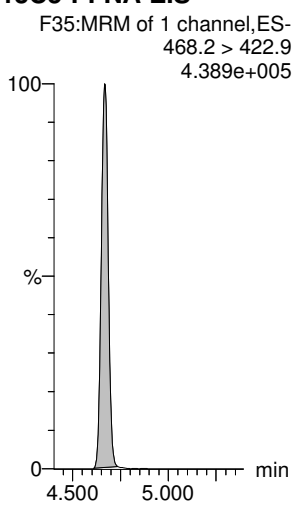
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13C8-PFOS-EIS



13C5-PFNA-EIS

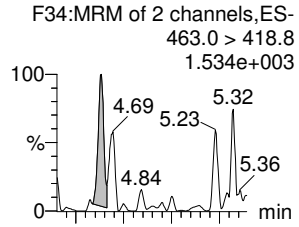


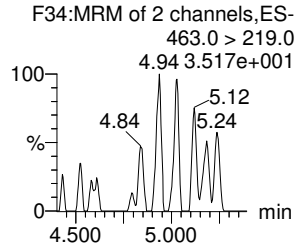
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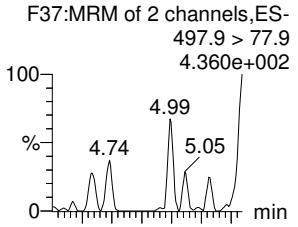
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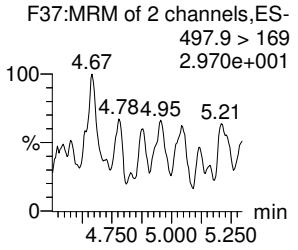
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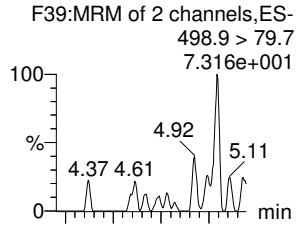


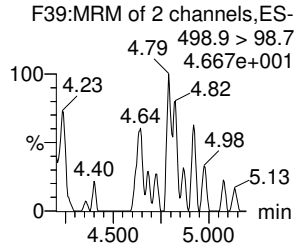
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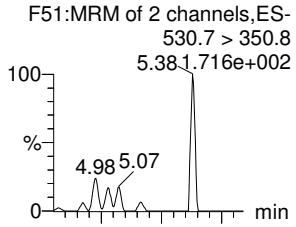


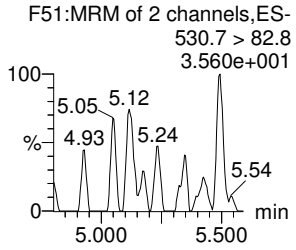
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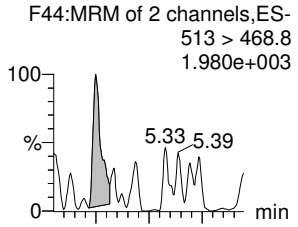


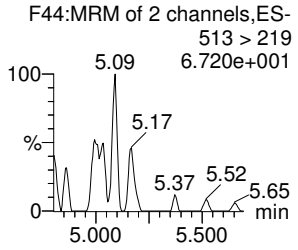
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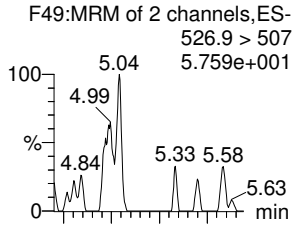


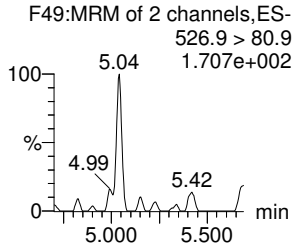
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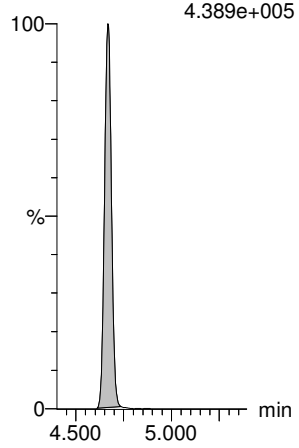


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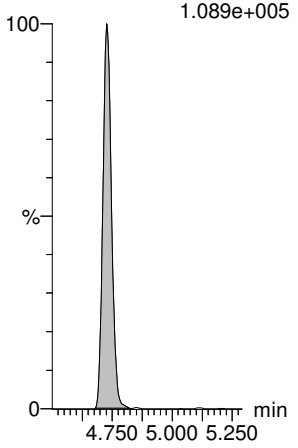




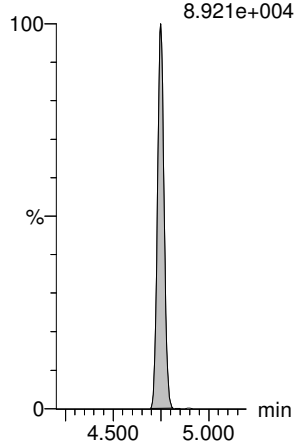
13C5-PFNA-EIS



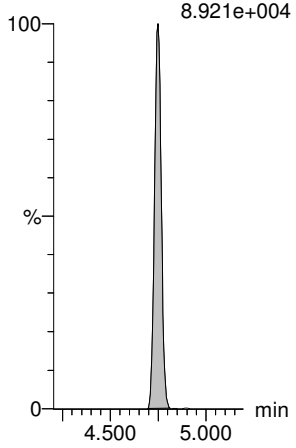
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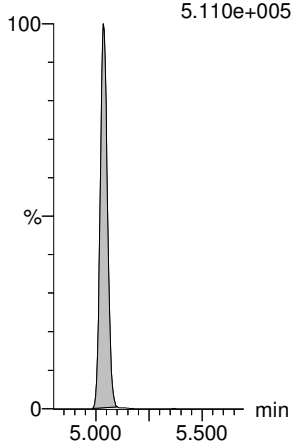
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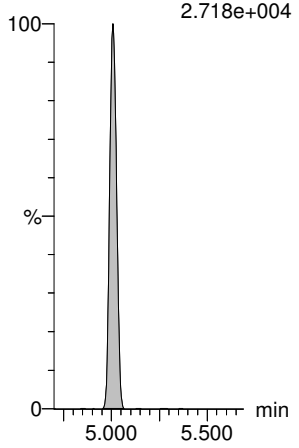
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

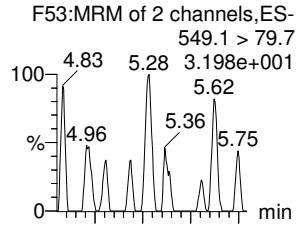


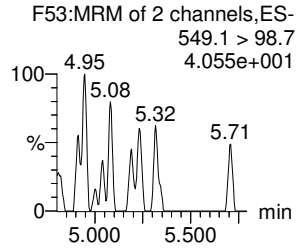
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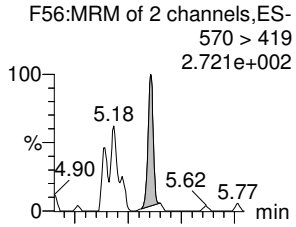
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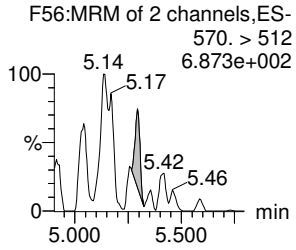
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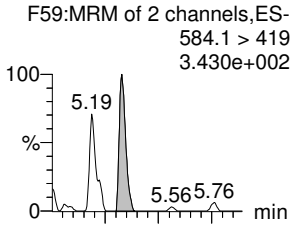


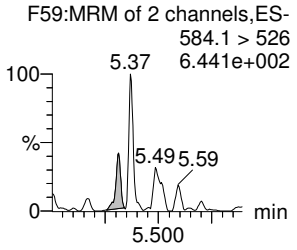
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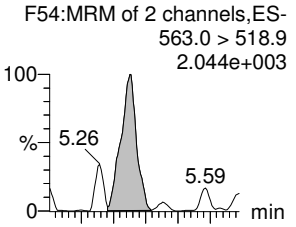


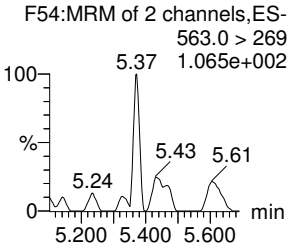
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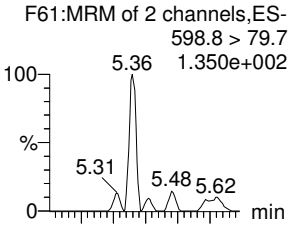


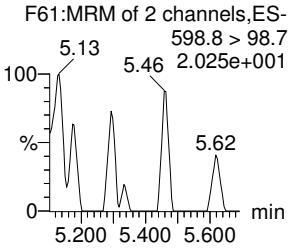
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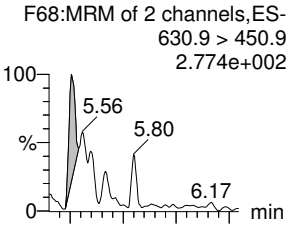


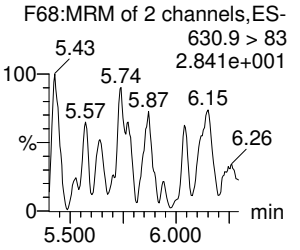
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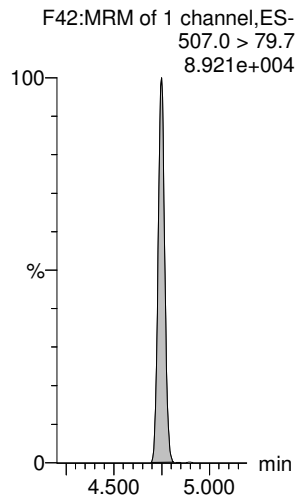


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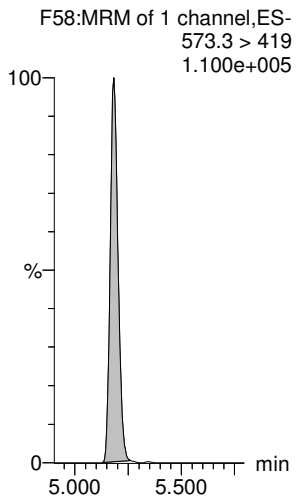




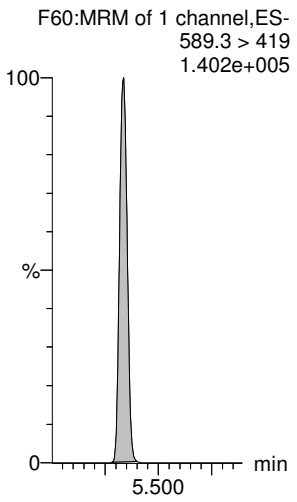
13C8-PFOS-EIS



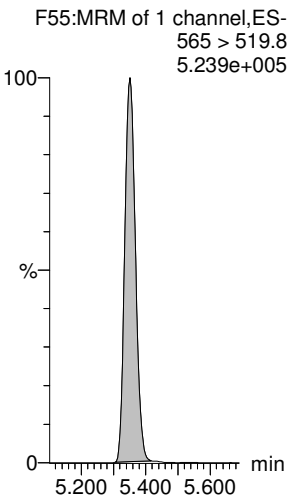
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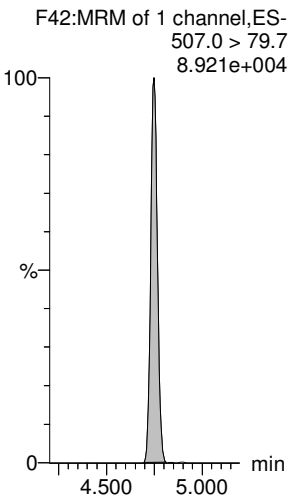
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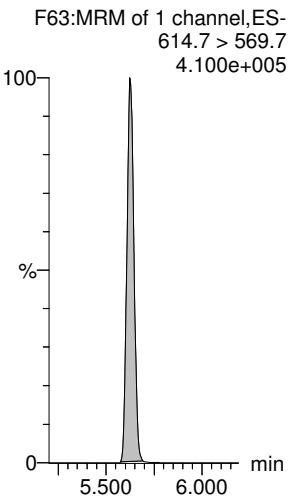
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

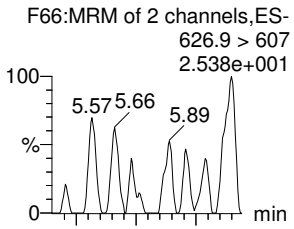


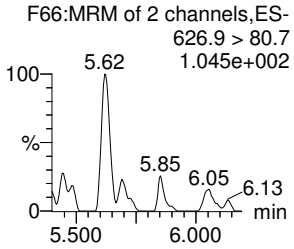
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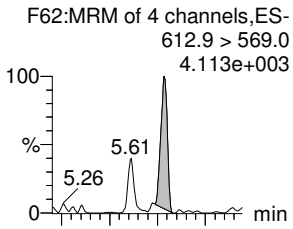
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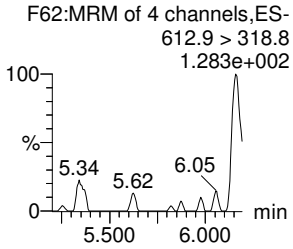
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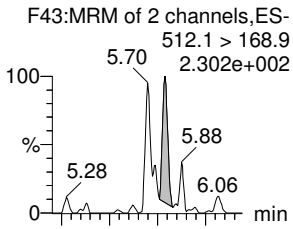


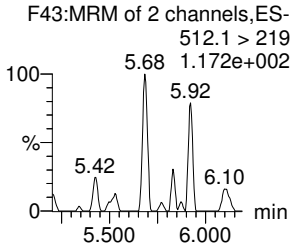
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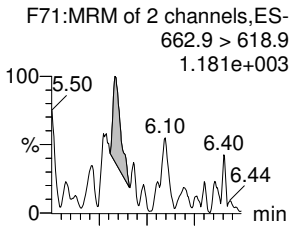


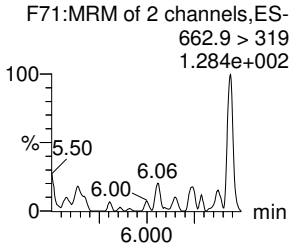
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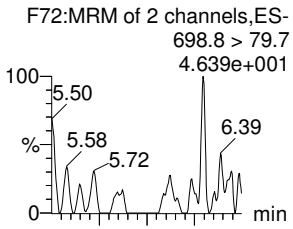


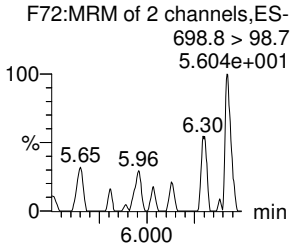
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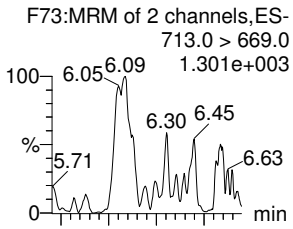


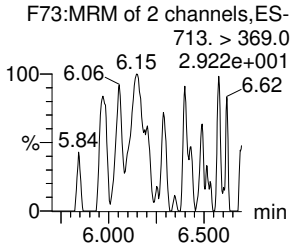
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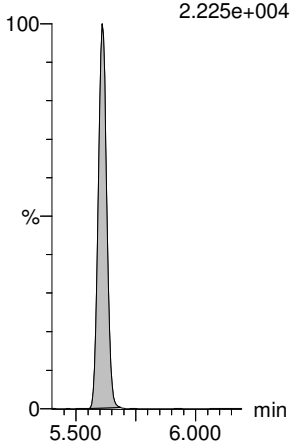


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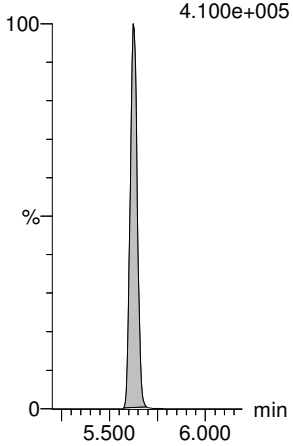




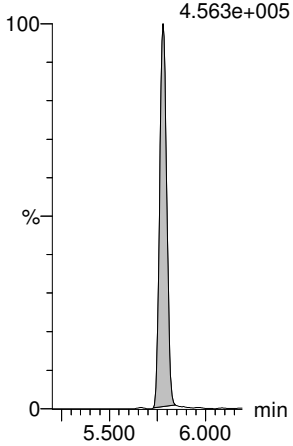
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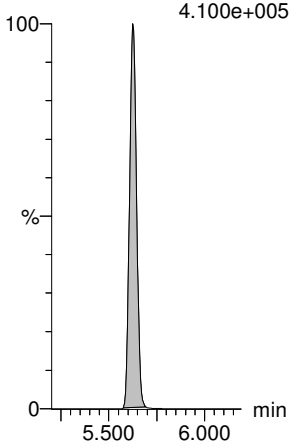
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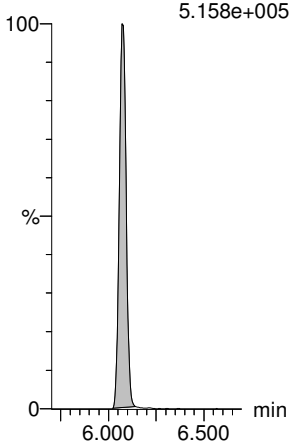
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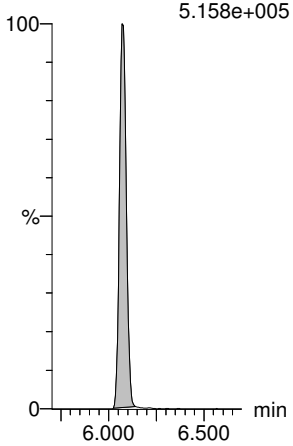
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

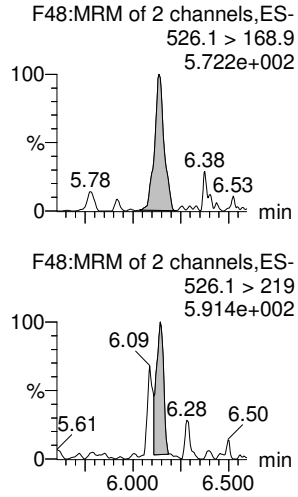


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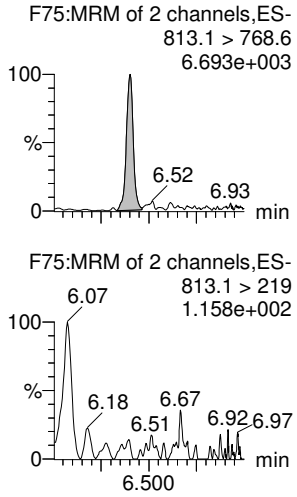
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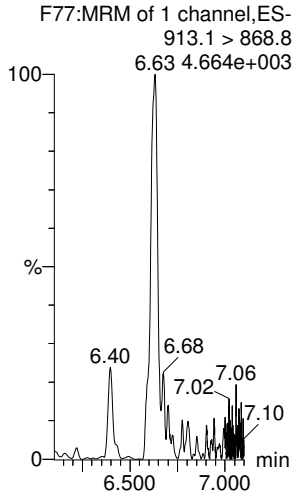
N-EtFOSA



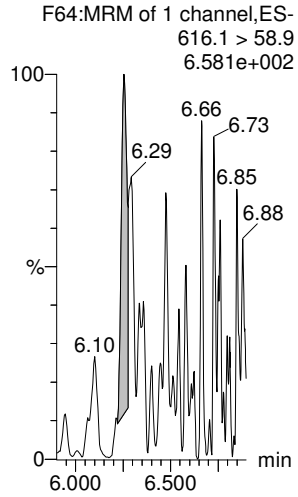
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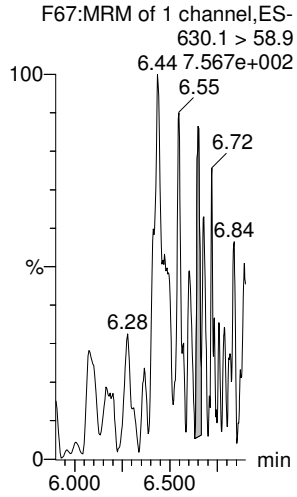
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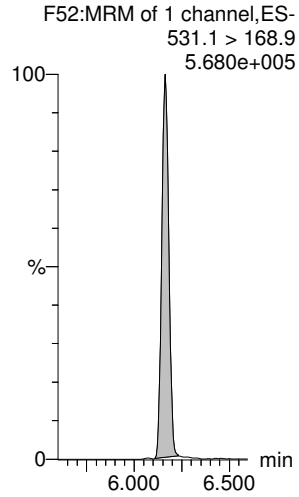
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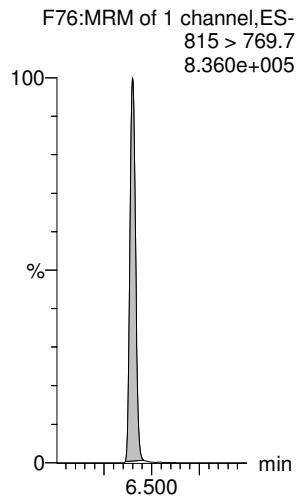
N-EtFOSE



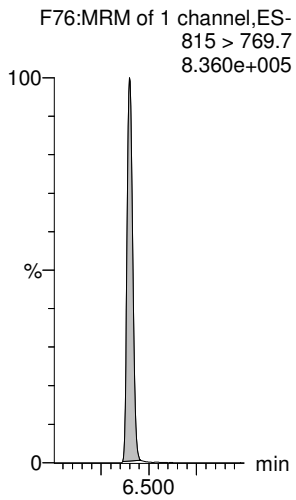
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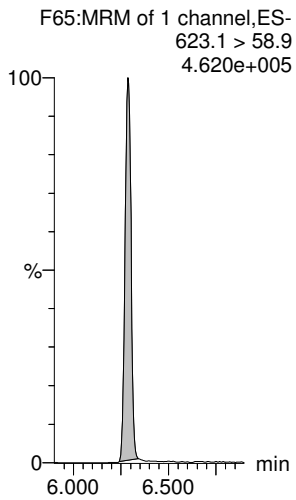
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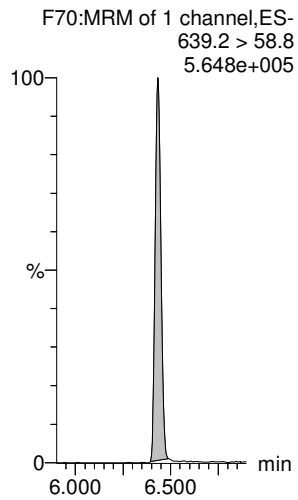
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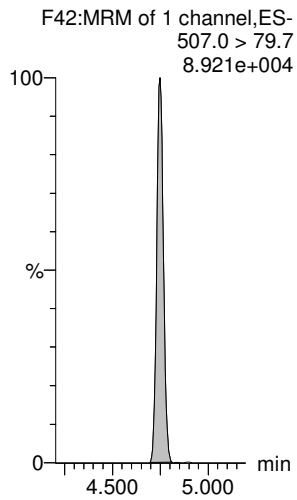
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



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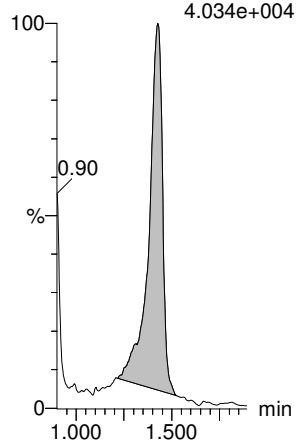


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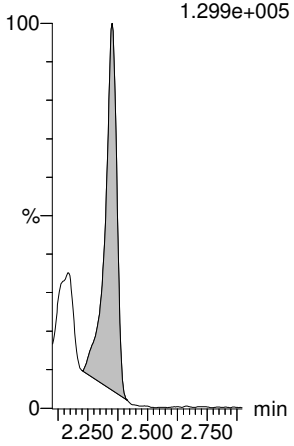
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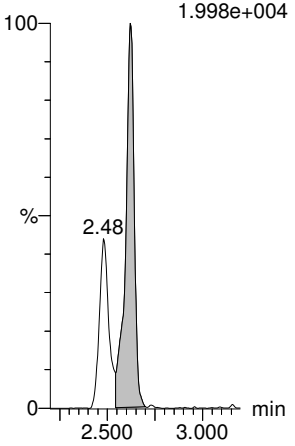
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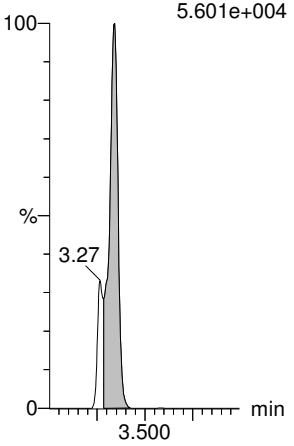
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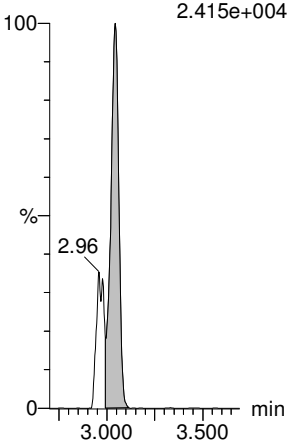
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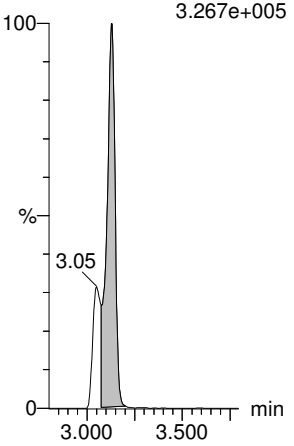
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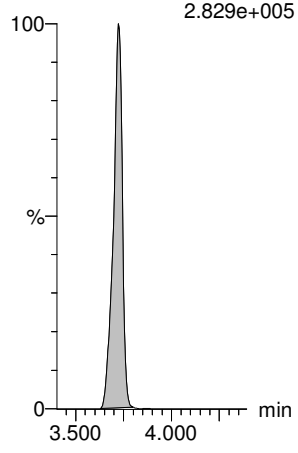
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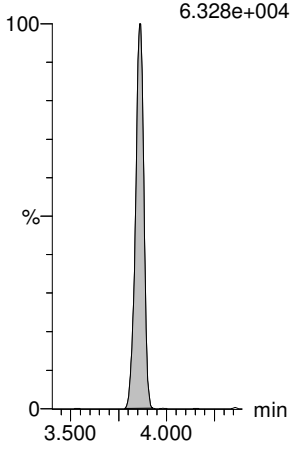
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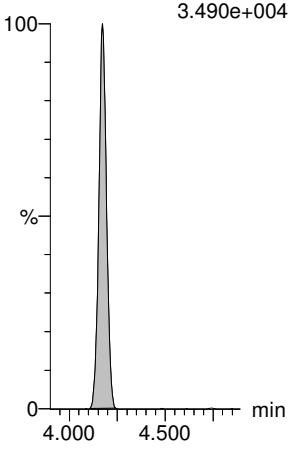
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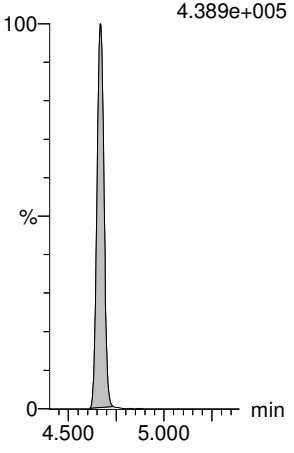
13C3-PFHxS-RSD



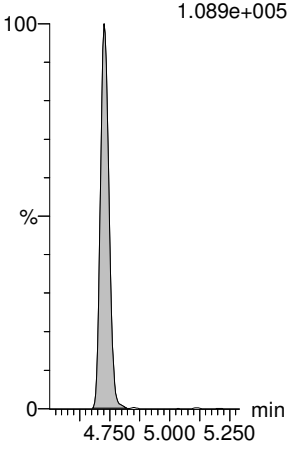
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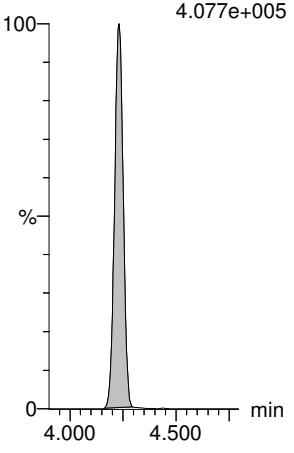
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13C8-PFOSA-RSD



13C2-PFOA-RSD

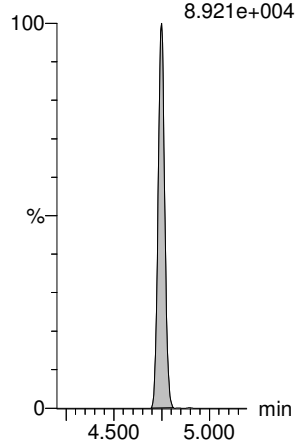


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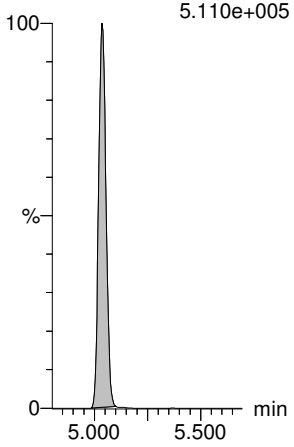
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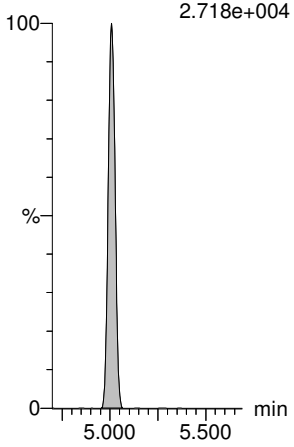
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F42:MRM of 1 channel,ES-
507.0 > 79.7
8.921e+004



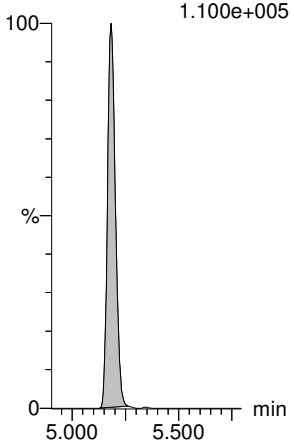
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F45:MRM of 1 channel,ES-
515.1 > 469.9
5.110e+005



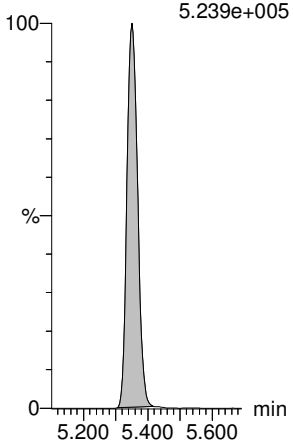
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F50:MRM of 1 channel,ES-
529 > 79.7
2.718e+004



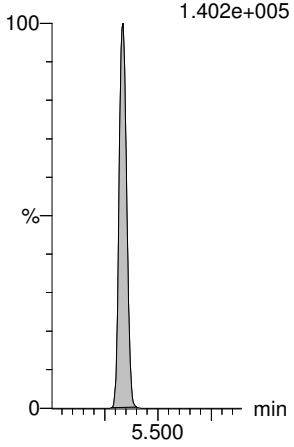
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F58:MRM of 1 channel,ES-
573.3 > 419
1.100e+005



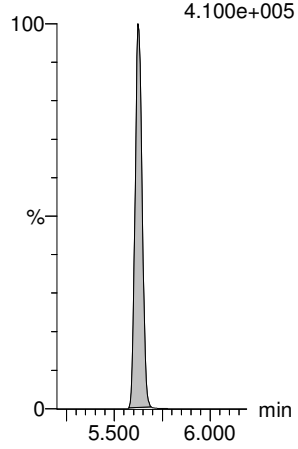
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F55:MRM of 1 channel,ES-
565 > 519.8
5.239e+005



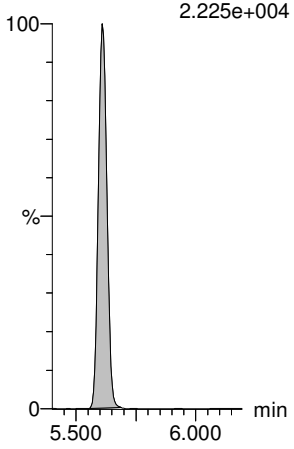
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.402e+005



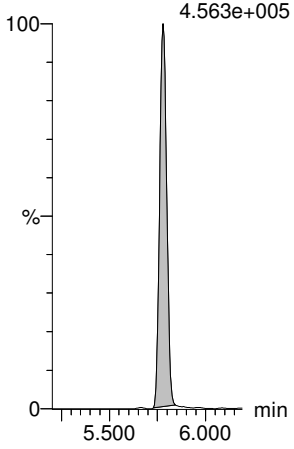
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.100e+005



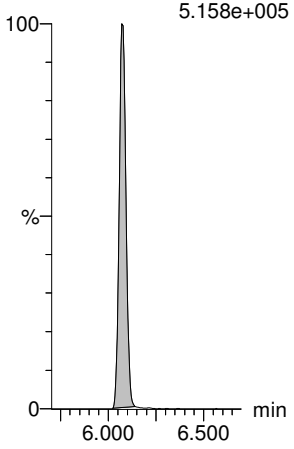
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.225e+004



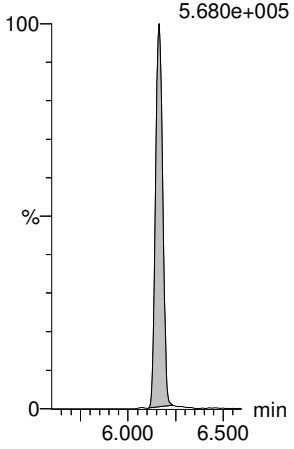
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.563e+005



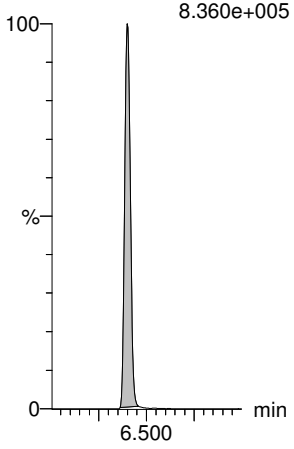
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.158e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.680e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.360e+005

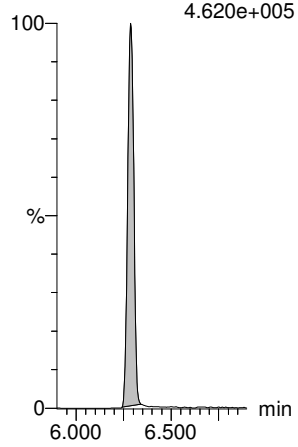


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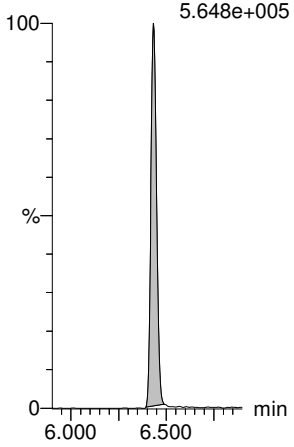
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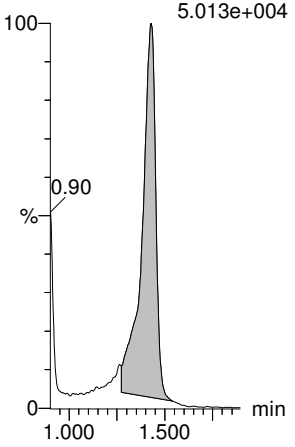
d7-N-MeFOSE-RSD



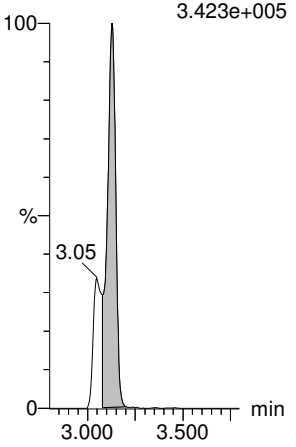
d9-N-EtFOSE-RSD



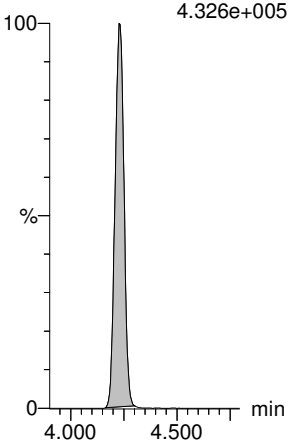
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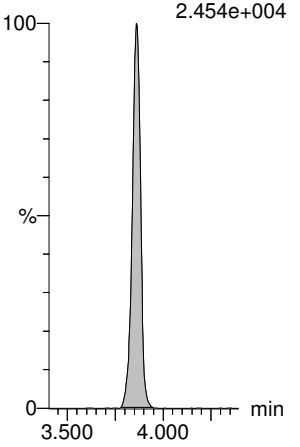
13C5-PFHxA



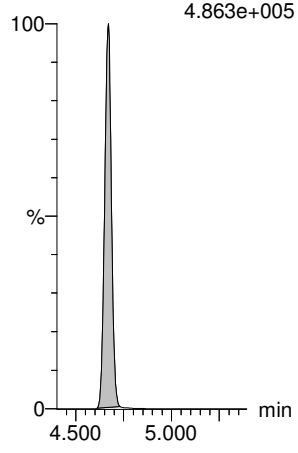
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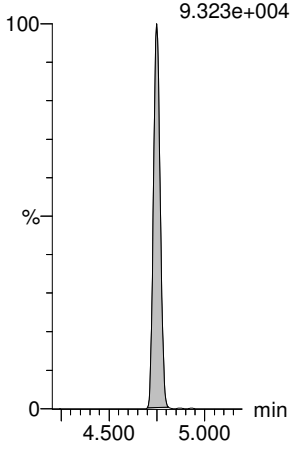
18O2-PFHxS



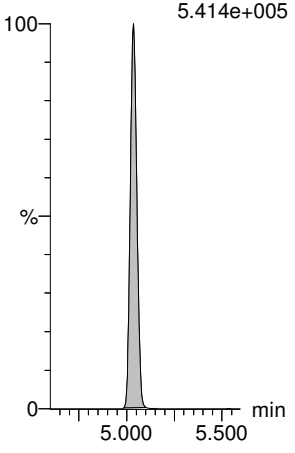
13C9-PFNA



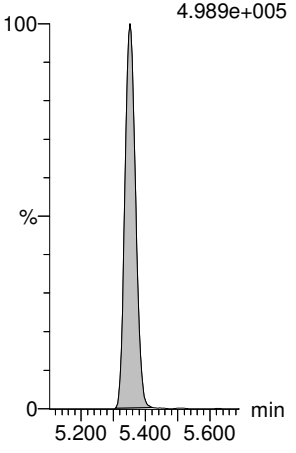
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Name: 200226P1-13, Date: 26-Feb-2020, Time: 18:44:12, 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	6.911	3143.130	1.00	1.44	0.027		0.0250		NO		
2	2	PFPrS	248.9 > 79.7		1028.801	1.00						NO		YES
3	3	3:3 FTCA	240.9 > 176.9		7091.274	1.00						NO		YES
4	4	PFPeA	263.1 > 218.9	11.208	7091.274	1.00	2.38	0.020		0.00417		NO		
5	5	PFBS	299.0 > 79.7		1028.801	1.00						NO		YES
6	6	4:2 FTS	327.0 > 307		1162.245	1.00						NO		YES
7	47	13C3-PFBA-EIS	216.1 > 171.8	3143.130		1.00	1.43	3143.130	12.500	4.21	33.7	YES		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1028.801		1.00	2.62	1028.801	12.500	9.41	75.3	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	7091.274		1.00	2.35	7091.274	12.500	6.71	53.6	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	7091.274		1.00	2.35	7091.274	12.500	6.71	53.6	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1028.801		1.00	2.62	1028.801	12.500	9.41	75.3	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1162.245		1.00	3.04	1162.245	12.500	9.52	76.1	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	61.416	16335.066	1.00	3.10	0.047				NO		YES
15	8	PFPeS	349.>79.7		1028.801	1.00						NO		YES
16	9	HFPO-DA	285.1 > 168.9		2927.639	1.00						NO		YES
17	10	5:3 FTCA	340.9 > 236.9		14896.810	1.00						NO		YES
18	11	PFHpA	363.0 > 318.9	34.987	14896.810	1.00	3.70	0.029				NO		YES
19	12	ADONA	376.8 > 250.9	69.181	14896.810	1.00	3.76	0.058				NO		YES
20	57	13C2-PFHxA-EIS	315.0 > 270.0	16335.066		1.00	3.13	16335.066	12.500	9.38	75.0	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1028.801		1.00	2.62	1028.801	12.500	9.41	75.3	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2927.639		1.00	3.34	2927.639	12.500	9.54	76.4	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	14896.810		1.00	3.72	14896.810	12.500	13.0	104.1	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	14896.810		1.00	3.72	14896.810	12.500	13.0	104.1	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	14896.810		1.00	3.72	14896.810	12.500	13.0	104.1	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7		3172.878	1.00						NO		YES
28	15	6:2 FTS	427.0 > 407		1583.183	1.00						NO		YES
29	16	L-PFOA	412.8 > 368.9	57.815	18932.484	1.00	4.23	0.038				NO	2.671	NO
30	18	PFecHS	460.8 > 381.0		18932.484	1.00						NO		YES
31	19	PFHpS	449.0 > 79.7		3559.960	1.00						NO		YES
32	20	7:3 FTCA	440.9 > 336.9		18295.316	1.00						NO		YES
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3172.878		1.00	3.86	3172.878	12.500	13.7	109.3	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1583.183		1.00	4.17	1583.183	12.500	13.4	107.3	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	18932.484		1.00	4.23	18932.484	12.500	12.1	96.6	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	18932.484		1.00	4.23	18932.484	12.500	12.1	96.6	NO		

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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	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	18295.316		1.00	4.67	18295.316	12.500	12.6	100.5	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	49.439	18295.316	1.00	4.63	0.034				NO		YES
41	22	PFOSA	497.9 > 77.9		4409.656	1.00						NO		YES
42	23	L-PFOS	498.9 > 79.7		3559.960	1.00						NO		YES
43	25	9Cl-PF30NS	530.7 > 350.8		3559.960	1.00						NO		YES
44	26	PFDA	513 > 468.8	82.174	20117.283	1.00	5.00	0.051				NO		YES
45	27	8:2 FTS	526.9 > 507		1107.433	1.00						NO		YES
46	65	13C5-PFNA-EIS	468.2 > 422.9	18295.316		1.00	4.67	18295.316	12.500	12.6	100.5	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4409.656		1.00	4.73	4409.656	12.500	13.6	108.8	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	20117.283		1.00	5.04	20117.283	12.500	12.6	100.8	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1107.433		1.00	5.01	1107.433	12.500	12.1	96.6	NO		
52	-1													
53	28	PFNS	549.1 > 79.7		3559.960	1.00						NO		YES
54	29	L-MeFOSAA	570 > 419	7.412	4645.052	1.00	5.35	0.020				NO	0.709	YES
55	31	L-EtFOSAA	584.1 > 419	11.511	5640.693	1.00	5.33	0.026				NO	1.692	YES
56	33	PFUdA	563.0 > 518.9	114.832	19858.586	1.00	5.35	0.072		0.0497		NO		YES
57	34	PFDS	598.8 > 79.7		3559.960	1.00						NO		YES
58	35	11Cl-PF30UdS	630.9 > 450.9	6.595	17366.926	1.00	5.51	0.005		0.0133		NO		YES
59	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	4645.052		1.00	5.18	4645.052	12.500	11.7	93.4	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5640.693		1.00	5.34	5640.693	12.500	11.6	92.4	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	19858.586		1.00	5.35	19858.586	12.500	12.2	97.7	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	17366.926		1.00	5.62	17366.926	12.500	11.9	95.4	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607		910.303	1.00						NO		YES
67	37	PFDoA	612.9 > 569.0	157.702	17366.926	1.00	5.78	0.114		0.107		NO		YES
68	38	N-MeFOSA	512.1 > 168.9	6.500	18836.236	1.00	5.79	0.051				NO		YES
69	39	PFTrDA	662.9 > 618.9	34.051	17366.926	1.00	5.83	0.025				NO		YES
70	40	PFDoS	698.8 > 79.7		20927.043	1.00						NO		YES
71	41	PFTeDA	713.0 > 669.0		20927.043	1.00						NO		YES
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	910.303		1.00	5.61	910.303	12.500	12.3	98.5	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	614.7 > 569.7	17366.926		1.00	5.62	17366.926	12.500	11.9	95.4	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	18836.236		1.00	5.78	18836.236	149.200	145	97.1	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	17366.926		1.00	5.62	17366.926	12.500	11.9	95.4	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	20927.043		1.00	6.07	20927.043	12.500	12.3	98.6	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	20927.043		1.00	6.07	20927.043	12.500	12.3	98.6	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	32.565	24080.246	1.00	6.14	0.202				NO	1.310	NO
80	43	PFHxDA	813.1 > 768.6	274.137	28108.848	1.00	6.40	0.122		0.0167		NO		YES
81	44	PFODA	913.1 > 868.8		28108.848	1.00						NO		
82	45	N-MeFOSE	616.1 > 58.9	19.937	16542.414	1.00	6.25	0.180				NO		
83	46	N-EtFOSE	630.1 > 58.9	11.327	19085.064	1.00	6.65	0.089				NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	24080.246		1.00	6.16	24080.246	149.200	148	98.9	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	28108.848		1.00	6.40	28108.848	12.500	12.2	97.9	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	28108.848		1.00	6.40	28108.848	12.500	12.2	97.9	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	16542.414		1.00	6.29	16542.414	149.200	147	98.2	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	19085.064		1.00	6.43	19085.064	149.200	138	92.7	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	3143.130	4060.526	1.00	1.43	9.676	12.500	12.1	96.5	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	7091.274	17278.338	1.00	2.35	5.130	12.500	8.76	70.1	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1028.801	1204.354	1.00	2.62	10.678	12.500	9.42	75.3	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	2927.639	17278.338	1.00	3.34	2.118	12.500	12.7	101.9	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1162.245	1204.354	1.00	3.04	12.063	12.500	10.0	80.3	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	16335.066	17278.338	1.00	3.13	11.818	12.500	12.3	98.8	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	14896.810	17278.338	1.00	3.72	10.777	12.500	16.7	133.6	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3172.878	1204.354	1.00	3.86	32.931	12.500	13.5	108.2	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1583.183	3692.422	1.00	4.17	5.360	12.500	14.0	112.0	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	18295.316	19788.295	1.00	4.67	11.557	12.500	12.3	98.5	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4409.656	19006.791	1.00	4.73	2.900	12.500	14.5	115.9	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	18932.484	20629.463	1.00	4.23	11.472	12.500	12.7	101.7	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3559.960	3692.422	1.00	4.75	12.052	12.500	13.1	104.7	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	20117.283	20965.924	1.00	5.04	11.994	12.500	11.9	95.1	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1107.433	3692.422	1.00	5.01	3.749	12.500	12.0	95.8	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	4645.052	19006.791	1.00	5.18	3.055	12.500	11.8	94.0	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	19858.586	19006.791	1.00	5.35	13.060	12.500	13.0	104.2	NO		

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	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	5640.693	19006.791	1.00	5.34	3.710	12.500	13.0	103.8	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	17366.926	20965.924	1.00	5.62	10.354	12.500	10.9	87.6	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	910.303	3692.422	1.00	5.61	3.082	12.500	13.1	104.7	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	18836.236	19006.791	1.00	5.78	12.388	149.200	154	103.2	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	20927.043	19006.791	1.00	6.07	13.763	12.500	13.4	107.4	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	24080.246	19006.791	1.00	6.16	15.837	149.200	161	108.1	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	28108.848	19006.791	1.00	6.40	18.486	12.500	12.3	98.3	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	16542.414	19006.791	1.00	6.29	10.879	149.200	153	102.4	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	19085.064	19006.791	1.00	6.43	12.551	149.200	150	100.3	NO		
119	99	13C4-PFBA	217.0 > 172.0	4060.526	4060.526	1.00	1.43	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	17278.338	17278.338	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	20629.463	20629.463	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1204.354	1204.354	1.00	3.86	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	19788.295	19788.295	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	3692.422	3692.422	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	20965.924	20965.924	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	19006.791	19006.791	1.00	5.35	12.500	12.500	12.5	100.0	NO		

LC Calibration Standards Review Checklist QS

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	NA
Calibration ID:	ST200226P1-11	L M H	☐	☑	☑	☑	☑	☑	☐
Calibration ID:	-12	L M H	☑	☐ (A)	☑	☑	☑	☑	☐
Calibration ID:	-13	L M H	☑	☑	☑	☑	☑	☑	☐
Calibration ID:	-14	L M H	☑	☑	☑	☑	☑	☑	☐
Calibration ID:	-15	L M H	☑	☑	☑	☑	☑	☑	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐ NA OPV 02/27/20	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 20200226

Run Log Present: ☑

of Samples per Sequence Checked: ☑

Instrument Blank Saved ☑

All Branches in Acquisition Window ☑

IIS Area Saved ☑

Reviewed By: RK | 2 | 27 | 20
Initials/Date

Comments:

(A): 8:2 FTS : High criteria limit

Dataset: Untitled

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RK 2/27/20

Name: 200226P1-31, Date: 26-Feb-2020, Time: 21:53:18, ID: ST200226P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	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	8080.133	8923.431	1.00	1.43	11.319	10.000	10.4	104.1	NO		
2	2	PFPrS	248.9 > 79.7	1788.024	1359.672	1.00	1.76	16.438	10.000	10.9	108.5	NO	2.394	NO
3	3	3:3 FTCA	240.9 > 176.9	729.855	12981.729	1.00	2.21	0.703	10.000	9.62	96.2	NO	3.368	NO
4	4	PFPeA	263.1 > 218.9	10470.475	12981.729	1.00	2.35	10.082	10.000	10.3	103.4	NO		
5	5	PFBS	299.0 > 79.7	2697.656	1359.672	1.00	2.62	24.801	10.000	9.91	99.1	NO	2.896	NO
6	6	4:2 FTS	327.0 > 307	1623.978	1471.599	1.00	3.05	13.794	10.000	10.2	101.8	NO	0.836	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	8923.431		1.00	1.43	8923.431	12.500	11.9	95.6	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1359.672		1.00	2.62	1359.672	12.500	12.4	99.5	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	12981.729		1.00	2.35	12981.729	12.500	12.3	98.2	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	12981.729		1.00	2.35	12981.729	12.500	12.3	98.2	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1359.672		1.00	2.62	1359.672	12.500	12.4	99.5	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1471.599		1.00	3.05	1471.599	12.500	12.0	96.4	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	17154.828	21924.646	1.00	3.13	9.781	10.000	10.5	105.1	NO	20.459	NO
15	8	PFPeS	349.>79.7	2904.627	1359.672	1.00	3.33	26.703	10.000	10.9	109.0	NO	2.598	NO
16	9	HFPO-DA	285.1 > 168.9	3310.328	3833.009	1.00	3.34	10.795	10.000	10.6	106.1	NO	2.638	NO
17	10	5:3 FTCA	340.9 > 236.9	1960.528	15603.290	1.00	3.67	1.571	10.000	9.07	90.7	NO	1.759	NO
18	11	PFHpA	363.0 > 318.9	14940.585	15603.290	1.00	3.73	11.969	10.000	9.58	95.8	NO	30.855	NO
19	12	ADONA	376.8 > 250.9	32621.311	15603.290	1.00	3.84	26.133	10.000	8.93	89.3	NO	3.995	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	21924.646		1.00	3.13	21924.646	12.500	12.6	100.7	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1359.672		1.00	2.62	1359.672	12.500	12.4	99.5	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3833.009		1.00	3.35	3833.009	12.500	12.5	100.0	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	15603.290		1.00	3.73	15603.290	12.500	13.6	109.0	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	15603.290		1.00	3.73	15603.290	12.500	13.6	109.0	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	15603.290		1.00	3.73	15603.290	12.500	13.6	109.0	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	2689.755	2907.028	1.00	3.87	11.566	10.000	10.2	102.2	NO	2.495	NO
28	15	6:2 FTS	427.0 > 407	1781.647	1490.767	1.00	4.18	14.939	10.000	9.20	92.0	NO	1.156	NO
29	16	L-PFOA	412.8 > 368.9	17522.297	17778.223	1.00	4.24	12.320	10.000	10.7	106.6	NO	3.153	NO
30	18	PFecHS	460.8 > 381.0	2945.192	17778.223	1.00	4.25	2.071	10.000	12.2	121.6	NO	0.504	NO
31	19	PFHpS	449.0 > 79.7	2784.767	3498.654	1.00	4.35	9.949	10.000	10.1	101.4	NO	1.933	NO
32	20	7:3 FTCA	440.9 > 336.9	2142.690	19821.236	1.00	4.66	1.351	10.000	9.00	90.0	NO	1.512	NO
33	61	13C3-PFHxS-EIS	401.8 > 79.7	2907.028		1.00	3.87	2907.028	12.500	12.5	100.1	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1490.767		1.00	4.18	1490.767	12.500	12.6	101.0	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	17778.223		1.00	4.24	17778.223	12.500	11.3	90.7	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	17778.223		1.00	4.24	17778.223	12.500	11.3	90.7	NO		

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Name: 200226P1-31, Date: 26-Feb-2020, Time: 21:53:18, ID: ST200226P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	3498.654		1.00	4.76	3498.654	12.500	12.5	99.9	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	19821.236		1.00	4.67	19821.236	12.500	13.6	108.8	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	17285.346	19821.236	1.00	4.67	10.901	10.000	10.3	102.6	NO	8.364	NO
41	22	PFOSA	497.9 > 77.9	2685.371	3994.431	1.00	4.73	8.403	10.000	10.2	101.8	NO	25.601	NO
42	23	L-PFOS	498.9 > 79.7	2866.824	3498.654	1.00	4.75	10.243	10.000	10.2	101.8	NO	2.358	NO
43	25	9Cl-PF30NS	530.7 > 350.8	2482.396	3498.654	1.00	4.97	8.869	10.000	9.08	90.8	NO	19.777	NO
44	26	PFDA	513 > 468.8	17692.529	20203.063	1.00	5.04	10.947	10.000	9.94	99.4	NO	10.346	NO
45	27	8:2 FTS	526.9 > 507	1211.173	1265.520	1.00	5.01	11.963	10.000	9.53	95.3	NO	2.251	NO
46	65	13C5-PFNA-EIS	468.2 > 422.9	19821.236		1.00	4.67	19821.236	12.500	13.6	108.8	NO		
47	67	13C8-PFOSA-EIS	506 > 78	3994.431		1.00	4.73	3994.431	12.500	12.3	98.5	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3498.654		1.00	4.76	3498.654	12.500	12.5	99.9	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3498.654		1.00	4.76	3498.654	12.500	12.5	99.9	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	20203.063		1.00	5.04	20203.063	12.500	12.7	101.3	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1265.520		1.00	5.01	1265.520	12.500	13.8	110.4	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	2797.612	3498.654	1.00	5.10	9.995	10.000	10.2	102.2	NO	2.348	NO
54	29	L-MeFOSAA	570 > 419	5275.474	5202.851	1.00	5.19	12.674	10.000	10.2	101.7	NO	1.903	NO
55	31	L-EtFOSAA	584.1 > 419	5106.709	5799.291	1.00	5.34	11.007	10.000	10.7	106.5	NO	1.202	NO
56	33	PFUdA	563.0 > 518.9	15340.123	17832.045	1.00	5.36	10.753	10.000	10.2	102.0	NO	22.369	NO
57	34	PFDS	598.8 > 79.7	2181.727	3498.654	1.00	5.40	7.795	10.000	9.18	91.8	NO	2.071	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	7314.028	15851.265	1.00	5.56	5.768	10.000	11.1	110.6	NO	20.411	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	3498.654		1.00	4.76	3498.654	12.500	12.5	99.9	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	5202.851		1.00	5.19	5202.851	12.500	13.1	104.6	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5799.291		1.00	5.34	5799.291	12.500	11.9	95.0	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	17832.045		1.00	5.35	17832.045	12.500	11.0	87.7	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3498.654		1.00	4.76	3498.654	12.500	12.5	99.9	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	15851.265		1.00	5.63	15851.265	12.500	10.9	87.1	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	1450.024	681.794	1.00	5.61	26.585	10.000	11.3	112.9	NO	0.998	NO
67	37	PFDoA	612.9 > 569.0	16318.254	15851.265	1.00	5.63	12.868	10.000	10.5	105.1	NO	11.151	NO
68	38	N-MeFOSA	512.1 > 168.9	7039.698	20002.736	1.00	5.76	52.509	50.000	50.4	100.7	NO	1.654	NO
69	39	PFTrDA	662.9 > 618.9	16246.801	15851.265	1.00	5.87	12.812	10.000	10.2	101.6	NO	64.977	NO
70	40	PFDoS	698.8 > 79.7	2962.594	19289.010	1.00	5.89	1.920	10.000	11.7	116.9	NO	2.880	NO
71	41	PFTeDA	713.0 > 669.0	17311.736	19289.010	1.00	6.08	11.219	10.000	11.7	116.7	NO	18.156	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	681.794		1.00	5.61	681.794	12.500	9.22	73.8	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	614.7 > 569.7	15851.265		1.00	5.63	15851.265	12.500	10.9	87.1	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	20002.736		1.00	5.78	20002.736	149.200	154	103.2	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	15851.265		1.00	5.63	15851.265	12.500	10.9	87.1	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	19289.010		1.00	6.08	19289.010	12.500	11.4	90.9	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	19289.010		1.00	6.08	19289.010	12.500	11.4	90.9	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	8883.174	24296.719	1.00	6.15	54.549	50.000	52.9	105.9	NO	1.776	NO
80	43	PFHxDA	813.1 > 768.6	16901.141	26787.320	1.00	6.40	7.887	10.000	11.0	110.5	NO	144.657	NO
81	44	PFODA	913.1 > 868.8	23397.383	26787.320	1.00	6.63	10.918	10.000	11.2	111.7	NO		
82	45	N-MeFOSE	616.1 > 58.9	6386.867	16577.318	1.00	6.29	57.483	50.000	52.0	104.1	NO		
83	46	N-EtFOSE	630.1 > 58.9	7091.190	20670.127	1.00	6.44	51.185	50.000	50.5	101.0	NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	24296.719		1.00	6.16	24296.719	149.200	149	99.8	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	26787.320		1.00	6.40	26787.320	12.500	11.7	93.3	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	26787.320		1.00	6.40	26787.320	12.500	11.7	93.3	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	16577.318		1.00	6.29	16577.318	149.200	147	98.4	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	20670.127		1.00	6.43	20670.127	149.200	150	100.4	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3498.654		1.00	4.76	3498.654	12.500	12.5	99.9	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	8931.763	11267.187	1.00	1.43	9.909	12.500	12.4	98.9	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	12981.729	23400.518	1.00	2.35	6.935	12.500	11.8	94.7	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1359.672	1271.089	1.00	2.62	13.371	12.500	11.8	94.3	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	3833.009	23400.518	1.00	3.35	2.048	12.500	12.3	98.5	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1471.599	1271.089	1.00	3.05	14.472	12.500	12.0	96.3	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	21924.646	23400.518	1.00	3.13	11.712	12.500	12.2	97.9	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	15603.290	23400.518	1.00	3.73	8.335	12.500	12.9	103.3	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	2907.028	1271.089	1.00	3.87	28.588	12.500	11.7	93.9	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1490.767	3851.673	1.00	4.18	4.838	12.500	12.6	101.1	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	19821.236	19867.969	1.00	4.67	12.471	12.500	13.3	106.2	NO		
101	68	13C8-PFOSA-RSD	506 > 78	3994.431	20086.367	1.00	4.73	2.486	12.500	12.4	99.4	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	17778.223	19991.223	1.00	4.24	11.116	12.500	12.3	98.6	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3498.654	3851.673	1.00	4.76	11.354	12.500	12.3	98.7	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	20203.063	20130.543	1.00	5.04	12.545	12.500	12.4	99.4	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1265.520	3851.673	1.00	5.01	4.107	12.500	13.1	104.9	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	5202.851	20086.367	1.00	5.19	3.238	12.500	12.5	99.7	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	17832.045	20086.367	1.00	5.35	11.097	12.500	11.1	88.5	NO		

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Name: 200226P1-31, Date: 26-Feb-2020, Time: 21:53:18, ID: ST200226P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	5799.291	20086.367	1.00	5.34	3.609	12.500	12.6	101.0	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	15851.265	20130.543	1.00	5.63	9.843	12.500	10.4	83.3	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	681.794	3851.673	1.00	5.61	2.213	12.500	9.40	75.2	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	20003.775	20086.367	1.00	5.78	12.449	149.200	155	103.7	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	19289.010	20086.367	1.00	6.08	12.004	12.500	11.7	93.7	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	24296.719	20086.367	1.00	6.16	15.120	149.200	154	103.2	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	26787.320	20086.367	1.00	6.40	16.670	12.500	11.1	88.6	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	16577.318	20086.367	1.00	6.29	10.316	149.200	145	97.1	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	20670.127	20086.367	1.00	6.43	12.863	149.200	153	102.8	NO		
119	99	13C4-PFBA	217.0 > 172.0	11267.187	11267.187	1.00	1.43	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	23400.518	23400.518	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	19991.223	19991.223	1.00	4.24	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1271.089	1271.089	1.00	3.87	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	19867.969	19867.969	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	3851.673	3851.673	1.00	4.76	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	20130.543	20130.543	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	20086.367	20086.367	1.00	5.35	12.500	12.500	12.5	100.0	NO		

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Method: Z:\PFAS5.pro\MethDB\NEW_PFAS_80C_022620.mdb 27 Feb 2020 10:00:22
Calibration: Z:\PFAS5.pro\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
1	1 200226P1-1	IPA	26-Feb-20	16:38:01
2	2 200226P1-2	IPA	26-Feb-20	16:48:38
3	3 200226P1-3	ST200226P1-1 PFC CS-2 20B1102	26-Feb-20	16:59:08
4	4 200226P1-4	ST200226P1-2 PFC CS-1 20B1103	26-Feb-20	17:09:41
5	5 200226P1-5	ST200226P1-3 PFC CS0 20B1104	26-Feb-20	17:20:09
6	6 200226P1-6	ST200226P1-4 PFC CS1 20B1105	26-Feb-20	17:30:39
7	7 200226P1-7	ST200226P1-5 PFC CS2 20B1106	26-Feb-20	17:41:11
8	8 200226P1-8	ST200226P1-6 PFC CS3 20B1107	26-Feb-20	17:51:42
9	9 200226P1-9	ST200226P1-7 PFC CS4 20B1108	26-Feb-20	18:02:12
10	10 200226P1-10	ST200226P1-8 PFC CS5 20B1109	26-Feb-20	18:12:43
11	11 200226P1-11	ST200226P1-9 PFC CS6 20B1110	26-Feb-20	18:23:12
12	12 200226P1-12	ST200226P1-10 PFC CS7 20B1111	26-Feb-20	18:33:43
13	13 200226P1-13	IB	26-Feb-20	18:44:12
14	14 200226P1-14	ICV200226P1-1 PFC ICV 20B1112	26-Feb-20	18:54:43
15	15 200226P1-15	IB	26-Feb-20	19:05:14
16	16 200226P1-16	2000303-02 RW-4 0.25385	26-Feb-20	19:15:43
17	17 200226P1-17	2000303-06 RW-8 0.25242	26-Feb-20	19:26:15
18	18 200226P1-18	2000330-04 DUP04-20200214 0.25435	26-Feb-20	19:36:44
19	19 200226P1-19	B0B0178-MSD1 Matrix Spike Dup 0.24557	26-Feb-20	19:47:15
20	20 200226P1-20	B0B0146-BLK1 Method Blank 0.25	26-Feb-20	19:57:44
21	21 200226P1-21	B0B0146-BS1 OPR 0.25	26-Feb-20	20:08:16
22	22 200226P1-22	B0B0146-BSD1 LCSD 0.25	26-Feb-20	20:18:45
23	23 200226P1-23	2000322-10 3EFF 0.25804	26-Feb-20	20:29:17
24	24 200226P1-24	2000322-11 3INF FRB 0.24918	26-Feb-20	20:39:46
25	25 200226P1-25	2000322-12 3INF 0.24453	26-Feb-20	20:50:17
26	26 200226P1-26	2000322-13 2EFF 0.25549	26-Feb-20	21:00:48
27	27 200226P1-27	2000322-14 2INF FRB 0.24928	26-Feb-20	21:11:16
28	28 200226P1-28	2000322-15 2INF 0.24263	26-Feb-20	21:21:48
29	29 200226P1-29	2000322-16 Post CCB 1BEFF 0.25545	26-Feb-20	21:32:17
30	30 200226P1-30	IB	26-Feb-20	21:42:49
31	31 200226P1-31	ST200226P1-11 PFC CS3 20B1107	26-Feb-20	21:53:18
32	32 200226P1-32	IB	26-Feb-20	22:03:50

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Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
33	33 200226P1-33	2000322-17 1INF FRB 0.18612	26-Feb-20	22:14:18
34	34 200226P1-34	2000322-18 1INF 0.25095	26-Feb-20	22:24:50
35	35 200226P1-35	2000322-19 1EFF 0.24912	26-Feb-20	22:35:19
36	36 200226P1-36	B0B0145-BLK1 Method Blank 0.25	26-Feb-20	22:45:51
37	37 200226P1-37	B0B0145-BS1 OPR 0.25	26-Feb-20	22:56:20
38	38 200226P1-38	B0B0145-BSD1 LCSD 0.25	26-Feb-20	23:06:51
39	39 200226P1-39	2000327-01 DFSPN_GWTS_Effluent_PFC_02-13-20 0.2488	26-Feb-20	23:17:22
40	40 200226P1-40	2000327-02 DFSPN_FieldBlank_02-13-20 0.25661	26-Feb-20	23:27:51
41	41 200226P1-41	2000319-17@5X W-SB03-20200211 0.25482	26-Feb-20	23:38:21
42	42 200226P1-42	2000319-18@5X DUP01-20200211 0.25556	26-Feb-20	23:48:52
43	43 200226P1-43	2000328-04@10X W-SB01-20200213 0.26272	26-Feb-20	23:59:23
44	44 200226P1-44	B0B0127-MS1 Matrix Spike 0.25239	27-Feb-20	00:09:53
45	45 200226P1-45	B0B0127-MSD1 Matrix Spike Dup 0.24499	27-Feb-20	00:20:22
46	46 200226P1-46	2000321-02 I013WMW02SR-20200213 0.24488	27-Feb-20	00:30:54
47	47 200226P1-47	2000321-03 IS72MW17S-20200213 0.24942	27-Feb-20	00:41:24
48	48 200226P1-48	2000321-04 I012MW01SR-20200213 0.24804	27-Feb-20	00:51:53
49	49 200226P1-49	2000321-05 I012MW10S-20200213 0.24821	27-Feb-20	01:02:24
50	50 200226P1-50	IB	27-Feb-20	01:12:53
51	51 200226P1-51	ST200226P1-12 PFC CS3 20B1107	27-Feb-20	01:23:26
52	52 200226P1-52	IB	27-Feb-20	01:33:54
53	53 200226P1-53	2000321-06 I012MW11S-20200213 0.25358	27-Feb-20	01:44:26
54	54 200226P1-54	IB	27-Feb-20	01:54:55
55	55 200226P1-55	2000321-07 I012MW15S-20200213 0.25036	27-Feb-20	02:05:26
56	56 200226P1-56	2000321-08 DUP02-20200213 0.2466	27-Feb-20	02:15:55
57	57 200226P1-57	2000321-09@10X I003MW01S-20200213 0.25107	27-Feb-20	02:26:27
58	58 200226P1-58	2000321-10 I003MW15S-20200213 0.24522	27-Feb-20	02:36:57
59	59 200226P1-59	IB	27-Feb-20	02:47:26
60	60 200226P1-60	2000321-11 I003MW02S-20200213 0.24704	27-Feb-20	02:57:58
61	61 200226P1-61	IB	27-Feb-20	03:08:29
62	62 200226P1-62	B0B0166-BLK1 Method Blank 0.25	27-Feb-20	03:18:57
63	63 200226P1-63	B0B0166-BS1 OPR 0.25	27-Feb-20	03:29:29
64	64 200226P1-64	2000344-01 GW2002121605MK-FD 0.25785	27-Feb-20	03:39:58
65	65 200226P1-65	2000344-02 GW2002121610GSC 0.24668	27-Feb-20	03:50:30
66	66 200226P1-66	IB	27-Feb-20	04:00:58
67	67 200226P1-67	2000344-03 FB2002121625MK 0.24529	27-Feb-20	04:11:30
68	68 200226P1-68	2000344-04 GW2002121700MK 0.24634	27-Feb-20	04:22:01

Vista Analytical Laboratory

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Compound name: PFBA

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71	71 200226P1-71	2000344-05 GW2002121645GSC 0.25243	27-Feb-20	04:53:30
72	72 200226P1-72	2000344-06 GW2002131035MK 0.25069	27-Feb-20	05:04:01
73	73 200226P1-73	2000344-07 GW2002131035GSC 0.25057	27-Feb-20	05:14:32
74	74 200226P1-74	2000344-08 GW2002131115MK 0.23321	27-Feb-20	05:25:02
75	75 200226P1-75	2000344-09 GW2002131145GSC 0.24016	27-Feb-20	05:35:33
76	76 200226P1-76	2000344-10 GW2002131410GSC 0.24855	27-Feb-20	05:46:02
77	77 200226P1-77	2000344-11 GW2002131500GSC 0.25333	27-Feb-20	05:56:33
78	78 200226P1-78	2000344-12 GW2002131520MK 0.24639	27-Feb-20	06:07:03
79	79 200226P1-79	IB	27-Feb-20	06:17:32
80	80 200226P1-80	ST200226P1-14 PFC CS3 20B1107	27-Feb-20	06:28:04
81	81 200226P1-81	IB	27-Feb-20	06:38:33
82	82 200226P1-82	2000344-13 GW2002131110GSC 0.25171	27-Feb-20	06:49:04
83	83 200226P1-83	2000344-14 GW2002131610MK 0.25234	27-Feb-20	06:59:35
84	84 200226P1-84	2000344-15 GW2002131710MK 0.24964	27-Feb-20	07:10:05
85	85 200226P1-85	2000344-16 GW2002131655GSC 0.25037	27-Feb-20	07:20:34
86	86 200226P1-86	2000344-17 GW2002131725GSC 0.25861	27-Feb-20	07:31:04
87	87 200226P1-87	B0B0165-BS1 OPR 0.25	27-Feb-20	07:41:37
88	88 200226P1-88	B0B0102-BS2 OPR 0.125	27-Feb-20	07:52:05
89	89 200226P1-89	IB	27-Feb-20	08:02:36
90	90 200226P1-90	ST200226P1-15 PFC CS3 20B1107	27-Feb-20	08:13:07
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Vista Analytical Laboratory

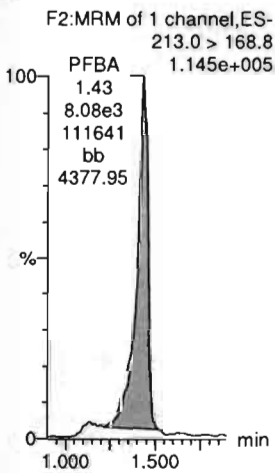
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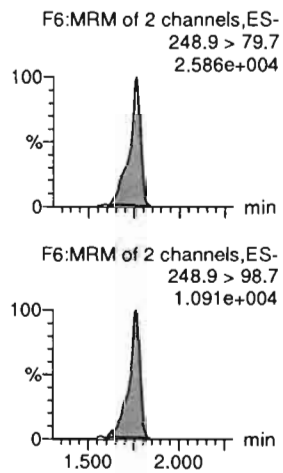
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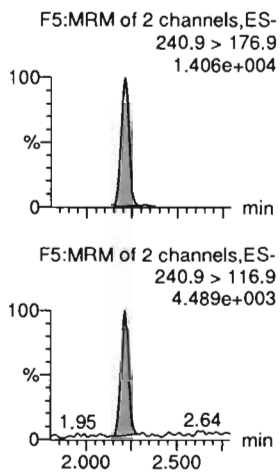
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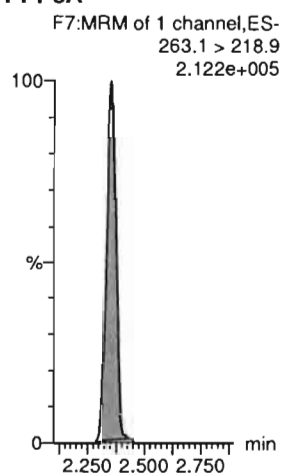
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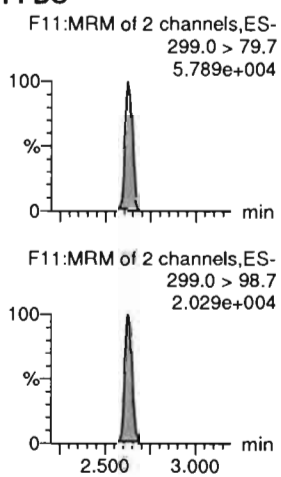
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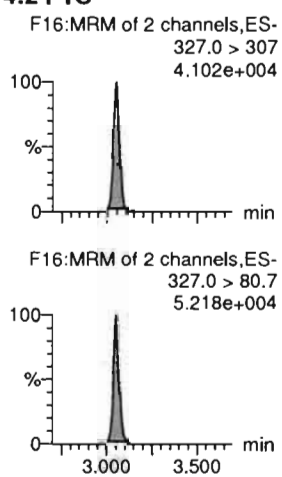
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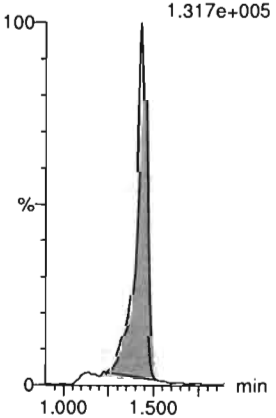
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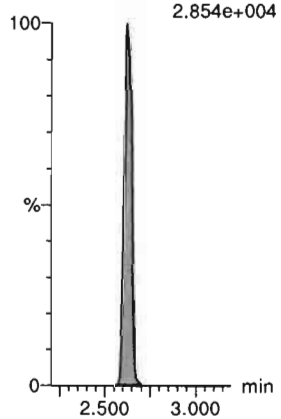
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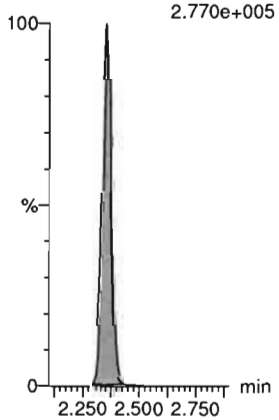
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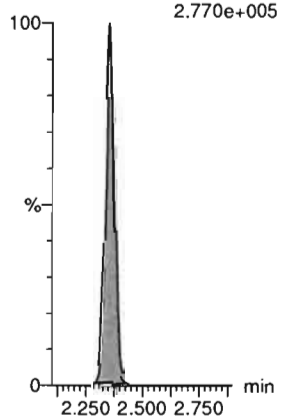
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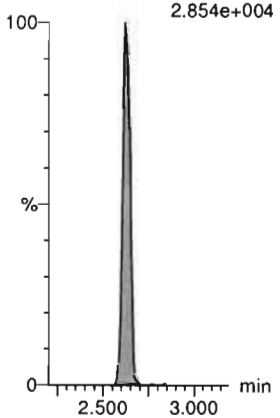
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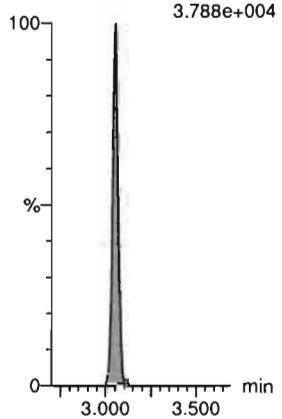
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13C2-4:2 FTS-EIS



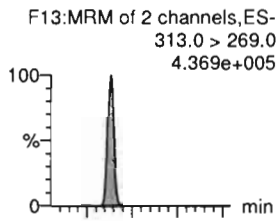
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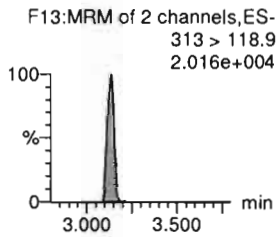
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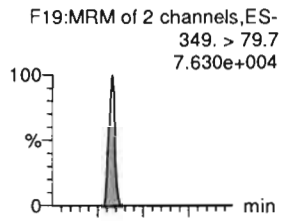
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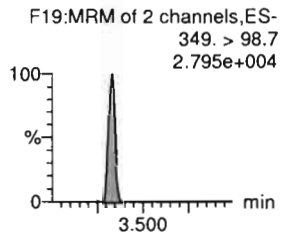
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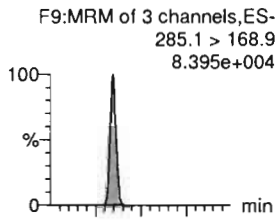


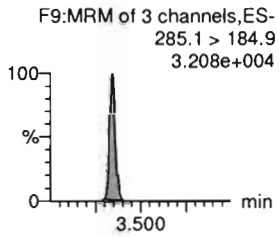
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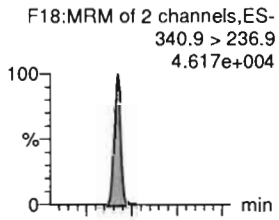


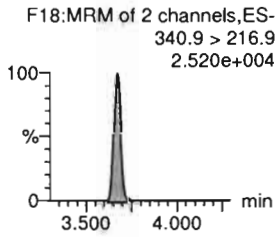
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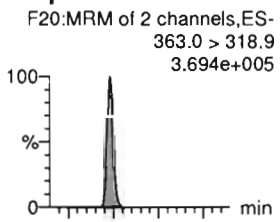


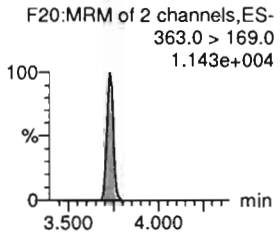
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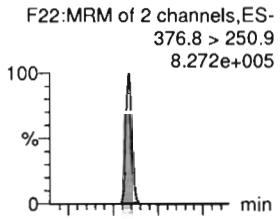


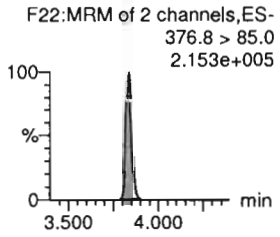
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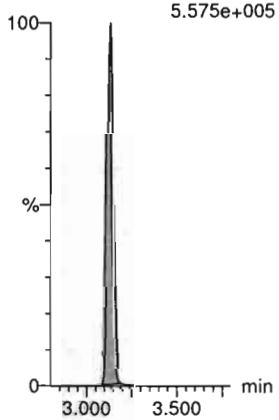


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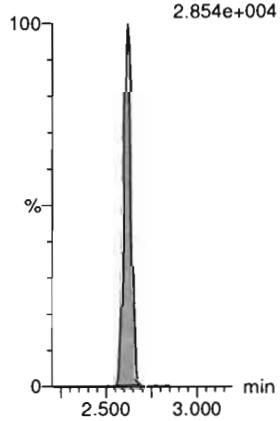




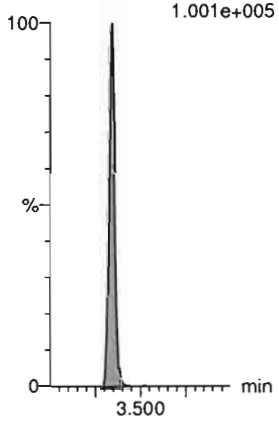
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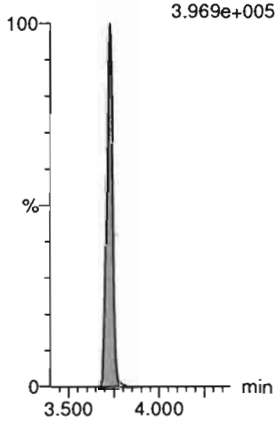
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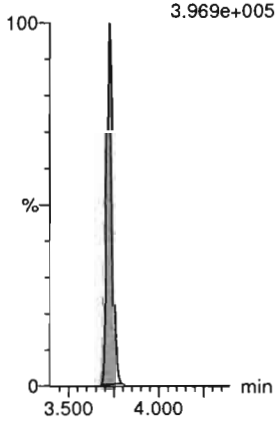
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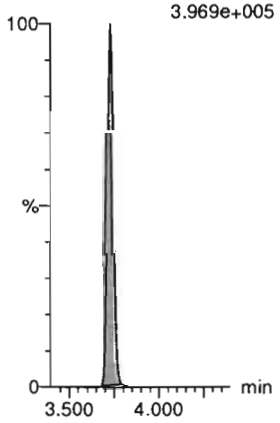
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13C4-PFHpA-EIS



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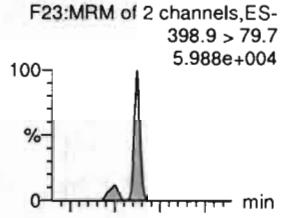
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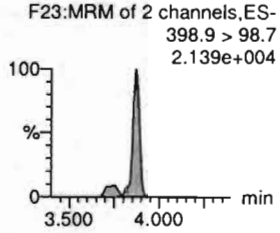
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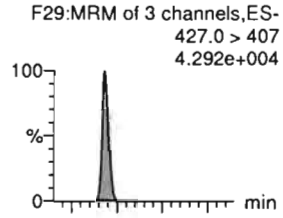
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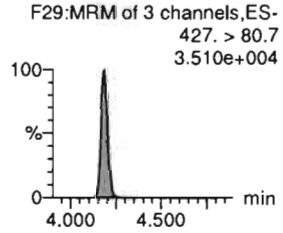
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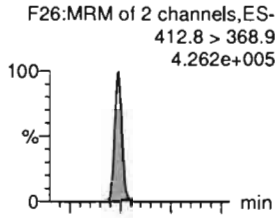


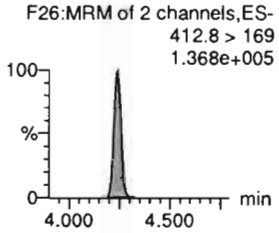
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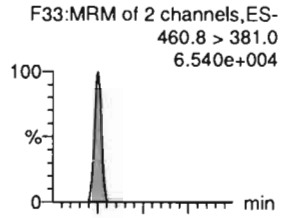


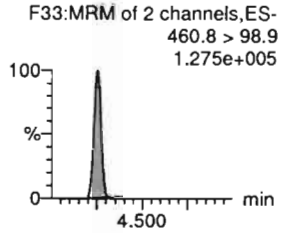
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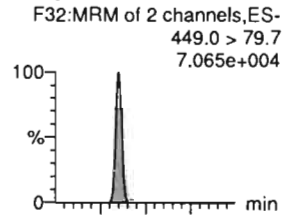


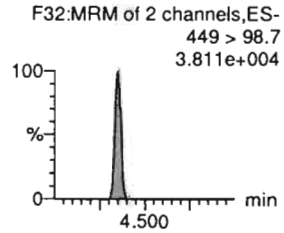
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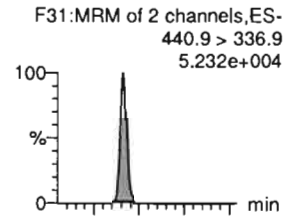


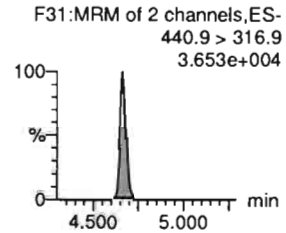
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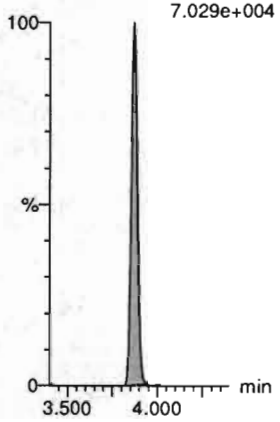


7:3 FTCA

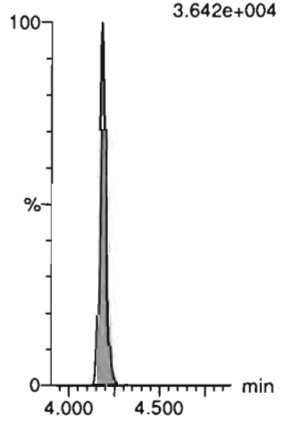




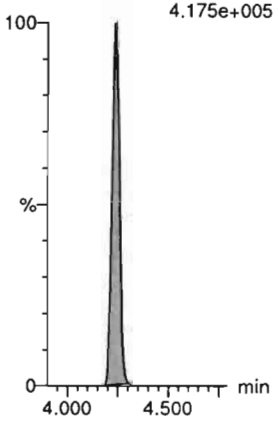
13C3-PFHxS-EIS



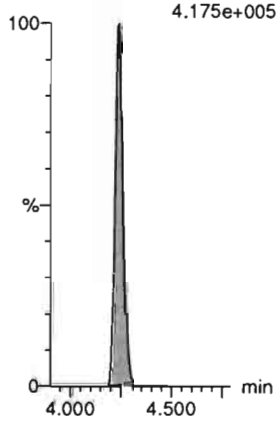
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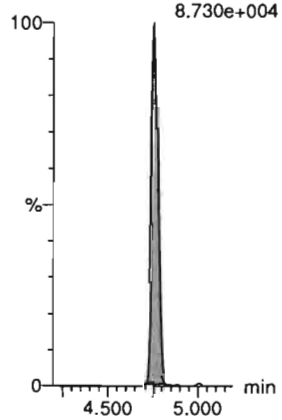
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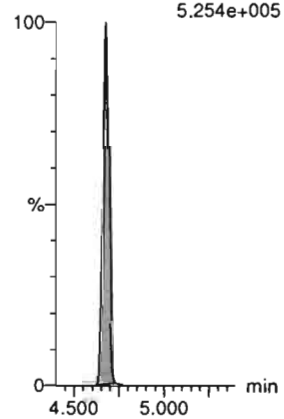
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13C8-PFOS-EIS



13C5-PFNA-EIS



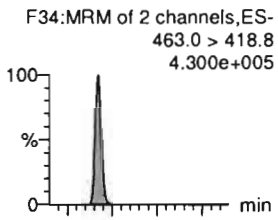
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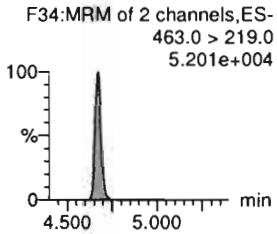
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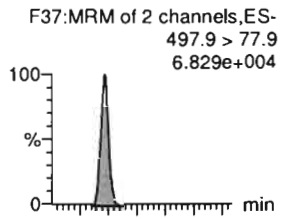
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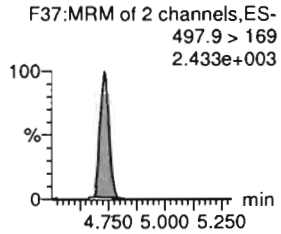
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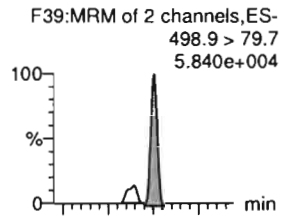


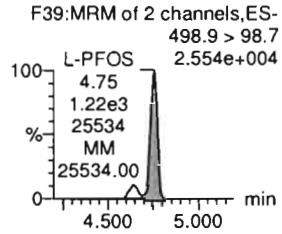
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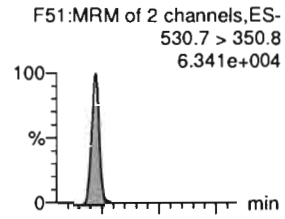


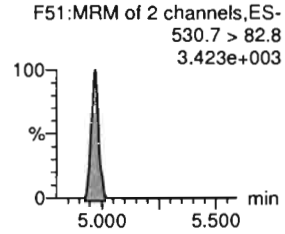
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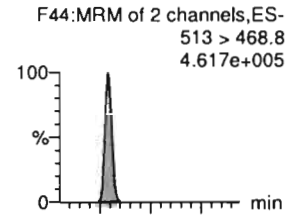


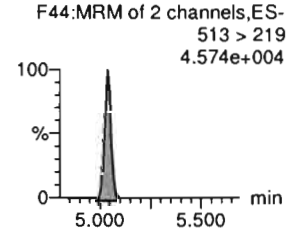
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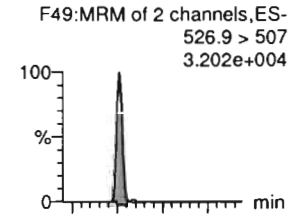


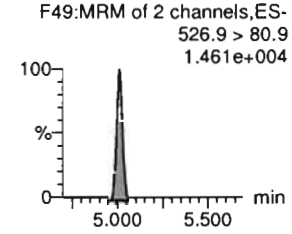
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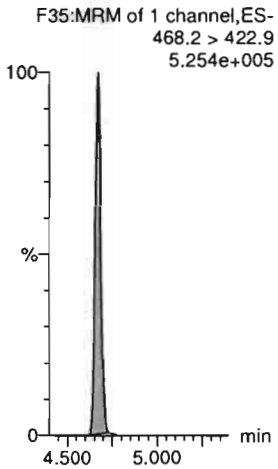


8:2 FTS

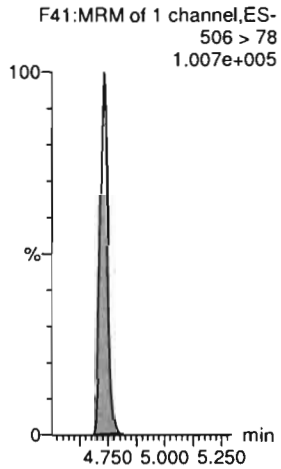




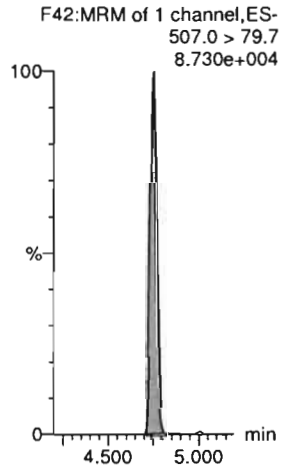
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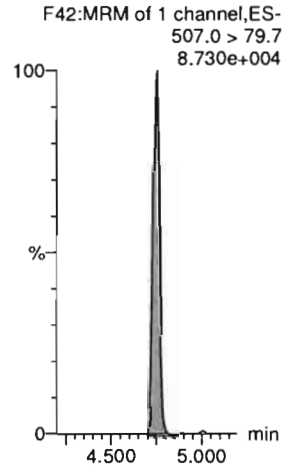
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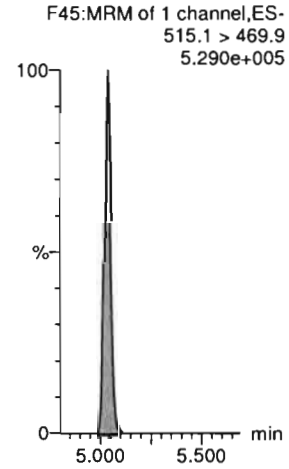
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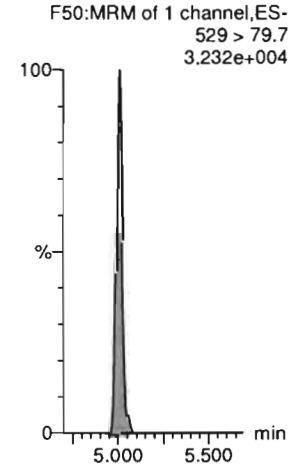
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS



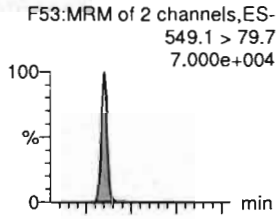
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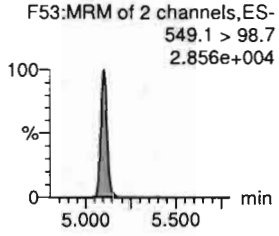
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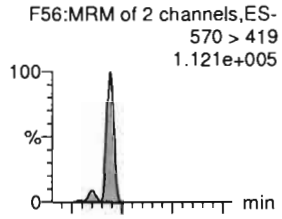
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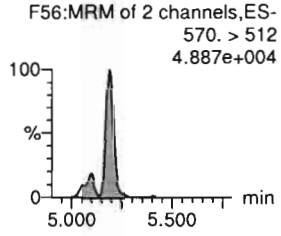
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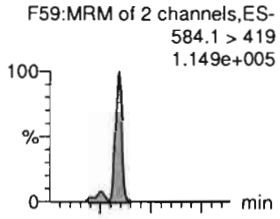


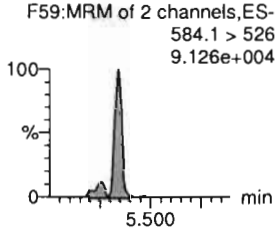
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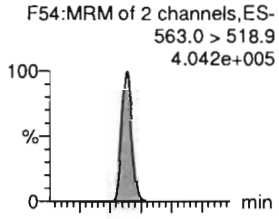


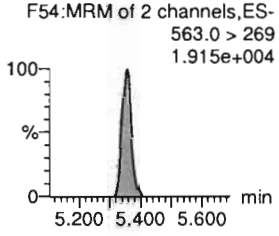
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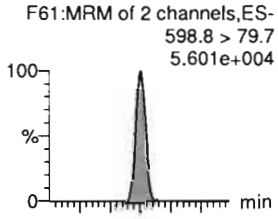


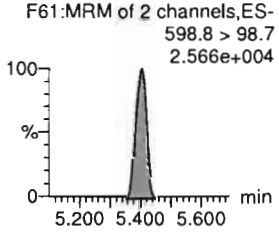
PFUdA



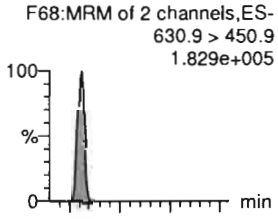


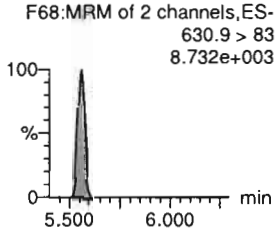
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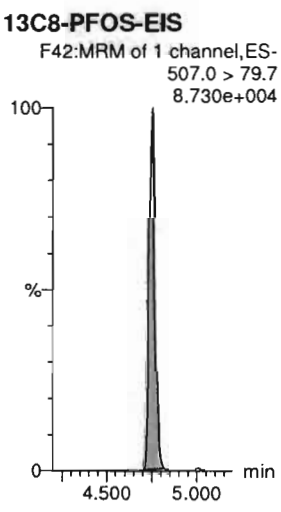


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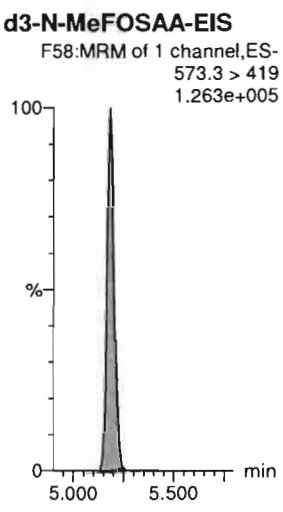




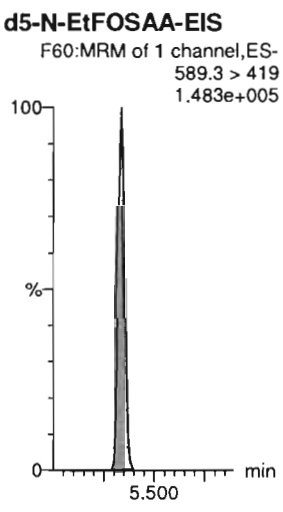
13C8-PFOS-EIS



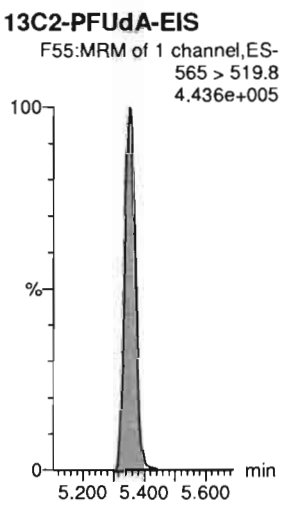
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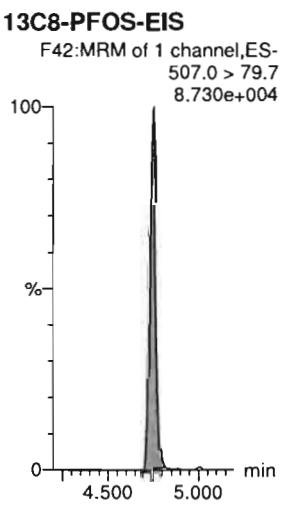
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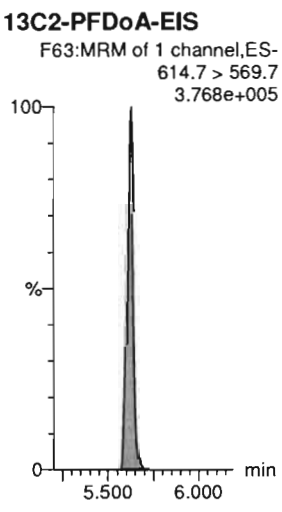
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13C8-PFOS-EIS



13C2-PFDoA-EIS



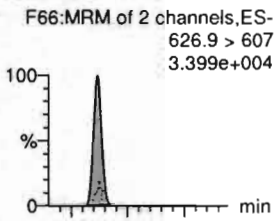
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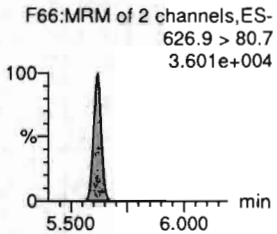
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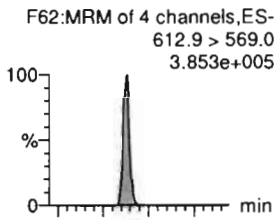
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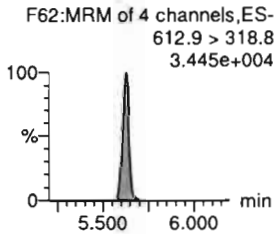
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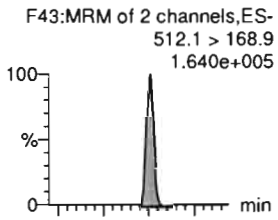


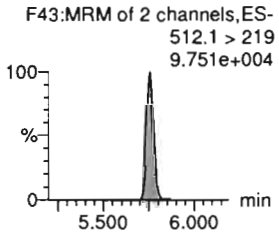
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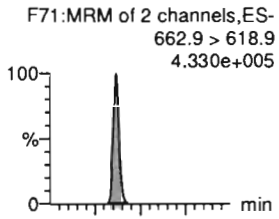


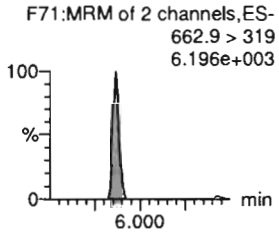
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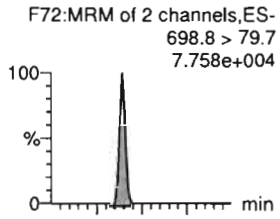


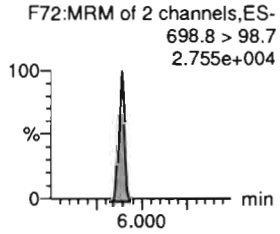
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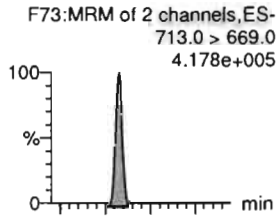


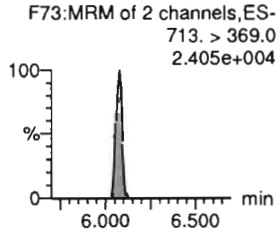
PFDoS



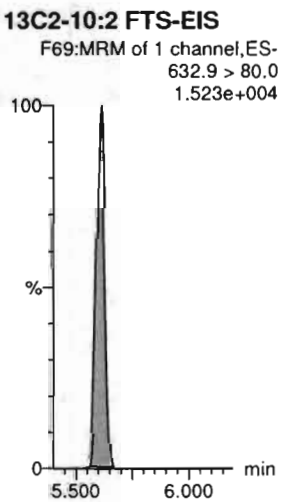


PFTeDA

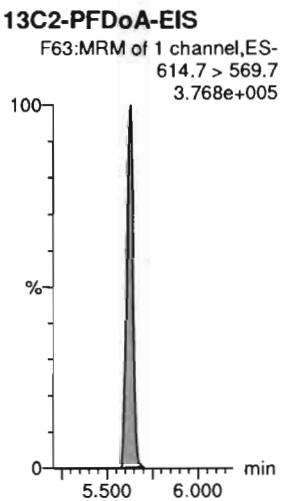




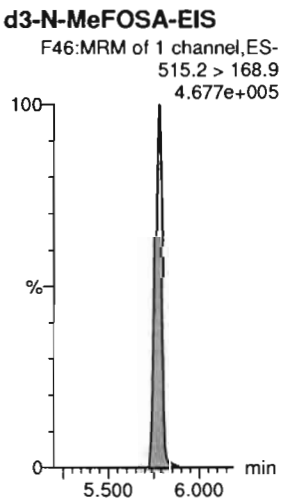
13C2-10:2 FTS-EIS



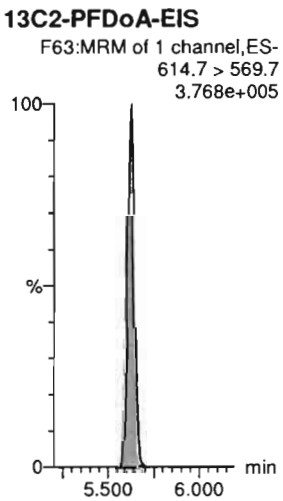
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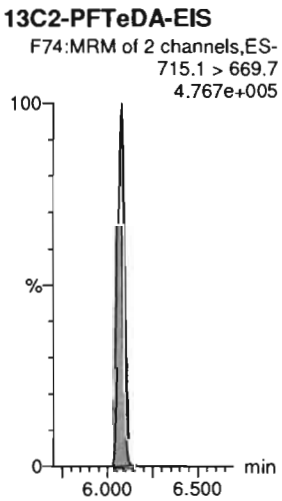
d3-N-MeFOSA-EIS



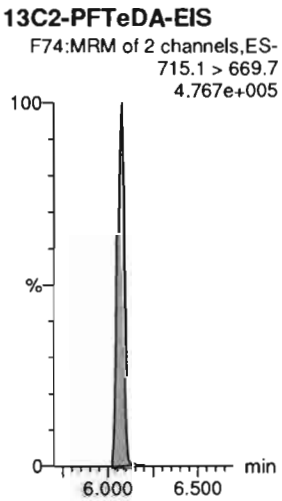
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



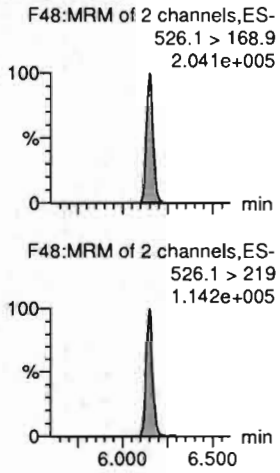
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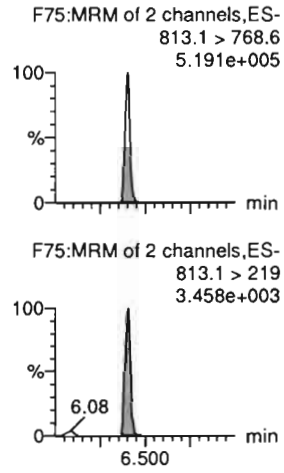
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Name: 200226P1-31, Date: 26-Feb-2020, Time: 21:53:18, ID: ST200226P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

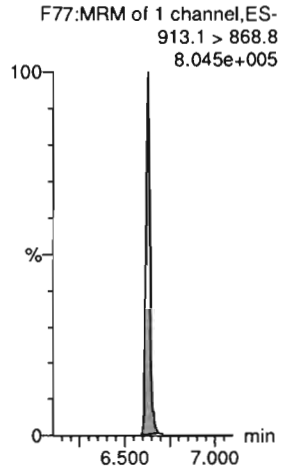
N-EtFOSA



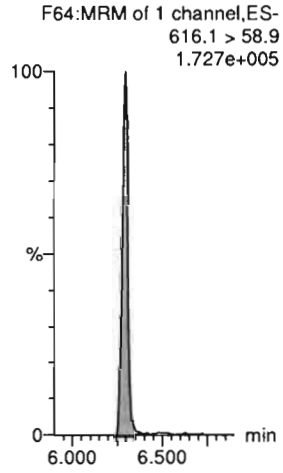
PFHxDA



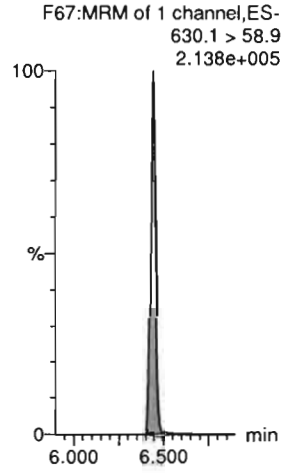
PFODA



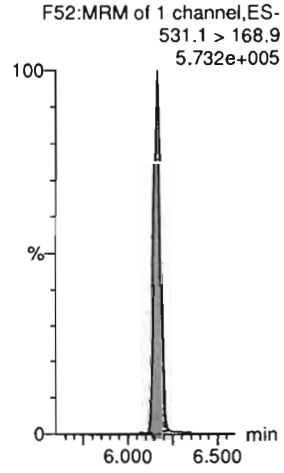
N-MeFOSE



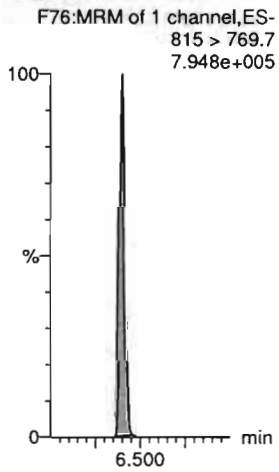
N-EtFOSE



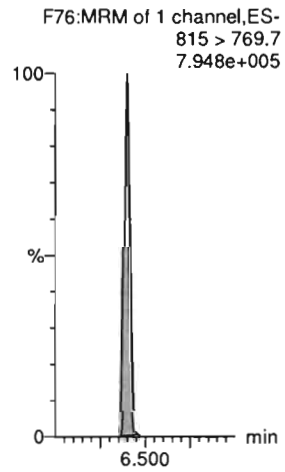
d5-N-ETFOSA-EIS



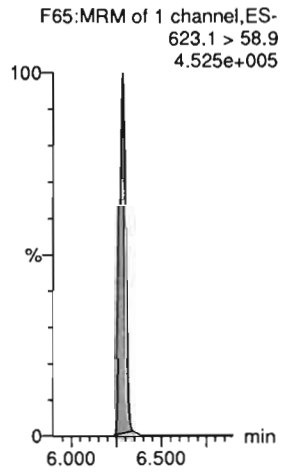
13C2-PFHxDA-EIS



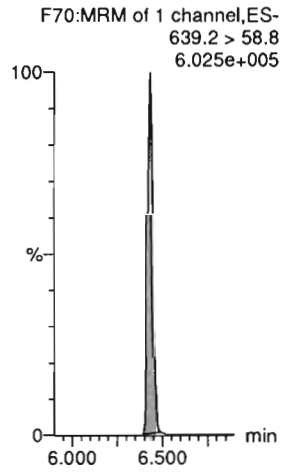
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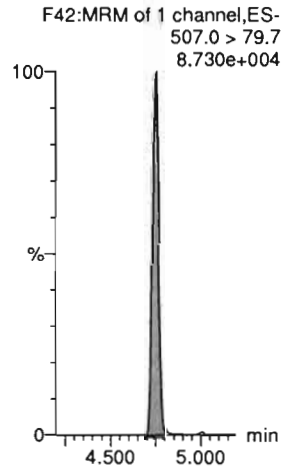
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C8-PFOS-EIS



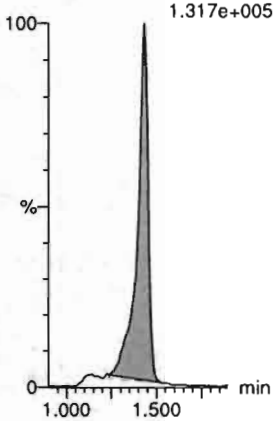
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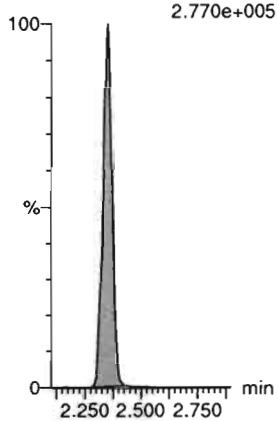
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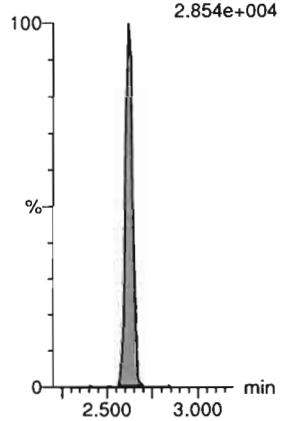
13C3-PFBA-RSD
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.317e+005



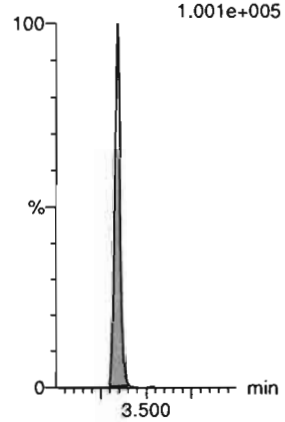
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.770e+005



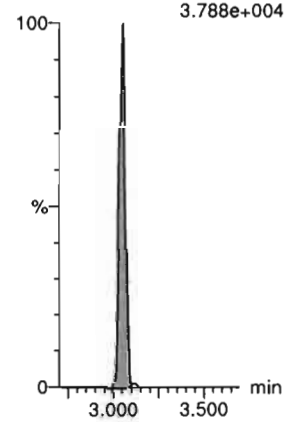
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
2.854e+004



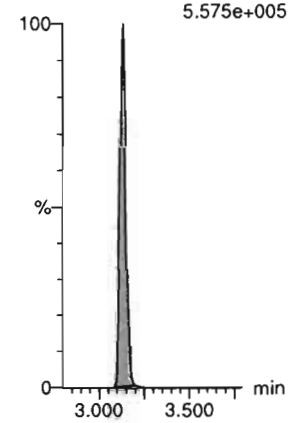
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.001e+005



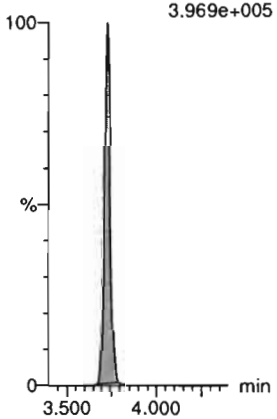
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.788e+004



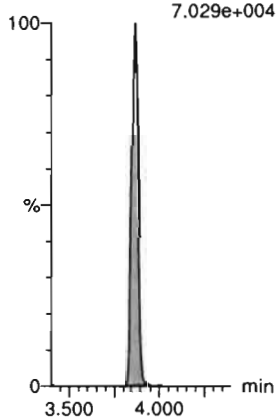
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.575e+005



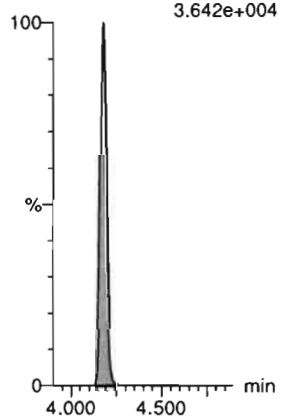
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.969e+005



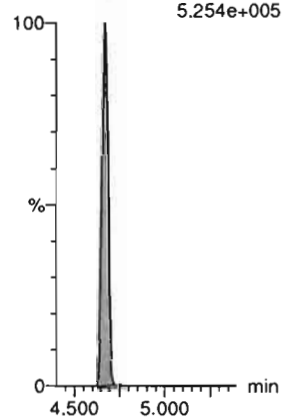
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
7.029e+004



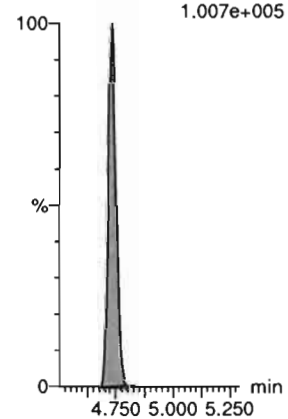
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.642e+004



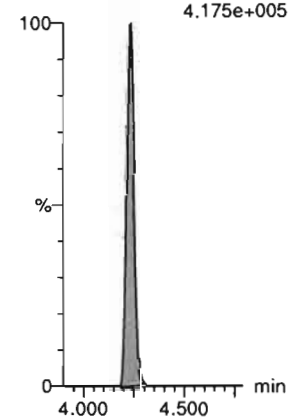
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
5.254e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.007e+005



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.175e+005



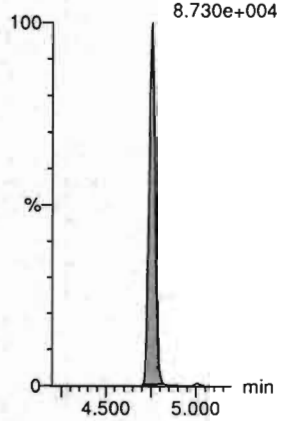
OPV 2/27/2020

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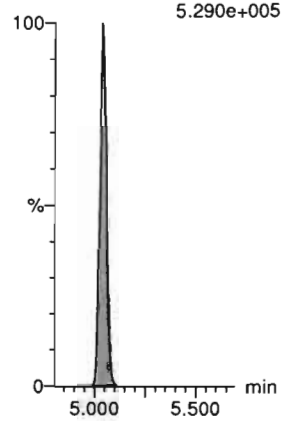
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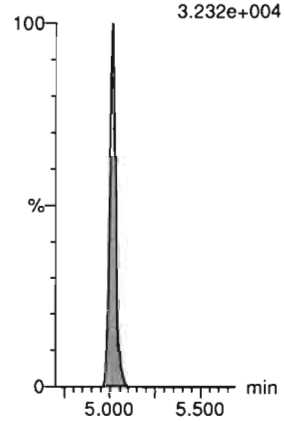
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.730e+004



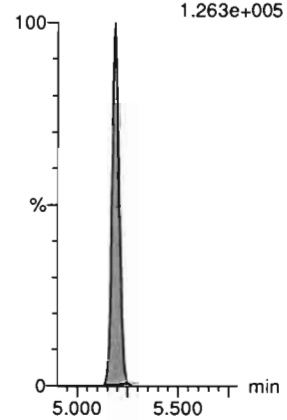
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.290e+005



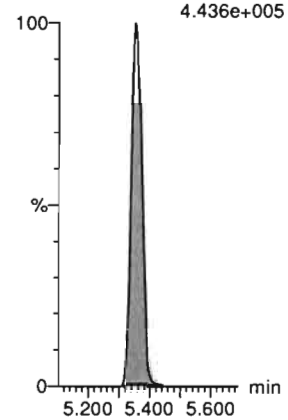
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.232e+004



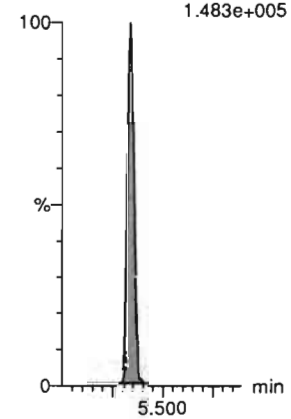
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.263e+005



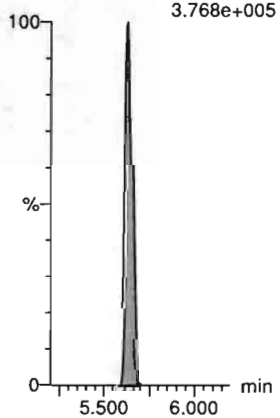
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.436e+005



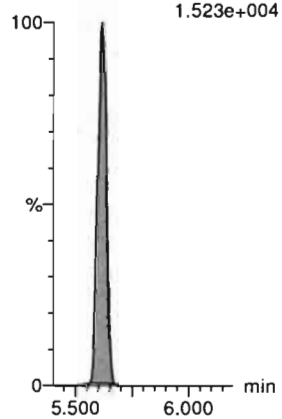
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.483e+005



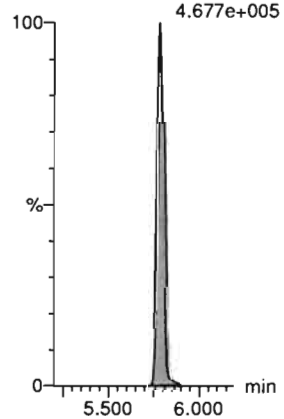
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
3.768e+005



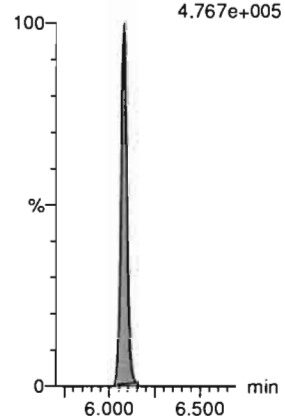
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.523e+004



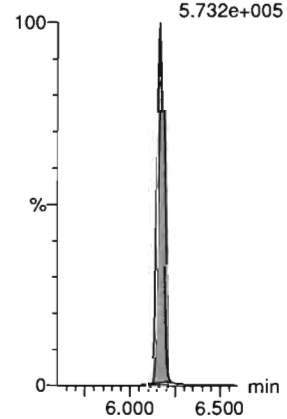
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.677e+005



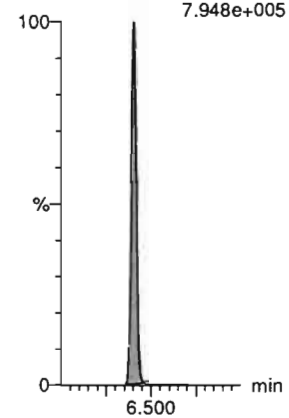
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.767e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.732e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
7.948e+005



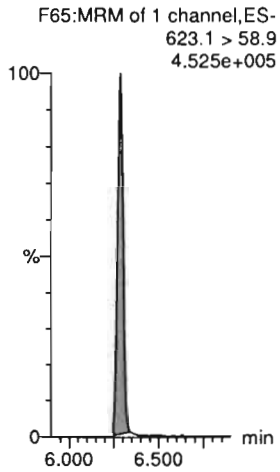
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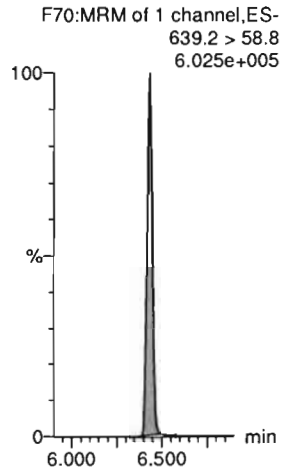
Last Altered: Thursday, February 27, 2020 10:55:22 Pacific Standard Time
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Name: 200226P1-31, Date: 26-Feb-2020, Time: 21:53:18, ID: ST200226P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

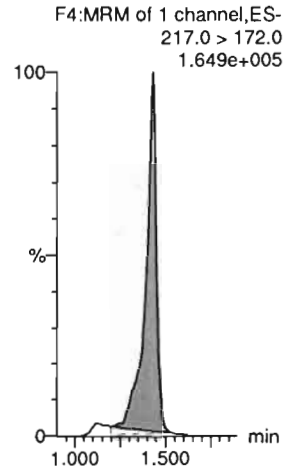
d7-N-MeFOSE-RSD



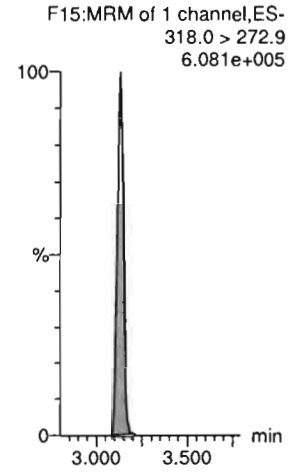
d9-N-EtFOSE-RSD



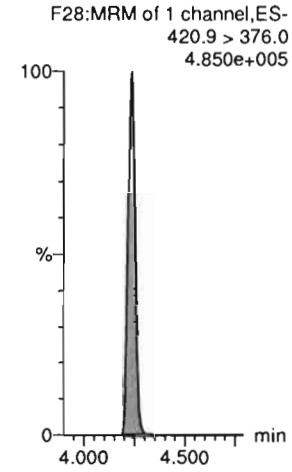
13C4-PFBA



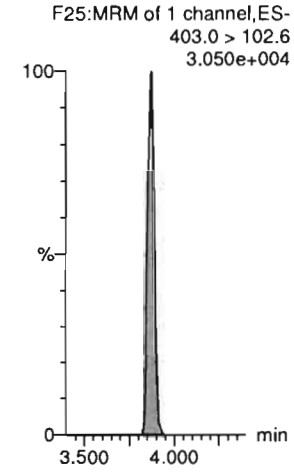
13C5-PFHxA



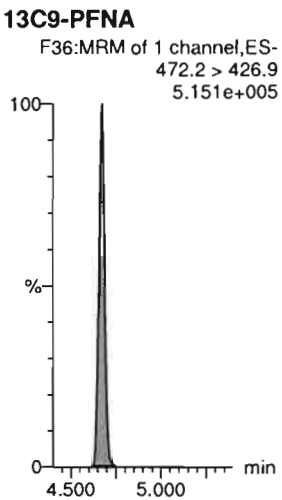
13C8-PFOA



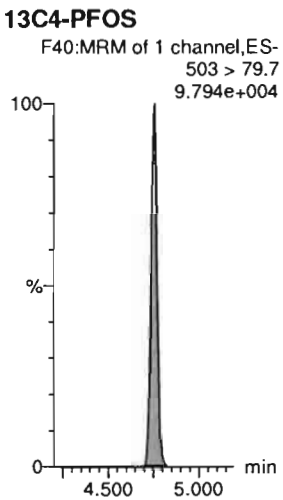
18O2-PFHxS



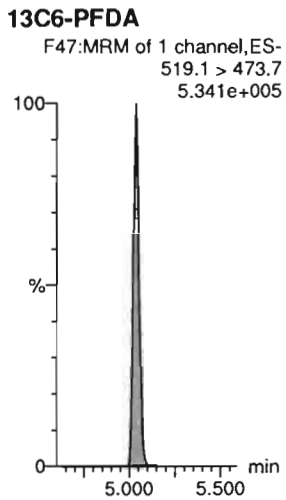
13C9-PFNA



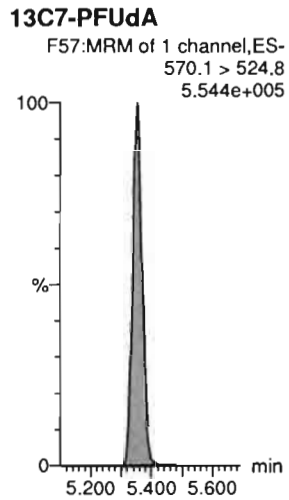
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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(A) Above Criteria Limit

Name: 200226P1-51, Date: 27-Feb-2020, Time: 01:23:26, ID: ST200226P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	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	7869.381	8933.718	1.00	1.43	11.011	10.000	10.1	101.3	NO		
2	2	PFPrS	248.9 > 79.7	1705.141	1471.132	1.00	1.76	14.488	10.000	9.56	95.6	NO	2.432	NO
3	3	3:3 FTCA	240.9 > 176.9	734.105	12698.635	1.00	2.22	0.723	10.000	9.89	98.9	NO	3.861	NO
4	4	PFPeA	263.1 > 218.9	10043.595	12698.635	1.00	2.36	9.886	10.000	10.1	101.4	NO		
5	5	PFBS	299.0 > 79.7	2761.077	1471.132	1.00	2.63	23.460	10.000	9.37	93.7	NO	3.029	NO
6	6	4:2 FTS	327.0 > 307	1483.794	1507.874	1.00	3.05	12.300	10.000	9.08	90.8	NO	0.792	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	8933.718		1.00	1.43	8933.718	12.500	12.0	95.7	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1471.132		1.00	2.63	1471.132	12.500	13.5	107.6	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	12698.635		1.00	2.36	12698.635	12.500	12.0	96.1	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	12698.635		1.00	2.36	12698.635	12.500	12.0	96.1	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1471.132		1.00	2.63	1471.132	12.500	13.5	107.6	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1507.874		1.00	3.05	1507.874	12.500	12.3	98.8	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	16423.182	20276.748	1.00	3.14	10.124	10.000	10.9	108.8	NO	15.390	NO
15	8	PFPeS	349.>79.7	2858.950	1471.132	1.00	3.33	24.292	10.000	9.91	99.1	NO	2.729	NO
16	9	HFPO-DA	285.1 > 168.9	3288.096	3873.198	1.00	3.34	10.612	10.000	10.4	104.3	NO	2.790	NO
17	10	5:3 FTCA	340.9 > 236.9	1935.612	13721.164	1.00	3.68	1.763	10.000	10.2	101.9	NO	1.802	NO
18	11	PFHpA	363.0 > 318.9	14240.454	13721.164	1.00	3.73	12.973	10.000	10.4	103.9	NO	39.548	NO
19	12	ADONA	376.8 > 250.9	31426.871	13721.164	1.00	3.84	28.630	10.000	9.79	97.9	NO	3.897	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	20276.748		1.00	3.14	20276.748	12.500	11.6	93.2	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1471.132		1.00	2.63	1471.132	12.500	13.5	107.6	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3873.198		1.00	3.34	3873.198	12.500	12.6	101.0	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	13721.164		1.00	3.73	13721.164	12.500	12.0	95.9	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	13721.164		1.00	3.73	13721.164	12.500	12.0	95.9	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	13721.164		1.00	3.73	13721.164	12.500	12.0	95.9	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	2680.458	3085.920	1.00	3.87	10.858	10.000	9.59	95.9	NO	2.306	NO
28	15	6:2 FTS	427.0 > 407	1916.704	1441.651	1.00	4.19	16.619	10.000	10.3	102.6	NO	1.289	NO
29	16	L-PFOA	412.8 > 368.9	16314.835	18432.039	1.00	4.24	11.064	10.000	9.56	95.6	NO	2.915	NO
30	18	PFecHS	460.8 > 381.0	2676.647	18432.039	1.00	4.25	1.815	10.000	10.7	106.6	NO	0.483	NO
31	19	PFHpS	449.0 > 79.7	2943.324	3383.562	1.00	4.35	10.874	10.000	11.1	110.8	NO	2.039	NO
32	20	7:3 FTCA	440.9 > 336.9	2012.946	17877.244	1.00	4.66	1.407	10.000	9.37	93.7	NO	1.375	NO
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3085.920		1.00	3.87	3085.920	12.500	13.3	106.3	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1441.651		1.00	4.18	1441.651	12.500	12.2	97.7	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	18432.039		1.00	4.24	18432.039	12.500	11.8	94.0	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	18432.039		1.00	4.24	18432.039	12.500	11.8	94.0	NO		

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Name: 200226P1-51, Date: 27-Feb-2020, Time: 01:23:26, ID: ST200226P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	3383.562		1.00	4.76	3383.562	12.500	12.1	96.6	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	17877.244		1.00	4.67	17877.244	12.500	12.3	98.2	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	15644.399	17877.244	1.00	4.68	10.939	10.000	10.3	102.9	NO	8.125	NO
41	22	PFOSA	497.9 > 77.9	2486.544	3714.426	1.00	4.74	8.368	10.000	10.1	101.4	NO	25.638	NO
42	23	L-PFOS	498.9 > 79.7	2719.854	3383.562	1.00	4.76	10.048	10.000	9.98	99.8	NO	2.177	NO
43	25	9Cl-PF30NS	530.7 > 350.8	2385.845	3383.562	1.00	4.97	8.814	10.000	9.02	90.2	NO	13.382	NO
44	26	PFDA	513 > 468.8	17252.457	17542.834	1.00	5.04	12.293	10.000	11.2	111.7	NO	9.668	NO
45	27	8:2 FTS	526.9 > 507	1287.920	929.346	1.00	5.01	17.323	10.000	13.8	137.7	YES (A)	2.828	NO
46	65	13C5-PFNA-EIS	468.2 > 422.9	17877.244		1.00	4.67	17877.244	12.500	12.3	98.2	NO		
47	67	13C8-PFOSA-EIS	506 > 78	3714.426		1.00	4.73	3714.426	12.500	11.5	91.6	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3383.562		1.00	4.76	3383.562	12.500	12.1	96.6	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3383.562		1.00	4.76	3383.562	12.500	12.1	96.6	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	17542.834		1.00	5.04	17542.834	12.500	11.0	87.9	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	929.346		1.00	5.01	929.346	12.500	10.1	81.1	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	2955.154	3383.562	1.00	5.10	10.917	10.000	11.2	111.8	NO	2.284	NO
54	29	L-MeFOSAA	570 > 419	5371.533	5380.062	1.00	5.19	12.480	10.000	10.0	100.1	NO	2.372	NO
55	31	L-EtFOSAA	584.1 > 419	4455.285	5465.905	1.00	5.34	10.189	10.000	9.86	98.6	NO	1.131	NO
56	33	PFUdA	563.0 > 518.9	16388.150	19183.490	1.00	5.36	10.679	10.000	10.1	101.3	NO	22.692	NO
57	34	PFDS	598.8 > 79.7	2364.262	3383.562	1.00	5.40	8.734	10.000	10.3	102.9	NO	1.831	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	6940.875	13711.712	1.00	5.56	6.328	10.000	12.1	121.4	NO	20.028	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	3383.562		1.00	4.76	3383.562	12.500	12.1	96.6	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	5380.062		1.00	5.19	5380.062	12.500	13.5	108.2	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5465.905		1.00	5.34	5465.905	12.500	11.2	89.6	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	19183.490		1.00	5.36	19183.490	12.500	11.8	94.4	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3383.562		1.00	4.76	3383.562	12.500	12.1	96.6	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	13711.712		1.00	5.63	13711.712	12.500	9.41	75.3	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	1460.660	786.347	1.00	5.62	23.219	10.000	9.84	98.4	NO	1.030	NO
67	37	PFDoA	612.9 > 569.0	16213.441	13711.712	1.00	5.63	14.781	10.000	12.1	120.8	NO	10.011	NO
68	38	N-MeFOSA	512.1 > 168.9	7070.136	18981.564	1.00	5.76	55.573	50.000	53.3	106.7	NO	1.683	NO
69	39	PFTrDA	662.9 > 618.9	16340.384	13711.712	1.00	5.87	14.896	10.000	11.8	118.3	NO	54.108	NO
70	40	PFDoS	698.8 > 79.7	2938.508	19116.912	1.00	5.89	1.921	10.000	11.7	117.0	NO	3.173	NO
71	41	PFTeDA	713.0 > 669.0	16234.316	19116.912	1.00	6.08	10.615	10.000	11.0	110.4	NO	16.835	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	786.347		1.00	5.62	786.347	12.500	10.6	85.1	NO		

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Name: 200226P1-51, Date: 27-Feb-2020, Time: 01:23:26, ID: ST200226P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	13711.712		1.00	5.63	13711.712	12.500	9.41	75.3	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	18981.564		1.00	5.78	18981.564	149.200	146	97.9	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	13711.712		1.00	5.63	13711.712	12.500	9.41	75.3	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	19116.912		1.00	6.07	19116.912	12.500	11.3	90.1	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	19116.912		1.00	6.07	19116.912	12.500	11.3	90.1	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	8576.829	23956.873	1.00	6.15	53.415	50.000	51.8	103.6	NO	1.779	NO
80	43	PFHxDA	813.1 > 768.6	15557.618	26160.330	1.00	6.40	7.434	10.000	10.4	104.0	NO	193.876	NO
81	44	PFODA	913.1 > 868.8	21879.705	26160.330	1.00	6.63	10.455	10.000	10.7	106.9	NO		
82	45	N-MeFOSE	616.1 > 58.9	6041.526	16936.537	1.00	6.30	53.222	50.000	48.1	96.3	NO		
83	46	N-EtFOSE	630.1 > 58.9	7027.002	19328.500	1.00	6.44	54.243	50.000	53.5	107.1	NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	23956.873		1.00	6.17	23956.873	149.200	147	98.4	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	26160.330		1.00	6.40	26160.330	12.500	11.4	91.1	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	26160.330		1.00	6.40	26160.330	12.500	11.4	91.1	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	16936.537		1.00	6.28	16936.537	149.200	150	100.6	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	19328.500		1.00	6.43	19328.500	149.200	140	93.9	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3383.562		1.00	4.76	3383.562	12.500	12.1	96.6	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	8933.718	10816.625	1.00	1.43	10.324	12.500	12.9	103.0	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	12698.635	21449.209	1.00	2.36	7.400	12.500	12.6	101.1	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1471.132	1313.762	1.00	2.63	13.997	12.500	12.3	98.7	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	3873.198	21449.209	1.00	3.34	2.257	12.500	13.6	108.6	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1507.874	1313.762	1.00	3.05	14.347	12.500	11.9	95.5	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	20276.748	21449.209	1.00	3.14	11.817	12.500	12.3	98.8	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	13721.164	21449.209	1.00	3.73	7.996	12.500	12.4	99.1	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3085.920	1313.762	1.00	3.87	29.361	12.500	12.1	96.4	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1441.651	3888.145	1.00	4.18	4.635	12.500	12.1	96.8	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	17877.244	18758.918	1.00	4.67	11.912	12.500	12.7	101.5	NO		
101	68	13C8-PFOSA-RSD	506 > 78	3714.426	19187.709	1.00	4.73	2.420	12.500	12.1	96.7	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	18432.039	20151.244	1.00	4.24	11.434	12.500	12.7	101.4	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3383.562	3888.145	1.00	4.76	10.878	12.500	11.8	94.5	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	17542.834	17960.965	1.00	5.04	12.209	12.500	12.1	96.8	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	929.346	3888.145	1.00	5.01	2.988	12.500	9.54	76.3	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	5380.062	19187.709	1.00	5.19	3.505	12.500	13.5	107.9	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	19183.490	19187.709	1.00	5.36	12.497	12.500	12.5	99.7	NO		

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Name: 200226P1-51, Date: 27-Feb-2020, Time: 01:23:26, ID: ST200226P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82 d5-N-EtFOSAA-RSD	589.3 > 419	5465.905	19187.709	1.00	5.34	3.561	12.500	12.5	99.6	NO		
110	84 13C2-PFDoA-RSD	614.7 > 569.7	13711.712	17960.965	1.00	5.63	9.543	12.500	10.1	80.7	NO		
111	86 13C2-10:2 FTS-RSD	632.9 > 80.0	786.347	3888.145	1.00	5.62	2.528	12.500	10.7	85.9	NO		
112	88 d3-N-MeFOSA-RSD	515.2 > 168.9	18981.564	19187.709	1.00	5.78	12.366	149.200	154	103.0	NO		
113	90 13C2-PFTeDA-RSD	715.1 > 669.7	19116.912	19187.709	1.00	6.07	12.454	12.500	12.1	97.2	NO		
114	92 d5-N-ETFOSA-RSD	531.1 > 168.9	23956.873	19187.709	1.00	6.17	15.607	149.200	159	106.5	NO		
115	94 13C2-PFHxDA-RSD	815 > 769.7	26160.330	19187.709	1.00	6.40	17.042	12.500	11.3	90.6	NO		
116	-1												
117	96 d7-N-MeFOSE-RSD	623.1 > 58.9	16936.537	19187.709	1.00	6.28	11.033	149.200	155	103.8	NO		
118	98 d9-N-EtFOSE-RSD	639.2 > 58.8	19328.500	19187.709	1.00	6.43	12.592	149.200	150	100.7	NO		
119	99 13C4-PFBA	217.0 > 172.0	10816.625	10816.625	1.00	1.43	12.500	12.500	12.5	100.0	NO		
120	1... 13C5-PFHxA	318.0 > 272.9	21449.209	21449.209	1.00	3.14	12.500	12.500	12.5	100.0	NO		
121	1... 13C8-PFOA	420.9 > 376.0	20151.244	20151.244	1.00	4.24	12.500	12.500	12.5	100.0	NO		
122	1... 18O2-PFHxS	403.0 > 102.6	1313.762	1313.762	1.00	3.87	12.500	12.500	12.5	100.0	NO		
123	1... 13C9-PFNA	472.2 > 426.9	18758.918	18758.918	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1... 13C4-PFOS	503 > 79.7	3888.145	3888.145	1.00	4.76	12.500	12.500	12.5	100.0	NO		
125	1... 13C6-PFDA	519.1 > 473.7	17960.965	17960.965	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1... 13C7-PFUdA	570.1 > 524.8	19187.709	19187.709	1.00	5.36	12.500	12.500	12.5	100.0	NO		

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Dataset: Untitled

Last Altered: Thursday, February 27, 2020 11:44:23 Pacific Standard Time
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Calibration: Z:\PFAS5.pro\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Compound name: PFBA

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1	1	200226P1-1	IPA	26-Feb-20	16:38:01
2	2	200226P1-2	IPA	26-Feb-20	16:48:38
3	3	200226P1-3	ST200226P1-1 PFC CS-2 20B1102	26-Feb-20	16:59:08
4	4	200226P1-4	ST200226P1-2 PFC CS-1 20B1103	26-Feb-20	17:09:41
5	5	200226P1-5	ST200226P1-3 PFC CS0 20B1104	26-Feb-20	17:20:09
6	6	200226P1-6	ST200226P1-4 PFC CS1 20B1105	26-Feb-20	17:30:39
7	7	200226P1-7	ST200226P1-5 PFC CS2 20B1106	26-Feb-20	17:41:11
8	8	200226P1-8	ST200226P1-6 PFC CS3 20B1107	26-Feb-20	17:51:42
9	9	200226P1-9	ST200226P1-7 PFC CS4 20B1108	26-Feb-20	18:02:12
10	10	200226P1-10	ST200226P1-8 PFC CS5 20B1109	26-Feb-20	18:12:43
11	11	200226P1-11	ST200226P1-9 PFC CS6 20B1110	26-Feb-20	18:23:12
12	12	200226P1-12	ST200226P1-10 PFC CS7 20B1111	26-Feb-20	18:33:43
13	13	200226P1-13	IB	26-Feb-20	18:44:12
14	14	200226P1-14	ICV200226P1-1 PFC ICV 20B1112	26-Feb-20	18:54:43
15	15	200226P1-15	IB	26-Feb-20	19:05:14
16	16	200226P1-16	2000303-02 RW-4 0.25385	26-Feb-20	19:15:43
17	17	200226P1-17	2000303-06 RW-8 0.25242	26-Feb-20	19:26:15
18	18	200226P1-18	2000330-04 DUP04-20200214 0.25435	26-Feb-20	19:36:44
19	19	200226P1-19	B0B0178-MSD1 Matrix Spike Dup 0.24557	26-Feb-20	19:47:15
20	20	200226P1-20	B0B0146-BLK1 Method Blank 0.25	26-Feb-20	19:57:44
21	21	200226P1-21	B0B0146-BS1 OPR 0.25	26-Feb-20	20:08:16
22	22	200226P1-22	B0B0146-BSD1 LCSD 0.25	26-Feb-20	20:18:45
23	23	200226P1-23	2000322-10 3EFF 0.25804	26-Feb-20	20:29:17
24	24	200226P1-24	2000322-11 3INF FRB 0.24918	26-Feb-20	20:39:46
25	25	200226P1-25	2000322-12 3INF 0.24453	26-Feb-20	20:50:17
26	26	200226P1-26	2000322-13 2EFF 0.25549	26-Feb-20	21:00:48
27	27	200226P1-27	2000322-14 2INF FRB 0.24928	26-Feb-20	21:11:16
28	28	200226P1-28	2000322-15 2INF 0.24263	26-Feb-20	21:21:48
29	29	200226P1-29	2000322-16 Post CCB 1BEFF 0.25545	26-Feb-20	21:32:17
30	30	200226P1-30	IB	26-Feb-20	21:42:49
31	31	200226P1-31	ST200226P1-11 PFC CS3 20B1107	26-Feb-20	21:53:18
32	32	200226P1-32	IB	26-Feb-20	22:03:50

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Compound name: PFBA

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34	34	200226P1-34	2000322-18 1INF 0.25095	26-Feb-20	22:24:50
35	35	200226P1-35	2000322-19 1EFF 0.24912	26-Feb-20	22:35:19
36	36	200226P1-36	B0B0145-BLK1 Method Blank 0.25	26-Feb-20	22:45:51
37	37	200226P1-37	B0B0145-BS1 OPR 0.25	26-Feb-20	22:56:20
38	38	200226P1-38	B0B0145-BSD1 LCSD 0.25	26-Feb-20	23:06:51
39	39	200226P1-39	2000327-01 DFSPN_GWTS_Effluent_PFC_02-13-20 0.2488	26-Feb-20	23:17:22
40	40	200226P1-40	2000327-02 DFSPN_FieldBlank_02-13-20 0.25661	26-Feb-20	23:27:51
41	41	200226P1-41	2000319-17@5X W-SB03-20200211 0.25482	26-Feb-20	23:38:21
42	42	200226P1-42	2000319-18@5X DUP01-20200211 0.25556	26-Feb-20	23:48:52
43	43	200226P1-43	2000328-04@10X W-SB01-20200213 0.26272	26-Feb-20	23:59:23
44	44	200226P1-44	B0B0127-MS1 Matrix Spike 0.25239	27-Feb-20	00:09:53
45	45	200226P1-45	B0B0127-MSD1 Matrix Spike Dup 0.24499	27-Feb-20	00:20:22
46	46	200226P1-46	2000321-02 I013WMW02SR-20200213 0.24488	27-Feb-20	00:30:54
47	47	200226P1-47	2000321-03 IS72MW17S-20200213 0.24942	27-Feb-20	00:41:24
48	48	200226P1-48	2000321-04 I012MW01SR-20200213 0.24804	27-Feb-20	00:51:53
49	49	200226P1-49	2000321-05 I012MW10S-20200213 0.24821	27-Feb-20	01:02:24
50	50	200226P1-50	IB	27-Feb-20	01:12:53
51	51	200226P1-51	ST200226P1-12 PFC CS3 20B1107	27-Feb-20	01:23:26
52	52	200226P1-52	IB	27-Feb-20	01:33:54
53	53	200226P1-53	2000321-06 I012MW11S-20200213 0.25358	27-Feb-20	01:44:26
54	54	200226P1-54	IB	27-Feb-20	01:54:55
55	55	200226P1-55	2000321-07 I012MW15S-20200213 0.25036	27-Feb-20	02:05:26
56	56	200226P1-56	2000321-08 DUP02-20200213 0.2466	27-Feb-20	02:15:55
57	57	200226P1-57	2000321-09@10X I003MW01S-20200213 0.25107	27-Feb-20	02:26:27
58	58	200226P1-58	2000321-10 I003MW15S-20200213 0.24522	27-Feb-20	02:36:57
59	59	200226P1-59	IB	27-Feb-20	02:47:26
60	60	200226P1-60	2000321-11 I003MW02S-20200213 0.24704	27-Feb-20	02:57:58
61	61	200226P1-61	IB	27-Feb-20	03:08:29
62	62	200226P1-62	B0B0166-BLK1 Method Blank 0.25	27-Feb-20	03:18:57
63	63	200226P1-63	B0B0166-BS1 OPR 0.25	27-Feb-20	03:29:29
64	64	200226P1-64	2000344-01 GW2002121605MK-FD 0.25785	27-Feb-20	03:39:58
65	65	200226P1-65	2000344-02 GW2002121610GSC 0.24668	27-Feb-20	03:50:30
66	66	200226P1-66	IB	27-Feb-20	04:00:58
67	67	200226P1-67	2000344-03 FB2002121625MK 0.24529	27-Feb-20	04:11:30
68	68	200226P1-68	2000344-04 GW2002121700MK 0.24634	27-Feb-20	04:22:01

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Compound name: PFBA

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70	70 200226P1-70	IB	27-Feb-20	04:43:01
71	71 200226P1-71	2000344-05 GW2002121645GSC 0.25243	27-Feb-20	04:53:30
72	72 200226P1-72	2000344-06 GW2002131035MK 0.25069	27-Feb-20	05:04:01
73	73 200226P1-73	2000344-07 GW2002131035GSC 0.25057	27-Feb-20	05:14:32
74	74 200226P1-74	2000344-08 GW2002131115MK 0.23321	27-Feb-20	05:25:02
75	75 200226P1-75	2000344-09 GW2002131145GSC 0.24016	27-Feb-20	05:35:33
76	76 200226P1-76	2000344-10 GW2002131410GSC 0.24855	27-Feb-20	05:46:02
77	77 200226P1-77	2000344-11 GW2002131500GSC 0.25333	27-Feb-20	05:56:33
78	78 200226P1-78	2000344-12 GW2002131520MK 0.24639	27-Feb-20	06:07:03
79	79 200226P1-79	IB	27-Feb-20	06:17:32
80	80 200226P1-80	ST200226P1-14 PFC CS3 20B1107	27-Feb-20	06:28:04
81	81 200226P1-81	IB	27-Feb-20	06:38:33
82	82 200226P1-82	2000344-13 GW2002131110GSC 0.25171	27-Feb-20	06:49:04
83	83 200226P1-83	2000344-14 GW2002131610MK 0.25234	27-Feb-20	06:59:35
84	84 200226P1-84	2000344-15 GW2002131710MK 0.24964	27-Feb-20	07:10:05
85	85 200226P1-85	2000344-16 GW2002131655GSC 0.25037	27-Feb-20	07:20:34
86	86 200226P1-86	2000344-17 GW2002131725GSC 0.25861	27-Feb-20	07:31:04
87	87 200226P1-87	B0B0165-BS1 OPR 0.25	27-Feb-20	07:41:37
88	88 200226P1-88	B0B0102-BS2 OPR 0.125	27-Feb-20	07:52:05
89	89 200226P1-89	IB	27-Feb-20	08:02:36
90	90 200226P1-90	ST200226P1-15 PFC CS3 20B1107	27-Feb-20	08:13:07
91	91 200226P1-91	IB	27-Feb-20	08:23:38

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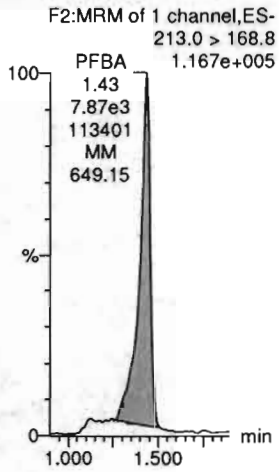
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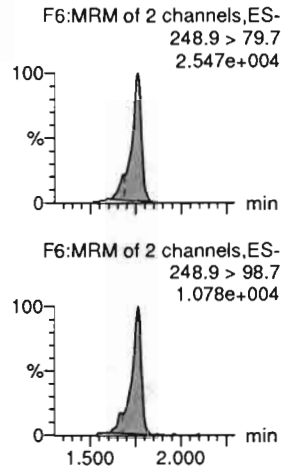
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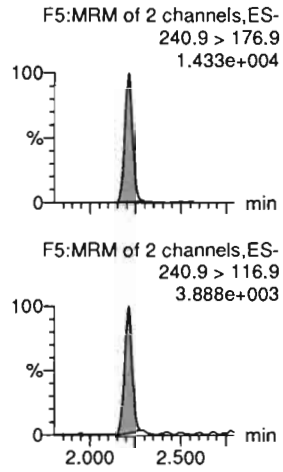
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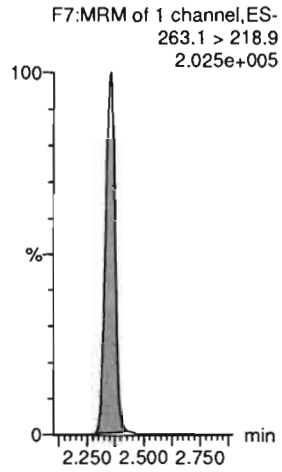
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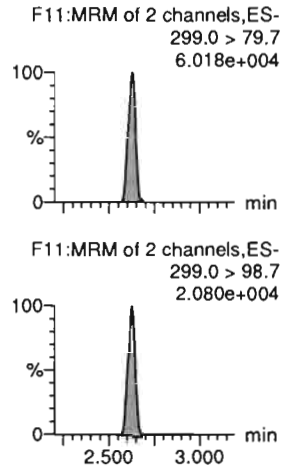
3:3 FTCA



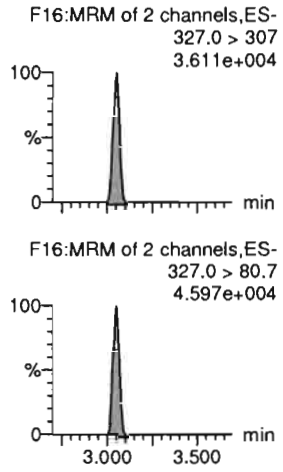
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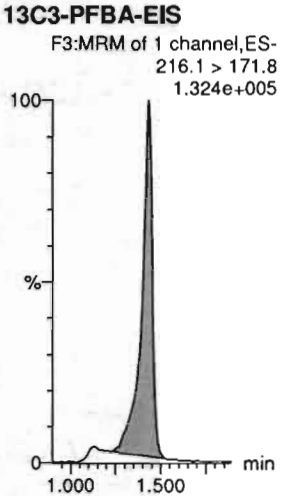
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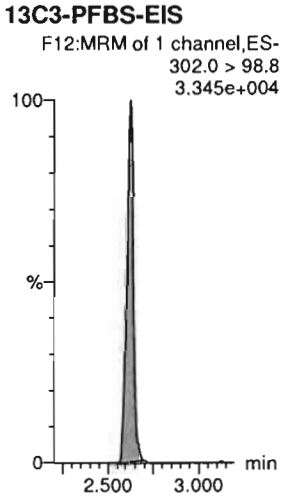
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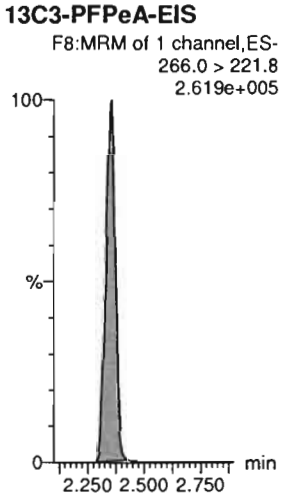
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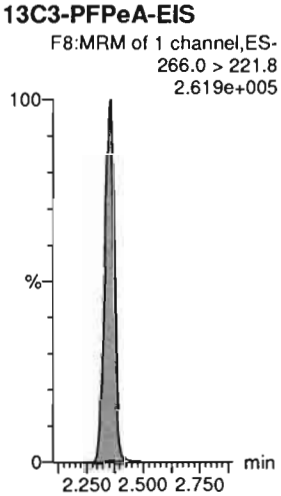
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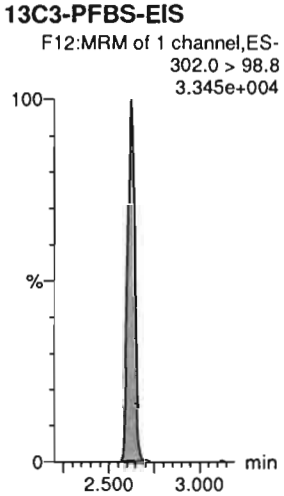
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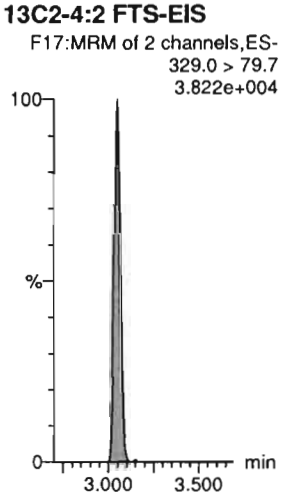
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



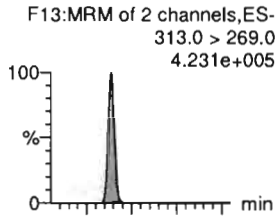
OPV 2/27/2020

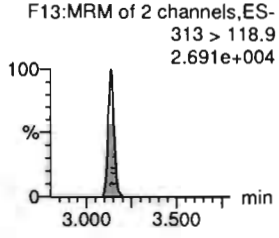
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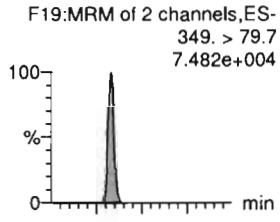
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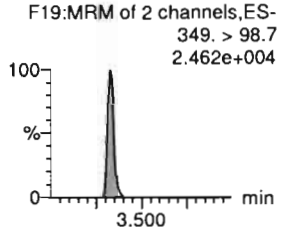
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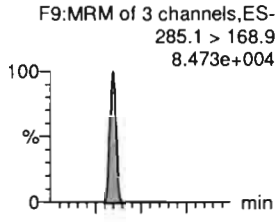


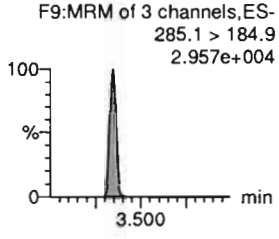
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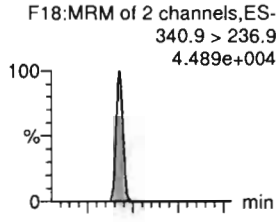


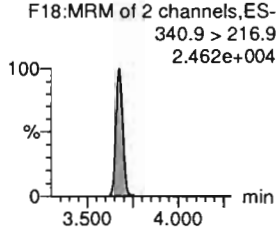
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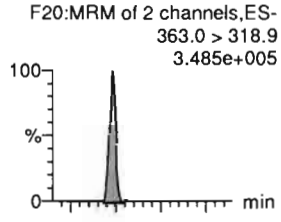


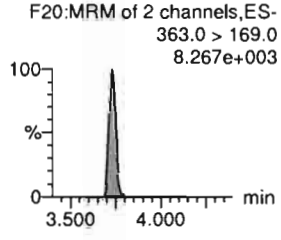
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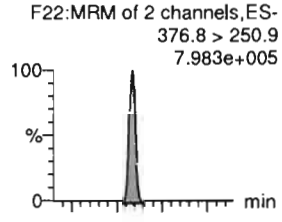


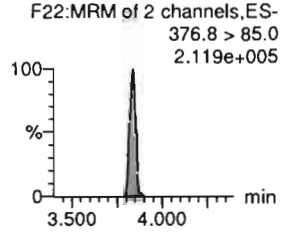
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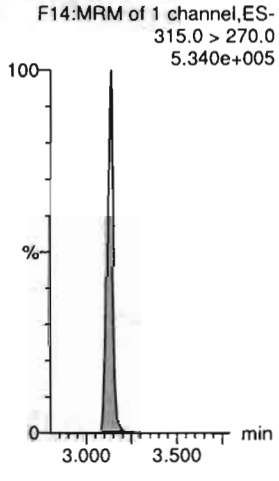


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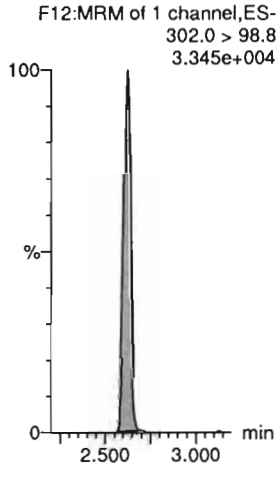




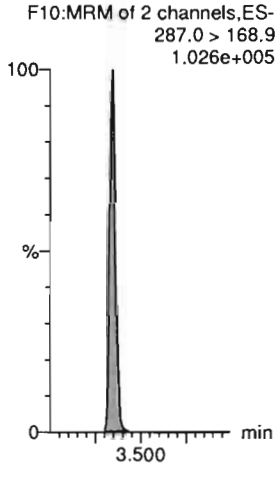
13C2-PFHxA-EIS



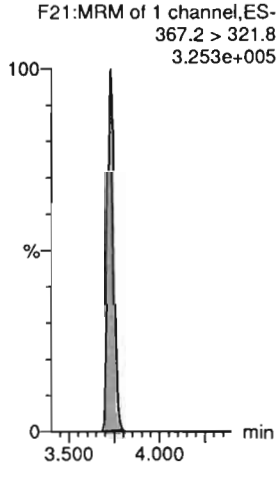
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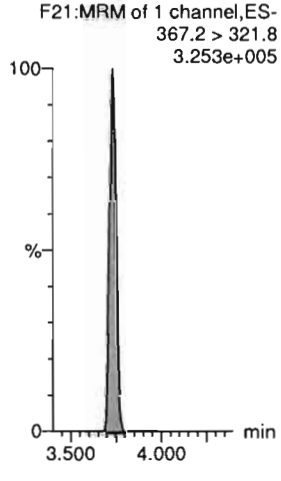
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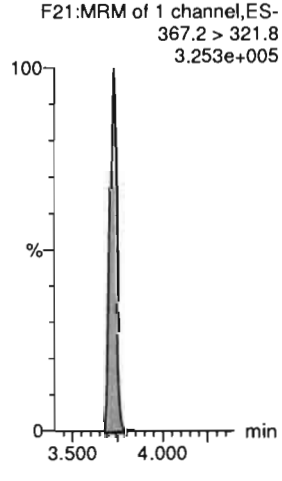
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13C4-PFHpA-EIS



13C4-PFHpA-EIS



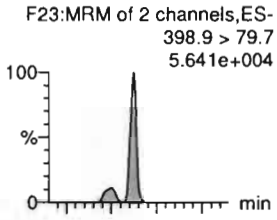
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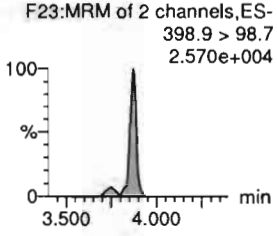
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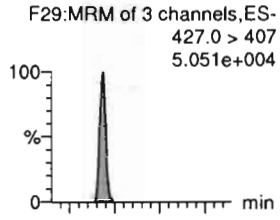
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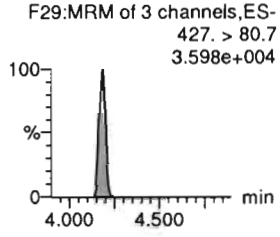
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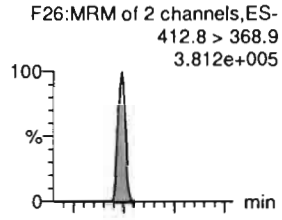


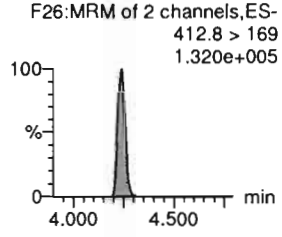
6:2 FTS



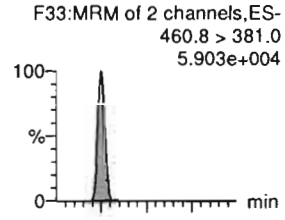


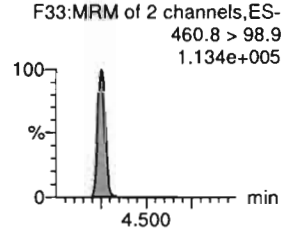
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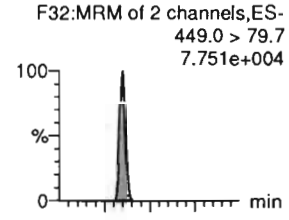


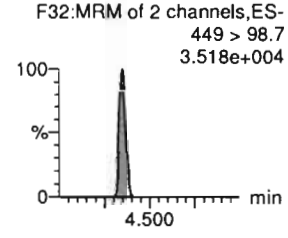
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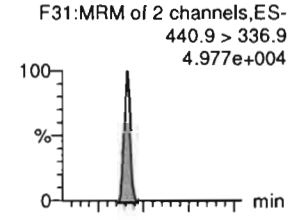


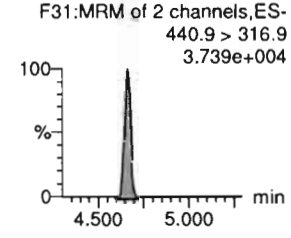
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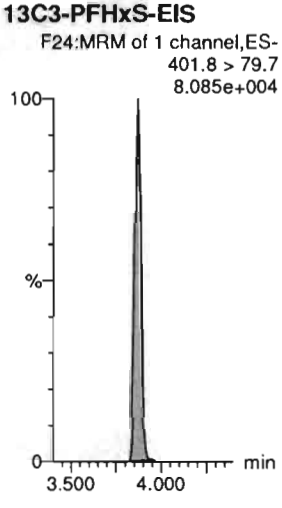


7:3 FTCA

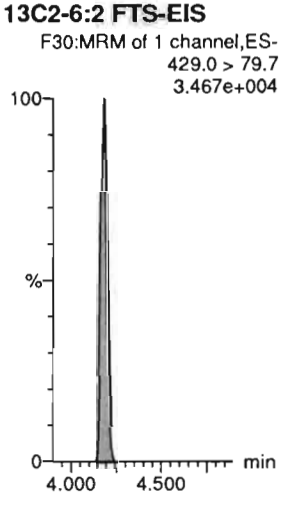




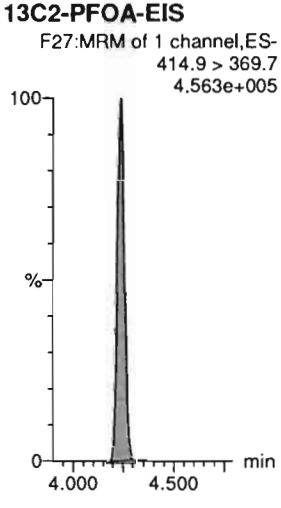
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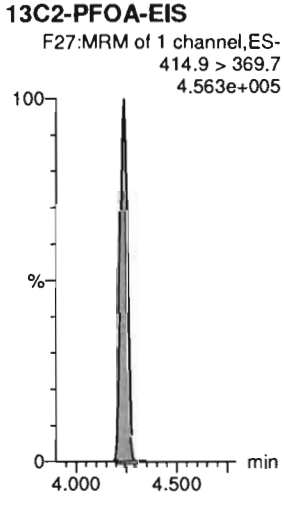
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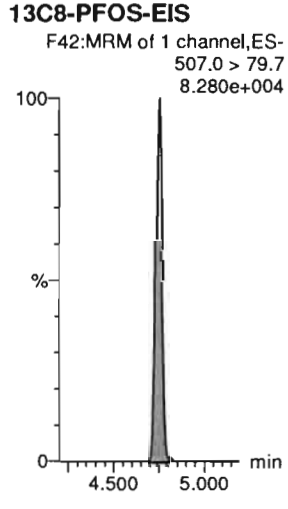
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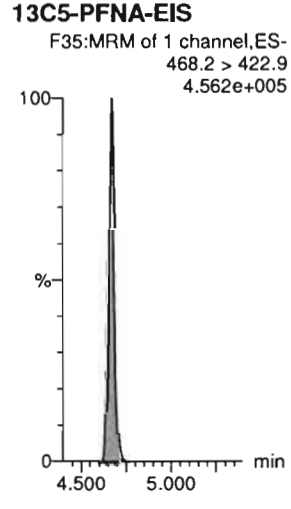
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS



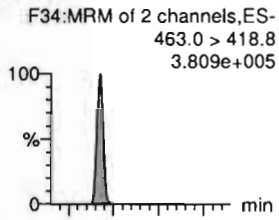
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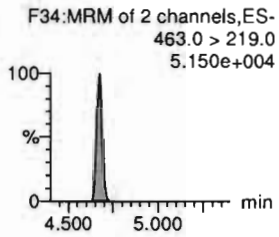
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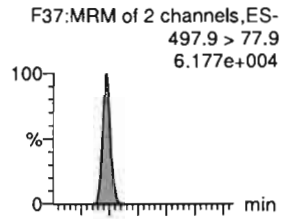
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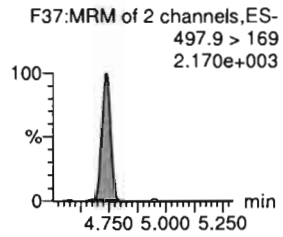
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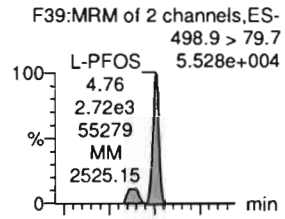


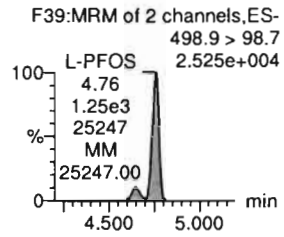
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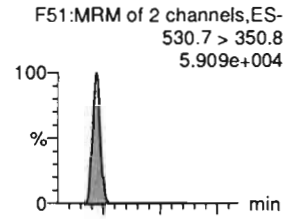


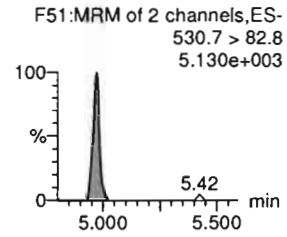
L-PFOS



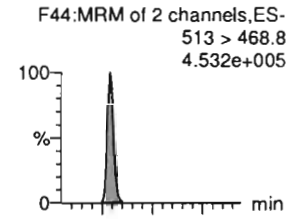


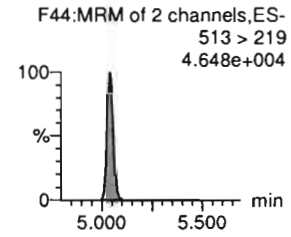
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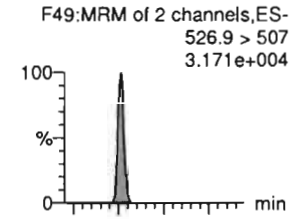


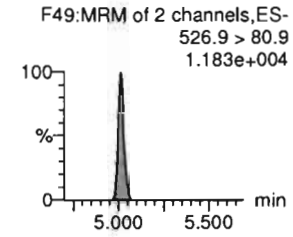
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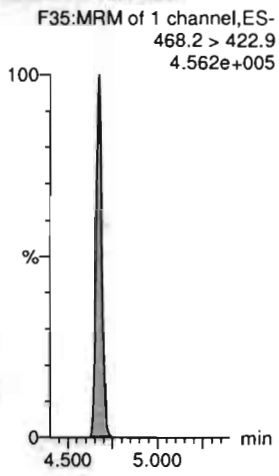


8:2 FTS

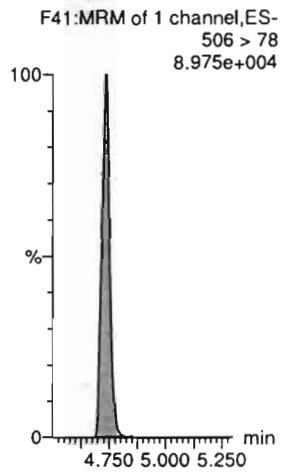




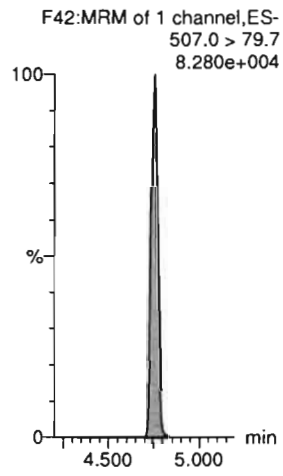
13C5-PFNA-EIS



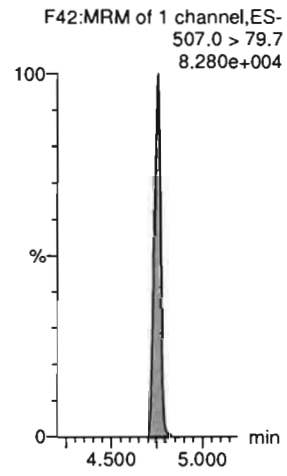
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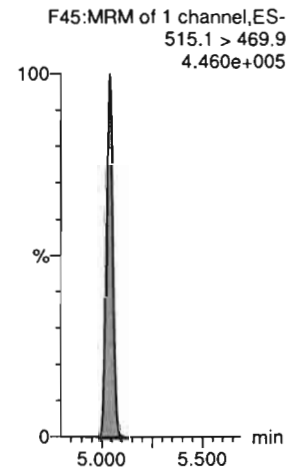
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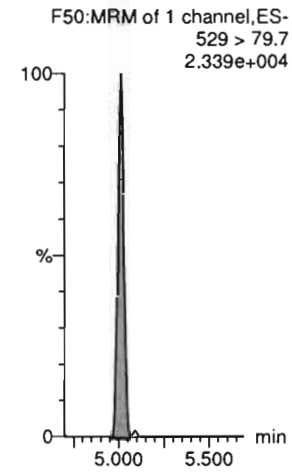
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS



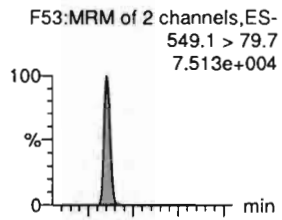
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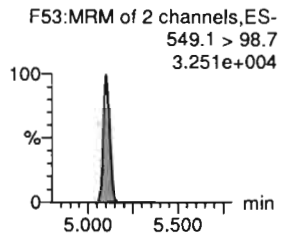
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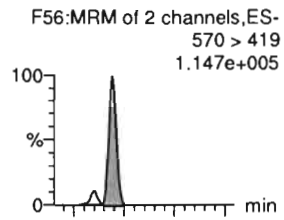
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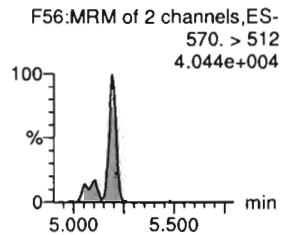
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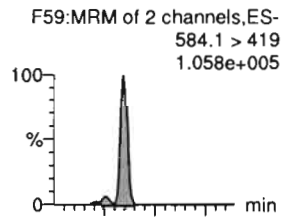


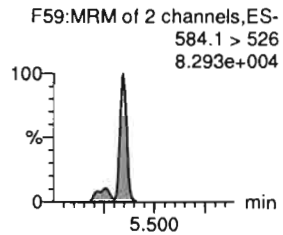
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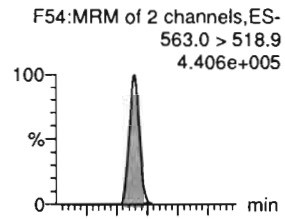


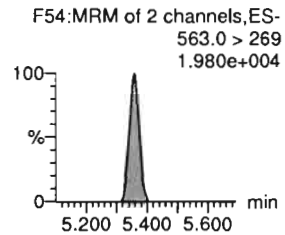
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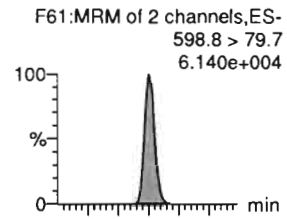


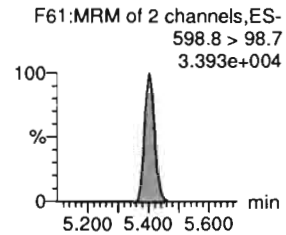
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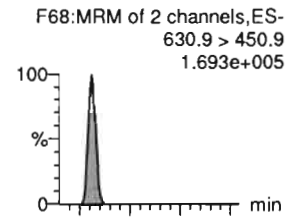


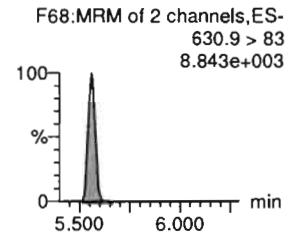
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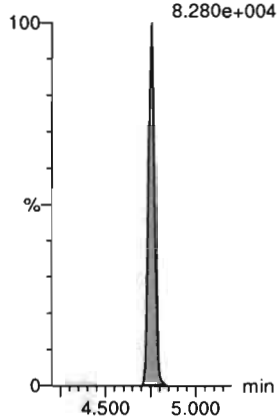


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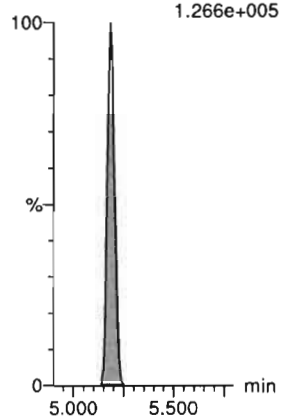




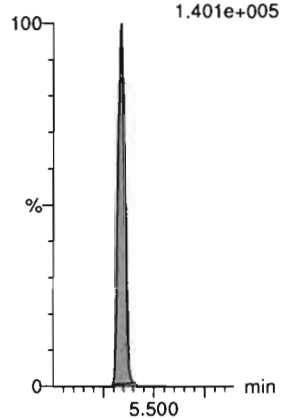
13C8-PFOS-EIS



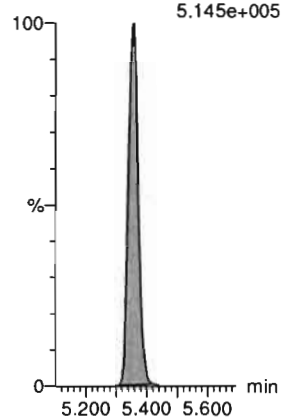
d3-N-MeFOSAA-EIS



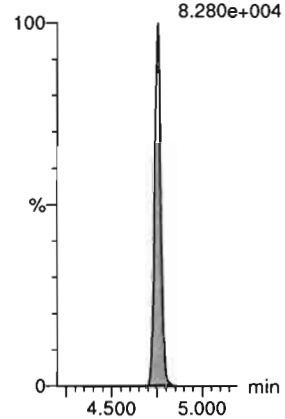
d5-N-EtFOSAA-EIS



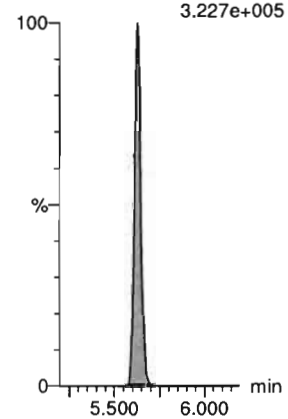
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



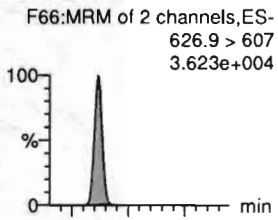
OPV 2/27/2020

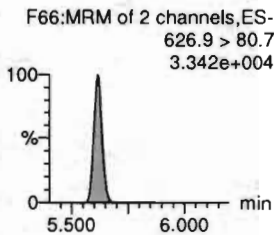
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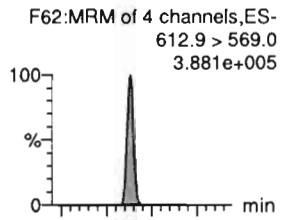
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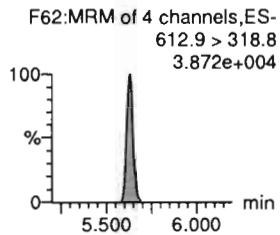
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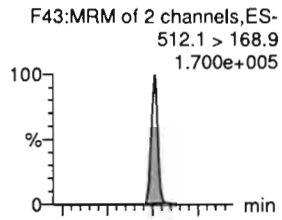


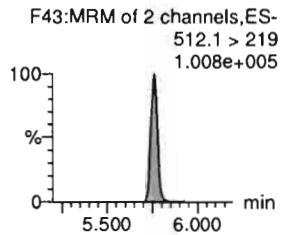
PFDoA



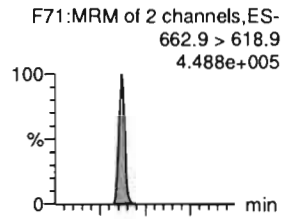


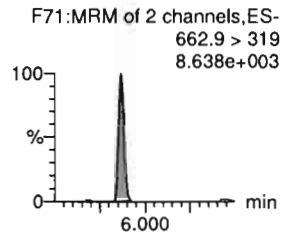
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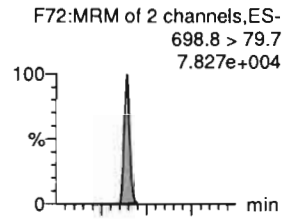


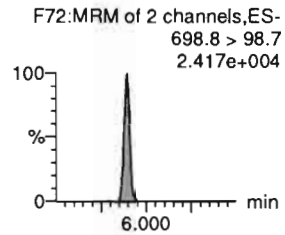
PFTrDA



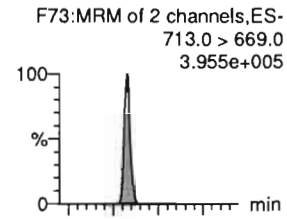


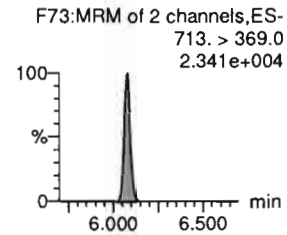
PFDoS



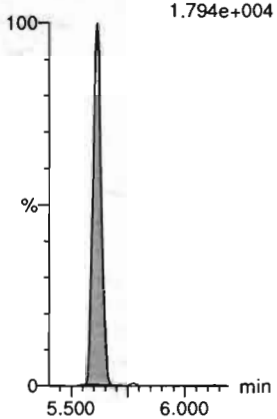


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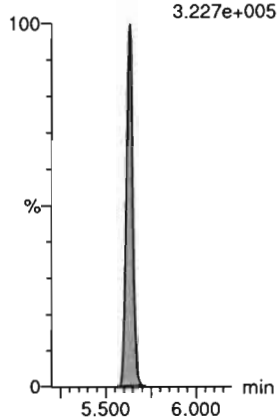




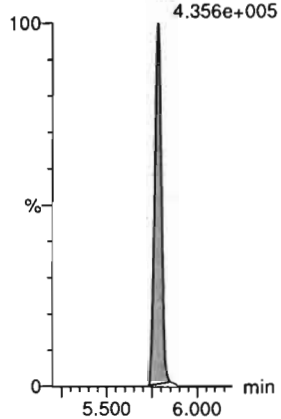
13C2-10:2 FTS-EIS



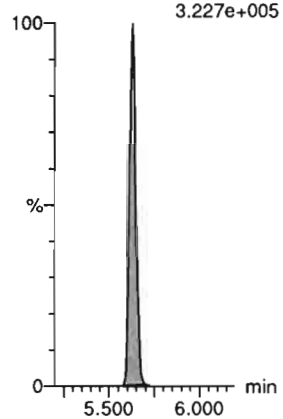
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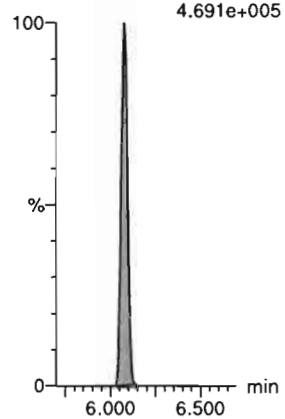
d3-N-MeFOSA-EIS



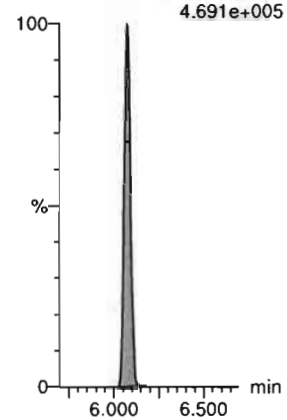
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



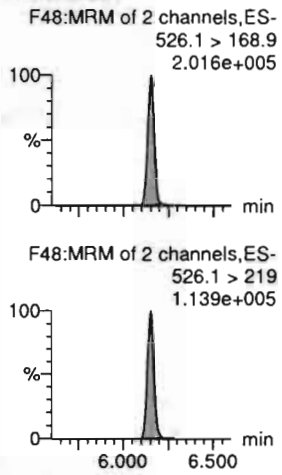
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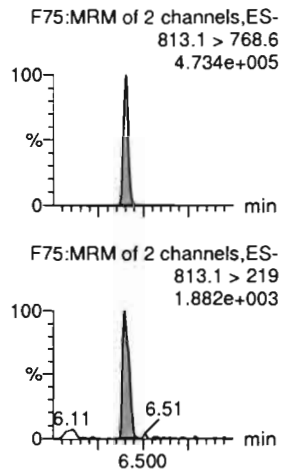
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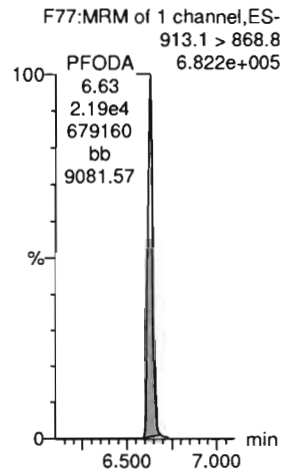
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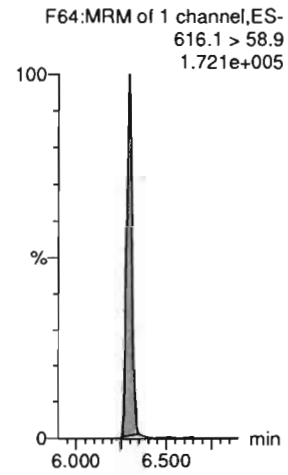
PFHxDA



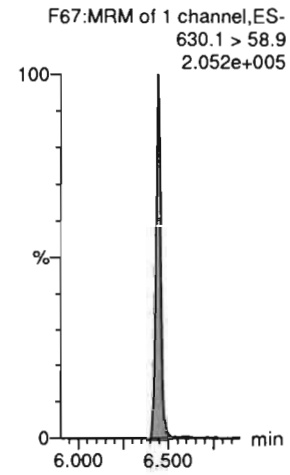
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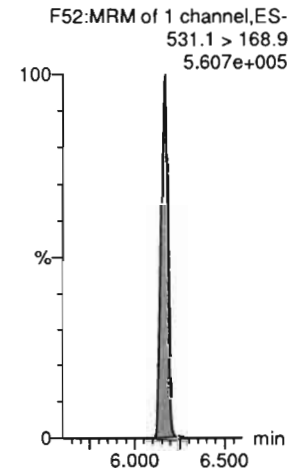
N-MeFOSE



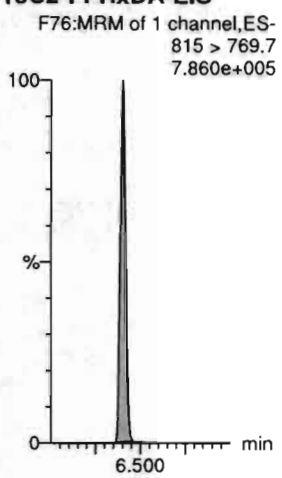
N-EtFOSE



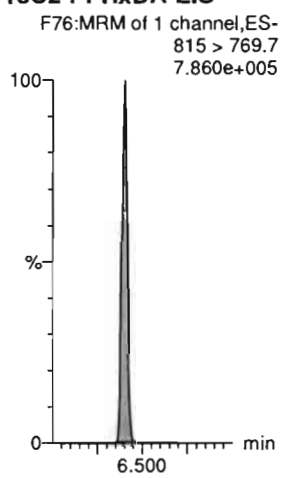
d5-N-ETFOSA-EIS



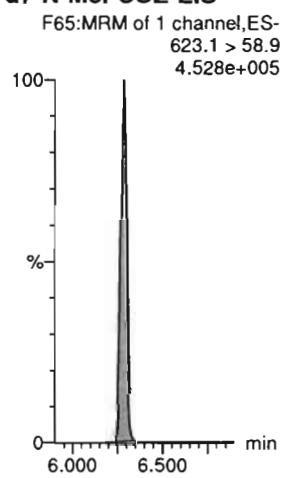
13C2-PFHxDA-EIS



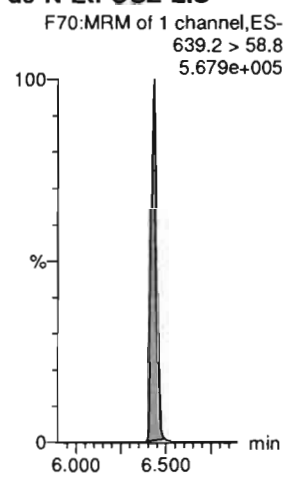
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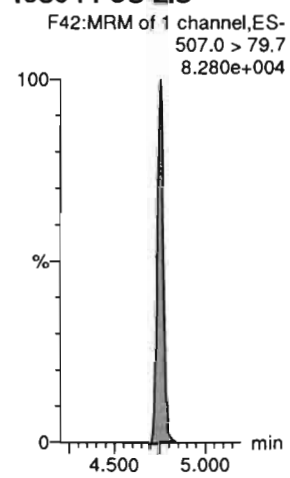
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d9-N-EtFOSE-EIS



13C8-PFOS-EIS



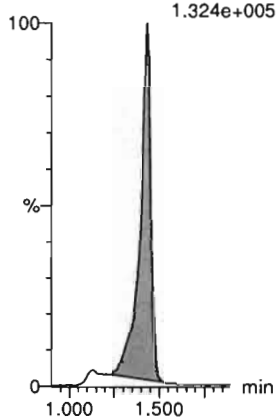
OPV 2/27/2020

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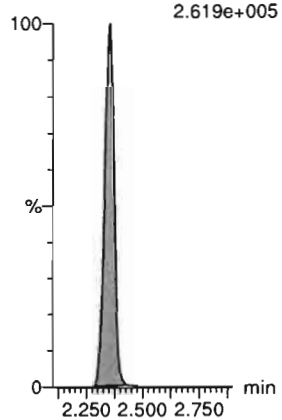
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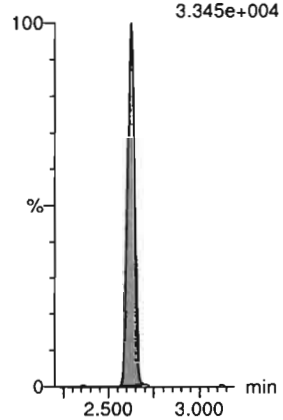
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F3:MRM of 1 channel,ES-
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1.324e+005



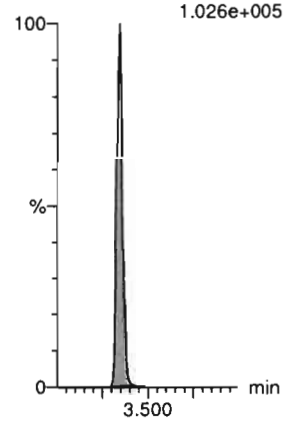
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.619e+005



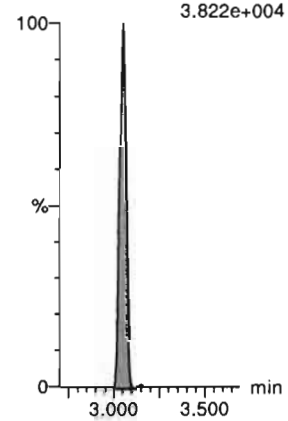
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.345e+004



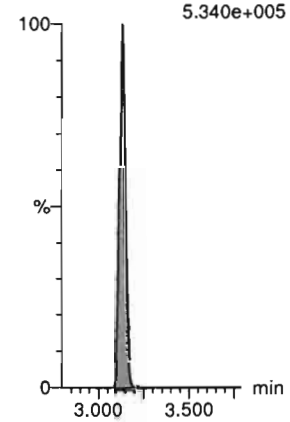
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F10:MRM of 2 channels,ES-
287.0 > 168.9
1.026e+005



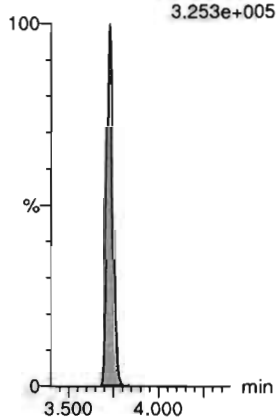
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.822e+004



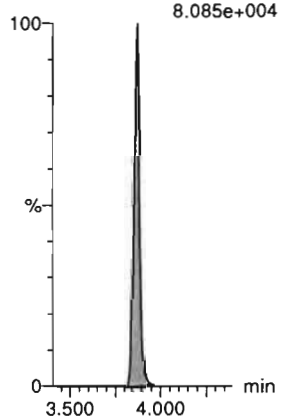
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.340e+005



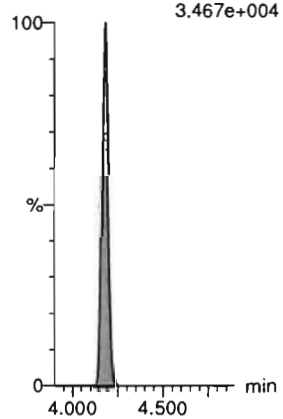
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.253e+005



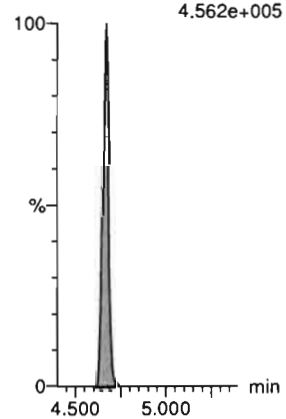
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F24:MRM of 1 channel,ES-
401.8 > 79.7
8.085e+004



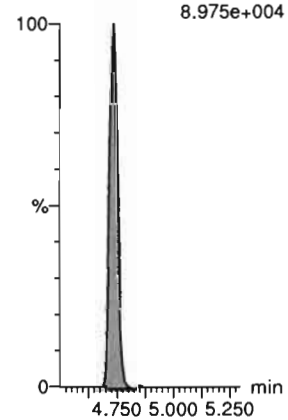
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.467e+004



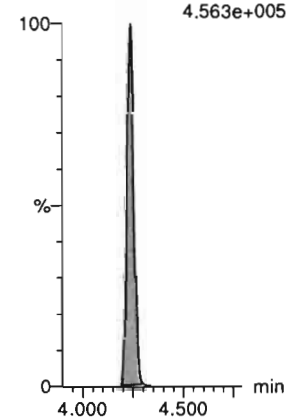
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.562e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
8.975e+004



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.563e+005



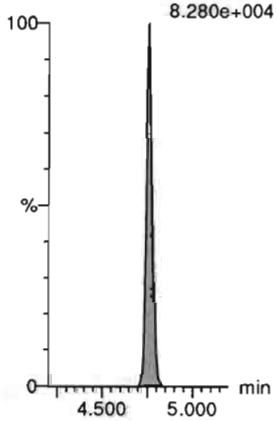
OPV 2/27/2020

Dataset: Untitled

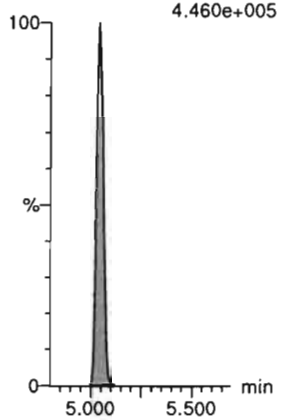
Last Altered: Thursday, February 27, 2020 11:01:11 Pacific Standard Time
Printed: Thursday, February 27, 2020 11:01:19 Pacific Standard Time

Name: 200226P1-51, Date: 27-Feb-2020, Time: 01:23:26, ID: ST200226P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

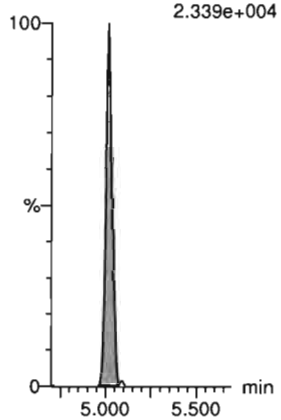
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.280e+004



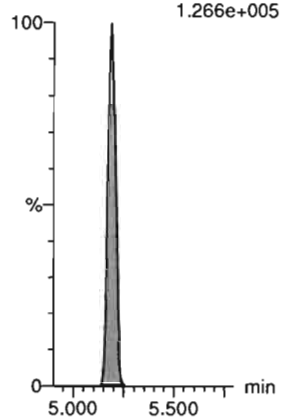
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.460e+005



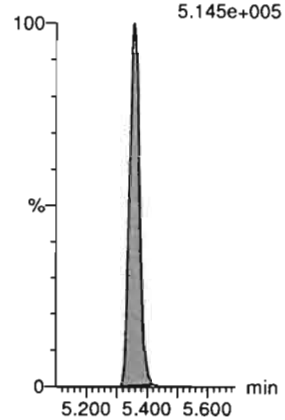
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.339e+004



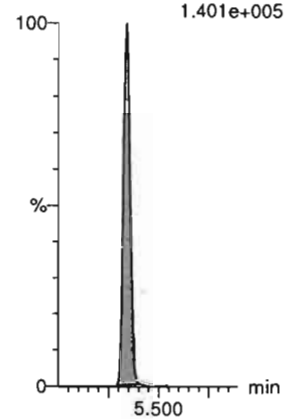
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.266e+005



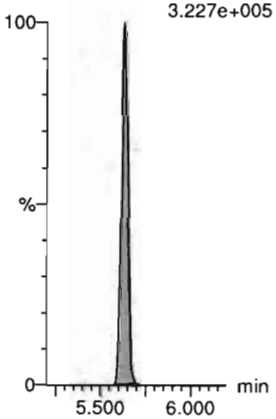
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.145e+005



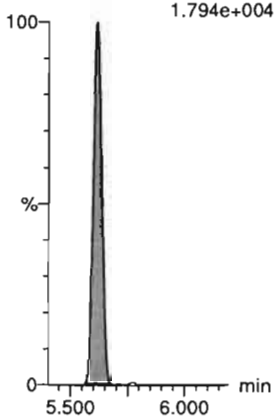
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.401e+005



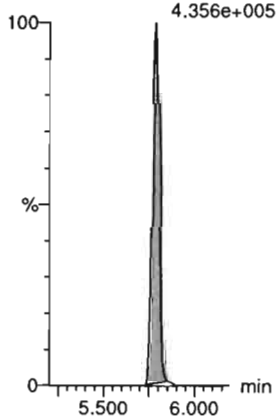
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
3.227e+005



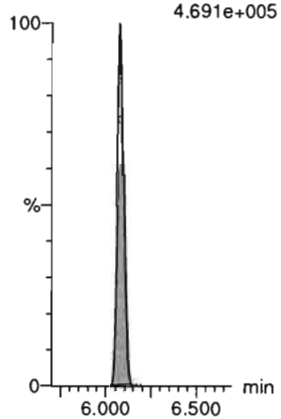
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.794e+004



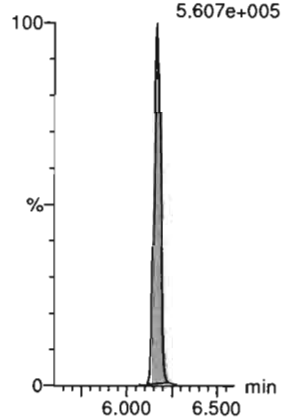
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.356e+005



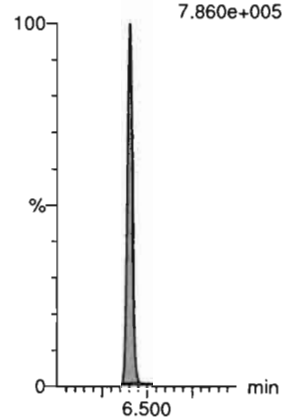
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.691e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.607e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
7.860e+005



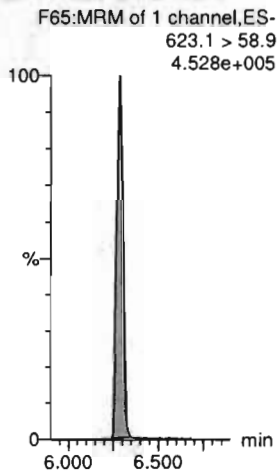
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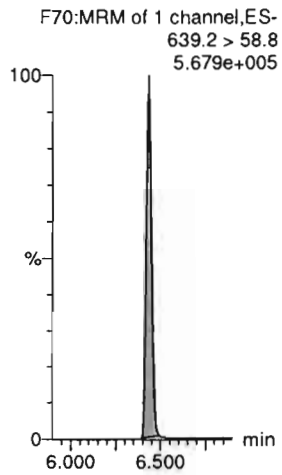
Last Altered: Thursday, February 27, 2020 11:01:11 Pacific Standard Time
Printed: Thursday, February 27, 2020 11:01:19 Pacific Standard Time

Name: 200226P1-51, Date: 27-Feb-2020, Time: 01:23:26, ID: ST200226P1-12 PFC CS3 20B1107, Description: PFC CS3 20B1107

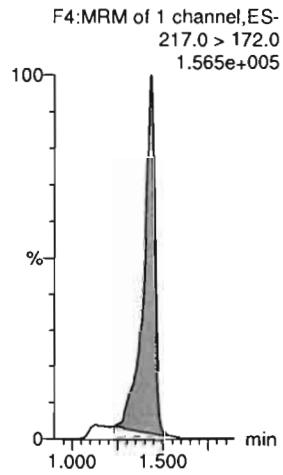
d7-N-MeFOSE-RSD



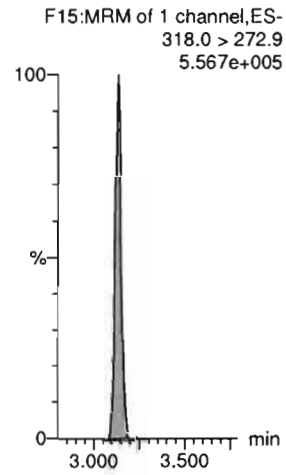
d9-N-EtFOSE-RSD



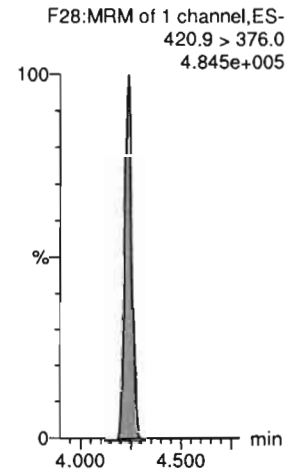
13C4-PFBA



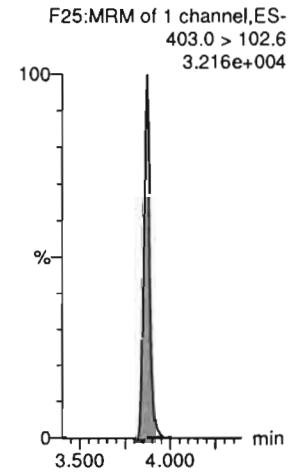
13C5-PFHxA



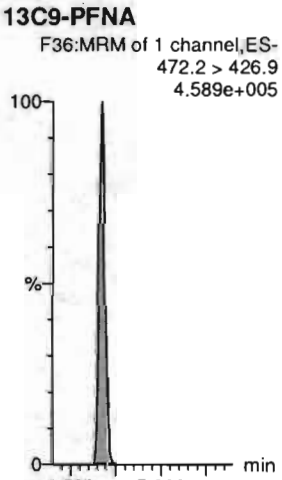
13C8-PFOA



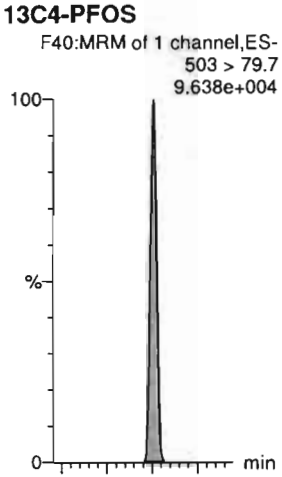
18O2-PFHxS



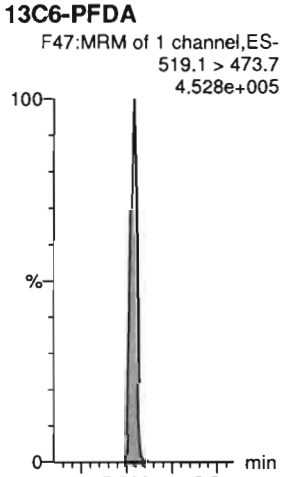
13C9-PFNA



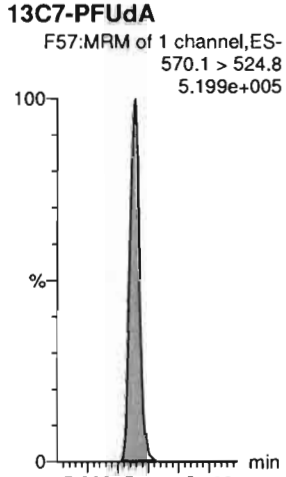
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Name: 200226P1-69, Date: 27-Feb-2020, Time: 04:32:30, ID: ST200226P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	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	7972.745	8611.547	1.00	1.44	11.573	10.000	10.6	106.4	NO		
2	2	PFPrS	248.9 > 79.7	1846.697	1373.507	1.00	1.77	16.806	10.000	11.1	111.0	NO	2.474	NO
3	3	3:3 FTCA	240.9 > 176.9	723.828	12871.320	1.00	2.22	0.703	10.000	9.63	96.3	NO	3.707	NO
4	4	PFPeA	263.1 > 218.9	10244.186	12871.320	1.00	2.36	9.949	10.000	10.2	102.0	NO		
5	5	PFBS	299.0 > 79.7	2951.327	1373.507	1.00	2.63	26.859	10.000	10.7	107.4	NO	3.169	NO
6	6	4:2 FTS	327.0 > 307	1589.829	1419.876	1.00	3.05	13.996	10.000	10.3	103.3	NO	0.844	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	8611.547		1.00	1.43	8611.547	12.500	11.5	92.2	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1373.507		1.00	2.63	1373.507	12.500	12.6	100.5	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	12871.320		1.00	2.36	12871.320	12.500	12.2	97.4	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	12871.320		1.00	2.36	12871.320	12.500	12.2	97.4	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1373.507		1.00	2.63	1373.507	12.500	12.6	100.5	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1419.876		1.00	3.05	1419.876	12.500	11.6	93.0	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	16024.753	20361.639	1.00	3.14	9.838	10.000	10.6	105.7	NO	16.205	NO
15	8	PFPeS	349.>79.7	2789.448	1373.507	1.00	3.33	25.386	10.000	10.4	103.6	NO	2.680	NO
16	9	HFPO-DA	285.1 > 168.9	3144.030	3678.294	1.00	3.35	10.684	10.000	10.5	105.0	NO	2.610	NO
17	10	5:3 FTCA	340.9 > 236.9	1835.077	13591.681	1.00	3.68	1.688	10.000	9.75	97.5	NO	1.725	NO
18	11	PFHpA	363.0 > 318.9	14078.479	13591.681	1.00	3.74	12.948	10.000	10.4	103.7	NO	31.881	NO
19	12	ADONA	376.8 > 250.9	30860.439	13591.681	1.00	3.84	28.382	10.000	9.70	97.0	NO	3.784	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	20361.639		1.00	3.14	20361.639	12.500	11.7	93.5	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1373.507		1.00	2.63	1373.507	12.500	12.6	100.5	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3678.294		1.00	3.35	3678.294	12.500	12.0	95.9	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	13591.681		1.00	3.73	13591.681	12.500	11.9	95.0	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	13591.681		1.00	3.73	13591.681	12.500	11.9	95.0	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	13591.681		1.00	3.73	13591.681	12.500	11.9	95.0	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	2649.711	2837.194	1.00	3.88	11.674	10.000	10.3	103.2	NO	2.340	NO
28	15	6:2 FTS	427.0 > 407	1554.337	1133.138	1.00	4.18	17.146	10.000	10.6	105.9	NO	1.026	NO
29	16	L-PFOA	412.8 > 368.9	15938.144	17192.033	1.00	4.24	11.588	10.000	10.0	100.2	NO	2.750	NO
30	18	PFecHS	460.8 > 381.0	2486.815	17192.033	1.00	4.25	1.808	10.000	10.6	106.2	NO	0.442	NO
31	19	PFHpS	449.0 > 79.7	2782.511	3495.141	1.00	4.35	9.951	10.000	10.1	101.4	NO	2.097	NO
32	20	7:3 FTCA	440.9 > 336.9	2036.314	18321.902	1.00	4.66	1.389	10.000	9.25	92.5	NO	1.419	NO
33	61	13C3-PFHxS-EIS	401.8 > 79.7	2837.194		1.00	3.88	2837.194	12.500	12.2	97.7	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1133.138		1.00	4.19	1133.138	12.500	9.60	76.8	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	17192.033		1.00	4.24	17192.033	12.500	11.0	87.7	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	17192.033		1.00	4.24	17192.033	12.500	11.0	87.7	NO		

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Name: 200226P1-69, Date: 27-Feb-2020, Time: 04:32:30, ID: ST200226P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	3495.141		1.00	4.76	3495.141	12.500	12.5	99.8	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	18321.902		1.00	4.68	18321.902	12.500	12.6	100.6	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	16989.775	18321.902	1.00	4.68	11.591	10.000	10.9	109.1	NO	7.986	NO
41	22	PFOSA	497.9 > 77.9	2306.132	3368.838	1.00	4.74	8.557	10.000	10.4	103.7	NO	22.397	NO
42	23	L-PFOS	498.9 > 79.7	2776.459	3495.141	1.00	4.76	9.930	10.000	9.87	98.7	NO	2.835	NO
43	25	9Cl-PF30NS	530.7 > 350.8	2359.828	3495.141	1.00	4.97	8.440	10.000	8.64	86.4	NO	16.084	NO
44	26	PFDA	513 > 468.8	17041.633	17479.670	1.00	5.04	12.187	10.000	11.1	110.7	NO	9.981	NO
45	27	8:2 FTS	526.9 > 507	1116.718	1062.236	1.00	5.01	13.141	10.000	10.5	104.6	NO	2.537	NO
46	65	13C5-PFNA-EIS	468.2 > 422.9	18321.902		1.00	4.68	18321.902	12.500	12.6	100.6	NO		
47	67	13C8-PFOSA-EIS	506 > 78	3368.838		1.00	4.74	3368.838	12.500	10.4	83.1	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3495.141		1.00	4.76	3495.141	12.500	12.5	99.8	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3495.141		1.00	4.76	3495.141	12.500	12.5	99.8	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	17479.670		1.00	5.04	17479.670	12.500	11.0	87.6	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1062.236		1.00	5.01	1062.236	12.500	11.6	92.7	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	2665.188	3495.141	1.00	5.10	9.532	10.000	9.74	97.4	NO	2.209	NO
54	29	L-MeFOSAA	570 > 419	4122.320	5260.056	1.00	5.19	9.796	10.000	7.82	78.2	NO	1.788	NO
55	31	L-EtFOSAA	584.1 > 419	4717.274	5999.466	1.00	5.35	9.829	10.000	9.51	95.1	NO	1.163	NO
56	33	PFUdA	563.0 > 518.9	14728.366	18139.322	1.00	5.36	10.149	10.000	9.63	96.3	NO	29.446	NO
57	34	PFDS	598.8 > 79.7	2097.308	3495.141	1.00	5.40	7.501	10.000	8.83	88.3	NO	1.658	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	6699.990	15006.135	1.00	5.56	5.581	10.000	10.7	107.0	NO	21.255	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	3495.141		1.00	4.76	3495.141	12.500	12.5	99.8	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	5260.056		1.00	5.19	5260.056	12.500	13.2	105.8	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5999.466		1.00	5.34	5999.466	12.500	12.3	98.3	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	18139.322		1.00	5.36	18139.322	12.500	11.2	89.2	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3495.141		1.00	4.76	3495.141	12.500	12.5	99.8	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	15006.135		1.00	5.63	15006.135	12.500	10.3	82.4	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	1349.795	754.971	1.00	5.62	22.348	10.000	9.47	94.7	NO	1.038	NO
67	37	PFDoA	612.9 > 569.0	15152.839	15006.135	1.00	5.63	12.622	10.000	10.3	103.1	NO	8.719	NO
68	38	N-MeFOSA	512.1 > 168.9	6963.680	18311.271	1.00	5.76	56.740	50.000	54.5	108.9	NO	1.725	NO
69	39	PFTrDA	662.9 > 618.9	15159.193	15006.135	1.00	5.87	12.627	10.000	10.0	100.2	NO	64.261	NO
70	40	PFDoS	698.8 > 79.7	2848.355	17510.070	1.00	5.89	2.033	10.000	12.4	123.8	NO	3.849	NO
71	41	PFTeDA	713.0 > 669.0	15057.265	17510.070	1.00	6.08	10.749	10.000	11.2	111.8	NO	15.079	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	754.971		1.00	5.62	754.971	12.500	10.2	81.7	NO		

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Name: 200226P1-69, Date: 27-Feb-2020, Time: 04:32:30, ID: ST200226P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	15006.135		1.00	5.63	15006.135	12.500	10.3	82.4	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	18311.271		1.00	5.79	18311.271	149.200	141	94.4	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	15006.135		1.00	5.63	15006.135	12.500	10.3	82.4	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	17510.070		1.00	6.08	17510.070	12.500	10.3	82.5	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	17510.070		1.00	6.08	17510.070	12.500	10.3	82.5	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	8191.330	22692.434	1.00	6.15	53.857	50.000	52.3	104.5	NO	1.794	NO
80	43	PFHxDA	813.1 > 768.6	14327.883	23937.908	1.00	6.40	7.482	10.000	10.5	104.7	NO	174.683	NO
81	44	PFODA	913.1 > 868.8	21401.602	23937.908	1.00	6.63	11.176	10.000	11.4	114.3	NO		
82	45	N-MeFOSE	616.1 > 58.9	5715.635	15341.115	1.00	6.30	55.587	50.000	50.3	100.6	NO		
83	46	N-EtFOSE	630.1 > 58.9	6555.508	19842.225	1.00	6.44	49.293	50.000	48.6	97.2	NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	22692.434		1.00	6.17	22692.434	149.200	139	93.2	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	23937.908		1.00	6.40	23937.908	12.500	10.4	83.4	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	23937.908		1.00	6.40	23937.908	12.500	10.4	83.4	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	15341.115		1.00	6.29	15341.115	149.200	136	91.1	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	19842.225		1.00	6.44	19842.225	149.200	144	96.4	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3495.141		1.00	4.76	3495.141	12.500	12.5	99.8	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	8611.547	10593.601	1.00	1.43	10.161	12.500	12.7	101.4	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	12871.320	21407.850	1.00	2.36	7.516	12.500	12.8	102.7	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1375.103	1333.211	1.00	2.63	12.893	12.500	11.4	91.0	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	3678.294	21407.850	1.00	3.35	2.148	12.500	12.9	103.4	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1419.876	1333.211	1.00	3.05	13.313	12.500	11.1	88.6	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	20361.639	21407.850	1.00	3.14	11.889	12.500	12.4	99.4	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	13591.681	21407.850	1.00	3.73	7.936	12.500	12.3	98.4	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	2837.194	1333.211	1.00	3.88	26.601	12.500	10.9	87.4	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1133.138	3629.917	1.00	4.19	3.902	12.500	10.2	81.5	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	18321.902	20623.744	1.00	4.68	11.105	12.500	11.8	94.6	NO		
101	68	13C8-PFOSA-RSD	506 > 78	3368.838	17920.365	1.00	4.74	2.350	12.500	11.7	93.9	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	17192.033	20166.756	1.00	4.24	10.656	12.500	11.8	94.5	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3495.141	3629.917	1.00	4.76	12.036	12.500	13.1	104.6	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	17479.670	18481.596	1.00	5.04	11.822	12.500	11.7	93.7	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1062.236	3629.917	1.00	5.01	3.658	12.500	11.7	93.5	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	5260.056	17920.365	1.00	5.19	3.669	12.500	14.1	112.9	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	18139.322	17920.365	1.00	5.36	12.653	12.500	12.6	100.9	NO		

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Name: 200226P1-69, Date: 27-Feb-2020, Time: 04:32:30, ID: ST200226P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	5999.466	17920.365	1.00	5.34	4.185	12.500	14.6	117.1	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	15006.135	18481.596	1.00	5.63	10.149	12.500	10.7	85.9	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	754.971	3629.917	1.00	5.62	2.600	12.500	11.0	88.3	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	18311.271	17920.365	1.00	5.79	12.773	149.200	159	106.4	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	17510.070	17920.365	1.00	6.08	12.214	12.500	11.9	95.3	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	22692.434	17920.365	1.00	6.17	15.829	149.200	161	108.0	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	23937.908	17920.365	1.00	6.40	16.697	12.500	11.1	88.8	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	15341.115	17920.365	1.00	6.29	10.701	149.200	150	100.7	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	19842.225	17920.365	1.00	6.44	13.841	149.200	165	110.7	NO		
119	99	13C4-PFBA	217.0 > 172.0	10593.601	10593.601	1.00	1.44	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	21407.850	21407.850	1.00	3.14	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	20166.756	20166.756	1.00	4.24	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1333.211	1333.211	1.00	3.87	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	20623.744	20623.744	1.00	4.68	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	3629.917	3629.917	1.00	4.76	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	18481.596	18481.596	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	17920.365	17920.365	1.00	5.36	12.500	12.500	12.5	100.0	NO		

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Calibration: Z:\PFAS5.pro\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	200226P1-1	IPA	26-Feb-20	16:38:01
2	2	200226P1-2	IPA	26-Feb-20	16:48:38
3	3	200226P1-3	ST200226P1-1 PFC CS-2 20B1102	26-Feb-20	16:59:08
4	4	200226P1-4	ST200226P1-2 PFC CS-1 20B1103	26-Feb-20	17:09:41
5	5	200226P1-5	ST200226P1-3 PFC CS0 20B1104	26-Feb-20	17:20:09
6	6	200226P1-6	ST200226P1-4 PFC CS1 20B1105	26-Feb-20	17:30:39
7	7	200226P1-7	ST200226P1-5 PFC CS2 20B1106	26-Feb-20	17:41:11
8	8	200226P1-8	ST200226P1-6 PFC CS3 20B1107	26-Feb-20	17:51:42
9	9	200226P1-9	ST200226P1-7 PFC CS4 20B1108	26-Feb-20	18:02:12
10	10	200226P1-10	ST200226P1-8 PFC CS5 20B1109	26-Feb-20	18:12:43
11	11	200226P1-11	ST200226P1-9 PFC CS6 20B1110	26-Feb-20	18:23:12
12	12	200226P1-12	ST200226P1-10 PFC CS7 20B1111	26-Feb-20	18:33:43
13	13	200226P1-13	IB	26-Feb-20	18:44:12
14	14	200226P1-14	ICV200226P1-1 PFC ICV 20B1112	26-Feb-20	18:54:43
15	15	200226P1-15	IB	26-Feb-20	19:05:14
16	16	200226P1-16	2000303-02 RW-4 0.25385	26-Feb-20	19:15:43
17	17	200226P1-17	2000303-06 RW-8 0.25242	26-Feb-20	19:26:15
18	18	200226P1-18	2000330-04 DUP04-20200214 0.25435	26-Feb-20	19:36:44
19	19	200226P1-19	B0B0178-MSD1 Matrix Spike Dup 0.24557	26-Feb-20	19:47:15
20	20	200226P1-20	B0B0146-BLK1 Method Blank 0.25	26-Feb-20	19:57:44
21	21	200226P1-21	B0B0146-BS1 OPR 0.25	26-Feb-20	20:08:16
22	22	200226P1-22	B0B0146-BSD1 LCSD 0.25	26-Feb-20	20:18:45
23	23	200226P1-23	2000322-10 3EFF 0.25804	26-Feb-20	20:29:17
24	24	200226P1-24	2000322-11 3INF FRB 0.24918	26-Feb-20	20:39:46
25	25	200226P1-25	2000322-12 3INF 0.24453	26-Feb-20	20:50:17
26	26	200226P1-26	2000322-13 2EFF 0.25549	26-Feb-20	21:00:48
27	27	200226P1-27	2000322-14 2INF FRB 0.24928	26-Feb-20	21:11:16
28	28	200226P1-28	2000322-15 2INF 0.24263	26-Feb-20	21:21:48
29	29	200226P1-29	2000322-16 Post CCB 1BEFF 0.25545	26-Feb-20	21:32:17
30	30	200226P1-30	IB	26-Feb-20	21:42:49
31	31	200226P1-31	ST200226P1-11 PFC CS3 20B1107	26-Feb-20	21:53:18
32	32	200226P1-32	IB	26-Feb-20	22:03:50

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Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
33	33	200226P1-33	2000322-17 1INF FRB 0.18612	26-Feb-20	22:14:18
34	34	200226P1-34	2000322-18 1INF 0.25095	26-Feb-20	22:24:50
35	35	200226P1-35	2000322-19 1EFF 0.24912	26-Feb-20	22:35:19
36	36	200226P1-36	B0B0145-BLK1 Method Blank 0.25	26-Feb-20	22:45:51
37	37	200226P1-37	B0B0145-BS1 OPR 0.25	26-Feb-20	22:56:20
38	38	200226P1-38	B0B0145-BSD1 LCSD 0.25	26-Feb-20	23:06:51
39	39	200226P1-39	2000327-01 DFSPN_GWTS_Effluent_PFC_02-13-20 0.2488	26-Feb-20	23:17:22
40	40	200226P1-40	2000327-02 DFSPN_FieldBlank_02-13-20 0.25661	26-Feb-20	23:27:51
41	41	200226P1-41	2000319-17@5X W-SB03-20200211 0.25482	26-Feb-20	23:38:21
42	42	200226P1-42	2000319-18@5X DUP01-20200211 0.25556	26-Feb-20	23:48:52
43	43	200226P1-43	2000328-04@10X W-SB01-20200213 0.26272	26-Feb-20	23:59:23
44	44	200226P1-44	B0B0127-MS1 Matrix Spike 0.25239	27-Feb-20	00:09:53
45	45	200226P1-45	B0B0127-MSD1 Matrix Spike Dup 0.24499	27-Feb-20	00:20:22
46	46	200226P1-46	2000321-02 I013WMW02SR-20200213 0.24488	27-Feb-20	00:30:54
47	47	200226P1-47	2000321-03 IS72MW17S-20200213 0.24942	27-Feb-20	00:41:24
48	48	200226P1-48	2000321-04 I012MW01SR-20200213 0.24804	27-Feb-20	00:51:53
49	49	200226P1-49	2000321-05 I012MW10S-20200213 0.24821	27-Feb-20	01:02:24
50	50	200226P1-50	IB	27-Feb-20	01:12:53
51	51	200226P1-51	ST200226P1-12 PFC CS3 20B1107	27-Feb-20	01:23:26
52	52	200226P1-52	IB	27-Feb-20	01:33:54
53	53	200226P1-53	2000321-06 I012MW11S-20200213 0.25358	27-Feb-20	01:44:26
54	54	200226P1-54	IB	27-Feb-20	01:54:55
55	55	200226P1-55	2000321-07 I012MW15S-20200213 0.25036	27-Feb-20	02:05:26
56	56	200226P1-56	2000321-08 DUP02-20200213 0.2466	27-Feb-20	02:15:55
57	57	200226P1-57	2000321-09@10X I003MW01S-20200213 0.25107	27-Feb-20	02:26:27
58	58	200226P1-58	2000321-10 I003MW15S-20200213 0.24522	27-Feb-20	02:36:57
59	59	200226P1-59	IB	27-Feb-20	02:47:26
60	60	200226P1-60	2000321-11 I003MW02S-20200213 0.24704	27-Feb-20	02:57:58
61	61	200226P1-61	IB	27-Feb-20	03:08:29
62	62	200226P1-62	B0B0166-BLK1 Method Blank 0.25	27-Feb-20	03:18:57
63	63	200226P1-63	B0B0166-BS1 OPR 0.25	27-Feb-20	03:29:29
64	64	200226P1-64	2000344-01 GW2002121605MK-FD 0.25785	27-Feb-20	03:39:58
65	65	200226P1-65	2000344-02 GW2002121610GSC 0.24668	27-Feb-20	03:50:30
66	66	200226P1-66	IB	27-Feb-20	04:00:58
67	67	200226P1-67	2000344-03 FB2002121625MK 0.24529	27-Feb-20	04:11:30
68	68	200226P1-68	2000344-04 GW2002121700MK 0.24634	27-Feb-20	04:22:01

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Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
69	69	200226P1-69	ST200226P1-13 PFC CS3 20B1107	27-Feb-20	04:32:30
70	70	200226P1-70	IB	27-Feb-20	04:43:01
71	71	200226P1-71	2000344-05 GW2002121645GSC 0.25243	27-Feb-20	04:53:30
72	72	200226P1-72	2000344-06 GW2002131035MK 0.25069	27-Feb-20	05:04:01
73	73	200226P1-73	2000344-07 GW2002131035GSC 0.25057	27-Feb-20	05:14:32
74	74	200226P1-74	2000344-08 GW2002131115MK 0.23321	27-Feb-20	05:25:02
75	75	200226P1-75	2000344-09 GW2002131145GSC 0.24016	27-Feb-20	05:35:33
76	76	200226P1-76	2000344-10 GW2002131410GSC 0.24855	27-Feb-20	05:46:02
77	77	200226P1-77	2000344-11 GW2002131500GSC 0.25333	27-Feb-20	05:56:33
78	78	200226P1-78	2000344-12 GW2002131520MK 0.24639	27-Feb-20	06:07:03
79	79	200226P1-79	IB	27-Feb-20	06:17:32
80	80	200226P1-80	ST200226P1-14 PFC CS3 20B1107	27-Feb-20	06:28:04
81	81	200226P1-81	IB	27-Feb-20	06:38:33
82	82	200226P1-82	2000344-13 GW2002131110GSC 0.25171	27-Feb-20	06:49:04
83	83	200226P1-83	2000344-14 GW2002131610MK 0.25234	27-Feb-20	06:59:35
84	84	200226P1-84	2000344-15 GW2002131710MK 0.24964	27-Feb-20	07:10:05
85	85	200226P1-85	2000344-16 GW2002131655GSC 0.25037	27-Feb-20	07:20:34
86	86	200226P1-86	2000344-17 GW2002131725GSC 0.25861	27-Feb-20	07:31:04
87	87	200226P1-87	B0B0165-BS1 OPR 0.25	27-Feb-20	07:41:37
88	88	200226P1-88	B0B0102-BS2 OPR 0.125	27-Feb-20	07:52:05
89	89	200226P1-89	IB	27-Feb-20	08:02:36
90	90	200226P1-90	ST200226P1-15 PFC CS3 20B1107	27-Feb-20	08:13:07
91	91	200226P1-91	IB	27-Feb-20	08:23:38

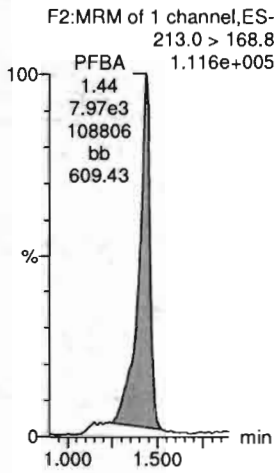
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Last Altered: Thursday, February 27, 2020 11:08:32 Pacific Standard Time
Printed: Thursday, February 27, 2020 11:09:26 Pacific Standard Time

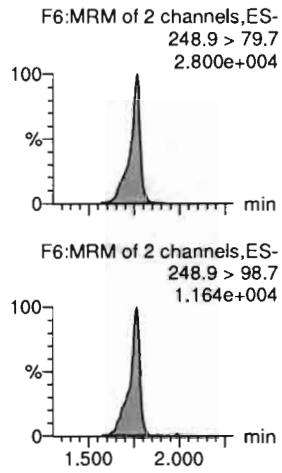
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Name: 200226P1-69, Date: 27-Feb-2020, Time: 04:32:30, ID: ST200226P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

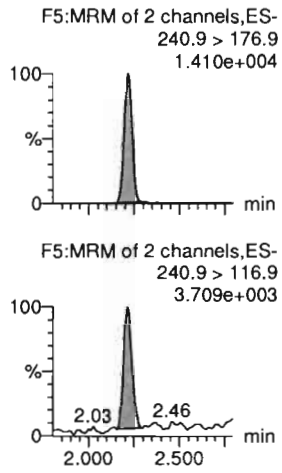
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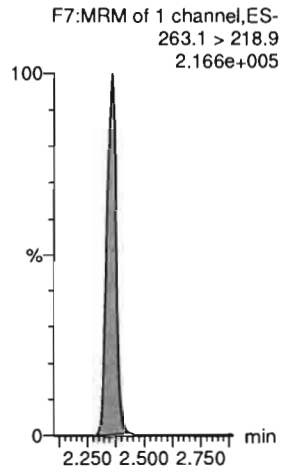
PFPrS



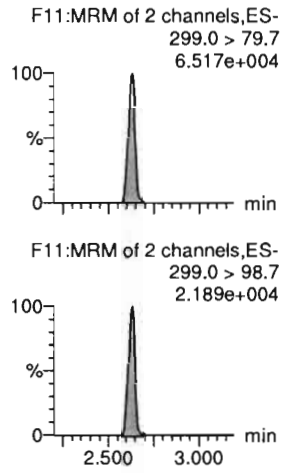
3:3 FTCA



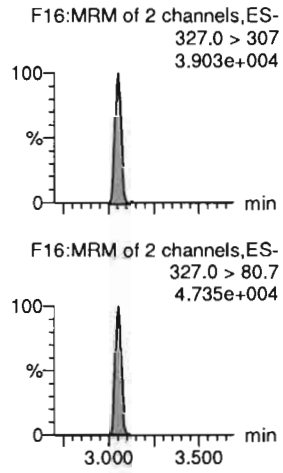
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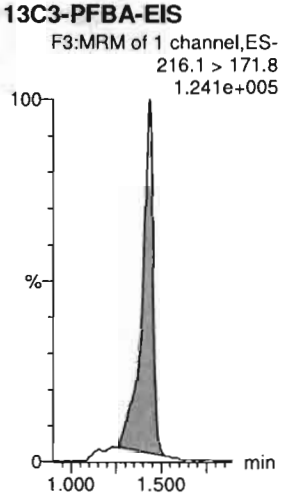
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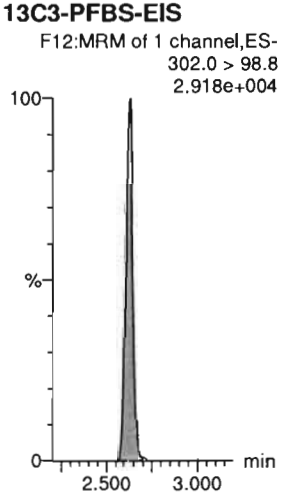
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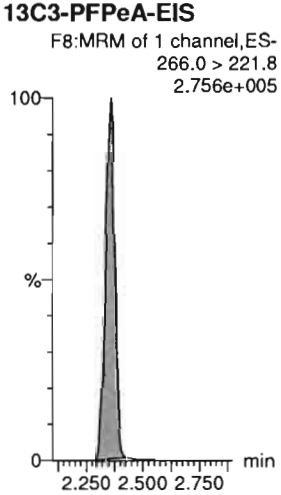
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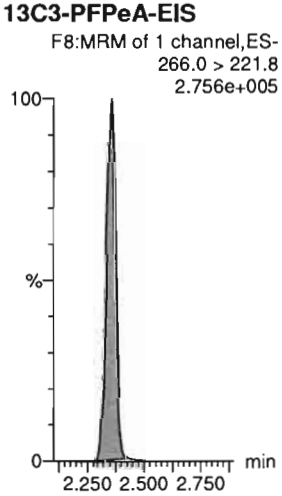
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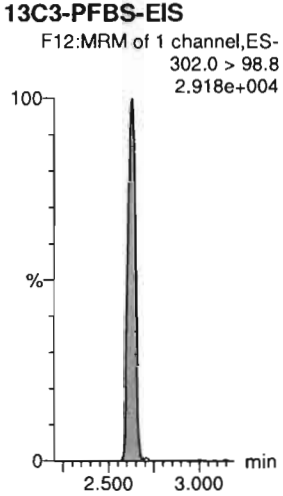
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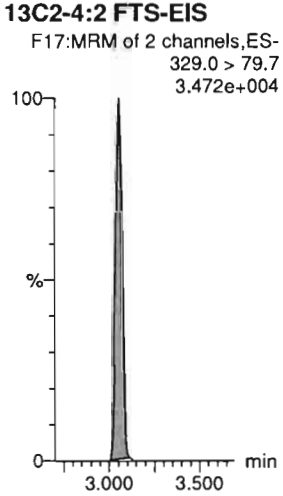
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



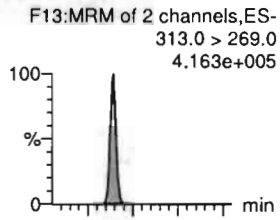
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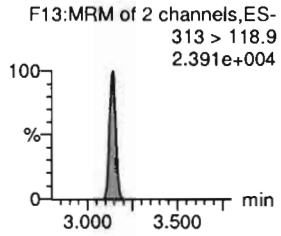
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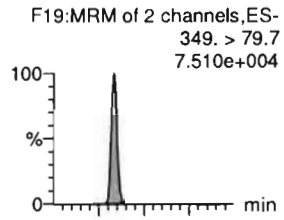
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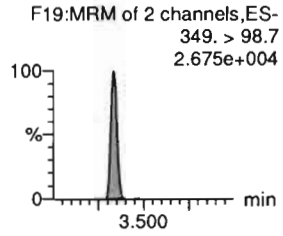
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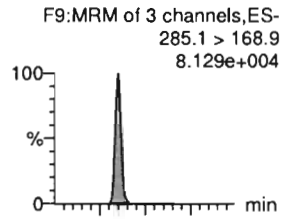


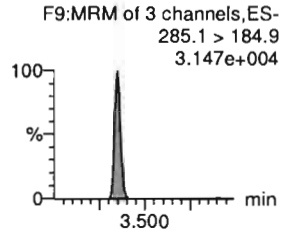
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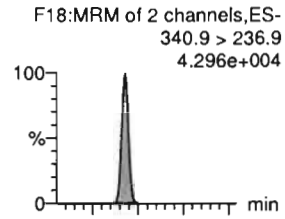


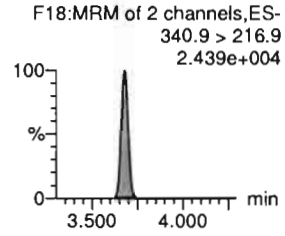
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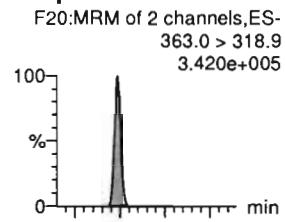


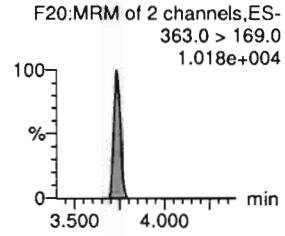
5:3 FTCA



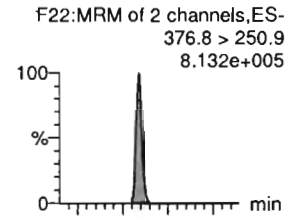


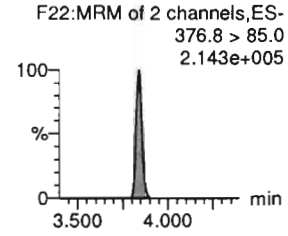
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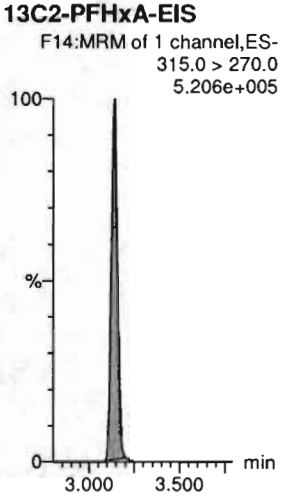


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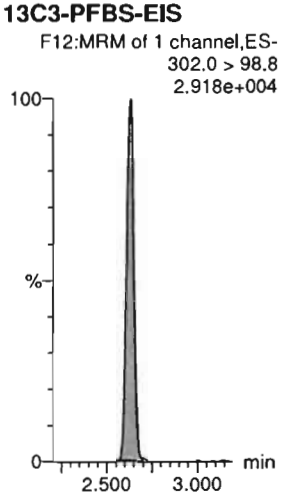




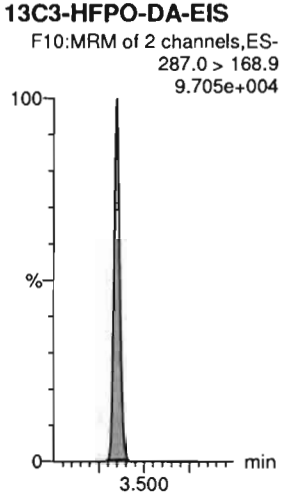
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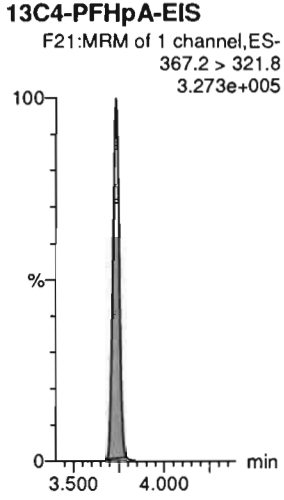
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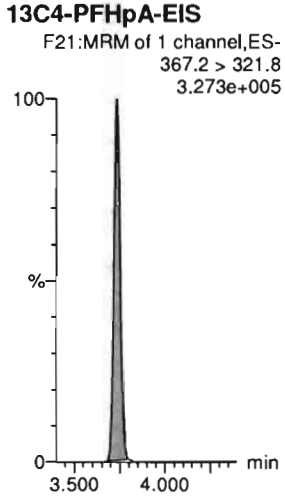
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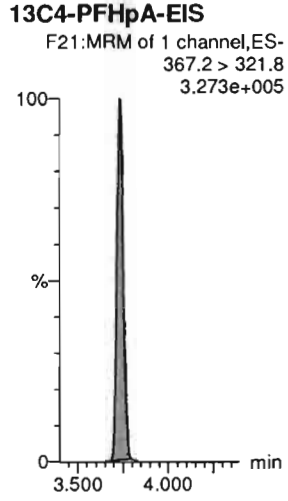
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS



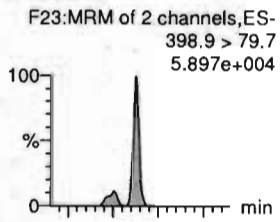
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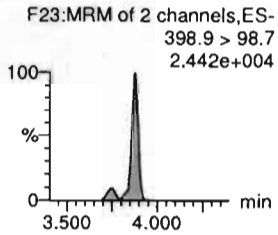
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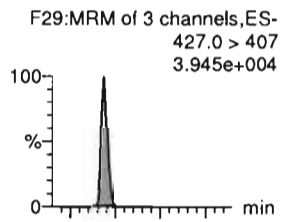
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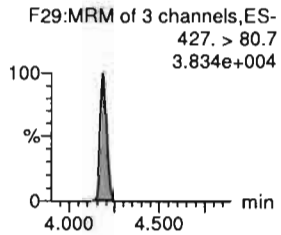
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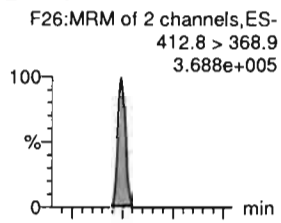


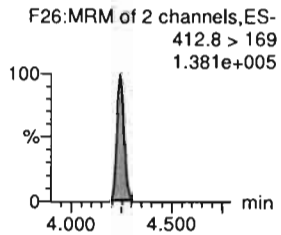
6:2 FTS



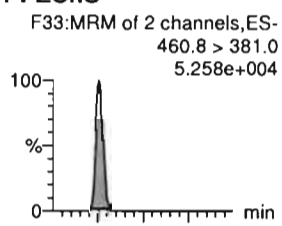


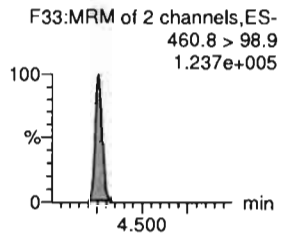
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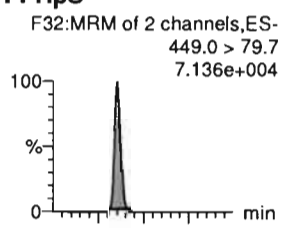


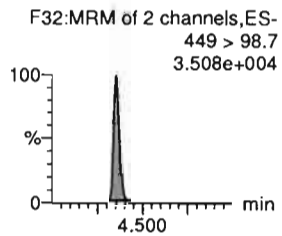
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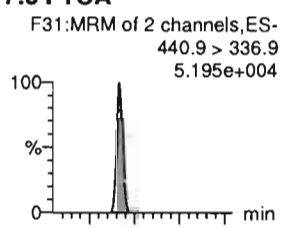


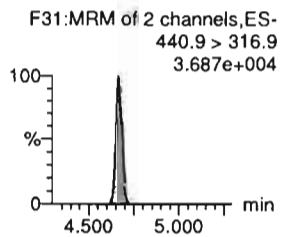
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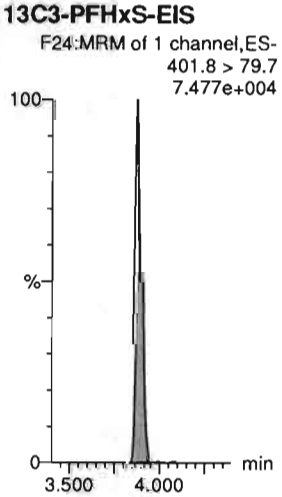


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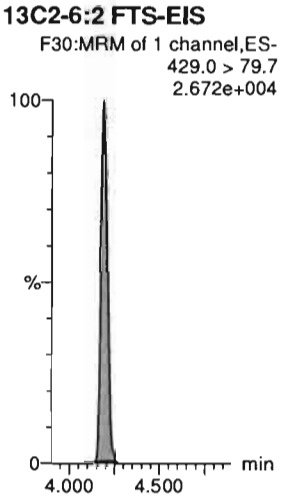




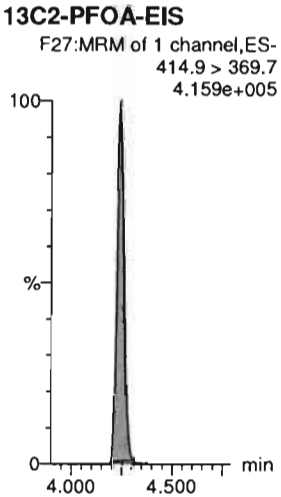
13C3-PFHxS-EIS



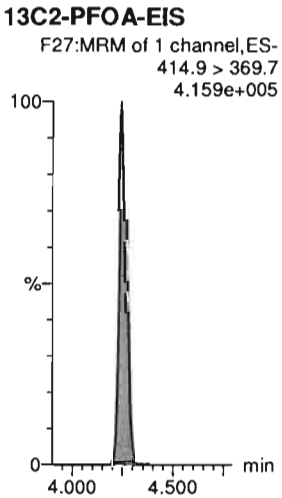
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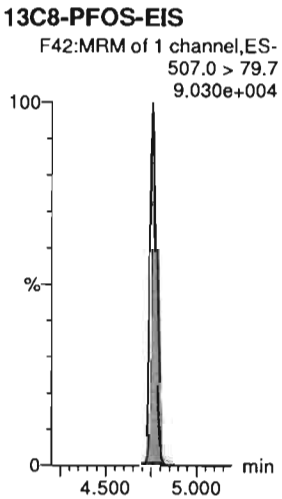
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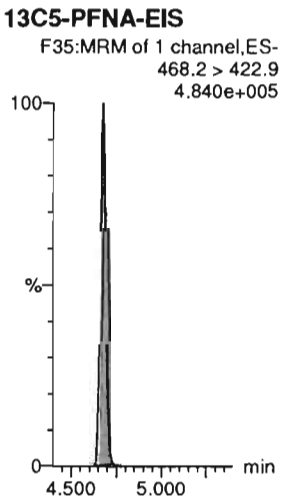
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13C8-PFOS-EIS



13C5-PFNA-EIS



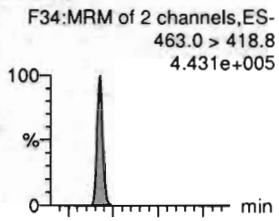
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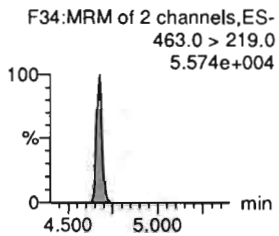
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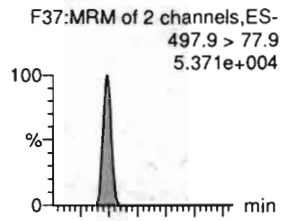
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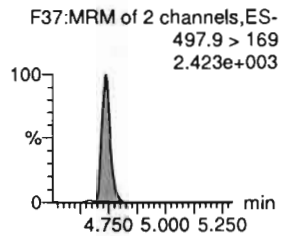
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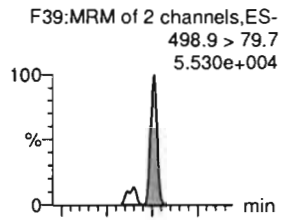


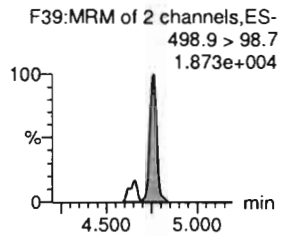
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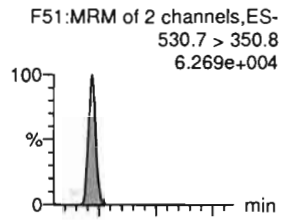


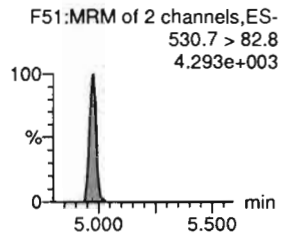
L-PFOS



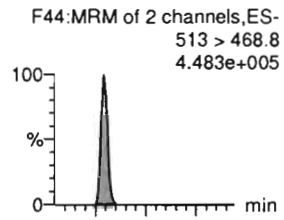


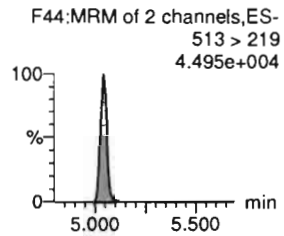
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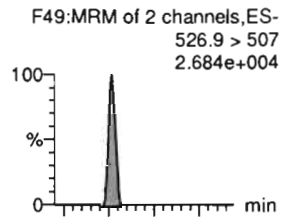


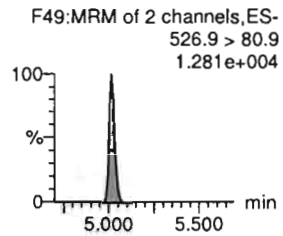
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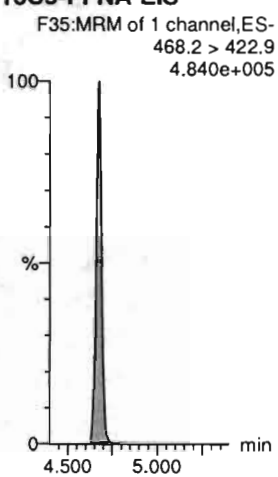


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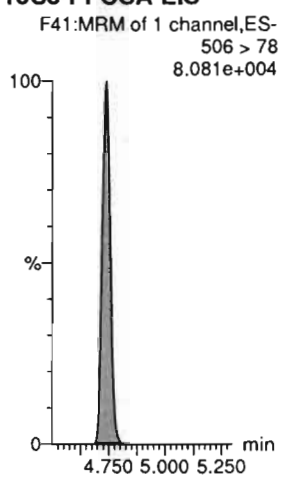




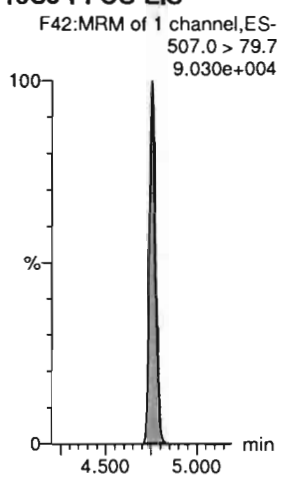
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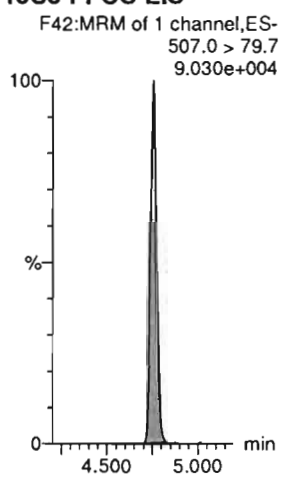
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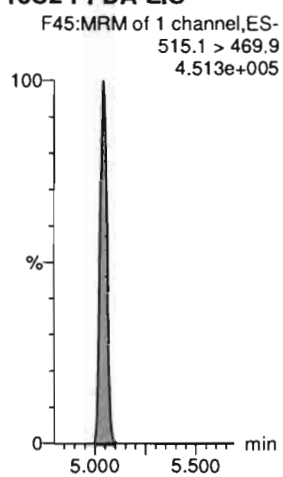
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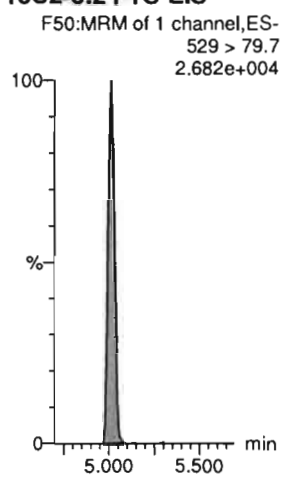
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS



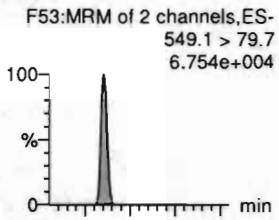
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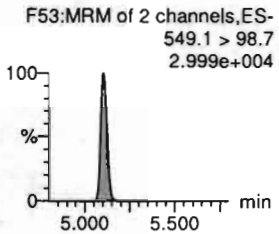
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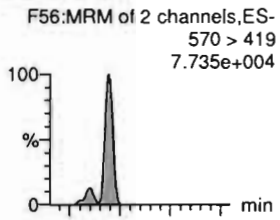
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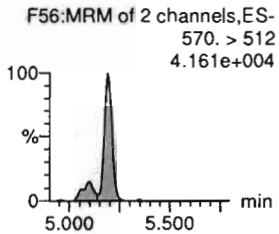
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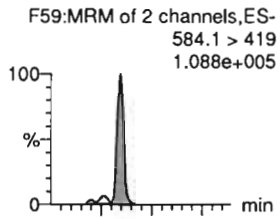


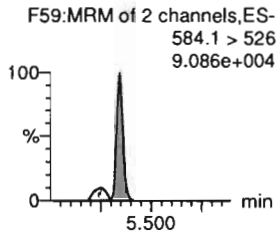
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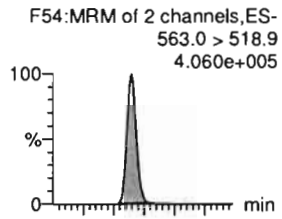


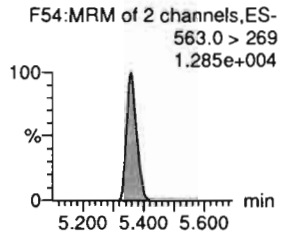
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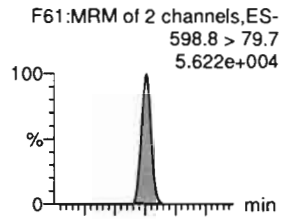


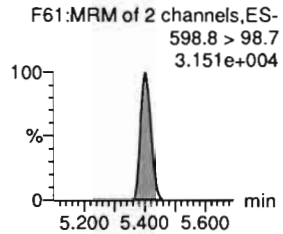
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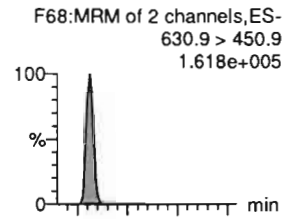


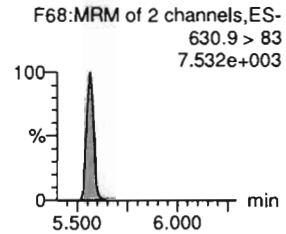
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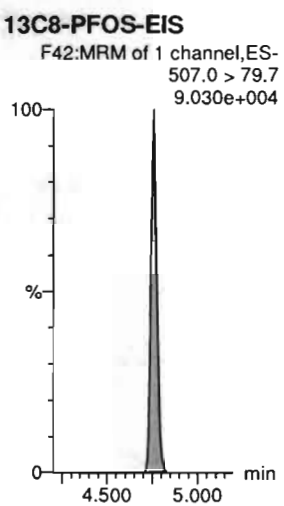


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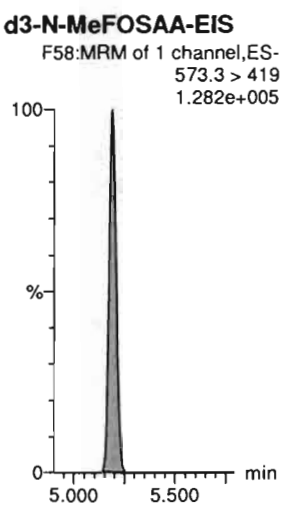




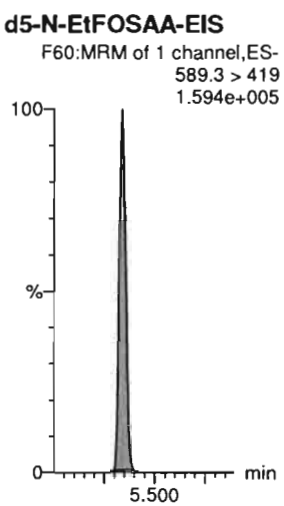
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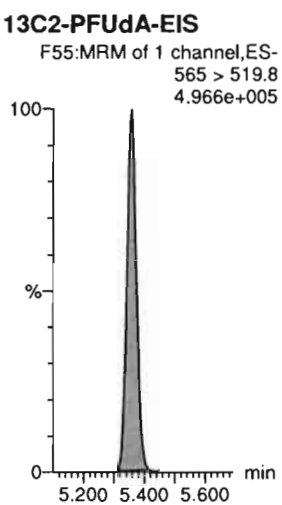
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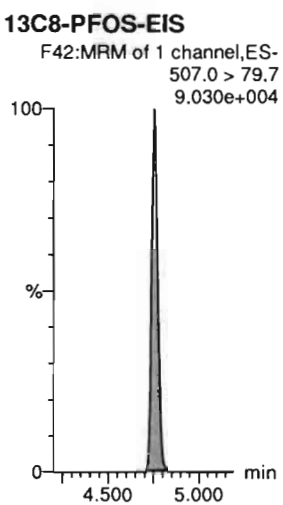
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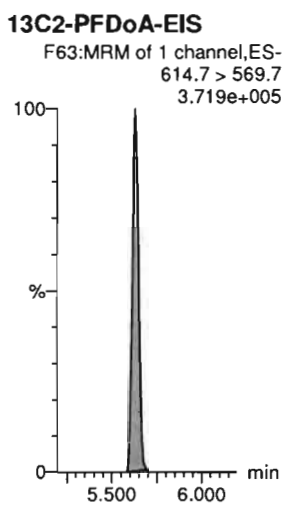
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS



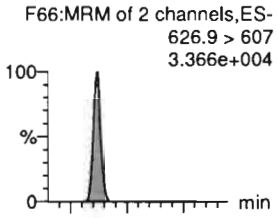
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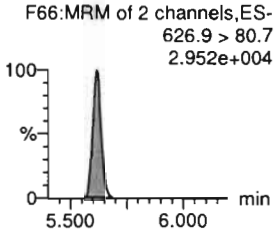
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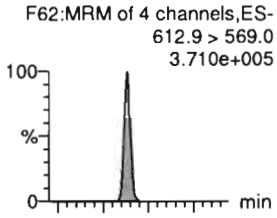
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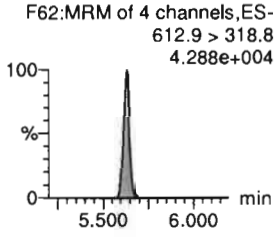
10:2 FTS



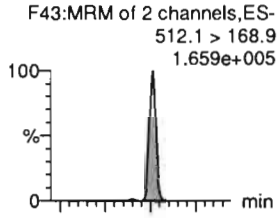


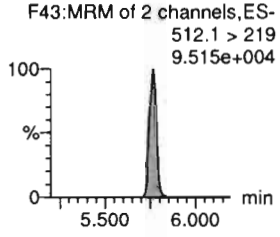
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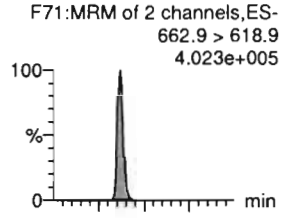


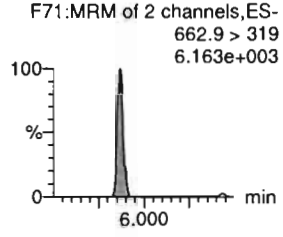
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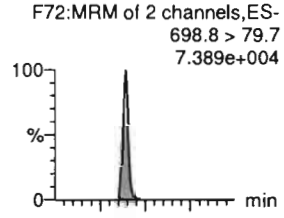


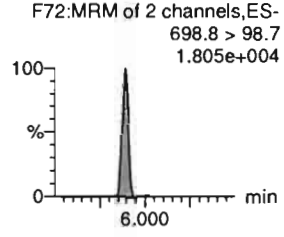
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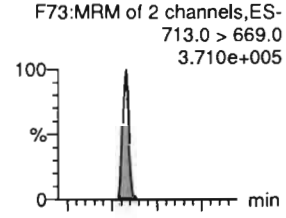


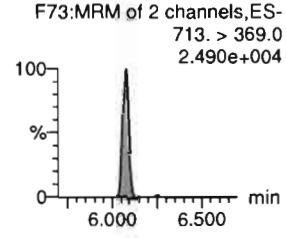
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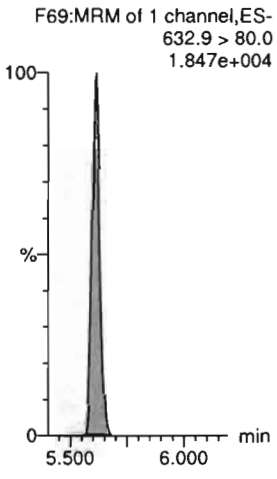


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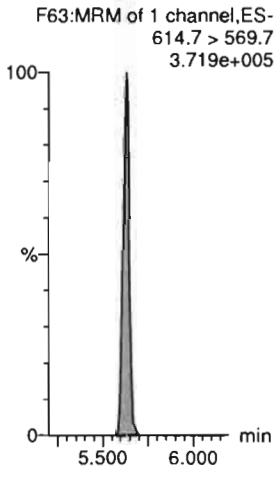




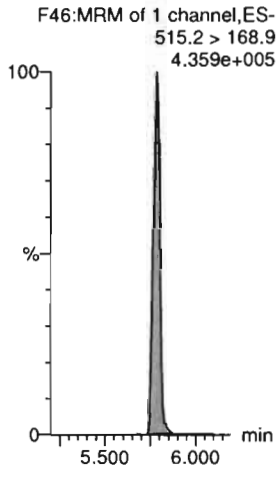
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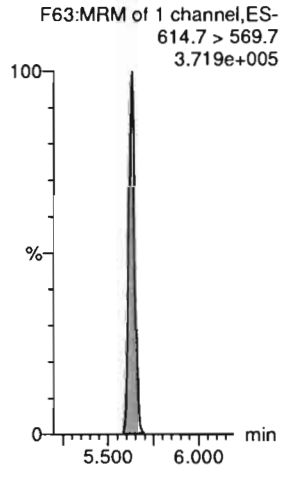
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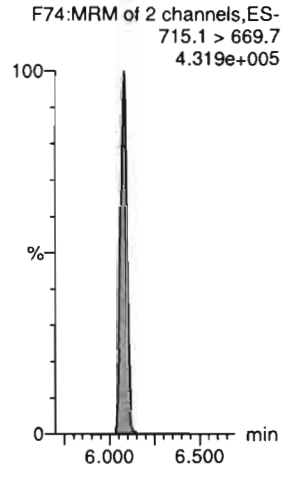
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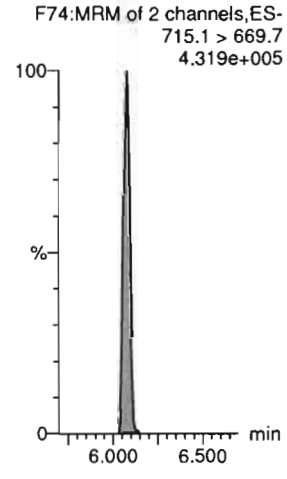
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



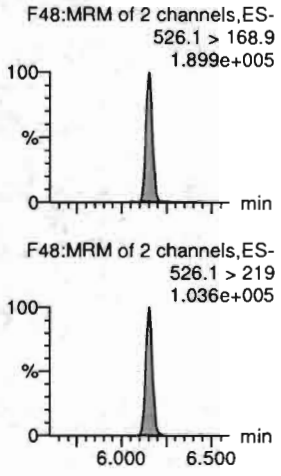
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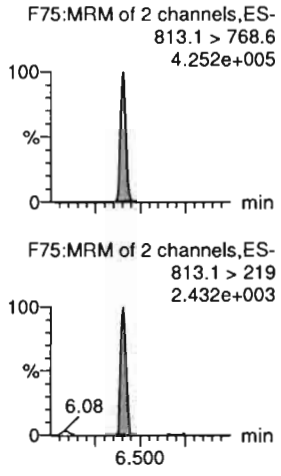
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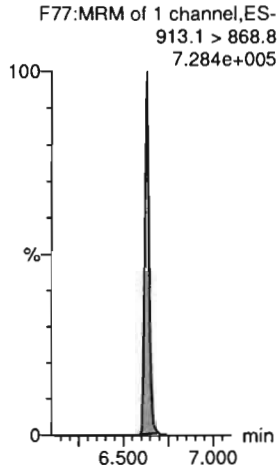
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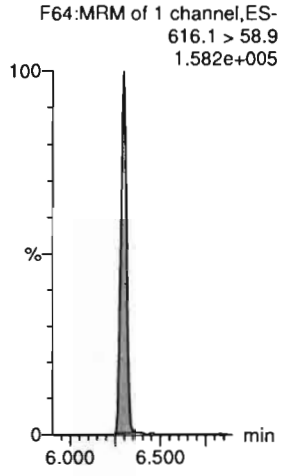
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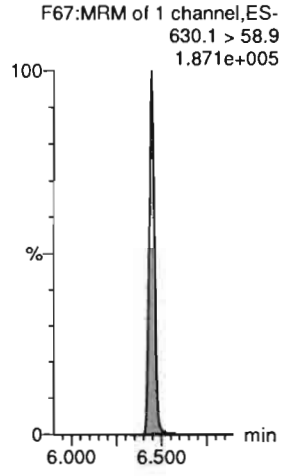
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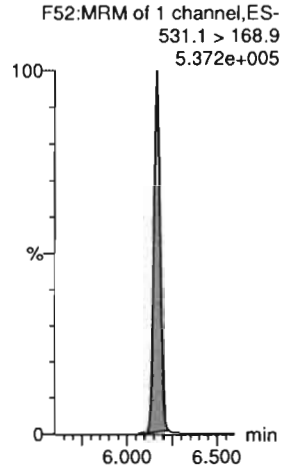
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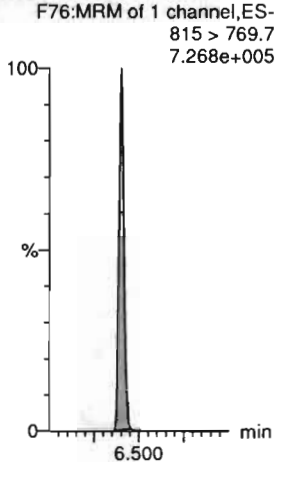
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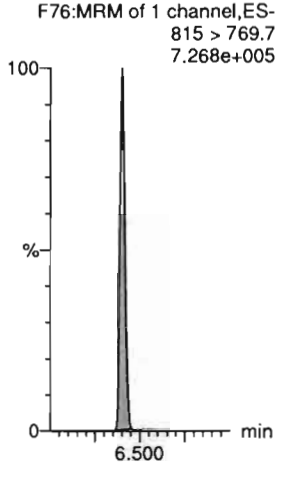
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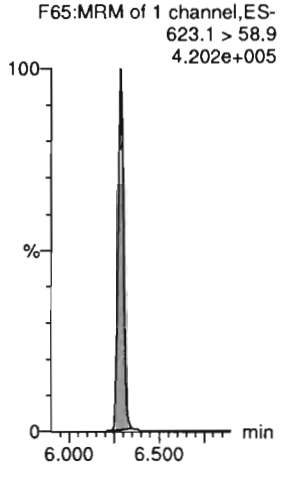
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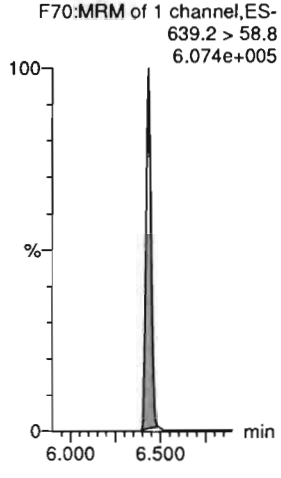
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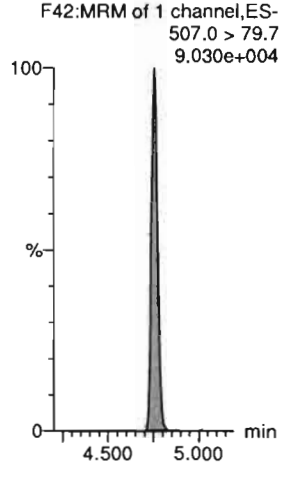
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d9-N-EtFOSE-EIS



13C8-PFOS-EIS



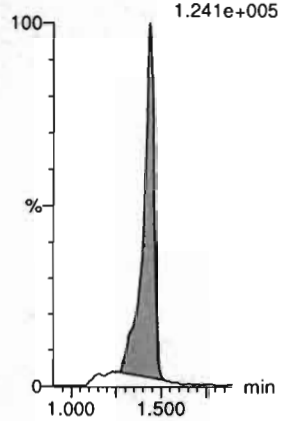
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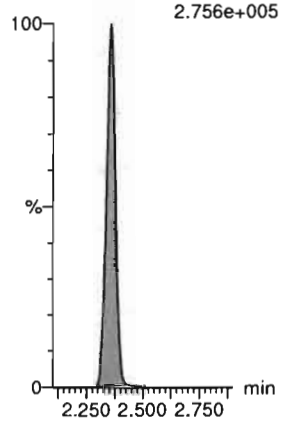
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Name: 200226P1-69, Date: 27-Feb-2020, Time: 04:32:30, ID: ST200226P1-13 PFC CS3 20B1107, Description: PFC CS3 20B1107

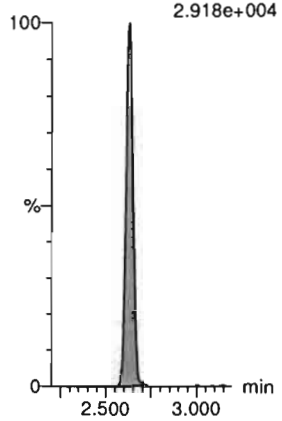
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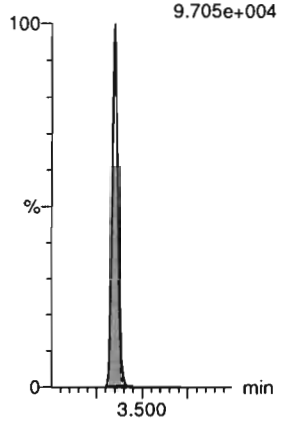
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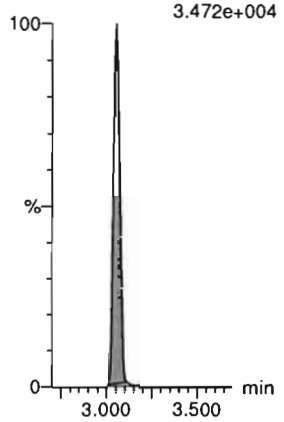
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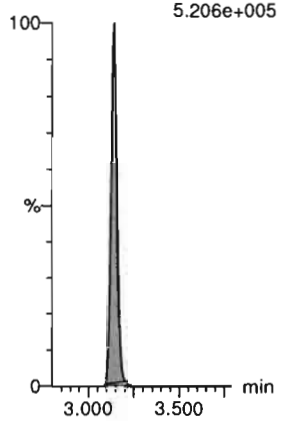
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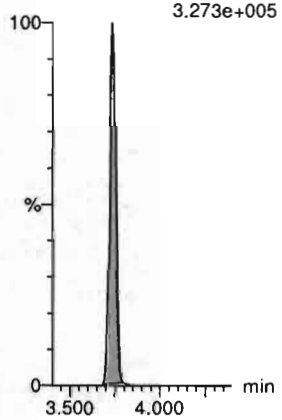
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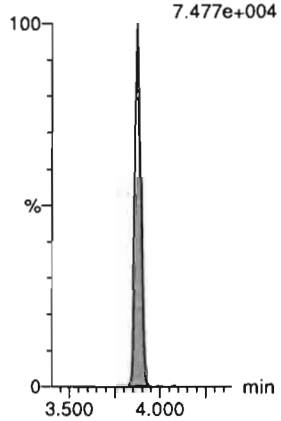
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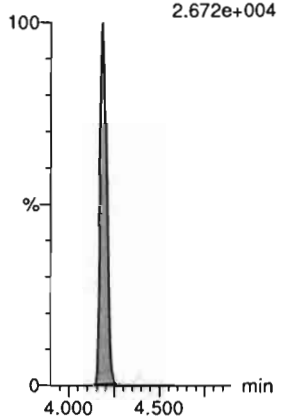
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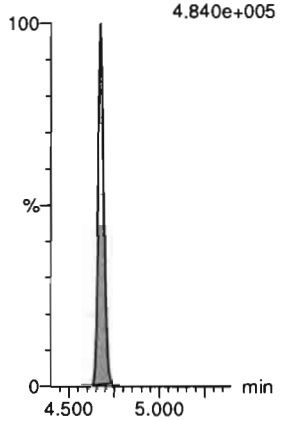
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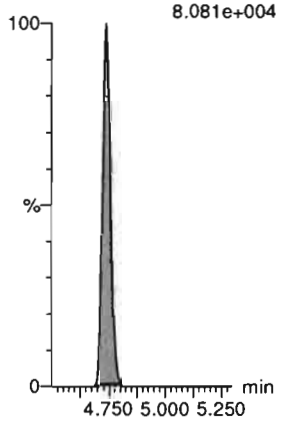
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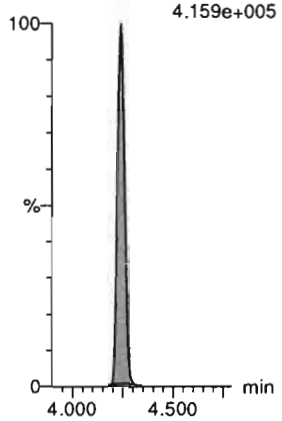
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13C8-PFOSA-RSD



13C2-PFOA-RSD



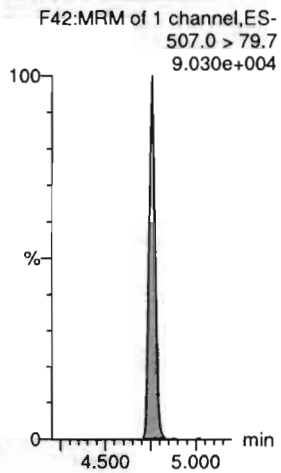
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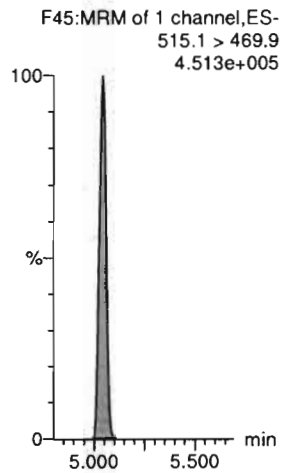
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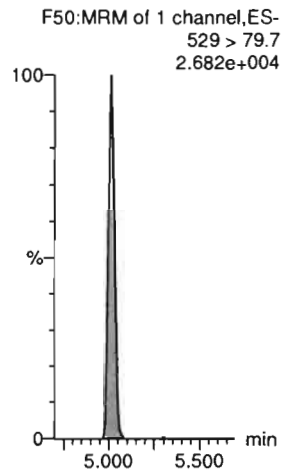
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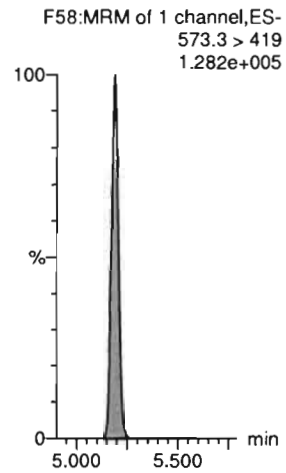
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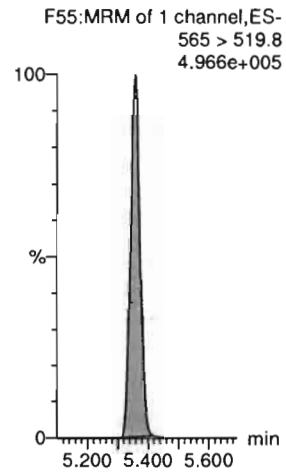
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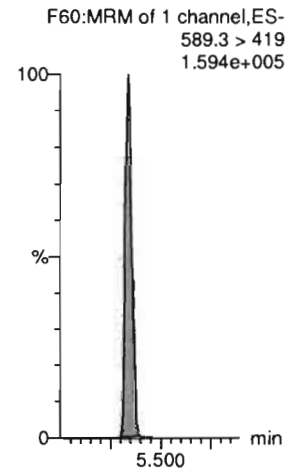
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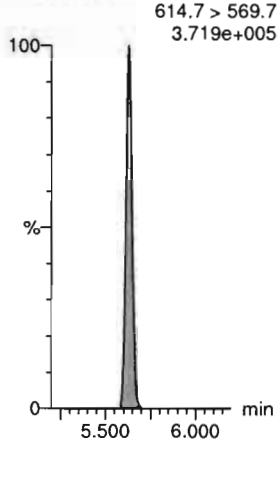
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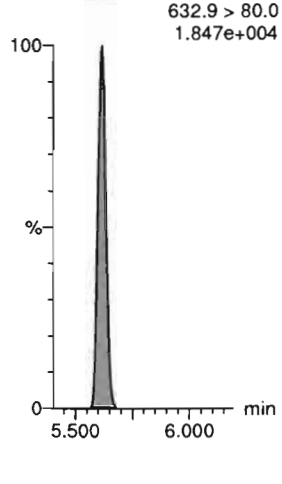
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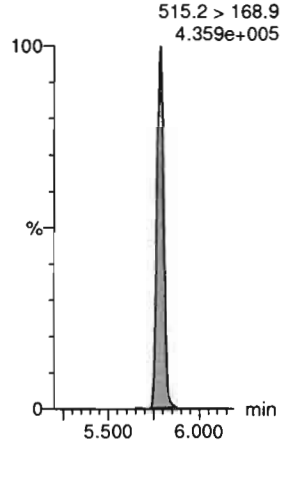
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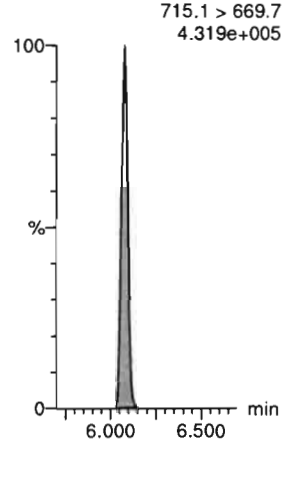
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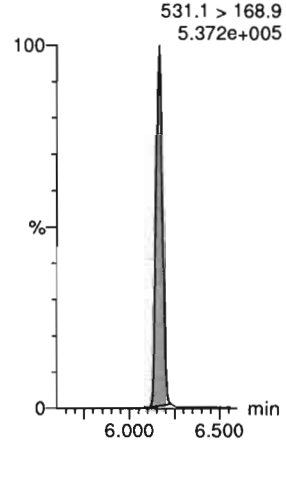
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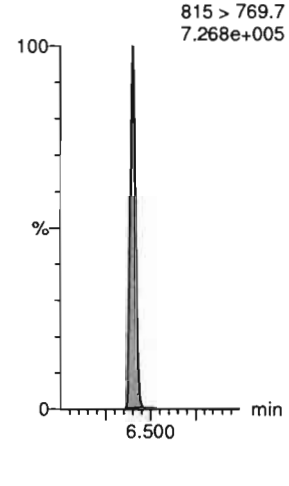
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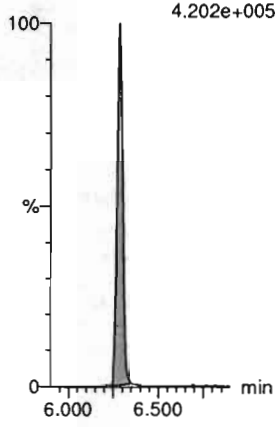
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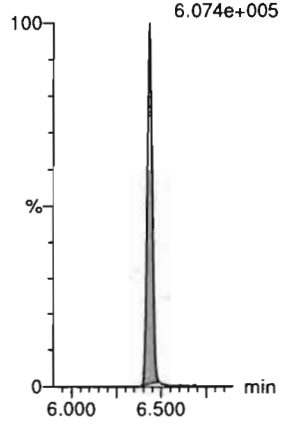
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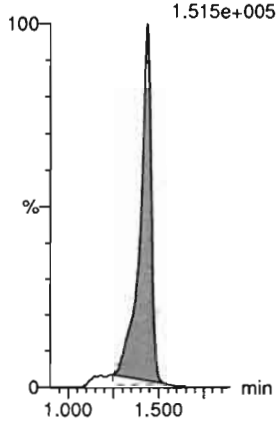
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F65:MRM of 1 channel,ES-
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4.202e+005



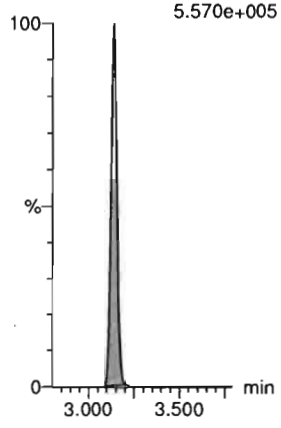
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639.2 > 58.8
6.074e+005



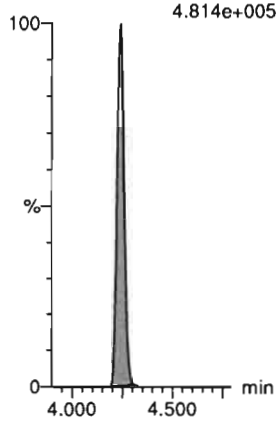
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F4:MRM of 1 channel,ES-
217.0 > 172.0
1.515e+005



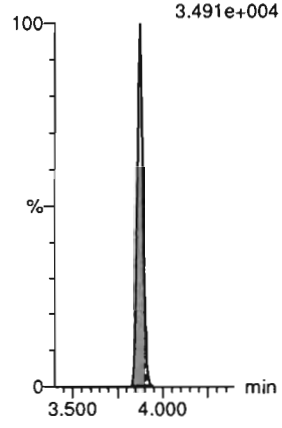
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F15:MRM of 1 channel,ES-
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5.570e+005



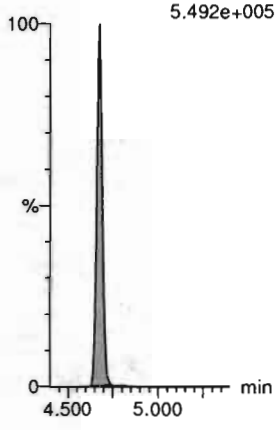
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F28:MRM of 1 channel,ES-
420.9 > 376.0
4.814e+005



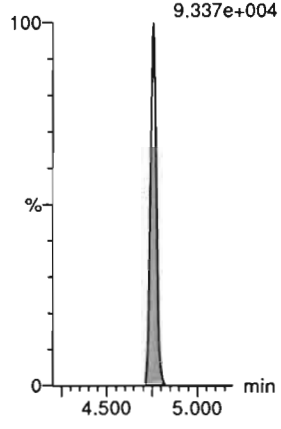
18O2-PFHxS
F25:MRM of 1 channel,ES-
403.0 > 102.6
3.491e+004



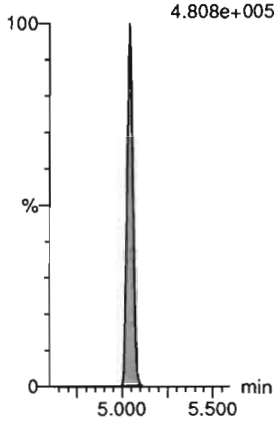
13C9-PFNA
F36:MRM of 1 channel,ES-
472.2 > 426.9
5.492e+005



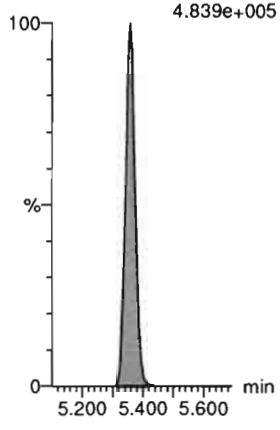
13C4-PFOS
F40:MRM of 1 channel,ES-
503 > 79.7
9.337e+004



13C6-PFDA
F47:MRM of 1 channel,ES-
519.1 > 473.7
4.808e+005



13C7-PFUdA
F57:MRM of 1 channel,ES-
570.1 > 524.8
4.839e+005



OPV 2/27/2020

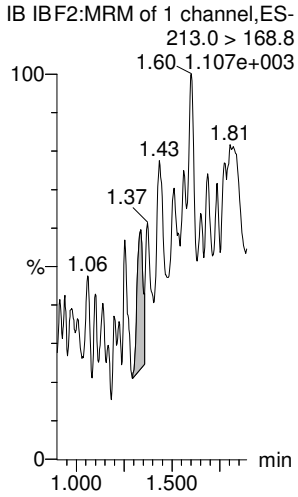
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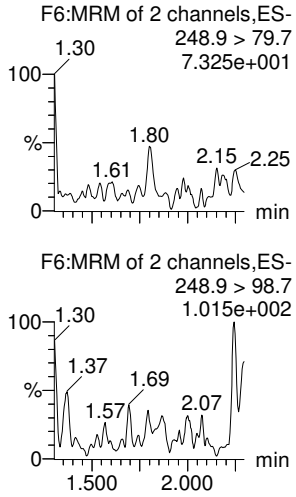
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Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

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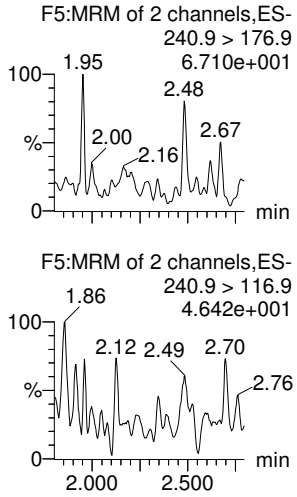
PFBA



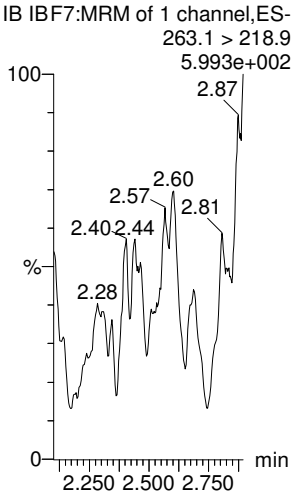
PFPrS



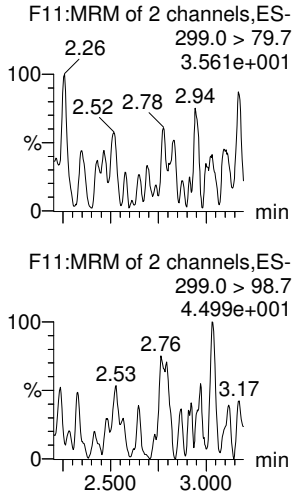
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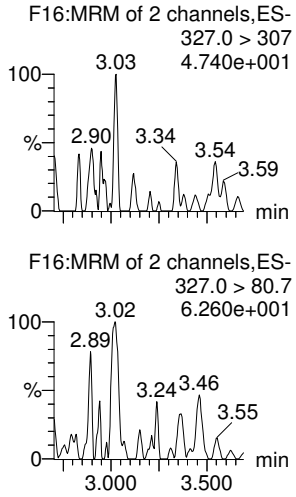
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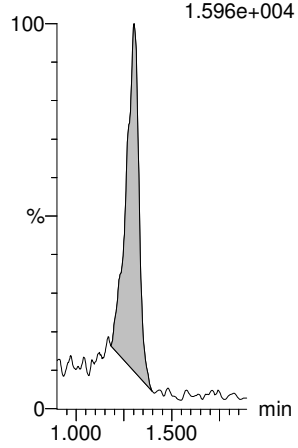
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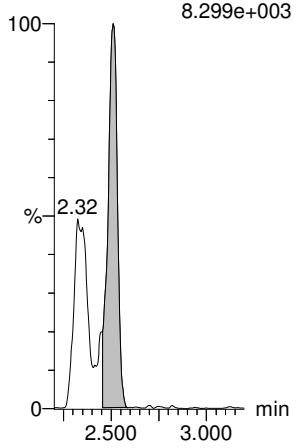
4:2 FTS



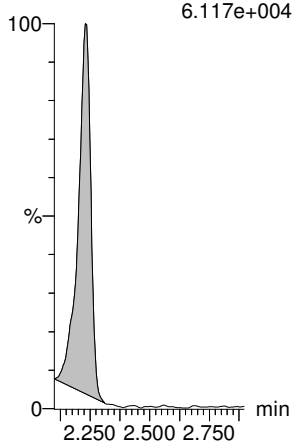
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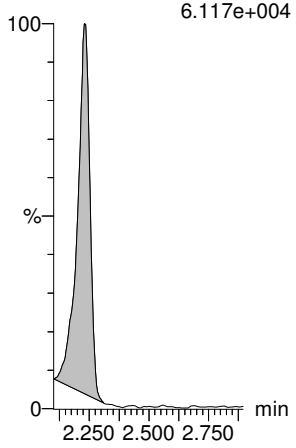
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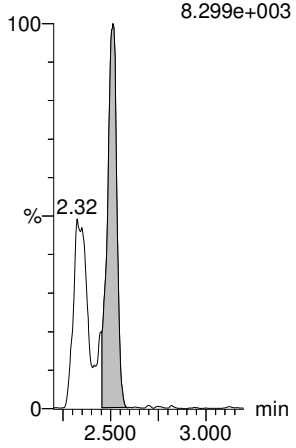
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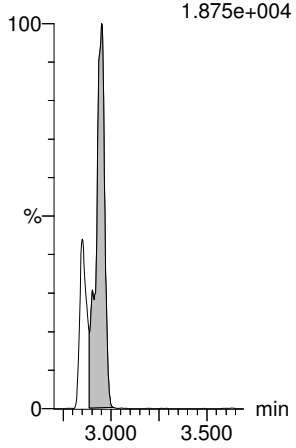
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

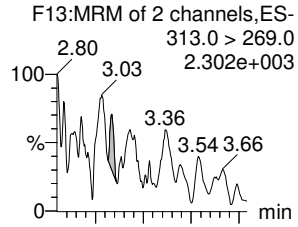


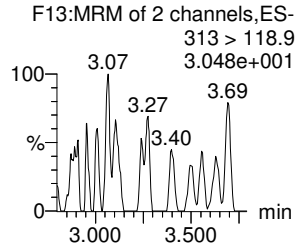
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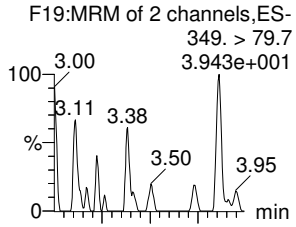
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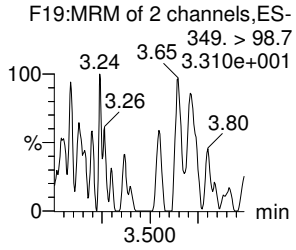
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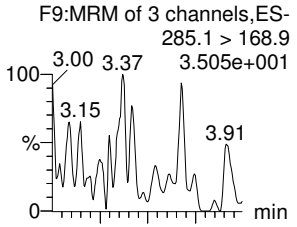


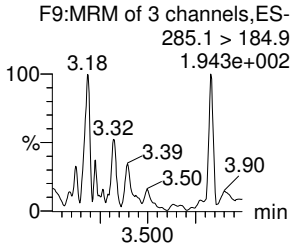
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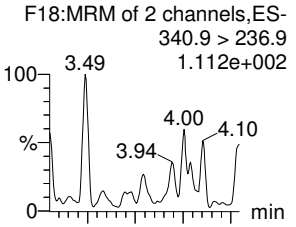


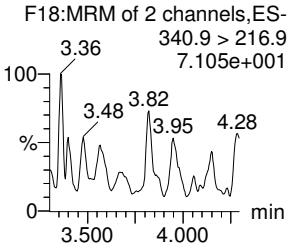
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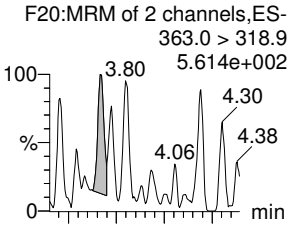


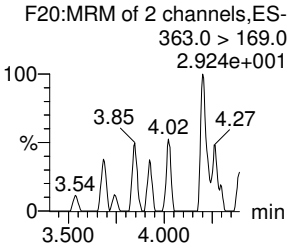
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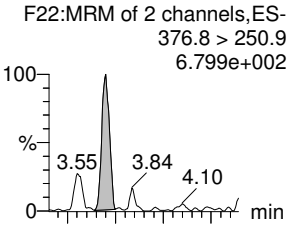


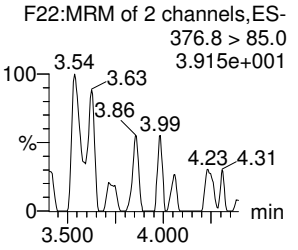
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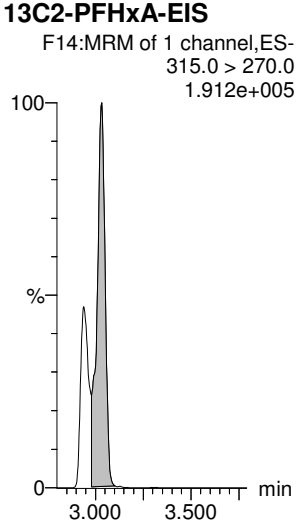


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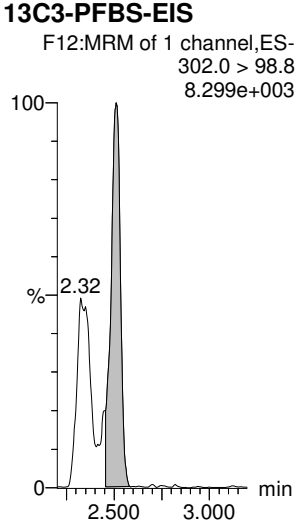




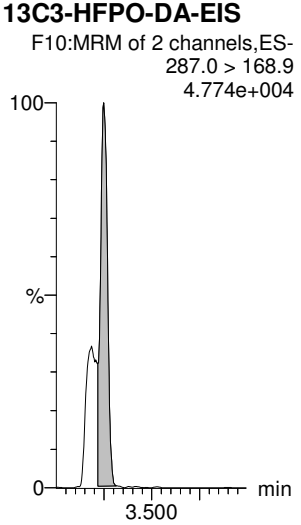
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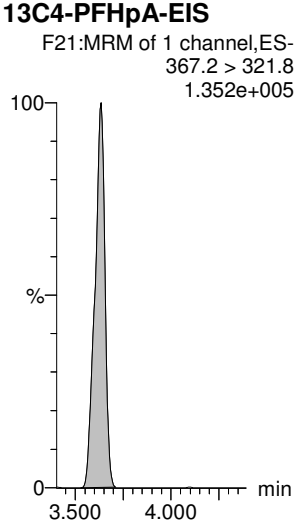
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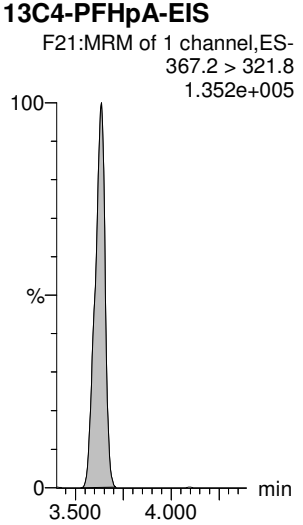
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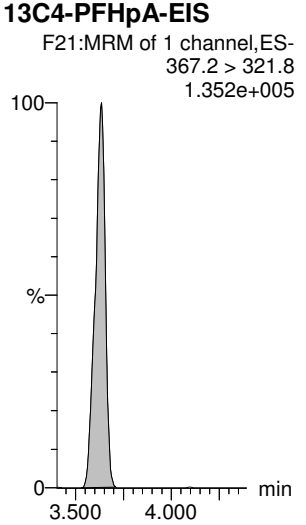
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

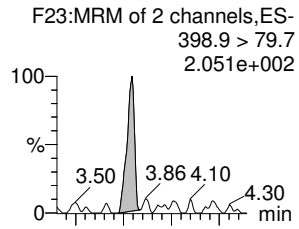


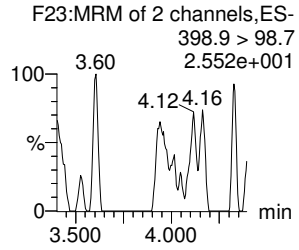
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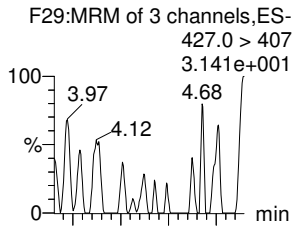
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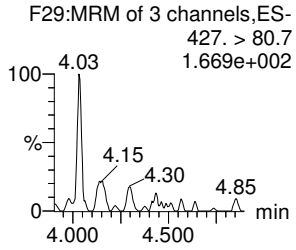
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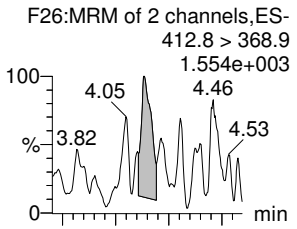


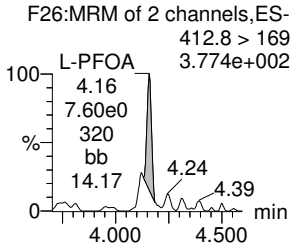
6:2 FTS



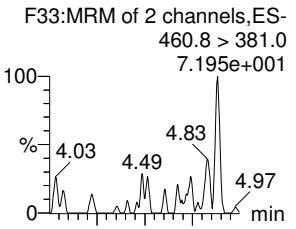


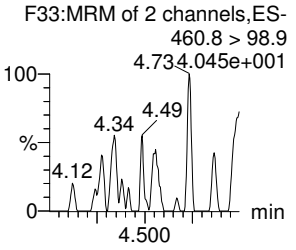
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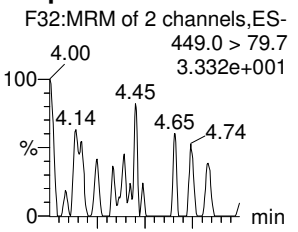


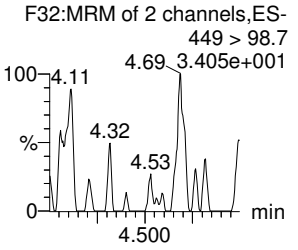
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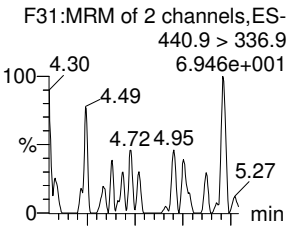


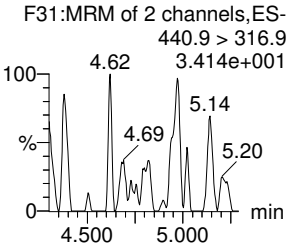
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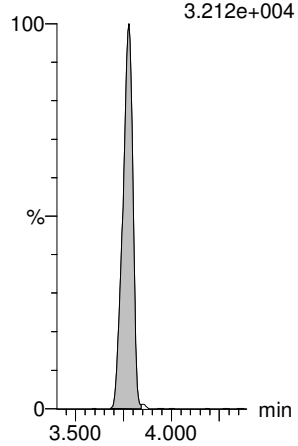


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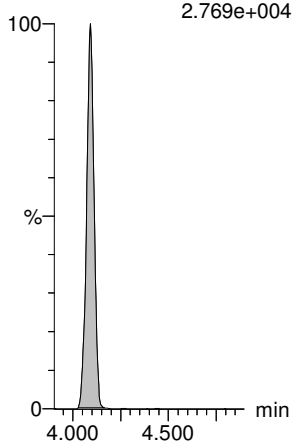




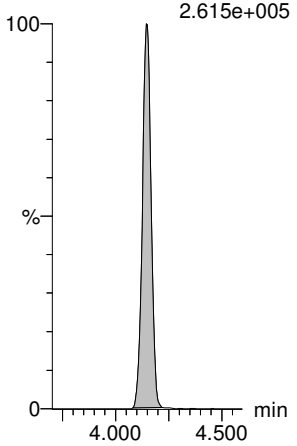
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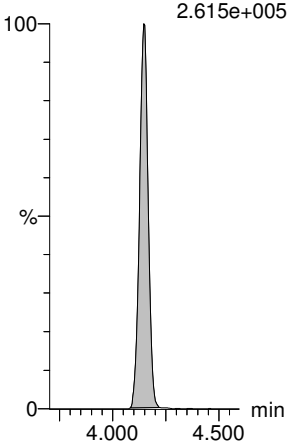
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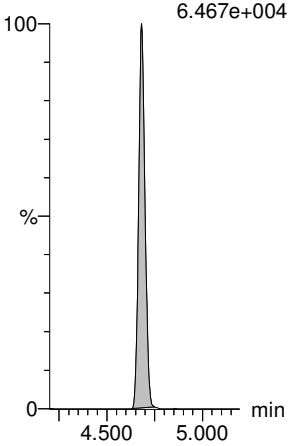
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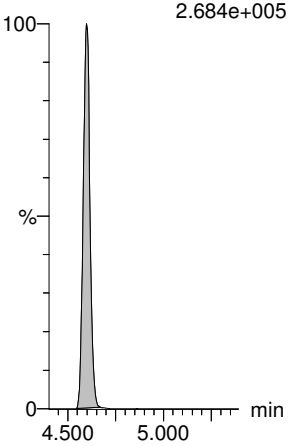
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13C8-PFOS-EIS



13C5-PFNA-EIS

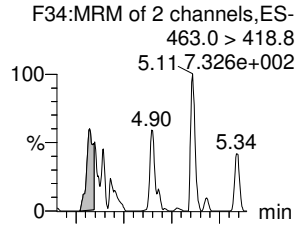


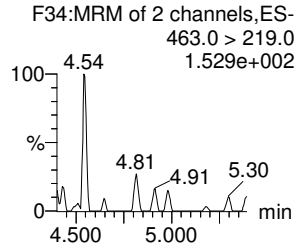
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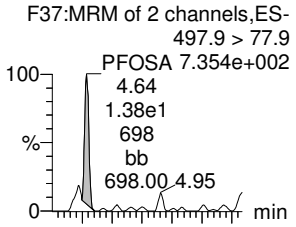
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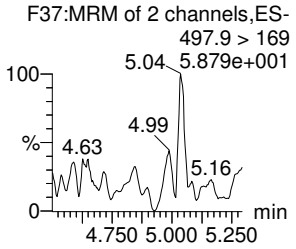
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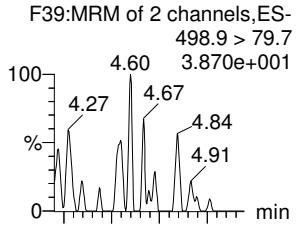


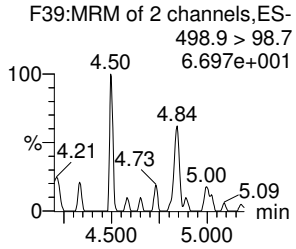
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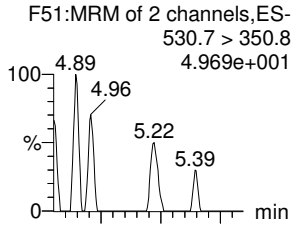


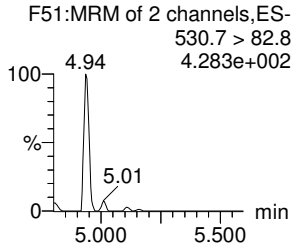
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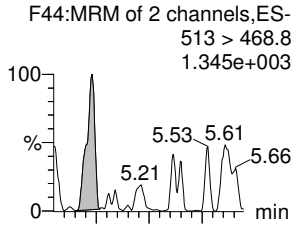


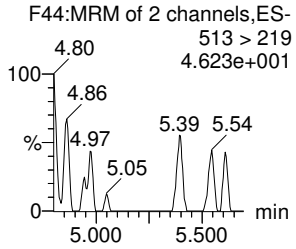
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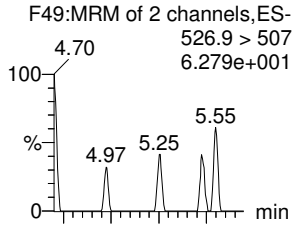


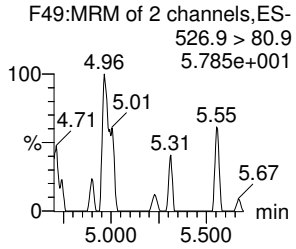
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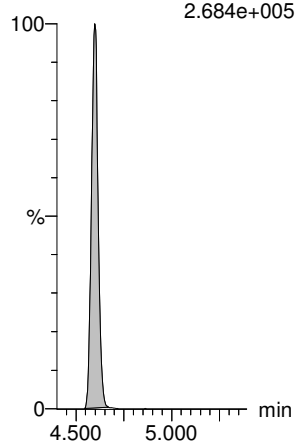


8:2 FTS

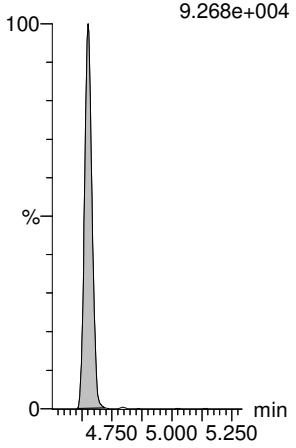




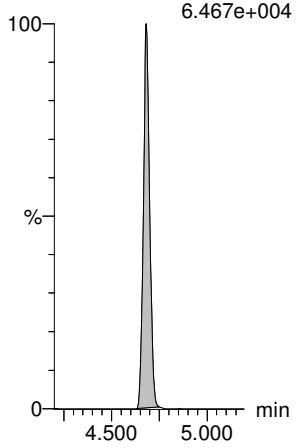
13C5-PFNA-EIS



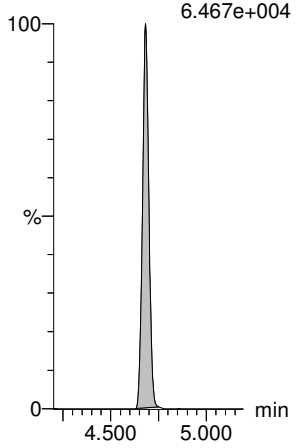
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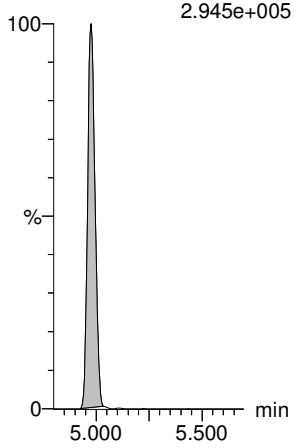
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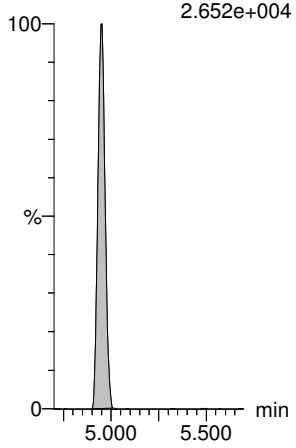
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

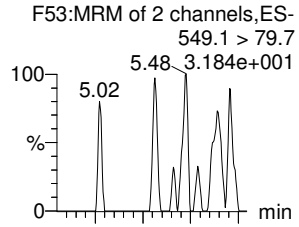


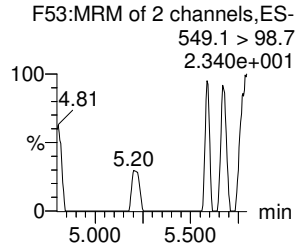
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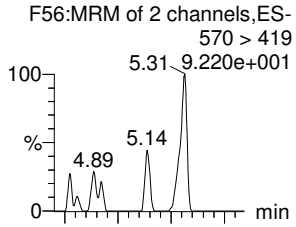
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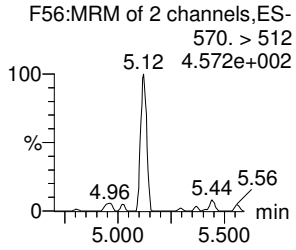
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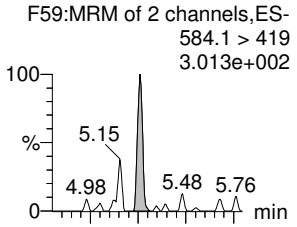


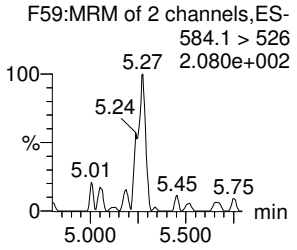
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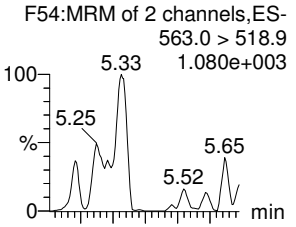


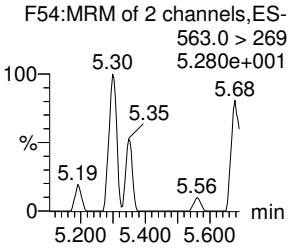
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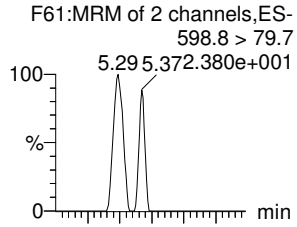


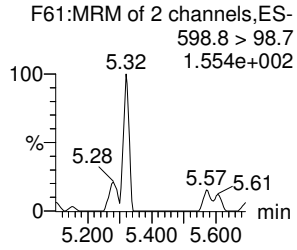
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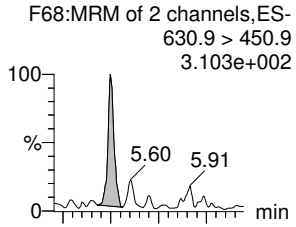


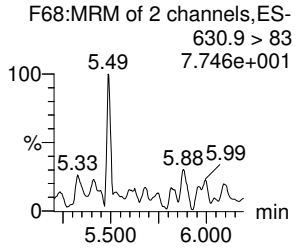
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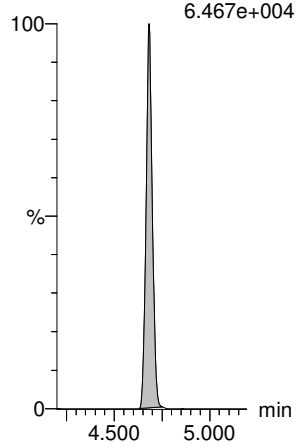


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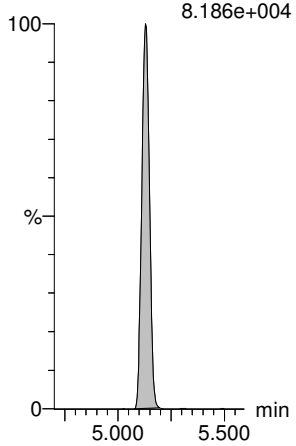




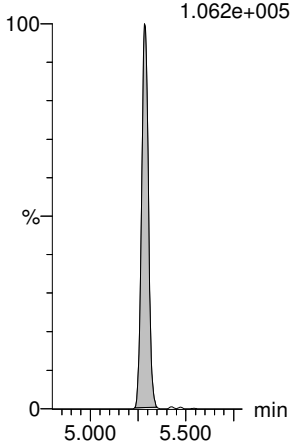
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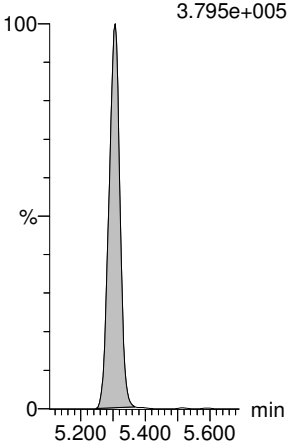
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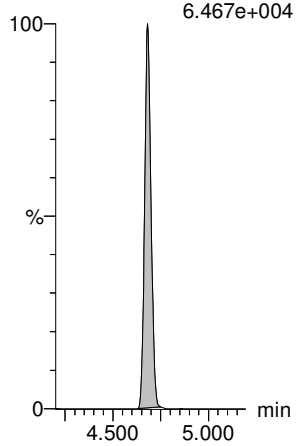
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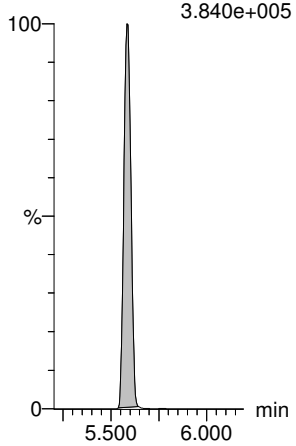
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13C8-PFOS-EIS



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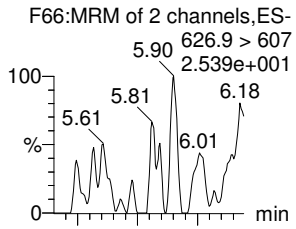


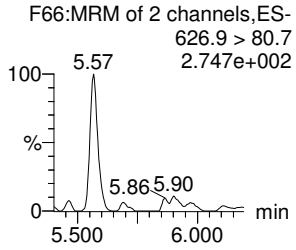
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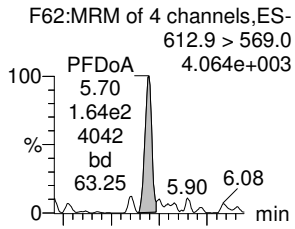
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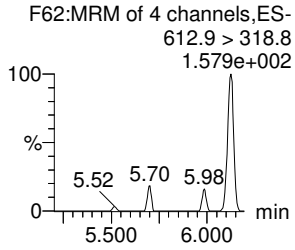
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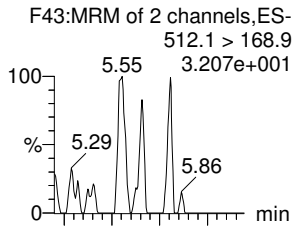


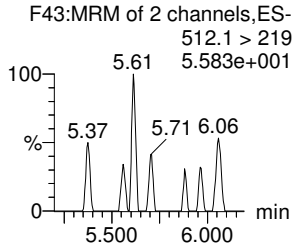
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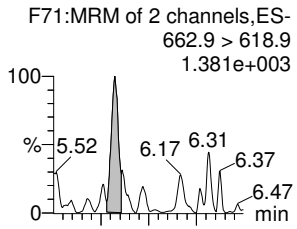


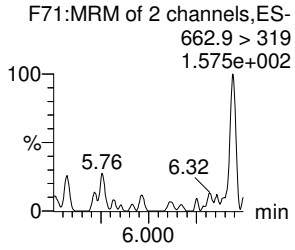
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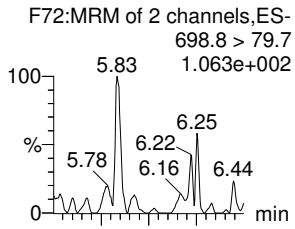


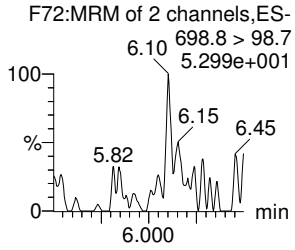
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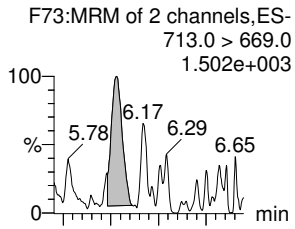


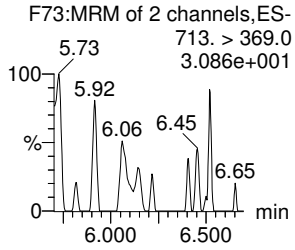
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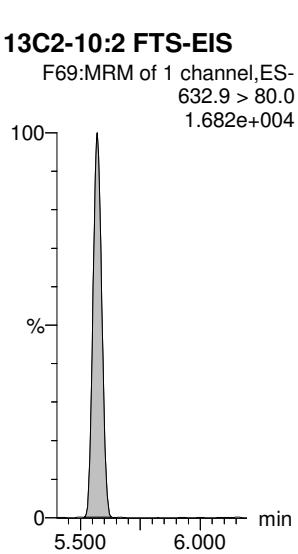


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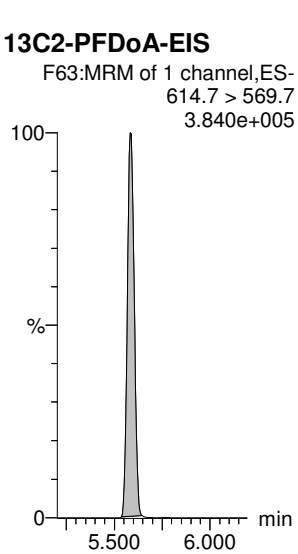




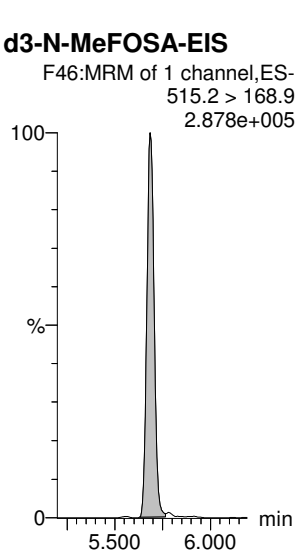
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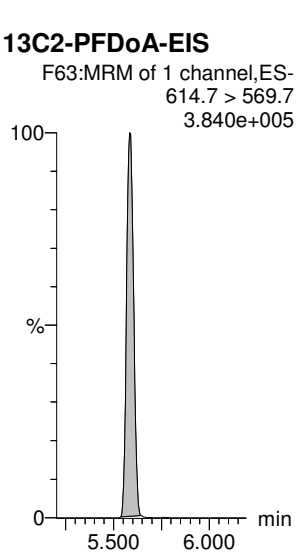
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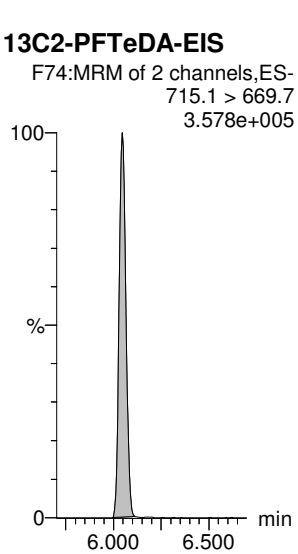
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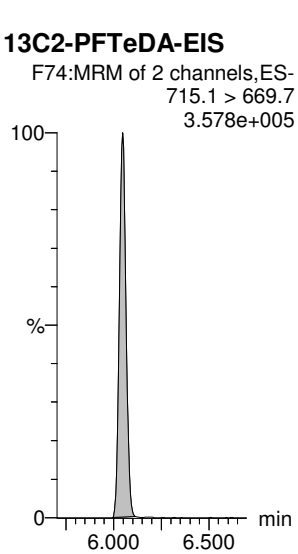
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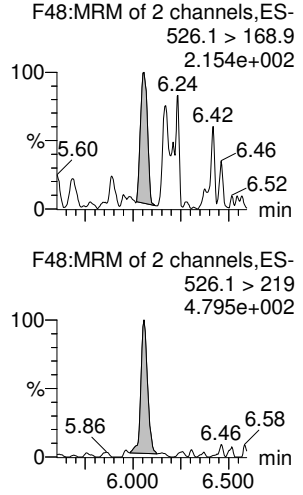


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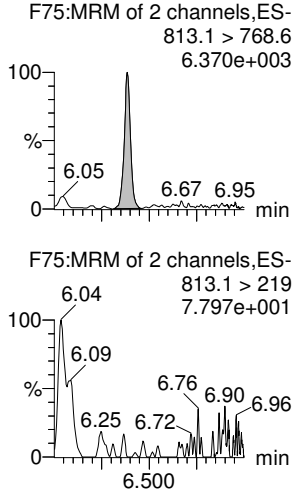
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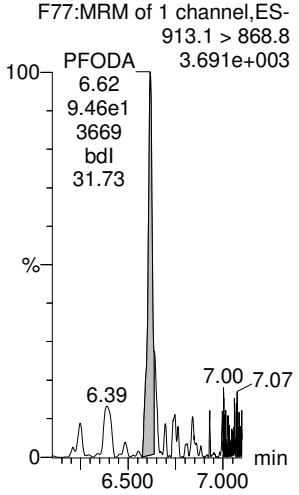
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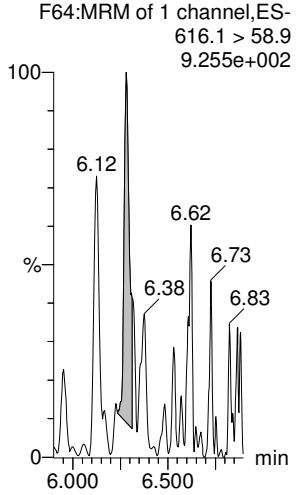
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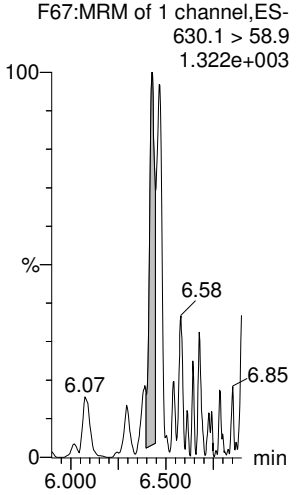
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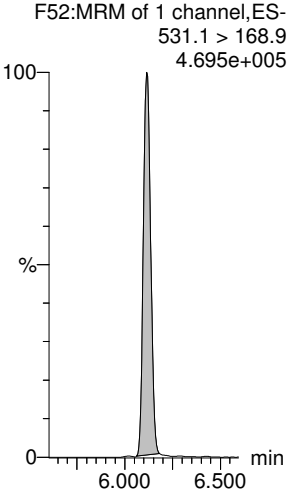
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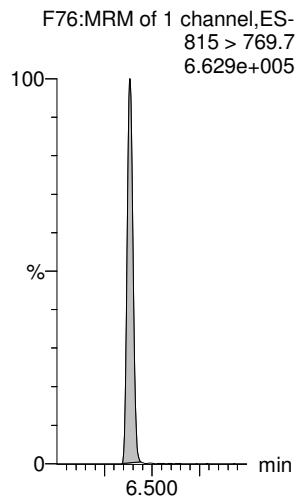
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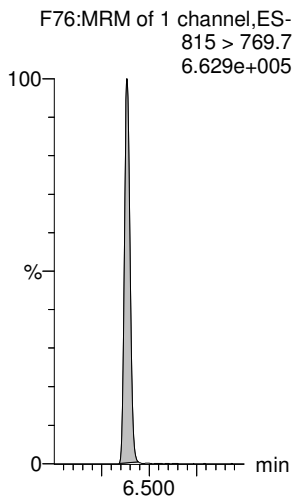
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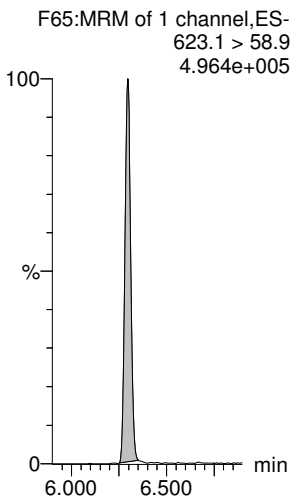
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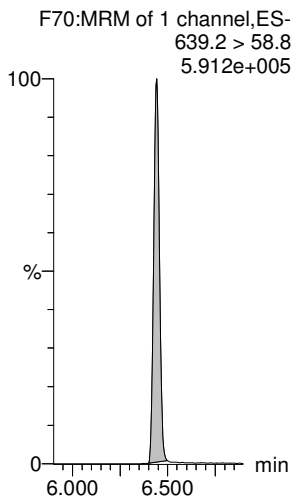
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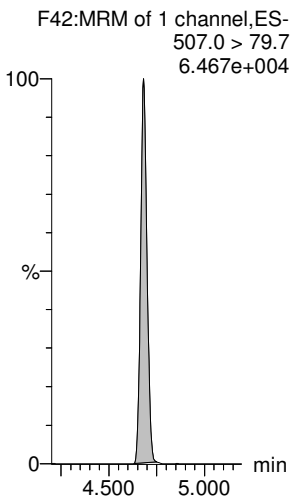
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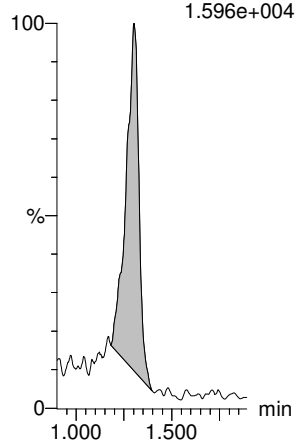


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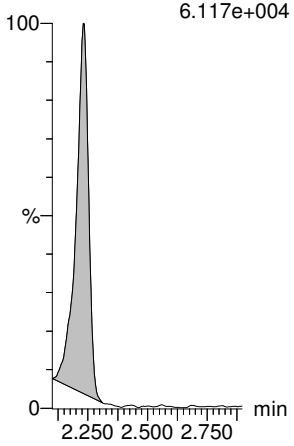
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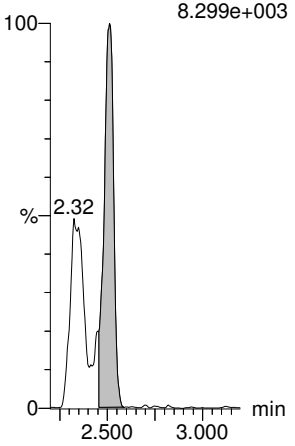
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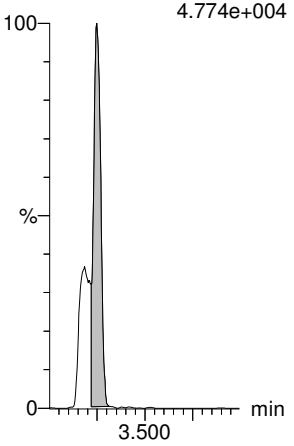
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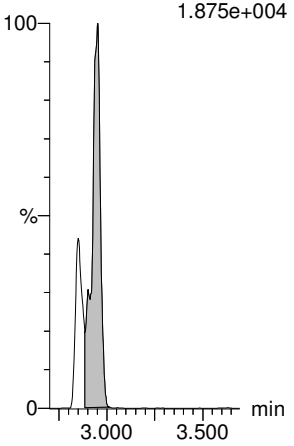
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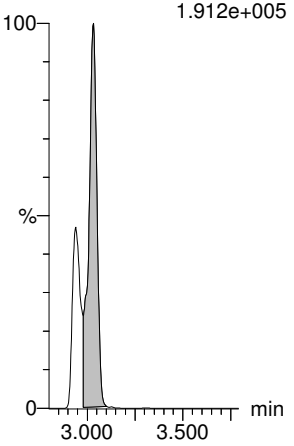
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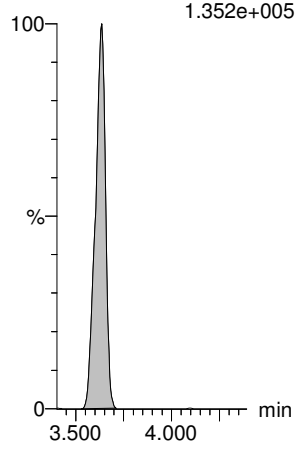
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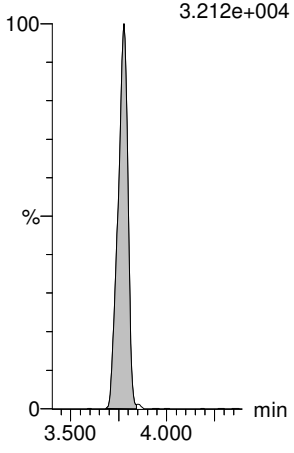
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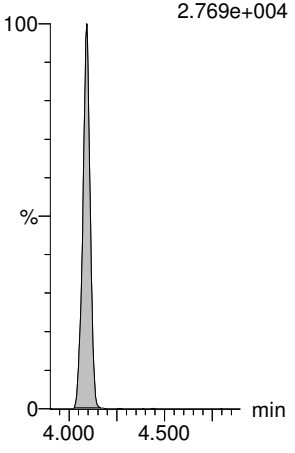
13C4-PFHpA-RSD



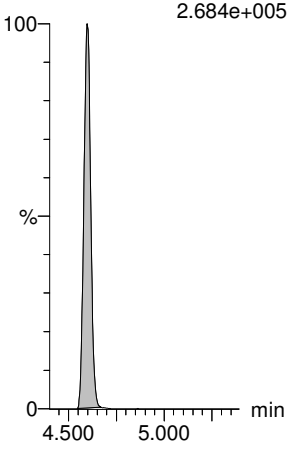
13C3-PFHxS-RSD



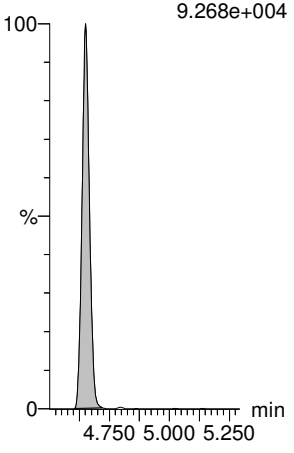
13C2-6:2 FTS-RSD



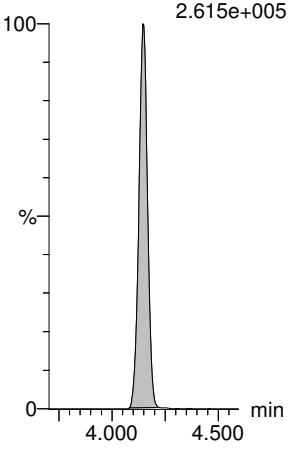
13C5-PFNA-RSD



13C8-PFOSA-RSD



13C2-PFOA-RSD

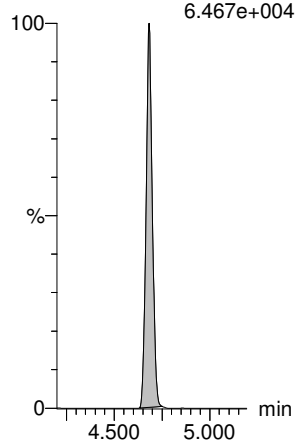


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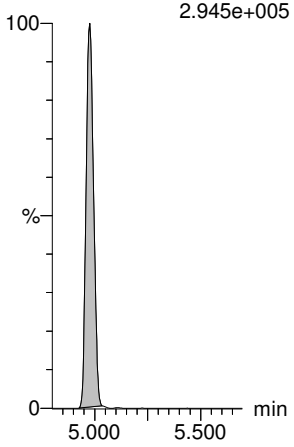
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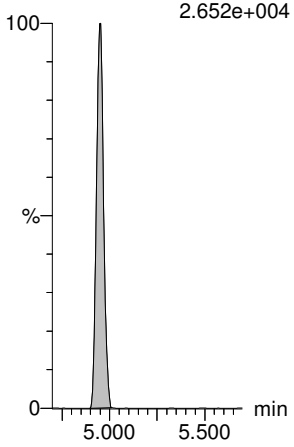
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.467e+004



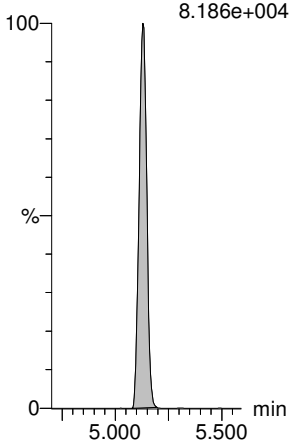
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
2.945e+005



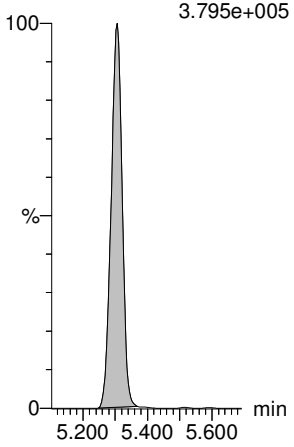
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.652e+004



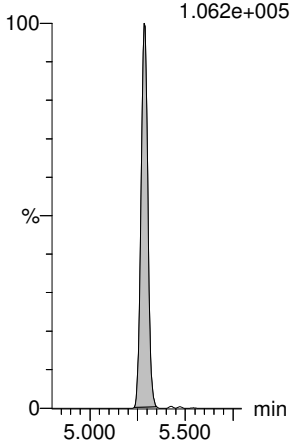
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.186e+004



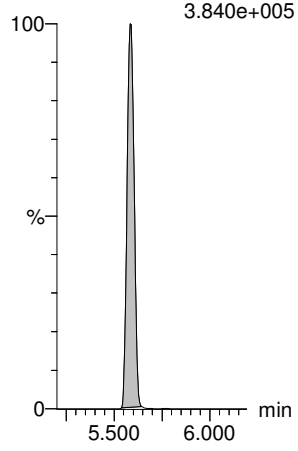
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
3.795e+005



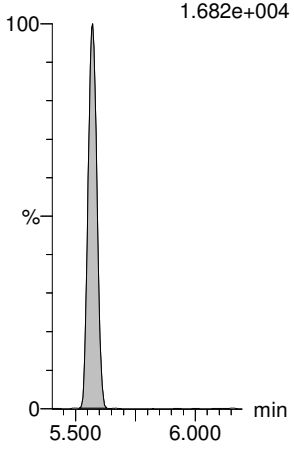
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.062e+005



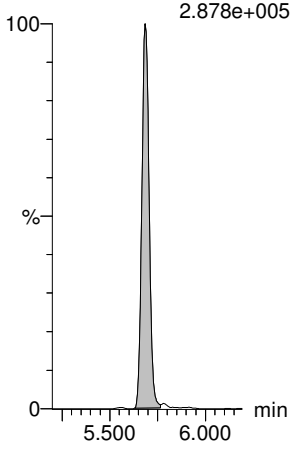
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
3.840e+005



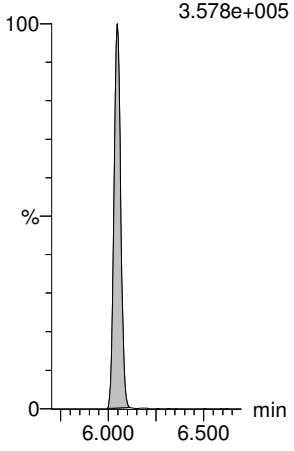
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.682e+004



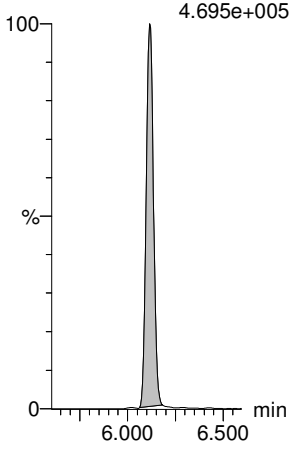
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
2.878e+005



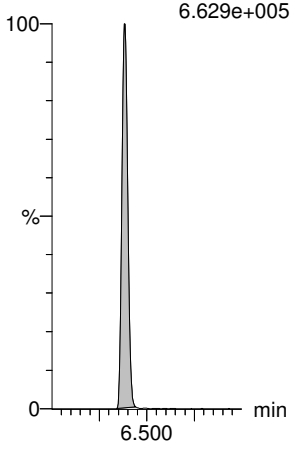
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.578e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.695e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
6.629e+005

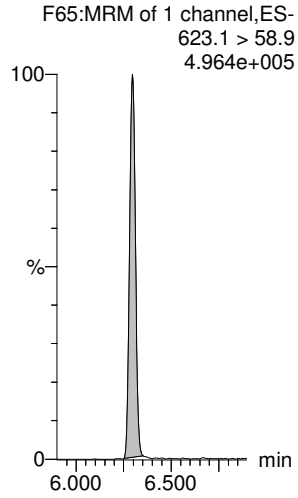


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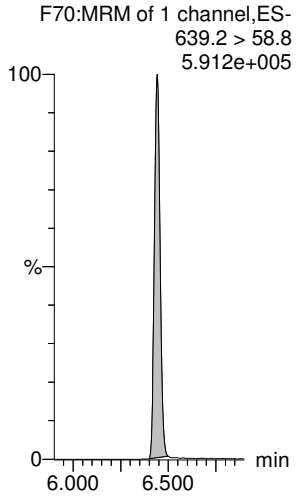
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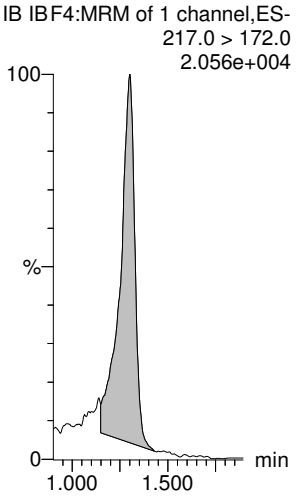
d7-N-MeFOSE-RSD



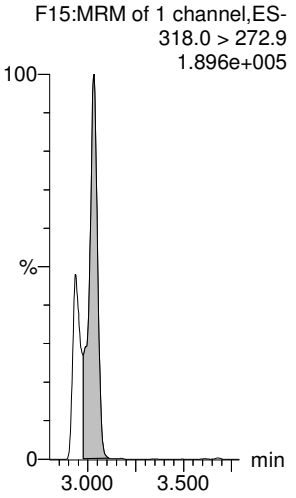
d9-N-EtFOSE-RSD



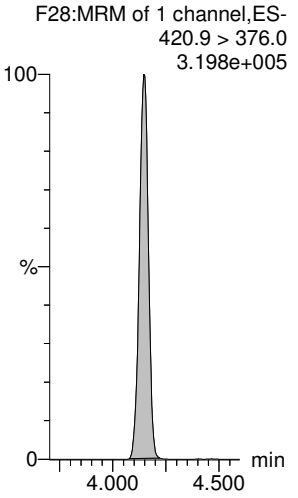
13C4-PFBA



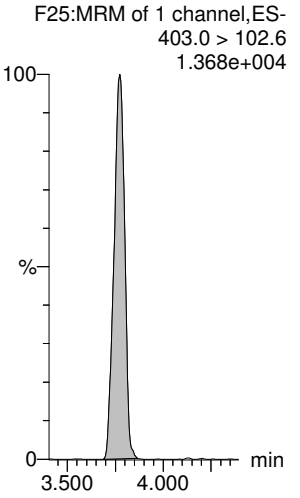
13C5-PFHxA



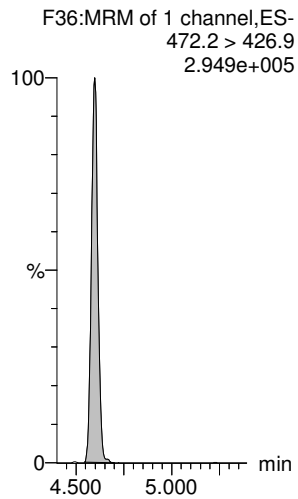
13C8-PFOA



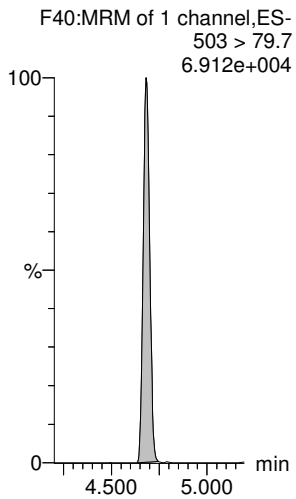
18O2-PFHxS



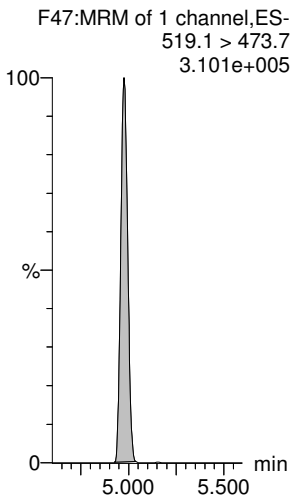
13C9-PFNA



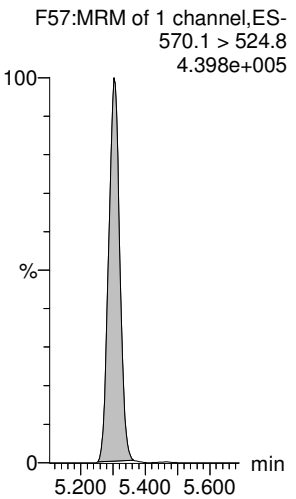
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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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	14.157	1115.262	1.00	1.34	0.159		0.0867		NO		
2	2	PFPrS	248.9 > 79.7		473.731	1.00						NO		YES
3	3	3:3 FTCA	240.9 > 176.9		3554.875	1.00						NO		YES
4	4	PFPeA	263.1 > 218.9		3554.875	1.00						NO		
5	5	PFBS	299.0 > 79.7		473.731	1.00						NO		YES
6	6	4:2 FTS	327.0 > 307		951.418	1.00						NO		YES
7	47	13C3-PFBA-EIS	216.1 > 171.8	1115.262		1.00	1.30	1115.262	12.500	3.20	25.6	YES		
8	51	13C3-PFBS-EIS	302.0 > 98.8	473.731		1.00	2.51	473.731	12.500	6.34	50.8	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	3554.875		1.00	2.23	3554.875	12.500	5.52	44.2	YES		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	3554.875		1.00	2.23	3554.875	12.500	5.52	44.2	YES		
11	51	13C3-PFBS-EIS	302.0 > 98.8	473.731		1.00	2.51	473.731	12.500	6.34	50.8	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	951.418		1.00	2.95	951.418	12.500	8.16	65.3	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	21.225	9208.006	1.00	3.08	0.029				NO		YES
15	8	PFPeS	349.>79.7		473.731	1.00						NO		YES
16	9	HFPO-DA	285.1 > 168.9		2012.123	1.00						NO		YES
17	10	5:3 FTCA	340.9 > 236.9		8097.259	1.00						NO		YES
18	11	PFHpA	363.0 > 318.9	18.369	8097.259	1.00	3.67	0.028				NO		YES
19	12	ADONA	376.8 > 250.9	30.956	8097.259	1.00	3.70	0.048				NO		YES
20	57	13C2-PFHxA-EIS	315.0 > 270.0	9208.006		1.00	3.03	9208.006	12.500	8.06	64.5	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	473.731		1.00	2.51	473.731	12.500	6.34	50.8	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2012.123		1.00	3.25	2012.123	12.500	7.05	56.4	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	8097.259		1.00	3.64	8097.259	12.500	12.5	99.6	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	8097.259		1.00	3.64	8097.259	12.500	12.5	99.6	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	8097.259		1.00	3.64	8097.259	12.500	12.5	99.6	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	8.996	1915.874	1.00	3.79	0.059		0.186		NO		YES
28	15	6:2 FTS	427.0 > 407		1221.489	1.00						NO		YES
29	16	L-PFOA	412.8 > 368.9	77.457	12178.052	1.00	4.13	0.080				NO	10.197	YES
30	18	PFecHS	460.8 > 381.0		12178.052	1.00						NO		YES
31	19	PFHpS	449.0 > 79.7		2456.501	1.00						NO		YES
32	20	7:3 FTCA	440.9 > 336.9		10870.944	1.00						NO		YES
33	61	13C3-PFHxS-EIS	401.8 > 79.7	1915.874		1.00	3.78	1915.874	12.500	11.3	90.4	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1221.489		1.00	4.09	1221.489	12.500	13.2	105.3	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	12178.052		1.00	4.15	12178.052	12.500	11.9	95.5	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	12178.052		1.00	4.15	12178.052	12.500	11.9	95.5	NO		

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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	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	10870.944		1.00	4.60	10870.944	12.500	11.7	93.7	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	16.738	10870.944	1.00	4.57	0.019				NO		YES
41	22	PFOSA	497.9 > 77.9	13.824	3299.818	1.00	4.64	0.052		0.0121		NO		YES
42	23	L-PFOS	498.9 > 79.7		2456.501	1.00						NO		YES
43	25	9Cl-PF30NS	530.7 > 350.8		2456.501	1.00						NO		YES
44	26	PFDA	513 > 468.8	58.675	11710.319	1.00	4.98	0.063				NO		YES
45	27	8:2 FTS	526.9 > 507		1127.206	1.00						NO		YES
46	65	13C5-PFNA-EIS	468.2 > 422.9	10870.944		1.00	4.60	10870.944	12.500	11.7	93.7	NO		
47	67	13C8-PFOSA-EIS	506 > 78	3299.818		1.00	4.65	3299.818	12.500	11.2	89.5	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	11710.319		1.00	4.98	11710.319	12.500	11.8	94.6	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1127.206		1.00	4.95	1127.206	12.500	13.4	106.8	NO		
52	-1													
53	28	PFNS	549.1 > 79.7		2456.501	1.00						NO		YES
54	29	L-MeFOSAA	570 > 419		3341.979	1.00						NO		YES
55	31	L-EtFOSAA	584.1 > 419	8.949	4420.043	1.00	5.26	0.025		0.0476		NO		YES
56	33	PFUdA	563.0 > 518.9		14715.999	1.00						NO		YES
57	34	PFDS	598.8 > 79.7		2456.501	1.00						NO		YES
58	35	11Cl-PF30UdS	630.9 > 450.9	10.712	15840.331	1.00	5.50	0.008				NO		YES
59	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	3341.979		1.00	5.13	3341.979	12.500	11.7	93.5	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	4420.043		1.00	5.28	4420.043	12.500	11.7	93.9	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	14715.999		1.00	5.31	14715.999	12.500	11.8	94.3	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	15840.331		1.00	5.58	15840.331	12.500	11.3	90.4	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607		710.394	1.00						NO		YES
67	37	PFDoA	612.9 > 569.0	164.316	15840.331	1.00	5.70	0.130		0.0957		NO		YES
68	38	N-MeFOSA	512.1 > 168.9		12609.581	1.00						NO		YES
69	39	PFTrDA	662.9 > 618.9	58.097	15840.331	1.00	5.82	0.046				NO		YES
70	40	PFDoS	698.8 > 79.7		14604.578	1.00						NO		YES
71	41	PFTeDA	713.0 > 669.0	93.868	14604.578	1.00	6.03	0.080		0.0588		NO		YES
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	710.394		1.00	5.57	710.394	12.500	10.9	87.3	NO		

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73	83	13C2-PFDoA-EIS	614.7 > 569.7	15840.331		1.00	5.58	15840.331	12.500	11.3	90.4	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	12609.581		1.00	5.69	12609.581	149.200	139	93.4	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	15840.331		1.00	5.58	15840.331	12.500	11.3	90.4	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	14604.578		1.00	6.05	14604.578	12.500	11.5	91.9	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	14604.578		1.00	6.05	14604.578	12.500	11.5	91.9	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	8.454	20283.383	1.00	6.06	0.062				NO	0.465	YES
80	43	PFHxDA	813.1 > 768.6	241.646	22783.920	1.00	6.39	0.133				NO		YES
81	44	PFODA	913.1 > 868.8	94.619	22783.920	1.00	6.62	0.052				NO		
82	45	N-MeFOSE	616.1 > 58.9	26.283	17286.043	1.00	6.28	0.227				NO		
83	46	N-EtFOSE	630.1 > 58.9	39.785	19829.824	1.00	6.43	0.299				NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	20283.383		1.00	6.11	20283.383	149.200	137	91.9	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	22783.920		1.00	6.38	22783.920	12.500	11.7	93.5	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	22783.920		1.00	6.38	22783.920	12.500	11.7	93.5	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	17286.043		1.00	6.29	17286.043	149.200	139	92.9	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	19829.824		1.00	6.44	19829.824	149.200	135	90.4	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	1115.262	1747.093	1.00	1.30	7.979	12.500	10.7	85.3	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	3554.875	9488.963	1.00	2.23	4.683	12.500	8.55	68.4	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	473.731	868.893	1.00	2.51	6.815	12.500	6.84	54.7	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	2012.123	9488.963	1.00	3.25	2.651	12.500	11.0	88.1	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	951.418	868.893	1.00	2.95	13.687	12.500	9.48	75.8	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	9208.006	9488.963	1.00	3.03	12.130	12.500	12.0	96.0	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	8097.259	9488.963	1.00	3.64	10.667	12.500	18.8	150.4	YES		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	1915.874	868.893	1.00	3.78	27.562	12.500	11.6	92.7	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1221.489	2678.392	1.00	4.09	5.701	12.500	12.2	97.9	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	10870.944	11558.146	1.00	4.60	11.757	12.500	12.3	98.8	NO		
101	68	13C8-PFOSA-RSD	506 > 78	3299.818	17157.313	1.00	4.65	2.404	12.500	11.9	95.3	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	12178.052	15383.705	1.00	4.15	9.895	12.500	12.0	96.1	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	2456.501	2678.392	1.00	4.68	11.464	12.500	11.9	95.6	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	11710.319	12556.789	1.00	4.98	11.657	12.500	12.6	100.6	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1127.206	2678.392	1.00	4.95	5.261	12.500	14.4	114.8	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	3341.979	17157.313	1.00	5.13	2.435	12.500	11.3	90.8	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	14715.999	17157.313	1.00	5.31	10.721	12.500	11.2	89.8	NO		

Dataset: Untitled

Last Altered: Monday, March 02, 2020 11:34:34 Pacific Standard Time
Printed: Monday, March 02, 2020 11:34:50 Pacific Standard Time

Name: 200229P1-13, Date: 29-Feb-2020, Time: 17:31:01, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	4420.043	17157.313	1.00	5.28	3.220	12.500	12.4	99.5	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	15840.331	12556.789	1.00	5.58	15.769	12.500	12.2	97.5	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	710.394	2678.392	1.00	5.57	3.315	12.500	9.91	79.3	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	12609.581	17157.313	1.00	5.69	9.187	149.200	136	91.0	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	14604.578	17157.313	1.00	6.05	10.640	12.500	11.9	95.6	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	20283.383	17157.313	1.00	6.11	14.778	149.200	142	95.5	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	22783.920	17157.313	1.00	6.38	16.599	12.500	11.4	91.4	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	17286.043	17157.313	1.00	6.29	12.594	149.200	140	93.5	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	19829.824	17157.313	1.00	6.44	14.447	149.200	139	93.0	NO		
119	99	13C4-PFBA	217.0 > 172.0	1747.093	1747.093	1.00	1.30	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	9488.963	9488.963	1.00	3.03	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	15383.705	15383.705	1.00	4.15	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	868.893	868.893	1.00	3.77	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	11558.146	11558.146	1.00	4.60	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	2678.392	2678.392	1.00	4.68	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	12556.789	12556.789	1.00	4.98	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	17157.313	17157.313	1.00	5.30	12.500	12.500	12.5	100.0	NO		

LC Calibration Standards Review Checklist Q5

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	N/A
Calibration ID:	ST 200229P1-11	L M H	☑	☑	☑	☑	☑	☑	☐
Calibration ID:	J1 -12	L M H	☑	☑	☑	☑	☑	☑	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 20200226-1

Run Log Present: ☑

of Samples per Sequence Checked: ☑

Instrument Blank Saved ☑

All Branches in Acquisition Window ☑

IIS Area Saved ☑

Reviewed By: RK 3/2/20
Initials/Date

Comments:

Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-26.qld

Last Altered: Monday, March 02, 2020 13:03:55 Pacific Standard Time
Printed: Monday, March 02, 2020 13:05:00 Pacific Standard Time

IK 3/2/20

Name: 200229P1-26, Date: 29-Feb-2020, Time: 19:47:36, ID: ST200229P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	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	4545.992	4578.631	1.00	1.30	12.411	10.000	10.2	102.3	NO		
2	2	PFPrS	248.9 > 79.7	1061.240	944.661	1.00	1.63	14.043	10.000	10.6	105.7	NO	2.822	NO
3	3	3:3 FTCA	240.9 > 176.9	863.002	8084.413	1.00	2.09	1.334	10.000	10.0	100.0	NO	3.795	NO
4	4	PFPeA	263.1 > 218.9	6552.413	8084.413	1.00	2.23	10.131	10.000	10.5	104.8	NO		
5	5	PFBS	299.0 > 79.7	1963.863	944.661	1.00	2.51	25.986	10.000	9.96	99.6	NO	3.482	NO
6	6	4:2 FTS	327.0 > 307	1628.680	1414.836	1.00	2.95	14.389	10.000	9.26	92.6	NO	0.965	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	4578.631		1.00	1.30	4578.631	12.500	13.2	105.2	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	944.661		1.00	2.51	944.661	12.500	12.7	101.2	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	8084.413		1.00	2.23	8084.413	12.500	12.6	100.4	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	8084.413		1.00	2.23	8084.413	12.500	12.6	100.4	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	944.661		1.00	2.51	944.661	12.500	12.7	101.2	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1414.836		1.00	2.95	1414.836	12.500	12.1	97.1	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	11197.328	15070.203	1.00	3.04	9.288	10.000	10.9	109.5	NO	16.550	NO
15	8	PFPeS	349.>79.7	1947.530	944.661	1.00	3.24	25.770	10.000	9.50	95.0	NO	2.555	NO
16	9	HFPO-DA	285.1 > 168.9	3318.440	3584.100	1.00	3.25	11.573	10.000	10.9	109.3	NO	2.978	NO
17	10	5:3 FTCA	340.9 > 236.9	2217.239	8360.387	1.00	3.58	3.315	10.000	9.61	96.1	NO	1.770	NO
18	11	PFHpA	363.0 > 318.9	8501.870	8360.387	1.00	3.64	12.712	10.000	10.4	104.4	NO	13.191	YES
19	12	ADONA	376.8 > 250.9	23476.066	8360.387	1.00	3.75	35.100	10.000	11.3	113.3	NO	3.740	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	15070.203		1.00	3.04	15070.203	12.500	13.2	105.6	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	944.661		1.00	2.51	944.661	12.500	12.7	101.2	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3584.100		1.00	3.25	3584.100	12.500	12.6	100.4	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	8360.387		1.00	3.64	8360.387	12.500	12.9	102.9	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	8360.387		1.00	3.64	8360.387	12.500	12.9	102.9	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	8360.387		1.00	3.64	8360.387	12.500	12.9	102.9	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	1833.021	2086.865	1.00	3.79	10.980	10.000	10.2	101.5	NO	2.257	NO
28	15	6:2 FTS	427.0 > 407	2123.568	1131.779	1.00	4.10	23.454	10.000	10.8	108.2	NO	1.524	NO
29	16	L-PFOA	412.8 > 368.9	13364.517	12658.704	1.00	4.16	13.197	10.000	10.8	108.1	NO	3.118	NO
30	18	PFecHS	460.8 > 381.0	2155.446	12658.704	1.00	4.17	2.128	10.000	11.4	113.6	NO	0.597	NO
31	19	PFHpS	449.0 > 79.7	2002.755	2646.552	1.00	4.27	9.459	10.000	8.36	83.6	NO	2.235	NO
32	20	7:3 FTCA	440.9 > 336.9	2218.383	11408.199	1.00	4.59	2.431	10.000	9.78	97.8	NO	1.666	NO
33	61	13C3-PFHxS-EIS	401.8 > 79.7	2086.865		1.00	3.79	2086.865	12.500	12.3	98.5	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1131.779		1.00	4.10	1131.779	12.500	12.2	97.5	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	12658.704		1.00	4.16	12658.704	12.500	12.4	99.3	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	12658.704		1.00	4.16	12658.704	12.500	12.4	99.3	NO		

Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-26.qld

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Name: 200229P1-26, Date: 29-Feb-2020, Time: 19:47:36, ID: ST200229P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	2646.552		1.00	4.69	2646.552	12.500	13.5	107.9	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	11408.199		1.00	4.60	11408.199	12.500	12.3	98.3	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	12016.743	11408.199	1.00	4.60	13.167	10.000	11.7	117.1	NO	5.767	NO
41	22	PFOSA	497.9 > 77.9	2447.139	3564.798	1.00	4.66	8.581	10.000	10.0	100.2	NO	26.024	NO
42	23	L-PFOS	498.9 > 79.7	2096.880	2646.552	1.00	4.69	9.904	10.000	10.2	102.1	NO	2.096	NO
43	25	9Cl-PF30NS	530.7 > 350.8	3508.842	2646.552	1.00	4.91	16.573	10.000	10.7	106.9	NO	22.295	NO
44	26	PFDA	513 > 468.8	14997.096	13043.857	1.00	4.98	14.372	10.000	10.9	109.2	NO	8.515	NO
45	27	8:2 FTS	526.9 > 507	1557.911	1144.013	1.00	4.95	17.022	10.000	9.42	94.2	NO	2.790	NO
46	65	13C5-PFNA-EIS	468.2 > 422.9	11408.199		1.00	4.60	11408.199	12.500	12.3	98.3	NO		
47	67	13C8-PFOSA-EIS	506 > 78	3564.798		1.00	4.65	3564.798	12.500	12.1	96.6	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	2646.552		1.00	4.69	2646.552	12.500	13.5	107.9	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	2646.552		1.00	4.69	2646.552	12.500	13.5	107.9	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	13043.857		1.00	4.98	13043.857	12.500	13.2	105.4	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1144.013		1.00	4.95	1144.013	12.500	13.6	108.4	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	1915.633	2646.552	1.00	5.04	9.048	10.000	9.73	97.3	NO	2.160	NO
54	29	L-MeFOSAA	570 > 419	4712.391	3857.103	1.00	5.13	15.272	10.000	9.46	94.6	NO	2.334	NO
55	31	L-EtFOSAA	584.1 > 419	4045.113	4257.436	1.00	5.29	11.877	10.000	11.0	110.4	NO	1.253	NO
56	33	PFUdA	563.0 > 518.9	13585.625	16037.858	1.00	5.31	10.589	10.000	10.2	101.8	NO	18.136	NO
57	34	PFDS	598.8 > 79.7	1883.773	2646.552	1.00	5.35	8.897	10.000	10.2	101.6	NO	1.811	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	6063.354	17174.354	1.00	5.52	4.413	10.000	10.6	105.6	NO	22.650	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	2646.552		1.00	4.69	2646.552	12.500	13.5	107.9	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	3857.103		1.00	5.13	3857.103	12.500	13.5	107.9	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	4257.436		1.00	5.29	4257.436	12.500	11.3	90.4	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	16037.858		1.00	5.31	16037.858	12.500	12.8	102.8	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	2646.552		1.00	4.69	2646.552	12.500	13.5	107.9	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	17174.354		1.00	5.59	17174.354	12.500	12.2	98.0	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	1476.360	889.448	1.00	5.57	20.748	10.000	9.70	97.0	NO	1.020	NO
67	37	PFDoA	612.9 > 569.0	14445.468	17174.354	1.00	5.59	10.514	10.000	10.8	108.1	NO	10.617	NO
68	38	N-MeFOSA	512.1 > 168.9	5182.773	14046.566	1.00	5.66	55.050	50.000	52.6	105.2	NO	1.641	NO
69	39	PFTrDA	662.9 > 618.9	15334.015	17174.354	1.00	5.83	11.161	10.000	10.5	104.8	NO	35.785	NO
70	40	PFDoS	698.8 > 79.7	2046.224	14637.226	1.00	5.86	1.747	10.000	10.7	106.7	NO	3.134	NO
71	41	PFTeDA	713.0 > 669.0	15085.252	14637.226	1.00	6.05	12.883	10.000	9.67	96.7	NO	16.011	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	889.448		1.00	5.57	889.448	12.500	13.7	109.3	NO		

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Name: 200229P1-26, Date: 29-Feb-2020, Time: 19:47:36, ID: ST200229P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	17174.354		1.00	5.59	17174.354	12.500	12.2	98.0	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	14046.566		1.00	5.69	14046.566	149.200	155	104.1	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	17174.354		1.00	5.59	17174.354	12.500	12.2	98.0	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	14637.226		1.00	6.05	14637.226	12.500	11.5	92.1	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	14637.226		1.00	6.05	14637.226	12.500	11.5	92.1	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	6857.971	21925.426	1.00	6.10	46.668	50.000	50.5	101.0	NO	1.723	NO
80	43	PFHxDA	813.1 > 768.6	13848.229	23688.973	1.00	6.39	7.307	10.000	10.8	108.2	NO	82.880	NO
81	44	PFODA	913.1 > 868.8	19617.145	23688.973	1.00	6.62	10.351	10.000	11.3	112.7	NO		
82	45	N-MeFOSE	616.1 > 58.9	6767.500	18901.303	1.00	6.30	53.420	50.000	51.3	102.6	NO		
83	46	N-EtFOSE	630.1 > 58.9	7688.967	22302.607	1.00	6.45	51.438	50.000	50.9	101.8	NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	21925.426		1.00	6.12	21925.426	149.200	148	99.4	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	23688.973		1.00	6.39	23688.973	12.500	12.2	97.2	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	23688.973		1.00	6.39	23688.973	12.500	12.2	97.2	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	18901.303		1.00	6.29	18901.303	149.200	152	101.6	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	22302.607		1.00	6.44	22302.607	149.200	152	101.7	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	2646.552		1.00	4.69	2646.552	12.500	13.5	107.9	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	4580.259	6009.308	1.00	1.30	9.527	12.500	12.7	101.9	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	8084.413	14906.527	1.00	2.23	6.779	12.500	12.4	99.0	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	944.661	890.562	1.00	2.51	13.259	12.500	13.3	106.5	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	3584.100	14906.527	1.00	3.25	3.005	12.500	12.5	99.9	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1414.836	890.562	1.00	2.95	19.859	12.500	13.7	110.0	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	15070.203	14906.527	1.00	3.04	12.637	12.500	12.5	100.0	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	8360.387	14906.527	1.00	3.64	7.011	12.500	12.4	98.8	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	2086.865	890.562	1.00	3.79	29.291	12.500	12.3	98.5	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1131.779	2706.877	1.00	4.10	5.226	12.500	11.2	89.8	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	11408.199	11796.409	1.00	4.60	12.089	12.500	12.7	101.6	NO		
101	68	13C8-PFOSA-RSD	506 > 78	3564.798	16745.436	1.00	4.65	2.661	12.500	13.2	105.5	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	12658.704	14921.802	1.00	4.16	10.604	12.500	12.9	103.0	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	2646.552	2706.877	1.00	4.69	12.221	12.500	12.7	101.9	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	13043.857	13423.078	1.00	4.98	12.147	12.500	13.1	104.8	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1144.013	2706.877	1.00	4.95	5.283	12.500	14.4	115.3	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	3857.103	16745.436	1.00	5.13	2.879	12.500	13.4	107.3	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	16037.858	16745.436	1.00	5.31	11.972	12.500	12.5	100.3	NO		

Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-26.qld

Last Altered: Monday, March 02, 2020 13:03:55 Pacific Standard Time
Printed: Monday, March 02, 2020 13:05:00 Pacific Standard Time

Name: 200229P1-26, Date: 29-Feb-2020, Time: 19:47:36, ID: ST200229P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	4257.436	16745.436	1.00	5.29	3.178	12.500	12.3	98.2	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	17174.354	13423.078	1.00	5.59	15.993	12.500	12.4	98.9	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	889.448	2706.877	1.00	5.57	4.107	12.500	12.3	98.2	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	14046.566	16745.436	1.00	5.69	10.485	149.200	155	103.8	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	14637.226	16745.436	1.00	6.05	10.926	12.500	12.3	98.2	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	21925.426	16745.436	1.00	6.12	16.367	149.200	158	105.7	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	23688.973	16745.436	1.00	6.39	17.683	12.500	12.2	97.4	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	18901.303	16745.436	1.00	6.29	14.109	149.200	156	104.8	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	22302.607	16745.436	1.00	6.44	16.648	149.200	160	107.2	NO		
119	99	13C4-PFBA	217.0 > 172.0	6009.308	6009.308	1.00	1.30	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	14906.527	14906.527	1.00	3.04	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	14921.802	14921.802	1.00	4.16	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	890.562	890.562	1.00	3.78	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	11796.409	11796.409	1.00	4.60	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	2706.877	2706.877	1.00	4.69	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	13423.078	13423.078	1.00	4.98	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	16745.436	16745.436	1.00	5.31	12.500	12.500	12.5	100.0	NO		

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Dataset: Untitled

Last Altered: Monday, March 02, 2020 13:22:43 Pacific Standard Time
Printed: Monday, March 02, 2020 13:23:30 Pacific Standard Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022920.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	200229P1-1	IPA	29-Feb-20	15:24:43
2	2	200229P1-2	IPA	29-Feb-20	15:35:28
3	3	200229P1-3	ST200229P1-1 PFC CS-2 20B1102	29-Feb-20	15:45:57
4	4	200229P1-4	ST200229P1-2 PFC CS-1 20B1103	29-Feb-20	15:56:29
5	5	200229P1-5	ST200229P1-3 PFC CS0 20B1104	29-Feb-20	16:06:57
6	6	200229P1-6	ST200229P1-4 PFC CS1 20B1105	29-Feb-20	16:17:29
7	7	200229P1-7	ST200229P1-5 PFC CS2 20B1106	29-Feb-20	16:28:00
8	8	200229P1-8	ST200229P1-6 PFC CS3 20B1107	29-Feb-20	16:38:28
9	9	200229P1-9	ST200229P1-7 PFC CS4 20B1108	29-Feb-20	16:49:00
10	10	200229P1-10	ST200229P1-8 PFC CS5 20B1109	29-Feb-20	16:59:31
11	11	200229P1-11	ST200229P1-9 PFC CS6 20B1110	29-Feb-20	17:10:00
12	12	200229P1-12	ST200229P1-10 PFC CS7 20B1111	29-Feb-20	17:20:30
13	13	200229P1-13	IB	29-Feb-20	17:31:01
14	14	200229P1-14	ICV200229P1-1 PFC ICV 20B1112	29-Feb-20	17:41:30
15	15	200229P1-15	IB	29-Feb-20	17:52:02
16	16	200229P1-16	2000321-09@20X I003MW01S-20200213 0.25107	29-Feb-20	18:02:31
17	17	200229P1-17	2000333-02 18-GW-18BGMP10E-20200217 0.25617	29-Feb-20	18:13:02
18	18	200229P1-18	2000333-03 18-GW-18BGMP10F-20200217 0.24799	29-Feb-20	18:23:33
19	19	200229P1-19	2000333-04 18-GW-18BGMP08C-20200217 0.25669	29-Feb-20	18:34:03
20	20	200229P1-20	2000333-05 24-GW-18BGMP08D-20200217 0.25341	29-Feb-20	18:44:34
21	21	200229P1-21	2000333-06 24-GW-18BGMP08E-20200217 0.25283	29-Feb-20	18:55:02
22	22	200229P1-22	2000333-07 24-GW-18PS1-20200217 0.24759	29-Feb-20	19:05:34
23	23	200229P1-23	2000333-08 DUP01-20200217 0.24854	29-Feb-20	19:16:05
24	24	200229P1-24	2000386-05 SRS-60-5' 2.19	29-Feb-20	19:26:34
25	25	200229P1-25	IB	29-Feb-20	19:37:05
26	26	200229P1-26	ST200229P1-11 PFC CS3 20B1107	29-Feb-20	19:47:36
27	27	200229P1-27	IB	29-Feb-20	19:58:05
28	28	200229P1-28	2000345-01 ET-LW01-20200218 0.25307	29-Feb-20	20:08:39
29	29	200229P1-29	2000346-02 18 -GW-18BGMW19C-20200218 0.25031	29-Feb-20	20:19:05
30	30	200229P1-30	2000346-03 18-GW-18IDP2-D-20200218 0.25907	29-Feb-20	20:29:37
31	31	200229P1-31	2000346-04 18-GW-18DW540-20200218 0.25311	29-Feb-20	20:40:05
32	32	200229P1-32	2000346-05 18-GW-18DW450-20200218 0.24811	29-Feb-20	20:50:37

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Dataset: Untitled

Last Altered: Monday, March 02, 2020 13:22:43 Pacific Standard Time
Printed: Monday, March 02, 2020 13:23:30 Pacific Standard Time

Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
33	33 200229P1-33	IB	29-Feb-20	21:01:08
34	34 200229P1-34	2000353-10@20X S9MW68L1-20Q1 0.25186	29-Feb-20	21:11:37
35	35 200229P1-35	2000354-08@20X S9MW15-20Q1 0.25813	29-Feb-20	21:22:08
36	36 200229P1-36	2000328-04 W-SB01-20200213 0.26272	29-Feb-20	21:32:39
37	37 200229P1-37	IB	29-Feb-20	21:43:07
38	38 200229P1-38	2000328-05 EB13-20200213 0.2557	29-Feb-20	21:53:39
39	39 200229P1-39	2000321-09 I003MW01S-20200213 0.25107	29-Feb-20	22:04:09
40	40 200229P1-40	IB	29-Feb-20	22:14:40
41	41 200229P1-41	ST200229P1-12 PFC CS3 20B1107	29-Feb-20	22:25:09
42	42 200229P1-42	IB	29-Feb-20	22:35:40

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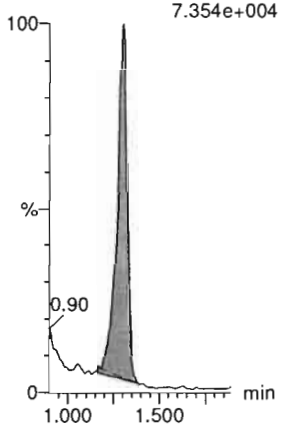
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Printed: Monday, March 02, 2020 13:05:00 Pacific Standard Time

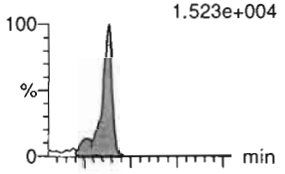
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Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Name: 200229P1-26, Date: 29-Feb-2020, Time: 19:47:36, ID: ST200229P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

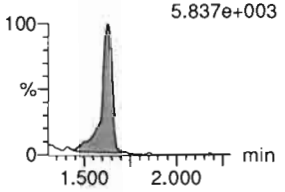
PFBA
F2:MRM of 1 channel,ES-
213.0 > 168.8
7.354e+004



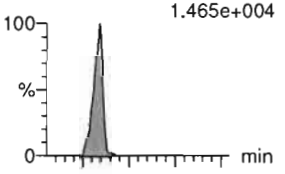
PFPrS
F6:MRM of 2 channels,ES-
248.9 > 79.7
1.523e+004



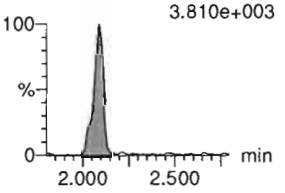
F6:MRM of 2 channels,ES-
248.9 > 98.7
5.837e+003



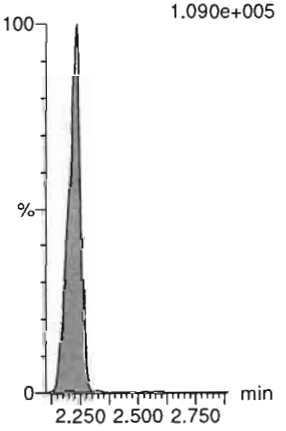
3:3 FTCA
F5:MRM of 2 channels,ES-
240.9 > 176.9
1.465e+004



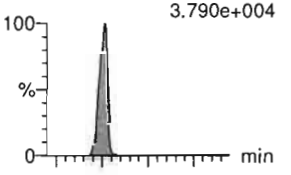
F5:MRM of 2 channels,ES-
240.9 > 116.9
3.810e+003



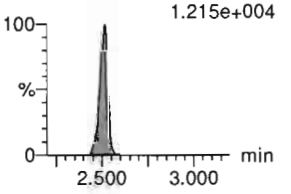
PFPeA
F7:MRM of 1 channel,ES-
263.1 > 218.9
1.090e+005



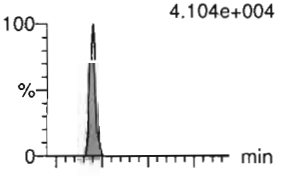
PFBS
F11:MRM of 2 channels,ES-
299.0 > 79.7
3.790e+004



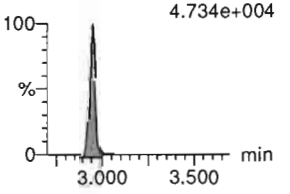
F11:MRM of 2 channels,ES-
299.0 > 98.7
1.215e+004



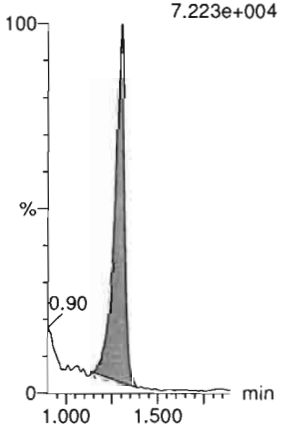
4:2 FTS
F16:MRM of 2 channels,ES-
327.0 > 307
4.104e+004



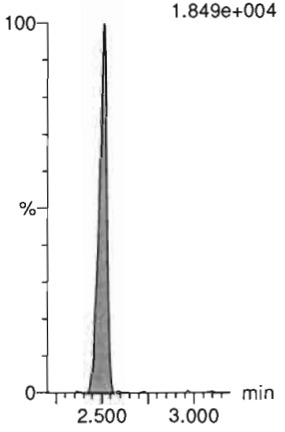
F16:MRM of 2 channels,ES-
327.0 > 80.7
4.734e+004



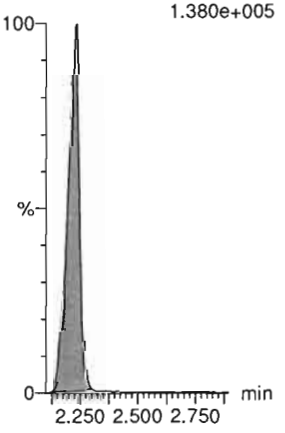
13C3-PFBA-EIS
F3:MRM of 1 channel,ES-
216.1 > 171.8
7.223e+004



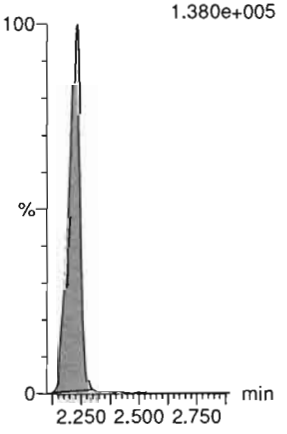
13C3-PFBS-EIS
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.849e+004



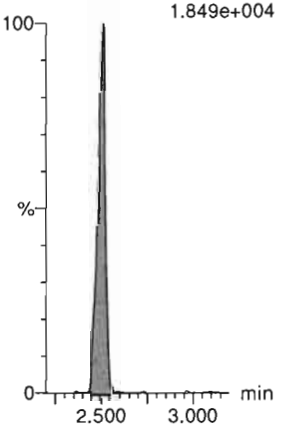
13C3-PFPeA-EIS
F8:MRM of 1 channel,ES-
266.0 > 221.8
1.380e+005



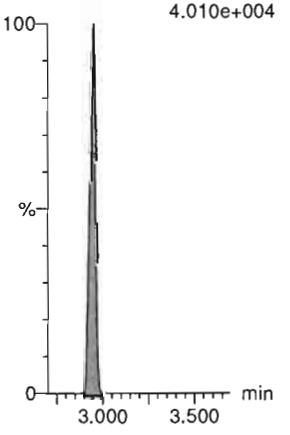
13C3-PFPeA-EIS
F8:MRM of 1 channel,ES-
266.0 > 221.8
1.380e+005



13C3-PFBS-EIS
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.849e+004



13C2-4:2 FTS-EIS
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.010e+004

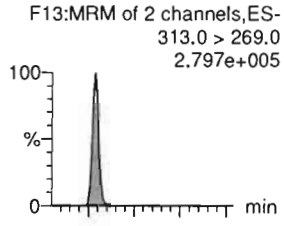


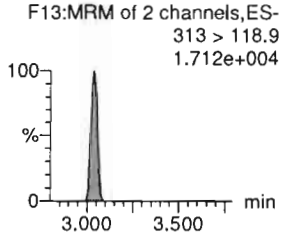
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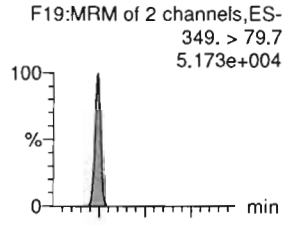
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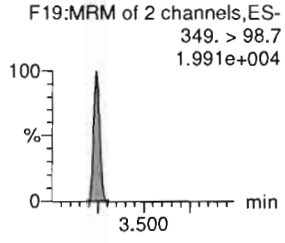
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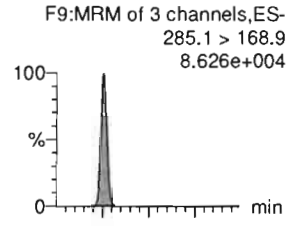


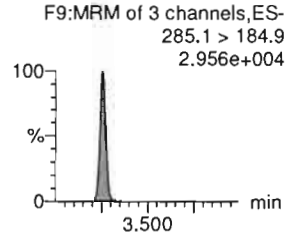
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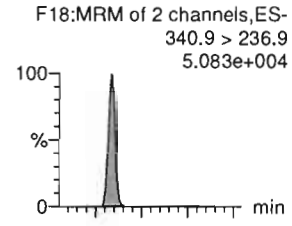


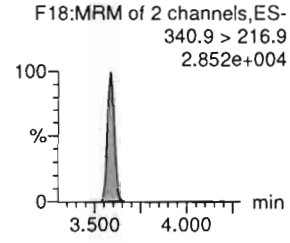
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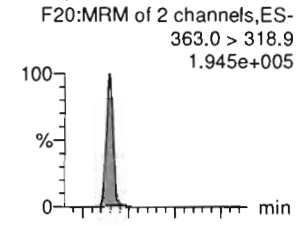


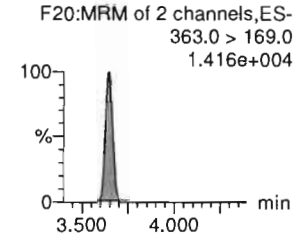
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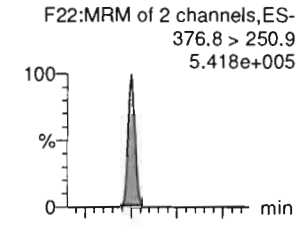


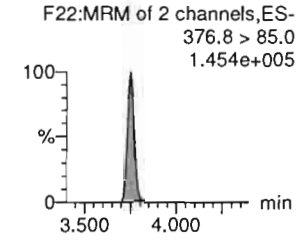
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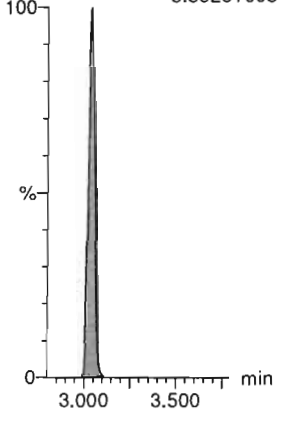


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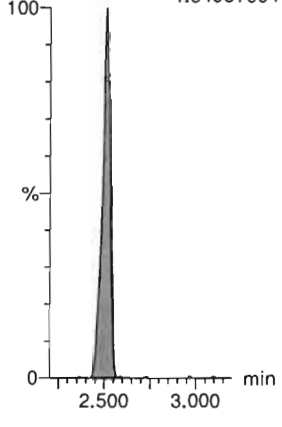




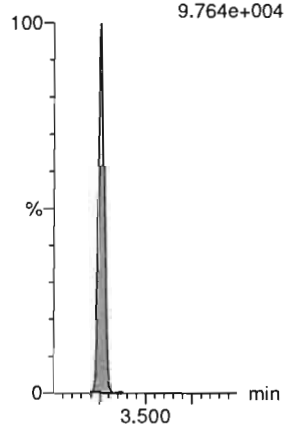
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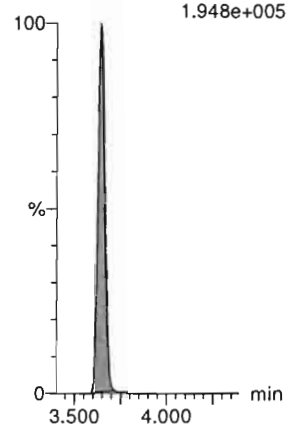
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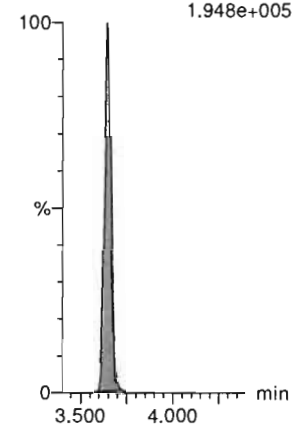
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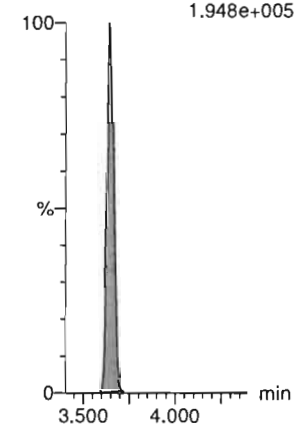
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

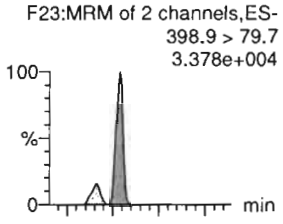


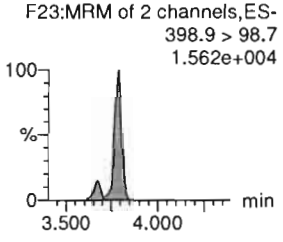
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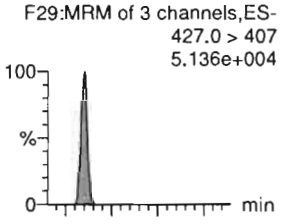
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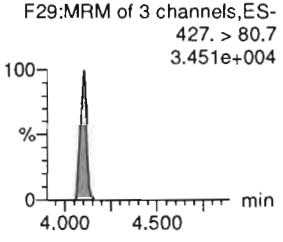
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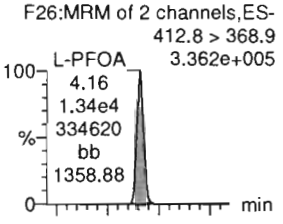


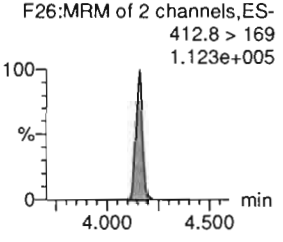
6:2 FTS



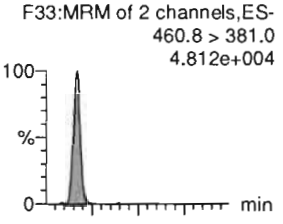


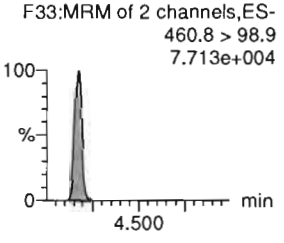
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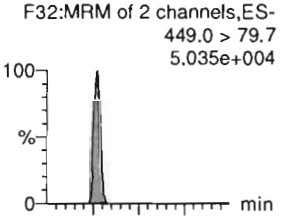


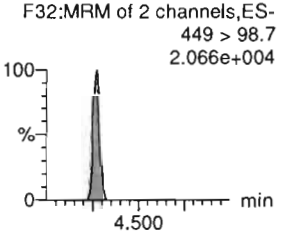
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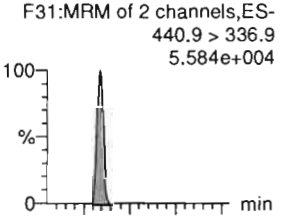


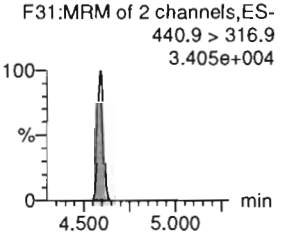
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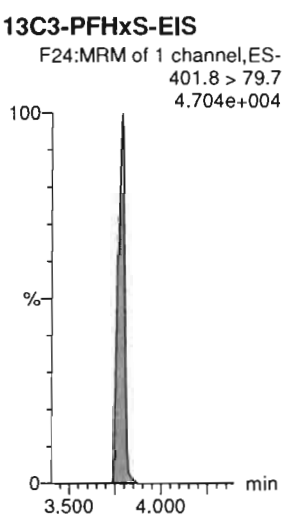


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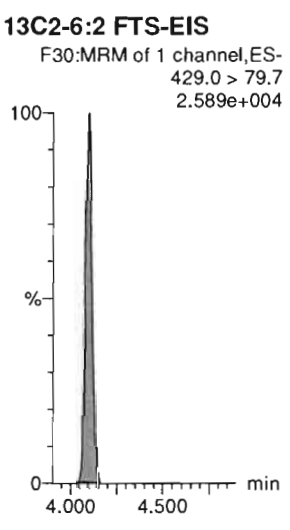




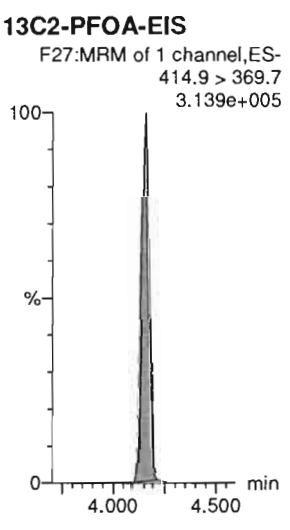
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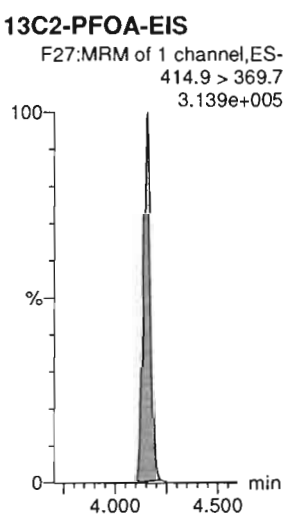
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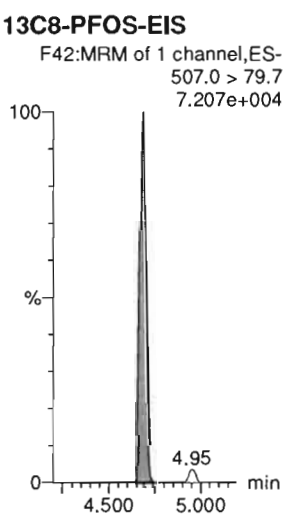
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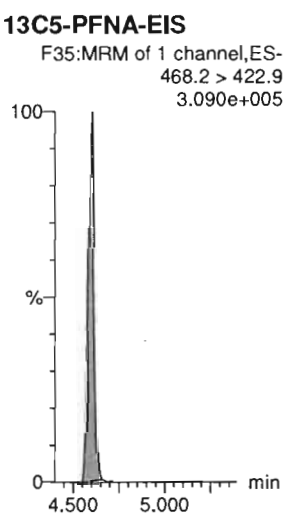
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13C8-PFOS-EIS



13C5-PFNA-EIS

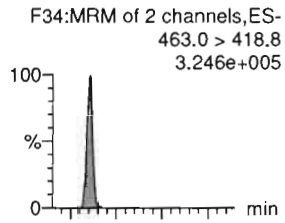


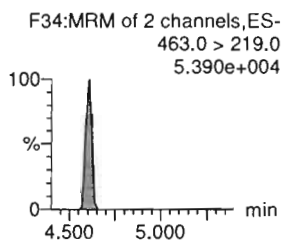
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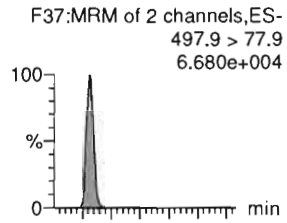
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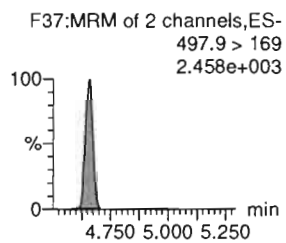
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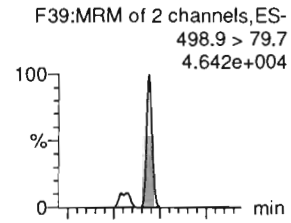


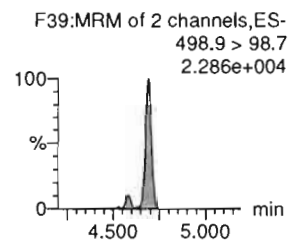
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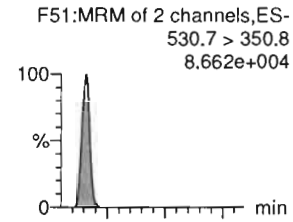


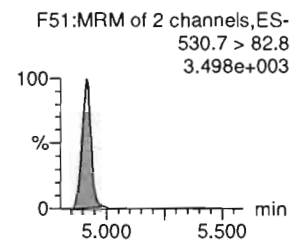
L-PFOS



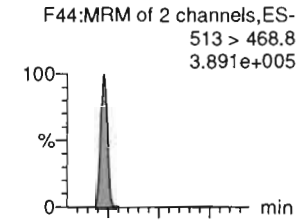


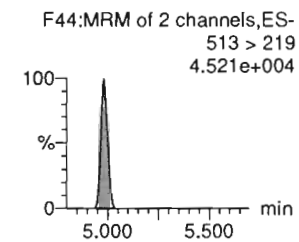
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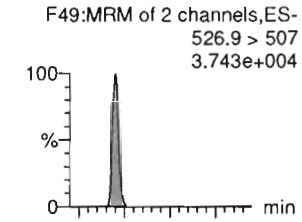


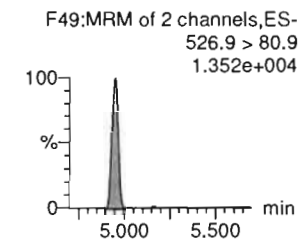
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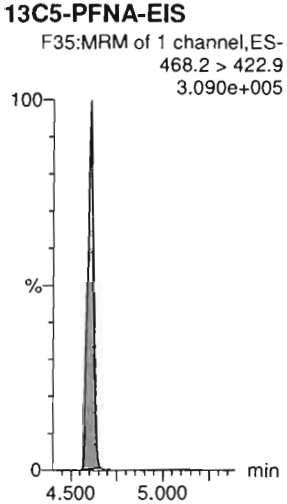


8:2 FTS

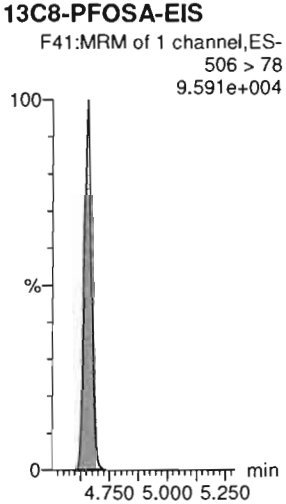




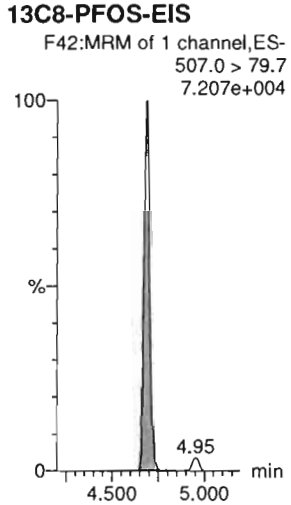
13C5-PFNA-EIS



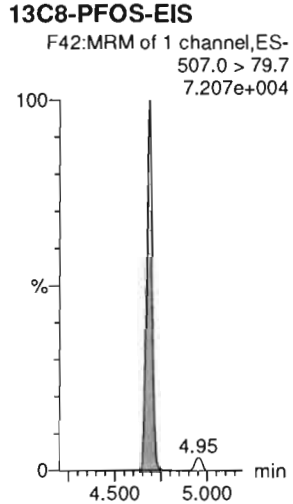
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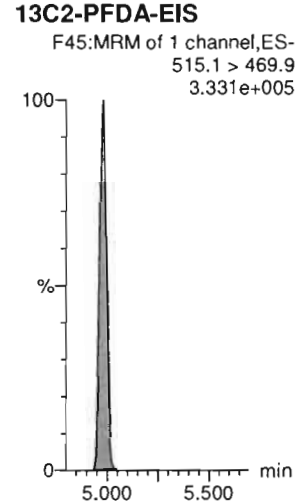
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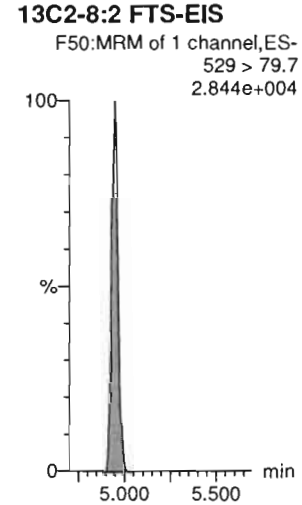
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

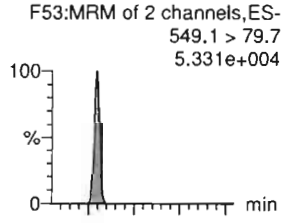


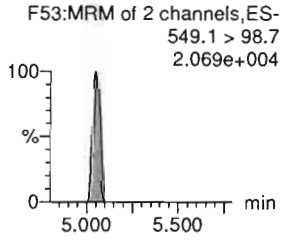
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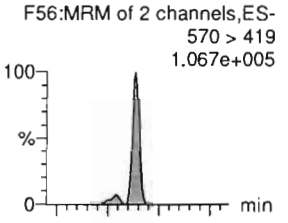
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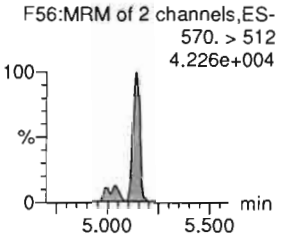
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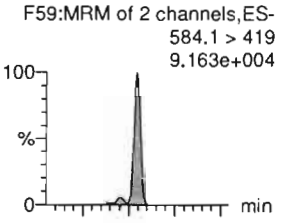


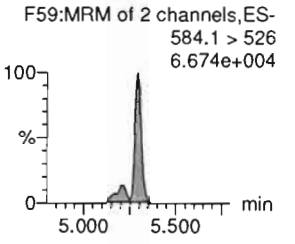
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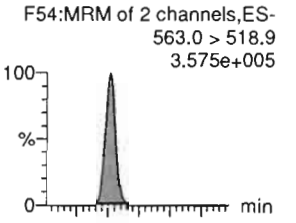


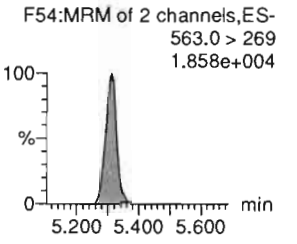
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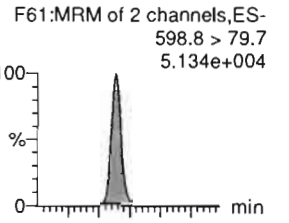


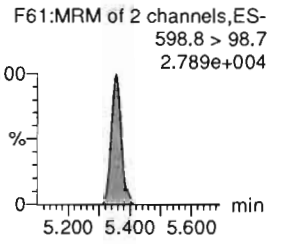
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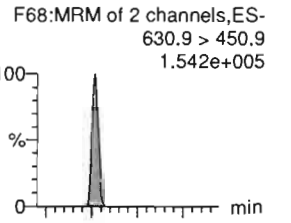


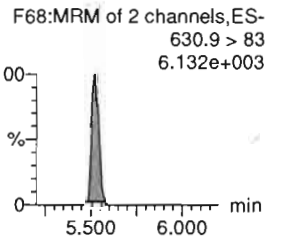
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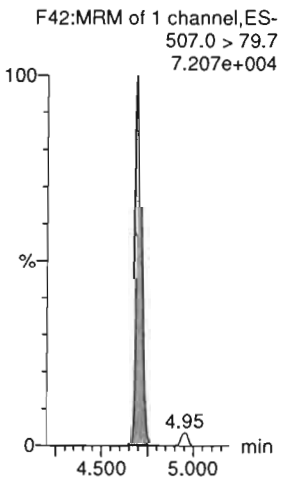


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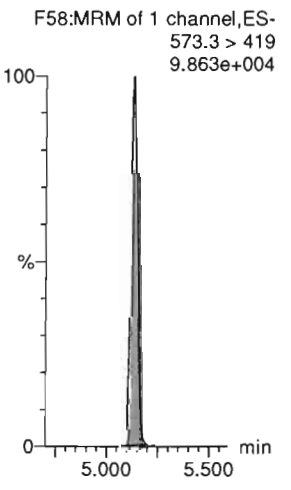




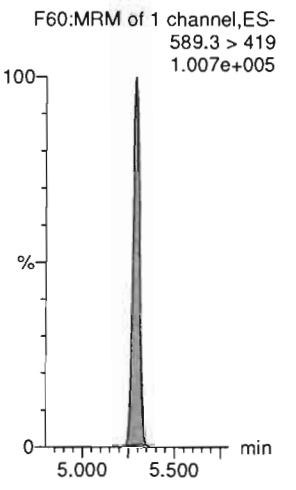
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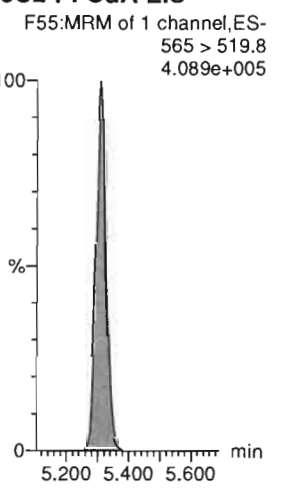
d3-N-MeFOSAA-EIS



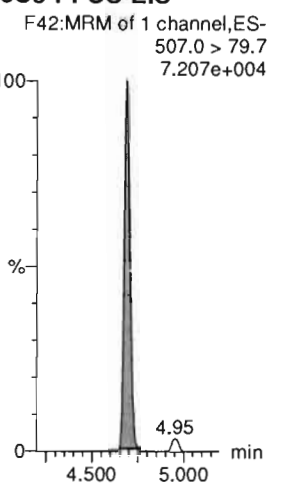
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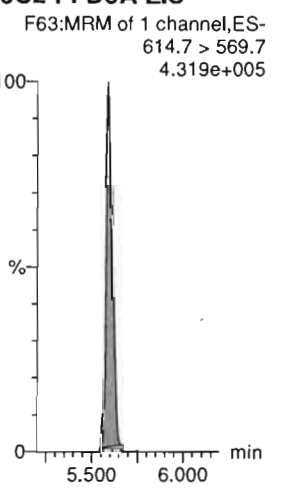
13C2-PFUdA-EIS



13C8-PFOS-EIS



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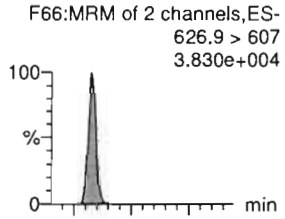


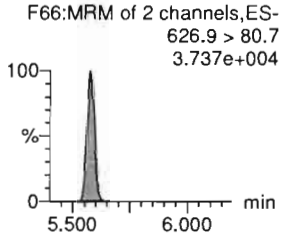
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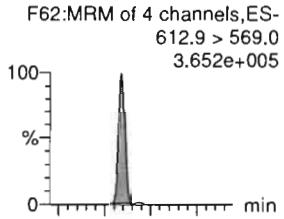
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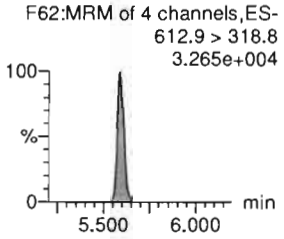
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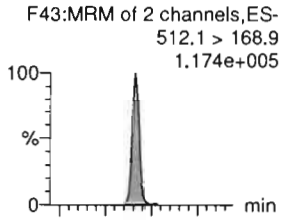


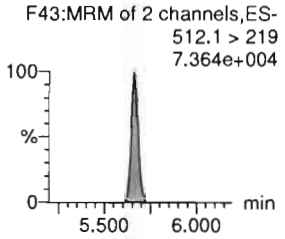
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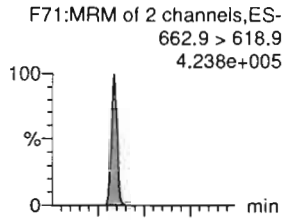


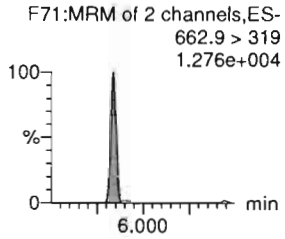
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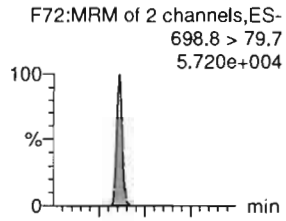


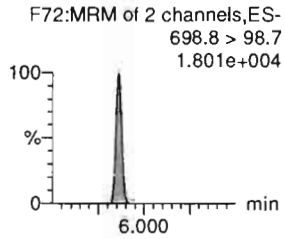
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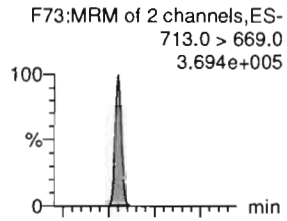


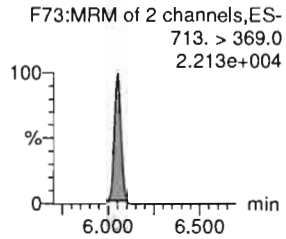
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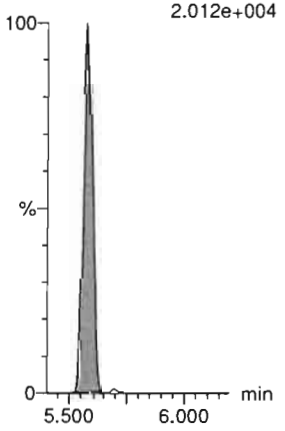


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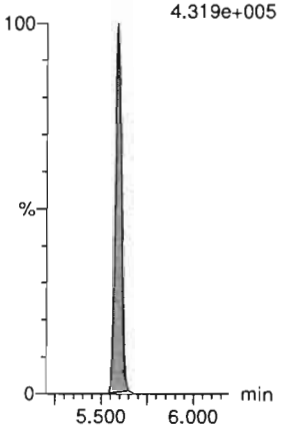




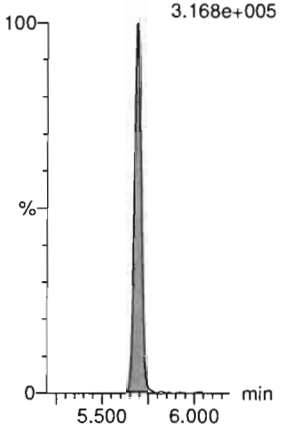
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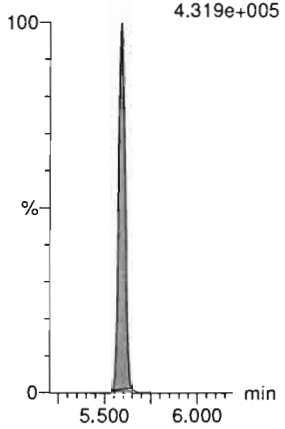
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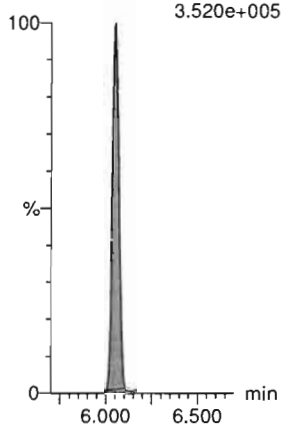
d3-N-MeFOSA-EIS



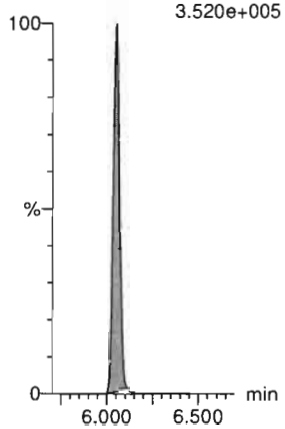
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

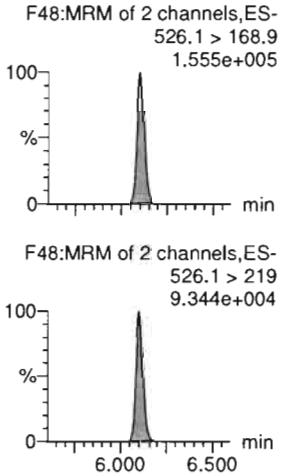


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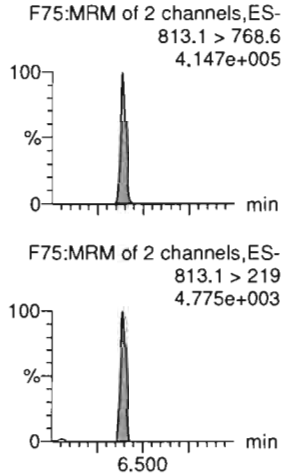
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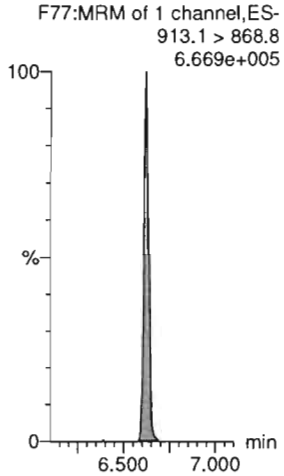
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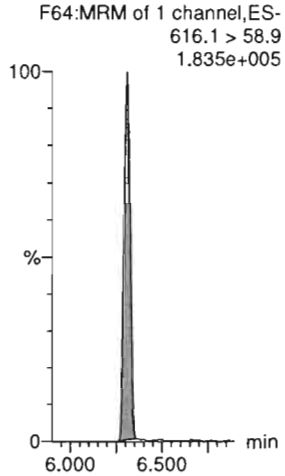
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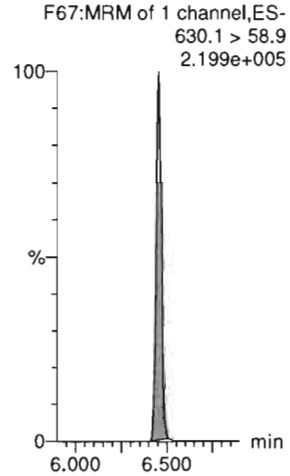
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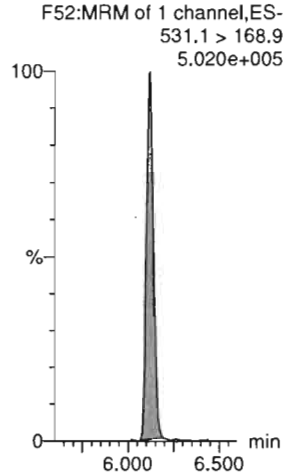
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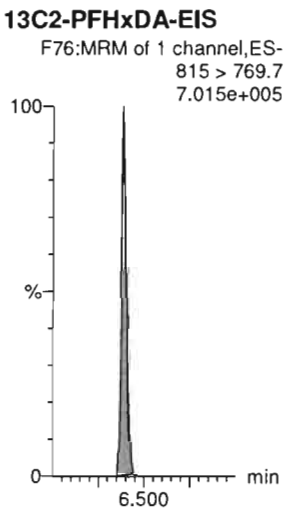
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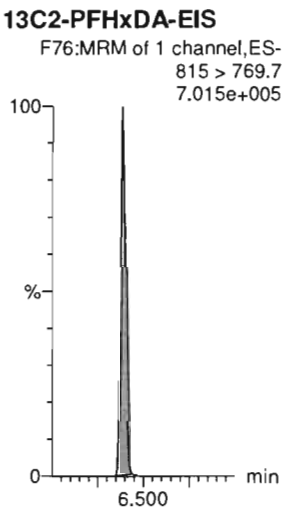
d5-N-ETFOSA-EIS



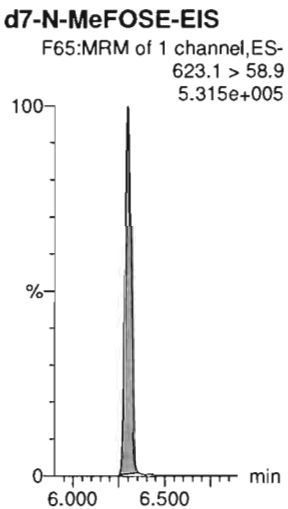
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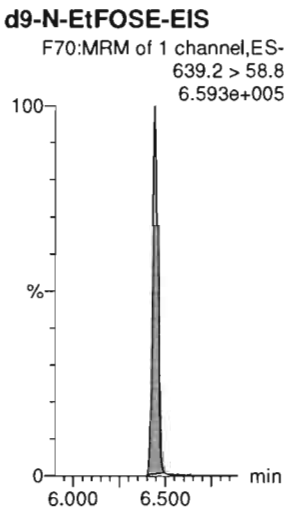
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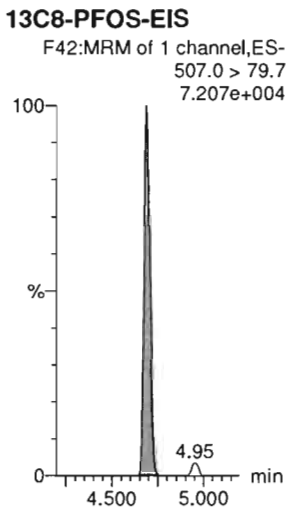
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d9-N-EtFOSE-EIS



13C8-PFOS-EIS

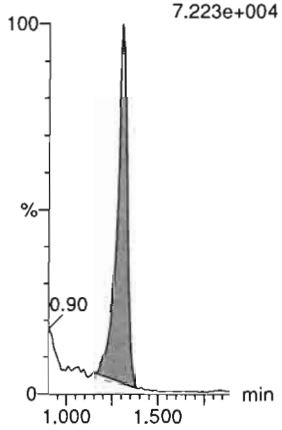


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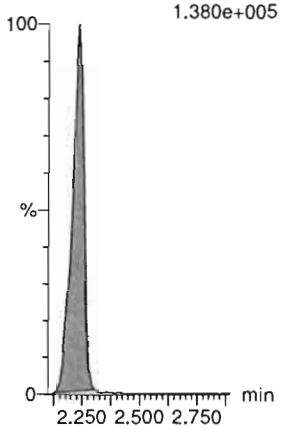
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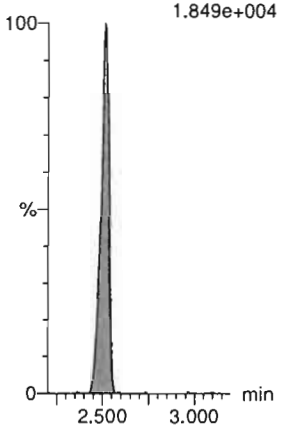
13C3-PFBA-RSD
F3:MRM of 1 channel,ES-
216.1 > 171.8
7.223e+004



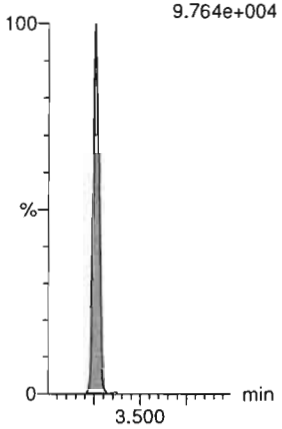
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
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1.380e+005



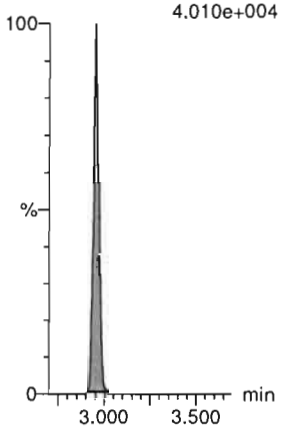
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.849e+004



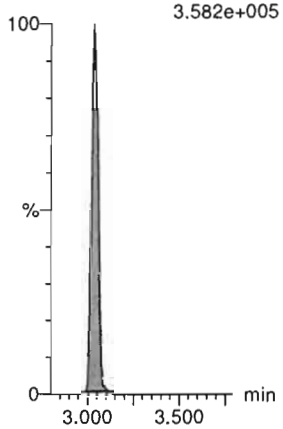
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.764e+004



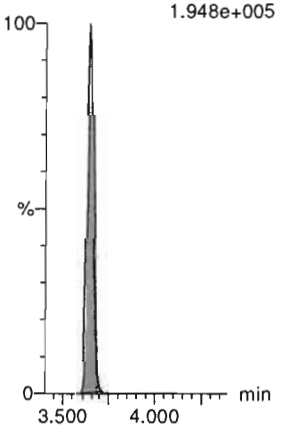
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.010e+004



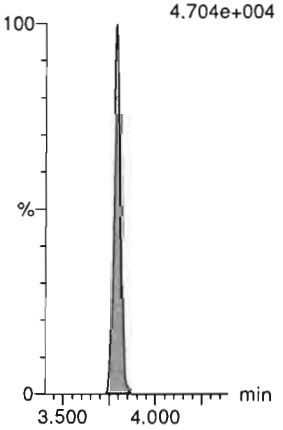
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.582e+005



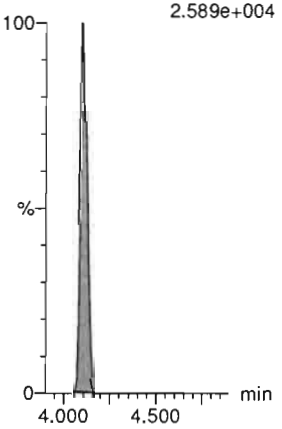
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.948e+005



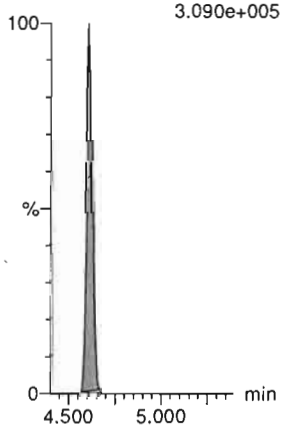
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
4.704e+004



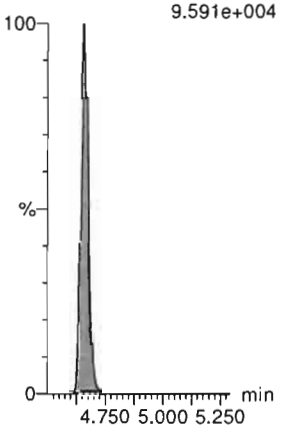
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.589e+004



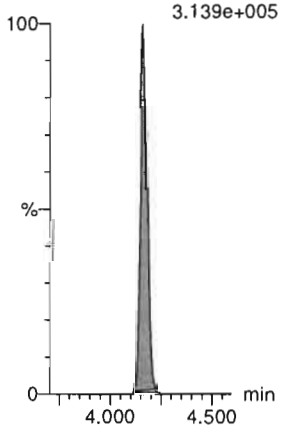
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
3.090e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.591e+004



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
3.139e+005

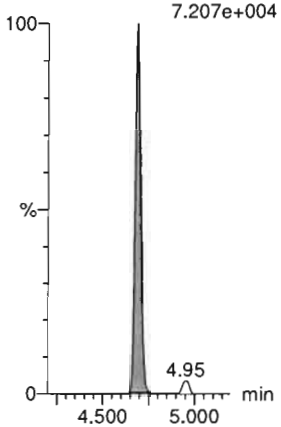


Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-26.qld

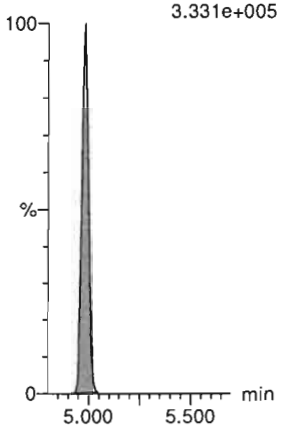
Last Altered: Monday, March 02, 2020 13:03:55 Pacific Standard Time
Printed: Monday, March 02, 2020 13:05:00 Pacific Standard Time

Name: 200229P1-26, Date: 29-Feb-2020, Time: 19:47:36, ID: ST200229P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

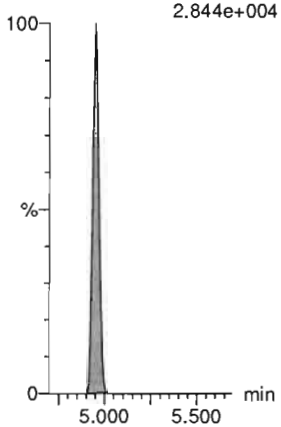
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
7.207e+004



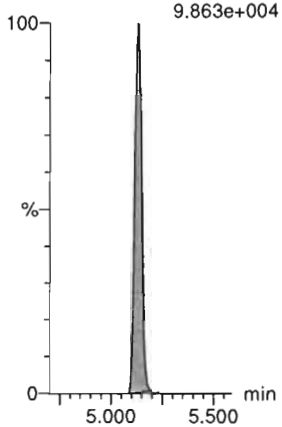
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.331e+005



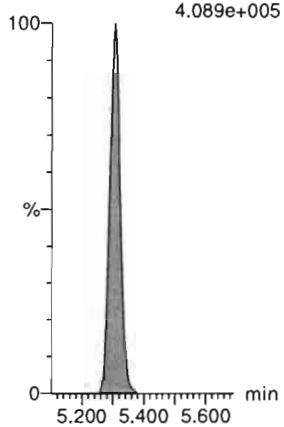
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.844e+004



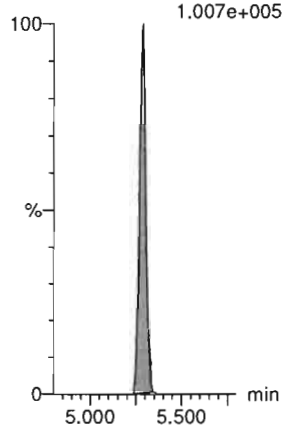
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
9.863e+004



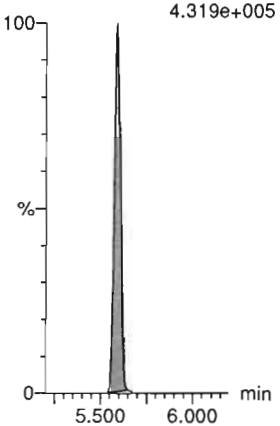
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.089e+005



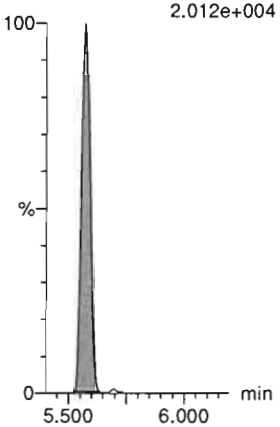
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.007e+005



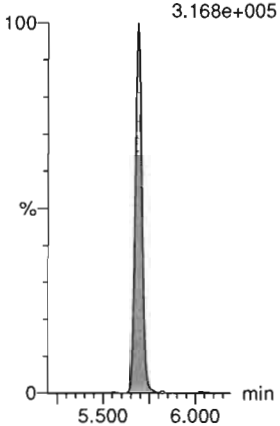
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.319e+005



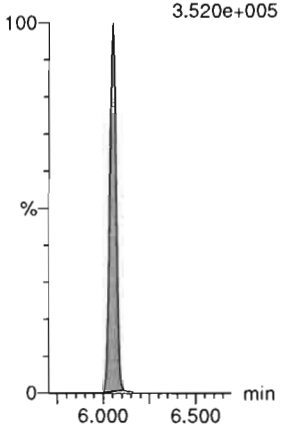
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.012e+004



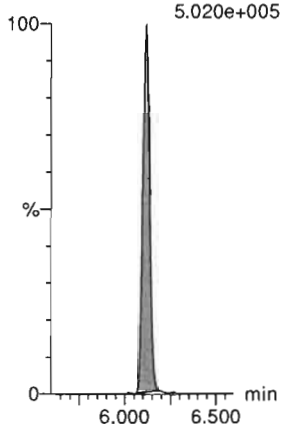
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.168e+005



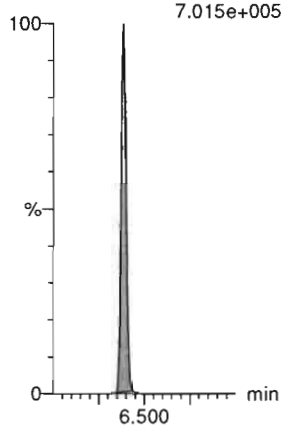
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.520e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.020e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
7.015e+005

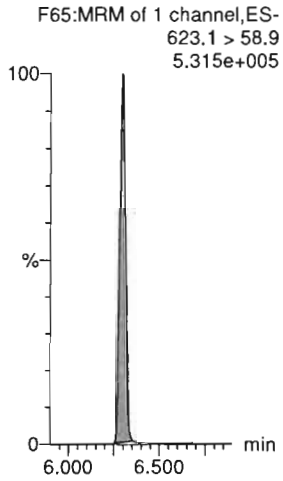


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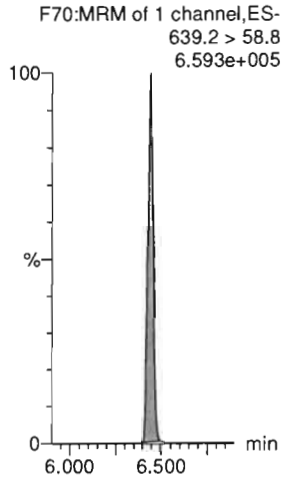
Last Altered: Monday, March 02, 2020 13:03:55 Pacific Standard Time
Printed: Monday, March 02, 2020 13:05:00 Pacific Standard Time

Name: 200229P1-26, Date: 29-Feb-2020, Time: 19:47:36, ID: ST200229P1-11 PFC CS3 20B1107, Description: PFC CS3 20B1107

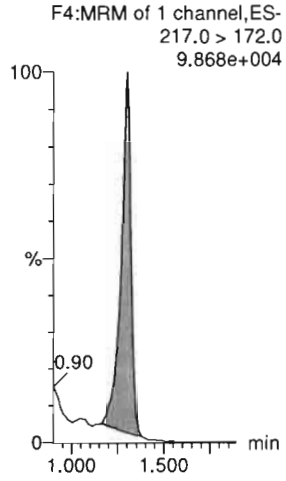
d7-N-MeFOSE-RSD



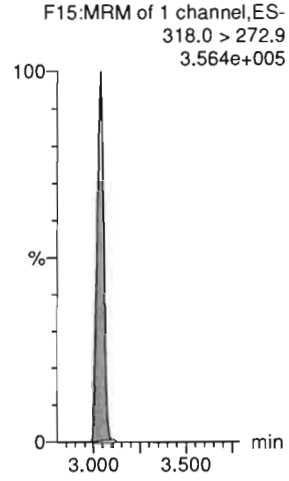
d9-N-EtFOSE-RSD



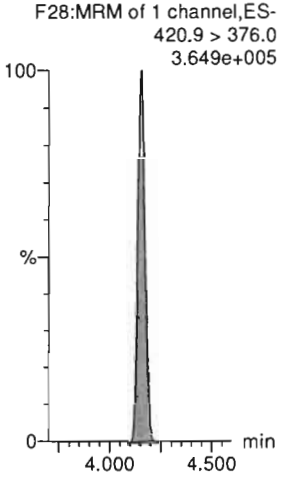
13C4-PFBA



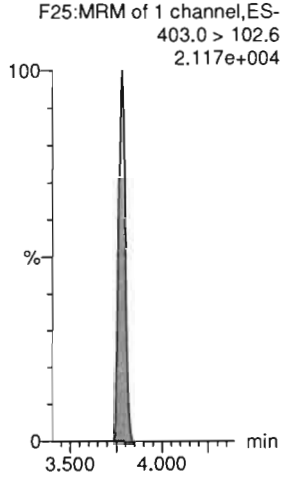
13C5-PFHxA



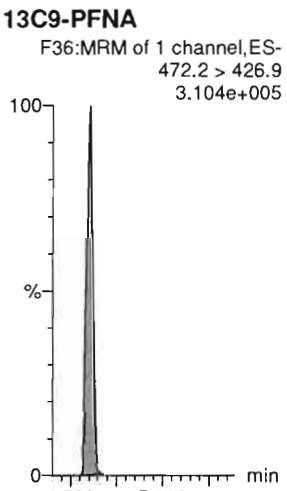
13C8-PFOA



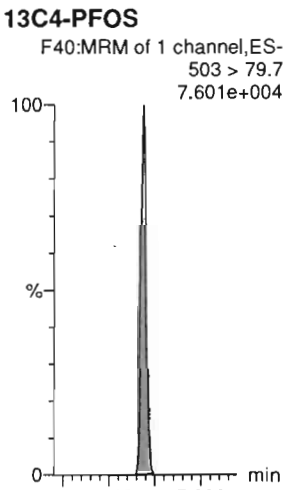
18O2-PFHxS



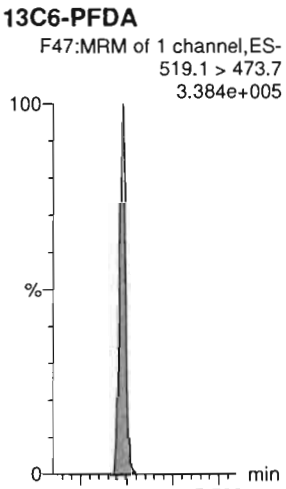
13C9-PFNA



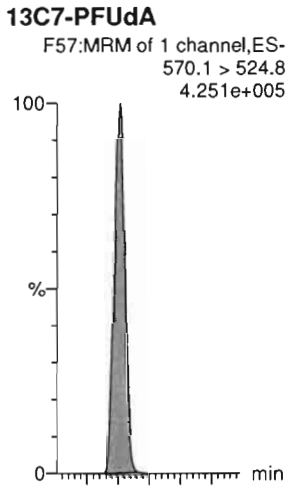
13C4-PFOS



13C6-PFDA



13C7-PFUdA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

INITIAL CALIBRATION VERIFICATION (ICV) AND INSTRUMENT BLANK (IB)

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:42:00 Pacific Standard Time

Low points
PFNA 0.5
PFDS
PFTrDA
PFDoS
9Cl-PF3ONS 1.0
10:2 FTS
8:2 FTS 2.0

High points
3:3 FTCA 100
5:3 FTCA
7:3 FTCA

PFNs not valid

RK 2/26/20
2/26/2020

Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Compound name: PFBA
Correlation coefficient: r = 0.999793, r^2 = 0.999585
Calibration curve: 1.10726 * x + 0.0852146
Response type: Internal Std (Ref 47), 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	200225P1-3	Standard	0.250	1.42	251.559	9872.161	0.319	0.2	-15.7	NO	1.000	NO	bb
2	2	200225P1-4	Standard	0.500	1.42	439.612	9951.374	0.552	0.4	-15.6	NO	1.000	NO	bb
3	3	200225P1-5	Standard	1.000	1.42	1109.572	10533.185	1.317	1.1	11.2	NO	1.000	NO	bb
4	4	200225P1-6	Standard	2.000	1.42	2038.873	10658.726	2.391	2.1	4.1	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	1.42	5143.872	10773.149	5.968	5.3	6.3	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	1.42	10631.475	11177.676	11.889	10.7	6.6	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	1.42	50046.164	11035.579	56.687	51.1	2.2	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	1.42	106591.211	11651.084	114.358	103.2	3.2	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	1.42	241177.609	11160.096	270.134	243.9	-2.4	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	1.42	487071.875	10979.427	554.528	500.7	0.1	NO	1.000	NO	bb

Compound name: PFPrS
Correlation coefficient: r = 0.999715, r^2 = 0.999431
Calibration curve: 1.65319 * x + -0.00618218
Response type: Internal Std (Ref 51), 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	200225P1-3	Standard	0.250	1.74	34.731	1408.205	0.308	0.2	-23.9	NO	0.999	NO	bb
2	2	200225P1-4	Standard	0.500	1.75	100.188	1358.158	0.922	0.6	12.3	NO	0.999	NO	MM
3	3	200225P1-5	Standard	1.000	1.75	205.334	1522.097	1.686	1.0	2.4	NO	0.999	NO	MM
4	4	200225P1-6	Standard	2.000	1.74	369.582	1551.953	2.977	1.8	-9.8	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	1.74	1050.319	1433.439	9.159	5.5	10.9	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	1.74	2054.670	1500.538	17.116	10.4	3.6	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	1.75	9997.262	1530.989	81.624	49.4	-1.2	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	1.75	21068.074	1504.221	175.075	105.9	5.9	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	1.74	45765.277	1395.008	410.081	248.1	-0.8	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	1.74	89382.742	1362.782	819.855	495.9	-0.8	NO	0.999	NO	bb

Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:42:00 Pacific Standard Time

Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.999447
Calibration curve: 6.20578e-005 * x^2 + 0.0762417 * x + 0.00385416
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	200225P1-3	Standard	0.250	2.20	24.067	12501.022	0.024	0.3	6.0	NO	0.999	NO	bb
2	2	200225P1-4	Standard	0.500	2.20	43.714	12270.164	0.045	0.5	6.7	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	2.20	87.024	13581.839	0.080	1.0	-0.1	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	2.20	159.950	12997.605	0.154	2.0	-1.8	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	2.20	454.582	13570.021	0.419	5.4	8.4	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	2.20	901.412	14147.710	0.796	10.3	3.1	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	2.20	4349.683	14067.085	3.865	48.7	-2.6	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	2.20	9372.919	14119.896	8.298	100.6	0.6	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	2.20	4452.209	12998.085	4.282	53.8	-78.5	YES	0.999	NO	bbX
10	10	200225P1-12	Standard	500.000	2.20	8717.536	13078.697	8.332	100.9	-79.8	YES	0.999	NO	bbX

Compound name: PFPeA
Coefficient of Determination: R^2 = 0.999596
Calibration curve: -5.10583e-005 * x^2 + 0.975868 * x + 0.0396465
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	200225P1-3	Standard	0.250	2.35	259.623	12501.022	0.260	0.2	-9.8	NO	1.000	NO	bb
2	2	200225P1-4	Standard	0.500	2.34	554.083	12270.164	0.564	0.5	7.6	NO	1.000	NO	bb
3	3	200225P1-5	Standard	1.000	2.34	1124.376	13581.839	1.035	1.0	2.0	NO	1.000	NO	bb
4	4	200225P1-6	Standard	2.000	2.34	2243.757	12997.605	2.158	2.2	8.5	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	2.34	5681.469	13570.021	5.233	5.3	6.5	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	2.34	11192.529	14147.710	9.889	10.1	1.0	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	2.34	54158.324	14067.085	48.125	49.4	-1.2	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	2.35	113797.125	14119.896	100.742	103.8	3.8	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	2.34	244207.125	12998.085	234.849	243.7	-2.5	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	2.35	499626.188	13078.697	477.519	502.5	0.5	NO	1.000	NO	bb

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Compound name: PFBS
Correlation coefficient: r = 0.998996, r^2 = 0.997993
Calibration curve: 2.30898 * x + 0.0728009
Response type: Internal Std (Ref 51), 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	200225P1-3	Standard	0.250	2.62	56.385	1408.205	0.501	0.2	-25.9	NO	0.998	NO	bb
2	2	200225P1-4	Standard	0.500	2.62	131.499	1358.158	1.210	0.5	-1.5	NO	0.998	NO	bb
3	3	200225P1-5	Standard	1.000	2.62	296.173	1522.097	2.432	1.0	2.2	NO	0.998	NO	bb
4	4	200225P1-6	Standard	2.000	2.62	617.726	1551.953	4.975	2.1	6.2	NO	0.998	NO	bb
5	5	200225P1-7	Standard	5.000	2.62	1524.157	1433.439	13.291	5.7	14.5	NO	0.998	NO	bb
6	6	200225P1-8	Standard	10.000	2.62	2879.698	1500.538	23.989	10.4	3.6	NO	0.998	NO	bb
7	7	200225P1-9	Standard	50.000	2.62	15113.940	1530.989	123.400	53.4	6.8	NO	0.998	NO	bb
8	8	200225P1-10	Standard	100.000	2.62	30759.455	1504.221	255.610	110.7	10.7	NO	0.998	NO	bb
9	9	200225P1-11	Standard	250.000	2.62	63297.770	1395.008	567.181	245.6	-1.8	NO	0.998	NO	bb
10	10	200225P1-12	Standard	500.000	2.62	123142.719	1362.782	1129.516	489.2	-2.2	NO	0.998	NO	bb

Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.999367
Calibration curve: -0.000434108 * x^2 + 1.38843 * x + -0.178318
Response type: Internal Std (Ref 55), 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	200225P1-3	Standard	0.250	3.05	29.600	1753.283	0.211	0.3	12.2	NO	0.999	NO	bb
2	2	200225P1-4	Standard	0.500	3.04	73.153	1601.853	0.571	0.5	7.9	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	3.04	158.563	1829.602	1.083	0.9	-9.1	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	3.04	291.394	1688.643	2.157	1.7	-15.9	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	3.04	1006.785	1677.821	7.501	5.5	10.8	NO	0.999	NO	MM
6	6	200225P1-8	Standard	10.000	3.04	1901.413	1863.165	12.757	9.3	-6.6	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	3.04	9683.509	1822.118	66.430	48.7	-2.6	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	3.04	18633.348	1658.604	140.429	104.7	4.7	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	3.04	38064.813	1513.540	314.369	245.4	-1.9	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	3.04	72026.602	1533.288	587.191	501.8	0.4	NO	0.999	NO	bb

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Compound name: PFHxA
Correlation coefficient: r = 0.999532, r^2 = 0.999064
Calibration curve: 0.893131 * x + 0.0844687
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 200225P1-3	Standard	0.250	3.13	408.921	20600.543	0.248	0.2	-26.7	NO	0.999	NO	bb
2	2 200225P1-4	Standard	0.500	3.13	868.738	20141.500	0.539	0.5	1.8	NO	0.999	NO	bb
3	3 200225P1-5	Standard	1.000	3.13	2081.999	22269.994	1.169	1.2	21.4	NO	0.999	NO	bb
4	4 200225P1-6	Standard	2.000	3.13	3485.344	21692.803	2.008	2.2	7.7	NO	0.999	NO	bb
5	5 200225P1-7	Standard	5.000	3.13	9025.080	21797.625	5.175	5.7	14.0	NO	0.999	NO	bb
6	6 200225P1-8	Standard	10.000	3.13	18079.037	22434.781	10.073	11.2	11.8	NO	0.999	NO	bb
7	7 200225P1-9	Standard	50.000	3.13	85265.031	22617.182	47.124	52.7	5.3	NO	0.999	NO	bb
8	8 200225P1-10	Standard	100.000	3.13	184612.094	24636.209	93.669	104.8	4.8	NO	0.999	NO	bb
9	9 200225P1-11	Standard	250.000	3.13	394941.938	22282.359	221.555	248.0	-0.8	NO	0.999	NO	bb
10	10 200225P1-12	Standard	500.000	3.13	766067.313	21770.824	439.847	492.4	-1.5	NO	0.999	NO	bb

Compound name: PFPeS
Coefficient of Determination: R^2 = 0.999064
Calibration curve: -0.000730443 * x^2 + 2.38201 * x + -0.0672473
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 200225P1-3	Standard	0.250	3.34	74.246	1408.205	0.659	0.3	22.0	NO	0.999	NO	bb
2	2 200225P1-4	Standard	0.500	3.34	84.241	1358.158	0.775	0.4	-29.2	NO	0.999	NO	bb
3	3 200225P1-5	Standard	1.000	3.32	259.810	1522.097	2.134	0.9	-7.6	NO	0.999	NO	bb
4	4 200225P1-6	Standard	2.000	3.32	511.543	1551.953	4.120	1.8	-12.1	NO	0.999	NO	bb
5	5 200225P1-7	Standard	5.000	3.32	1463.007	1433.439	12.758	5.4	7.9	NO	0.999	NO	bb
6	6 200225P1-8	Standard	10.000	3.32	2960.002	1500.538	24.658	10.4	4.1	NO	0.999	NO	bb
7	7 200225P1-9	Standard	50.000	3.32	14794.395	1530.989	120.791	51.6	3.1	NO	0.999	NO	bb
8	8 200225P1-10	Standard	100.000	3.32	28802.242	1504.221	239.345	103.8	3.8	NO	0.999	NO	bb
9	9 200225P1-11	Standard	250.000	3.32	58911.777	1395.008	527.880	239.2	-4.3	NO	0.999	NO	bb
10	10 200225P1-12	Standard	500.000	3.32	110896.992	1362.782	1017.193	505.4	1.1	NO	0.999	NO	bb

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Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.999495
Calibration curve: -0.000187555 * x^2 + 0.995843 * x + 0.017923
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	200225P1-3	Standard	0.250	3.35	52.057	3378.505	0.193	0.2	-29.8	NO	0.999	NO	bb
2	2	200225P1-4	Standard	0.500	3.34	164.853	3609.127	0.571	0.6	11.1	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	3.34	330.065	3804.277	1.085	1.1	7.1	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	3.34	618.137	3980.255	1.941	1.9	-3.4	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	3.34	1683.543	3826.282	5.500	5.5	10.2	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	3.34	3467.524	3927.562	11.036	11.1	10.9	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	3.34	16440.258	4045.775	50.795	51.5	3.0	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	3.34	35654.125	4556.917	97.802	100.1	0.1	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	3.34	76661.898	4140.616	231.433	243.6	-2.6	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	3.34	152800.328	4209.138	453.776	503.4	0.7	NO	0.999	NO	bb

Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999699
Calibration curve: 1.76506e-005 * x^2 + 0.186062 * x + -0.00829431
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	200225P1-3	Standard	0.250	3.68	46.139	14315.611	0.040	0.3	4.4	NO	1.000	NO	bb
2	2	200225P1-4	Standard	0.500	3.67	84.125	13755.051	0.076	0.5	-8.9	NO	1.000	NO	bb
3	3	200225P1-5	Standard	1.000	3.67	198.046	15124.546	0.164	0.9	-7.6	NO	1.000	NO	bb
4	4	200225P1-6	Standard	2.000	3.67	470.692	15091.041	0.390	2.1	7.0	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	3.67	1156.000	15019.074	0.962	5.2	4.3	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	3.67	2335.252	15418.089	1.893	10.2	2.1	NO	1.000	NO	MM
7	7	200225P1-9	Standard	50.000	3.67	11314.848	15402.855	9.182	49.2	-1.7	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	3.67	24340.861	16144.262	18.846	100.4	0.4	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	3.67	11122.743	14336.560	9.698	51.9	-79.2	YES	1.000	NO	bbX
10	10	200225P1-12	Standard	500.000	3.67	22914.650	14353.899	19.955	106.2	-78.8	YES	1.000	NO	bbX

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Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999835
Calibration curve: -0.000213241 * x^2 + 1.2385 * x + 0.0521085
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	200225P1-3	Standard	0.250	3.73	325.110	14315.611	0.284	0.2	-25.1	NO	1.000	NO	bb
2	2	200225P1-4	Standard	0.500	3.72	830.759	13755.051	0.755	0.6	13.5	NO	1.000	NO	MM
3	3	200225P1-5	Standard	1.000	3.72	1537.658	15124.546	1.271	1.0	-1.6	NO	1.000	NO	MM
4	4	200225P1-6	Standard	2.000	3.72	3162.798	15091.041	2.620	2.1	3.7	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	3.72	7984.577	15019.074	6.645	5.3	6.6	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	3.72	15772.457	15418.089	12.787	10.3	3.0	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	3.73	75329.375	15402.855	61.133	49.7	-0.5	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	3.73	159716.875	16144.262	123.664	101.6	1.6	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	3.72	335124.125	14336.560	292.194	246.3	-1.5	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	3.72	651910.188	14353.899	567.712	501.7	0.3	NO	1.000	NO	bb

Compound name: ADONA
Coefficient of Determination: R^2 = 0.999654
Calibration curve: -0.00033118 * x^2 + 2.85271 * x + 0.0577579
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	200225P1-3	Standard	0.250	3.84	804.333	14315.611	0.702	0.2	-9.6	NO	1.000	NO	bb
2	2	200225P1-4	Standard	0.500	3.83	1657.521	13755.051	1.506	0.5	1.6	NO	1.000	NO	bb
3	3	200225P1-5	Standard	1.000	3.83	3447.736	15124.546	2.849	1.0	-2.1	NO	1.000	NO	bb
4	4	200225P1-6	Standard	2.000	3.83	7266.229	15091.041	6.019	2.1	4.5	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	3.83	17935.957	15019.074	14.928	5.2	4.3	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	3.83	37234.676	15418.089	30.187	10.6	5.7	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	3.83	167793.672	15402.855	136.171	48.0	-4.0	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	3.83	356669.906	16144.262	276.158	97.9	-2.1	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	3.83	811379.125	14336.560	707.439	255.5	2.2	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	3.83	1536289.125	14353.899	1337.867	497.7	-0.5	NO	1.000	NO	bb

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Compound name: L-PFHxS
Correlation coefficient: r = 0.999271, r^2 = 0.998543
Calibration curve: 1.01885 * x + 0.0424708
Response type: Internal Std (Ref 61), 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	200225P1-3	Standard	0.250	3.87	76.970	3089.414	0.311	0.3	5.6	NO	0.999	NO	MM
2	2	200225P1-4	Standard	0.500	3.86	129.879	3233.223	0.502	0.5	-9.8	NO	0.999	NO	MM
3	3	200225P1-5	Standard	1.000	3.86	260.478	3312.404	0.983	0.9	-7.7	NO	0.999	NO	MM
4	4	200225P1-6	Standard	2.000	3.87	506.015	3236.657	1.954	1.9	-6.2	NO	0.999	NO	MM
5	5	200225P1-7	Standard	5.000	3.86	1492.745	3307.574	5.641	5.5	9.9	NO	0.999	NO	MM
6	6	200225P1-8	Standard	10.000	3.86	2706.336	3416.446	9.902	9.7	-3.2	NO	0.999	NO	MM
7	7	200225P1-9	Standard	50.000	3.86	13853.379	3190.156	54.282	53.2	6.5	NO	0.999	NO	MM
8	8	200225P1-10	Standard	100.000	3.86	30621.656	3452.222	110.877	108.8	8.8	NO	0.999	NO	MM
9	9	200225P1-11	Standard	250.000	3.86	64861.746	3280.190	247.172	242.6	-3.0	NO	0.999	NO	MM
10	10	200225P1-12	Standard	500.000	3.86	122824.227	3040.974	504.872	495.5	-0.9	NO	0.999	NO	MM

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997864
Calibration curve: -0.000277268 * x^2 + 1.56695 * x + 0.134499
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	200225P1-3	Standard	0.250	4.18	59.670	1250.351	0.597	0.3	18.0	NO	0.998	NO	bb
2	2	200225P1-4	Standard	0.500	4.18	85.714	1319.649	0.812	0.4	-13.5	NO	0.998	NO	bb
3	3	200225P1-5	Standard	1.000	4.18	209.655	1355.616	1.933	1.1	14.8	NO	0.998	NO	bb
4	4	200225P1-6	Standard	2.000	4.17	465.777	1587.204	3.668	2.3	12.8	NO	0.998	NO	bb
5	5	200225P1-7	Standard	5.000	4.17	897.850	1543.772	7.270	4.6	-8.9	NO	0.998	NO	bb
6	6	200225P1-8	Standard	10.000	4.18	2133.570	1534.965	17.375	11.0	10.2	NO	0.998	NO	bb
7	7	200225P1-9	Standard	50.000	4.18	9310.367	1552.968	74.940	48.1	-3.7	NO	0.998	NO	bb
8	8	200225P1-10	Standard	100.000	4.18	22085.416	1647.530	167.565	109.0	9.0	NO	0.998	NO	bb
9	9	200225P1-11	Standard	250.000	4.18	39580.113	1393.243	355.108	236.4	-5.4	NO	0.998	NO	bb
10	10	200225P1-12	Standard	500.000	4.18	85141.984	1474.945	721.569	505.6	1.1	NO	0.998	NO	bb

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Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999126
Calibration curve: -0.000157489 * x^2 + 1.13112 * x + 0.114857
Response type: Internal Std (Ref 69), 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	200225P1-3	Standard	0.250	4.24	503.119	18905.670	0.333	0.2	-23.0	NO	0.999	NO	bb
2	2	200225P1-4	Standard	0.500	4.23	996.054	19025.869	0.654	0.5	-4.6	NO	0.999	NO	bd
3	3	200225P1-5	Standard	1.000	4.23	2011.736	19788.479	1.271	1.0	2.2	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	4.23	4166.273	21544.221	2.417	2.0	1.8	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	4.23	11167.409	20464.119	6.821	5.9	18.7	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	4.23	18678.193	19919.584	11.721	10.3	2.8	NO	0.999	NO	db
7	7	200225P1-9	Standard	50.000	4.23	94867.516	20725.129	57.218	50.8	1.7	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	4.23	199573.672	21582.922	115.585	103.6	3.6	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	4.23	434959.406	20718.783	262.419	239.9	-4.0	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	4.23	764072.625	17996.074	530.722	504.5	0.9	NO	0.999	NO	bb

Compound name: PFecHS
Coefficient of Determination: R^2 = 0.996153
Calibration curve: 4.46408e-005 * x^2 + 0.147633 * x + 0.0114163
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	200225P1-3	Standard	0.250	4.25	72.448	18905.670	0.048	0.2	-1.2	NO	0.996	NO	bb
2	2	200225P1-4	Standard	0.500	4.25	118.703	19025.869	0.078	0.5	-9.8	NO	0.996	NO	bb
3	3	200225P1-5	Standard	1.000	4.24	263.136	19788.479	0.166	1.0	4.8	NO	0.996	NO	bb
4	4	200225P1-6	Standard	2.000	4.24	509.567	21544.221	0.296	1.9	-3.8	NO	0.996	NO	bb
5	5	200225P1-7	Standard	5.000	4.24	1340.190	20464.119	0.819	5.5	9.2	NO	0.996	NO	bb
6	6	200225P1-8	Standard	10.000	4.24	2933.219	19919.584	1.841	12.3	23.4	NO	0.996	NO	MM
7	7	200225P1-9	Standard	50.000	4.24	13468.983	20725.129	8.124	54.1	8.1	NO	0.996	NO	bb
8	8	200225P1-10	Standard	100.000	4.25	28229.432	21582.922	16.349	107.2	7.2	NO	0.996	NO	bb
9	9	200225P1-11	Standard	250.000	4.24	59663.828	20718.783	35.996	228.0	-8.8	NO	0.996	NO	bb
10	10	200225P1-12	Standard	500.000	4.24	124604.023	17996.074	86.549	508.1	1.6	NO	0.996	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999533
Calibration curve: -1.97849e-005 * x^2 + 0.928406 * x + 0.0131066
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	200225P1-3	Standard	0.250	4.35	47.931	3392.257	0.177	0.2	-29.6	NO	1.000	NO	bb
2	2	200225P1-4	Standard	0.500	4.34	138.523	3412.653	0.507	0.5	6.5	NO	1.000	NO	bb
3	3	200225P1-5	Standard	1.000	4.35	266.151	3819.392	0.871	0.9	-7.6	NO	1.000	NO	bb
4	4	200225P1-6	Standard	2.000	4.34	570.152	3246.941	2.195	2.4	17.5	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	4.34	1578.352	3799.922	5.192	5.6	11.6	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	4.34	3018.898	3646.993	10.347	11.1	11.3	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	4.34	14246.896	4032.981	44.157	47.6	-4.8	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	4.34	29885.527	3990.603	93.612	101.0	1.0	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	4.34	65846.547	3581.742	229.799	248.8	-0.5	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	4.34	125758.219	3418.734	459.813	500.6	0.1	NO	1.000	NO	bb

Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.998547
Calibration curve: 8.1341e-005 * x^2 + 0.155084 * x + -0.0133127
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	200225P1-3	Standard	0.250	4.66	26.776	17239.375	0.019	0.2	-15.6	NO	0.999	NO	bb
2	2	200225P1-4	Standard	0.500	4.65	86.818	16726.338	0.065	0.5	0.8	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	4.66	212.802	19469.943	0.137	1.0	-3.4	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	4.65	471.534	17698.107	0.333	2.2	11.5	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	4.65	1164.208	19189.289	0.758	5.0	-0.7	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	4.65	2554.036	18650.008	1.712	11.1	10.6	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	4.66	12022.045	19754.828	7.607	47.9	-4.1	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	4.66	25325.600	19232.490	16.460	100.9	0.9	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	4.66	12172.553	18824.725	8.083	50.8	-79.7	YES	0.999	NO	bbX
10	10	200225P1-12	Standard	500.000	4.65	24093.377	17270.096	17.439	106.6	-78.7	YES	0.999	NO	bbX

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Compound name: PFNA
Correlation coefficient: r = 0.999628, r^2 = 0.999256
Calibration curve: 1.17976 * x + 0.155189
Response type: Internal Std (Ref 65), 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	200225P1-3	Standard	0.250	4.68	331.835	17239.375	0.241	0.1	-71.0	YES	0.999	NO	bbX
2	2	200225P1-4	Standard	0.500	4.67	1024.462	16726.338	0.766	0.5	3.5	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	4.67	1911.482	19469.943	1.227	0.9	-9.1	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	4.67	3983.001	17698.107	2.813	2.3	12.6	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	4.67	9800.355	19189.289	6.384	5.3	5.6	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	4.67	20052.207	18650.008	13.440	11.3	12.6	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	4.67	92364.797	19754.828	58.444	49.4	-1.2	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	4.67	190532.734	19232.490	123.835	104.8	4.8	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	4.67	432450.375	18824.725	287.156	243.3	-2.7	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	4.67	816446.938	17270.096	590.940	500.8	0.2	NO	0.999	NO	bb

Compound name: PFOSA
Coefficient of Determination: R^2 = 0.998293
Calibration curve: 2.22748e-005 * x^2 + 0.82094 * x + -0.0255848
Response type: Internal Std (Ref 67), 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	200225P1-3	Standard	0.250	4.74	42.189	4235.302	0.125	0.2	-26.9	NO	0.998	NO	bb
2	2	200225P1-4	Standard	0.500	4.73	153.339	4234.348	0.453	0.6	16.5	NO	0.998	NO	bb
3	3	200225P1-5	Standard	1.000	4.73	309.915	4865.226	0.796	1.0	0.1	NO	0.998	NO	bb
4	4	200225P1-6	Standard	2.000	4.73	626.369	4669.988	1.677	2.1	3.7	NO	0.998	NO	bb
5	5	200225P1-7	Standard	5.000	4.73	1663.491	4849.630	4.288	5.3	5.1	NO	0.998	NO	bb
6	6	200225P1-8	Standard	10.000	4.73	3077.013	4697.788	8.187	10.0	0.0	NO	0.998	NO	bb
7	7	200225P1-9	Standard	50.000	4.73	15662.475	4952.633	39.531	48.1	-3.8	NO	0.998	NO	bb
8	8	200225P1-10	Standard	100.000	4.73	33165.664	4614.442	89.842	109.1	9.1	NO	0.998	NO	bb
9	9	200225P1-11	Standard	250.000	4.73	65960.297	4190.781	196.742	238.1	-4.7	NO	0.998	NO	bb
10	10	200225P1-12	Standard	500.000	4.73	139279.953	4149.340	419.585	504.2	0.8	NO	0.998	NO	bb

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Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999204
Calibration curve: -1.248e-005 * x^2 + 0.936367 * x + -0.00626015
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	200225P1-3	Standard	0.250	4.77	46.241	3392.257	0.170	0.2	-24.5	NO	0.999	NO	MM
2	2	200225P1-4	Standard	0.500	4.74	115.939	3412.653	0.425	0.5	-8.0	NO	0.999	NO	MM
3	3	200225P1-5	Standard	1.000	4.75	270.562	3819.392	0.885	1.0	-4.8	NO	0.999	NO	MM
4	4	200225P1-6	Standard	2.000	4.75	569.972	3246.941	2.194	2.4	17.5	NO	0.999	NO	MM
5	5	200225P1-7	Standard	5.000	4.75	1552.437	3799.922	5.107	5.5	9.2	NO	0.999	NO	MM
6	6	200225P1-8	Standard	10.000	4.75	3132.146	3646.993	10.735	11.5	14.7	NO	0.999	NO	MM
7	7	200225P1-9	Standard	50.000	4.75	14143.180	4032.981	43.836	46.9	-6.3	NO	0.999	NO	MM
8	8	200225P1-10	Standard	100.000	4.75	30848.615	3990.603	96.629	103.3	3.3	NO	0.999	NO	MM
9	9	200225P1-11	Standard	250.000	4.75	65811.383	3581.742	229.677	246.1	-1.6	NO	0.999	NO	MM
10	10	200225P1-12	Standard	500.000	4.75	127589.477	3418.734	466.508	501.6	0.3	NO	0.999	NO	MM

Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.999619
Calibration curve: -0.000173604 * x^2 + 0.991244 * x + 0.177624
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	200225P1-3	Standard	0.250	4.97	55.418	3392.257	0.204	0.0	-89.3	YES	1.000	NO	bbX
2	2	200225P1-4	Standard	0.500	4.96	60.848	3412.653	0.223	0.0	-90.9	YES	1.000	NO	bbX
3	3	200225P1-5	Standard	1.000	4.96	351.945	3819.392	1.152	1.0	-1.7	NO	1.000	NO	bb
4	4	200225P1-6	Standard	2.000	4.96	574.381	3246.941	2.211	2.1	2.6	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	4.96	1389.860	3799.922	4.572	4.4	-11.3	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	4.96	3202.594	3646.993	10.977	10.9	9.2	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	4.96	15993.421	4032.981	49.571	50.3	0.5	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	4.96	31843.514	3990.603	99.745	102.3	2.3	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	4.96	66602.328	3581.742	232.437	244.8	-2.1	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	4.96	124243.469	3418.734	454.274	502.3	0.5	NO	1.000	NO	bb

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999769
Calibration curve: -0.000263391 * x^2 + 1.17334 * x + 0.0663551
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 200225P1-3	Standard	0.250	5.04	457.555	17688.168	0.323	0.2	-12.4	NO	1.000	NO	bb
2	2 200225P1-4	Standard	0.500	5.04	1071.675	18158.623	0.738	0.6	14.5	NO	1.000	NO	bb
3	3 200225P1-5	Standard	1.000	5.04	2163.829	20772.906	1.302	1.1	5.3	NO	1.000	NO	bb
4	4 200225P1-6	Standard	2.000	5.04	4021.795	20265.523	2.481	2.1	2.9	NO	1.000	NO	bb
5	5 200225P1-7	Standard	5.000	5.04	9888.414	20194.920	6.121	5.2	3.3	NO	1.000	NO	bb
6	6 200225P1-8	Standard	10.000	5.04	21045.451	20439.703	12.870	10.9	9.4	NO	1.000	NO	bb
7	7 200225P1-9	Standard	50.000	5.04	97994.969	20732.352	59.083	50.9	1.8	NO	1.000	NO	bb
8	8 200225P1-10	Standard	100.000	5.04	188368.891	20899.775	112.662	98.1	-1.9	NO	1.000	NO	bb
9	9 200225P1-11	Standard	250.000	5.04	450311.469	20424.217	275.599	248.7	-0.5	NO	1.000	NO	bb
10	10 200225P1-12	Standard	500.000	5.04	862822.438	20667.172	521.856	501.1	0.2	NO	1.000	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.996459
Calibration curve: -0.000340371 * x^2 + 1.34102 * x + -0.893418
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 200225P1-3	Standard	0.250	5.02	31.988	1235.022	0.324	0.9	263.1	YES	0.996	NO	bbX
2	2 200225P1-4	Standard	0.500	5.00	40.994	1045.851	0.490	1.0	106.4	YES	0.996	NO	bbX
3	3 200225P1-5	Standard	1.000	5.01	186.388	1194.706	1.950	2.1	112.2	YES	0.996	NO	bbX
4	4 200225P1-6	Standard	2.000	5.02	192.389	1265.179	1.901	2.1	4.2	NO	0.996	NO	bb
5	5 200225P1-7	Standard	5.000	5.01	547.248	1294.409	5.285	4.6	-7.8	NO	0.996	NO	bb
6	6 200225P1-8	Standard	10.000	5.01	1349.860	1277.157	13.212	10.5	5.5	NO	0.996	NO	bb
7	7 200225P1-9	Standard	50.000	5.01	7535.736	1364.021	69.058	52.9	5.7	NO	0.996	NO	bb
8	8 200225P1-10	Standard	100.000	5.01	12873.406	1417.279	113.540	87.3	-12.7	NO	0.996	NO	bb
9	9 200225P1-11	Standard	250.000	5.01	32055.500	1207.879	331.733	266.0	6.4	NO	0.996	NO	bb
10	10 200225P1-12	Standard	500.000	5.01	59592.598	1288.608	578.071	493.6	-1.3	NO	0.996	NO	bb

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Compound name: PFNS
Correlation coefficient: r = 0.998965, r^2 = 0.997930
Calibration curve: 0.867271 * x + 0.295013
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

Excluded RK 2/26/20

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200225P1-3	Standard	0.250	5.10	49.022	3392.257	0.181			NO	0.998	NO	bbXI
2	2	200225P1-4	Standard	0.500	5.10	112.890	3412.653	0.413	0.1	-72.7	YES	0.998	NO	bbX
3	3	200225P1-5	Standard	1.000	5.10	256.200	3819.392	0.838	0.6	-37.3	YES	0.998	NO	bb
4	4	200225P1-6	Standard	2.000	5.09	700.913	3246.941	2.698	2.8	38.6	YES	0.998	NO	MM
5	5	200225P1-7	Standard	5.000	5.10	1528.818	3799.922	5.029	5.5	9.2	NO	0.998	NO	bb
6	6	200225P1-8	Standard	10.000	5.09	3037.604	3646.993	10.411	11.7	16.6	NO	0.998	NO	bb
7	7	200225P1-9	Standard	50.000	5.10	14384.352	4032.981	44.583	51.1	2.1	NO	0.998	NO	bb
8	8	200225P1-10	Standard	100.000	5.10	29223.545	3990.603	91.539	105.2	5.2	NO	0.998	NO	bb
9	9	200225P1-11	Standard	250.000	5.10	63943.840	3581.742	223.159	257.0	2.8	NO	0.998	NO	bb
10	10	200225P1-12	Standard	500.000	5.10	114939.531	3418.734	420.256	484.2	-3.2	NO	0.998	NO	bb

Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.997934
Calibration curve: -0.000651587 * x^2 + 1.94487 * x + -0.0570901
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	200225P1-3	Standard	0.250	5.20	103.931	3174.144	0.409	0.2	-4.1	NO	0.998	NO	MM
2	2	200225P1-4	Standard	0.500	5.19	242.740	3469.963	0.874	0.5	-4.2	NO	0.998	NO	MM
3	3	200225P1-5	Standard	1.000	5.19	583.899	3495.821	2.088	1.1	10.3	NO	0.998	NO	MM
4	4	200225P1-6	Standard	2.000	5.19	1202.032	3645.388	4.122	2.2	7.5	NO	0.998	NO	MM
5	5	200225P1-7	Standard	5.000	5.18	2796.907	3633.896	9.621	5.0	-0.3	NO	0.998	NO	MM
6	6	200225P1-8	Standard	10.000	5.18	5463.069	4128.875	16.539	8.6	-14.4	NO	0.998	NO	MM
7	7	200225P1-9	Standard	50.000	5.19	29074.631	4188.330	86.773	45.3	-9.3	NO	0.998	NO	MM
8	8	200225P1-10	Standard	100.000	5.19	62112.598	4211.558	184.352	98.0	-2.0	NO	0.998	NO	MM
9	9	200225P1-11	Standard	250.000	5.19	137669.156	3648.913	471.610	266.3	6.5	NO	0.998	NO	MM
10	10	200225P1-12	Standard	500.000	5.19	258157.016	4043.613	798.039	491.2	-1.8	NO	0.998	NO	MM

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Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Compound name: L-EtFOSAA
Correlation coefficient: r = 0.999424, r^2 = 0.998848
Calibration curve: 1.19224 * x + 0.0364651
Response type: Internal Std (Ref 81), 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 200225P1-3	Standard	0.250	5.34	93.380	4635.703	0.252	0.2	-27.8	NO	0.999	NO	MM
2	2 200225P1-4	Standard	0.500	5.34	265.956	4671.362	0.712	0.6	13.3	NO	0.999	NO	MM
3	3 200225P1-5	Standard	1.000	5.34	502.087	5361.517	1.171	1.0	-4.9	NO	0.999	NO	MM
4	4 200225P1-6	Standard	2.000	5.34	1099.765	5107.157	2.692	2.2	11.4	NO	0.999	NO	MM
5	5 200225P1-7	Standard	5.000	5.34	2735.706	5470.047	6.252	5.2	4.3	NO	0.999	NO	MM
6	6 200225P1-8	Standard	10.000	5.34	4993.793	4941.707	12.632	10.6	5.6	NO	0.999	NO	MM
7	7 200225P1-9	Standard	50.000	5.34	25926.740	5109.596	63.427	53.2	6.3	NO	0.999	NO	MM
8	8 200225P1-10	Standard	100.000	5.34	54543.426	5321.571	128.119	107.4	7.4	NO	0.999	NO	MM
9	9 200225P1-11	Standard	250.000	5.34	116866.383	5012.692	291.426	244.4	-2.2	NO	0.999	NO	MM
10	10 200225P1-12	Standard	500.000	5.34	213568.469	4532.038	589.052	494.0	-1.2	NO	0.999	NO	MM

Compound name: PFUdA
Correlation coefficient: r = 0.998904, r^2 = 0.997808
Calibration curve: 0.920819 * x + 0.155174
Response type: Internal Std (Ref 79), 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 200225P1-3	Standard	0.250	5.36	544.443	18802.816	0.362	0.2	-10.2	NO	0.998	NO	bb
2	2 200225P1-4	Standard	0.500	5.35	841.646	20783.641	0.506	0.4	-23.8	NO	0.998	NO	bb
3	3 200225P1-5	Standard	1.000	5.35	1894.715	23235.645	1.019	0.9	-6.2	NO	0.998	NO	bb
4	4 200225P1-6	Standard	2.000	5.35	3511.903	22555.502	1.946	1.9	-2.7	NO	0.998	NO	bb
5	5 200225P1-7	Standard	5.000	5.35	9796.873	23655.426	5.177	5.5	9.1	NO	0.998	NO	bb
6	6 200225P1-8	Standard	10.000	5.35	18472.082	20213.629	11.423	12.2	22.4	NO	0.998	NO	bb
7	7 200225P1-9	Standard	50.000	5.35	88697.039	22435.588	49.418	53.5	7.0	NO	0.998	NO	bb
8	8 200225P1-10	Standard	100.000	5.35	184083.938	22887.840	100.536	109.0	9.0	NO	0.998	NO	bb
9	9 200225P1-11	Standard	250.000	5.35	405860.625	22758.658	222.916	241.9	-3.2	NO	0.998	NO	bb
10	10 200225P1-12	Standard	500.000	5.35	776508.125	21367.789	454.252	493.1	-1.4	NO	0.998	NO	bb

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Compound name: PFDS
Correlation coefficient: r = 0.999800, r^2 = 0.999601
Calibration curve: 0.767019 * x + 0.0116423
Response type: Internal Std (Ref 71), 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	200225P1-3	Standard	0.250	5.40	79.096	3392.257	0.291	0.4	45.9	YES	1.000	NO	bbX
2	2	200225P1-4	Standard	0.500	5.40	84.478	3412.653	0.309	0.4	-22.4	NO	1.000	NO	bb
3	3	200225P1-5	Standard	1.000	5.40	244.893	3819.392	0.801	1.0	3.0	NO	1.000	NO	bb
4	4	200225P1-6	Standard	2.000	5.40	402.231	3246.941	1.548	2.0	0.2	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	5.40	1288.323	3799.922	4.238	5.5	10.2	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	5.40	2517.942	3646.993	8.630	11.2	12.4	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	5.40	12173.148	4032.981	37.730	49.2	-1.6	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	5.40	25147.697	3990.603	78.772	102.7	2.7	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	5.40	54217.523	3581.742	189.215	246.7	-1.3	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	5.40	104850.586	3418.734	383.368	499.8	-0.0	NO	1.000	NO	bb

Compound name: 11Cl-PF30UdS
Correlation coefficient: r = 0.999589, r^2 = 0.999178
Calibration curve: 0.454613 * x + 0.0281832
Response type: Internal Std (Ref 83), 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	200225P1-3	Standard	0.250	5.56	187.509	19794.912	0.118	0.2	-20.6	NO	0.999	NO	bb
2	2	200225P1-4	Standard	0.500	5.56	355.033	17291.875	0.257	0.5	0.5	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	5.55	848.483	20924.223	0.507	1.1	5.3	NO	0.999	NO	MM
4	4	200225P1-6	Standard	2.000	5.56	1669.959	20403.285	1.023	2.2	9.4	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	5.56	4216.296	19895.336	2.649	5.8	15.3	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	5.56	8267.603	21078.160	4.903	10.7	7.2	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	5.56	39484.668	20754.656	23.781	52.2	4.5	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	5.56	82890.117	21822.719	47.479	104.4	4.4	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	5.56	186889.469	20369.846	114.685	252.2	0.9	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	5.56	327780.250	18409.998	222.556	489.5	-2.1	NO	0.999	NO	bb

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Compound name: 10:2 FTS
Correlation coefficient: r = 0.998945, r^2 = 0.997890
Calibration curve: 2.19744 * x + 0.426867
Response type: Internal Std (Ref 85), 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	200225P1-3	Standard	0.250	5.62	46.767	1004.549	0.582	0.1	-71.8	YES	0.998	NO	bbX
2	2	200225P1-4	Standard	0.500	5.62	45.970	877.858	0.655	0.1	-79.3	YES	0.998	NO	bbX
3	3	200225P1-5	Standard	1.000	5.62	178.349	1029.995	2.164	0.8	-20.9	NO	0.998	NO	bb
4	4	200225P1-6	Standard	2.000	5.61	464.011	986.869	5.877	2.5	24.0	NO	0.998	NO	bb
5	5	200225P1-7	Standard	5.000	5.61	739.347	863.880	10.698	4.7	-6.5	NO	0.998	NO	bb
6	6	200225P1-8	Standard	10.000	5.61	1678.809	899.490	23.330	10.4	4.2	NO	0.998	NO	bb
7	7	200225P1-9	Standard	50.000	5.61	7987.114	851.594	117.238	53.2	6.3	NO	0.998	NO	bb
8	8	200225P1-10	Standard	100.000	5.61	17130.980	1017.819	210.388	95.5	-4.5	NO	0.998	NO	bb
9	9	200225P1-11	Standard	250.000	5.61	35756.695	862.033	518.494	235.8	-5.7	NO	0.998	NO	bb
10	10	200225P1-12	Standard	500.000	5.61	62127.332	685.745	1132.479	515.2	3.0	NO	0.998	NO	bb

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999585
Calibration curve: -0.000140726 * x^2 + 1.07719 * x + 0.077473
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	200225P1-3	Standard	0.250	5.64	593.686	19794.912	0.375	0.3	10.4	NO	1.000	NO	bb
2	2	200225P1-4	Standard	0.500	5.62	947.643	17291.875	0.685	0.6	12.8	NO	1.000	NO	bb
3	3	200225P1-5	Standard	1.000	5.62	1787.508	20924.223	1.068	0.9	-8.0	NO	1.000	NO	MM
4	4	200225P1-6	Standard	2.000	5.63	3915.553	20403.285	2.399	2.2	7.8	NO	1.000	NO	bb
5	5	200225P1-7	Standard	5.000	5.63	9412.472	19895.336	5.914	5.4	8.4	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	5.63	17203.012	21078.160	10.202	9.4	-5.9	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	5.63	92027.055	20754.656	55.426	51.7	3.5	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	5.63	188755.781	21822.719	108.119	101.6	1.6	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	5.63	414706.250	20369.846	254.485	244.0	-2.4	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	5.63	745256.063	18409.998	506.013	502.7	0.5	NO	1.000	NO	bb

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Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999583
Calibration curve: -5.69994e-005 * x^2 + 1.0553 * x + -0.0250783
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	200225P1-3	Standard	1.250	5.74	144.805	18385.910	1.175	1.1	-9.0	NO	1.000	NO	bb
2	2	200225P1-4	Standard	2.500	5.74	315.843	18984.031	2.482	2.4	-4.9	NO	1.000	NO	bb
3	3	200225P1-5	Standard	5.000	5.74	732.130	20984.184	5.206	5.0	-0.8	NO	1.000	NO	bb
4	4	200225P1-6	Standard	10.000	5.74	1435.152	20764.477	10.312	9.8	-2.0	NO	1.000	NO	bb
5	5	200225P1-7	Standard	25.000	5.74	3851.416	20656.791	27.818	26.4	5.7	NO	1.000	NO	bb
6	6	200225P1-8	Standard	50.000	5.74	8076.269	21116.357	57.064	54.3	8.5	NO	1.000	NO	bb
7	7	200225P1-9	Standard	250.000	5.74	37439.641	21394.961	261.089	250.8	0.3	NO	1.000	NO	bb
8	8	200225P1-10	Standard	500.000	5.74	80771.094	22915.986	525.879	512.5	2.5	NO	1.000	NO	bb
9	9	200225P1-11	Standard	1250.000	5.74	170242.203	21205.846	1197.789	1214.7	-2.8	NO	1.000	NO	bb
10	10	200225P1-12	Standard	2500.000	5.74	324194.531	21072.350	2295.417	2517.5	0.7	NO	1.000	NO	bb

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999093
Calibration curve: 1.12175e-006 * x^2 + 1.08591 * x + 0.374825
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	200225P1-3	Standard	0.250	5.87	537.969	19794.912	0.340			NO	0.999	NO	bbXI
2	2	200225P1-4	Standard	0.500	5.87	1220.636	17291.875	0.882	0.5	-6.5	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	5.87	2002.379	20924.223	1.196	0.8	-24.4	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	5.87	4230.163	20403.285	2.592	2.0	2.1	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	5.87	10647.867	19895.336	6.690	5.8	16.3	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	5.87	20937.168	21078.160	12.416	11.1	10.9	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	5.87	92226.523	20754.656	55.546	50.8	1.6	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	5.87	195963.422	21822.719	112.247	103.0	3.0	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	5.87	426230.313	20369.846	261.557	240.5	-3.8	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	5.87	807121.875	18409.998	548.019	504.1	0.8	NO	0.999	NO	bb

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Compound name: PFDoS
Coefficient of Determination: R^2 = 0.999202
Calibration curve: -4.44146e-005 * x^2 + 0.161935 * x + 0.00601354
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	200225P1-3	Standard	0.250	5.90	21.233	23904.145	0.011	0.0	-87.4	YES	0.999	NO	bbX
2	2	200225P1-4	Standard	0.500	5.89	149.160	20899.578	0.089	0.5	2.8	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	5.89	326.647	23536.283	0.173	1.0	3.4	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	5.89	580.527	22335.166	0.325	2.0	-1.5	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	5.89	1462.156	23810.332	0.768	4.7	-5.8	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	5.89	3003.140	23705.125	1.584	9.8	-2.3	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	5.89	14830.561	23014.939	8.055	50.4	0.8	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	5.89	31653.822	23827.521	16.606	105.6	5.6	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	5.89	61548.113	21136.031	36.400	240.6	-3.8	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	5.89	115091.773	20449.318	70.352	504.1	0.8	NO	0.999	NO	bb

Compound name: PFTeDA
Correlation coefficient: r = 0.999213, r^2 = 0.998426
Calibration curve: 0.946667 * x + 0.0579059
Response type: Internal Std (Ref 89), 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	200225P1-3	Standard	0.250	6.08	477.552	23904.145	0.250	0.2	-19.0	NO	0.998	NO	bb
2	2	200225P1-4	Standard	0.500	6.08	944.693	20899.578	0.565	0.5	7.1	NO	0.998	NO	MM
3	3	200225P1-5	Standard	1.000	6.08	1971.794	23536.283	1.047	1.0	4.5	NO	0.998	NO	bb
4	4	200225P1-6	Standard	2.000	6.08	3860.449	22335.166	2.161	2.2	11.1	NO	0.998	NO	bb
5	5	200225P1-7	Standard	5.000	6.08	10577.326	23810.332	5.553	5.8	16.1	NO	0.998	NO	bb
6	6	200225P1-8	Standard	10.000	6.08	18747.641	23705.125	9.886	10.4	3.8	NO	0.998	NO	bb
7	7	200225P1-9	Standard	50.000	6.08	85487.188	23014.939	46.430	49.0	-2.0	NO	0.998	NO	bb
8	8	200225P1-10	Standard	100.000	6.08	193038.250	23827.521	101.269	106.9	6.9	NO	0.998	NO	bb
9	9	200225P1-11	Standard	250.000	6.08	379475.656	21136.031	224.425	237.0	-5.2	NO	0.998	NO	bb
10	10	200225P1-12	Standard	500.000	6.08	783200.375	20449.318	478.745	505.7	1.1	NO	0.998	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999776
Calibration curve: -4.37352e-005 * x^2 + 1.0291 * x + 0.393476
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	200225P1-3	Standard	1.250	6.15	208.553	23419.826	1.329	0.9	-27.3	NO	1.000	NO	bb
2	2	200225P1-4	Standard	2.500	6.14	512.089	23933.094	3.192	2.7	8.8	NO	1.000	NO	bb
3	3	200225P1-5	Standard	5.000	6.14	1003.737	25590.486	5.852	5.3	6.1	NO	1.000	NO	bb
4	4	200225P1-6	Standard	10.000	6.14	1945.755	25775.242	11.263	10.6	5.7	NO	1.000	NO	bb
5	5	200225P1-7	Standard	25.000	6.14	4870.803	27285.506	26.634	25.5	2.1	NO	1.000	NO	bb
6	6	200225P1-8	Standard	50.000	6.14	9589.706	26960.850	53.069	51.3	2.6	NO	1.000	NO	bb
7	7	200225P1-9	Standard	250.000	6.14	46161.355	26238.824	262.484	257.5	3.0	NO	1.000	NO	bb
8	8	200225P1-10	Standard	500.000	6.14	95860.039	28234.779	506.550	502.6	0.5	NO	1.000	NO	bb
9	9	200225P1-11	Standard	1250.000	6.14	201542.813	25151.254	1195.574	1225.2	-2.0	NO	1.000	NO	bb
10	10	200225P1-12	Standard	2500.000	6.14	368161.094	23779.672	2309.941	2512.5	0.5	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999460
Calibration curve: -0.000122127 * x^2 + 0.737678 * x + 0.157258
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	200225P1-3	Standard	0.250	6.41	753.043	32718.949	0.288	0.2	-29.3	NO	0.999	NO	bb
2	2	200225P1-4	Standard	0.500	6.40	1211.264	30851.906	0.491	0.5	-9.6	NO	0.999	NO	bb
3	3	200225P1-5	Standard	1.000	6.40	2498.671	32443.676	0.963	1.1	9.2	NO	0.999	NO	bb
4	4	200225P1-6	Standard	2.000	6.41	4652.971	31620.527	1.839	2.3	14.1	NO	0.999	NO	bb
5	5	200225P1-7	Standard	5.000	6.40	11228.415	34460.848	4.073	5.3	6.3	NO	0.999	NO	bb
6	6	200225P1-8	Standard	10.000	6.40	20775.832	32395.119	8.017	10.7	6.7	NO	0.999	NO	bb
7	7	200225P1-9	Standard	50.000	6.40	98060.156	31727.350	38.634	52.6	5.2	NO	0.999	NO	bb
8	8	200225P1-10	Standard	100.000	6.41	211525.328	36623.570	72.196	99.3	-0.7	NO	0.999	NO	bb
9	9	200225P1-11	Standard	250.000	6.40	436039.063	31588.863	172.545	243.5	-2.6	NO	0.999	NO	bb
10	10	200225P1-12	Standard	500.000	6.41	797207.938	29260.670	340.563	503.4	0.7	NO	0.999	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.999550
Calibration curve: -6.40276e-006 * x^2 + 0.881896 * x + 0.0287076
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	200225P1-3	Standard	0.250	6.64	583.234	32718.949	0.223	0.2	-12.0	NO	1.000	NO	bb
2	2	200225P1-4	Standard	0.500	6.63	1104.625	30851.906	0.448	0.5	-5.0	NO	1.000	NO	bd
3	3	200225P1-5	Standard	1.000	6.63	2355.217	32443.676	0.907	1.0	-0.4	NO	1.000	NO	bb
4	4	200225P1-6	Standard	2.000	6.63	5138.837	31620.527	2.031	2.3	13.5	NO	1.000	NO	bd
5	5	200225P1-7	Standard	5.000	6.63	13186.104	34460.848	4.783	5.4	7.8	NO	1.000	NO	bb
6	6	200225P1-8	Standard	10.000	6.63	24421.926	32395.119	9.423	10.7	6.5	NO	1.000	NO	bb
7	7	200225P1-9	Standard	50.000	6.63	116767.883	31727.350	46.004	52.2	4.3	NO	1.000	NO	bb
8	8	200225P1-10	Standard	100.000	6.63	258772.859	36623.570	88.322	100.2	0.2	NO	1.000	NO	bb
9	9	200225P1-11	Standard	250.000	6.63	541393.813	31588.863	214.234	243.3	-2.7	NO	1.000	NO	bb
10	10	200225P1-12	Standard	500.000	6.63	1034823.875	29260.670	442.071	503.1	0.6	NO	1.000	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.997589, r^2 = 0.995184
Calibration curve: 1.07295 * x + 0.022575
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	200225P1-3	Standard	1.250	6.30	123.446	17691.047	1.041	0.9	-24.1	NO	0.995	NO	bb
2	2	200225P1-4	Standard	2.500	6.30	310.259	17581.641	2.633	2.4	-2.7	NO	0.995	NO	bb
3	3	200225P1-5	Standard	5.000	6.29	675.737	19041.301	5.295	4.9	-1.7	NO	0.995	NO	bb
4	4	200225P1-6	Standard	10.000	6.29	1452.987	18451.818	11.749	10.9	9.3	NO	0.995	NO	bb
5	5	200225P1-7	Standard	25.000	6.29	3410.557	18629.246	27.315	25.4	1.7	NO	0.995	NO	bb
6	6	200225P1-8	Standard	50.000	6.29	7090.701	18021.730	58.703	54.7	9.4	NO	0.995	NO	bb
7	7	200225P1-9	Standard	250.000	6.29	36033.684	19080.988	281.758	262.6	5.0	NO	0.995	NO	bb
8	8	200225P1-10	Standard	500.000	6.29	80229.258	20077.549	596.199	555.6	11.1	NO	0.995	NO	bb
9	9	200225P1-11	Standard	1250.000	6.29	167555.297	20780.801	1202.997	1121.2	-10.3	NO	0.995	NO	bb
10	10	200225P1-12	Standard	2500.000	6.29	348097.469	18944.963	2741.422	2555.0	2.2	NO	0.995	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999471, r^2 = 0.998943
Calibration curve: 0.98218 * x + 0.297158
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 200225P1-3	Standard	1.250	6.45	180.219	19924.037	1.350	1.1	-14.3	NO	0.999	NO	bb
2	2 200225P1-4	Standard	2.500	6.44	371.980	21132.717	2.626	2.4	-5.1	NO	0.999	NO	MM
3	3 200225P1-5	Standard	5.000	6.44	798.631	22095.117	5.393	5.2	3.8	NO	0.999	NO	bb
4	4 200225P1-6	Standard	10.000	6.44	1454.679	21809.131	9.952	9.8	-1.7	NO	0.999	NO	bb
5	5 200225P1-7	Standard	25.000	6.44	4005.540	22094.990	27.048	27.2	8.9	NO	0.999	NO	bb
6	6 200225P1-8	Standard	50.000	6.44	7915.414	22275.373	53.017	53.7	7.4	NO	0.999	NO	bb
7	7 200225P1-9	Standard	250.000	6.44	37896.887	22478.264	251.541	255.8	2.3	NO	0.999	NO	bb
8	8 200225P1-10	Standard	500.000	6.44	80644.219	23963.234	502.107	510.9	2.2	NO	0.999	NO	bb
9	9 200225P1-11	Standard	1250.000	6.44	183635.031	23505.465	1165.616	1186.5	-5.1	NO	0.999	NO	bb
10	10 200225P1-12	Standard	2500.000	6.44	373089.125	22299.754	2496.211	2541.2	1.6	NO	0.999	NO	bb

Compound name: 13C3-PFBA-EIS
Response Factor: 894.214
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 200225P1-3	Standard	12.500	1.42	9872.161		9872.161	11.0	-11.7	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	1.42	9951.374		9951.374	11.1	-11.0	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	1.42	10533.185		10533.185	11.8	-5.8	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	1.42	10658.726		10658.726	11.9	-4.6	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	1.42	10773.149		10773.149	12.0	-3.6	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	1.42	11177.676		11177.676	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	1.42	11035.579		11035.579	12.3	-1.3	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	1.42	11651.084		11651.084	13.0	4.2	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	1.42	11160.096		11160.096	12.5	-0.2	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	1.42	10979.427		10979.427	12.3	-1.8	NO		NO	bbX

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Compound name: 13C3-PFBA-RSD
Response Factor: 0.799885
RRF SD: 0.00658297, Relative SD: 0.82299
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 200225P1-3	Standard	12.500	1.42	9872.161	12266.709	10.060	12.6	0.6	NO		NO	bb
2	2 200225P1-4	Standard	12.500	1.42	9951.374	12331.454	10.087	12.6	0.9	NO		NO	bb
3	3 200225P1-5	Standard	12.500	1.42	10533.185	13320.676	9.884	12.4	-1.1	NO		NO	bb
4	4 200225P1-6	Standard	12.500	1.42	10658.726	13219.248	10.079	12.6	0.8	NO		NO	bb
5	5 200225P1-7	Standard	12.500	1.42	10773.149	13469.415	9.998	12.5	-0.0	NO		NO	bb
6	6 200225P1-8	Standard	12.500	1.42	11177.676	14016.627	9.968	12.5	-0.3	NO		NO	bb
7	7 200225P1-9	Standard	12.500	1.42	11035.579	13947.172	9.891	12.4	-1.1	NO		NO	bb
8	8 200225P1-10	Standard	12.500	1.42	11651.084	14579.886	9.989	12.5	-0.1	NO		NO	bb
9	9 200225P1-11	Standard	12.500	1.42	11160.096	13803.979	10.106	12.6	1.1	NO		NO	bb
10	10 200225P1-12	Standard	12.500	1.42	10979.427	13829.581	9.924	12.4	-0.7	NO		NO	bb

Compound name: 13C3-PFPeA-EIS
Response Factor: 1131.82
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 200225P1-3	Standard	12.500	2.34	12501.022		12501.022	11.0	-11.6	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	2.34	12270.164		12270.164	10.8	-13.3	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	2.34	13581.839		13581.839	12.0	-4.0	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	2.34	12997.605		12997.605	11.5	-8.1	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	2.34	13570.021		13570.021	12.0	-4.1	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	2.34	14147.710		14147.710	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	2.34	14067.085		14067.085	12.4	-0.6	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	2.34	14119.896		14119.896	12.5	-0.2	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	2.34	12998.085		12998.085	11.5	-8.1	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	2.35	13078.697		13078.697	11.6	-7.6	NO		NO	bbX

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Compound name: 13C3-PFPeA-RSD
Response Factor: 0.58948
RRF SD: 0.0172638, Relative SD: 2.92865
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200225P1-3	Standard	12.500	2.34	12501.022	21026.791	7.432	12.6	0.9	NO		NO	bb
2	2 200225P1-4	Standard	12.500	2.34	12270.164	21114.680	7.264	12.3	-1.4	NO		NO	bb
3	3 200225P1-5	Standard	12.500	2.34	13581.839	23180.252	7.324	12.4	-0.6	NO		NO	bb
4	4 200225P1-6	Standard	12.500	2.34	12997.605	21748.432	7.470	12.7	1.4	NO		NO	bb
5	5 200225P1-7	Standard	12.500	2.34	13570.021	22122.477	7.668	13.0	4.1	NO		NO	bb
6	6 200225P1-8	Standard	12.500	2.34	14147.710	24673.588	7.167	12.2	-2.7	NO		NO	bb
7	7 200225P1-9	Standard	12.500	2.34	14067.085	23036.369	7.633	12.9	3.6	NO		NO	bb
8	8 200225P1-10	Standard	12.500	2.34	14119.896	24870.381	7.097	12.0	-3.7	NO		NO	bb
9	9 200225P1-11	Standard	12.500	2.34	12998.085	22955.182	7.078	12.0	-3.9	NO		NO	bb
10	10 200225P1-12	Standard	12.500	2.35	13078.697	21647.338	7.552	12.8	2.5	NO		NO	bb

Compound name: 13C3-PFBS-EIS
Response Factor: 120.043
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 200225P1-3	Standard	12.500	2.62	1408.205		1408.205	11.7	-6.2	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	2.62	1358.158		1358.158	11.3	-9.5	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	2.62	1522.097		1522.097	12.7	1.4	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	2.62	1551.953		1551.953	12.9	3.4	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	2.61	1433.439		1433.439	11.9	-4.5	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	2.62	1500.538		1500.538	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	2.62	1530.989		1530.989	12.8	2.0	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	2.62	1504.221		1504.221	12.5	0.2	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	2.61	1395.008		1395.008	11.6	-7.0	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	2.62	1362.782		1362.782	11.4	-9.2	NO		NO	bbX

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Compound name: 13C3-PFBS-RSD
Response Factor: 1.12694
RRF SD: 0.108089, Relative SD: 9.59142
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 200225P1-3	Standard	12.500	2.62	1408.205	1002.938	17.551	15.6	24.6	NO		NO	bb
2	2 200225P1-4	Standard	12.500	2.62	1358.158	1233.002	13.769	12.2	-2.3	NO		NO	bb
3	3 200225P1-5	Standard	12.500	2.62	1522.097	1410.673	13.487	12.0	-4.3	NO		NO	bb
4	4 200225P1-6	Standard	12.500	2.62	1551.953	1330.276	14.583	12.9	3.5	NO		NO	bb
5	5 200225P1-7	Standard	12.500	2.61	1433.439	1261.312	14.206	12.6	0.8	NO		NO	bb
6	6 200225P1-8	Standard	12.500	2.62	1500.538	1378.876	13.603	12.1	-3.4	NO		NO	bb
7	7 200225P1-9	Standard	12.500	2.62	1530.989	1316.816	14.533	12.9	3.2	NO		NO	bb
8	8 200225P1-10	Standard	12.500	2.62	1504.221	1449.444	12.972	11.5	-7.9	NO		NO	bb
9	9 200225P1-11	Standard	12.500	2.61	1395.008	1340.803	13.005	11.5	-7.7	NO		NO	bb
10	10 200225P1-12	Standard	12.500	2.62	1362.782	1294.671	13.158	11.7	-6.6	NO		NO	bb

Compound name: 13C3-HFPO-DA-EIS
Response Factor: 314.205
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 200225P1-3	Standard	12.500	3.34	3378.505		3378.505	10.8	-14.0	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	3.34	3609.127		3609.127	11.5	-8.1	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	3.34	3804.277		3804.277	12.1	-3.1	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	3.34	3980.255		3980.255	12.7	1.3	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	3.34	3826.282		3826.282	12.2	-2.6	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	3.34	3927.562		3927.562	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	3.34	4045.775		4045.775	12.9	3.0	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	3.34	4556.917		4556.917	14.5	16.0	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	3.34	4140.616		4140.616	13.2	5.4	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	3.34	4209.138		4209.138	13.4	7.2	NO		NO	bbX

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Compound name: 13C3-HFPO-DA-RSD
Response Factor: 0.174455
RRF SD: 0.0112091, Relative SD: 6.4252
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200225P1-3	Standard	12.500	3.34	3378.505	21026.791	2.008	11.5	-7.9	NO		NO	bb
2	2	200225P1-4	Standard	12.500	3.34	3609.127	21114.680	2.137	12.2	-2.0	NO		NO	bb
3	3	200225P1-5	Standard	12.500	3.34	3804.277	23180.252	2.051	11.8	-5.9	NO		NO	bb
4	4	200225P1-6	Standard	12.500	3.34	3980.255	21748.432	2.288	13.1	4.9	NO		NO	bb
5	5	200225P1-7	Standard	12.500	3.34	3826.282	22122.477	2.162	12.4	-0.9	NO		NO	bb
6	6	200225P1-8	Standard	12.500	3.34	3927.562	24673.588	1.990	11.4	-8.8	NO		NO	bb
7	7	200225P1-9	Standard	12.500	3.34	4045.775	23036.369	2.195	12.6	0.7	NO		NO	bb
8	8	200225P1-10	Standard	12.500	3.34	4556.917	24870.381	2.290	13.1	5.0	NO		NO	bb
9	9	200225P1-11	Standard	12.500	3.34	4140.616	22955.182	2.255	12.9	3.4	NO		NO	bb
10	10	200225P1-12	Standard	12.500	3.34	4209.138	21647.338	2.431	13.9	11.5	NO		NO	bb

Compound name: 13C2-4:2 FTS-EIS
Response Factor: 149.053
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	200225P1-3	Standard	12.500	3.04	1753.283		1753.283	11.8	-5.9	NO		NO	bbX
2	2	200225P1-4	Standard	12.500	3.04	1601.853		1601.853	10.7	-14.0	NO		NO	bbX
3	3	200225P1-5	Standard	12.500	3.04	1829.602		1829.602	12.3	-1.8	NO		NO	bbX
4	4	200225P1-6	Standard	12.500	3.04	1688.643		1688.643	11.3	-9.4	NO		NO	bbX
5	5	200225P1-7	Standard	12.500	3.04	1677.821		1677.821	11.3	-9.9	NO		NO	bbX
6	6	200225P1-8	Standard	12.500	3.04	1863.165		1863.165	12.5	0.0	NO		NO	bb
7	7	200225P1-9	Standard	12.500	3.04	1822.118		1822.118	12.2	-2.2	NO		NO	bbX
8	8	200225P1-10	Standard	12.500	3.04	1658.604		1658.604	11.1	-11.0	NO		NO	bbX
9	9	200225P1-11	Standard	12.500	3.04	1513.540		1513.540	10.2	-18.8	NO		NO	bbX
10	10	200225P1-12	Standard	12.500	3.04	1533.288		1533.288	10.3	-17.7	NO		NO	bbX

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Compound name: 13C2-4:2 FTS-RSD
Response Factor: 1.31363
RRF SD: 0.175562, Relative SD: 13.3647
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 200225P1-3	Standard	12.500	3.04	1753.283	1002.938	21.852	16.6	33.1	NO		NO	bb
2	2 200225P1-4	Standard	12.500	3.04	1601.853	1233.002	16.239	12.4	-1.1	NO		NO	bb
3	3 200225P1-5	Standard	12.500	3.04	1829.602	1410.673	16.212	12.3	-1.3	NO		NO	bb
4	4 200225P1-6	Standard	12.500	3.04	1688.643	1330.276	15.867	12.1	-3.4	NO		NO	bb
5	5 200225P1-7	Standard	12.500	3.04	1677.821	1261.312	16.628	12.7	1.3	NO		NO	bb
6	6 200225P1-8	Standard	12.500	3.04	1863.165	1378.876	16.890	12.9	2.9	NO		NO	bb
7	7 200225P1-9	Standard	12.500	3.04	1822.118	1316.816	17.297	13.2	5.3	NO		NO	bb
8	8 200225P1-10	Standard	12.500	3.04	1658.604	1449.444	14.304	10.9	-12.9	NO		NO	bb
9	9 200225P1-11	Standard	12.500	3.04	1513.540	1340.803	14.110	10.7	-14.1	NO		NO	bb
10	10 200225P1-12	Standard	12.500	3.04	1533.288	1294.671	14.804	11.3	-9.8	NO		NO	bb

Compound name: 13C2-PFHxA-EIS
Response Factor: 1794.78
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 200225P1-3	Standard	12.500	3.13	20600.543		20600.543	11.5	-8.2	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	3.13	20141.500		20141.500	11.2	-10.2	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	3.13	22269.994		22269.994	12.4	-0.7	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	3.13	21692.803		21692.803	12.1	-3.3	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	3.13	21797.625		21797.625	12.1	-2.8	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	3.13	22434.781		22434.781	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	3.13	22617.182		22617.182	12.6	0.8	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	3.13	24636.209		24636.209	13.7	9.8	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	3.13	22282.359		22282.359	12.4	-0.7	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	3.13	21770.824		21770.824	12.1	-3.0	NO		NO	bbX

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Compound name: 13C2-PFHxA-RSD
Response Factor: 0.973517
RRF SD: 0.0275493, Relative SD: 2.82987
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200225P1-3	Standard	12.500	3.13	20600.543	21026.791	12.247	12.6	0.6	NO		NO	bb
2	2 200225P1-4	Standard	12.500	3.13	20141.500	21114.680	11.924	12.2	-2.0	NO		NO	bb
3	3 200225P1-5	Standard	12.500	3.13	22269.994	23180.252	12.009	12.3	-1.3	NO		NO	bb
4	4 200225P1-6	Standard	12.500	3.13	21692.803	21748.432	12.468	12.8	2.5	NO		NO	bb
5	5 200225P1-7	Standard	12.500	3.13	21797.625	22122.477	12.316	12.7	1.2	NO		NO	bb
6	6 200225P1-8	Standard	12.500	3.13	22434.781	24673.588	11.366	11.7	-6.6	NO		NO	bb
7	7 200225P1-9	Standard	12.500	3.13	22617.182	23036.369	12.273	12.6	0.9	NO		NO	bb
8	8 200225P1-10	Standard	12.500	3.13	24636.209	24870.381	12.382	12.7	1.8	NO		NO	bb
9	9 200225P1-11	Standard	12.500	3.13	22282.359	22955.182	12.134	12.5	-0.3	NO		NO	bb
10	10 200225P1-12	Standard	12.500	3.13	21770.824	21647.338	12.571	12.9	3.3	NO		NO	bb

Compound name: 13C4-PFHpA-EIS
Response Factor: 1233.45
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 200225P1-3	Standard	12.500	3.73	14315.611		14315.611	11.6	-7.2	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	3.72	13755.051		13755.051	11.2	-10.8	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	3.72	15124.546		15124.546	12.3	-1.9	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	3.72	15091.041		15091.041	12.2	-2.1	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	3.72	15019.074		15019.074	12.2	-2.6	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	3.72	15418.089		15418.089	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	3.72	15402.855		15402.855	12.5	-0.1	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	3.73	16144.262		16144.262	13.1	4.7	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	3.72	14336.560		14336.560	11.6	-7.0	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	3.72	14353.899		14353.899	11.6	-6.9	NO		NO	bbX

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Compound name: 13C4-PFHpA-RSD
Response Factor: 0.658782
RRF SD: 0.0229663, Relative SD: 3.48617
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200225P1-3	Standard	12.500	3.73	14315.611	21026.791	8.510	12.9	3.3	NO		NO	bb
2	2	200225P1-4	Standard	12.500	3.72	13755.051	21114.680	8.143	12.4	-1.1	NO		NO	bb
3	3	200225P1-5	Standard	12.500	3.72	15124.546	23180.252	8.156	12.4	-1.0	NO		NO	bb
4	4	200225P1-6	Standard	12.500	3.72	15091.041	21748.432	8.674	13.2	5.3	NO		NO	bb
5	5	200225P1-7	Standard	12.500	3.72	15019.074	22122.477	8.486	12.9	3.1	NO		NO	bb
6	6	200225P1-8	Standard	12.500	3.72	15418.089	24673.588	7.811	11.9	-5.1	NO		NO	bb
7	7	200225P1-9	Standard	12.500	3.72	15402.855	23036.369	8.358	12.7	1.5	NO		NO	bb
8	8	200225P1-10	Standard	12.500	3.73	16144.262	24870.381	8.114	12.3	-1.5	NO		NO	bb
9	9	200225P1-11	Standard	12.500	3.72	14336.560	22955.182	7.807	11.9	-5.2	NO		NO	bb
10	10	200225P1-12	Standard	12.500	3.72	14353.899	21647.338	8.288	12.6	0.7	NO		NO	bb

Compound name: 13C3-PFHxS-EIS
Response Factor: 273.316
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	200225P1-3	Standard	12.500	3.87	3089.414		3089.414	11.3	-9.6	NO		NO	bbX
2	2	200225P1-4	Standard	12.500	3.86	3233.223		3233.223	11.8	-5.4	NO		NO	bbX
3	3	200225P1-5	Standard	12.500	3.86	3312.404		3312.404	12.1	-3.0	NO		NO	bbX
4	4	200225P1-6	Standard	12.500	3.86	3236.657		3236.657	11.8	-5.3	NO		NO	bbX
5	5	200225P1-7	Standard	12.500	3.86	3307.574		3307.574	12.1	-3.2	NO		NO	bbX
6	6	200225P1-8	Standard	12.500	3.86	3416.446		3416.446	12.5	0.0	NO		NO	bb
7	7	200225P1-9	Standard	12.500	3.86	3190.156		3190.156	11.7	-6.6	NO		NO	bbX
8	8	200225P1-10	Standard	12.500	3.86	3452.222		3452.222	12.6	1.0	NO		NO	bbX
9	9	200225P1-11	Standard	12.500	3.86	3280.190		3280.190	12.0	-4.0	NO		NO	bbX
10	10	200225P1-12	Standard	12.500	3.86	3040.974		3040.974	11.1	-11.0	NO		NO	bbX

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Compound name: 13C3-PFHxS-RSD
Response Factor: 2.51835
RRF SD: 0.220378, Relative SD: 8.7509
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 200225P1-3	Standard	12.500	3.87	3089.414	1002.938	38.505	15.3	22.3	NO		NO	bb
2	2 200225P1-4	Standard	12.500	3.86	3233.223	1233.002	32.778	13.0	4.1	NO		NO	bb
3	3 200225P1-5	Standard	12.500	3.86	3312.404	1410.673	29.351	11.7	-6.8	NO		NO	bb
4	4 200225P1-6	Standard	12.500	3.86	3236.657	1330.276	30.413	12.1	-3.4	NO		NO	bb
5	5 200225P1-7	Standard	12.500	3.86	3307.574	1261.312	32.779	13.0	4.1	NO		NO	bb
6	6 200225P1-8	Standard	12.500	3.86	3416.446	1378.876	30.971	12.3	-1.6	NO		NO	bb
7	7 200225P1-9	Standard	12.500	3.86	3190.156	1316.816	30.283	12.0	-3.8	NO		NO	bb
8	8 200225P1-10	Standard	12.500	3.86	3452.222	1449.444	29.772	11.8	-5.4	NO		NO	bb
9	9 200225P1-11	Standard	12.500	3.86	3280.190	1340.803	30.580	12.1	-2.9	NO		NO	bb
10	10 200225P1-12	Standard	12.500	3.86	3040.974	1294.671	29.360	11.7	-6.7	NO		NO	bb

Compound name: 13C2-6:2 FTS-EIS
Response Factor: 122.797
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 200225P1-3	Standard	12.500	4.18	1250.351		1250.351	10.2	-18.5	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	4.18	1319.649		1319.649	10.7	-14.0	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	4.18	1355.616		1355.616	11.0	-11.7	NO		NO	bdX
4	4 200225P1-6	Standard	12.500	4.17	1587.204		1587.204	12.9	3.4	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	4.17	1543.772		1543.772	12.6	0.6	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	4.17	1534.965		1534.965	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.18	1552.968		1552.968	12.6	1.2	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	4.18	1647.530		1647.530	13.4	7.3	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	4.18	1393.243		1393.243	11.3	-9.2	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	4.18	1474.945		1474.945	12.0	-3.9	NO		NO	bbX

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Compound name: 13C2-6:2 FTS-RSD
Response Factor: 0.384457
RRF SD: 0.0445393, Relative SD: 11.585
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 200225P1-3	Standard	12.500	4.18	1250.351	3783.710	4.131	10.7	-14.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	4.18	1319.649	3695.773	4.463	11.6	-7.1	NO		NO	bb
3	3 200225P1-5	Standard	12.500	4.18	1355.616	3791.307	4.469	11.6	-7.0	NO		NO	bd
4	4 200225P1-6	Standard	12.500	4.17	1587.204	3236.887	6.129	15.9	27.5	NO		NO	bb
5	5 200225P1-7	Standard	12.500	4.17	1543.772	4232.745	4.559	11.9	-5.1	NO		NO	bb
6	6 200225P1-8	Standard	12.500	4.17	1534.965	3902.713	4.916	12.8	2.3	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.18	1552.968	4223.934	4.596	12.0	-4.4	NO		NO	bb
8	8 200225P1-10	Standard	12.500	4.18	1647.530	4363.684	4.719	12.3	-1.8	NO		NO	bb
9	9 200225P1-11	Standard	12.500	4.18	1393.243	3634.562	4.792	12.5	-0.3	NO		NO	bb
10	10 200225P1-12	Standard	12.500	4.18	1474.945	3490.466	5.282	13.7	9.9	NO		NO	bb

Compound name: 13C5-PFNA-EIS
Response Factor: 1492
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 200225P1-3	Standard	12.500	4.67	17239.375		17239.375	11.6	-7.6	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	4.67	16726.338		16726.338	11.2	-10.3	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	4.67	19469.943		19469.943	13.0	4.4	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	4.67	17698.107		17698.107	11.9	-5.1	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	4.67	19189.289		19189.289	12.9	2.9	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	4.67	18650.008		18650.008	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.67	19754.828		19754.828	13.2	5.9	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	4.67	19232.490		19232.490	12.9	3.1	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	4.67	18824.725		18824.725	12.6	0.9	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	4.67	17270.096		17270.096	11.6	-7.4	NO		NO	bbX

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Compound name: 13C5-PFNA-RSD
Response Factor: 0.937983
RRF SD: 0.0315373, Relative SD: 3.36224
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	200225P1-3	Standard	12.500	4.67	17239.375	19086.615	11.290	12.0	-3.7	NO		NO	bb
2	2	200225P1-4	Standard	12.500	4.67	16726.338	18558.656	11.266	12.0	-3.9	NO		NO	bb
3	3	200225P1-5	Standard	12.500	4.67	19469.943	20561.016	11.837	12.6	1.0	NO		NO	bb
4	4	200225P1-6	Standard	12.500	4.67	17698.107	18224.971	12.139	12.9	3.5	NO		NO	bb
5	5	200225P1-7	Standard	12.500	4.67	19189.289	19280.119	12.441	13.3	6.1	NO		NO	bb
6	6	200225P1-8	Standard	12.500	4.67	18650.008	20431.225	11.410	12.2	-2.7	NO		NO	bb
7	7	200225P1-9	Standard	12.500	4.67	19754.828	20764.564	11.892	12.7	1.4	NO		NO	bb
8	8	200225P1-10	Standard	12.500	4.67	19232.490	21059.193	11.416	12.2	-2.6	NO		NO	bb
9	9	200225P1-11	Standard	12.500	4.67	18824.725	20309.342	11.586	12.4	-1.2	NO		NO	bb
10	10	200225P1-12	Standard	12.500	4.67	17270.096	18033.258	11.971	12.8	2.1	NO		NO	bb

Compound name: 13C8-PFOSA-EIS
Response Factor: 375.823
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	200225P1-3	Standard	12.500	4.73	4235.302		4235.302	11.3	-9.8	NO		NO	bbX
2	2	200225P1-4	Standard	12.500	4.73	4234.348		4234.348	11.3	-9.9	NO		NO	bbX
3	3	200225P1-5	Standard	12.500	4.73	4865.226		4865.226	12.9	3.6	NO		NO	bbX
4	4	200225P1-6	Standard	12.500	4.73	4669.988		4669.988	12.4	-0.6	NO		NO	bbX
5	5	200225P1-7	Standard	12.500	4.73	4849.630		4849.630	12.9	3.2	NO		NO	bbX
6	6	200225P1-8	Standard	12.500	4.73	4697.788		4697.788	12.5	0.0	NO		NO	bb
7	7	200225P1-9	Standard	12.500	4.73	4952.633		4952.633	13.2	5.4	NO		NO	bbX
8	8	200225P1-10	Standard	12.500	4.73	4614.442		4614.442	12.3	-1.8	NO		NO	bbX
9	9	200225P1-11	Standard	12.500	4.73	4190.781		4190.781	11.2	-10.8	NO		NO	bbX
10	10	200225P1-12	Standard	12.500	4.73	4149.340		4149.340	11.0	-11.7	NO		NO	bbX

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Compound name: 13C8-PFOSA-RSD
Response Factor: 0.21001
RRF SD: 0.0157948, Relative SD: 7.52098
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 200225P1-3	Standard	12.500	4.73	4235.302	19831.211	2.670	12.7	1.7	NO		NO	bb
2	2 200225P1-4	Standard	12.500	4.73	4234.348	20433.932	2.590	12.3	-1.3	NO		NO	bb
3	3 200225P1-5	Standard	12.500	4.73	4865.226	23449.227	2.593	12.3	-1.2	NO		NO	bb
4	4 200225P1-6	Standard	12.500	4.73	4669.988	21906.523	2.665	12.7	1.5	NO		NO	bb
5	5 200225P1-7	Standard	12.500	4.73	4849.630	23637.857	2.565	12.2	-2.3	NO		NO	bb
6	6 200225P1-8	Standard	12.500	4.73	4697.788	22421.760	2.619	12.5	-0.2	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.73	4952.633	19698.072	3.143	15.0	19.7	NO		NO	bb
8	8 200225P1-10	Standard	12.500	4.73	4614.442	23404.813	2.464	11.7	-6.1	NO		NO	bb
9	9 200225P1-11	Standard	12.500	4.73	4190.781	21266.988	2.463	11.7	-6.2	NO		NO	bb
10	10 200225P1-12	Standard	12.500	4.73	4149.340	20920.873	2.479	11.8	-5.6	NO		NO	bb

Compound name: 13C2-PFOA-EIS
Response Factor: 1593.57
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 200225P1-3	Standard	12.500	4.24	18905.670		18905.670	11.9	-5.1	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	4.23	19025.869		19025.869	11.9	-4.5	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	4.23	19788.479		19788.479	12.4	-0.7	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	4.23	21544.221		21544.221	13.5	8.2	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	4.23	20464.119		20464.119	12.8	2.7	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	4.23	19919.584		19919.584	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.23	20725.129		20725.129	13.0	4.0	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	4.23	21582.922		21582.922	13.5	8.4	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	4.23	20718.783		20718.783	13.0	4.0	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	4.23	17996.074		17996.074	11.3	-9.7	NO		NO	bbX

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Compound name: 13C2-PFOA-RSD
Response Factor: 0.922223
RRF SD: 0.0497235, Relative SD: 5.39169
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 200225P1-3	Standard	12.500	4.24	18905.670	20999.771	11.253	12.2	-2.4	NO		NO	bb
2	2 200225P1-4	Standard	12.500	4.23	19025.869	21350.887	11.139	12.1	-3.4	NO		NO	bb
3	3 200225P1-5	Standard	12.500	4.23	19788.479	21723.881	11.386	12.3	-1.2	NO		NO	bb
4	4 200225P1-6	Standard	12.500	4.23	21544.221	21038.039	12.801	13.9	11.0	NO		NO	bb
5	5 200225P1-7	Standard	12.500	4.23	20464.119	23013.834	11.115	12.1	-3.6	NO		NO	bb
6	6 200225P1-8	Standard	12.500	4.23	19919.584	22838.305	10.903	11.8	-5.4	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.23	20725.129	23687.217	10.937	11.9	-5.1	NO		NO	bb
8	8 200225P1-10	Standard	12.500	4.23	21582.922	23445.688	11.507	12.5	-0.2	NO		NO	bb
9	9 200225P1-11	Standard	12.500	4.23	20718.783	21333.131	12.140	13.2	5.3	NO		NO	bb
10	10 200225P1-12	Standard	12.500	4.23	17996.074	18595.418	12.097	13.1	4.9	NO		NO	bb

Compound name: 13C8-PFOS-EIS
Response Factor: 291.759
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 200225P1-3	Standard	12.500	4.76	3392.257		3392.257	11.6	-7.0	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	4.75	3412.653		3412.653	11.7	-6.4	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	4.75	3819.392		3819.392	13.1	4.7	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	4.75	3246.941		3246.941	11.1	-11.0	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	4.75	3799.922		3799.922	13.0	4.2	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	4.75	3646.993		3646.993	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.75	4032.981		4032.981	13.8	10.6	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	4.75	3990.603		3990.603	13.7	9.4	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	4.75	3581.742		3581.742	12.3	-1.8	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	4.75	3418.734		3418.734	11.7	-6.3	NO		NO	bdX

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Compound name: 13C8-PFOS-RSD
Response Factor: 0.949633
RRF SD: 0.0422002, Relative SD: 4.44385
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 200225P1-3	Standard	12.500	4.76	3392.257	3783.710	11.207	11.8	-5.6	NO		NO	bb
2	2 200225P1-4	Standard	12.500	4.75	3412.653	3695.773	11.542	12.2	-2.8	NO		NO	bb
3	3 200225P1-5	Standard	12.500	4.75	3819.392	3791.307	12.593	13.3	6.1	NO		NO	bb
4	4 200225P1-6	Standard	12.500	4.75	3246.941	3236.887	12.539	13.2	5.6	NO		NO	bb
5	5 200225P1-7	Standard	12.500	4.75	3799.922	4232.745	11.222	11.8	-5.5	NO		NO	bb
6	6 200225P1-8	Standard	12.500	4.75	3646.993	3902.713	11.681	12.3	-1.6	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.75	4032.981	4223.934	11.935	12.6	0.5	NO		NO	bb
8	8 200225P1-10	Standard	12.500	4.75	3990.603	4363.684	11.431	12.0	-3.7	NO		NO	bb
9	9 200225P1-11	Standard	12.500	4.75	3581.742	3634.562	12.318	13.0	3.8	NO		NO	bb
10	10 200225P1-12	Standard	12.500	4.75	3416.804	3490.466	12.236	12.9	3.1	NO		NO	MM

Compound name: 13C2-PFDA-EIS
Response Factor: 1635.18
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 200225P1-3	Standard	12.500	5.04	17688.168		17688.168	10.8	-13.5	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	5.04	18158.623		18158.623	11.1	-11.2	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	5.04	20772.906		20772.906	12.7	1.6	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	5.04	20265.523		20265.523	12.4	-0.9	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	5.04	20194.920		20194.920	12.4	-1.2	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	5.04	20439.703		20439.703	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.04	20732.352		20732.352	12.7	1.4	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	5.04	20899.775		20899.775	12.8	2.3	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	5.04	20424.217		20424.217	12.5	-0.1	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	5.04	20667.172		20667.172	12.6	1.1	NO		NO	bbX

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Compound name: 13C2-PFDA-RSD
Response Factor: 0.96525
RRF SD: 0.0533989, Relative SD: 5.53213
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 200225P1-3	Standard	12.500	5.04	17688.168	18849.785	11.730	12.2	-2.8	NO		NO	bb
2	2 200225P1-4	Standard	12.500	5.04	18158.623	20255.420	11.206	11.6	-7.1	NO		NO	bb
3	3 200225P1-5	Standard	12.500	5.04	20772.906	21458.498	12.101	12.5	0.3	NO		NO	bb
4	4 200225P1-6	Standard	12.500	5.04	20265.523	21545.986	11.757	12.2	-2.6	NO		NO	bb
5	5 200225P1-7	Standard	12.500	5.04	20194.920	20125.918	12.543	13.0	4.0	NO		NO	bb
6	6 200225P1-8	Standard	12.500	5.04	20439.703	21679.625	11.785	12.2	-2.3	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.04	20732.352	22313.967	11.614	12.0	-3.7	NO		NO	bb
8	8 200225P1-10	Standard	12.500	5.04	20899.775	19321.385	13.521	14.0	12.1	NO		NO	bb
9	9 200225P1-11	Standard	12.500	5.04	20424.217	21719.578	11.754	12.2	-2.6	NO		NO	bb
10	10 200225P1-12	Standard	12.500	5.04	20667.172	20429.818	12.645	13.1	4.8	NO		NO	bb

Compound name: 13C2-8:2 FTS-EIS
Response Factor: 102.173
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 200225P1-3	Standard	12.500	5.02	1235.022		1235.022	12.1	-3.3	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	5.01	1045.851		1045.851	10.2	-18.1	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	5.01	1194.706		1194.706	11.7	-6.5	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	5.01	1265.179		1265.179	12.4	-0.9	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	5.01	1294.409		1294.409	12.7	1.4	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	5.01	1277.157		1277.157	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.00	1364.021		1364.021	13.4	6.8	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	5.01	1417.279		1417.279	13.9	11.0	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	5.01	1207.879		1207.879	11.8	-5.4	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	5.01	1288.608		1288.608	12.6	0.9	NO		NO	bbX

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Compound name: 13C2-8:2 FTS-RSD
Response Factor: 0.329765
RRF SD: 0.0304758, Relative SD: 9.24165
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 200225P1-3	Standard	12.500	5.02	1235.022	3783.710	4.080	12.4	-1.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	5.01	1045.851	3695.773	3.537	10.7	-14.2	NO		NO	bb
3	3 200225P1-5	Standard	12.500	5.01	1194.706	3791.307	3.939	11.9	-4.4	NO		NO	bb
4	4 200225P1-6	Standard	12.500	5.01	1265.179	3236.887	4.886	14.8	18.5	NO		NO	bb
5	5 200225P1-7	Standard	12.500	5.01	1294.409	4232.745	3.823	11.6	-7.3	NO		NO	bb
6	6 200225P1-8	Standard	12.500	5.01	1277.157	3902.713	4.091	12.4	-0.8	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.00	1364.021	4223.934	4.037	12.2	-2.1	NO		NO	bb
8	8 200225P1-10	Standard	12.500	5.01	1417.279	4363.684	4.060	12.3	-1.5	NO		NO	bb
9	9 200225P1-11	Standard	12.500	5.01	1207.879	3634.562	4.154	12.6	0.8	NO		NO	bb
10	10 200225P1-12	Standard	12.500	5.01	1288.608	3490.466	4.615	14.0	12.0	NO		NO	bb

Compound name: d3-N-MeFOSAA-EIS
Response Factor: 330.31
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 200225P1-3	Standard	12.500	5.19	3174.144		3174.144	9.6	-23.1	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	5.18	3469.963		3469.963	10.5	-16.0	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	5.18	3495.821		3495.821	10.6	-15.3	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	5.18	3645.388		3645.388	11.0	-11.7	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	5.18	3633.896		3633.896	11.0	-12.0	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	5.18	4128.875		4128.875	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.18	4188.330		4188.330	12.7	1.4	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	5.18	4211.558		4211.558	12.8	2.0	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	5.18	3648.913		3648.913	11.0	-11.6	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	5.18	4043.613		4043.613	12.2	-2.1	NO		NO	bbX

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Compound name: d3-N-MeFOSAA-RSD
Response Factor: 0.174066
RRF SD: 0.0191752, Relative SD: 11.016
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 200225P1-3	Standard	12.500	5.19	3174.144	19831.211	2.001	11.5	-8.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	5.18	3469.963	20433.932	2.123	12.2	-2.4	NO		NO	bb
3	3 200225P1-5	Standard	12.500	5.18	3495.821	23449.227	1.864	10.7	-14.4	NO		NO	bb
4	4 200225P1-6	Standard	12.500	5.18	3645.388	21906.523	2.080	11.9	-4.4	NO		NO	bb
5	5 200225P1-7	Standard	12.500	5.18	3633.896	23637.857	1.922	11.0	-11.7	NO		NO	bb
6	6 200225P1-8	Standard	12.500	5.18	4128.875	22421.760	2.302	13.2	5.8	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.18	4188.330	19698.072	2.658	15.3	22.2	NO		NO	bb
8	8 200225P1-10	Standard	12.500	5.18	4211.558	23404.813	2.249	12.9	3.4	NO		NO	bb
9	9 200225P1-11	Standard	12.500	5.18	3648.913	21266.988	2.145	12.3	-1.4	NO		NO	bb
10	10 200225P1-12	Standard	12.500	5.18	4043.613	20920.873	2.416	13.9	11.0	NO		NO	bb

Compound name: 13C2-PFUdA-EIS
Response Factor: 1617.09
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 200225P1-3	Standard	12.500	5.36	18802.816		18802.816	11.6	-7.0	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	5.35	20783.641		20783.641	12.9	2.8	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	5.35	23235.645		23235.645	14.4	15.0	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	5.35	22555.502		22555.502	13.9	11.6	NO		NO	MMX
5	5 200225P1-7	Standard	12.500	5.35	23655.426		23655.426	14.6	17.0	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	5.35	20213.629		20213.629	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.35	22435.588		22435.588	13.9	11.0	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	5.35	22887.840		22887.840	14.2	13.2	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	5.35	22758.658		22758.658	14.1	12.6	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	5.35	21367.789		21367.789	13.2	5.7	NO		NO	bbX

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Compound name: 13C2-PFUdA-RSD
Response Factor: 1.00832
RRF SD: 0.0645663, Relative SD: 6.40333
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 200225P1-3	Standard	12.500	5.36	18802.816	19831.211	11.852	11.8	-6.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	5.35	20783.641	20433.932	12.714	12.6	0.9	NO		NO	bb
3	3 200225P1-5	Standard	12.500	5.35	23235.645	23449.227	12.386	12.3	-1.7	NO		NO	bb
4	4 200225P1-6	Standard	12.500	5.35	22266.717	21906.523	12.706	12.6	0.8	NO		NO	MM
5	5 200225P1-7	Standard	12.500	5.35	23655.426	23637.857	12.509	12.4	-0.8	NO		NO	bb
6	6 200225P1-8	Standard	12.500	5.35	20213.629	22421.760	11.269	11.2	-10.6	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.35	22435.588	19698.072	14.237	14.1	13.0	NO		NO	bb
8	8 200225P1-10	Standard	12.500	5.35	22887.840	23404.813	12.224	12.1	-3.0	NO		NO	bb
9	9 200225P1-11	Standard	12.500	5.35	22758.658	21266.988	13.377	13.3	6.1	NO		NO	bb
10	10 200225P1-12	Standard	12.500	5.35	21367.789	20920.873	12.767	12.7	1.3	NO		NO	bb

Compound name: d5-N-EtFOSAA-EIS
Response Factor: 395.337
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 200225P1-3	Standard	12.500	5.34	4635.703		4635.703	11.7	-6.2	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	5.34	4671.362		4671.362	11.8	-5.5	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	5.33	5361.517		5361.517	13.6	8.5	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	5.33	5107.157		5107.157	12.9	3.3	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	5.33	5470.047		5470.047	13.8	10.7	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	5.33	4941.707		4941.707	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.34	5109.596		5109.596	12.9	3.4	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	5.33	5321.571		5321.571	13.5	7.7	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	5.33	5012.692		5012.692	12.7	1.4	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	5.33	4532.038		4532.038	11.5	-8.3	NO		NO	bbX

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Compound name: d5-N-EtFOSAA-RSD
Response Factor: 0.231505
RRF SD: 0.0114583, Relative SD: 4.94948
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 200225P1-3	Standard	12.500	5.34	4635.703	19831.211	2.922	12.6	1.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	5.34	4671.362	20433.932	2.858	12.3	-1.3	NO		NO	bb
3	3 200225P1-5	Standard	12.500	5.33	5361.517	23449.227	2.858	12.3	-1.2	NO		NO	bb
4	4 200225P1-6	Standard	12.500	5.33	5107.157	21906.523	2.914	12.6	0.7	NO		NO	bb
5	5 200225P1-7	Standard	12.500	5.33	5470.047	23637.857	2.893	12.5	-0.0	NO		NO	bb
6	6 200225P1-8	Standard	12.500	5.33	4941.707	22421.760	2.755	11.9	-4.8	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.34	5109.596	19698.072	3.242	14.0	12.0	NO		NO	bb
8	8 200225P1-10	Standard	12.500	5.33	5321.571	23404.813	2.842	12.3	-1.8	NO		NO	bb
9	9 200225P1-11	Standard	12.500	5.33	5012.692	21266.988	2.946	12.7	1.8	NO		NO	bb
10	10 200225P1-12	Standard	12.500	5.33	4532.038	20920.873	2.708	11.7	-6.4	NO		NO	bb

Compound name: 13C2-PFDoA-EIS
Response Factor: 1686.25
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 200225P1-3	Standard	12.500	5.63	19794.912		19794.912	11.7	-6.1	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	5.63	17291.875		17291.875	10.3	-18.0	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	5.62	20924.223		20924.223	12.4	-0.7	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	5.63	20403.285		20403.285	12.1	-3.2	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	5.62	19895.336		19895.336	11.8	-5.6	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	5.62	21078.160		21078.160	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.62	20754.656		20754.656	12.3	-1.5	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	5.63	21822.719		21822.719	12.9	3.5	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	5.63	20369.846		20369.846	12.1	-3.4	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	5.63	18409.998		18409.998	10.9	-12.7	NO		NO	bbX

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Compound name: 13C2-PFDoA-RSD
Response Factor: 0.968527
RRF SD: 0.0771921, Relative SD: 7.97005
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 200225P1-3	Standard	12.500	5.63	19794.912	18849.785	13.127	13.6	8.4	NO		NO	bb
2	2 200225P1-4	Standard	12.500	5.63	17291.875	20255.420	10.671	11.0	-11.9	NO		NO	bb
3	3 200225P1-5	Standard	12.500	5.62	20924.223	21458.498	12.189	12.6	0.7	NO		NO	bb
4	4 200225P1-6	Standard	12.500	5.63	20403.285	21545.986	11.837	12.2	-2.2	NO		NO	bb
5	5 200225P1-7	Standard	12.500	5.62	19895.336	20125.918	12.357	12.8	2.1	NO		NO	bb
6	6 200225P1-8	Standard	12.500	5.62	21078.160	21679.625	12.153	12.5	0.4	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.62	20754.656	22313.967	11.626	12.0	-4.0	NO		NO	bb
8	8 200225P1-10	Standard	12.500	5.63	21822.719	19321.385	14.118	14.6	16.6	NO		NO	bb
9	9 200225P1-11	Standard	12.500	5.63	20369.846	21719.578	11.723	12.1	-3.2	NO		NO	bb
10	10 200225P1-12	Standard	12.500	5.63	18409.998	20429.818	11.264	11.6	-7.0	NO		NO	bb

Compound name: 13C2-10:2 FTS-EIS
Response Factor: 71.9592
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 200225P1-3	Standard	12.500	5.62	1004.549		1004.549	14.0	11.7	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	5.61	877.858		877.858	12.2	-2.4	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	5.61	1029.995		1029.995	14.3	14.5	NO		NO	MMX
4	4 200225P1-6	Standard	12.500	5.61	986.869		986.869	13.7	9.7	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	5.61	863.880		863.880	12.0	-4.0	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	5.61	899.490		899.490	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.61	851.594		851.594	11.8	-5.3	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	5.61	1017.819		1017.819	14.1	13.2	NO		NO	dbX
9	9 200225P1-11	Standard	12.500	5.61	862.033		862.033	12.0	-4.2	NO		NO	dbX
10	10 200225P1-12	Standard	12.500	5.61	685.745		685.745	9.5	-23.8	NO		NO	dbX

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Compound name: 13C2-10:2 FTS-RSD
Response Factor: 0.238298
RRF SD: 0.0344216, Relative SD: 14.4448
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 200225P1-3	Standard	12.500	5.62	1004.549	3783.710	3.319	13.9	11.4	NO		NO	bb
2	2 200225P1-4	Standard	12.500	5.61	877.858	3695.773	2.969	12.5	-0.3	NO		NO	bb
3	3 200225P1-5	Standard	12.500	5.61	1031.251	3791.307	3.400	14.3	14.1	NO		NO	MM
4	4 200225P1-6	Standard	12.500	5.61	986.869	3236.887	3.811	16.0	27.9	NO		NO	bb
5	5 200225P1-7	Standard	12.500	5.61	863.880	4232.745	2.551	10.7	-14.4	NO		NO	bb
6	6 200225P1-8	Standard	12.500	5.61	899.490	3902.713	2.881	12.1	-3.3	NO		NO	bb
7	7 200225P1-9	Standard	12.500	5.61	851.594	4223.934	2.520	10.6	-15.4	NO		NO	bb
8	8 200225P1-10	Standard	12.500	5.61	1017.819	4363.684	2.916	12.2	-2.1	NO		NO	db
9	9 200225P1-11	Standard	12.500	5.61	862.033	3634.562	2.965	12.4	-0.5	NO		NO	db
10	10 200225P1-12	Standard	12.500	5.61	685.745	3490.466	2.456	10.3	-17.6	NO		NO	db

Compound name: d3-N-MeFOSA-EIS
Response Factor: 141.531
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 200225P1-3	Standard	149.200	5.77	18385.910		18385.910	129.9	-12.9	NO		NO	bbX
2	2 200225P1-4	Standard	149.200	5.76	18984.031		18984.031	134.1	-10.1	NO		NO	bbX
3	3 200225P1-5	Standard	149.200	5.76	20984.184		20984.184	148.3	-0.6	NO		NO	bbX
4	4 200225P1-6	Standard	149.200	5.76	20764.477		20764.477	146.7	-1.7	NO		NO	bbX
5	5 200225P1-7	Standard	149.200	5.76	20656.791		20656.791	146.0	-2.2	NO		NO	bbX
6	6 200225P1-8	Standard	149.200	5.76	21116.357		21116.357	149.2	0.0	NO		NO	bb
7	7 200225P1-9	Standard	149.200	5.76	21394.961		21394.961	151.2	1.3	NO		NO	bbX
8	8 200225P1-10	Standard	149.200	5.77	22915.986		22915.986	161.9	8.5	NO		NO	bbX
9	9 200225P1-11	Standard	149.200	5.77	21205.846		21205.846	149.8	0.4	NO		NO	bbX
10	10 200225P1-12	Standard	149.200	5.77	21072.350		21072.350	148.9	-0.2	NO		NO	bbX

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Compound name: d3-N-MeFOSA-RSD
Response Factor: 0.0802966
RRF SD: 0.00515231, Relative SD: 6.4166
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 200225P1-3	Standard	149.200	5.77	18385.910	19831.211	11.589	144.3	-3.3	NO		NO	bb
2	2 200225P1-4	Standard	149.200	5.76	18984.031	20433.932	11.613	144.6	-3.1	NO		NO	bb
3	3 200225P1-5	Standard	149.200	5.76	20984.184	23449.227	11.186	139.3	-6.6	NO		NO	bb
4	4 200225P1-6	Standard	149.200	5.76	20764.477	21906.523	11.848	147.6	-1.1	NO		NO	bb
5	5 200225P1-7	Standard	149.200	5.76	20656.791	23637.857	10.924	136.0	-8.8	NO		NO	bb
6	6 200225P1-8	Standard	149.200	5.76	21116.357	22421.760	11.772	146.6	-1.7	NO		NO	bb
7	7 200225P1-9	Standard	149.200	5.76	21394.961	19698.072	13.577	169.1	13.3	NO		NO	bb
8	8 200225P1-10	Standard	149.200	5.77	22915.986	23404.813	12.239	152.4	2.2	NO		NO	bb
9	9 200225P1-11	Standard	149.200	5.77	21205.846	21266.988	12.464	155.2	4.0	NO		NO	bb
10	10 200225P1-12	Standard	149.200	5.77	21072.350	20920.873	12.591	156.8	5.1	NO		NO	bb

Compound name: 13C2-PFTeDA-EIS
Response Factor: 1896.41
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 200225P1-3	Standard	12.500	6.08	23904.145		23904.145	12.6	0.8	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	6.08	20899.578		20899.578	11.0	-11.8	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	6.08	23536.283		23536.283	12.4	-0.7	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	6.08	22335.166		22335.166	11.8	-5.8	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	6.08	23810.332		23810.332	12.6	0.4	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	6.08	23705.125		23705.125	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	6.08	23014.939		23014.939	12.1	-2.9	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	6.08	23827.521		23827.521	12.6	0.5	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	6.08	21136.031		21136.031	11.1	-10.8	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	6.08	20449.318		20449.318	10.8	-13.7	NO		NO	bbX

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Compound name: 13C2-PFTeDA-RSD
Response Factor: 1.04737
RRF SD: 0.076891, Relative SD: 7.34132
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	200225P1-3	Standard	12.500	6.08	23904.145	19831.211	15.067	14.4	15.1	NO		NO	bb
2	2	200225P1-4	Standard	12.500	6.08	20899.578	20433.932	12.785	12.2	-2.3	NO		NO	bb
3	3	200225P1-5	Standard	12.500	6.08	23536.283	23449.227	12.546	12.0	-4.2	NO		NO	bb
4	4	200225P1-6	Standard	12.500	6.08	22335.166	21906.523	12.745	12.2	-2.7	NO		NO	bb
5	5	200225P1-7	Standard	12.500	6.08	23810.332	23637.857	12.591	12.0	-3.8	NO		NO	bb
6	6	200225P1-8	Standard	12.500	6.08	23705.125	22421.760	13.215	12.6	0.9	NO		NO	bb
7	7	200225P1-9	Standard	12.500	6.08	23014.939	19698.072	14.605	13.9	11.6	NO		NO	bb
8	8	200225P1-10	Standard	12.500	6.08	23827.521	23404.813	12.726	12.2	-2.8	NO		NO	bb
9	9	200225P1-11	Standard	12.500	6.08	21136.031	21266.988	12.423	11.9	-5.1	NO		NO	bb
10	10	200225P1-12	Standard	12.500	6.08	20449.318	20920.873	12.218	11.7	-6.7	NO		NO	bb

Compound name: d5-N-ETFOSA-EIS
Response Factor: 180.703
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	200225P1-3	Standard	149.200	6.16	23419.826		23419.826	129.6	-13.1	NO		NO	bbX
2	2	200225P1-4	Standard	149.200	6.15	23933.094		23933.094	132.4	-11.2	NO		NO	bbX
3	3	200225P1-5	Standard	149.200	6.16	25590.486		25590.486	141.6	-5.1	NO		NO	bbX
4	4	200225P1-6	Standard	149.200	6.15	25775.242		25775.242	142.6	-4.4	NO		NO	bbX
5	5	200225P1-7	Standard	149.200	6.16	27285.506		27285.506	151.0	1.2	NO		NO	bbX
6	6	200225P1-8	Standard	149.200	6.15	26960.850		26960.850	149.2	0.0	NO		NO	bb
7	7	200225P1-9	Standard	149.200	6.16	26238.824		26238.824	145.2	-2.7	NO		NO	bbX
8	8	200225P1-10	Standard	149.200	6.16	28234.779		28234.779	156.2	4.7	NO		NO	bbX
9	9	200225P1-11	Standard	149.200	6.16	25151.254		25151.254	139.2	-6.7	NO		NO	bbX
10	10	200225P1-12	Standard	149.200	6.16	23779.672		23779.672	131.6	-11.8	NO		NO	bbX

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Compound name: d5-N-ETFOSA-RSD
Response Factor: 0.0991503
RRF SD: 0.00520209, Relative SD: 5.24667
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 200225P1-3	Standard	149.200	6.16	23419.826	19831.211	14.762	148.9	-0.2	NO		NO	bb
2	2 200225P1-4	Standard	149.200	6.15	23933.094	20433.932	14.641	147.7	-1.0	NO		NO	bb
3	3 200225P1-5	Standard	149.200	6.16	25590.486	23449.227	13.641	137.6	-7.8	NO		NO	bb
4	4 200225P1-6	Standard	149.200	6.15	25775.242	21906.523	14.708	148.3	-0.6	NO		NO	bb
5	5 200225P1-7	Standard	149.200	6.16	27285.506	23637.857	14.429	145.5	-2.5	NO		NO	bb
6	6 200225P1-8	Standard	149.200	6.15	26960.850	22421.760	15.031	151.6	1.6	NO		NO	bb
7	7 200225P1-9	Standard	149.200	6.16	26238.824	19698.072	16.651	167.9	12.6	NO		NO	bb
8	8 200225P1-10	Standard	149.200	6.16	28234.779	23404.813	15.080	152.1	1.9	NO		NO	bb
9	9 200225P1-11	Standard	149.200	6.16	25151.254	21266.988	14.783	149.1	-0.1	NO		NO	bb
10	10 200225P1-12	Standard	149.200	6.16	23779.672	20920.873	14.208	143.3	-4.0	NO		NO	bb

Compound name: 13C2-PFHxDA-EIS
Response Factor: 2591.61
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 200225P1-3	Standard	12.500	6.41	32718.949		32718.949	12.6	1.0	NO		NO	bbX
2	2 200225P1-4	Standard	12.500	6.40	30851.906		30851.906	11.9	-4.8	NO		NO	bbX
3	3 200225P1-5	Standard	12.500	6.40	32443.676		32443.676	12.5	0.1	NO		NO	bbX
4	4 200225P1-6	Standard	12.500	6.40	31620.527		31620.527	12.2	-2.4	NO		NO	bbX
5	5 200225P1-7	Standard	12.500	6.40	34460.848		34460.848	13.3	6.4	NO		NO	bbX
6	6 200225P1-8	Standard	12.500	6.40	32395.119		32395.119	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	6.40	31727.350		31727.350	12.2	-2.1	NO		NO	bbX
8	8 200225P1-10	Standard	12.500	6.40	36623.570		36623.570	14.1	13.1	NO		NO	bbX
9	9 200225P1-11	Standard	12.500	6.40	31588.863		31588.863	12.2	-2.5	NO		NO	bbX
10	10 200225P1-12	Standard	12.500	6.41	29260.670		29260.670	11.3	-9.7	NO		NO	bbX

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Compound name: 13C2-PFHxDA-RSD
Response Factor: 1.49488
RRF SD: 0.0887014, Relative SD: 5.93367
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 200225P1-3	Standard	12.500	6.41	32718.949	19831.211	20.623	13.8	10.4	NO		NO	bb
2	2 200225P1-4	Standard	12.500	6.40	30851.906	20433.932	18.873	12.6	1.0	NO		NO	bb
3	3 200225P1-5	Standard	12.500	6.40	32443.676	23449.227	17.295	11.6	-7.4	NO		NO	bb
4	4 200225P1-6	Standard	12.500	6.40	31620.527	21906.523	18.043	12.1	-3.4	NO		NO	bb
5	5 200225P1-7	Standard	12.500	6.40	34460.848	23637.857	18.223	12.2	-2.5	NO		NO	bb
6	6 200225P1-8	Standard	12.500	6.40	32395.119	22421.760	18.060	12.1	-3.3	NO		NO	bb
7	7 200225P1-9	Standard	12.500	6.40	31727.350	19698.072	20.134	13.5	7.7	NO		NO	bb
8	8 200225P1-10	Standard	12.500	6.40	36623.570	23404.813	19.560	13.1	4.7	NO		NO	bb
9	9 200225P1-11	Standard	12.500	6.40	31588.863	21266.988	18.567	12.4	-0.6	NO		NO	bb
10	10 200225P1-12	Standard	12.500	6.41	29260.670	20920.873	17.483	11.7	-6.4	NO		NO	bb

Compound name: d7-N-MeFOSE-EIS
Response Factor: 120.789
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 200225P1-3	Standard	149.200	6.29	17691.047		17691.047	146.5	-1.8	NO		NO	bbX
2	2 200225P1-4	Standard	149.200	6.29	17581.641		17581.641	145.6	-2.4	NO		NO	bbX
3	3 200225P1-5	Standard	149.200	6.29	19041.301		19041.301	157.6	5.7	NO		NO	bbX
4	4 200225P1-6	Standard	149.200	6.29	18451.818		18451.818	152.8	2.4	NO		NO	MMX
5	5 200225P1-7	Standard	149.200	6.28	18629.246		18629.246	154.2	3.4	NO		NO	MMX
6	6 200225P1-8	Standard	149.200	6.29	18021.730		18021.730	149.2	0.0	NO		NO	bb
7	7 200225P1-9	Standard	149.200	6.28	19080.988		19080.988	158.0	5.9	NO		NO	bbX
8	8 200225P1-10	Standard	149.200	6.29	20077.549		20077.549	166.2	11.4	NO		NO	bbX
9	9 200225P1-11	Standard	149.200	6.28	20780.801		20780.801	172.0	15.3	NO		NO	bbX
10	10 200225P1-12	Standard	149.200	6.28	18944.963		18944.963	156.8	5.1	NO		NO	bbX

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Compound name: d7-N-MeFOSE-RSD
Response Factor: 0.072866
RRF SD: 0.00560797, Relative SD: 7.69628
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	200225P1-3	Standard	149.200	6.29	17691.047	19831.211	11.151	153.0	2.6	NO		NO	bb
2	2	200225P1-4	Standard	149.200	6.29	17581.641	20433.932	10.755	147.6	-1.1	NO		NO	bb
3	3	200225P1-5	Standard	149.200	6.29	19041.301	23449.227	10.150	139.3	-6.6	NO		NO	bb
4	4	200225P1-6	Standard	149.200	6.29	18459.666	21906.523	10.533	144.6	-3.1	NO		NO	MM
5	5	200225P1-7	Standard	149.200	6.28	18370.014	23637.857	9.714	133.3	-10.6	NO		NO	bb
6	6	200225P1-8	Standard	149.200	6.29	18021.730	22421.760	10.047	137.9	-7.6	NO		NO	bb
7	7	200225P1-9	Standard	149.200	6.28	19080.988	19698.072	12.108	166.2	11.4	NO		NO	bb
8	8	200225P1-10	Standard	149.200	6.29	20077.549	23404.813	10.723	147.2	-1.4	NO		NO	bb
9	9	200225P1-11	Standard	149.200	6.28	20780.801	21266.988	12.214	167.6	12.3	NO		NO	bb
10	10	200225P1-12	Standard	149.200	6.28	18944.963	20920.873	11.319	155.3	4.1	NO		NO	bb

Compound name: d9-N-EtFOSE-EIS
Response Factor: 149.299
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	200225P1-3	Standard	149.200	6.44	19924.037		19924.037	133.5	-10.6	NO		NO	bbX
2	2	200225P1-4	Standard	149.200	6.43	21132.717		21132.717	141.5	-5.1	NO		NO	bbX
3	3	200225P1-5	Standard	149.200	6.43	22095.117		22095.117	148.0	-0.8	NO		NO	bbX
4	4	200225P1-6	Standard	149.200	6.43	21809.131		21809.131	146.1	-2.1	NO		NO	bbX
5	5	200225P1-7	Standard	149.200	6.43	22094.990		22094.990	148.0	-0.8	NO		NO	bbX
6	6	200225P1-8	Standard	149.200	6.43	22275.373		22275.373	149.2	0.0	NO		NO	MM
7	7	200225P1-9	Standard	149.200	6.43	22478.264		22478.264	150.6	0.9	NO		NO	bbX
8	8	200225P1-10	Standard	149.200	6.43	23963.234		23963.234	160.5	7.6	NO		NO	bbX
9	9	200225P1-11	Standard	149.200	6.43	23505.465		23505.465	157.4	5.5	NO		NO	bbX
10	10	200225P1-12	Standard	149.200	6.43	22299.754		22299.754	149.4	0.1	NO		NO	bbX

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Compound name: d9-N-EtFOSE-RSD
Response Factor: 0.0858012
RRF SD: 0.00551082, Relative SD: 6.42278
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	200225P1-3	Standard	149.200	6.44	19924.037	19831.211	12.559	146.4	-1.9	NO		NO	bb
2	2	200225P1-4	Standard	149.200	6.43	21132.717	20433.932	12.927	150.7	1.0	NO		NO	bb
3	3	200225P1-5	Standard	149.200	6.43	22095.117	23449.227	11.778	137.3	-8.0	NO		NO	bb
4	4	200225P1-6	Standard	149.200	6.43	21809.131	21906.523	12.444	145.0	-2.8	NO		NO	bb
5	5	200225P1-7	Standard	149.200	6.43	22094.990	23637.857	11.684	136.2	-8.7	NO		NO	bb
6	6	200225P1-8	Standard	149.200	6.43	22279.467	22421.760	12.421	144.8	-3.0	NO		NO	MM
7	7	200225P1-9	Standard	149.200	6.43	22478.264	19698.072	14.264	166.2	11.4	NO		NO	bb
8	8	200225P1-10	Standard	149.200	6.43	23963.234	23404.813	12.798	149.2	-0.0	NO		NO	bb
9	9	200225P1-11	Standard	149.200	6.43	23505.465	21266.988	13.816	161.0	7.9	NO		NO	bb
10	10	200225P1-12	Standard	149.200	6.43	22299.754	20920.873	13.324	155.3	4.1	NO		NO	bb

Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 1.28198e-016, Relative SD: 1.28198e-014
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	200225P1-3	Standard	12.500	1.42	12266.709	12266.709	12.500	12.5	0.0	NO		NO	bb
2	2	200225P1-4	Standard	12.500	1.41	12331.454	12331.454	12.500	12.5	0.0	NO		NO	bb
3	3	200225P1-5	Standard	12.500	1.42	13320.676	13320.676	12.500	12.5	0.0	NO		NO	bb
4	4	200225P1-6	Standard	12.500	1.42	13219.248	13219.248	12.500	12.5	0.0	NO		NO	bb
5	5	200225P1-7	Standard	12.500	1.42	13469.415	13469.415	12.500	12.5	0.0	NO		NO	bb
6	6	200225P1-8	Standard	12.500	1.42	14016.627	14016.627	12.500	12.5	0.0	NO		NO	bb
7	7	200225P1-9	Standard	12.500	1.42	13947.172	13947.172	12.500	12.5	0.0	NO		NO	bb
8	8	200225P1-10	Standard	12.500	1.42	14579.886	14579.886	12.500	12.5	0.0	NO		NO	bb
9	9	200225P1-11	Standard	12.500	1.42	13803.979	13803.979	12.500	12.5	0.0	NO		NO	bb
10	10	200225P1-12	Standard	12.500	1.42	13829.581	13829.581	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200225P1-3	Standard	12.500	3.13	21026.791	21026.791	12.500	12.5	0.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	3.13	21114.680	21114.680	12.500	12.5	0.0	NO		NO	bb
3	3 200225P1-5	Standard	12.500	3.13	23180.252	23180.252	12.500	12.5	0.0	NO		NO	bb
4	4 200225P1-6	Standard	12.500	3.13	21748.432	21748.432	12.500	12.5	0.0	NO		NO	bb
5	5 200225P1-7	Standard	12.500	3.13	22122.477	22122.477	12.500	12.5	0.0	NO		NO	bb
6	6 200225P1-8	Standard	12.500	3.13	24673.588	24673.588	12.500	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	3.13	23036.369	23036.369	12.500	12.5	0.0	NO		NO	bb
8	8 200225P1-10	Standard	12.500	3.13	24870.381	24870.381	12.500	12.5	0.0	NO		NO	bb
9	9 200225P1-11	Standard	12.500	3.13	22955.182	22955.182	12.500	12.5	0.0	NO		NO	bb
10	10 200225P1-12	Standard	12.500	3.13	21647.338	21647.338	12.500	12.5	0.0	NO		NO	bb

Compound name: 18O2-PFHxS
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 200225P1-3	Standard	12.500	3.87	1002.938	1002.938	12.500	12.5	0.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	3.86	1233.002	1233.002	12.500	12.5	0.0	NO		NO	bb
3	3 200225P1-5	Standard	12.500	3.86	1410.673	1410.673	12.500	12.5	0.0	NO		NO	bb
4	4 200225P1-6	Standard	12.500	3.86	1330.276	1330.276	12.500	12.5	0.0	NO		NO	bb
5	5 200225P1-7	Standard	12.500	3.86	1261.312	1261.312	12.500	12.5	0.0	NO		NO	bb
6	6 200225P1-8	Standard	12.500	3.86	1378.876	1378.876	12.500	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	3.86	1316.816	1316.816	12.500	12.5	0.0	NO		NO	bb
8	8 200225P1-10	Standard	12.500	3.86	1449.444	1449.444	12.500	12.5	0.0	NO		NO	bb
9	9 200225P1-11	Standard	12.500	3.86	1340.803	1340.803	12.500	12.5	0.0	NO		NO	bb
10	10 200225P1-12	Standard	12.500	3.86	1294.671	1294.671	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C8-PFOA
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 200225P1-3	Standard	12.500	4.24	20999.771	20999.771	12.500	12.5	0.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	4.23	21350.887	21350.887	12.500	12.5	0.0	NO		NO	bb
3	3 200225P1-5	Standard	12.500	4.23	21723.881	21723.881	12.500	12.5	0.0	NO		NO	bb
4	4 200225P1-6	Standard	12.500	4.23	21038.039	21038.039	12.500	12.5	0.0	NO		NO	bb
5	5 200225P1-7	Standard	12.500	4.23	23013.834	23013.834	12.500	12.5	0.0	NO		NO	bb
6	6 200225P1-8	Standard	12.500	4.23	22838.305	22838.305	12.500	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.23	23687.217	23687.217	12.500	12.5	0.0	NO		NO	bb
8	8 200225P1-10	Standard	12.500	4.23	23445.688	23445.688	12.500	12.5	0.0	NO		NO	bd
9	9 200225P1-11	Standard	12.500	4.23	21333.131	21333.131	12.500	12.5	0.0	NO		NO	bb
10	10 200225P1-12	Standard	12.500	4.23	18595.418	18595.418	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C9-PFNA
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 200225P1-3	Standard	12.500	4.67	19086.615	19086.615	12.500	12.5	0.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	4.67	18558.656	18558.656	12.500	12.5	0.0	NO		NO	bb
3	3 200225P1-5	Standard	12.500	4.67	20561.016	20561.016	12.500	12.5	0.0	NO		NO	bb
4	4 200225P1-6	Standard	12.500	4.67	18224.971	18224.971	12.500	12.5	0.0	NO		NO	bb
5	5 200225P1-7	Standard	12.500	4.67	19280.119	19280.119	12.500	12.5	0.0	NO		NO	bb
6	6 200225P1-8	Standard	12.500	4.67	20431.225	20431.225	12.500	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.67	20764.564	20764.564	12.500	12.5	0.0	NO		NO	bb
8	8 200225P1-10	Standard	12.500	4.67	21059.193	21059.193	12.500	12.5	0.0	NO		NO	bb
9	9 200225P1-11	Standard	12.500	4.67	20309.342	20309.342	12.500	12.5	0.0	NO		NO	bb
10	10 200225P1-12	Standard	12.500	4.67	18033.258	18033.258	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 1.04673e-016, Relative SD: 1.04673e-014
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 200225P1-3	Standard	12.500	4.76	3783.710	3783.710	12.500	12.5	0.0	NO		NO	bb
2	2 200225P1-4	Standard	12.500	4.75	3695.773	3695.773	12.500	12.5	0.0	NO		NO	bb
3	3 200225P1-5	Standard	12.500	4.75	3791.307	3791.307	12.500	12.5	0.0	NO		NO	bb
4	4 200225P1-6	Standard	12.500	4.75	3236.887	3236.887	12.500	12.5	0.0	NO		NO	bb
5	5 200225P1-7	Standard	12.500	4.75	4232.745	4232.745	12.500	12.5	0.0	NO		NO	bb
6	6 200225P1-8	Standard	12.500	4.75	3902.713	3902.713	12.500	12.5	0.0	NO		NO	bb
7	7 200225P1-9	Standard	12.500	4.75	4223.934	4223.934	12.500	12.5	0.0	NO		NO	MM
8	8 200225P1-10	Standard	12.500	4.75	4363.684	4363.684	12.500	12.5	0.0	NO		NO	bb
9	9 200225P1-11	Standard	12.500	4.75	3634.562	3634.562	12.500	12.5	0.0	NO		NO	bb
10	10 200225P1-12	Standard	12.500	4.75	3490.466	3490.466	12.500	12.5	0.0	NO		NO	bb

Compound name: TDCA
No Calibration
Response type: External Std, 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 200225P1-3	Standard	0.250							NO		NO	
2	2 200225P1-4	Standard	0.500							NO		NO	
3	3 200225P1-5	Standard	1.000							NO		NO	
4	4 200225P1-6	Standard	2.000							NO		NO	
5	5 200225P1-7	Standard	5.000							NO		NO	
6	6 200225P1-8	Standard	10.000							NO		NO	
7	7 200225P1-9	Standard	50.000							NO		NO	
8	8 200225P1-10	Standard	100.000							NO		NO	
9	9 200225P1-11	Standard	250.000							NO		NO	
10	10 200225P1-12	Standard	500.000							NO		NO	

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Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Name: 200225P1-3, Date: 25-Feb-2020, Time: 18:19:42, ID: ST200225P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

	#	Name	IS#	CoD	CoD Flag	%RSD
1	1	PFBA	47	0.9996	NO	
2	2	PFPrS	51	0.9994	NO	
3	3	3:3 FTCA	49	0.9994	NO	
4	4	PFPeA	49	0.9996	NO	
5	5	PFBS	51	0.9980	NO	
6	6	4:2 FTS	55	0.9994	NO	
7	7	PFHxA	57	0.9991	NO	
8	8	PFPeS	51	0.9991	NO	
9	9	HFPO-DA	53	0.9995	NO	
10	10	5:3 FTCA	59	0.9997	NO	
11	11	PFHpA	59	0.9998	NO	
12	12	ADONA	59	0.9997	NO	
13	13	L-PFHxS	61	0.9985	NO	
14	15	6:2 FTS	63	0.9979	NO	
15	16	L-PFOA	69	0.9991	NO	
16	18	PFecHS	69	0.9962	NO	
17	19	PFHpS	71	0.9995	NO	
18	20	7:3 FTCA	65	0.9985	NO	
19	21	PFNA	65	0.9993	NO	
20	22	PFOSA	67	0.9983	NO	
21	23	L-PFOS	71	0.9992	NO	
22	25	9Cl-PF30NS	71	0.9996	NO	
23	26	PFDA	73	0.9998	NO	
24	27	8:2 FTS	75	0.9965	NO	
25	~~28~~	~~PFNS~~	~~71~~	~~0.9979~~	~~NO~~	
26	29	L-MeFOSAA	77	0.9979	NO	

on 2/24/2020

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Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
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Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Name: 200225P1-3, Date: 25-Feb-2020, Time: 18:19:42, ID: ST200225P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

	#	Name	IS#	CoD	CoD Flag	%RSD
1	31	L-EtFOSAA	81	0.9988	NO	
2	33	PFUdA	79	0.9978	NO	
3	34	PFDS	71	0.9996	NO	
4	35	11Cl-PF30UdS	83	0.9992	NO	
5	36	10:2 FTS	85	0.9979	NO	
6	37	PFDoA	83	0.9996	NO	
7	38	N-MeFOSA	87	0.9996	NO	
8	39	PFTrDA	83	0.9991	NO	
9	40	PFDoS	89	0.9992	NO	
10	41	PFTeDA	89	0.9984	NO	
11	42	N-EtFOSA	91	0.9998	NO	
12	43	PFHxDA	93	0.9995	NO	
13	44	PFODA	93	0.9995	NO	
14	45	N-MeFOSE	95	0.9952	NO	
15	46	N-EtFOSE	97	0.9989	NO	
16	47	13C3-PFBA-EIS			NO	0.000
17	48	13C3-PFBA-RSD	99		NO	0.823
18	49	13C3-PFPeA-EIS			NO	0.000
19	50	13C3-PFPeA-RSD	100		NO	2.929
20	51	13C3-PFBS-EIS			NO	0.000
21	52	13C3-PFBS-RSD	101		NO	9.591
22	53	13C3-HFPO-DA-EIS			NO	0.000
23	54	13C3-HFPO-DA-RSD	100		NO	6.425
24	55	13C2-4:2 FTS-EIS			NO	0.000
25	56	13C2-4:2 FTS-RSD	101		NO	13.365
26	57	13C2-PFHxA-EIS			NO	0.000
27	58	13C2-PFHxA-RSD	100		NO	2.830
28	59	13C4-PFHpA-EIS			NO	0.000
29	60	13C4-PFHpA-RSD	100		NO	3.486
30	61	13C3-PFHxS-EIS			NO	0.000
31	62	13C3-PFHxS-RSD	101		NO	8.751
32	63	13C2-6:2 FTS-EIS			NO	0.000

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Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:40:34 Pacific Standard Time

Name: 200225P1-3, Date: 25-Feb-2020, Time: 18:19:42, ID: ST200225P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

	#	Name	IS#	CoD	CoD Flag	%RSD
33	64	13C2-6:2 FTS-RSD	104		NO	11.585
34	65	13C5-PFNA-EIS			NO	0.000
35	66	13C5-PFNA-RSD	103		NO	3.362
36	67	13C8-PFOSA-EIS			NO	0.000
37	68	13C8-PFOSA-RSD	106		NO	7.521
38	69	13C2-PFOA-EIS			NO	0.000
39	70	13C2-PFOA-RSD	102		NO	5.392
40	71	13C8-PFOS-EIS			NO	0.000
41	72	13C8-PFOS-RSD	104		NO	4.444
42	73	13C2-PFDA-EIS			NO	0.000
43	74	13C2-PFDA-RSD	105		NO	5.532
44	75	13C2-8:2 FTS-EIS			NO	0.000
45	76	13C2-8:2 FTS-RSD	104		NO	9.242
46	77	d3-N-MeFOSAA-EIS			NO	0.000
47	78	d3-N-MeFOSAA-RSD	106		NO	11.016
48	79	13C2-PFUdA-EIS			NO	0.000
49	80	13C2-PFUdA-RSD	106		NO	6.403
50	81	d5-N-EtFOSAA-EIS			NO	0.000
51	82	d5-N-EtFOSAA-RSD	106		NO	4.949
52	83	13C2-PFDoA-EIS			NO	0.000
53	84	13C2-PFDoA-RSD	105		NO	7.970
54	85	13C2-10:2 FTS-EIS			NO	0.000
55	86	13C2-10:2 FTS-RSD	104		NO	14.445
56	87	d3-N-MeFOSA-EIS			NO	0.000
57	88	d3-N-MeFOSA-RSD	106		NO	6.417
58	89	13C2-PFTeDA-EIS			NO	0.000
59	90	13C2-PFTeDA-RSD	106		NO	7.341
60	91	d5-N-ETFOSA-EIS			NO	0.000
61	92	d5-N-ETFOSA-RSD	106		NO	5.247
62	93	13C2-PFHxDA-EIS			NO	0.000
63	94	13C2-PFHxDA-RSD	106		NO	5.934
64	95	d7-N-MeFOSE-EIS			NO	0.000
65	96	d7-N-MeFOSE-RSD	106		NO	7.696
66	97	d9-N-EtFOSE-EIS			NO	0.000
67	98	d9-N-EtFOSE-RSD	106		NO	6.423
68	99	13C4-PFBA	99		NO	0.000

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Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
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Name: 200225P1-3, Date: 25-Feb-2020, Time: 18:19:42, ID: ST200225P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

	#	Name	IS#	CoD	CoD Flag	%RSD
69	1...	13C5-PFHxA	100		NO	0.000
70	1...	18O2-PFHxS	101		NO	0.000
71	1...	13C8-PFOA	102		NO	0.000
72	1...	13C9-PFNA	103		NO	0.000
73	1...	13C4-PFOS	104		NO	0.000
74	1...	TDCA			NO	

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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-CRV.qld

Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
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Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Name: 200225P1-8, Date: 25-Feb-2020, Time: 19:12:14, ID: ST200225P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	PFBA	1.42	1.42			
2	PFPrS	1.76	1.74	2.395	2.395	NO
3	3:3 FTCA	2.20	2.20	3.660	3.660	NO
4	PFPeA	2.34	2.34			
5	PFBS	2.62	2.62	3.139	3.139	NO
6	4:2 FTS	3.04	3.04	0.899	0.899	NO
7	PFHxA	3.13	3.13	16.931	16.931	NO
8	PFPeS	3.31	3.32	2.432	2.432	NO
9	HFPO-DA	3.34	3.34	2.776	2.776	NO
10	5:3 FTCA	3.67	3.67	1.853	1.853	NO
11	PFHpA	3.72	3.72	33.693	33.693	NO
12	ADONA	3.81	3.83	4.296	4.296	NO
13	L-PFHxS	3.86	3.86	2.174	2.174	NO
14	6:2 FTS	4.17	4.18	1.229	1.229	NO
15	L-PFOA	4.23	4.23	2.800	2.800	NO
16	PFecHS	4.25	4.24	0.486	0.486	NO
17	PFHpS	4.35	4.34	2.025	2.025	NO
18	7:3 FTCA	4.66	4.65	1.539	1.539	NO
19	PFNA	4.67	4.67	9.406	9.406	NO
20	PFOSA	4.73	4.73	26.472	26.472	NO
21	L-PFOS	4.75	4.75	2.608	2.608	NO
22	9Cl-PF30NS	4.96	4.96	16.976	16.976	NO
23	PFDA	5.04	5.04	11.681	11.681	NO
24	8:2 FTS	5.01	5.01	2.559	2.559	NO
25	PFNS	5.09	5.09	2.122	2.122	NO
26	L-MeFOSAA	5.18	5.18	1.874	1.874	NO

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Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-CRV.qld

Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:47:32 Pacific Standard Time

Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Name: 200225P1-8, Date: 25-Feb-2020, Time: 19:12:14, ID: ST200225P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	L-EtFOSAA	5.33	5.34	1.127	1.127	NO
2	PFUdA	5.35	5.35	23.768	23.768	NO
3	PFDS	5.38	5.40	2.050	2.050	NO
4	11Cl-PF30UdS	5.56	5.56	19.229	19.229	NO
5	10:2 FTS	5.61	5.61	0.992	0.992	NO
6	PFDoA	5.62	5.63	9.903	9.903	NO
7	N-MeFOSA	5.75	5.74	1.781	1.781	NO
8	PFTrDA	5.88	5.87	50.652	50.652	NO
9	PFDoS	5.88	5.89	3.011	3.011	NO
10	PFTeDA	6.08	6.08	17.346	17.346	NO
11	N-EtFOSA	6.13	6.14	1.652	1.652	NO
12	PFHxDA	6.40	6.40	155.012	155.012	NO
13	PFODA	6.61	6.63			
14	N-MeFOSE	6.29	6.29			
15	N-EtFOSE	6.43	6.44			
16	TDCA	4.59		0.000		

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Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 11:49:56 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:50:38 Pacific Standard Time

Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	200225P1-2	IPA	25-Feb-20	18:09:11
2	2	200225P1-3	ST200225P1-1 PFC CS-2 20B1102	25-Feb-20	18:19:42
3	3	200225P1-4	ST200225P1-2 PFC CS-1 20B1103	25-Feb-20	18:30:13
4	4	200225P1-5	ST200225P1-3 PFC CS0 20B1104	25-Feb-20	18:40:42
5	5	200225P1-6	ST200225P1-4 PFC CS1 20B1105	25-Feb-20	18:51:13
6	6	200225P1-7	ST200225P1-5 PFC CS2 20B1106	25-Feb-20	19:01:42
7	7	200225P1-8	ST200225P1-6 PFC CS3 20B1107	25-Feb-20	19:12:14
8	8	200225P1-9	ST200225P1-7 PFC CS4 20B1108	25-Feb-20	19:22:44
9	9	200225P1-10	ST200225P1-8 PFC CS5 20B1109	25-Feb-20	19:33:15
10	10	200225P1-11	ST200225P1-9 PFC CS6 20B1110	25-Feb-20	19:43:44
11	11	200225P1-12	ST200225P1-10 PFC CS7 20B1111	25-Feb-20	19:54:16
12	12	200225P1-13	IB	25-Feb-20	20:04:45
13	13	200225P1-14	ICV200225P1-1 PFC ICV 20B1112	25-Feb-20	20:15:16
14	14	200225P1-15	IB	25-Feb-20	20:25:46

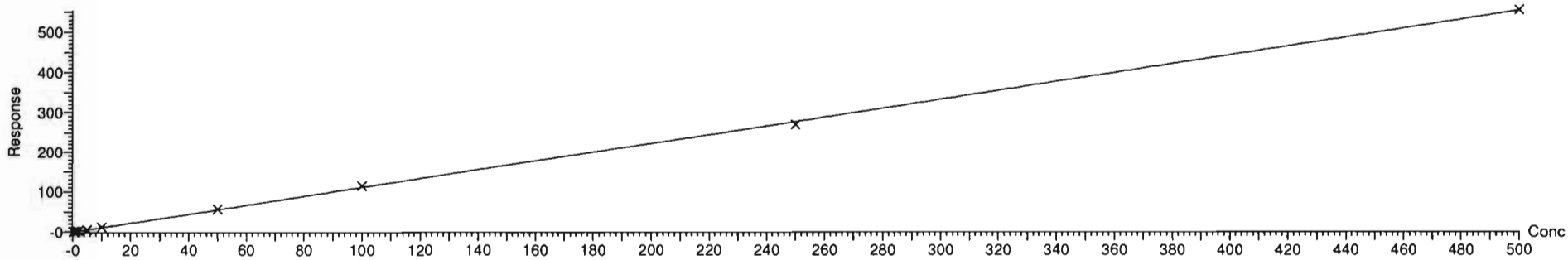
Vista Analytical Laboratory Q1

Dataset: Untitled

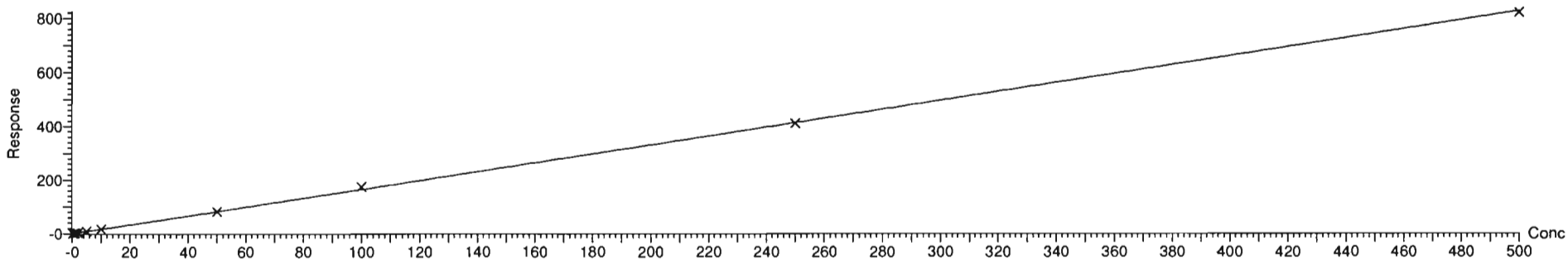
Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:37:56 Pacific Standard Time

Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Compound name: PFBA
Correlation coefficient: r = 0.999793, r^2 = 0.999585
Calibration curve: 1.10726 * x + 0.0852146
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



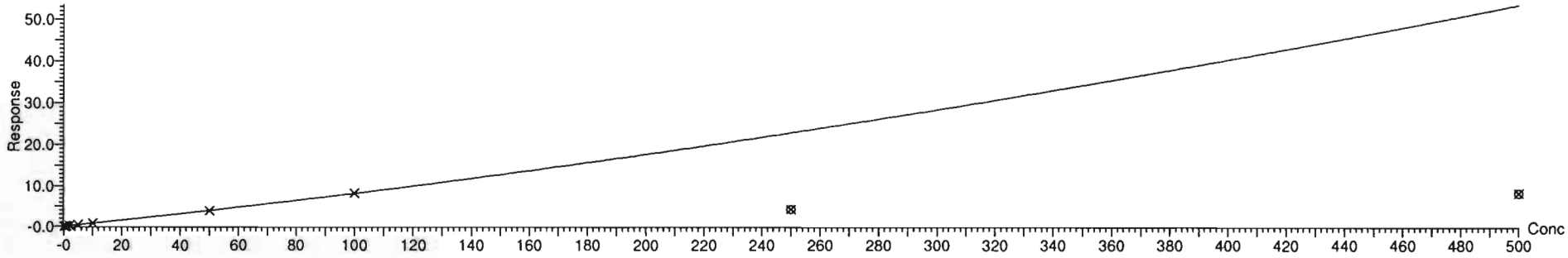
Compound name: PFPrS
Correlation coefficient: r = 0.999715, r^2 = 0.999431
Calibration curve: 1.65319 * x + -0.00618218
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



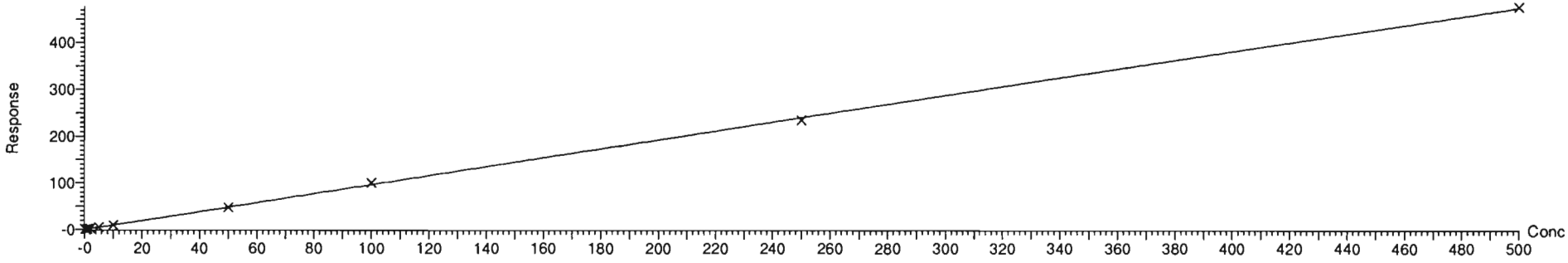
Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:37:56 Pacific Standard Time

Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.999447
Calibration curve: 6.20578e-005 * x^2 + 0.0762417 * x + 0.00385416
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



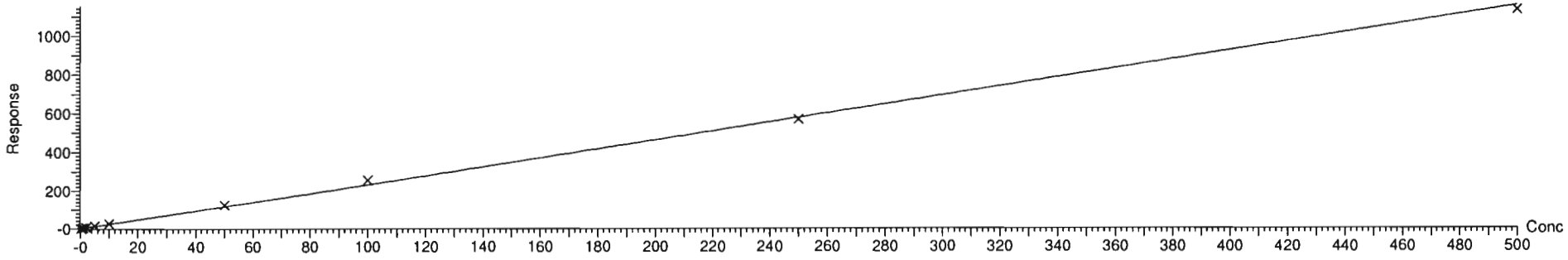
Compound name: PFPeA
Coefficient of Determination: R^2 = 0.999596
Calibration curve: -5.10583e-005 * x^2 + 0.975868 * x + 0.0396465
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



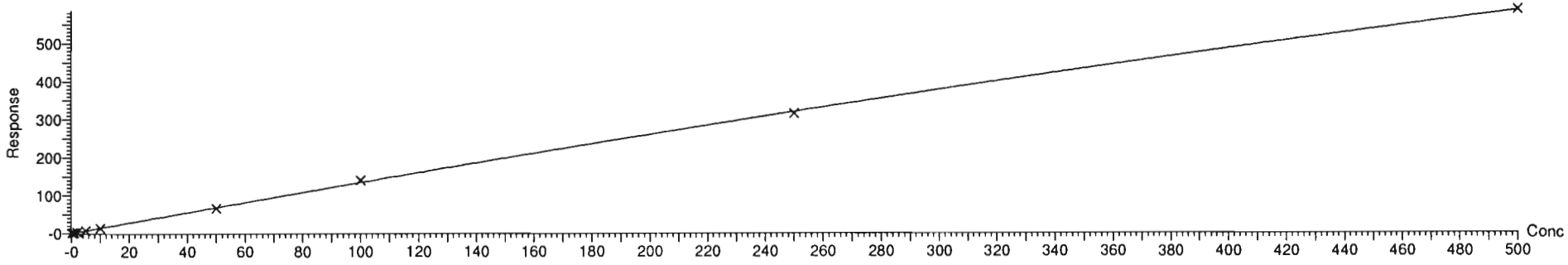
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Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
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Compound name: PFBS
Correlation coefficient: r = 0.998996, r^2 = 0.997993
Calibration curve: 2.30898 * x + 0.0728009
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



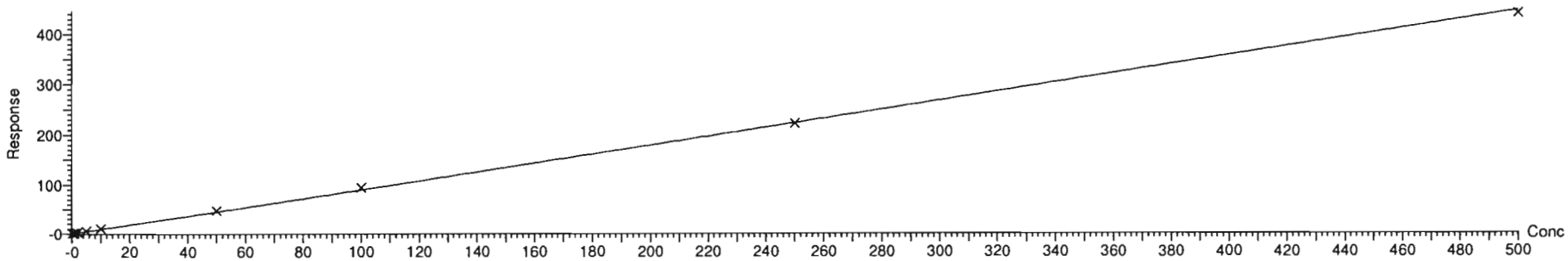
Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.999367
Calibration curve: -0.000434108 * x^2 + 1.38843 * x + -0.178318
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



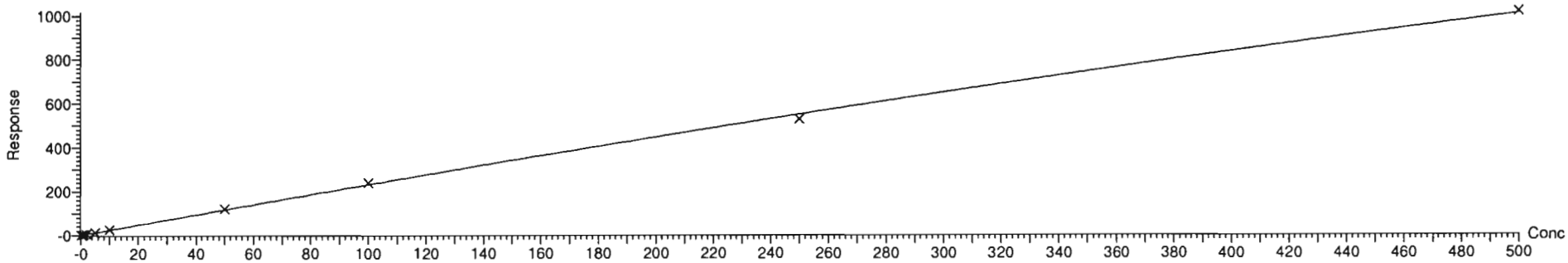
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Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
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Compound name: PFHxA
Correlation coefficient: r = 0.999532, r^2 = 0.999064
Calibration curve: 0.893131 * x + 0.0844687
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



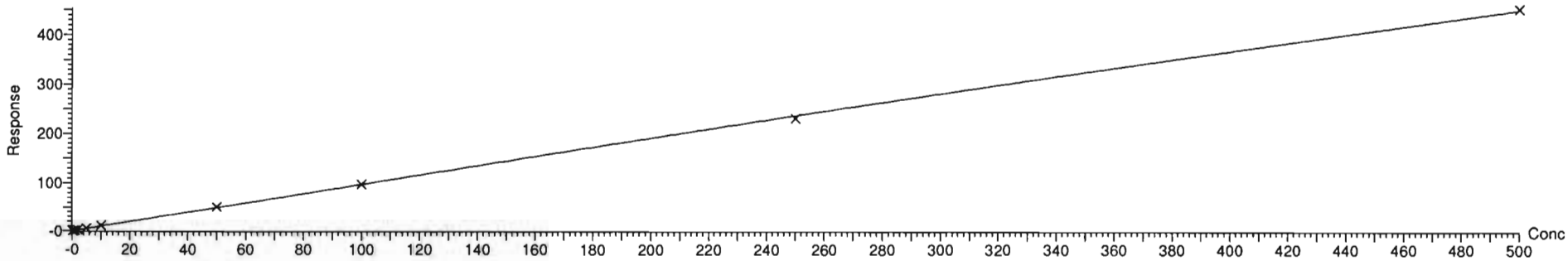
Compound name: PFPeS
Coefficient of Determination: R^2 = 0.999064
Calibration curve: -0.000730443 * x^2 + 2.38201 * x + -0.0672473
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



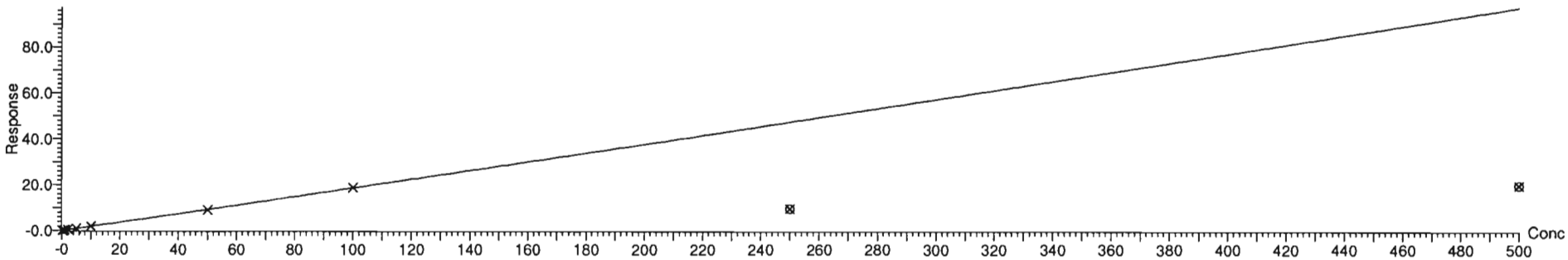
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Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
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Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.999495
Calibration curve: -0.000187555 * x^2 + 0.995843 * x + 0.017923
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



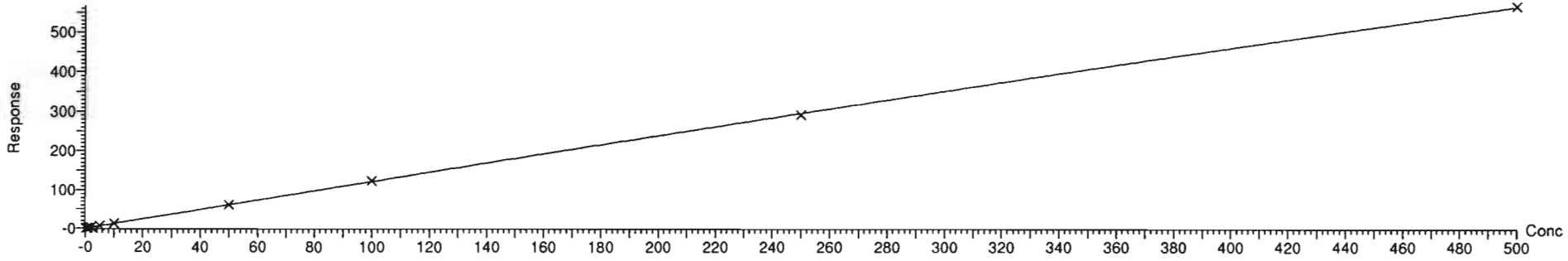
Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999699
Calibration curve: 1.76506e-005 * x^2 + 0.186062 * x + -0.00829431
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



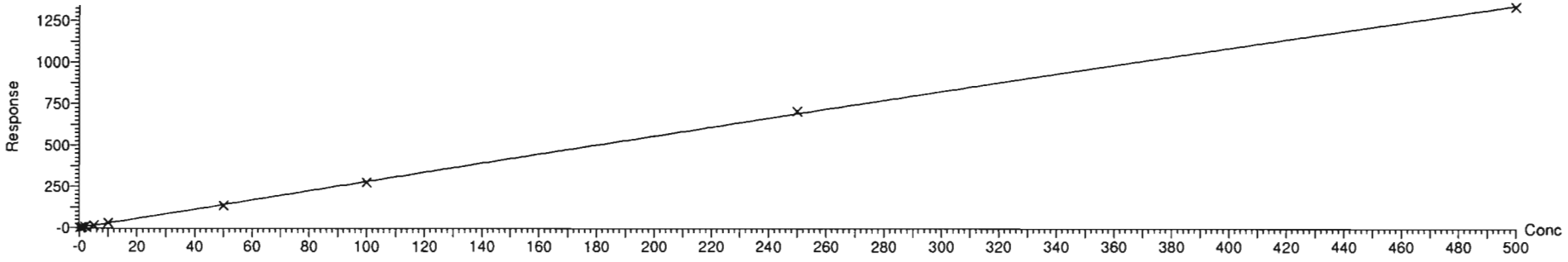
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Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
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Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999835
Calibration curve: -0.000213241 * x^2 + 1.2385 * x + 0.0521085
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



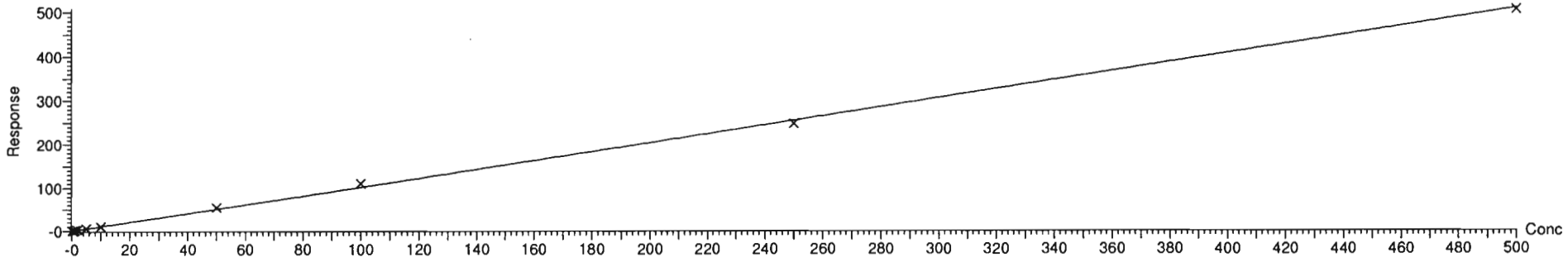
Compound name: ADONA
Coefficient of Determination: R^2 = 0.999654
Calibration curve: -0.00033118 * x^2 + 2.85271 * x + 0.0577579
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



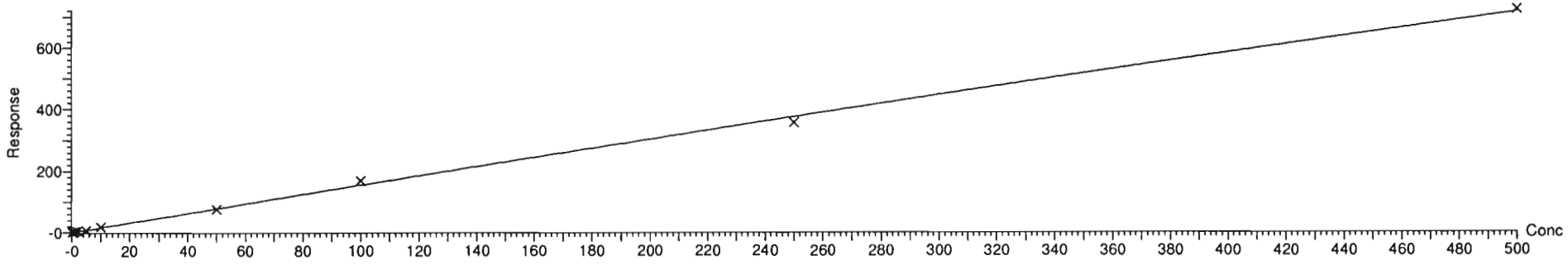
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Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:37:56 Pacific Standard Time

Compound name: L-PFHxS
Correlation coefficient: r = 0.999271, r^2 = 0.998543
Calibration curve: 1.01885 * x + 0.0424708
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



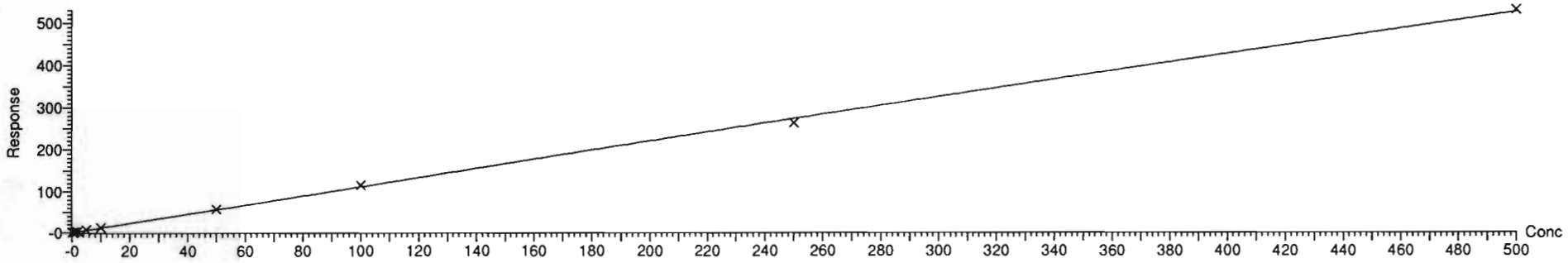
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997864
Calibration curve: -0.000277268 * x^2 + 1.56695 * x + 0.134499
Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



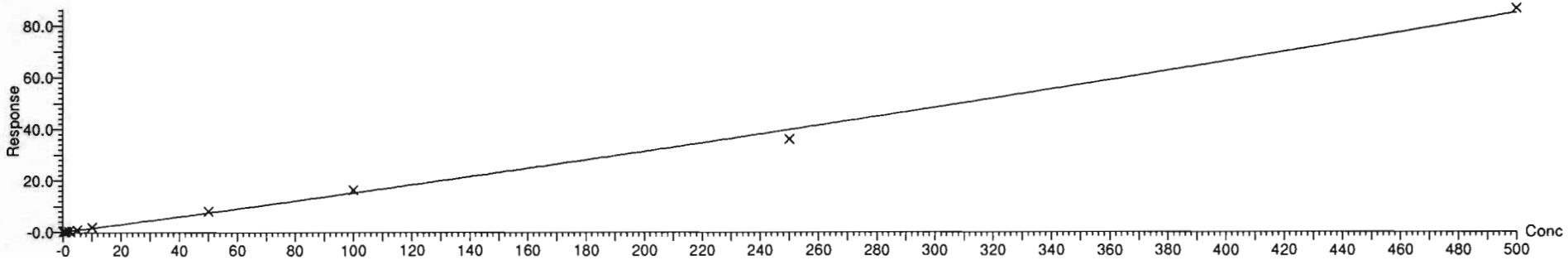
Dataset: Untitled

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Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999126
Calibration curve: -0.000157489 * x^2 + 1.13112 * x + 0.114857
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



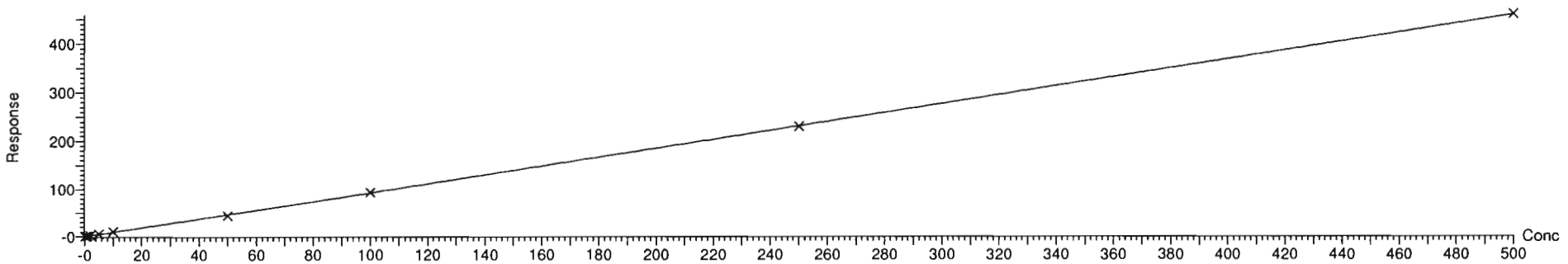
Compound name: PFecHS
Coefficient of Determination: R^2 = 0.996153
Calibration curve: 4.46408e-005 * x^2 + 0.147633 * x + 0.0114163
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



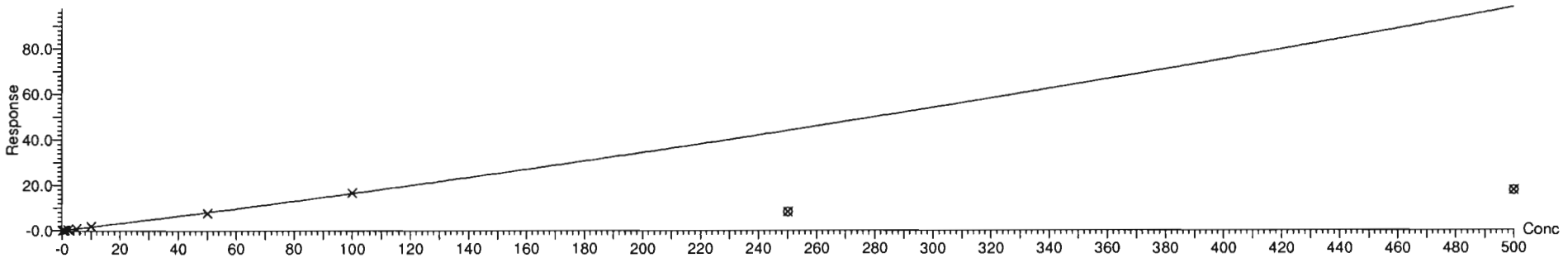
Dataset: Untitled

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999533
Calibration curve: -1.97849e-005 * x^2 + 0.928406 * x + 0.0131066
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



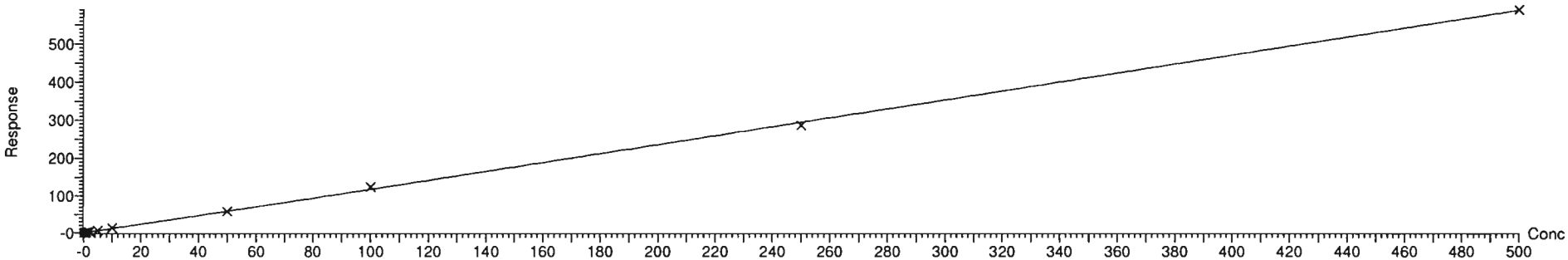
Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.998547
Calibration curve: 8.1341e-005 * x^2 + 0.155084 * x + -0.0133127
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



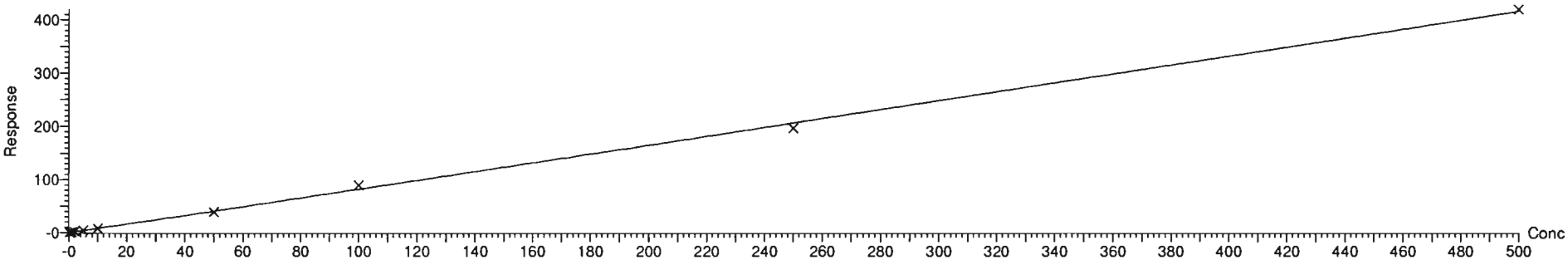
Dataset: Untitled

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Compound name: PFNA
Correlation coefficient: r = 0.999628, r^2 = 0.999256
Calibration curve: 1.17976 * x + 0.155189
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



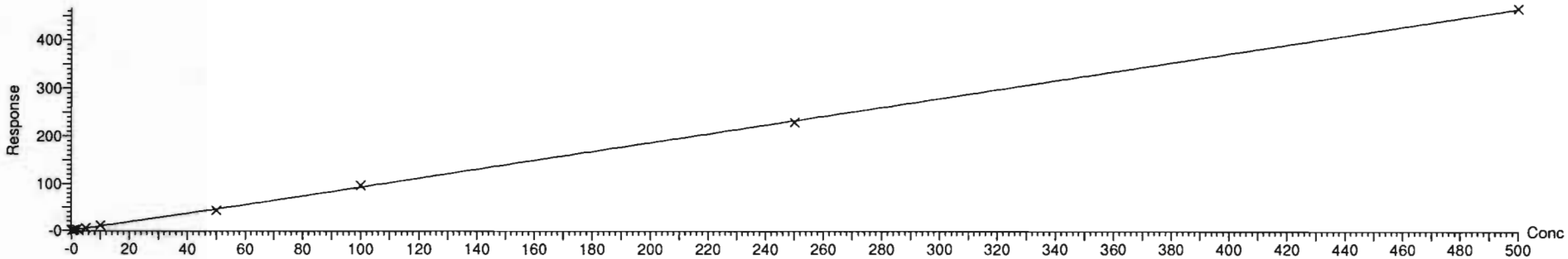
Compound name: PFOSA
Coefficient of Determination: R^2 = 0.998293
Calibration curve: 2.22748e-005 * x^2 + 0.82094 * x + -0.0255848
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



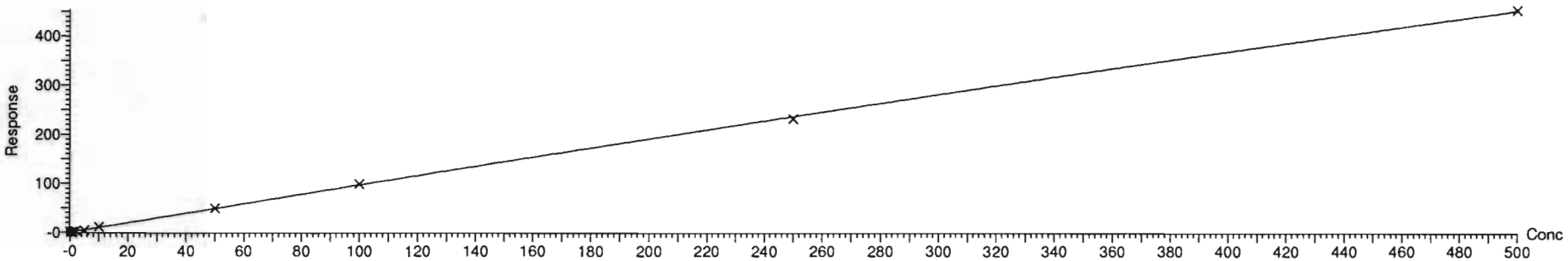
Dataset: Untitled

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Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999204
Calibration curve: -1.248e-005 * x^2 + 0.936367 * x + -0.00626015
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



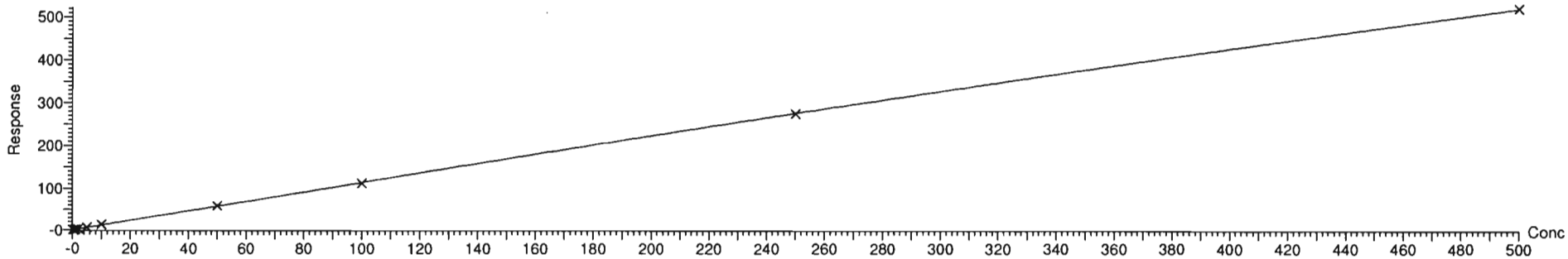
Compound name: 9CI-PF30NS
Coefficient of Determination: R^2 = 0.999619
Calibration curve: -0.000173604 * x^2 + 0.991244 * x + 0.177624
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



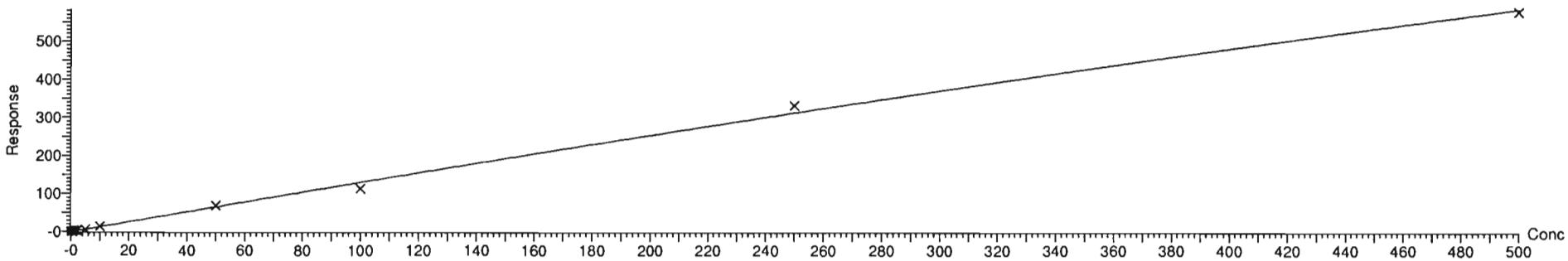
Dataset: Untitled

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999769
Calibration curve: -0.000263391 * x^2 + 1.17334 * x + 0.0663551
Response type: Internal Std (Ref 73), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



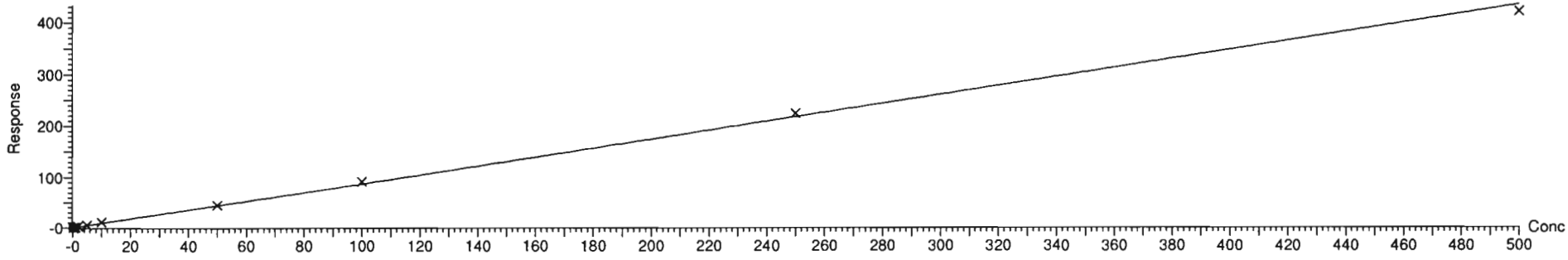
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.996459
Calibration curve: -0.000340371 * x^2 + 1.34102 * x + -0.893418
Response type: Internal Std (Ref 75), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



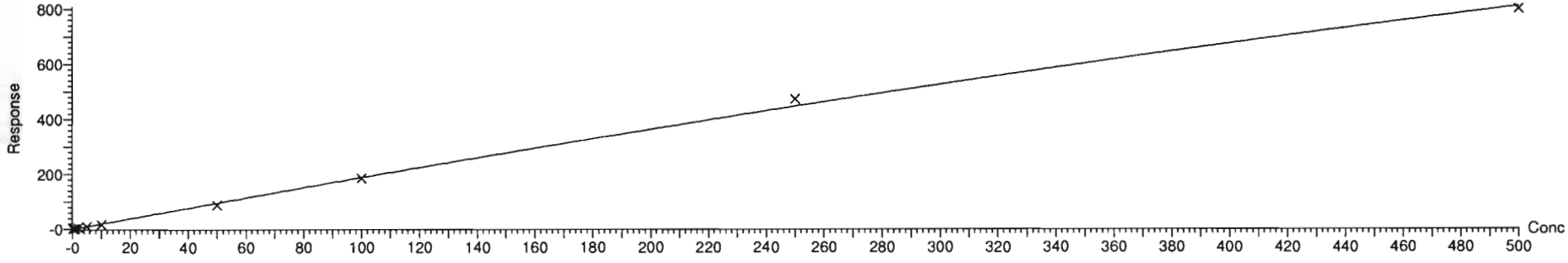
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Compound name: PFNS
Correlation coefficient: r = 0.998965, r^2 = 0.997930
Calibration curve: 0.867271 * x + 0.295013
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.997934
Calibration curve: -0.000651587 * x^2 + 1.94487 * x + -0.0570901
Response type: Internal Std (Ref 77), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



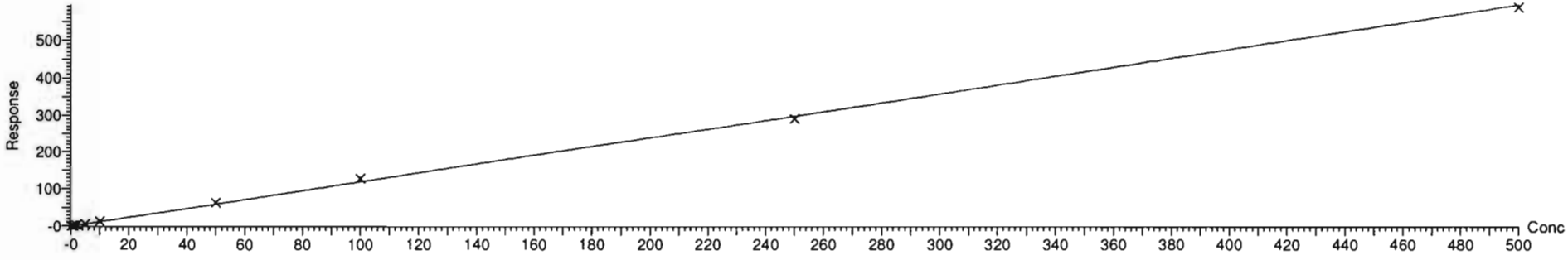
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Dataset: Untitled

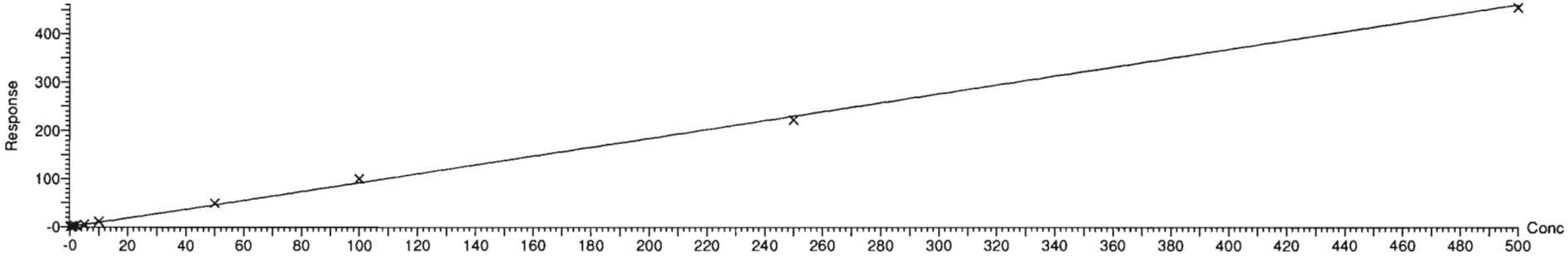
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Method: P:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022520.mdb 26 Feb 2020 11:36:08
Calibration: P:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-25-20.cdb 26 Feb 2020 11:25:03

Compound name: L-EtFOSAA
Correlation coefficient: r = 0.999424, r^2 = 0.998848
Calibration curve: 1.19224 * x + 0.0364651
Response type: Internal Std (Ref 81), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



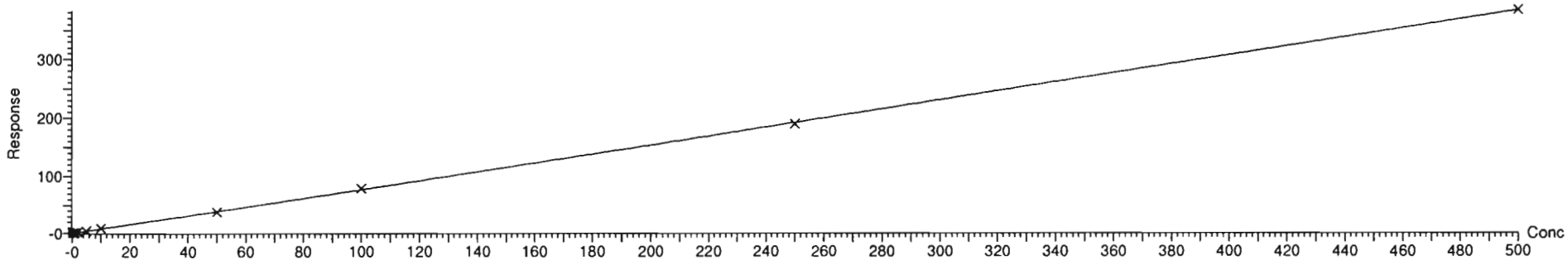
Compound name: PFUdA
Correlation coefficient: r = 0.998904, r^2 = 0.997808
Calibration curve: 0.920819 * x + 0.155174
Response type: Internal Std (Ref 79), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



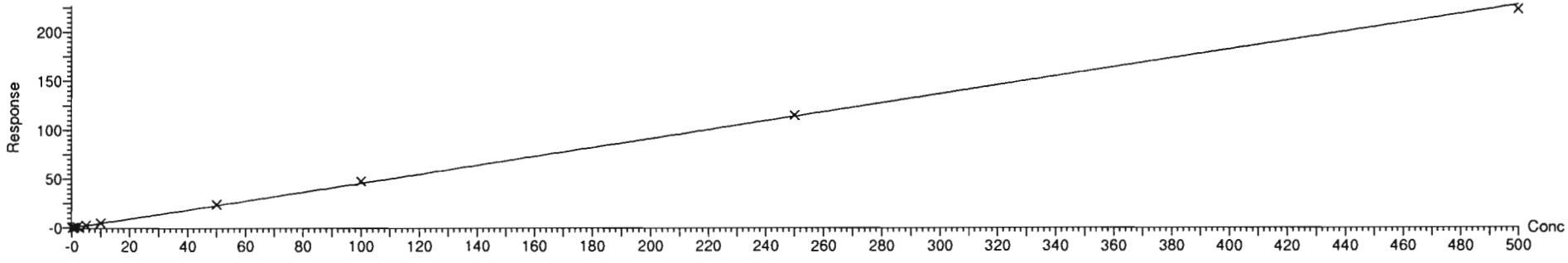
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Compound name: PFDS
Correlation coefficient: r = 0.999800, r^2 = 0.999601
Calibration curve: 0.767019 * x + 0.0116423
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



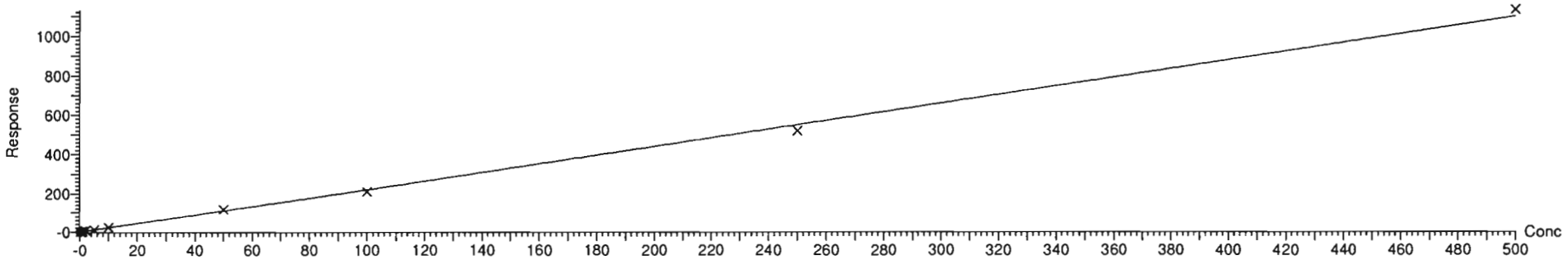
Compound name: 11Cl-PF30UdS
Correlation coefficient: r = 0.999589, r^2 = 0.999178
Calibration curve: 0.454613 * x + 0.0281832
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



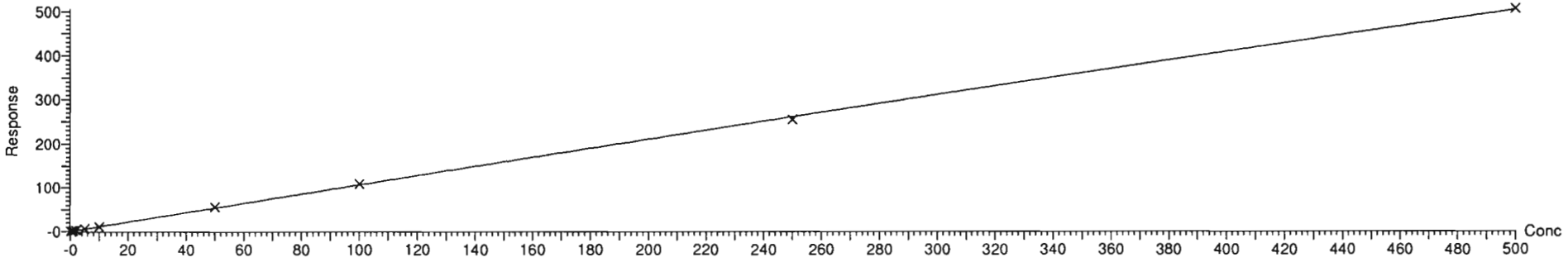
Dataset: Untitled

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Compound name: 10:2 FTS
Correlation coefficient: r = 0.998945, r^2 = 0.997890
Calibration curve: 2.19744 * x + 0.426867
Response type: Internal Std (Ref 85), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



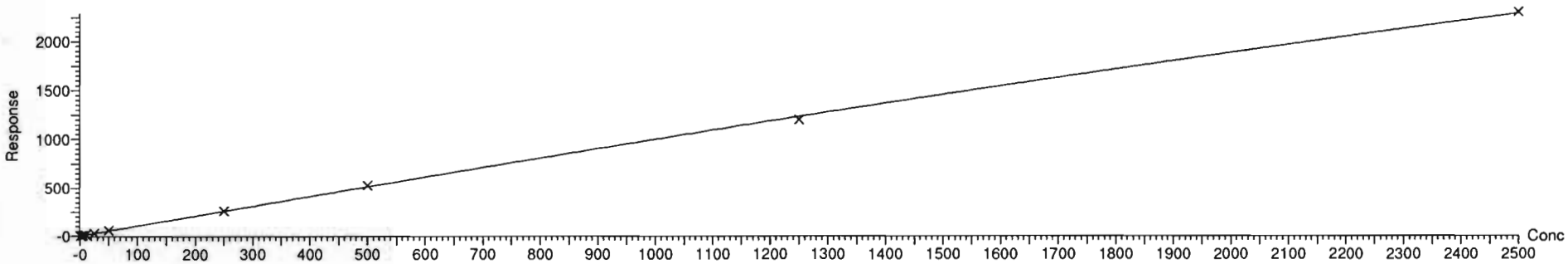
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999585
Calibration curve: -0.000140726 * x^2 + 1.07719 * x + 0.077473
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



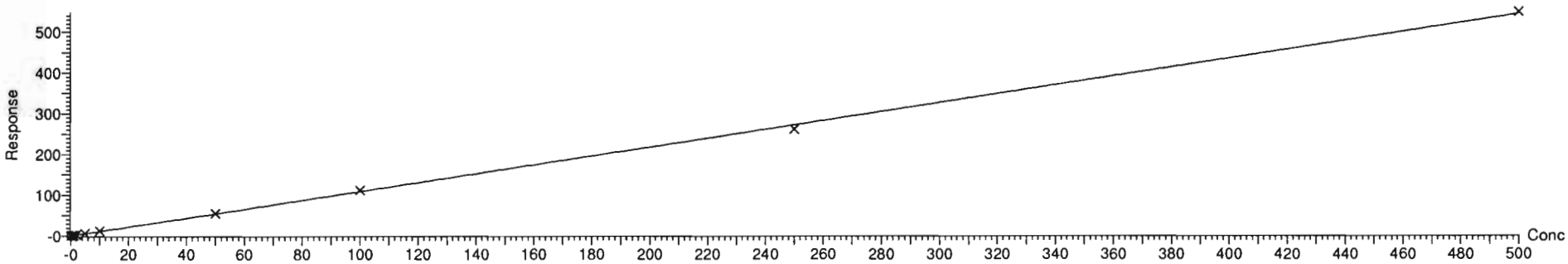
Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
Printed: Wednesday, February 26, 2020 11:38:29 Pacific Standard Time

Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999583
Calibration curve: -5.69994e-005 * x^2 + 1.0553 * x + -0.0250783
Response type: Internal Std (Ref 87), Area * (IS Conc. / IS Area)
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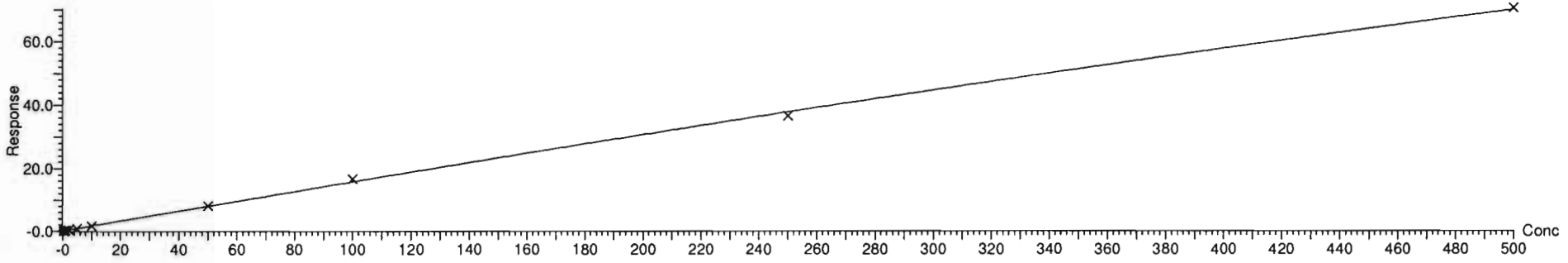
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999093
Calibration curve: 1.12175e-006 * x^2 + 1.08591 * x + 0.374825
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



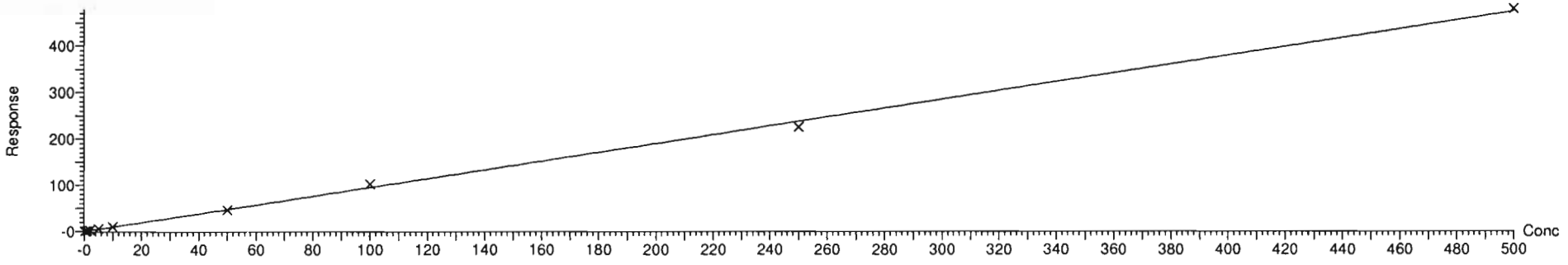
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Compound name: PFDoS
Coefficient of Determination: R^2 = 0.999202
Calibration curve: -4.44146e-005 * x^2 + 0.161935 * x + 0.00601354
Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



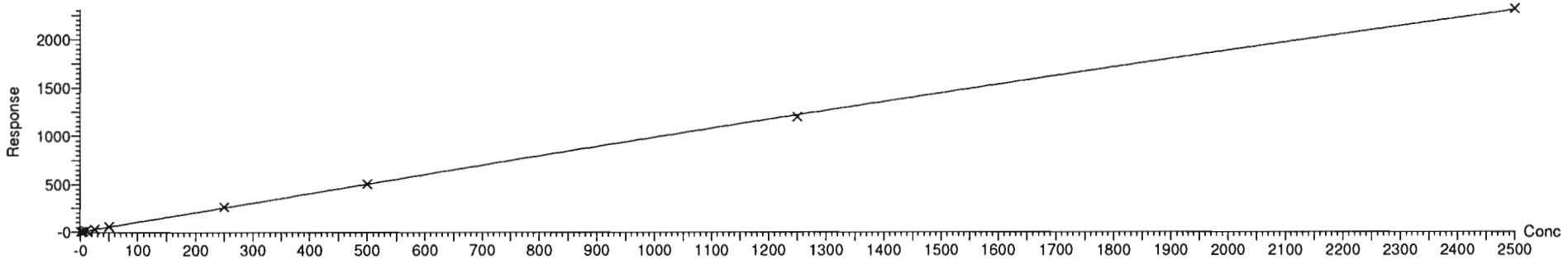
Compound name: PFTeDA
Correlation coefficient: r = 0.999213, r^2 = 0.998426
Calibration curve: 0.946667 * x + 0.0579059
Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



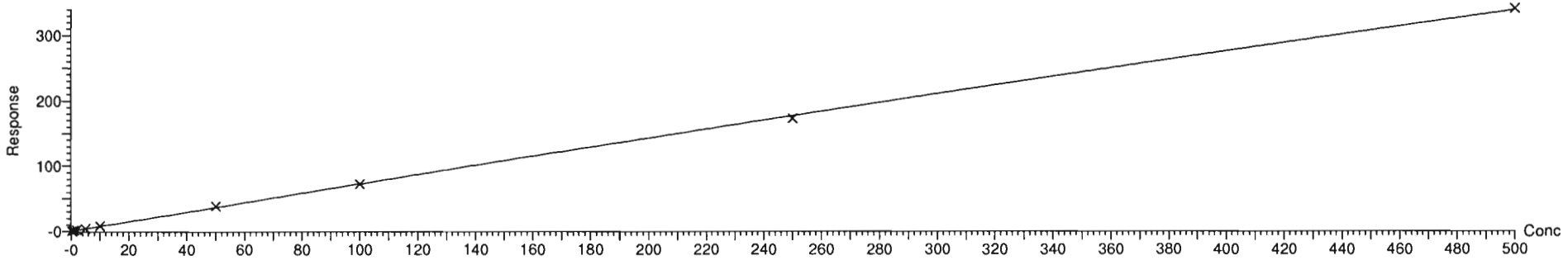
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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999776
Calibration curve: -4.37352e-005 * x^2 + 1.0291 * x + 0.393476
Response type: Internal Std (Ref 91), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



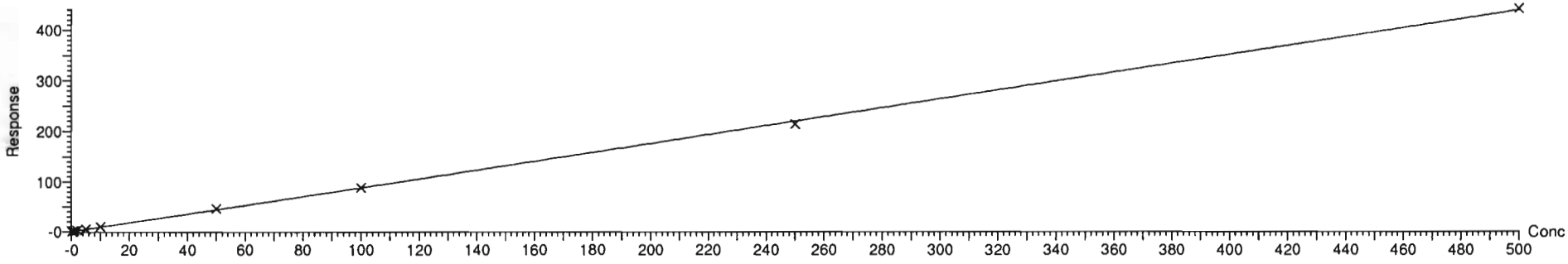
Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999460
Calibration curve: -0.000122127 * x^2 + 0.737678 * x + 0.157258
Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



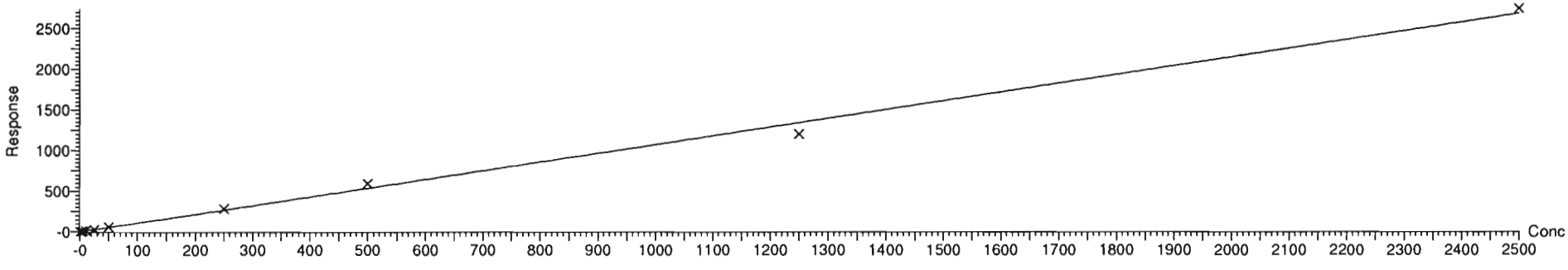
Dataset: Untitled

Last Altered: Wednesday, February 26, 2020 11:36:10 Pacific Standard Time
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Compound name: PFODA
Coefficient of Determination: R^2 = 0.999550
Calibration curve: -6.40276e-006 * x^2 + 0.881896 * x + 0.0287076
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 = 0.997589, r^2 = 0.995184
Calibration curve: 1.07295 * x + 0.022575
Response type: Internal Std (Ref 95), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

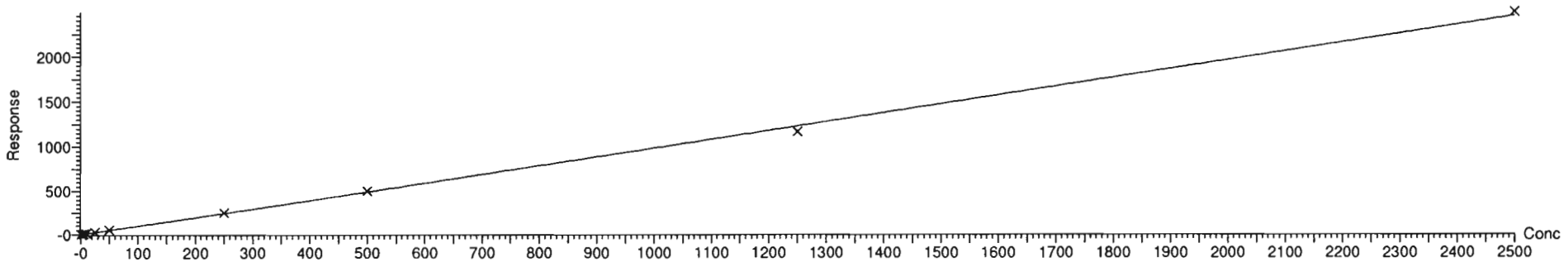


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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999471, r^2 = 0.998943
Calibration curve: 0.98218 * x + 0.297158
Response type: Internal Std (Ref 97), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: TDCA
No Calibration
Response type: External Std, Area
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



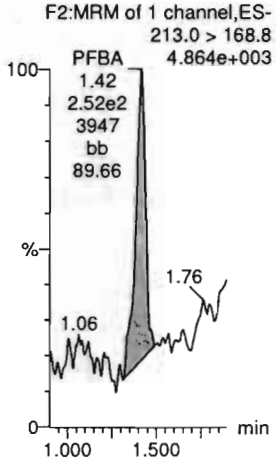
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Last Altered: Wednesday, February 26, 2020 10:17:23 Pacific Standard Time
Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

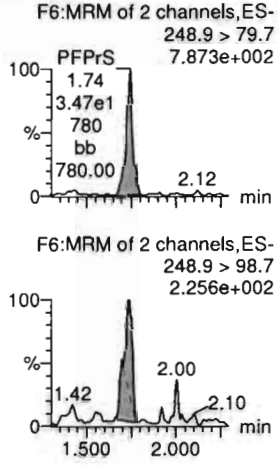
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Calibration: 26 Feb 2020 10:17:23

Name: 200225P1-3, Date: 25-Feb-2020, Time: 18:19:42, ID: ST200225P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

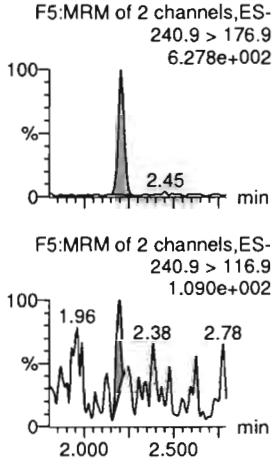
PFBA



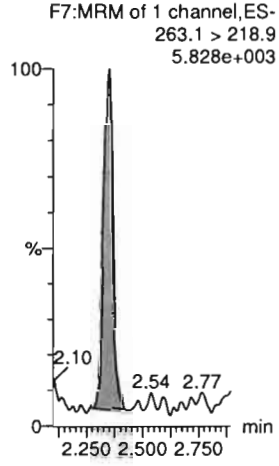
PFPrS



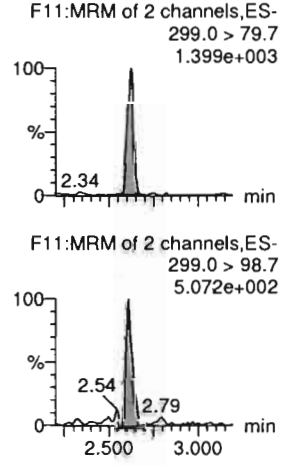
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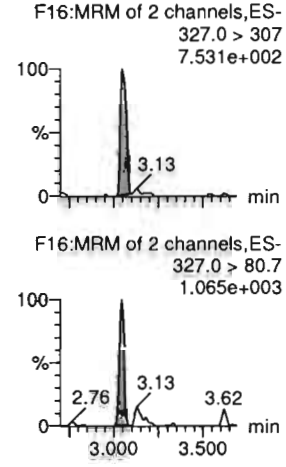
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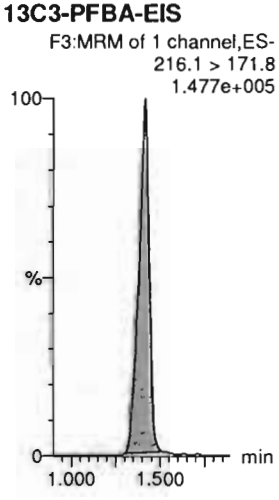
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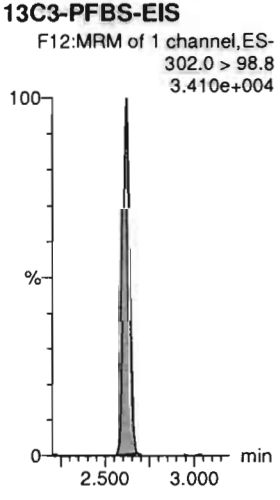
4:2 FTS



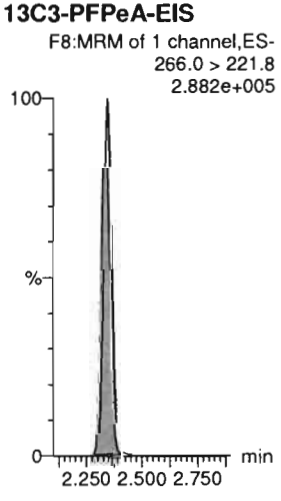
13C3-PFBA-EIS



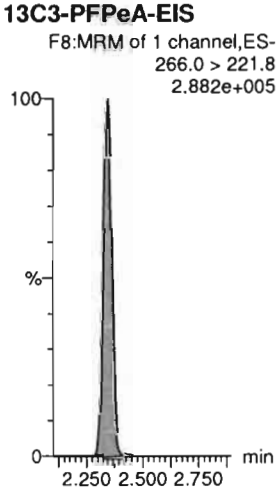
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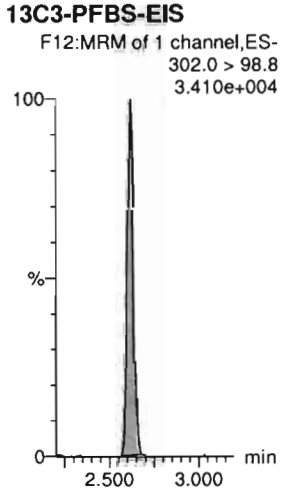
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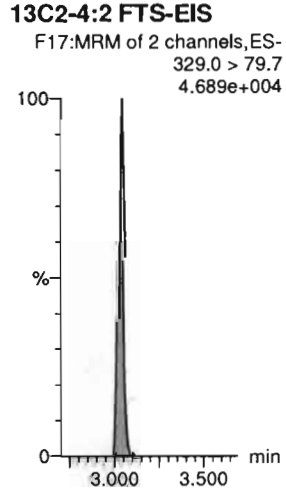
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

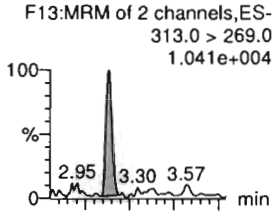


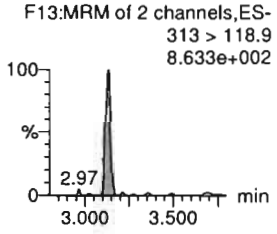
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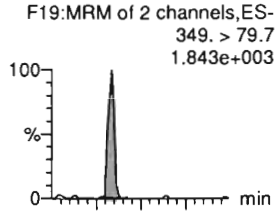
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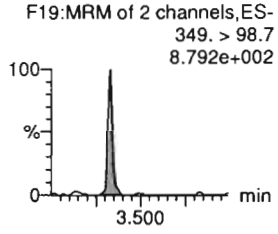
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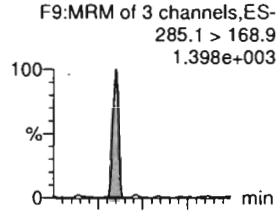


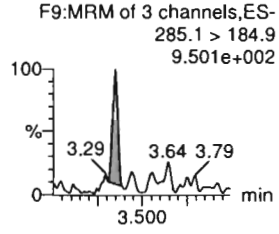
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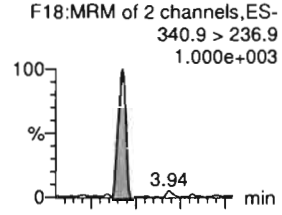


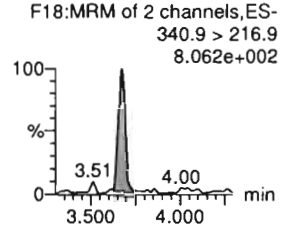
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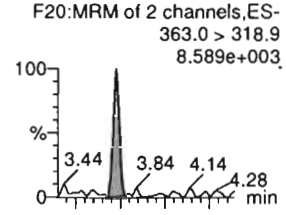


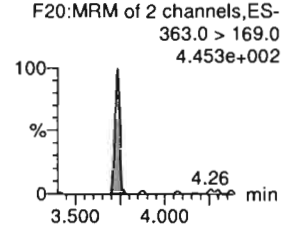
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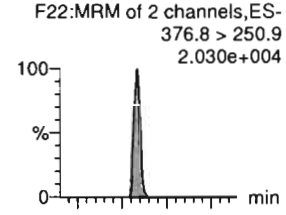


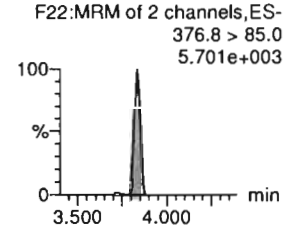
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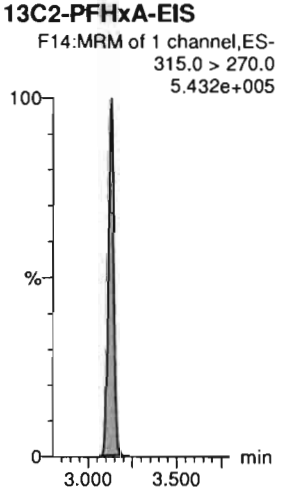


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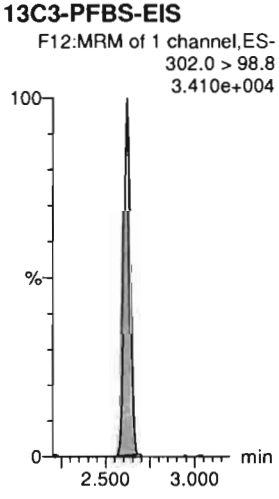




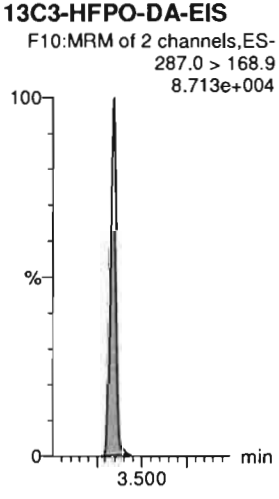
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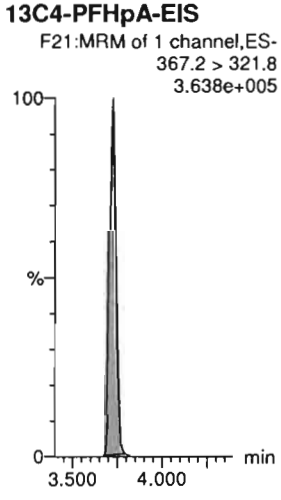
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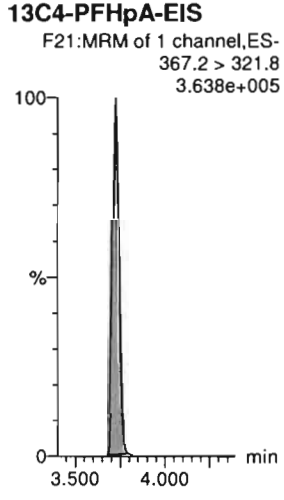
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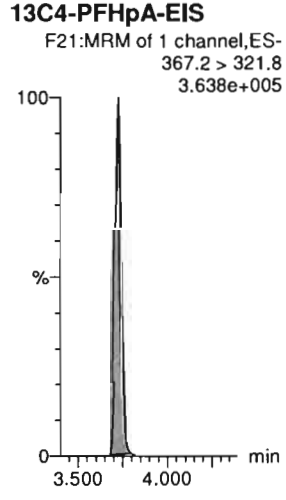
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

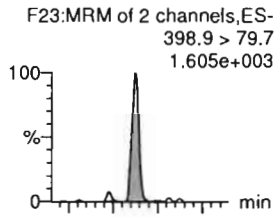


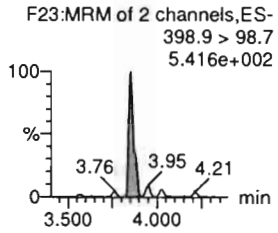
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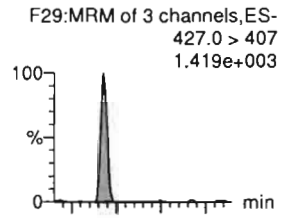
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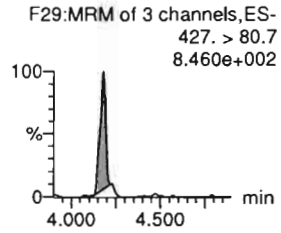
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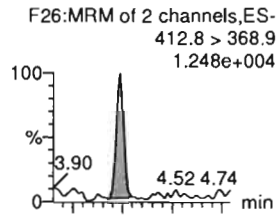


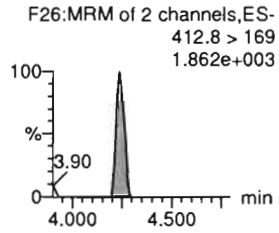
6:2 FTS



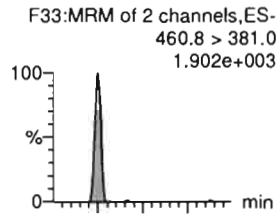


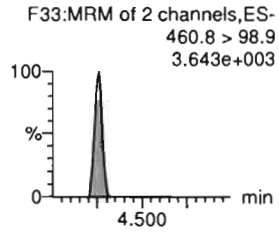
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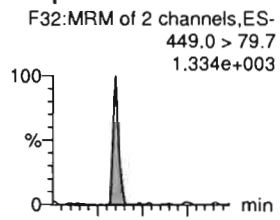


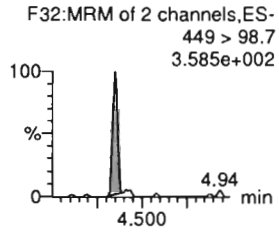
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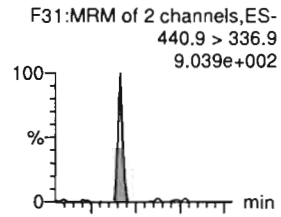


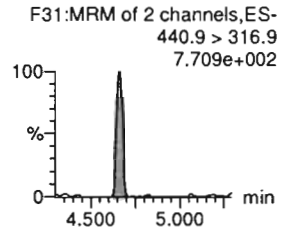
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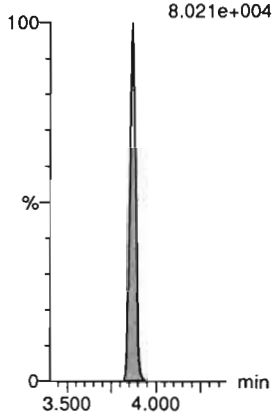


7:3 FTCA

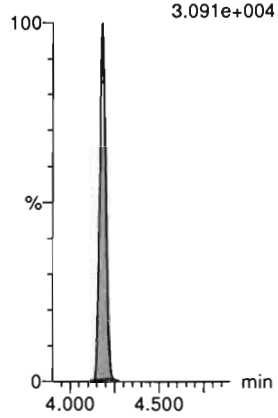




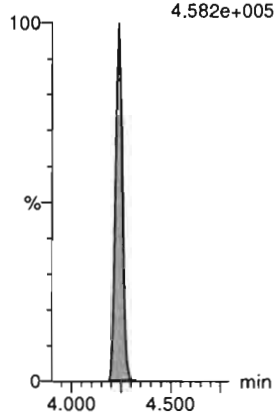
13C3-PFHxS-EIS



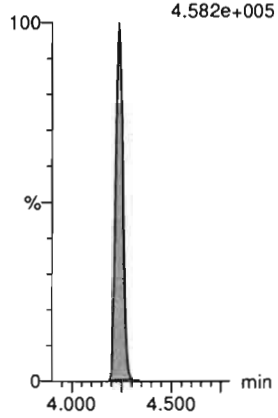
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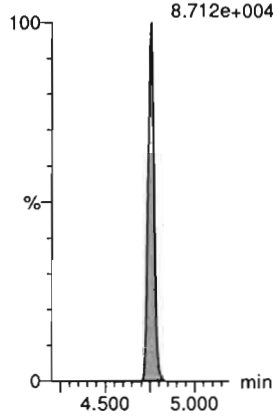
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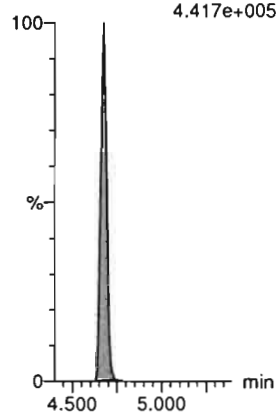
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13C8-PFOS-EIS



13C5-PFNA-EIS

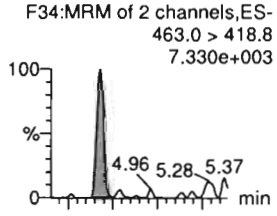


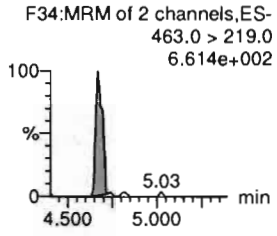
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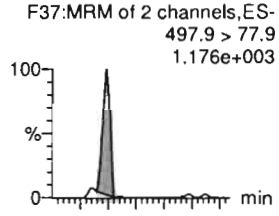
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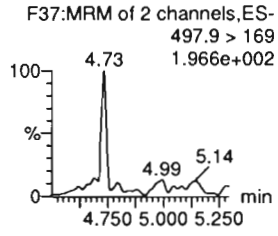
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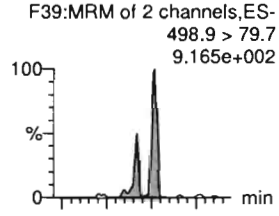


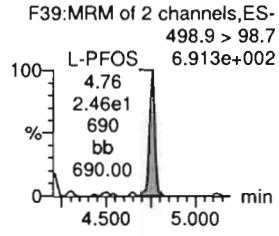
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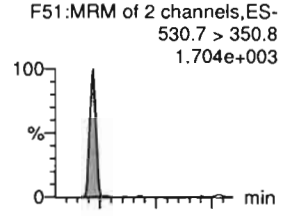


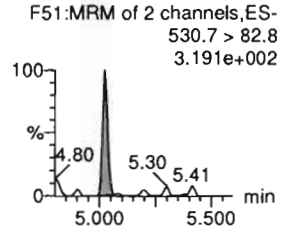
L-PFOS



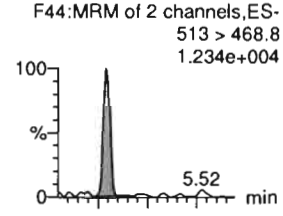


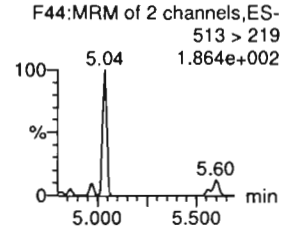
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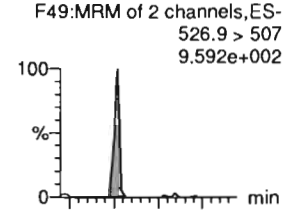


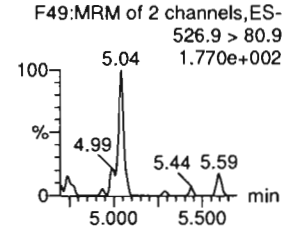
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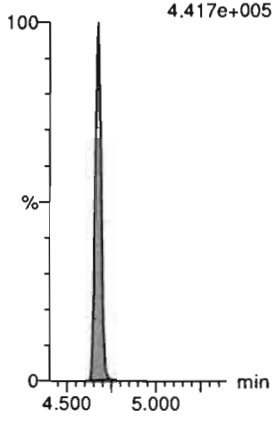


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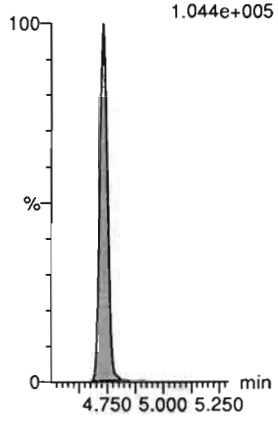




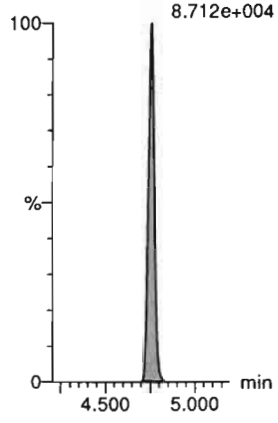
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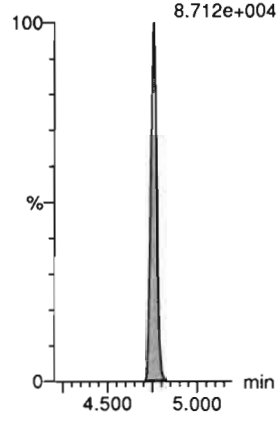
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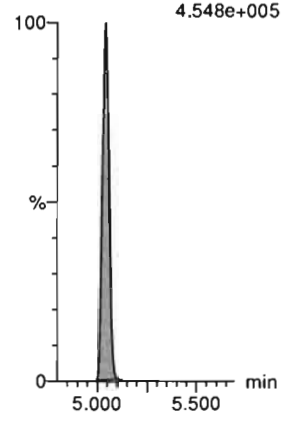
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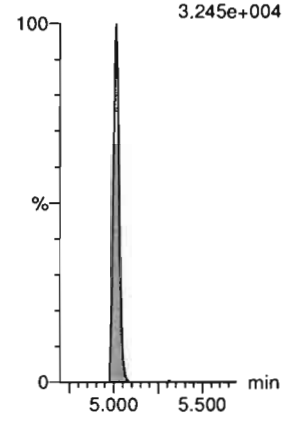
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

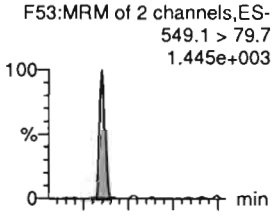


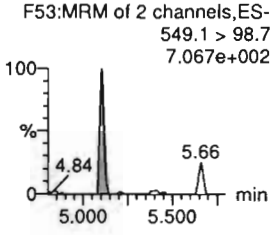
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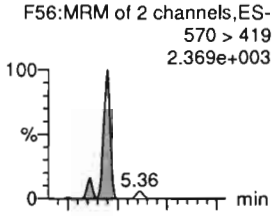
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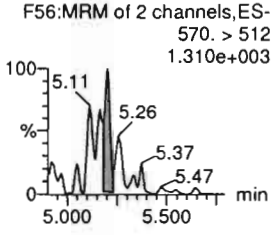
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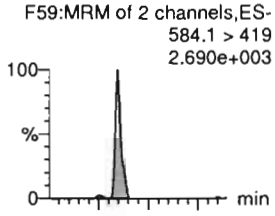


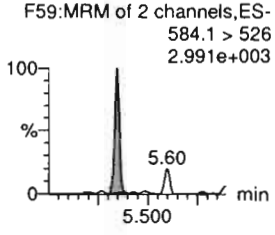
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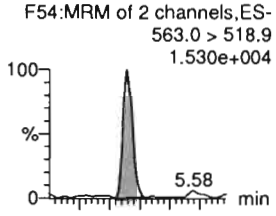


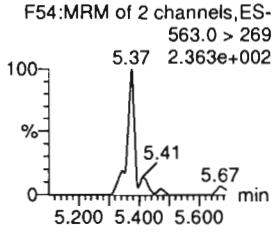
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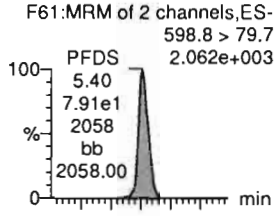


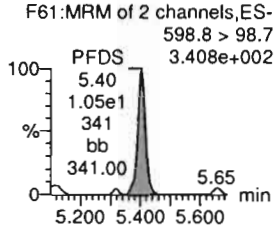
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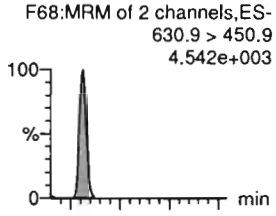


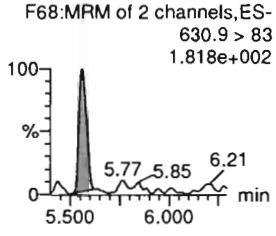
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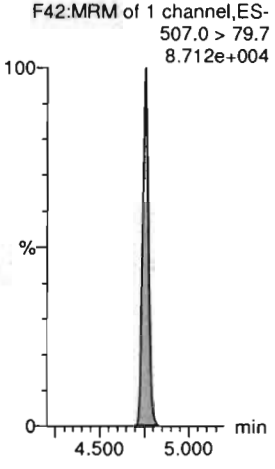


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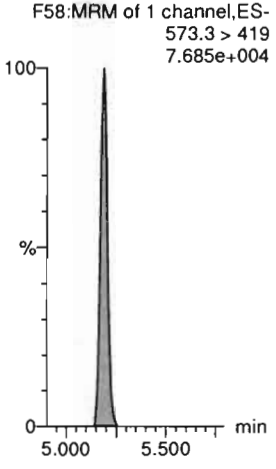




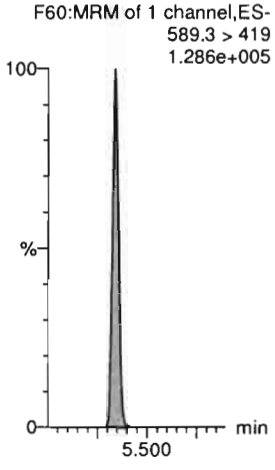
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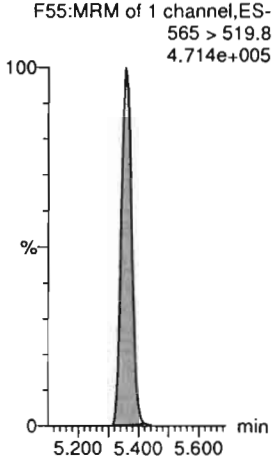
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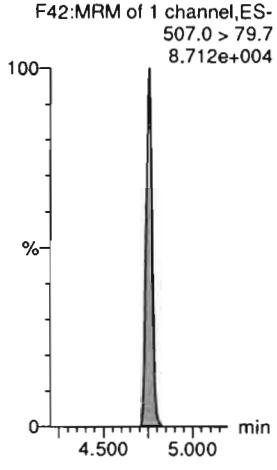
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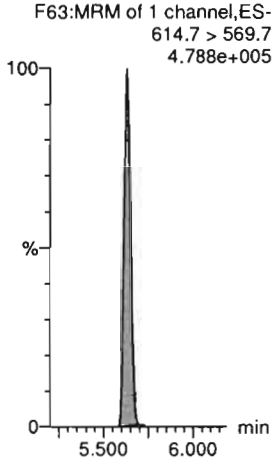
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

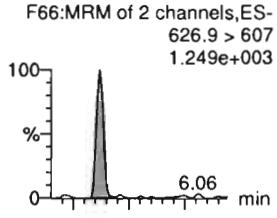


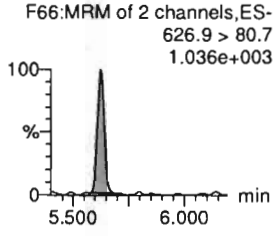
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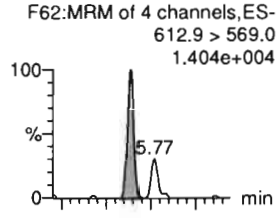
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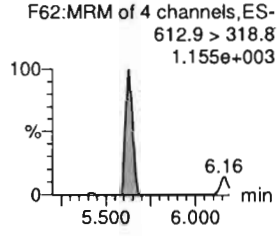
10:2 FTS



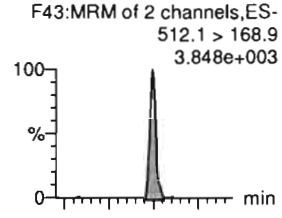


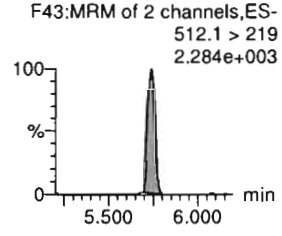
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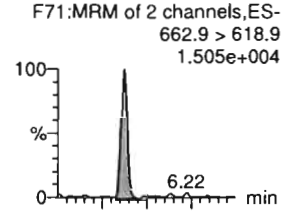


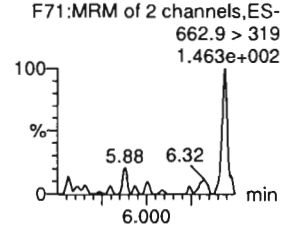
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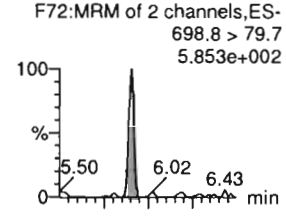


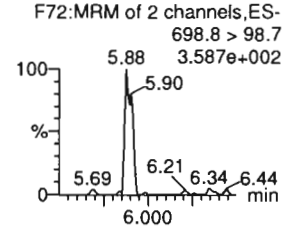
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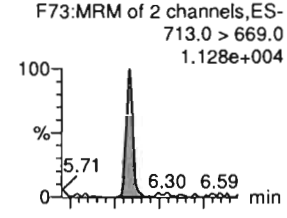


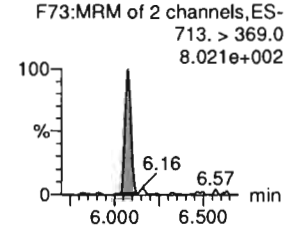
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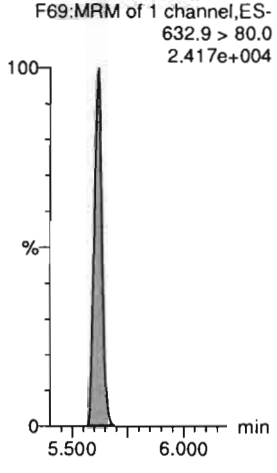


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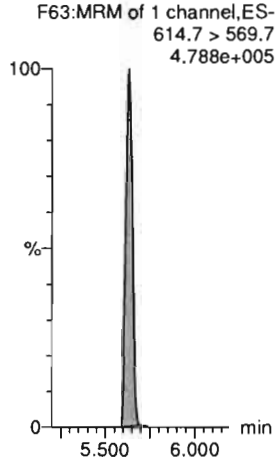




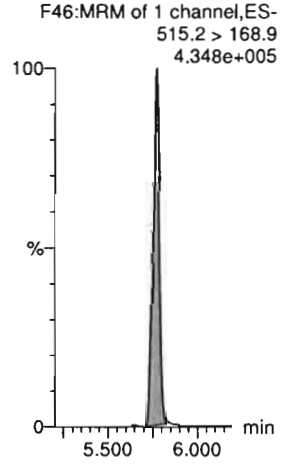
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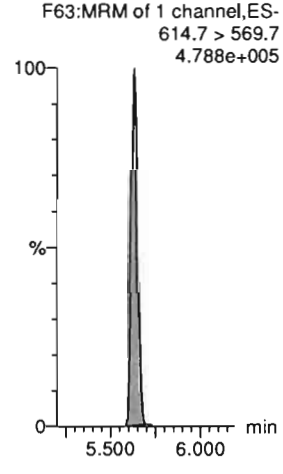
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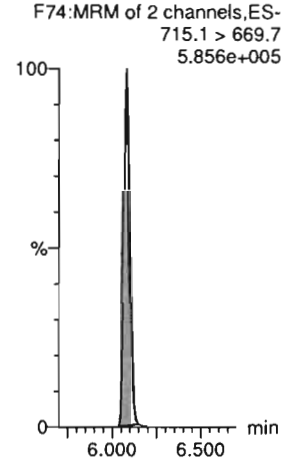
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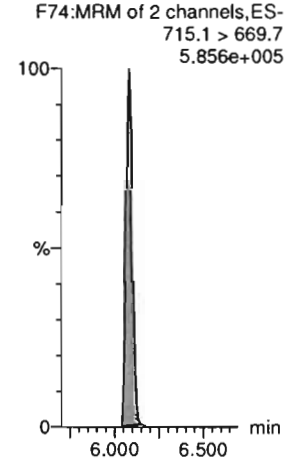
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

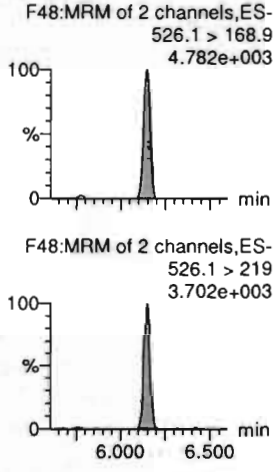


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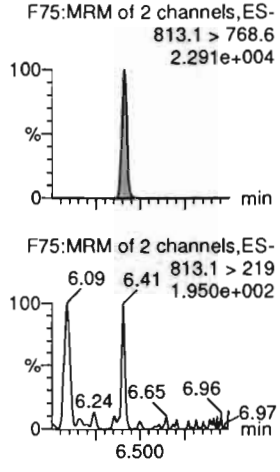
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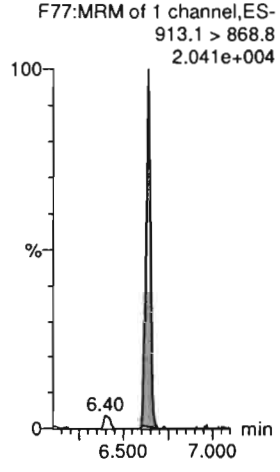
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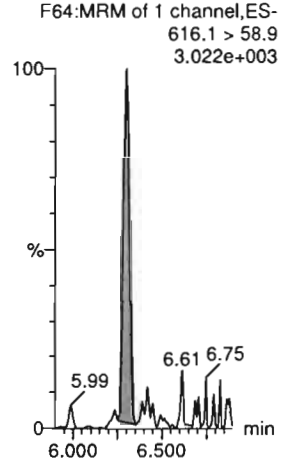
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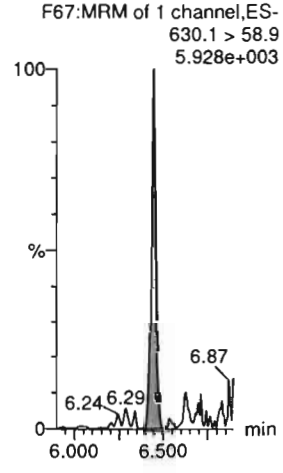
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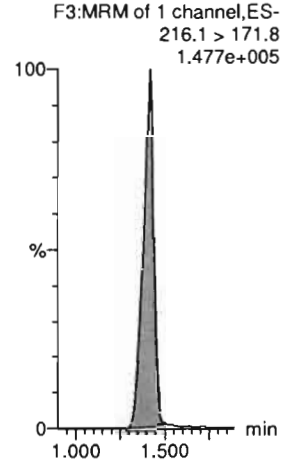
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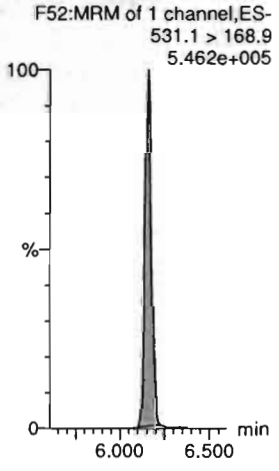
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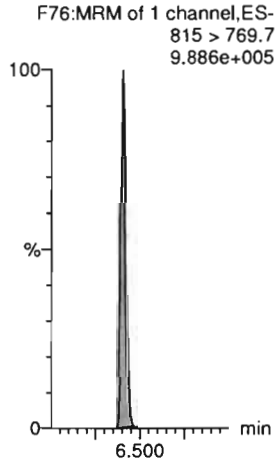
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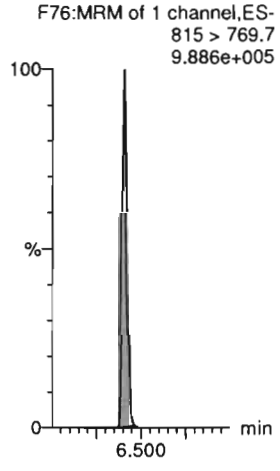
d5-N-ETFOSA-EIS



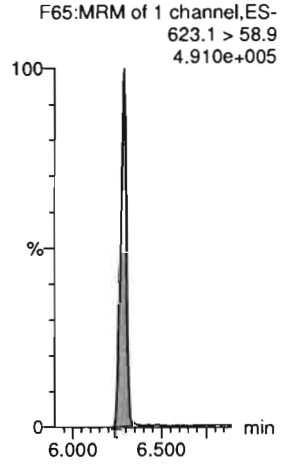
13C2-PFHxDA-EIS



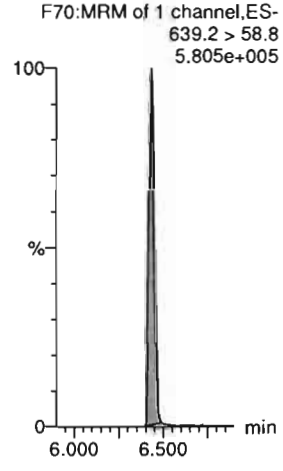
13C2-PFHxDA-EIS



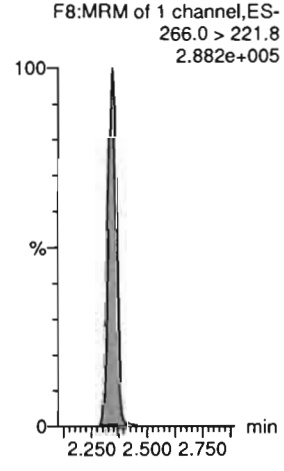
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

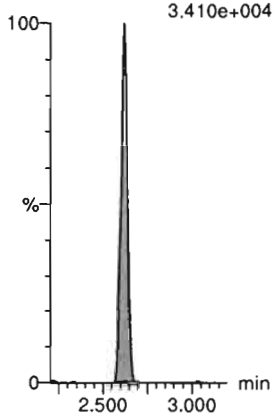


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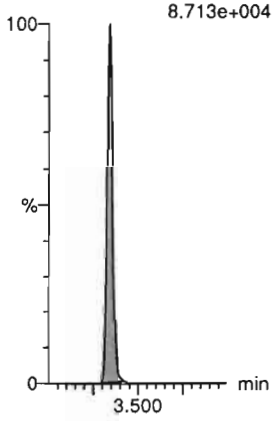
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-3, Date: 25-Feb-2020, Time: 18:19:42, ID: ST200225P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

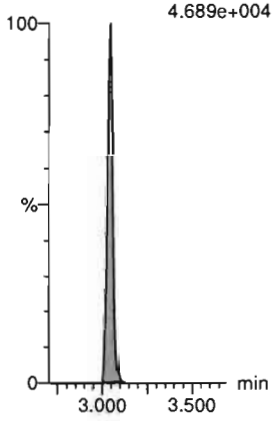
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.410e+004



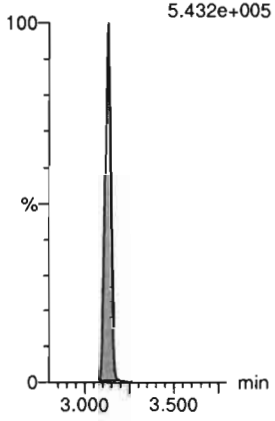
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.713e+004



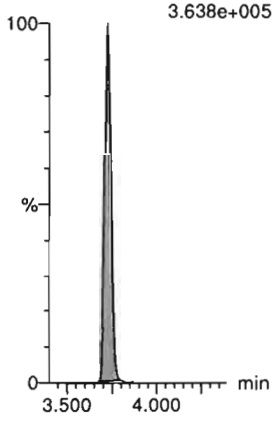
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.689e+004



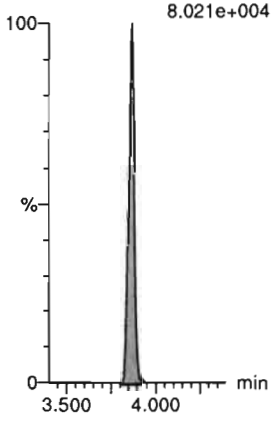
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.432e+005



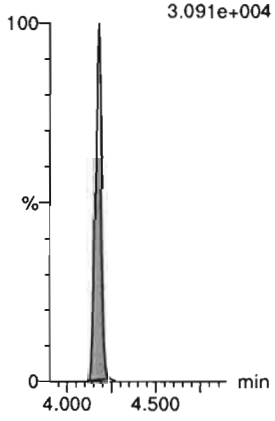
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.638e+005



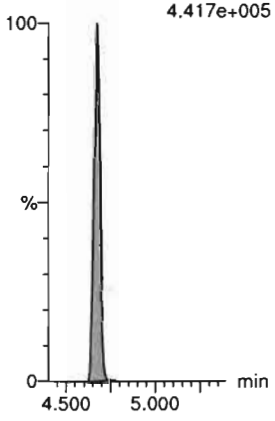
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.021e+004



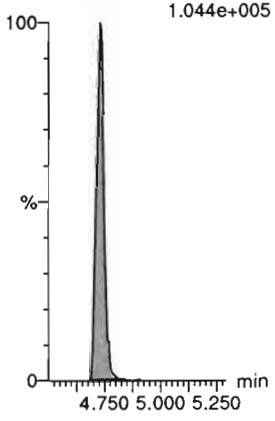
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.091e+004



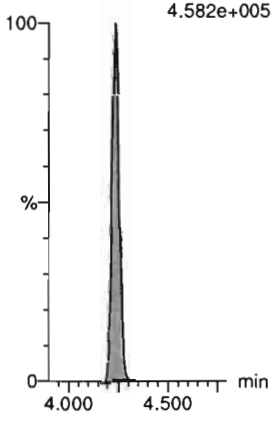
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.417e+005



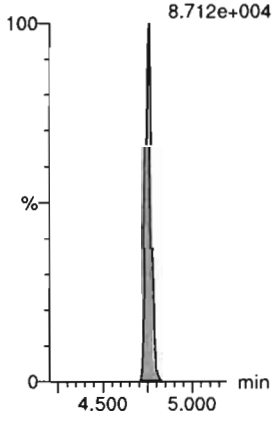
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.044e+005



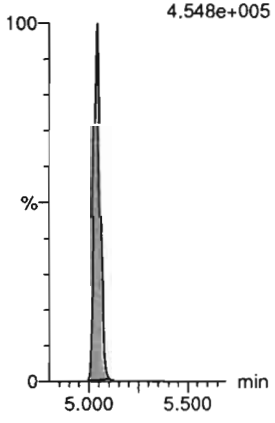
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.582e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.712e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.548e+005

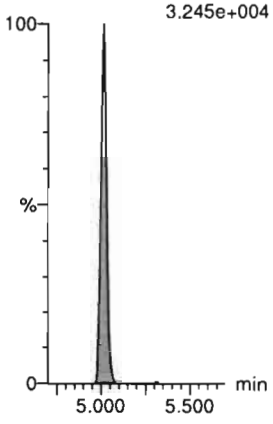


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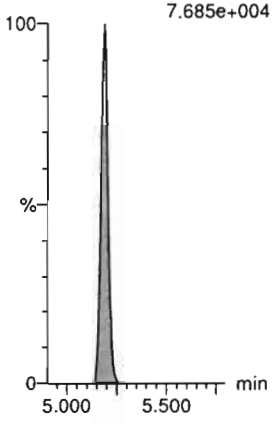
Last Altered: Wednesday, February 26, 2020 10:17:23 Pacific Standard Time
Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-3, Date: 25-Feb-2020, Time: 18:19:42, ID: ST200225P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

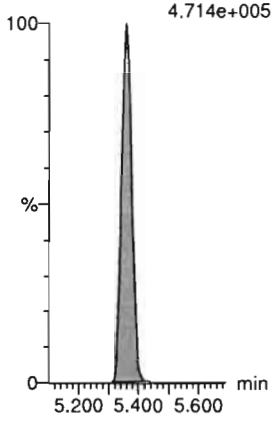
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.245e+004



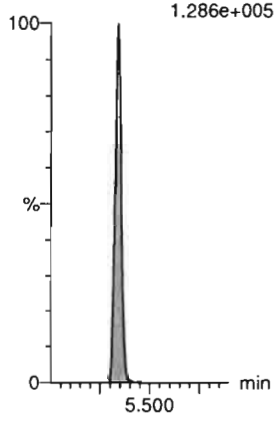
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
7.685e+004



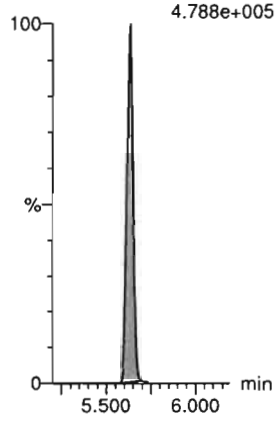
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.714e+005



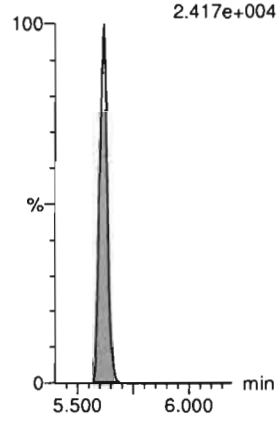
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.286e+005



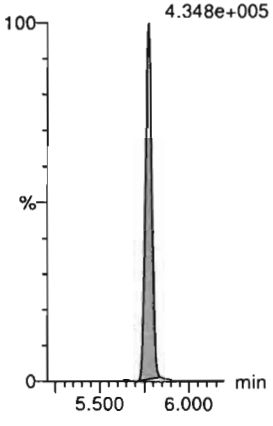
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.788e+005



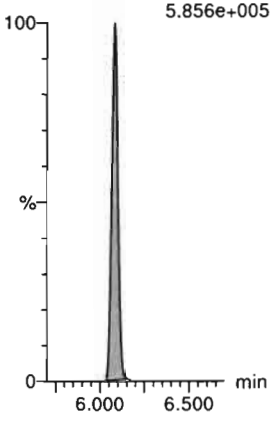
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.417e+004



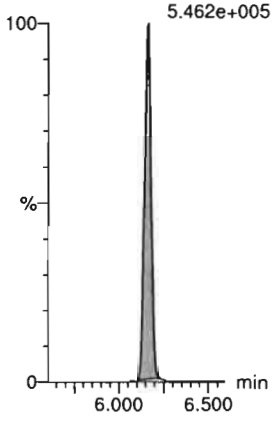
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.348e+005



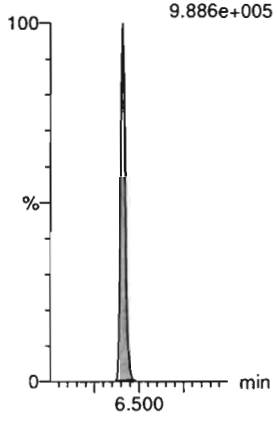
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.856e+005



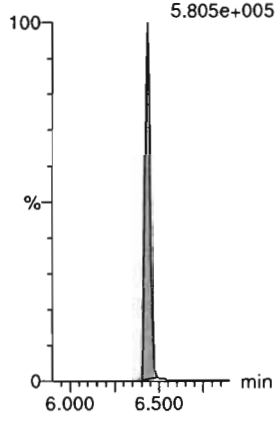
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.462e+005



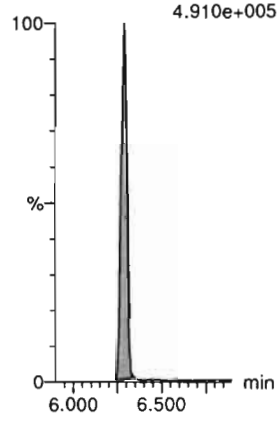
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.886e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.805e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.910e+005

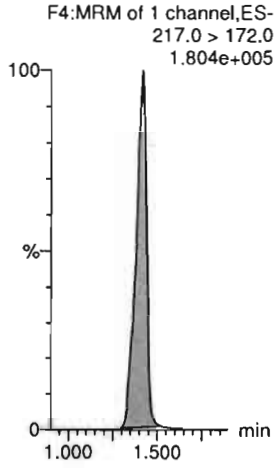


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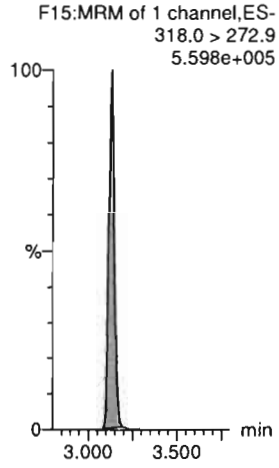
Last Altered: Wednesday, February 26, 2020 10:17:23 Pacific Standard Time
Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-3, Date: 25-Feb-2020, Time: 18:19:42, ID: ST200225P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

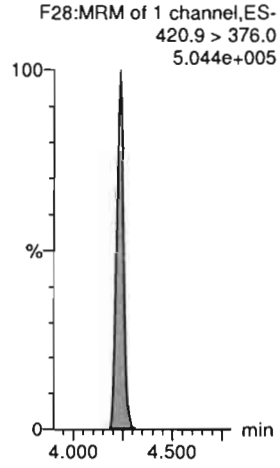
13C4-PFBA



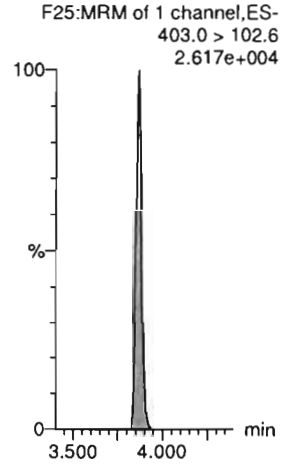
13C5-PFHxA



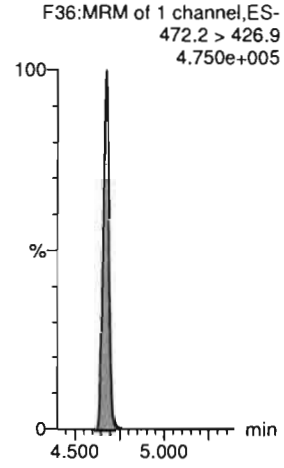
13C8-PFOA



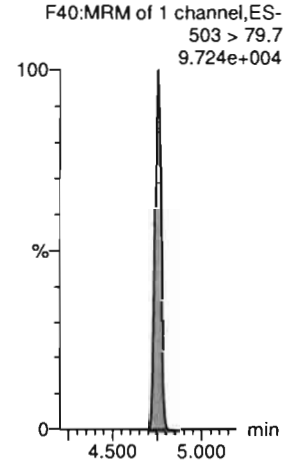
18O2-PFHxS



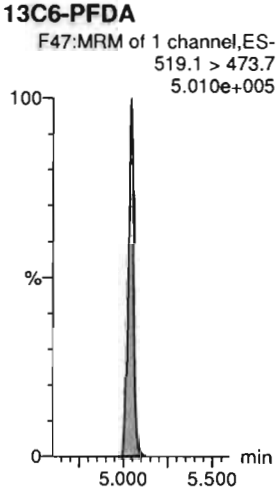
13C9-PFNA



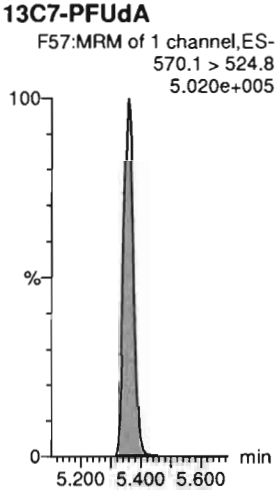
13C4-PFOS



13C6-PFDA



13C7-PFUdA

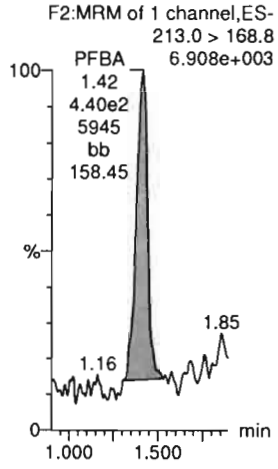


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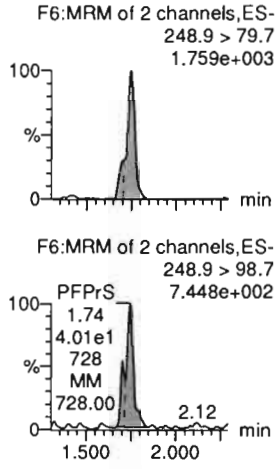
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-4, Date: 25-Feb-2020, Time: 18:30:13, ID: ST200225P1-2 PFC CS-1 20B1103, Description: PFC CS-1 20B1103

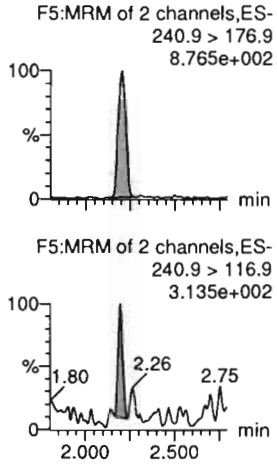
PFBA



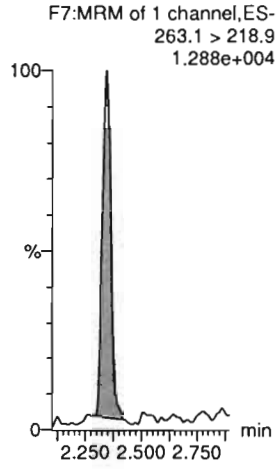
PFPrS



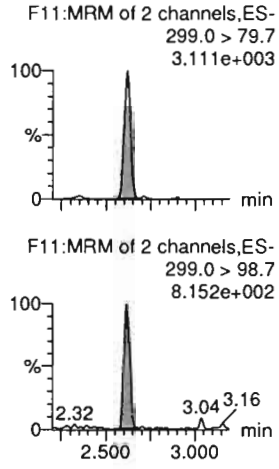
3:3 FTCA



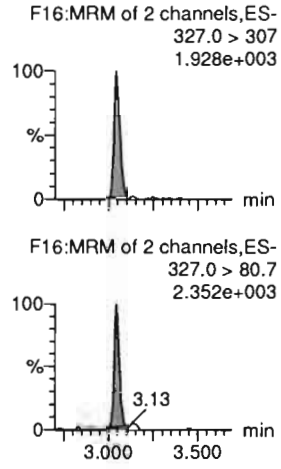
PFPeA



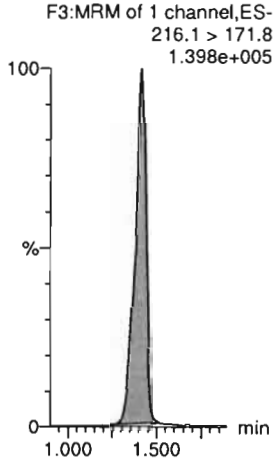
PFBS



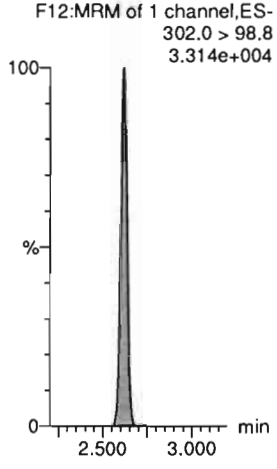
4:2 FTS



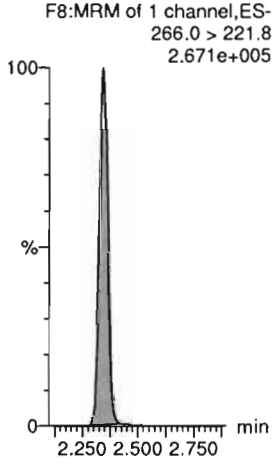
13C3-PFBA-EIS



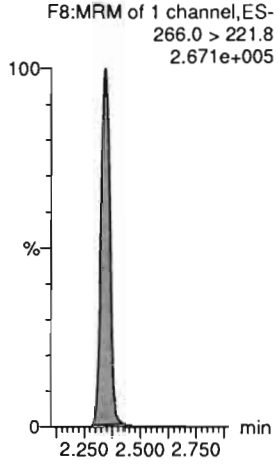
13C3-PFBS-EIS



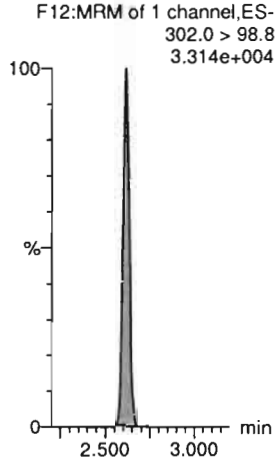
13C3-PFPeA-EIS



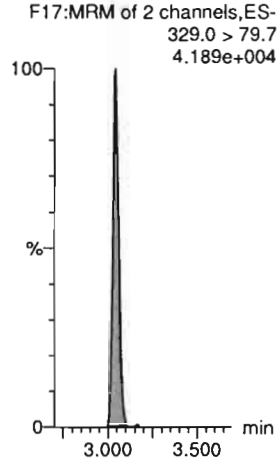
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

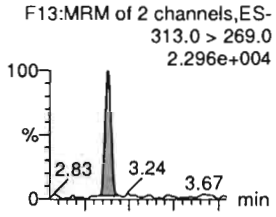


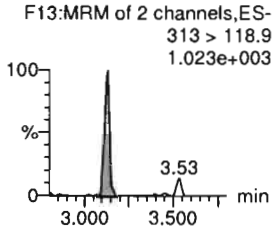
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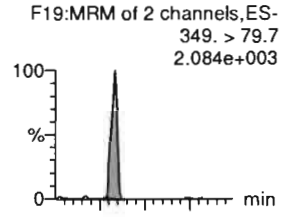
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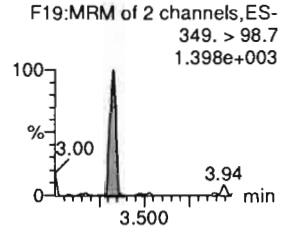
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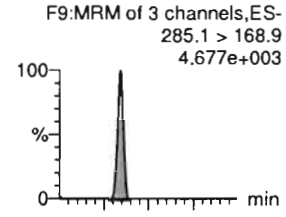


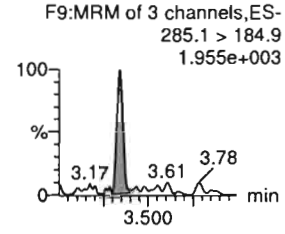
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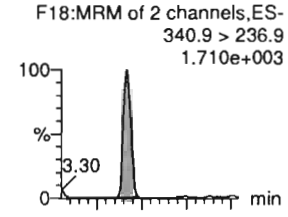


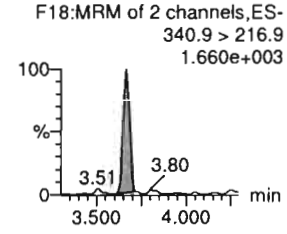
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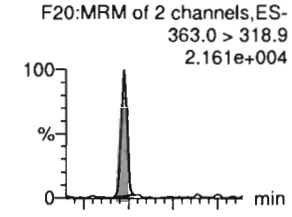


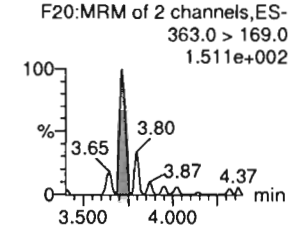
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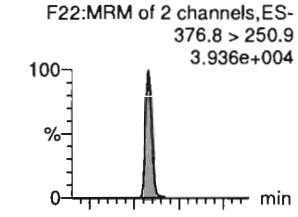


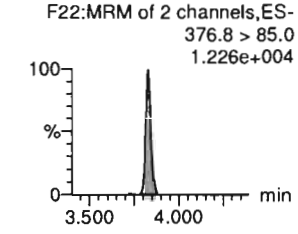
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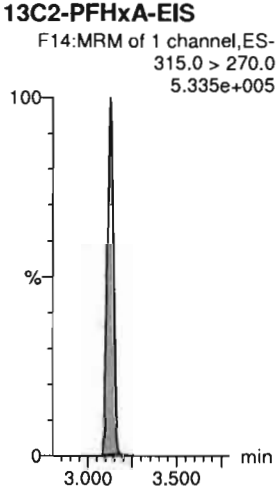


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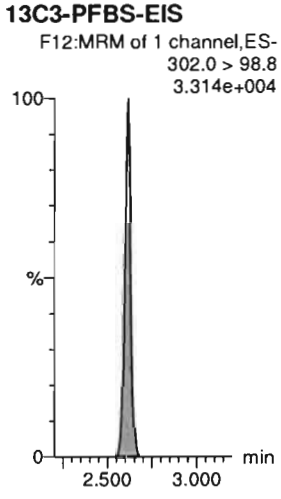




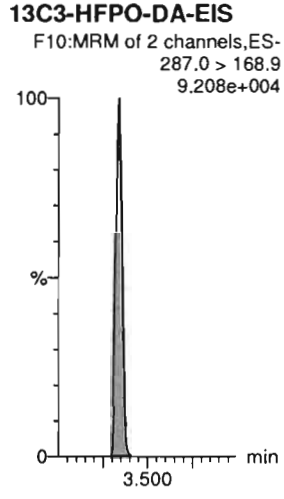
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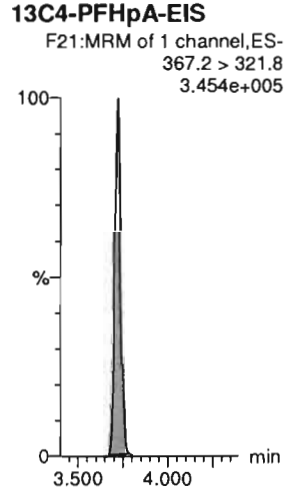
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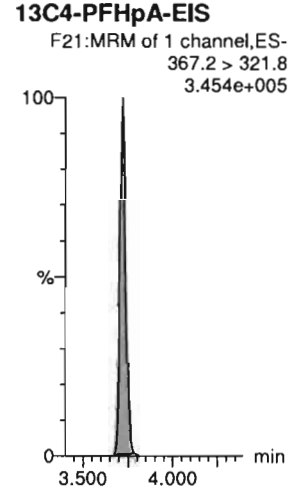
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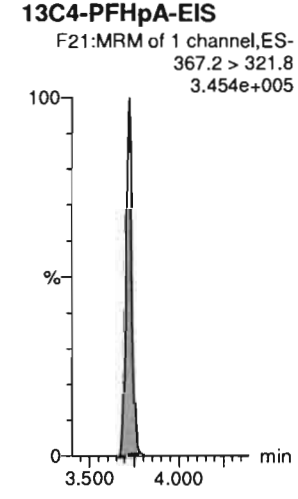
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13C4-PFHpA-EIS



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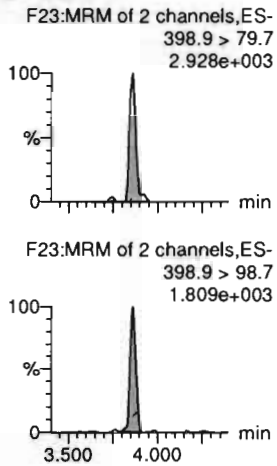


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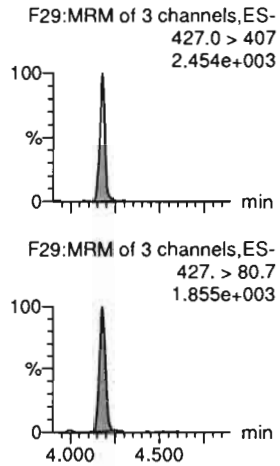
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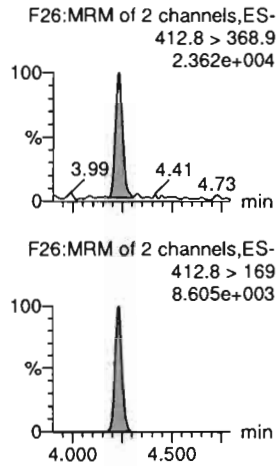
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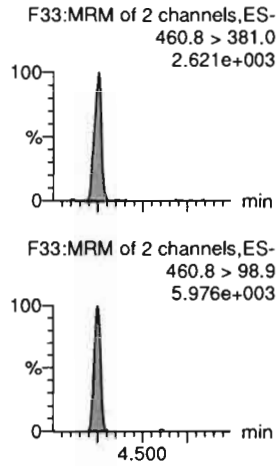
6:2 FTS



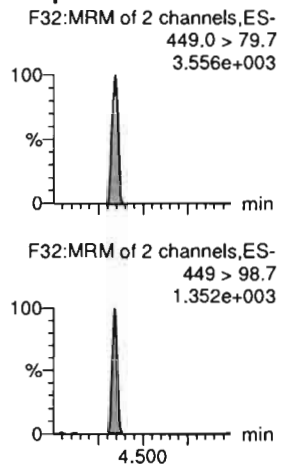
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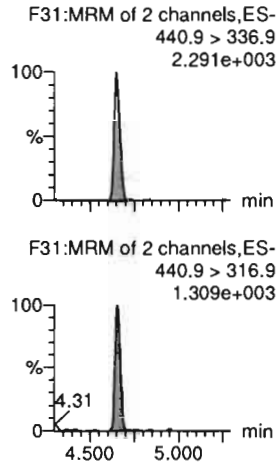
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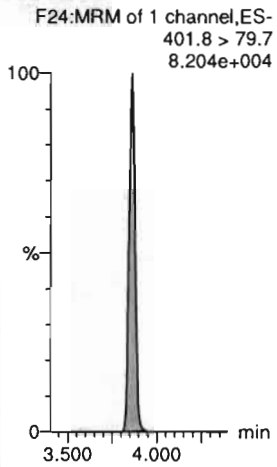
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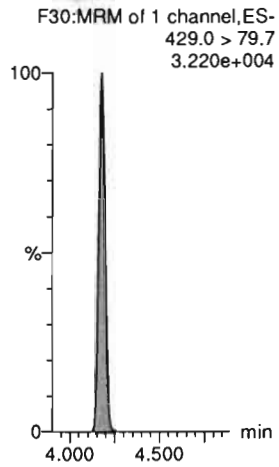
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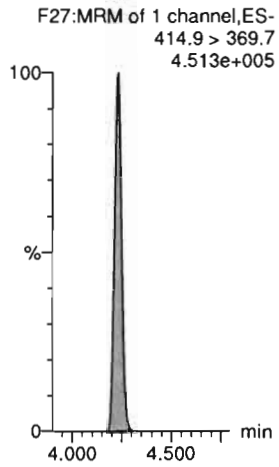
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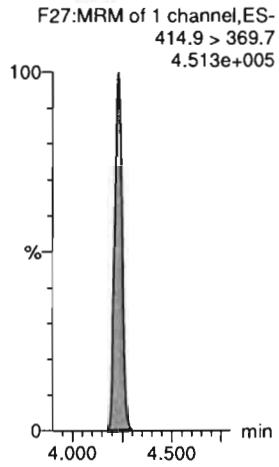
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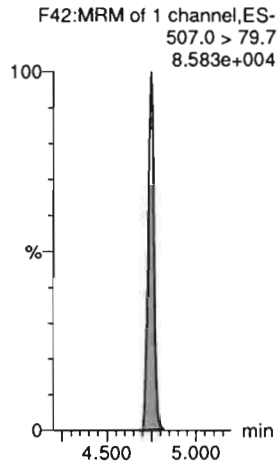
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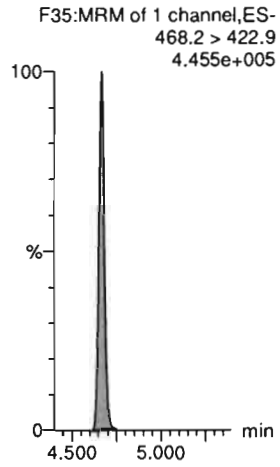
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

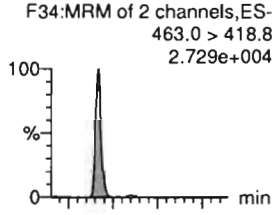


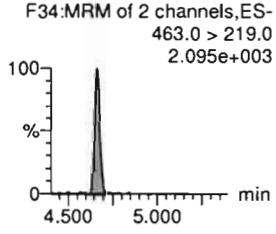
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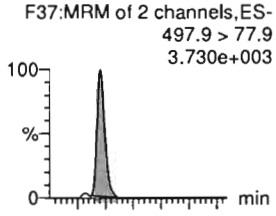
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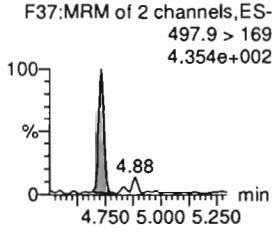
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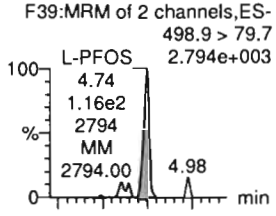


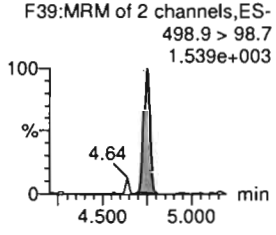
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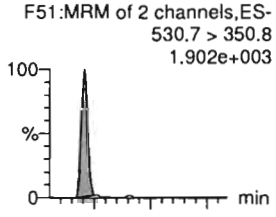


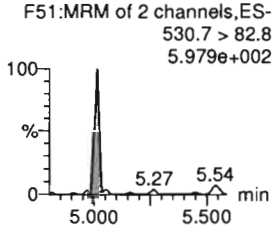
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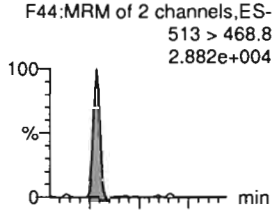


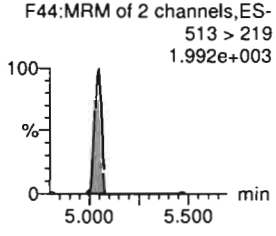
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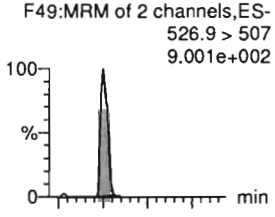


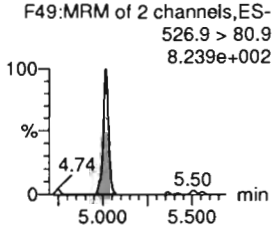
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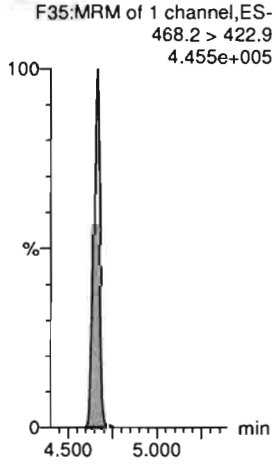


8:2 FTS

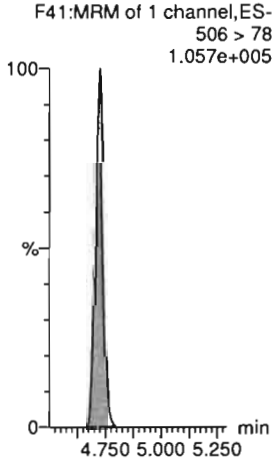




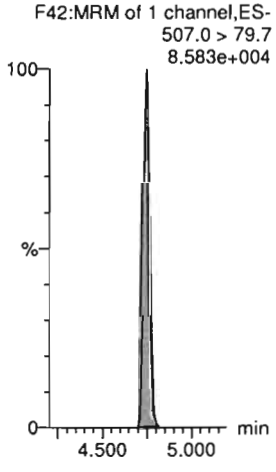
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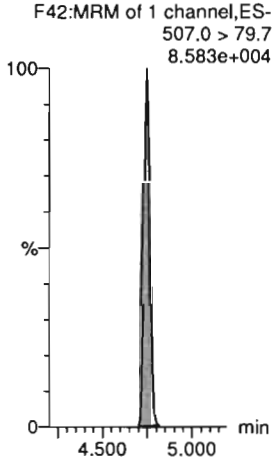
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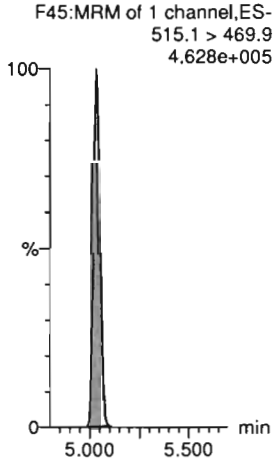
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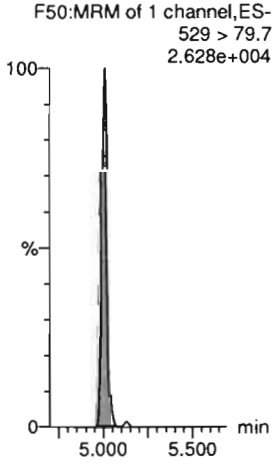
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

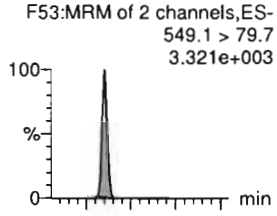


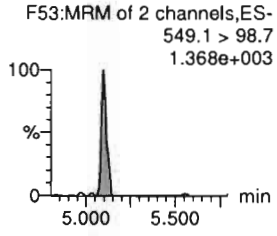
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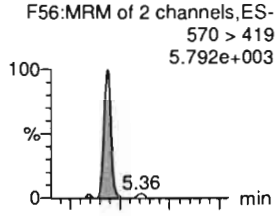
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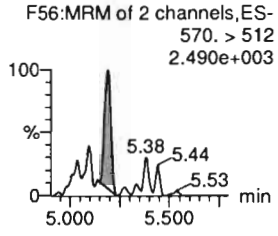
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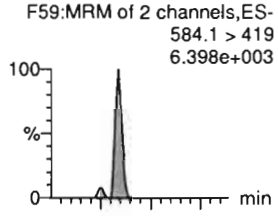


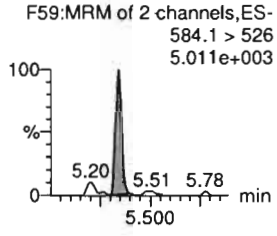
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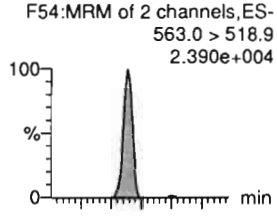


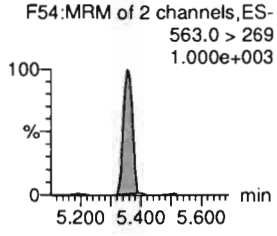
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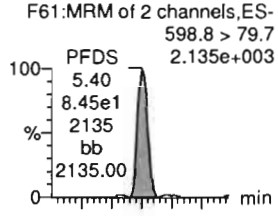


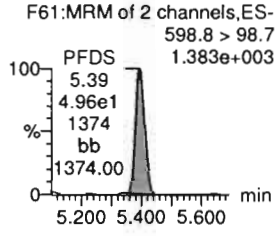
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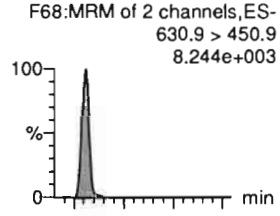


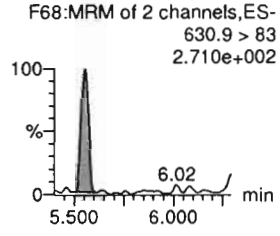
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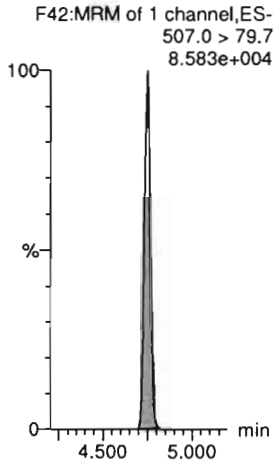


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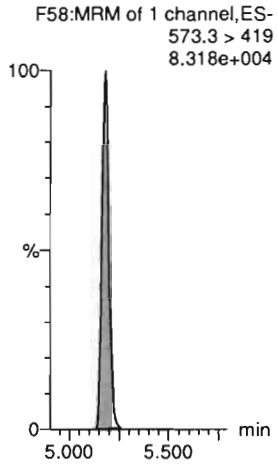




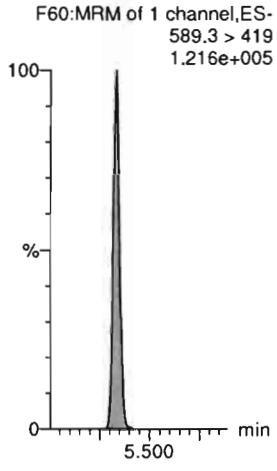
13C8-PFOS-EIS



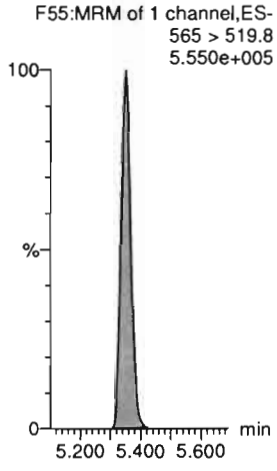
d3-N-MeFOSAA-EIS



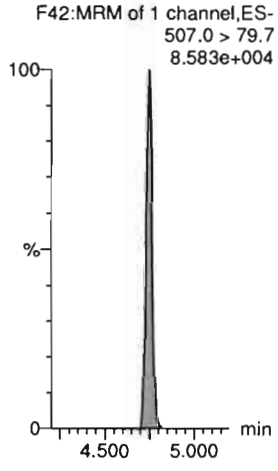
d5-N-EtFOSAA-EIS



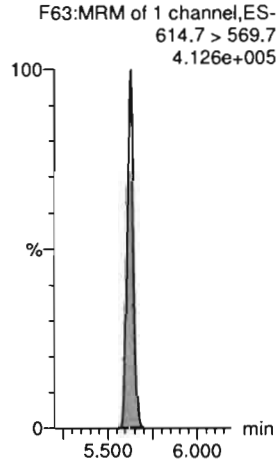
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

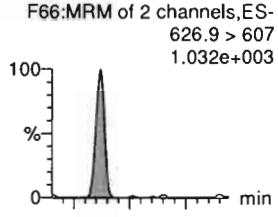


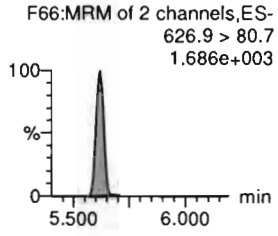
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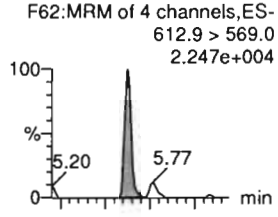
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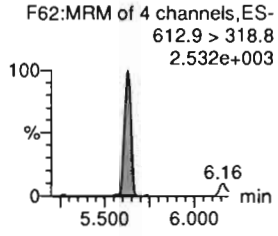
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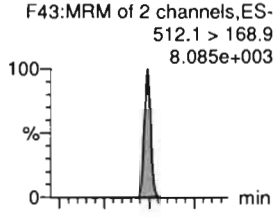


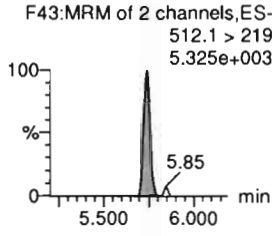
PFDoA



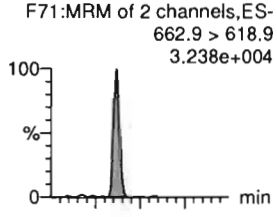


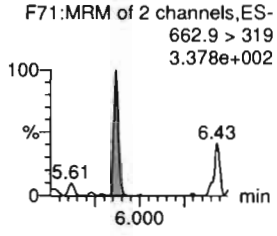
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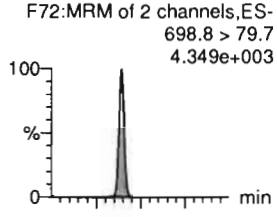


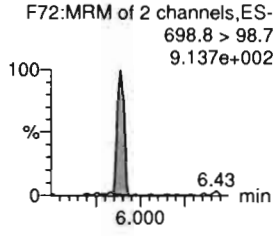
PFTrDA



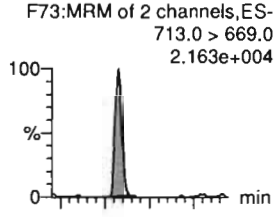


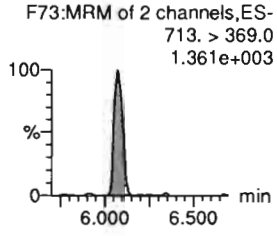
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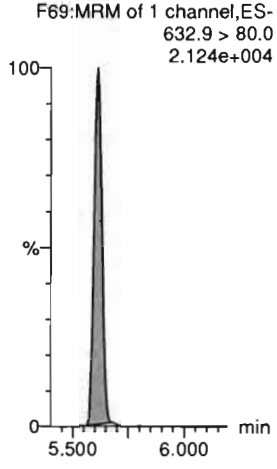


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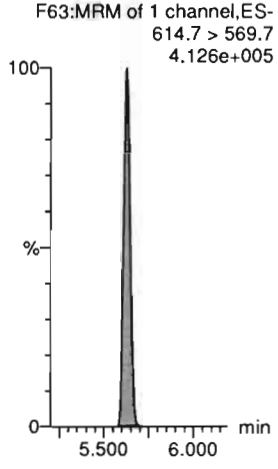




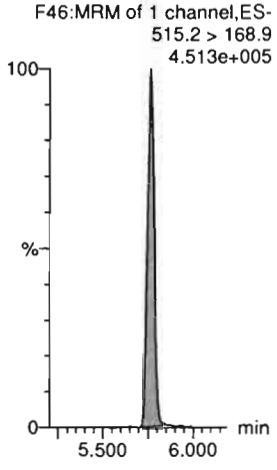
13C2-10:2 FTS-EIS



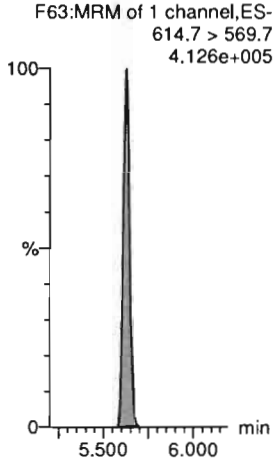
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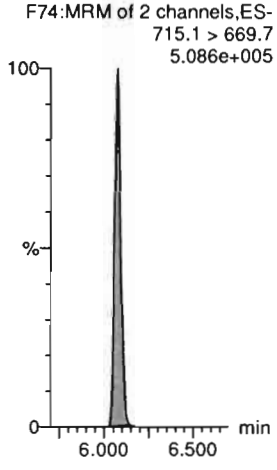
d3-N-MeFOSA-EIS



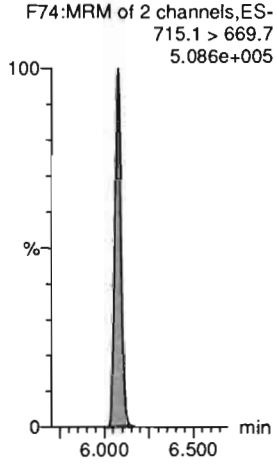
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

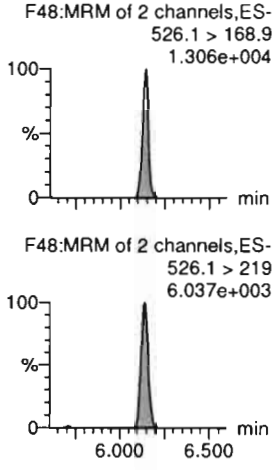


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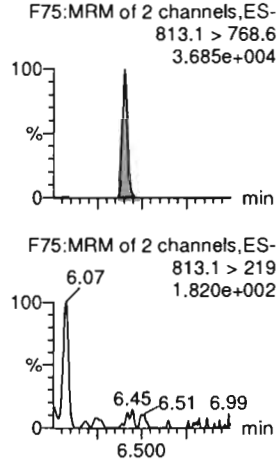
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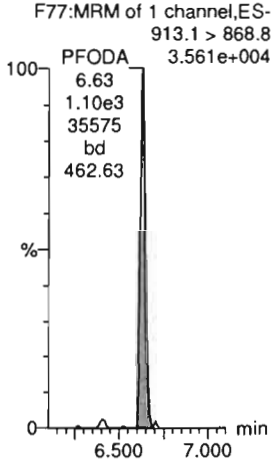
N-EtFOSA



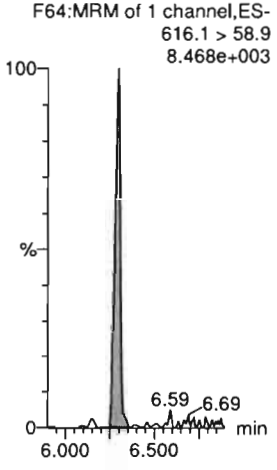
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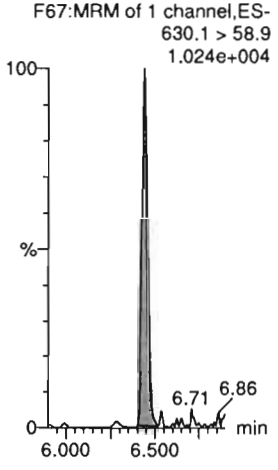
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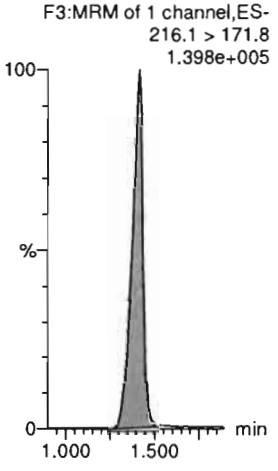
N-MeFOSE



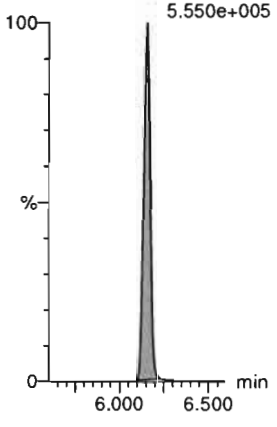
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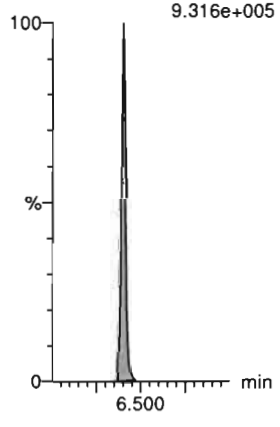
13C3-PFBA-RSD



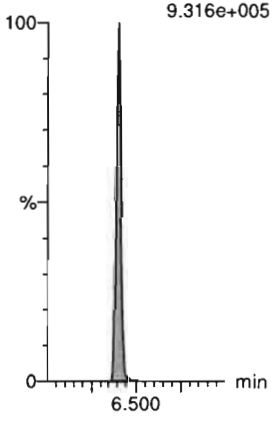
d5-N-ETFOSA-EIS



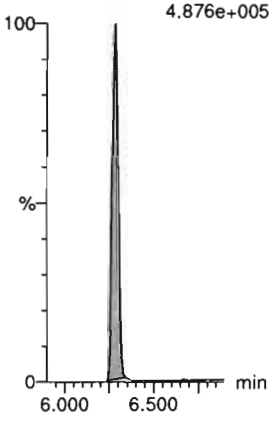
13C2-PFHxDA-EIS



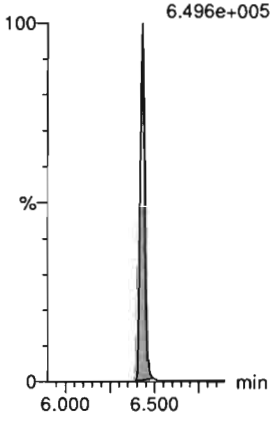
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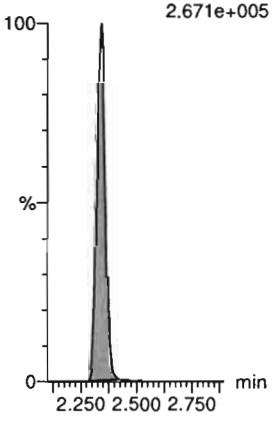
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d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

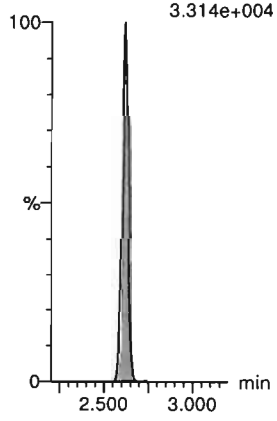


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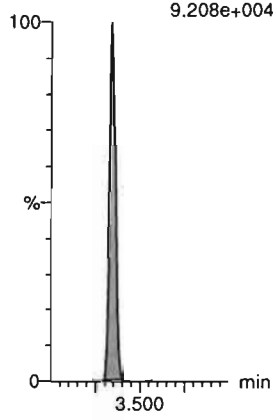
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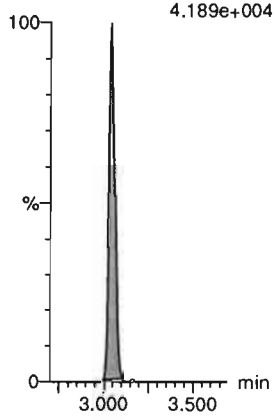
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.314e+004



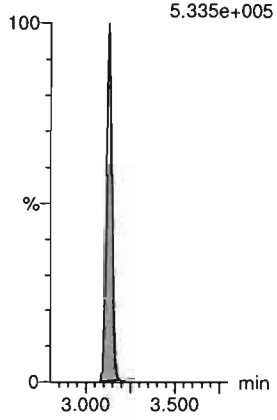
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
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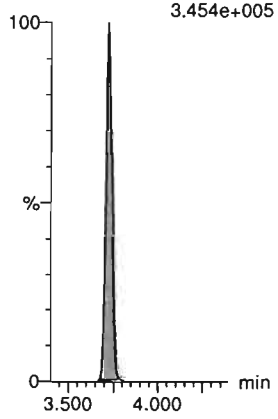
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.189e+004



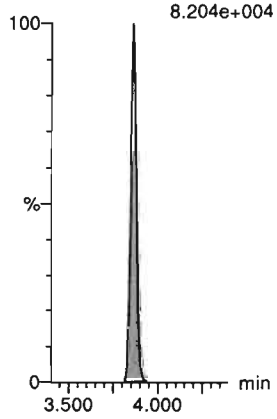
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F14:MRM of 1 channel,ES-
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5.335e+005



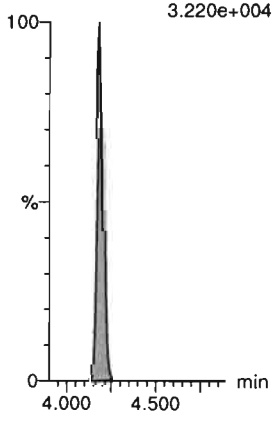
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.454e+005



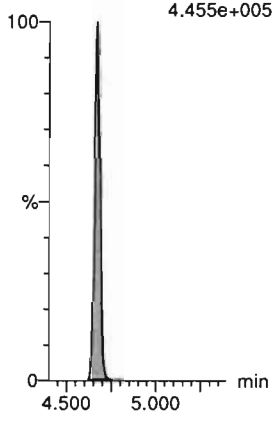
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.204e+004



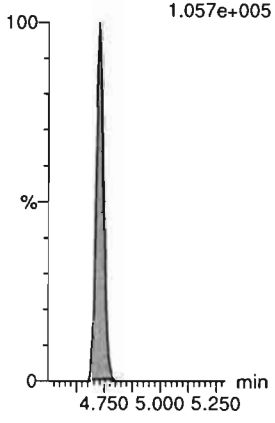
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.220e+004



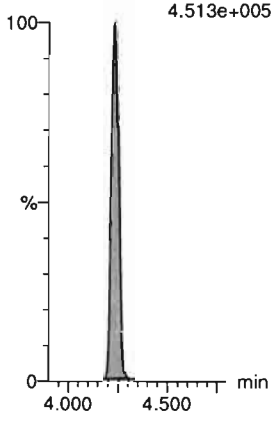
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.455e+005



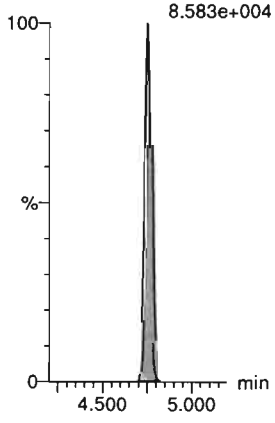
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.057e+005



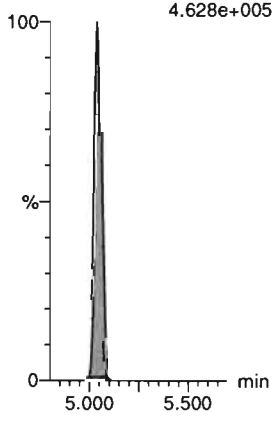
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.513e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.583e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.628e+005

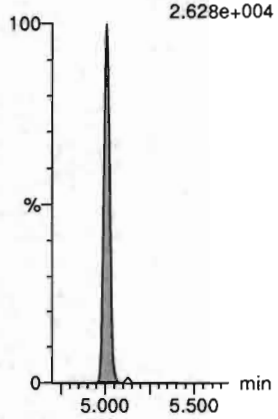


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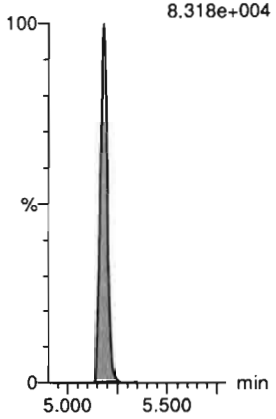
Last Altered: Wednesday, February 26, 2020 10:17:23 Pacific Standard Time
Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-4, Date: 25-Feb-2020, Time: 18:30:13, ID: ST200225P1-2 PFC CS-1 20B1103, Description: PFC CS-1 20B1103

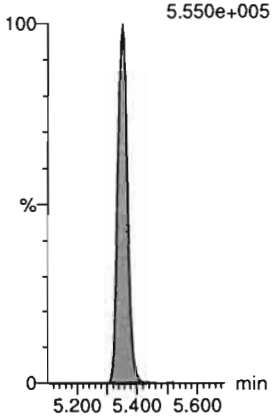
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.628e+004



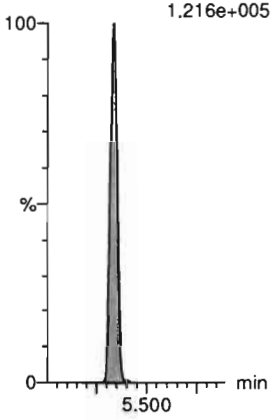
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.318e+004



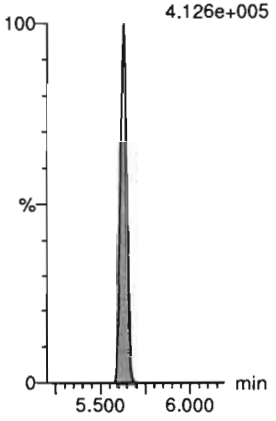
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.550e+005



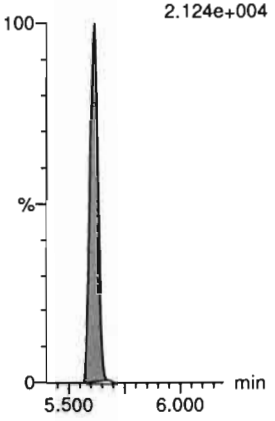
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F60:MRM of 1 channel,ES-
589.3 > 419
1.216e+005



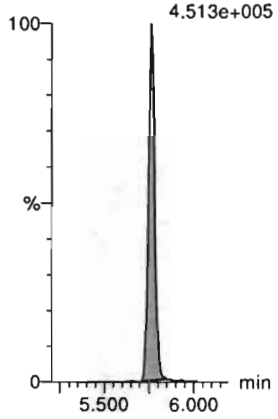
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.126e+005



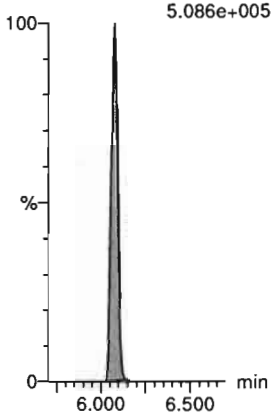
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.124e+004



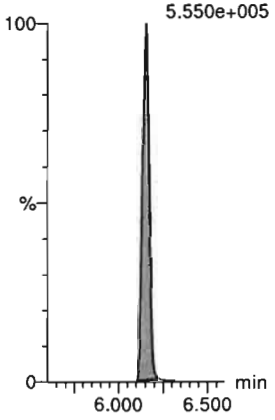
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.513e+005



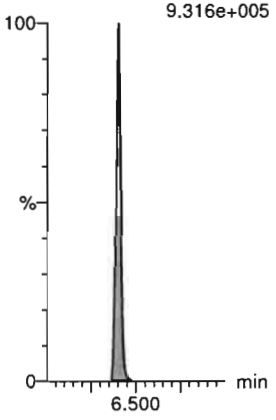
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.086e+005



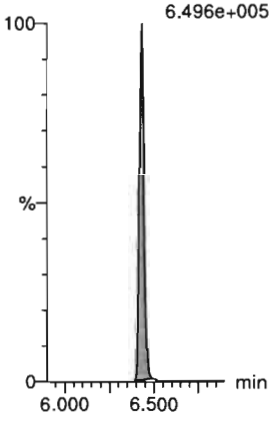
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.550e+005



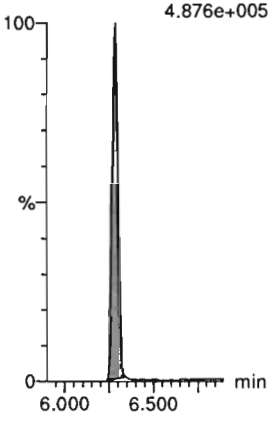
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.316e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.496e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.876e+005

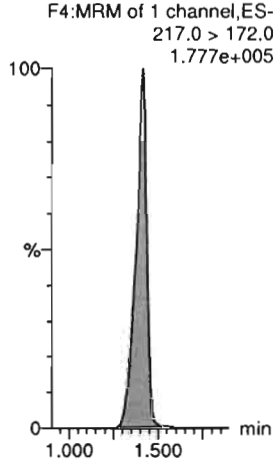


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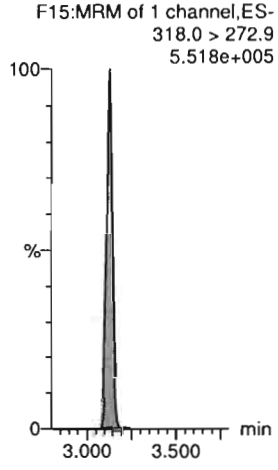
Last Altered: Wednesday, February 26, 2020 10:17:23 Pacific Standard Time
Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-4, Date: 25-Feb-2020, Time: 18:30:13, ID: ST200225P1-2 PFC CS-1 20B1103, Description: PFC CS-1 20B1103

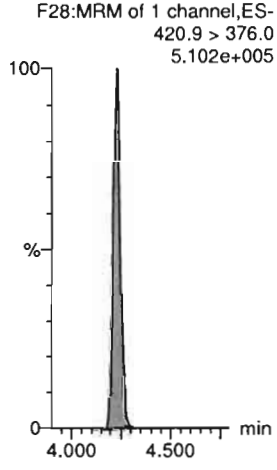
13C4-PFBA



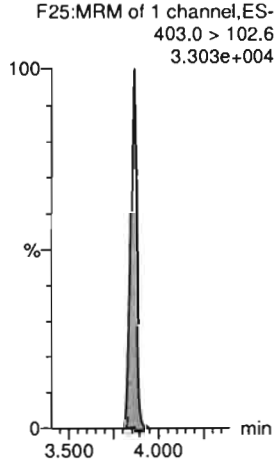
13C5-PFHxA



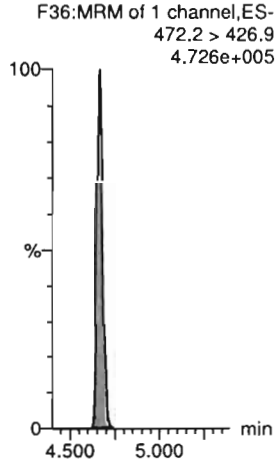
13C8-PFOA



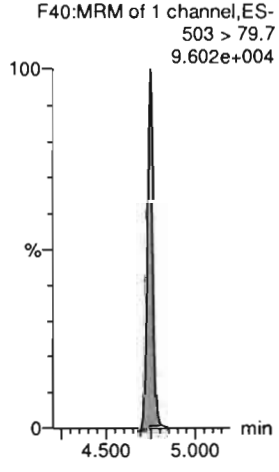
18O2-PFHxS



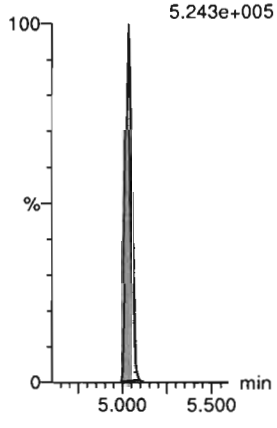
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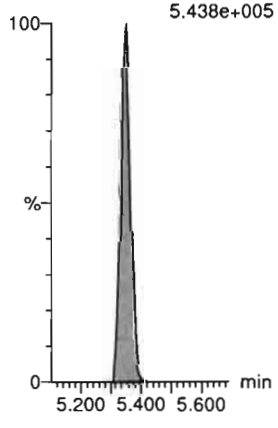
13C4-PFOS



13C6-PFDA



13C7-PFUdA

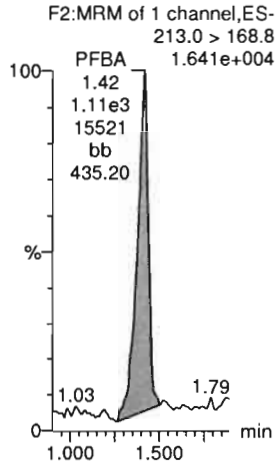


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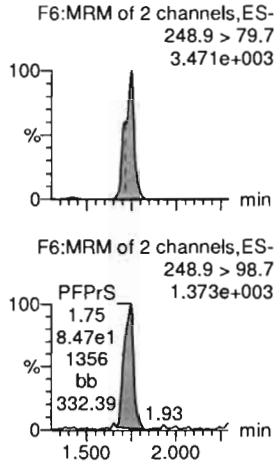
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Name: 200225P1-5, Date: 25-Feb-2020, Time: 18:40:42, ID: ST200225P1-3 PFC CS0 20B1104, Description: PFC CS0 20B1104

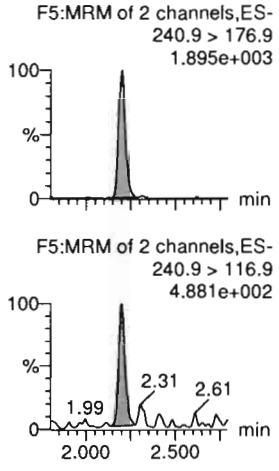
PFBA



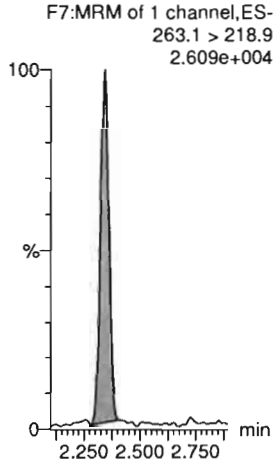
PFPrS



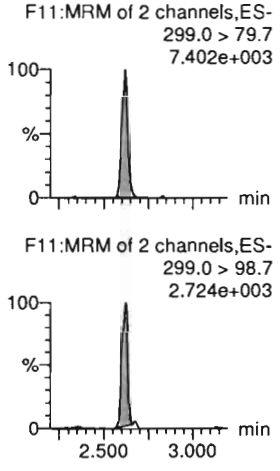
3:3 FTCA



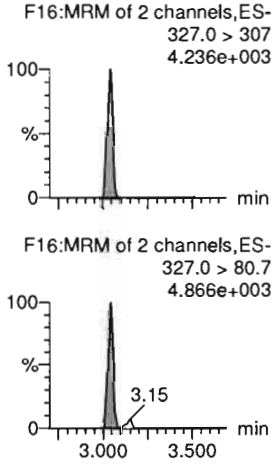
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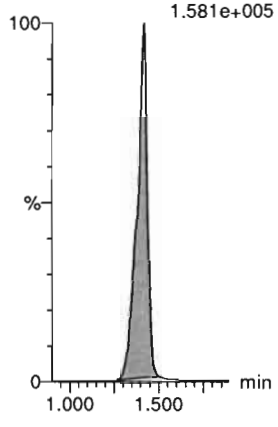
PFBS



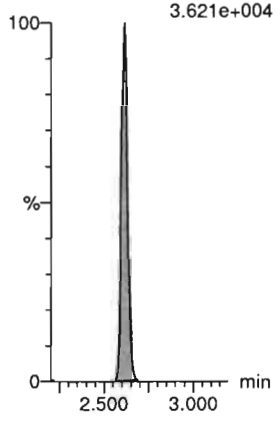
4:2 FTS



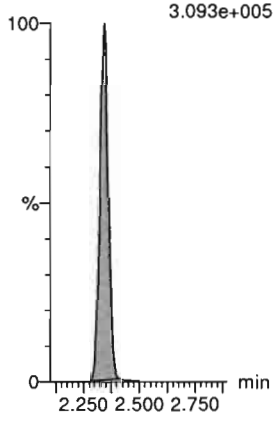
13C3-PFBA-EIS



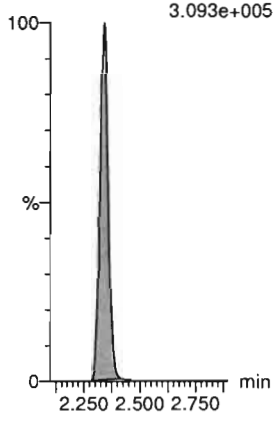
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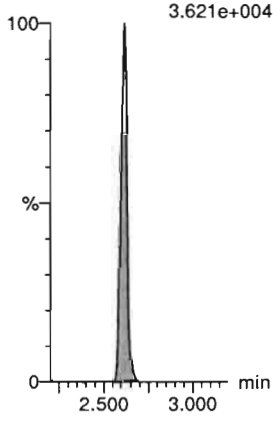
13C3-PFPeA-EIS



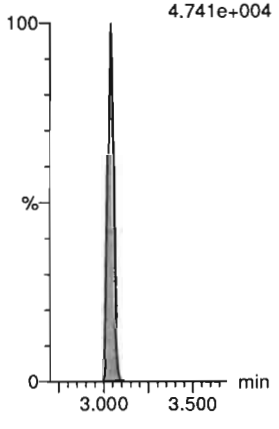
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

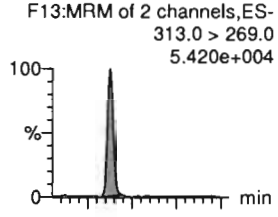


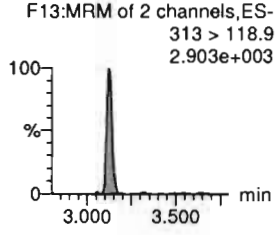
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

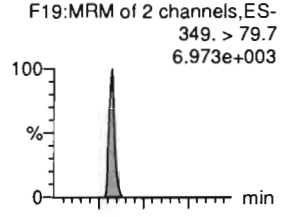
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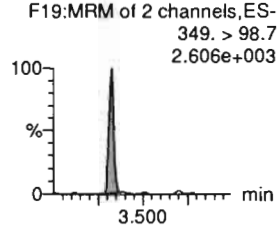
PFHxA



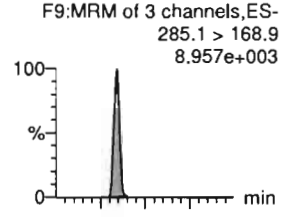


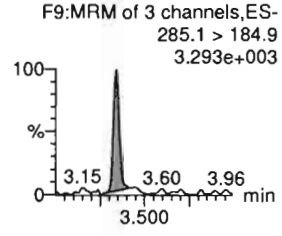
PFPeS



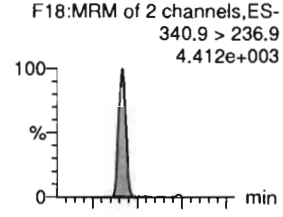


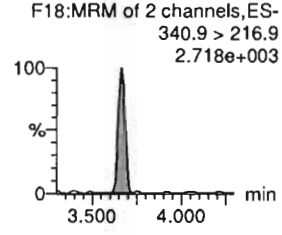
HFPO-DA



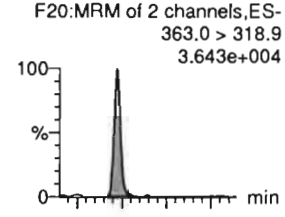


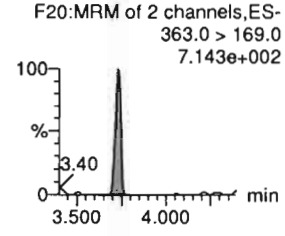
5:3 FTCA



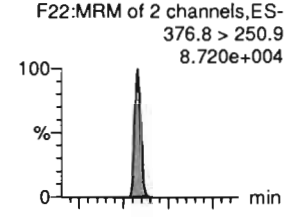


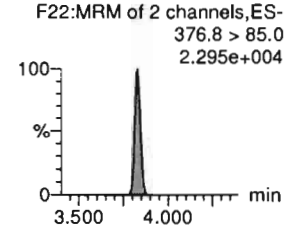
PFHpA



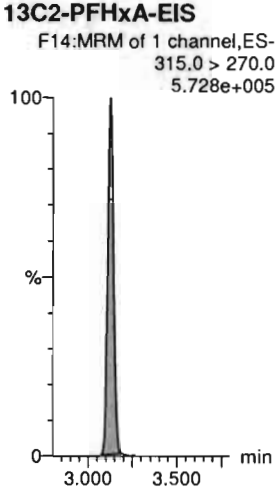


ADONA

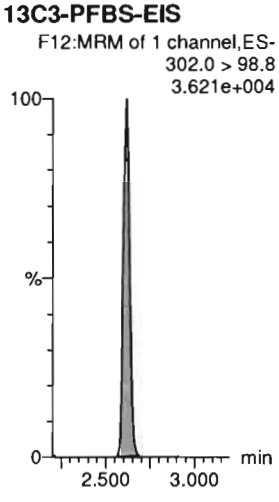




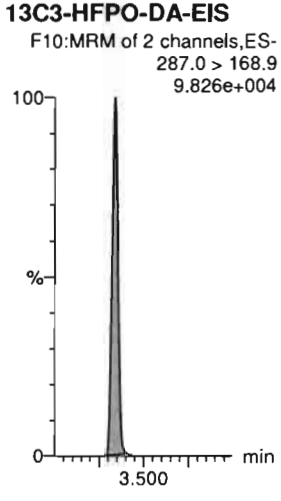
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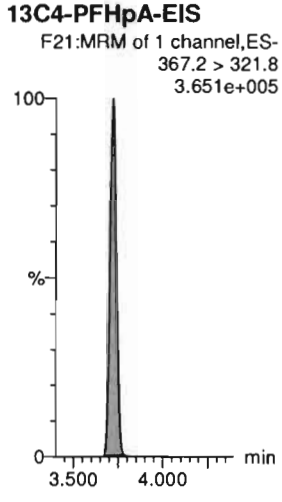
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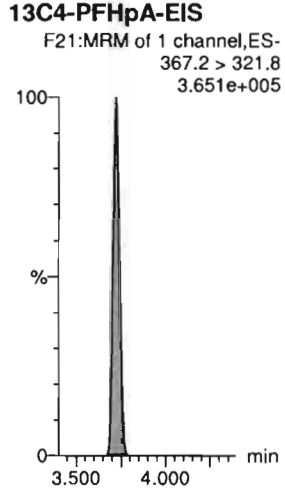
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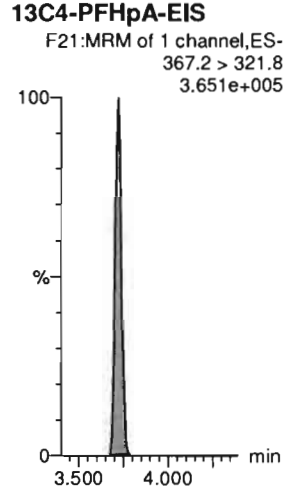
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13C4-PFHpA-EIS



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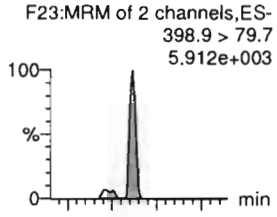


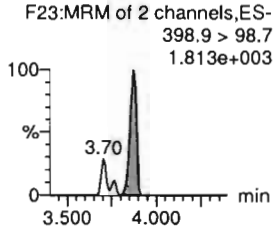
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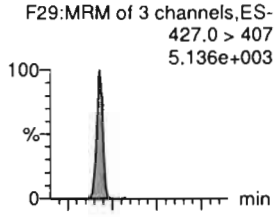
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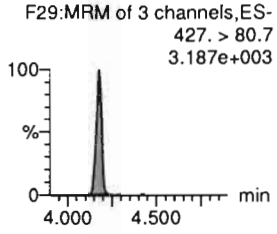
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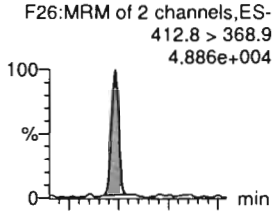


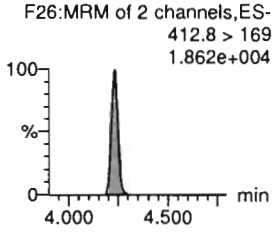
6:2 FTS



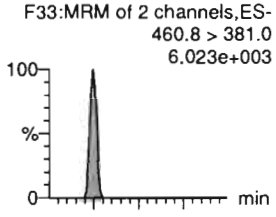


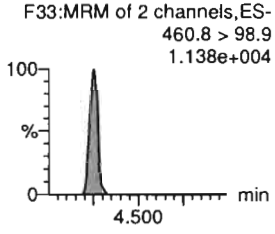
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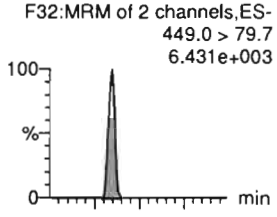


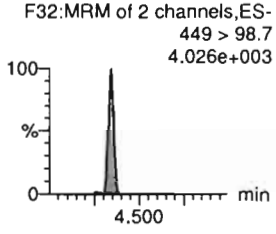
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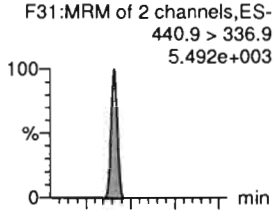


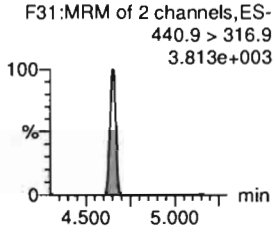
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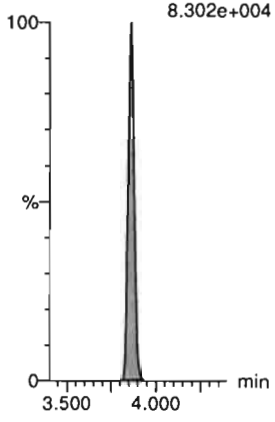


7:3 FTCA

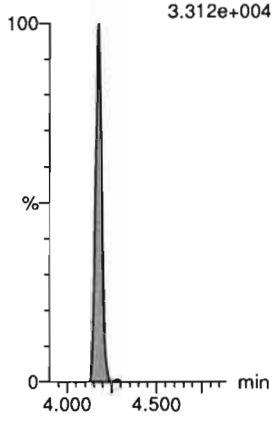




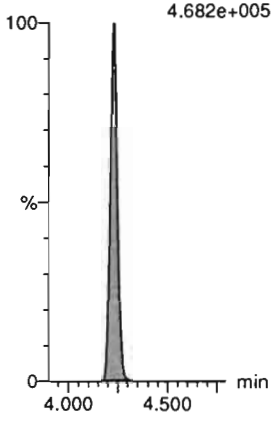
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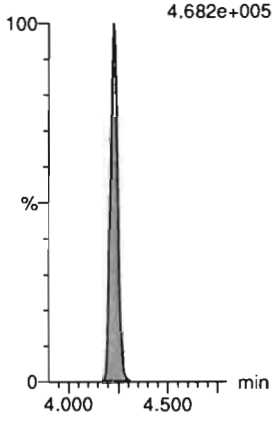
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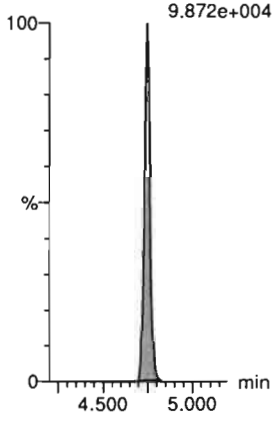
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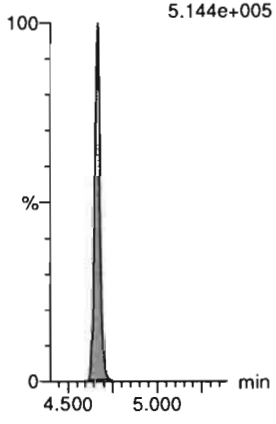
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

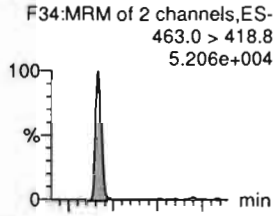


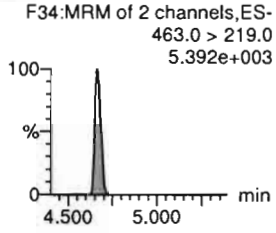
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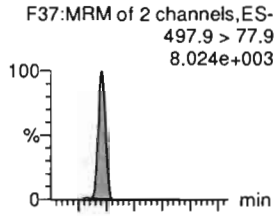
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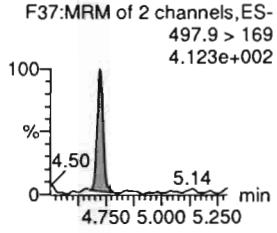
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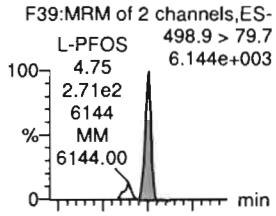


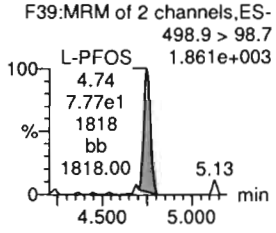
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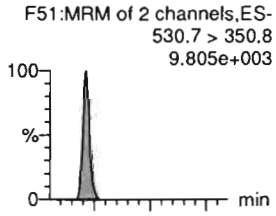


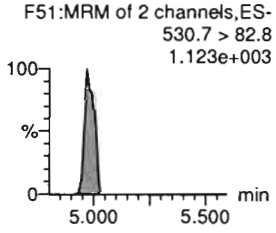
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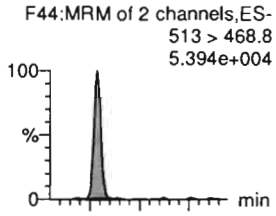


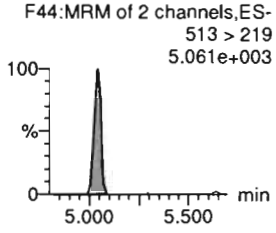
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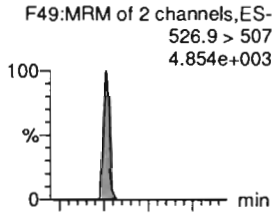


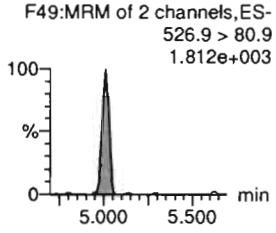
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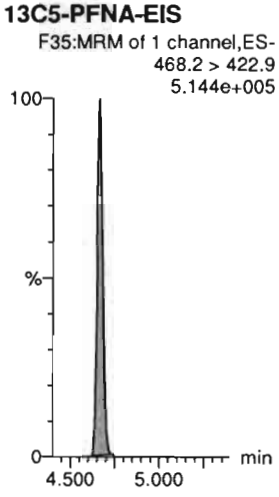


8:2 FTS

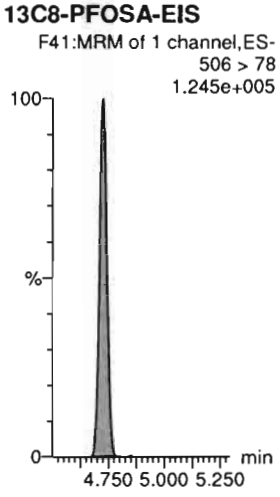




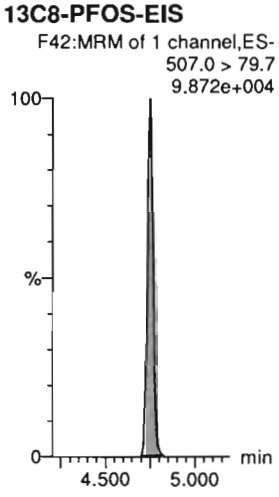
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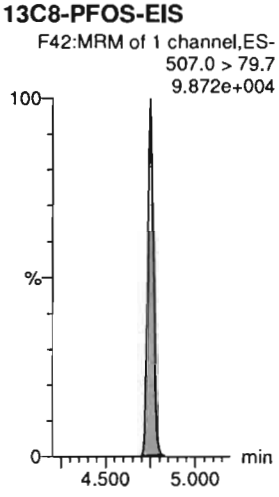
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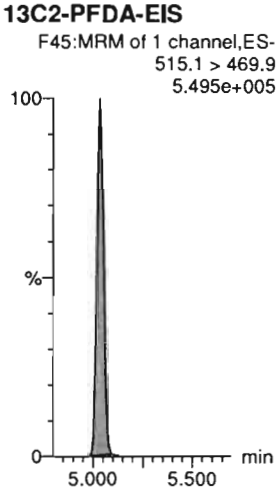
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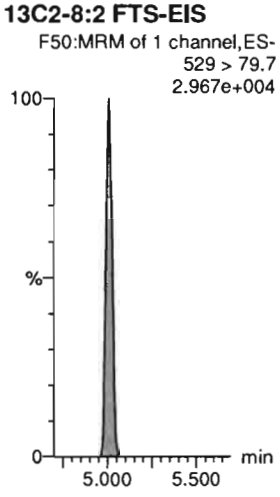
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

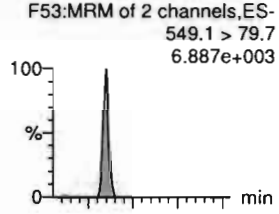


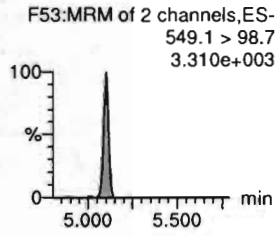
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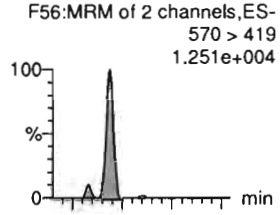
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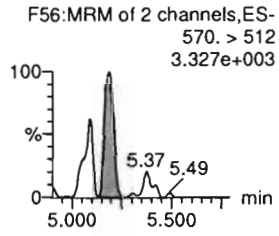
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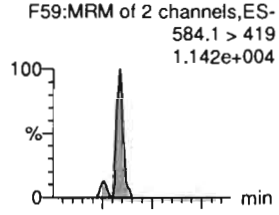


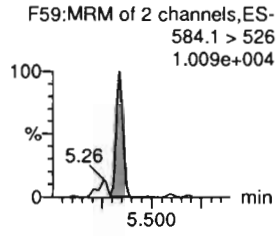
L-MeFOSAA



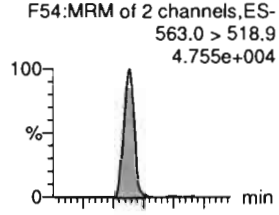


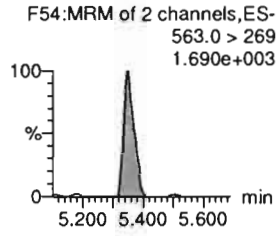
L-EtFOSAA



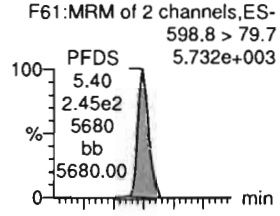


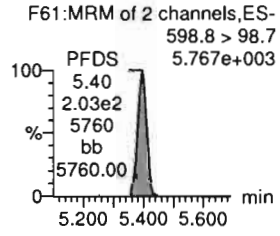
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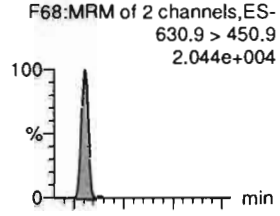


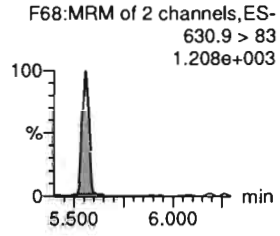
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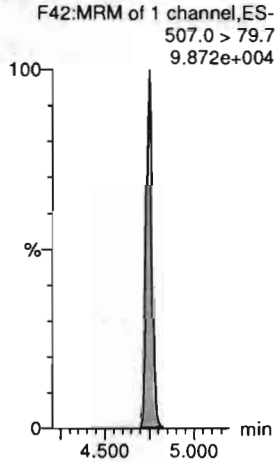


11Cl-PF30UdS

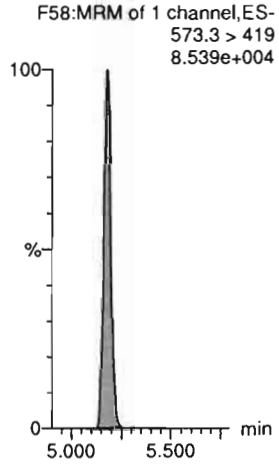




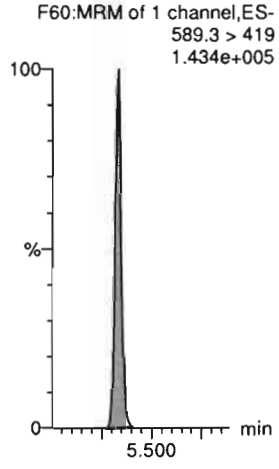
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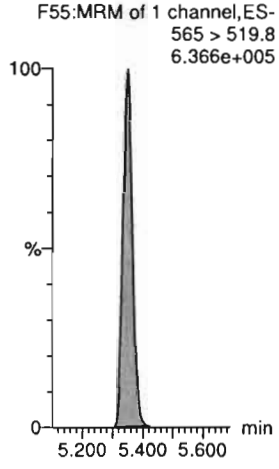
d3-N-MeFOSAA-EIS



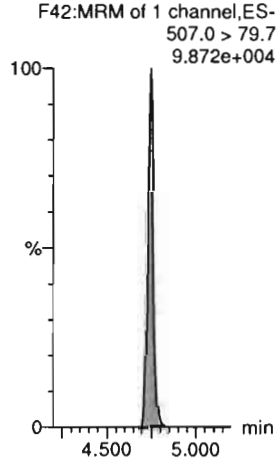
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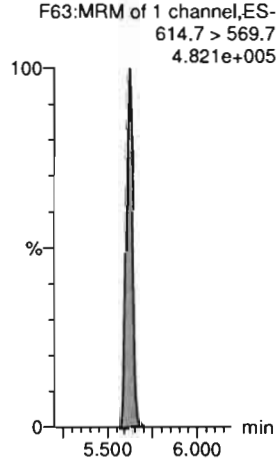
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

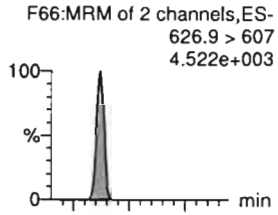


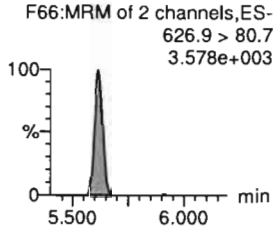
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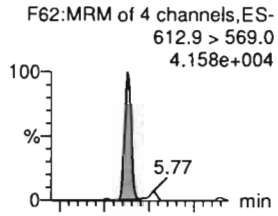
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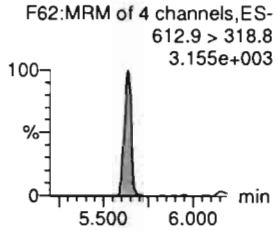
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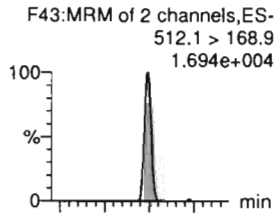


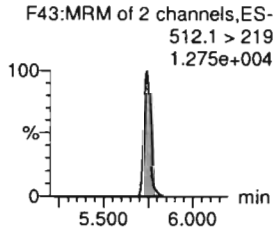
PFDoA



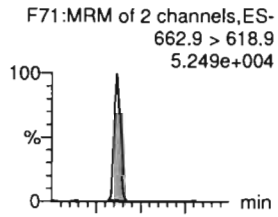


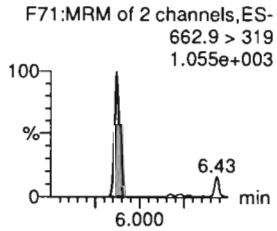
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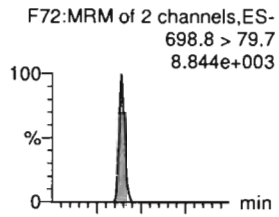


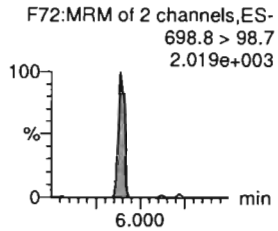
PFTrDA



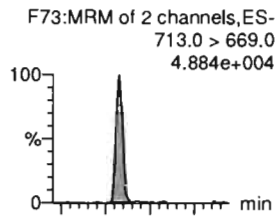


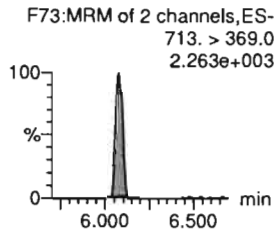
PFDoS



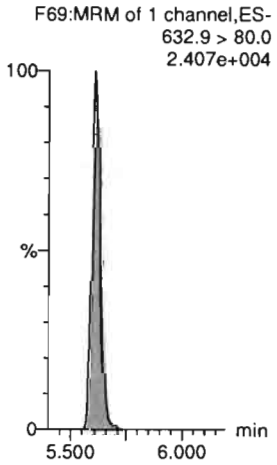


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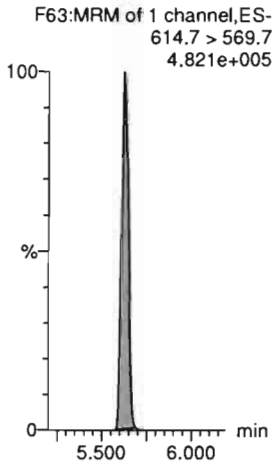




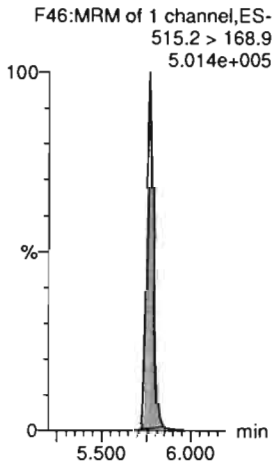
13C2-10:2 FTS-EIS



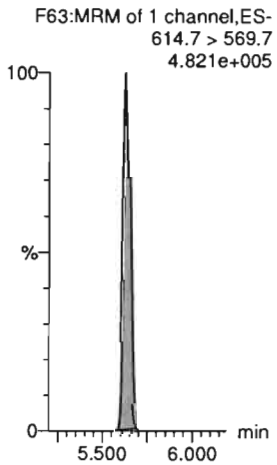
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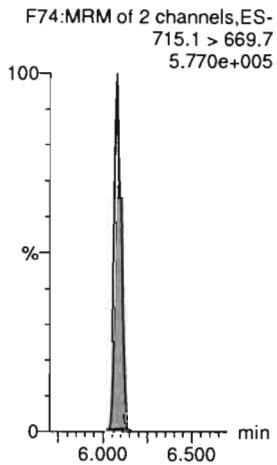
d3-N-MeFOSA-EIS



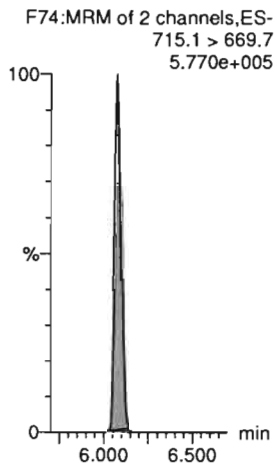
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

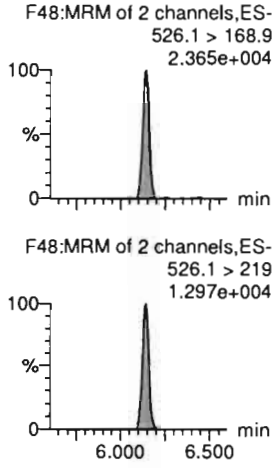


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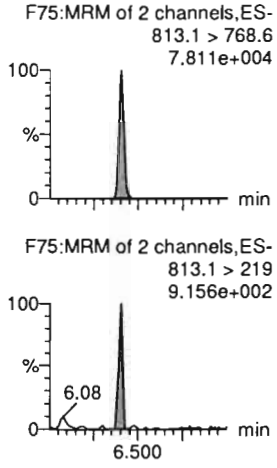
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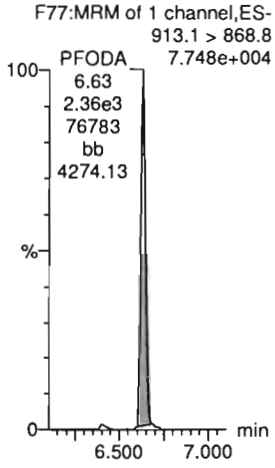
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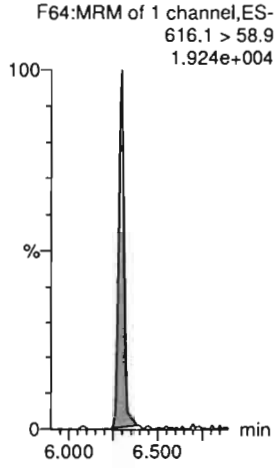
PFHxDA



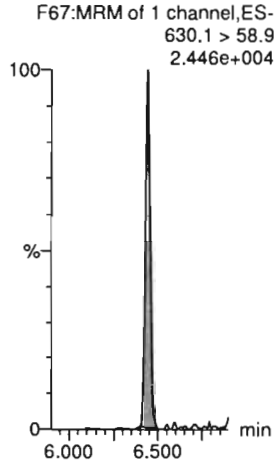
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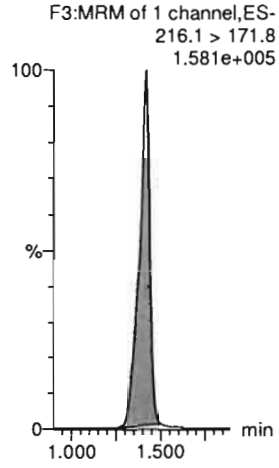
N-MeFOSE



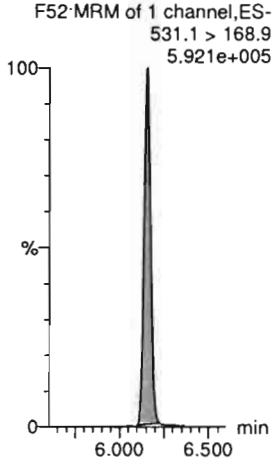
N-EtFOSE



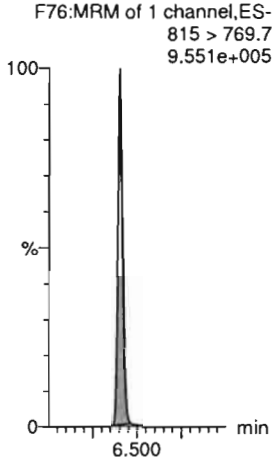
13C3-PFBA-RSD



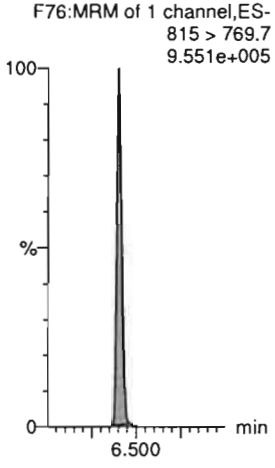
d5-N-ETFOSA-EIS



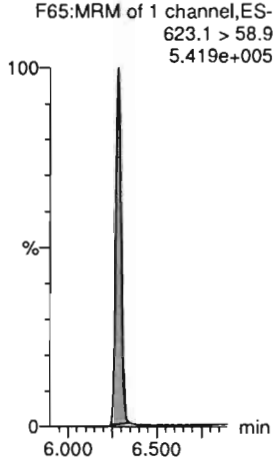
13C2-PFHxDA-EIS



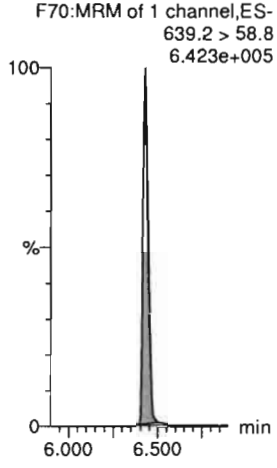
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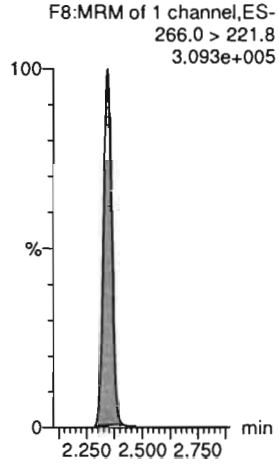
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



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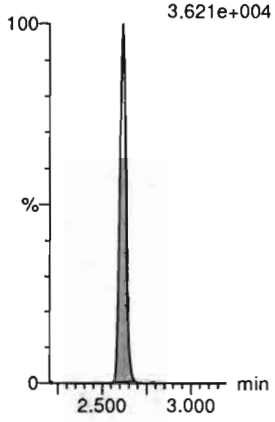


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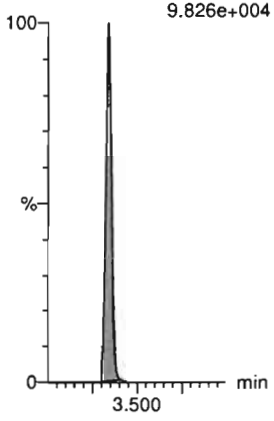
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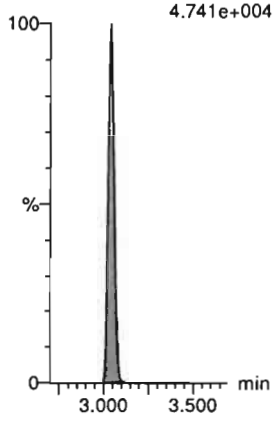
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.621e+004



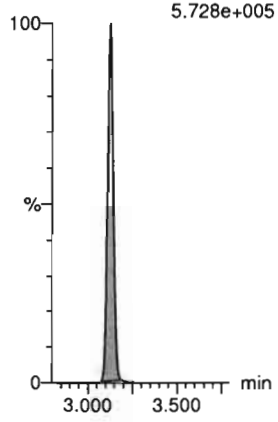
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.826e+004



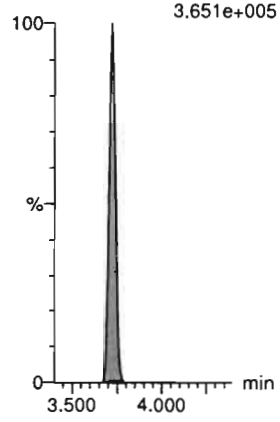
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.741e+004



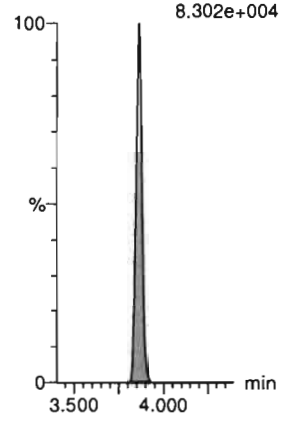
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F14:MRM of 1 channel,ES-
315.0 > 270.0
5.728e+005



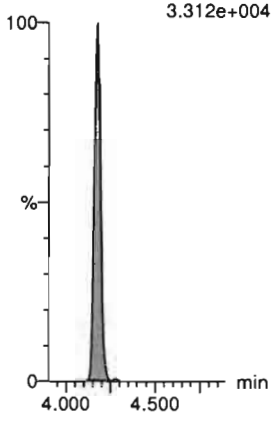
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.651e+005



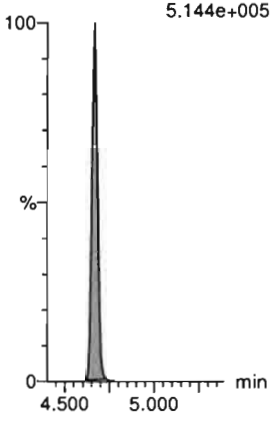
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.302e+004



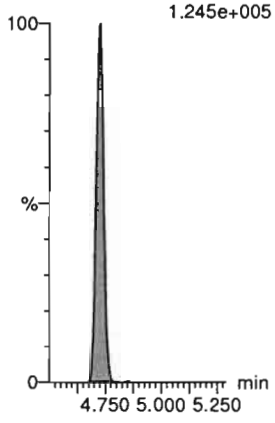
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.312e+004



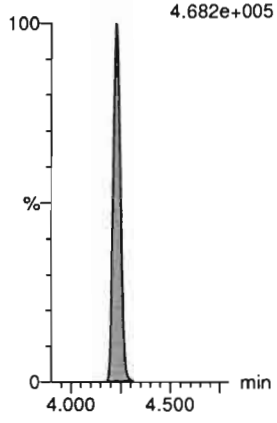
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
5.144e+005



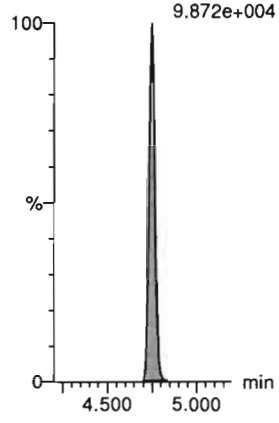
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.245e+005



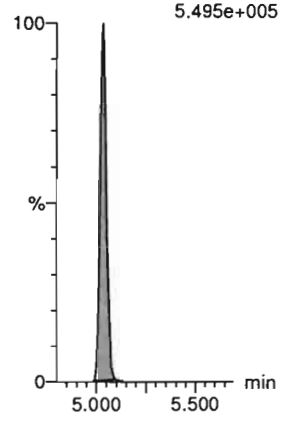
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.682e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.872e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.495e+005

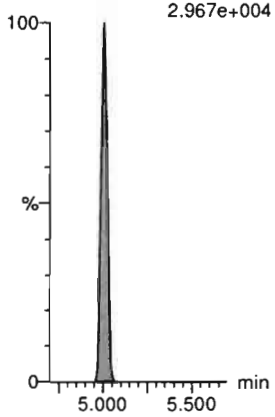


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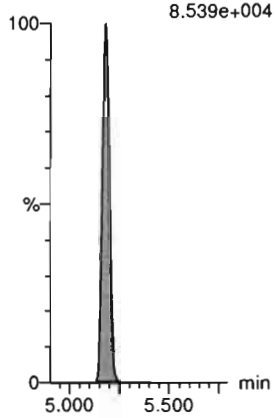
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-5, Date: 25-Feb-2020, Time: 18:40:42, ID: ST200225P1-3 PFC CS0 20B1104, Description: PFC CS0 20B1104

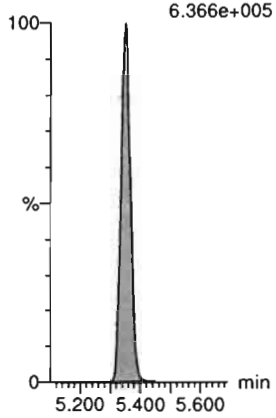
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F50:MRM of 1 channel,ES-
529 > 79.7
2.967e+004



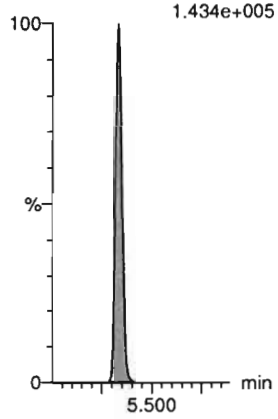
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.539e+004



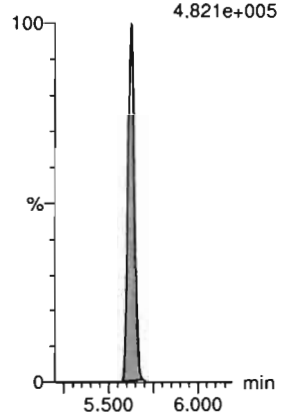
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F55:MRM of 1 channel,ES-
565 > 519.8
6.366e+005



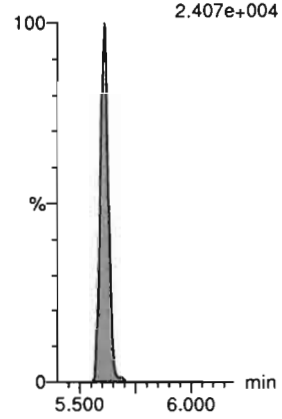
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F60:MRM of 1 channel,ES-
589.3 > 419
1.434e+005



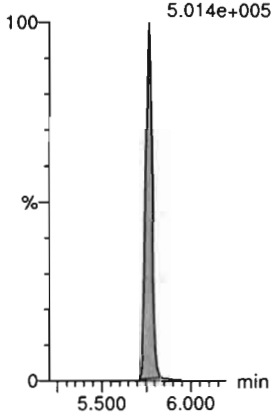
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F63:MRM of 1 channel,ES-
614.7 > 569.7
4.821e+005



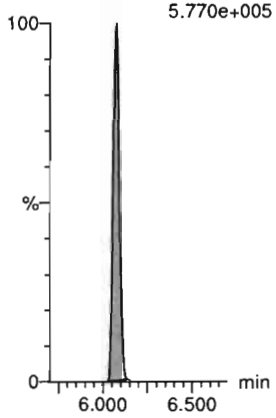
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.407e+004



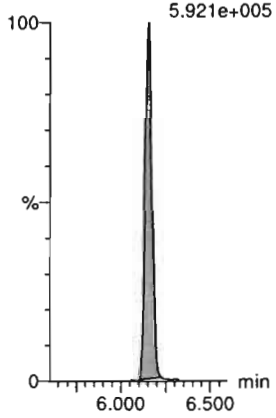
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F46:MRM of 1 channel,ES-
515.2 > 168.9
5.014e+005



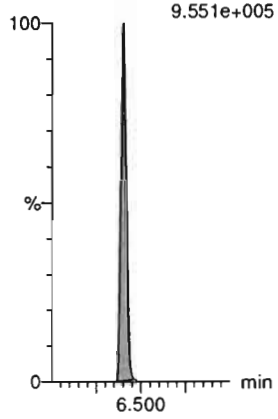
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F74:MRM of 2 channels,ES-
715.1 > 669.7
5.770e+005



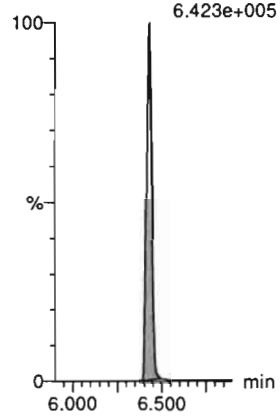
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F52:MRM of 1 channel,ES-
531.1 > 168.9
5.921e+005



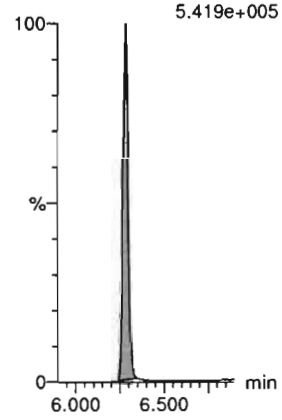
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F76:MRM of 1 channel,ES-
815 > 769.7
9.551e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.423e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.419e+005

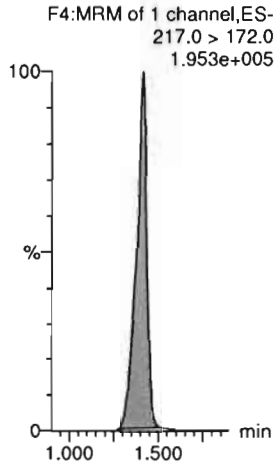


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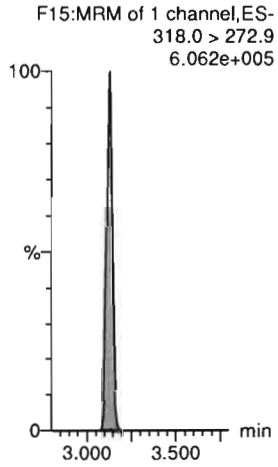
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

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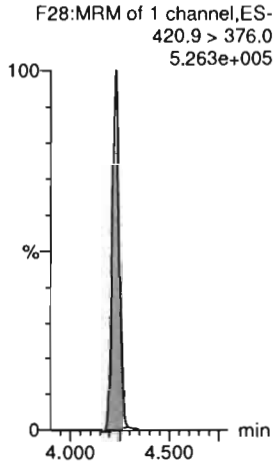
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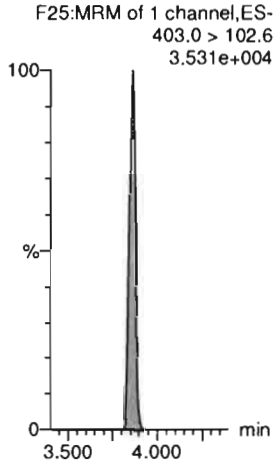
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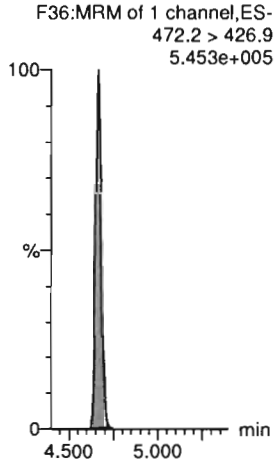
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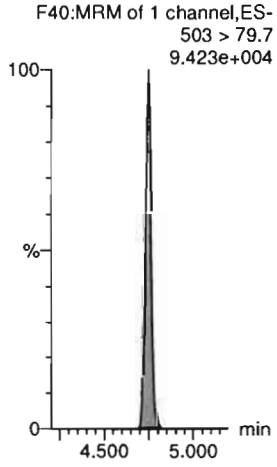
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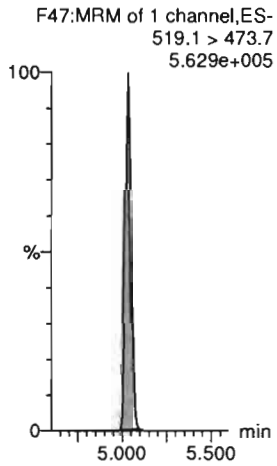
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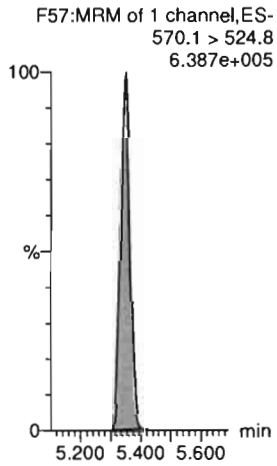
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13C6-PFDA



13C7-PFUdA

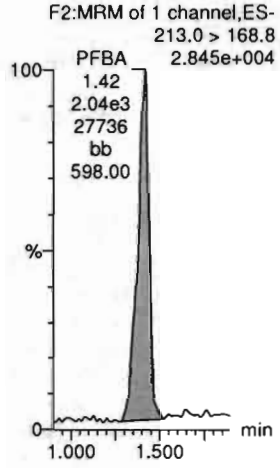


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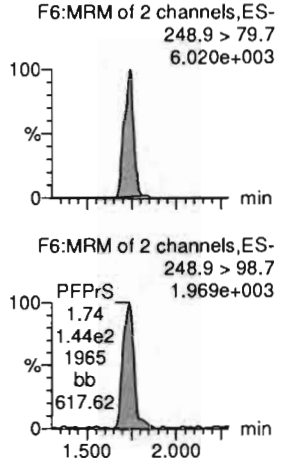
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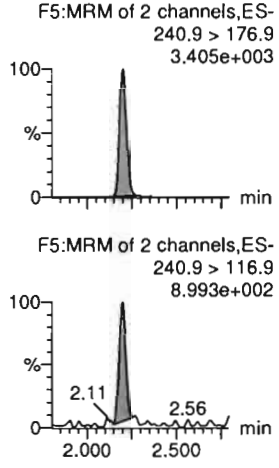
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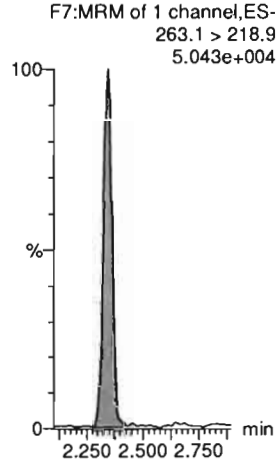
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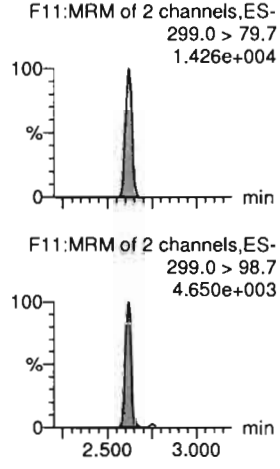
3:3 FTCA



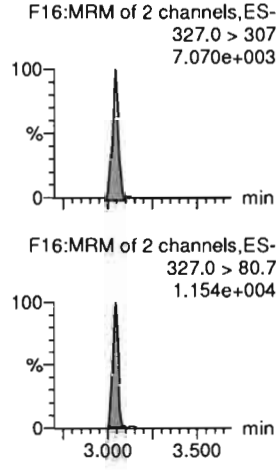
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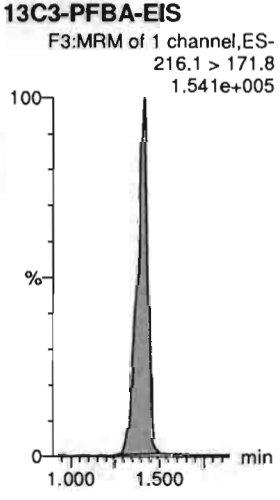
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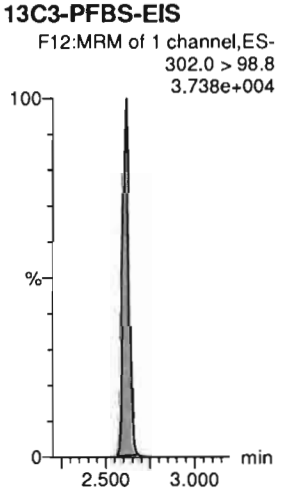
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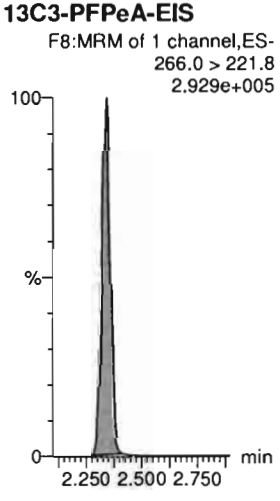
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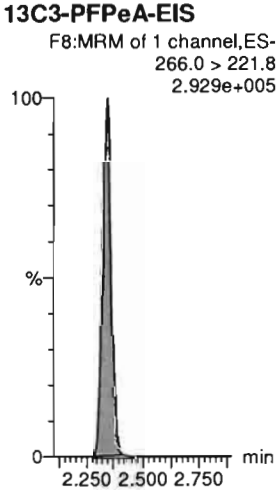
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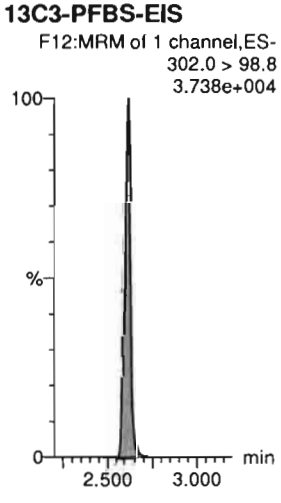
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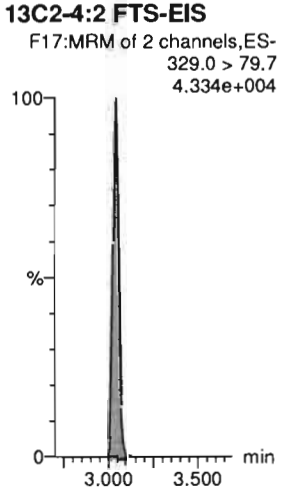
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

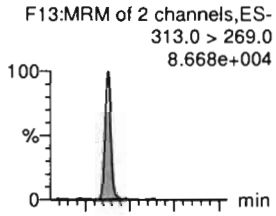


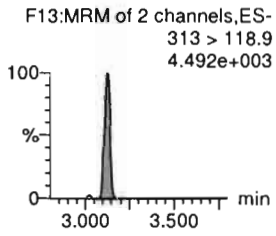
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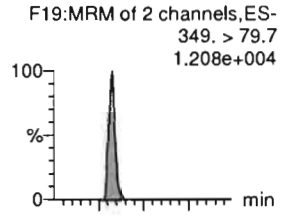
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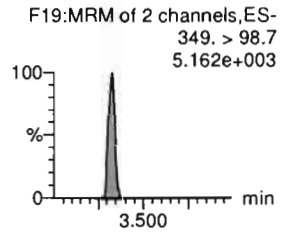
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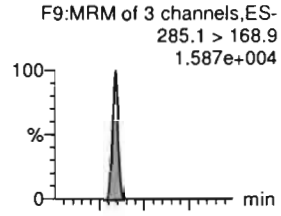


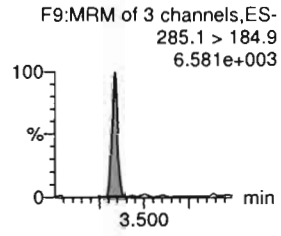
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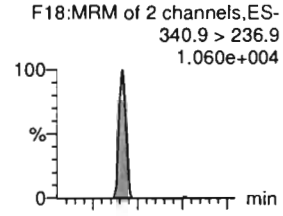


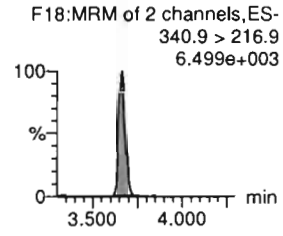
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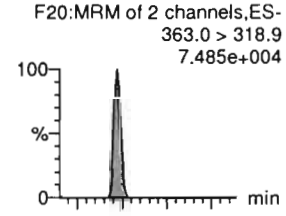


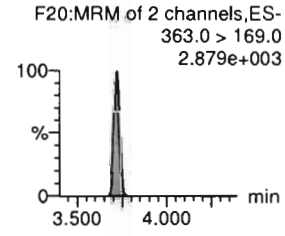
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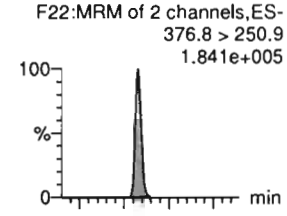


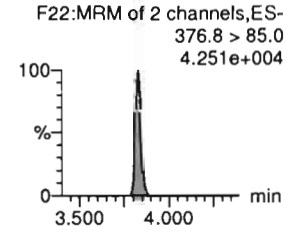
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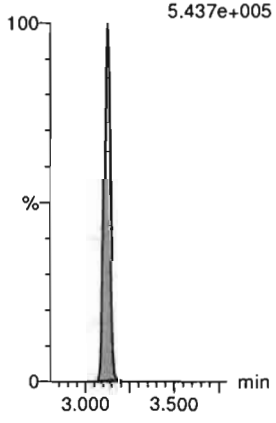


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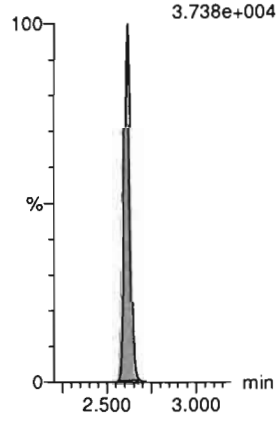




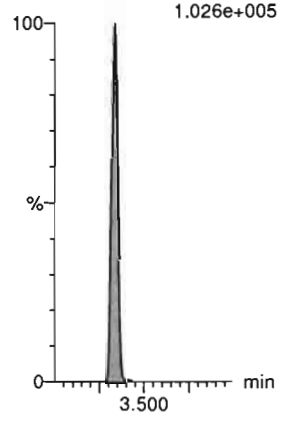
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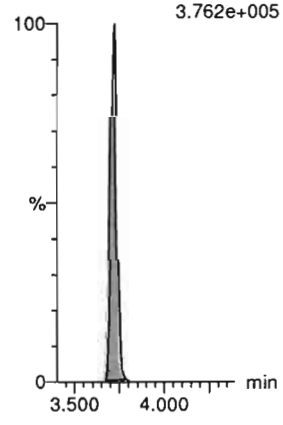
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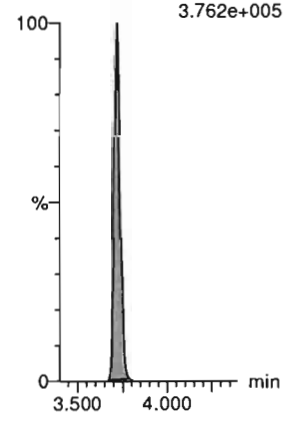
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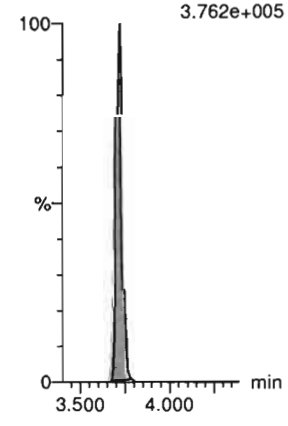
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

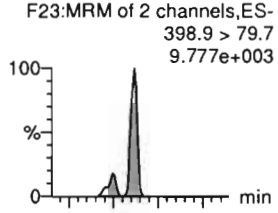


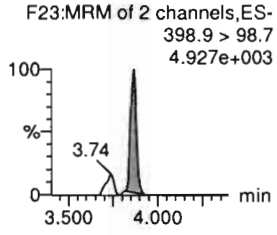
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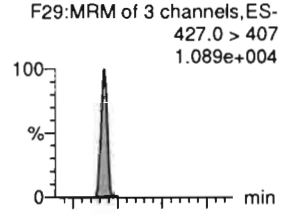
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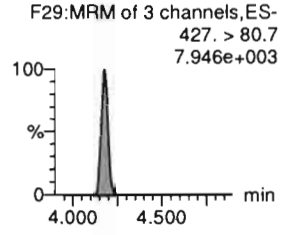
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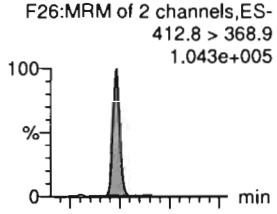


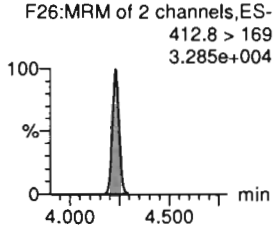
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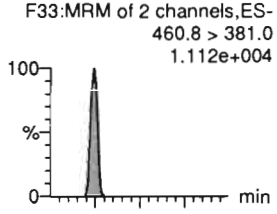


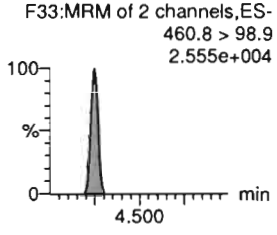
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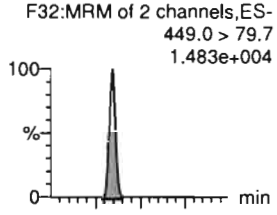


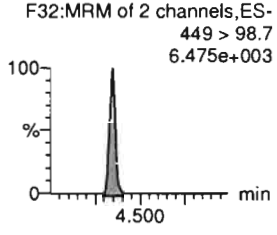
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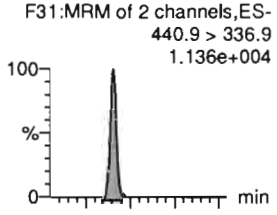


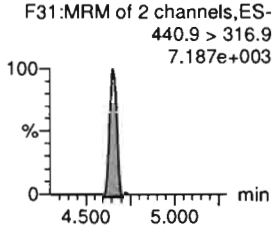
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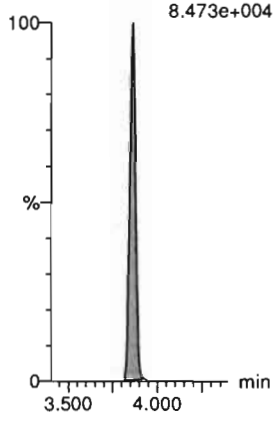


7:3 FTCA

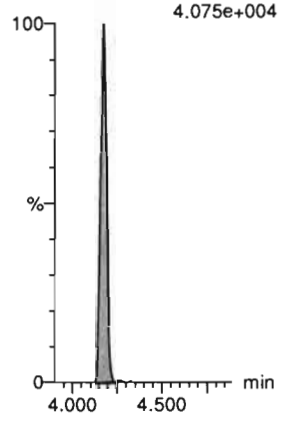




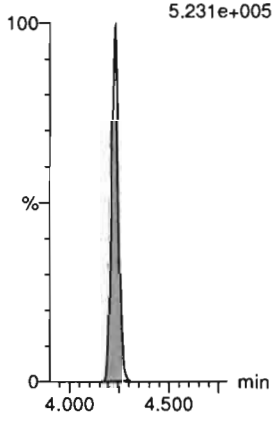
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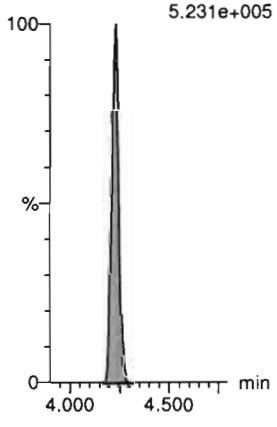
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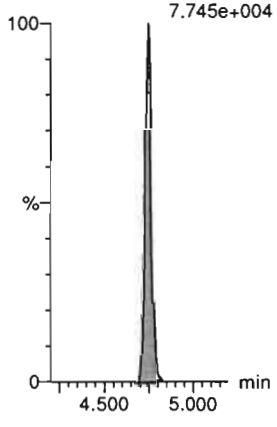
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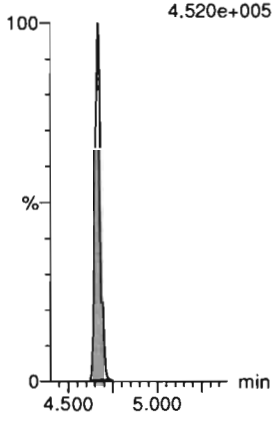
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13C8-PFOS-EIS



13C5-PFNA-EIS

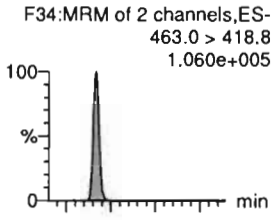


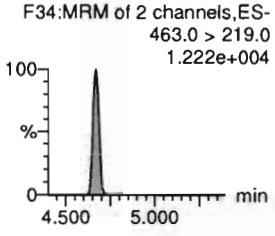
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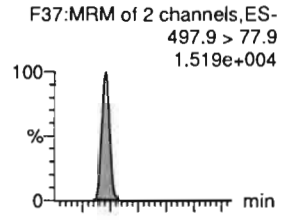
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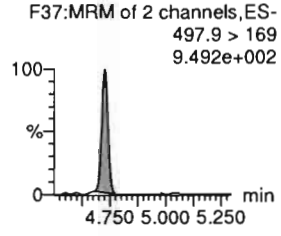
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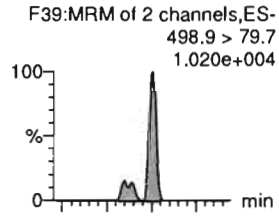


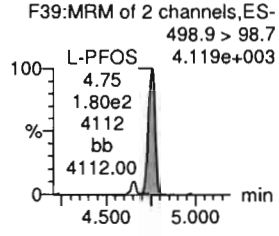
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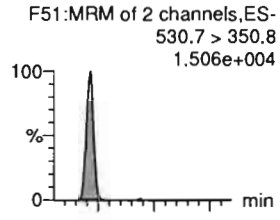


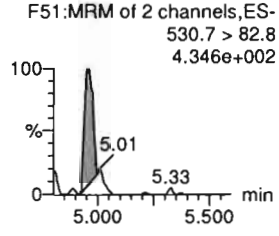
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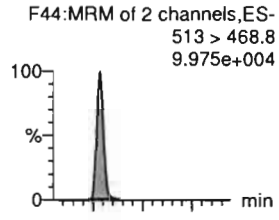


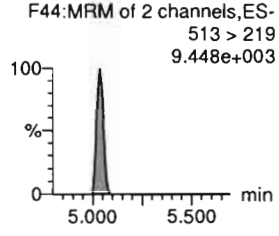
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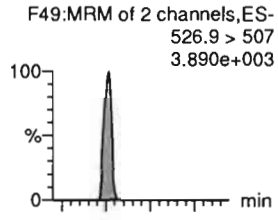


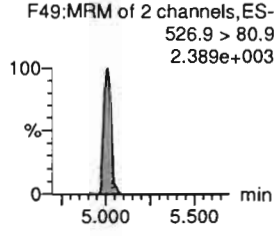
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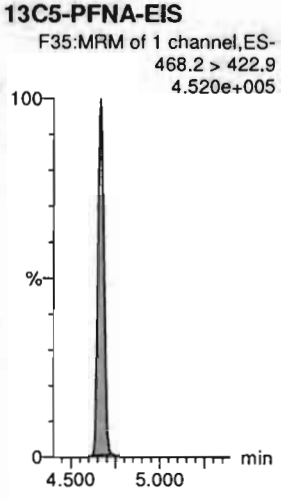


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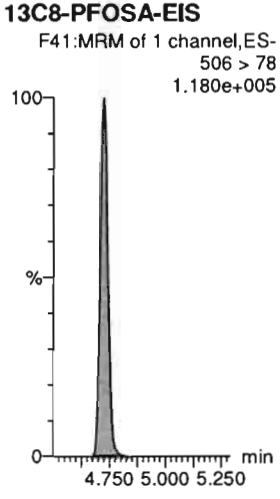




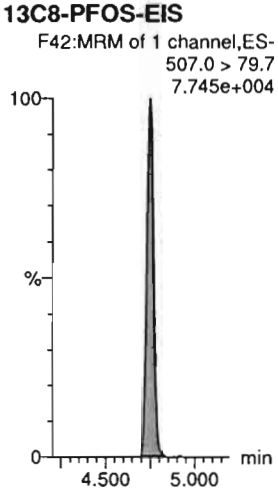
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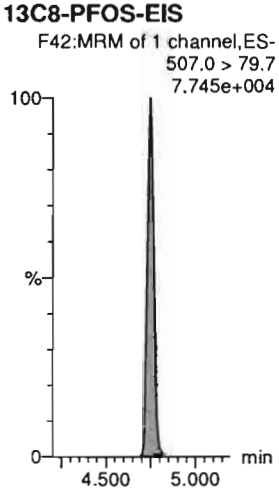
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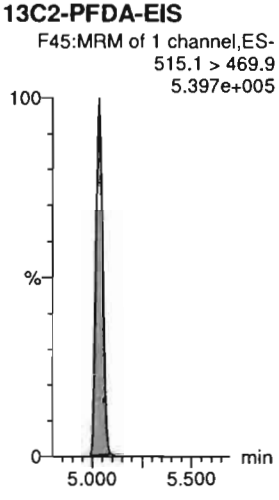
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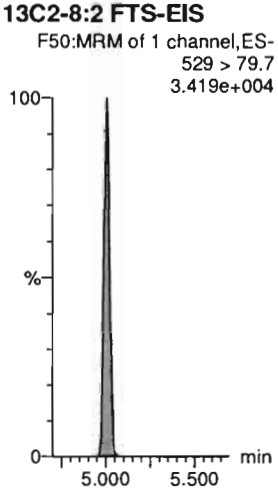
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

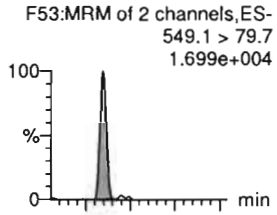


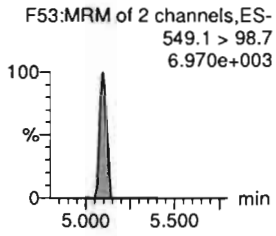
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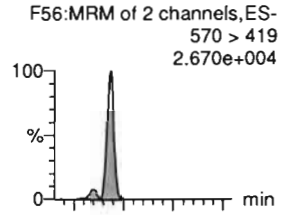
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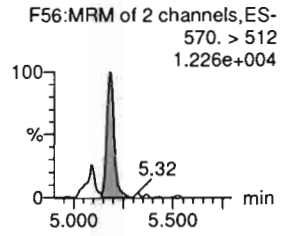
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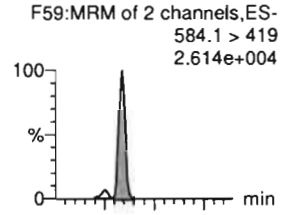


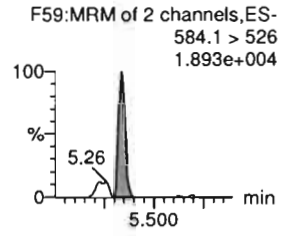
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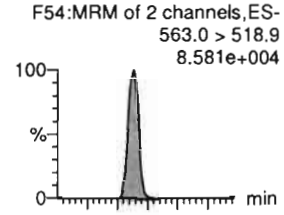


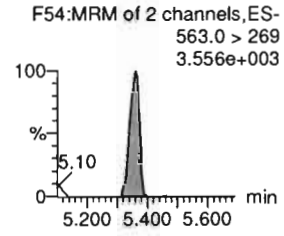
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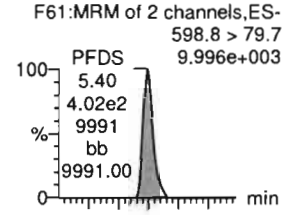


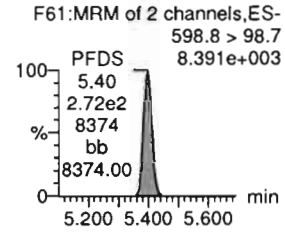
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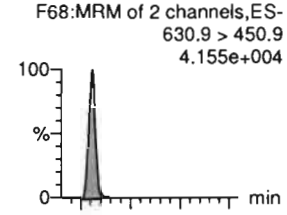


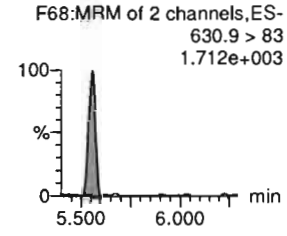
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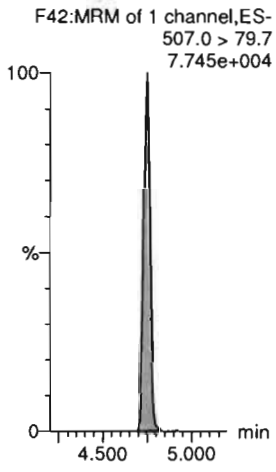


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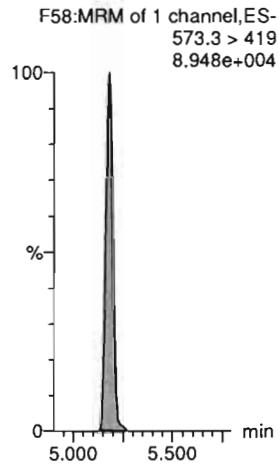




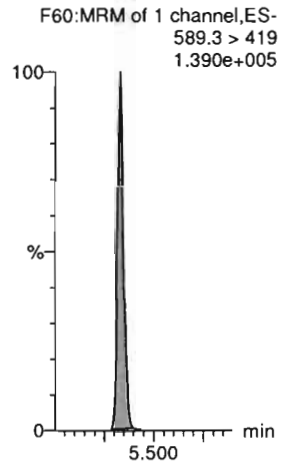
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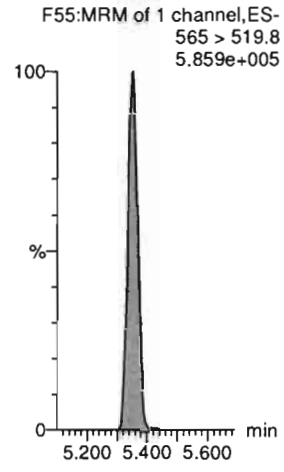
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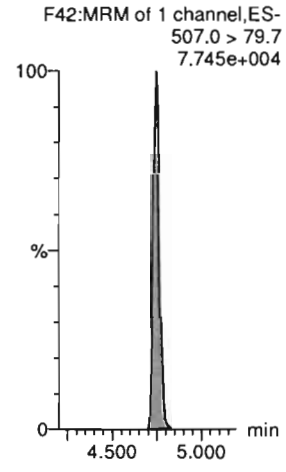
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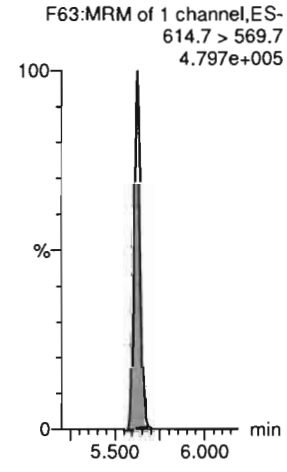
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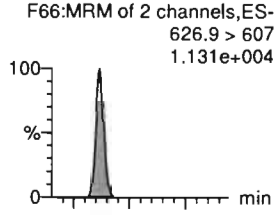


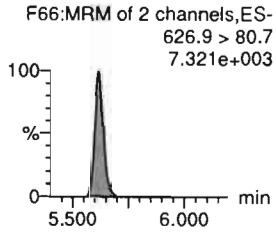
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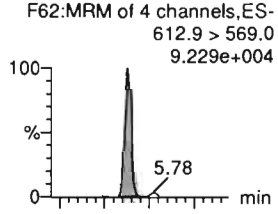
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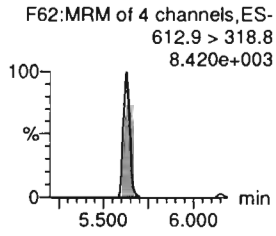
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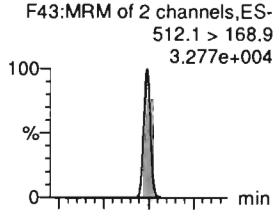


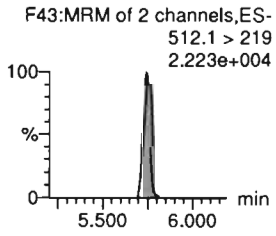
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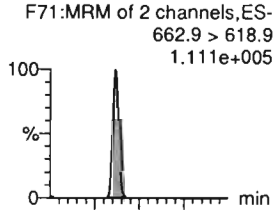


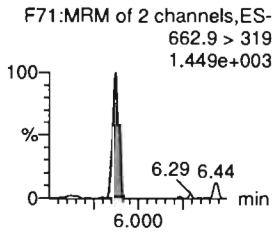
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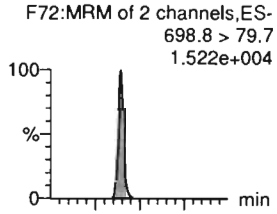


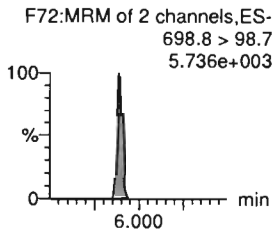
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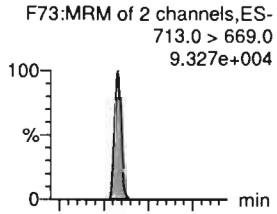


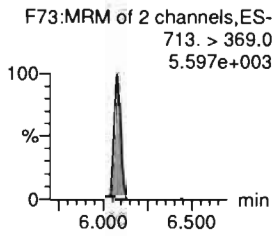
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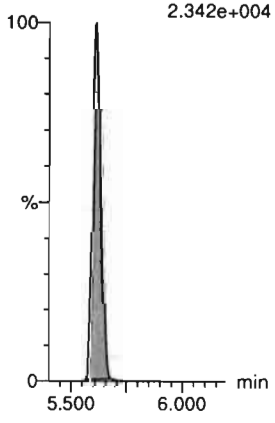


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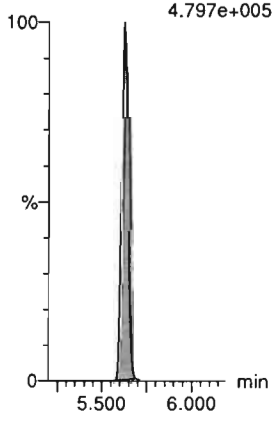




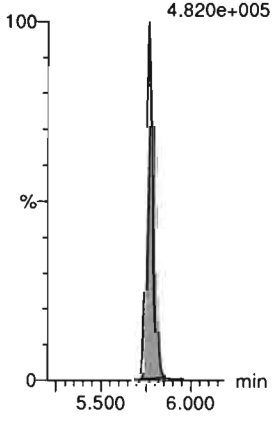
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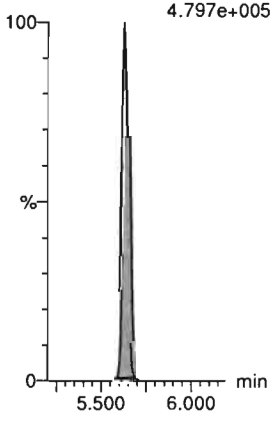
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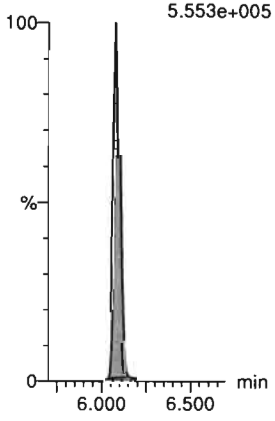
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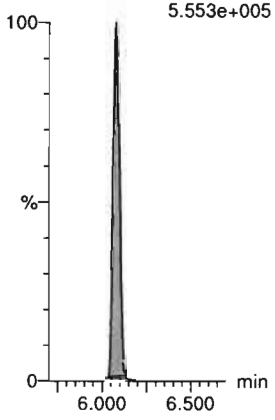
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

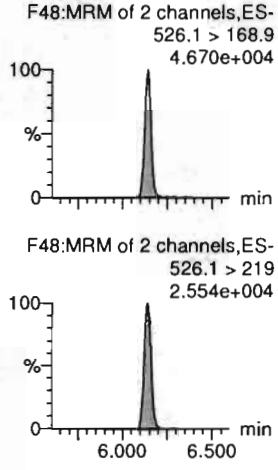


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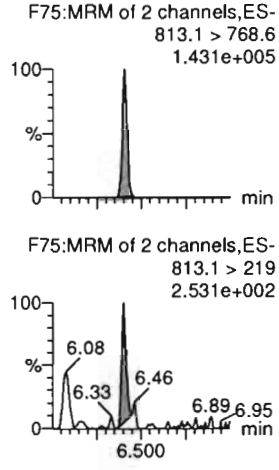
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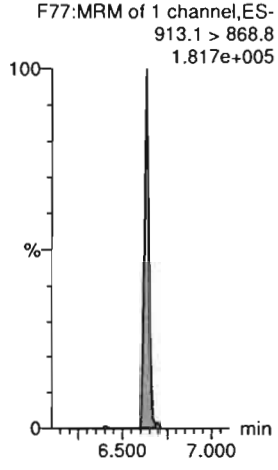
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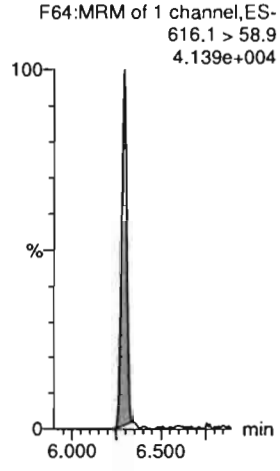
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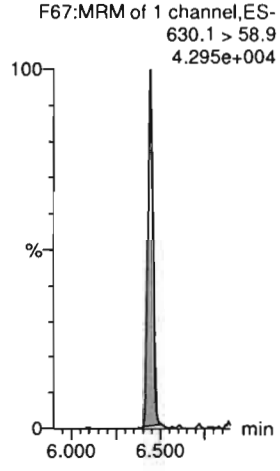
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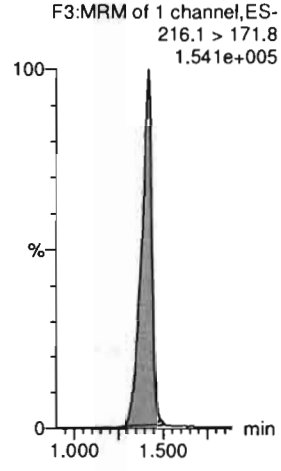
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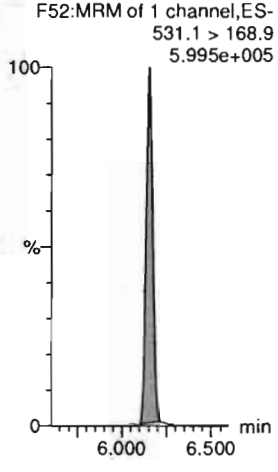
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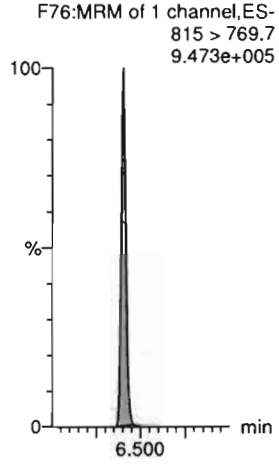
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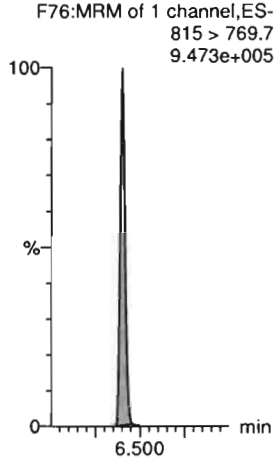
d5-N-ETFOSA-EIS



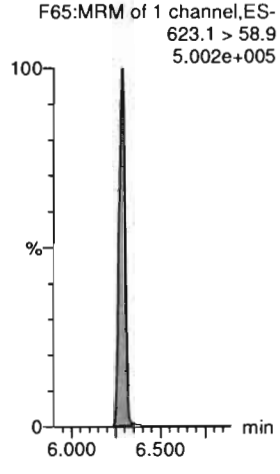
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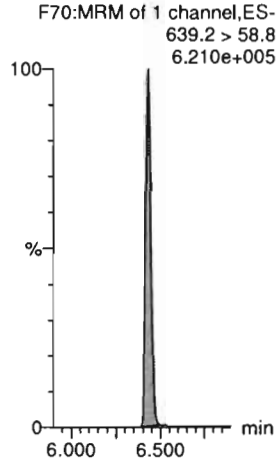
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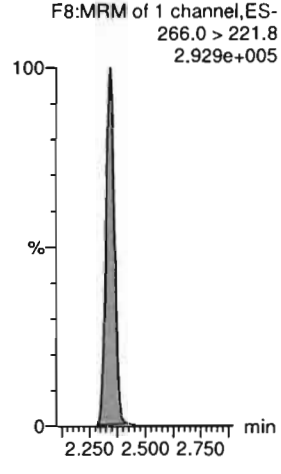
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d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

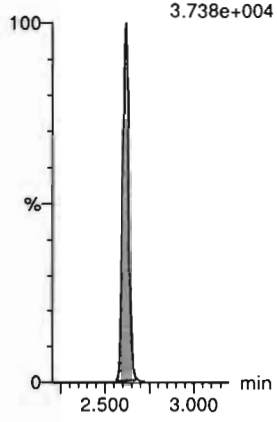


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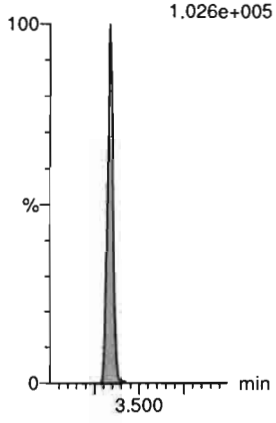
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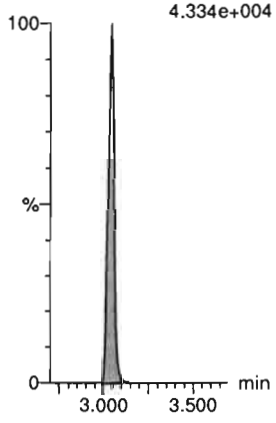
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.738e+004



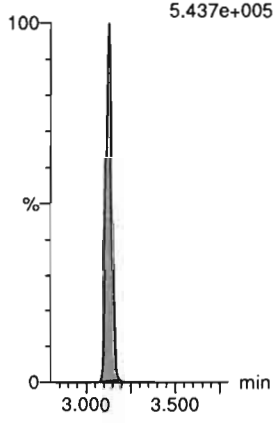
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.026e+005



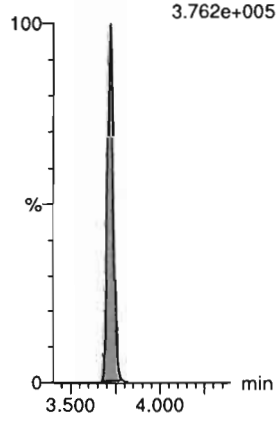
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.334e+004



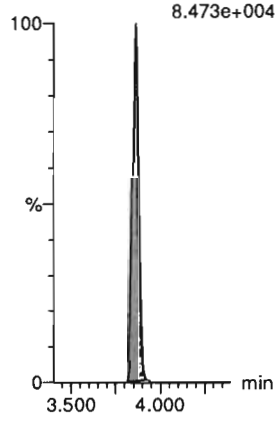
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F14:MRM of 1 channel,ES-
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5.437e+005



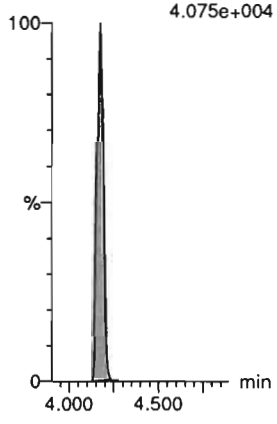
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F21:MRM of 1 channel,ES-
367.2 > 321.8
3.762e+005



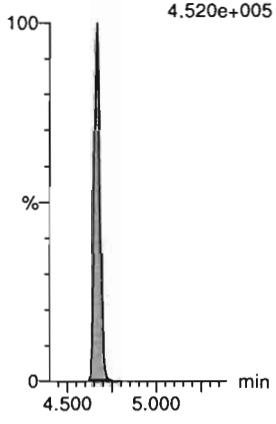
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.473e+004



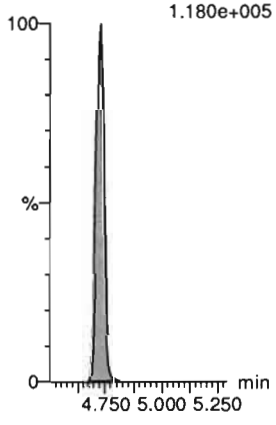
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F30:MRM of 1 channel,ES-
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4.075e+004



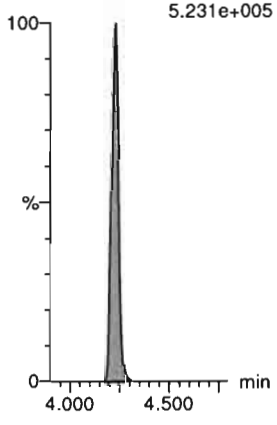
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F35:MRM of 1 channel,ES-
468.2 > 422.9
4.520e+005



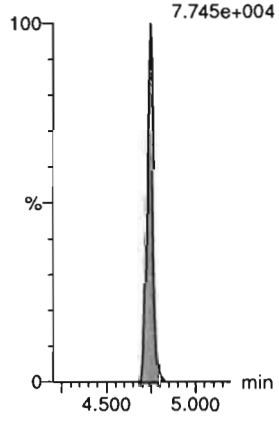
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.180e+005



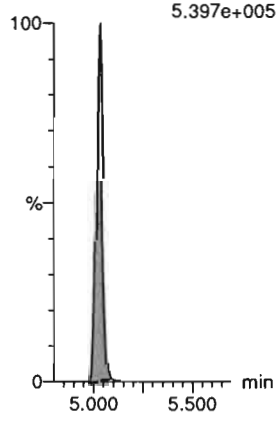
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
5.231e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
7.745e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.397e+005

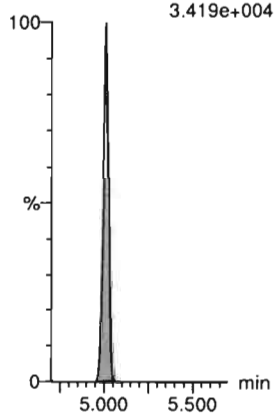


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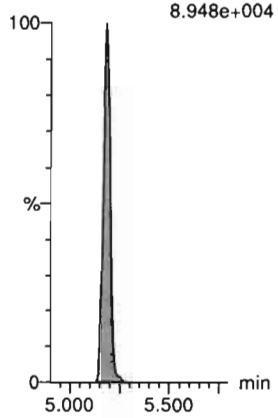
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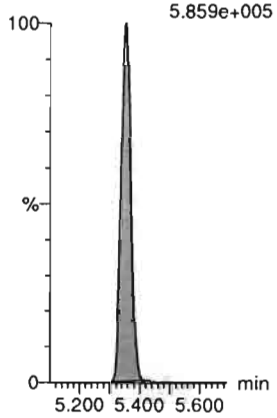
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F50:MRM of 1 channel,ES-
529 > 79.7
3.419e+004



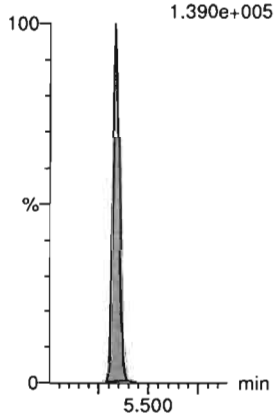
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F58:MRM of 1 channel,ES-
573.3 > 419
8.948e+004



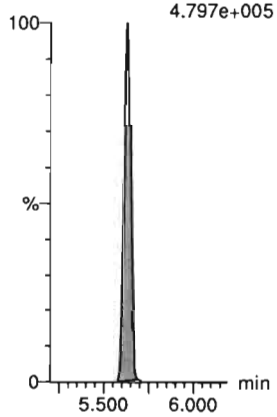
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F55:MRM of 1 channel,ES-
565 > 519.8
5.859e+005



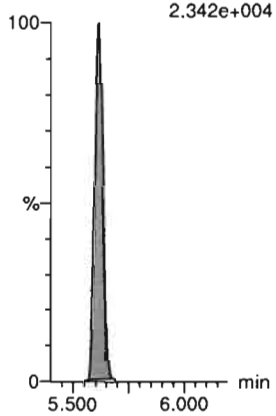
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F60:MRM of 1 channel,ES-
589.3 > 419
1.390e+005



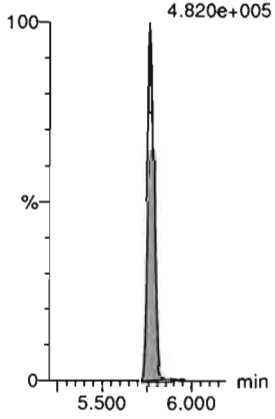
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F63:MRM of 1 channel,ES-
614.7 > 569.7
4.797e+005



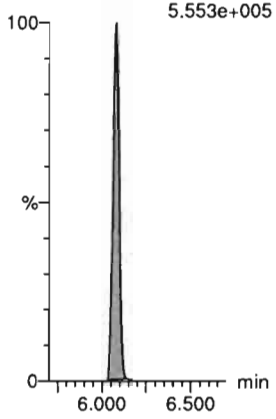
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.342e+004



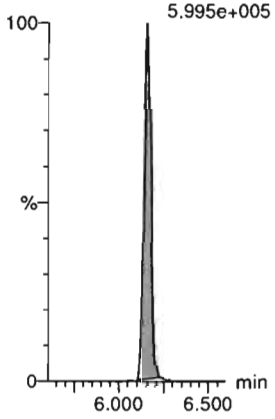
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.820e+005



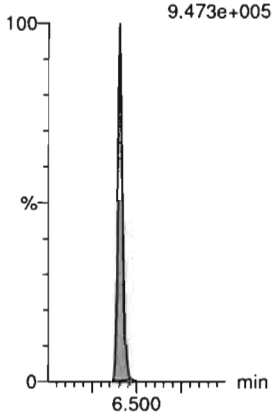
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.553e+005



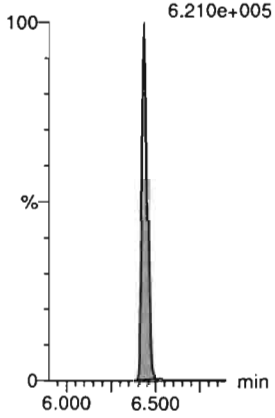
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.995e+005



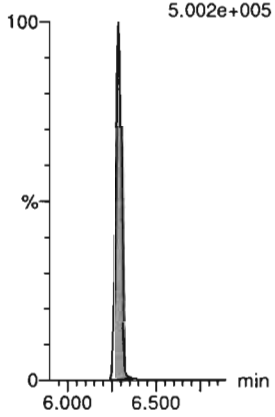
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.473e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.210e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
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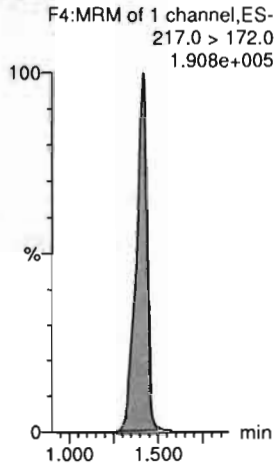


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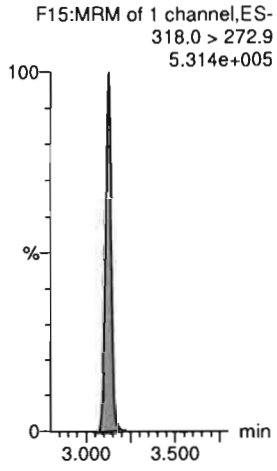
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Name: 200225P1-6, Date: 25-Feb-2020, Time: 18:51:13, ID: ST200225P1-4 PFC CS1 20B1105, Description: PFC CS1 20B1105

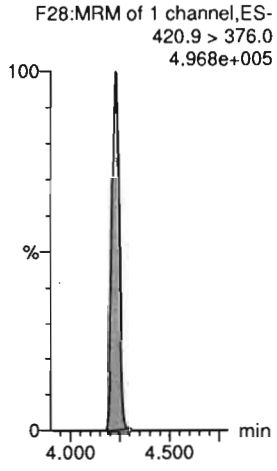
13C4-PFBA



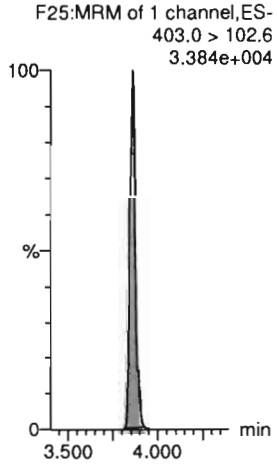
13C5-PFHxA



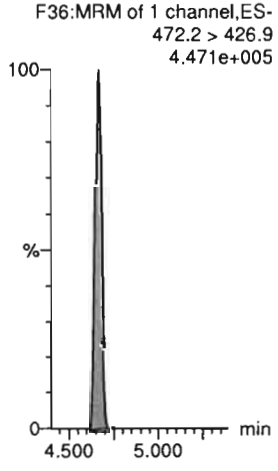
13C8-PFOA



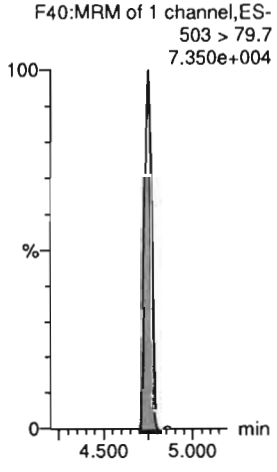
18O2-PFHxS



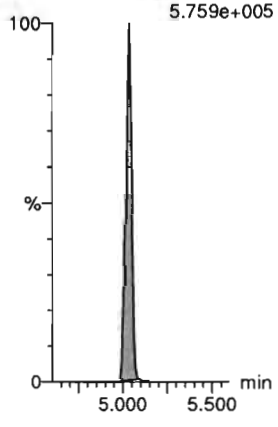
13C9-PFNA



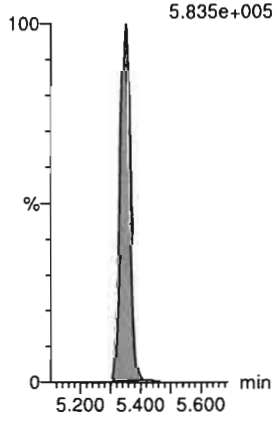
13C4-PFOS



13C6-PFDA



13C7-PFUdA

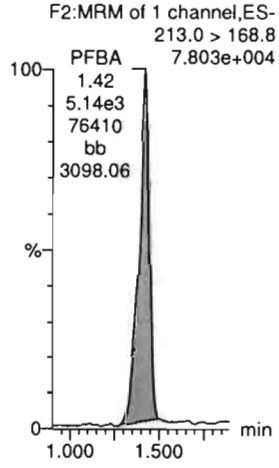


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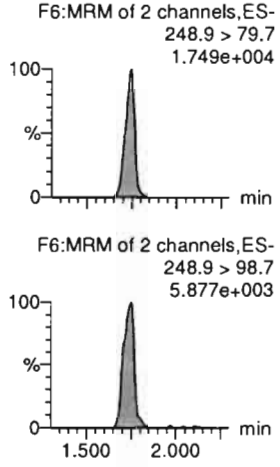
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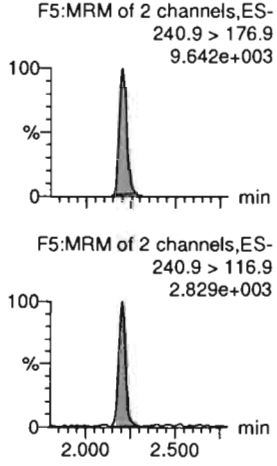
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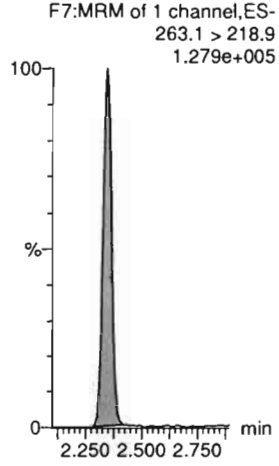
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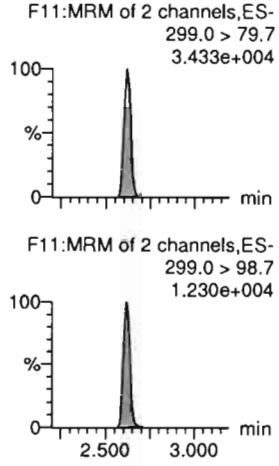
3:3 FTCA



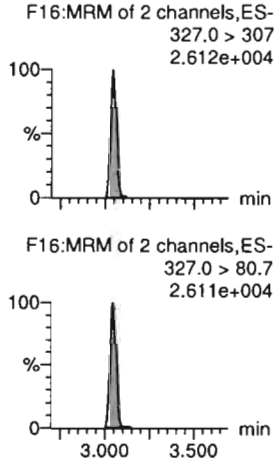
PFPeA



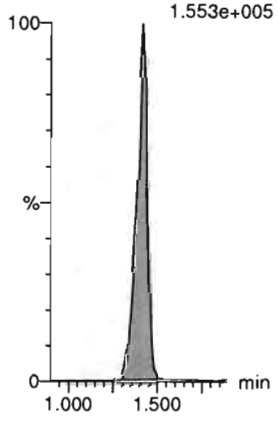
PFBS



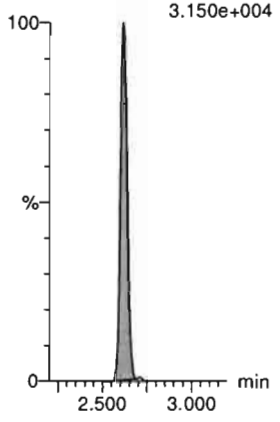
4:2 FTS



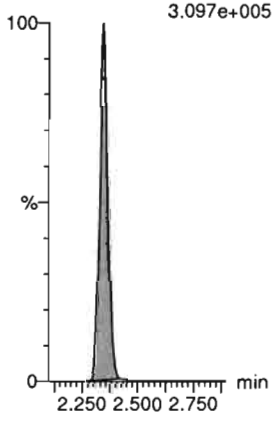
13C3-PFBA-EIS



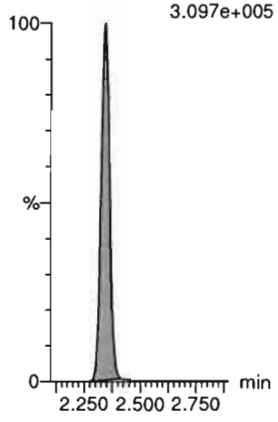
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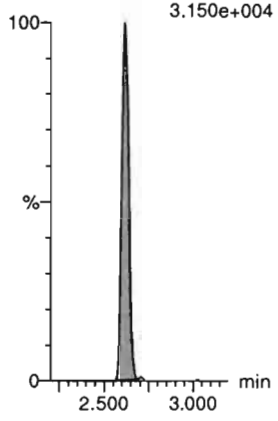
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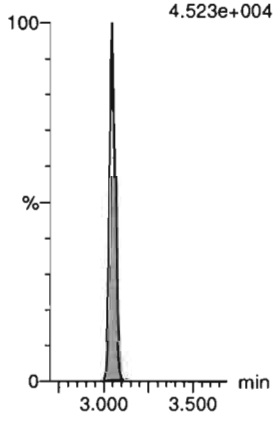
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

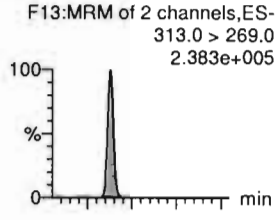


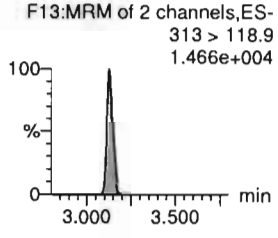
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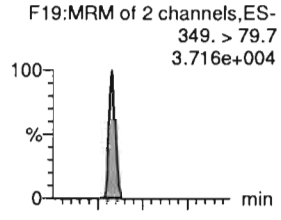
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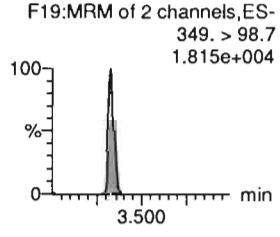
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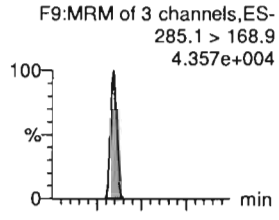


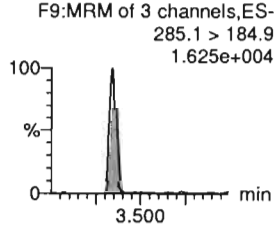
PFPeS



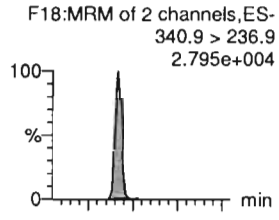


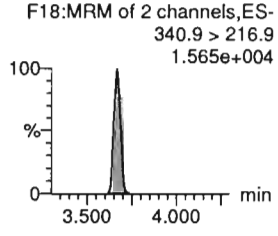
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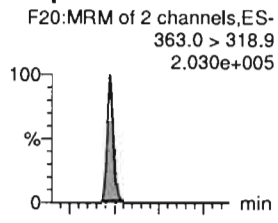


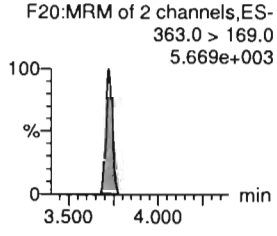
5:3 FTCA



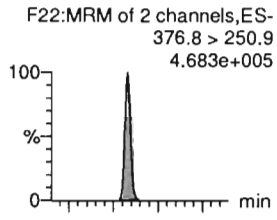


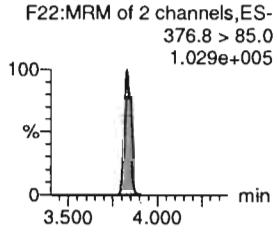
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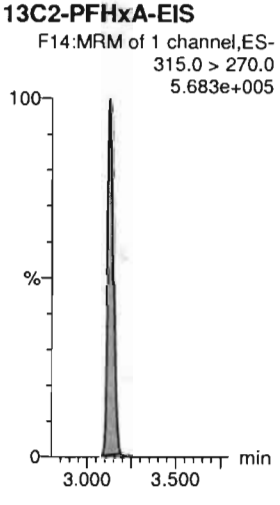


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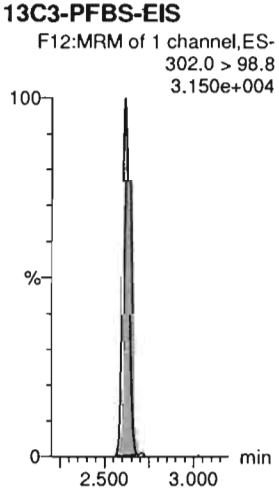




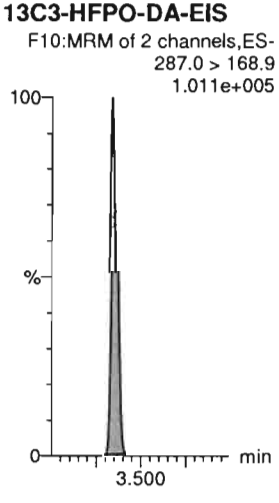
13C2-PFHxA-EIS



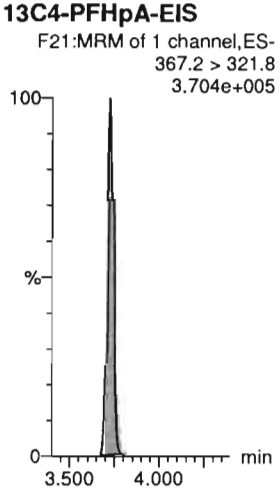
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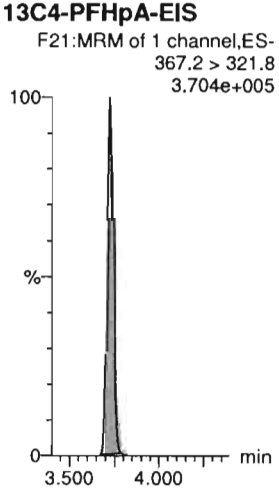
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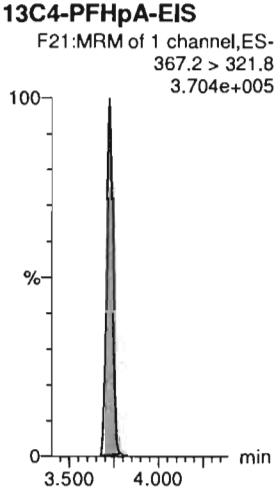
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

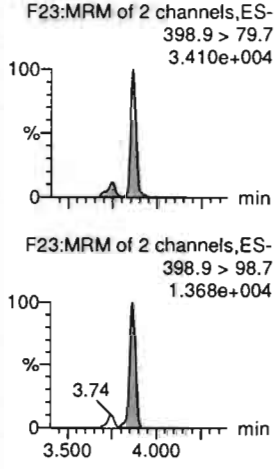


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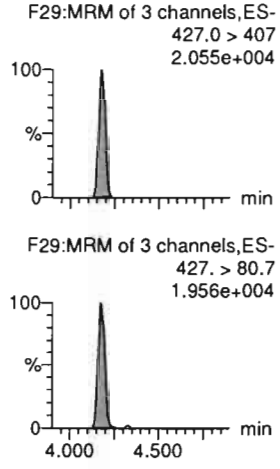
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-7, Date: 25-Feb-2020, Time: 19:01:42, ID: ST200225P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

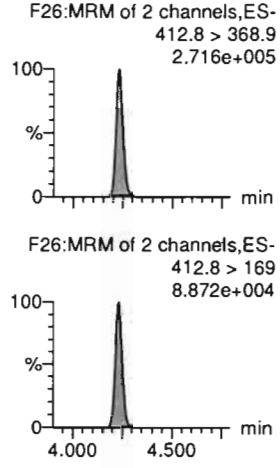
L-PFHxS



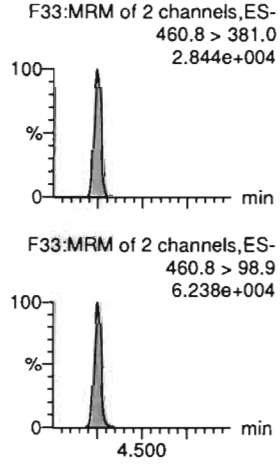
6:2 FTS



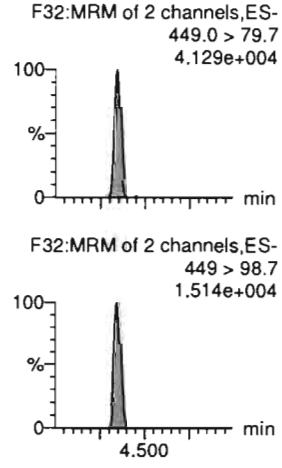
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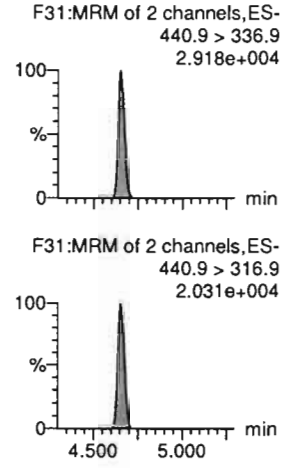
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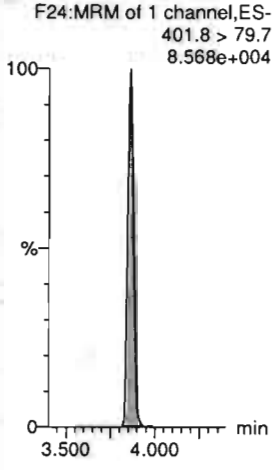
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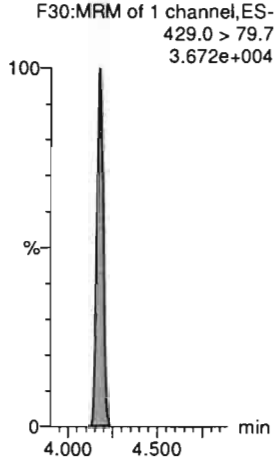
7:3 FTCA



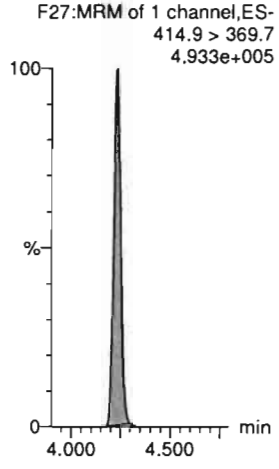
13C3-PFHxS-EIS



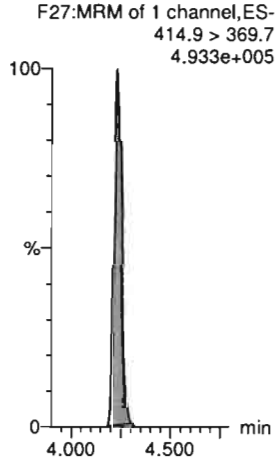
13C2-6:2 FTS-EIS



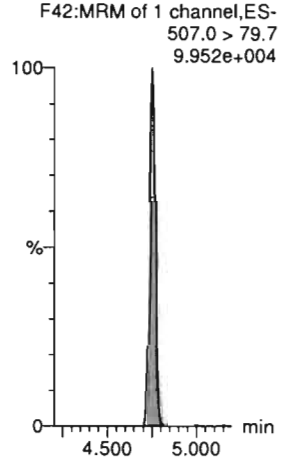
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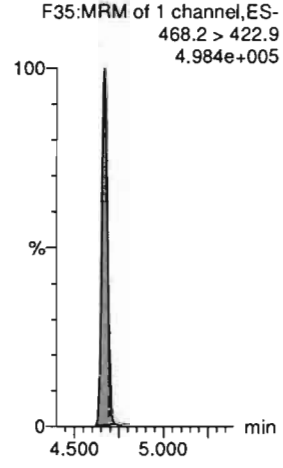
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13C8-PFOS-EIS



13C5-PFNA-EIS

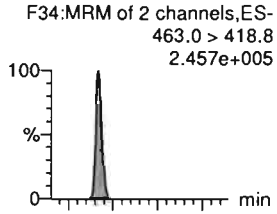


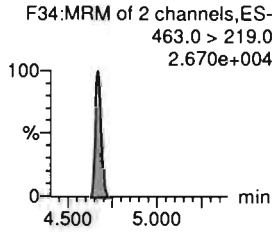
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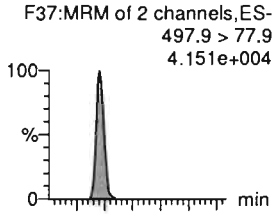
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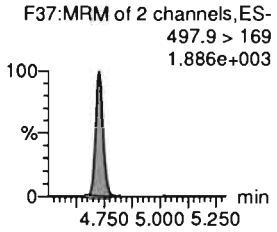
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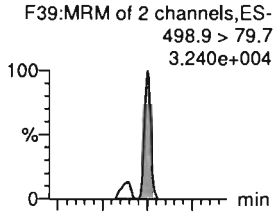


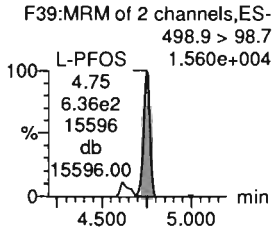
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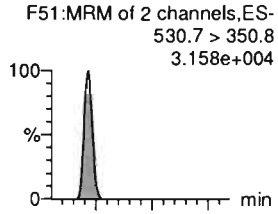


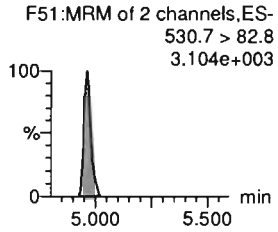
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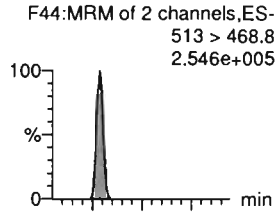


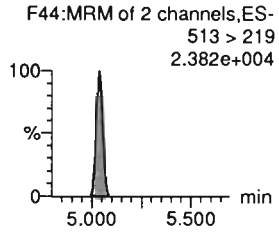
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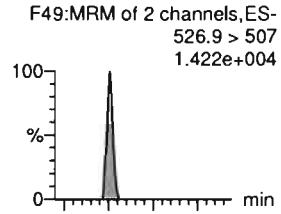


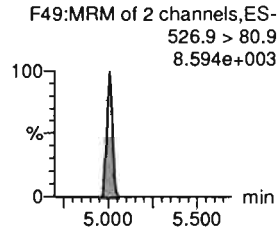
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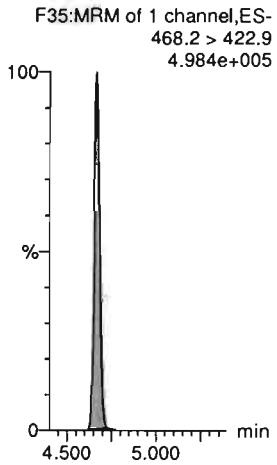


8:2 FTS

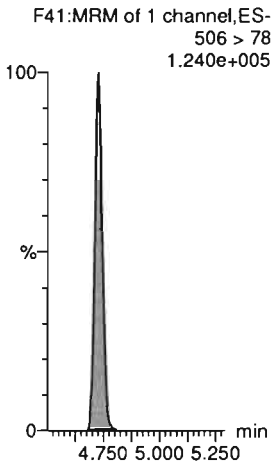




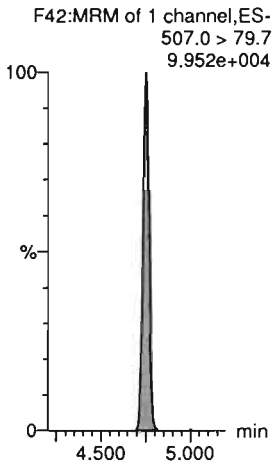
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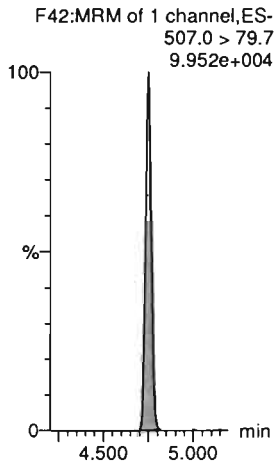
13C8-PFOSA-EIS



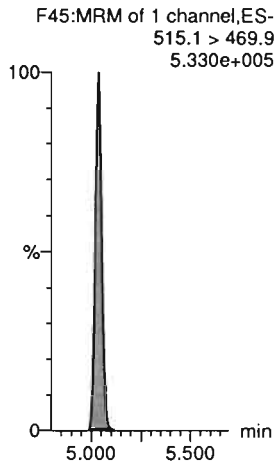
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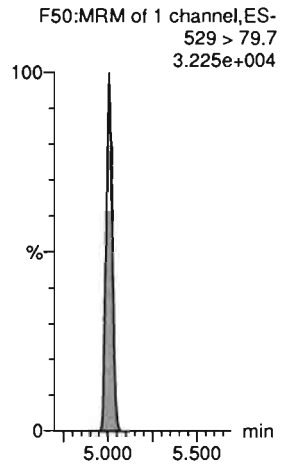
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

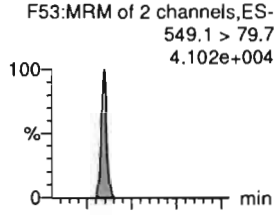


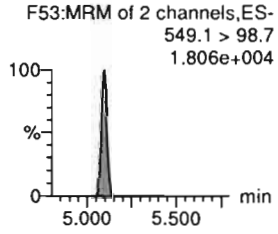
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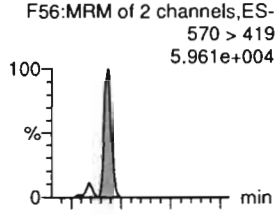
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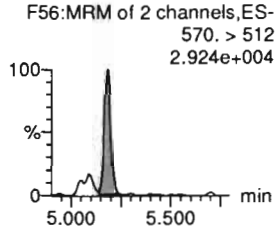
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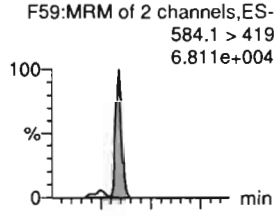


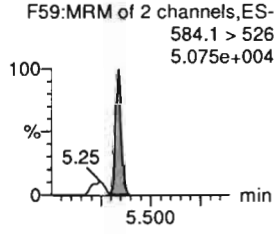
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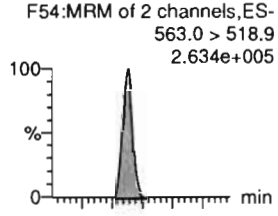


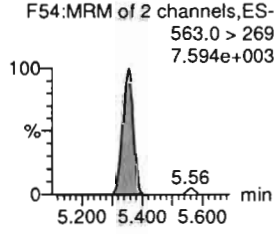
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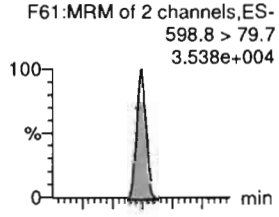


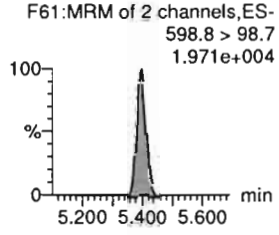
PFUdA



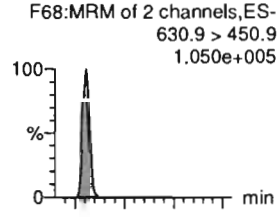


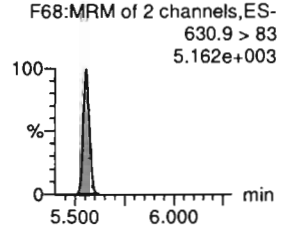
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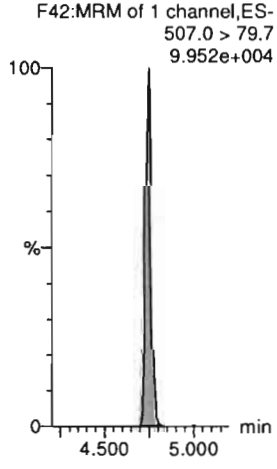


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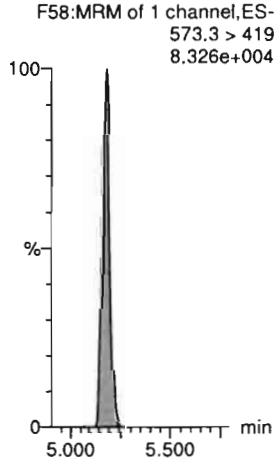




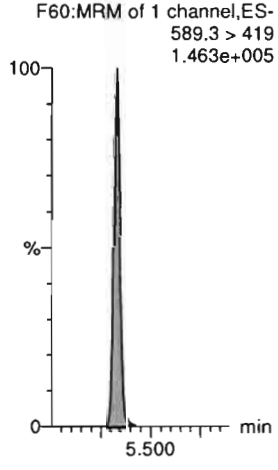
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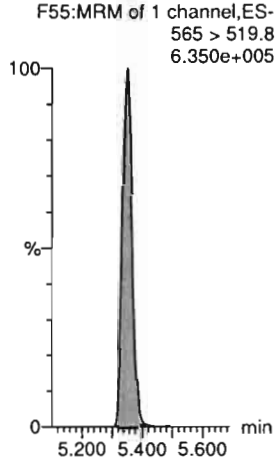
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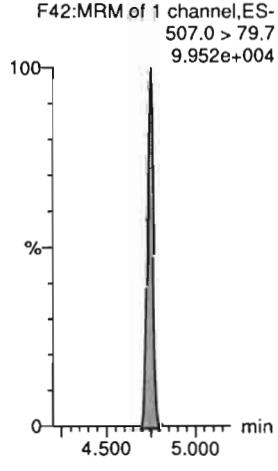
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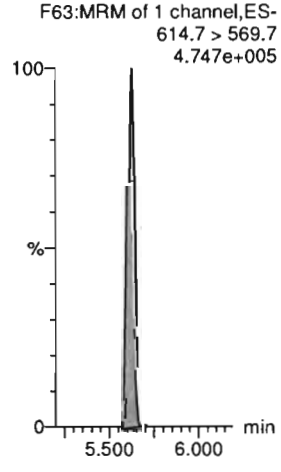
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

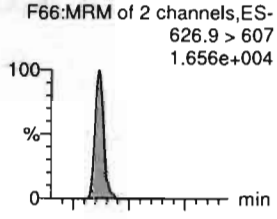


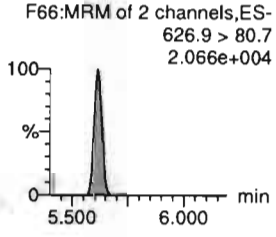
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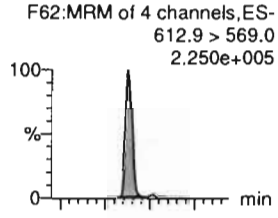
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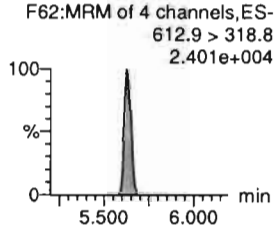
10:2 FTS



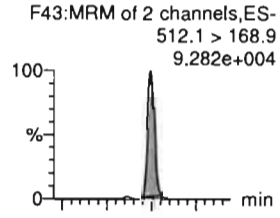


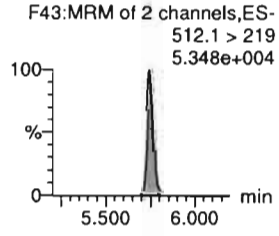
PFDoA



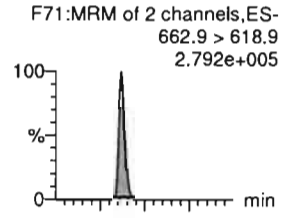


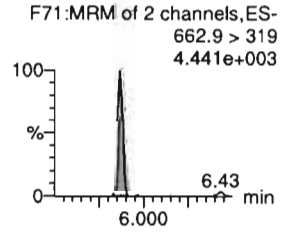
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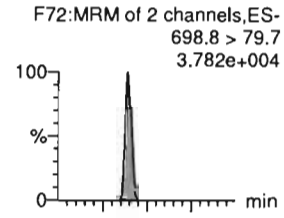


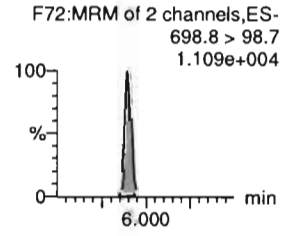
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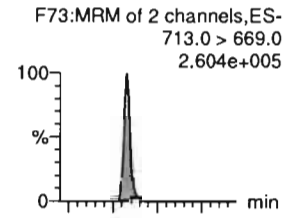


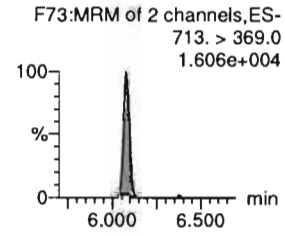
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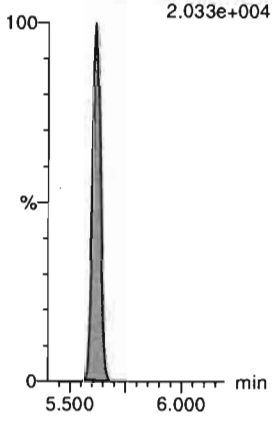


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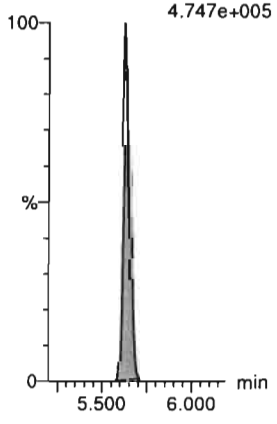




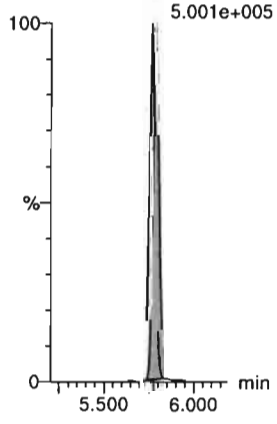
13C2-10:2 FTS-EIS



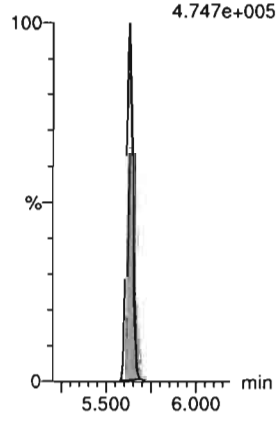
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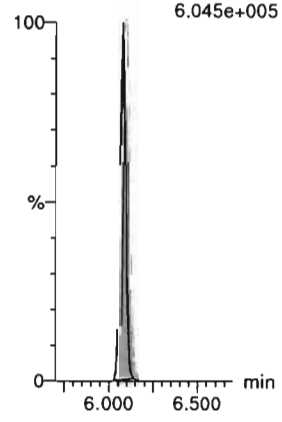
d3-N-MeFOSA-EIS



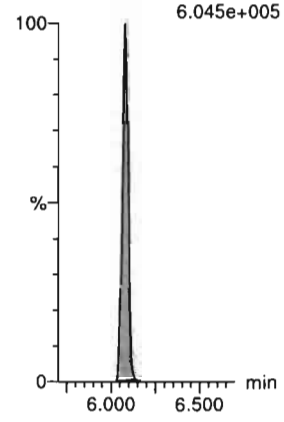
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

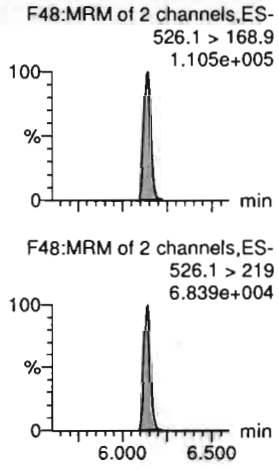


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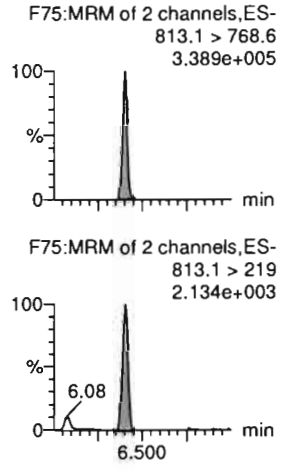
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-7, Date: 25-Feb-2020, Time: 19:01:42, ID: ST200225P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

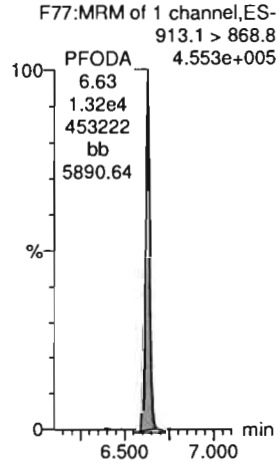
N-EtFOSA



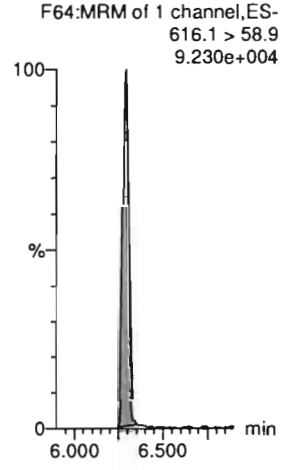
PFHxDA



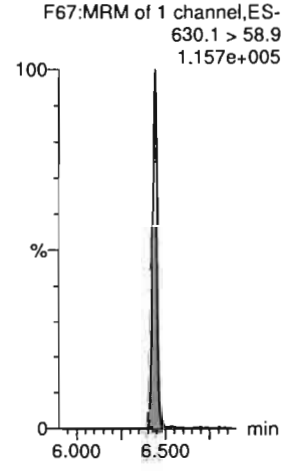
PFODA



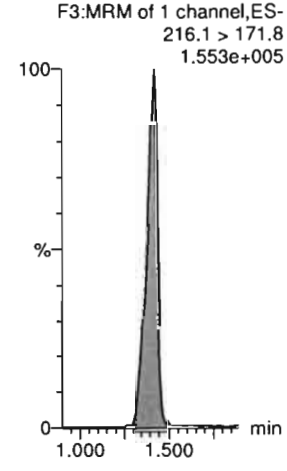
N-MeFOSE



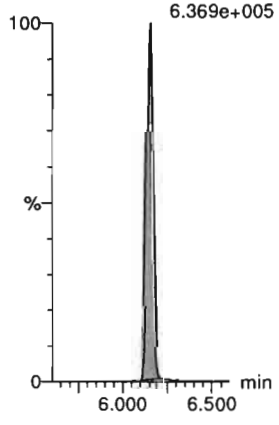
N-EtFOSE



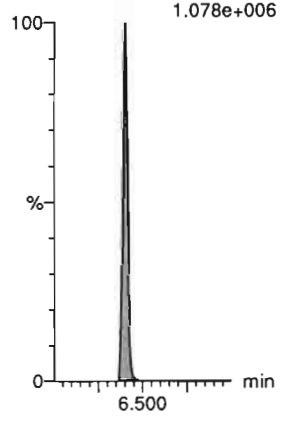
13C3-PFBA-RSD



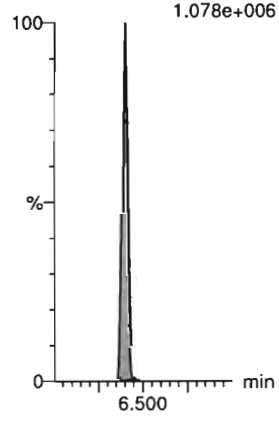
d5-N-ETFOSA-EIS



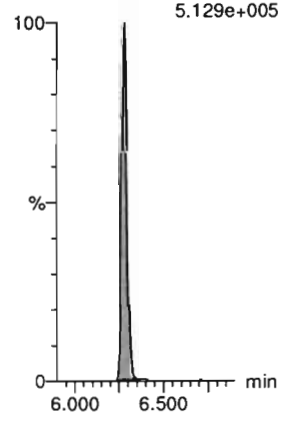
13C2-PFHxDA-EIS



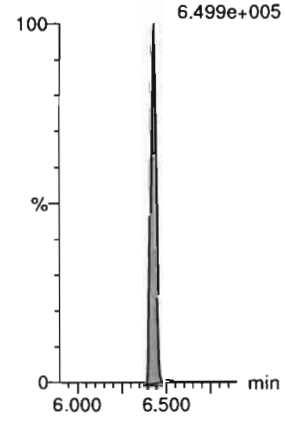
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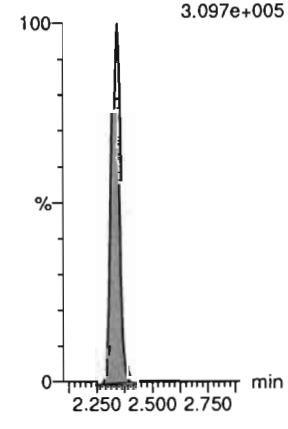
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

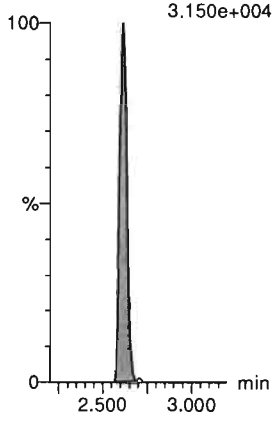


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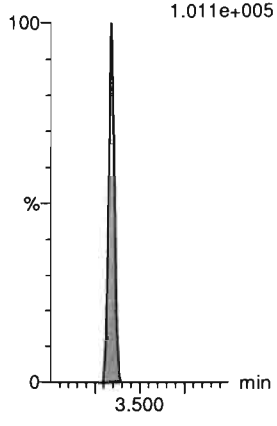
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Name: 200225P1-7, Date: 25-Feb-2020, Time: 19:01:42, ID: ST200225P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

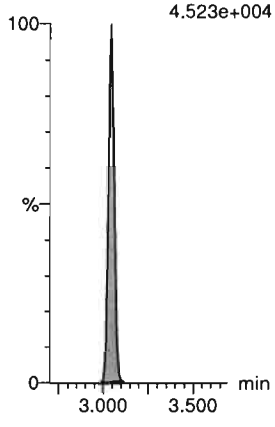
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.150e+004



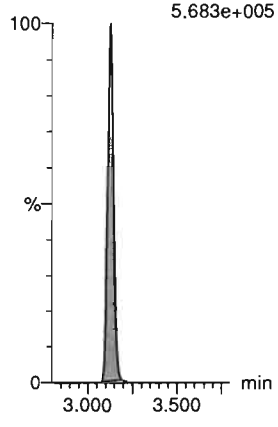
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.011e+005



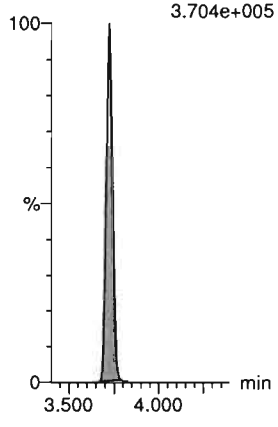
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.523e+004



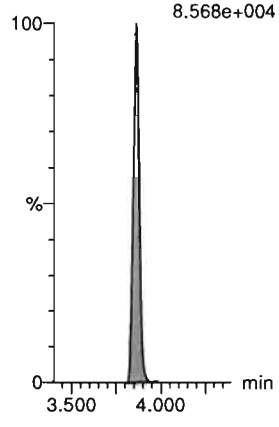
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.683e+005



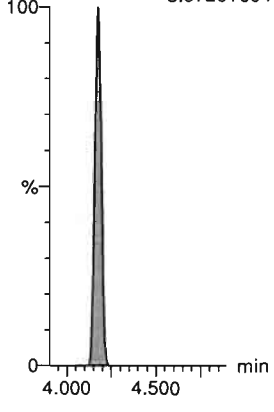
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.704e+005



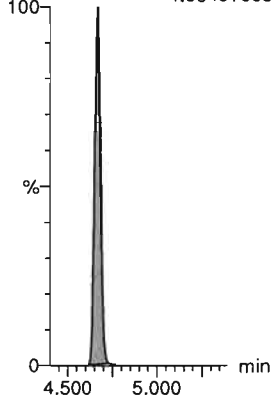
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.568e+004



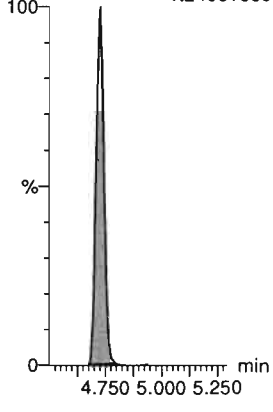
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.672e+004



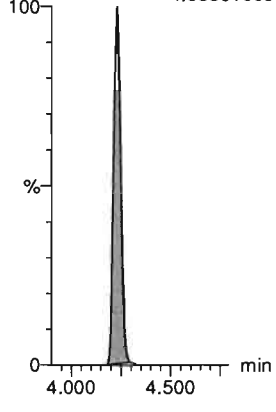
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.984e+005



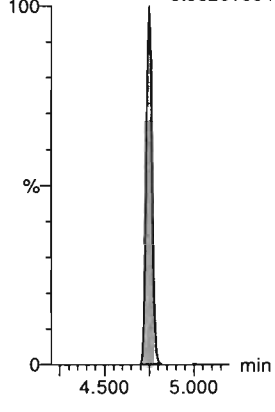
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.240e+005



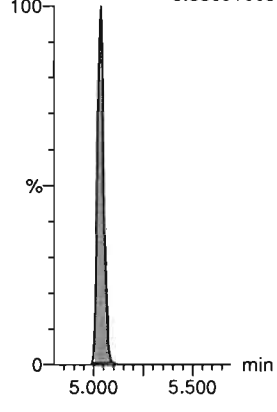
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.933e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.952e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.330e+005

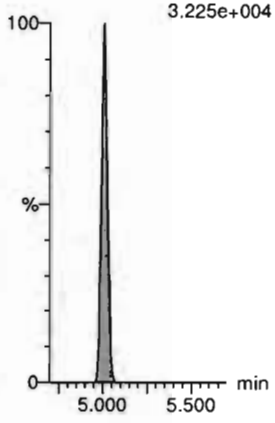


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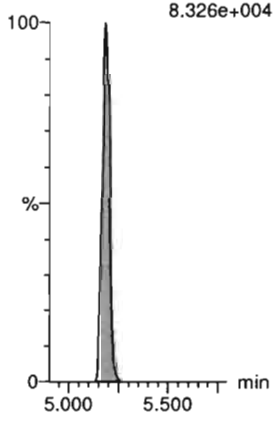
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Name: 200225P1-7, Date: 25-Feb-2020, Time: 19:01:42, ID: ST200225P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

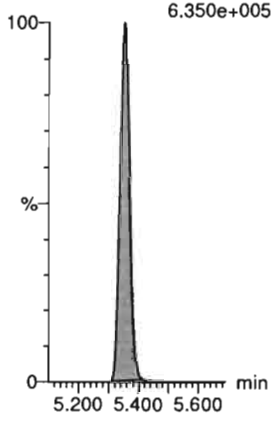
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.225e+004



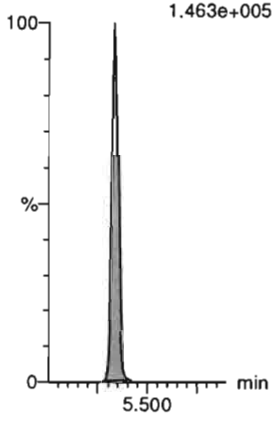
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.326e+004



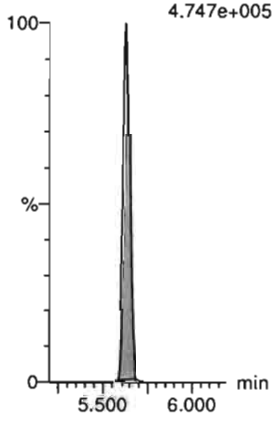
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
6.350e+005



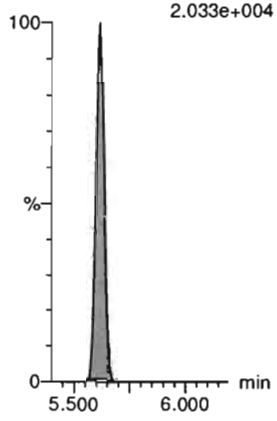
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.463e+005



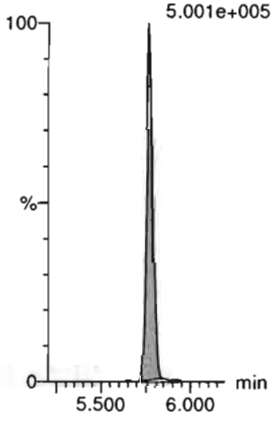
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.747e+005



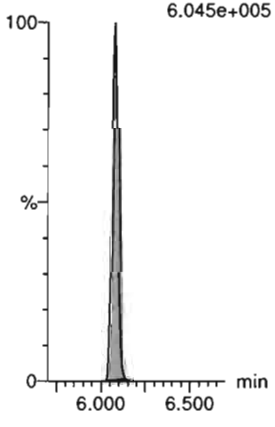
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.033e+004



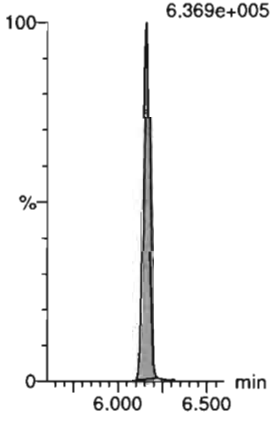
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
5.001e+005



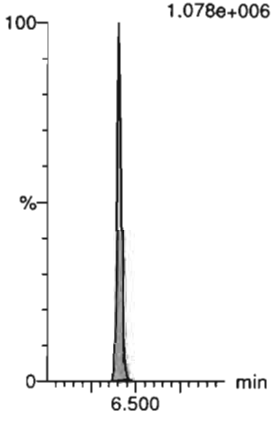
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
6.045e+005



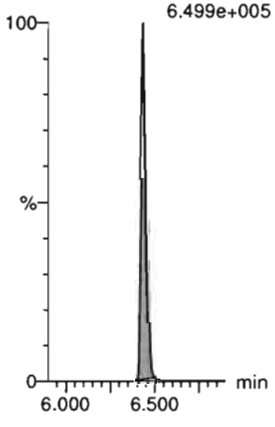
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
6.369e+005



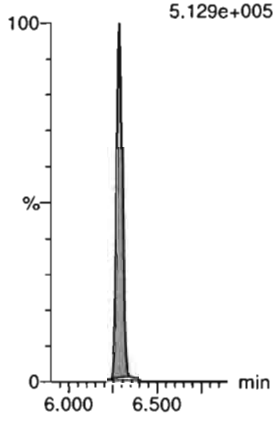
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
1.078e+006



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.499e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.129e+005

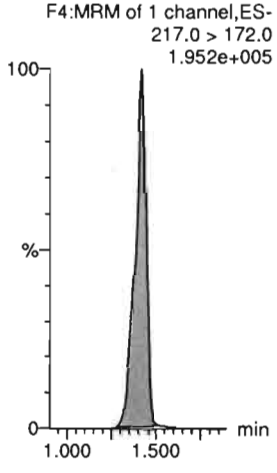


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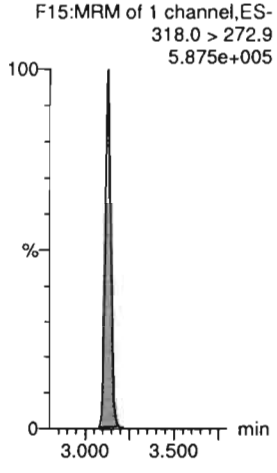
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Name: 200225P1-7, Date: 25-Feb-2020, Time: 19:01:42, ID: ST200225P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

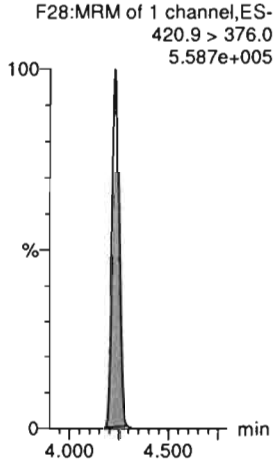
13C4-PFBA



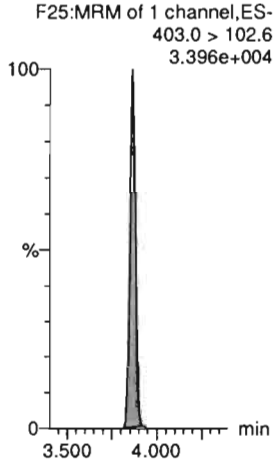
13C5-PFHxA



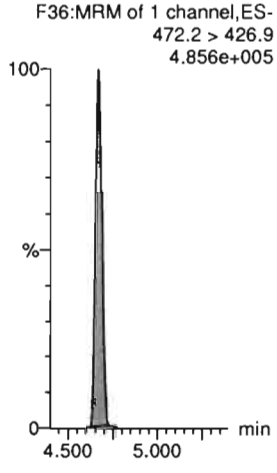
13C8-PFOA



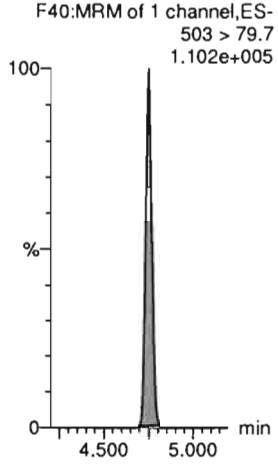
18O2-PFHxS



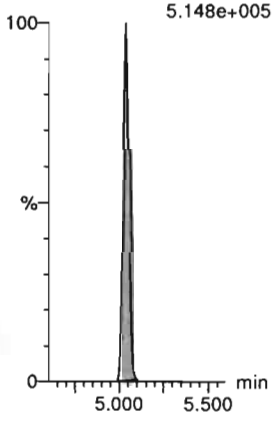
13C9-PFNA



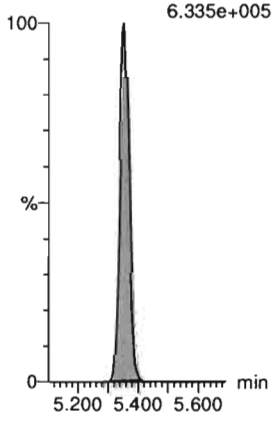
13C4-PFOS



13C6-PFDA



13C7-PFUdA

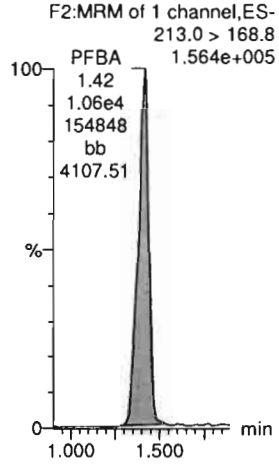


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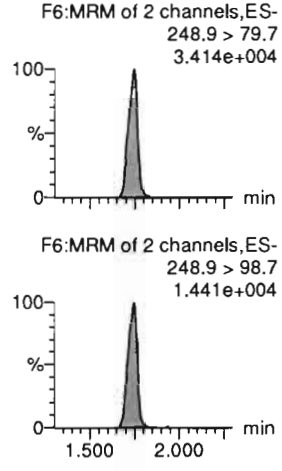
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Name: 200225P1-8, Date: 25-Feb-2020, Time: 19:12:14, ID: ST200225P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

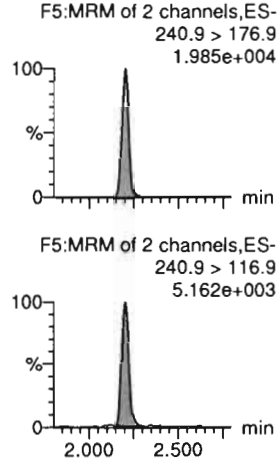
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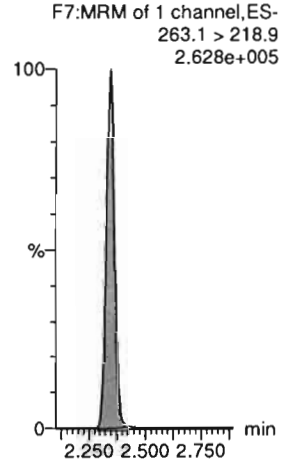
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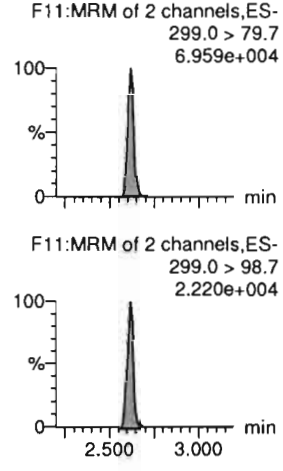
3:3 FTCA



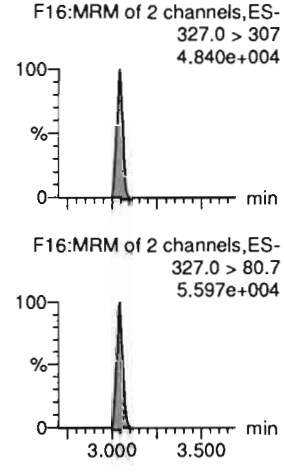
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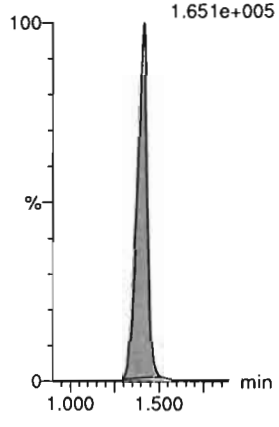
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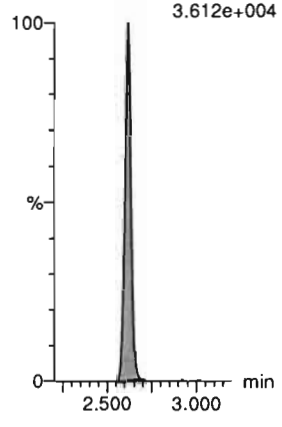
4:2 FTS



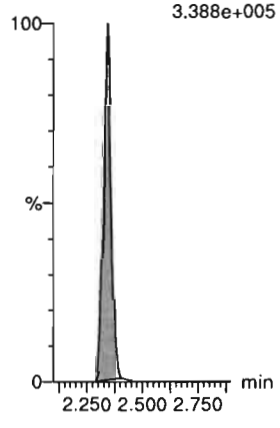
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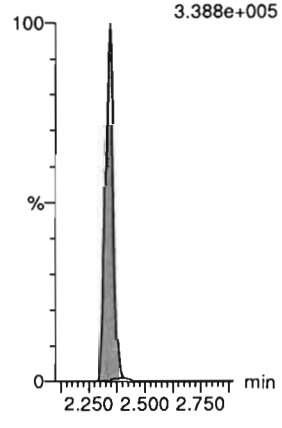
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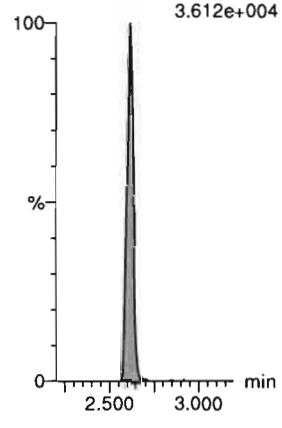
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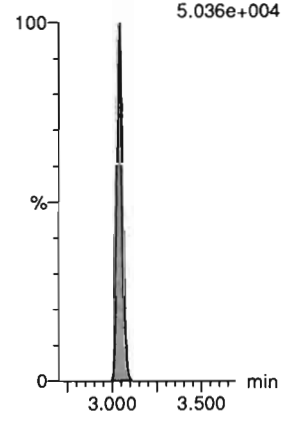
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13C3-PFBS-EIS



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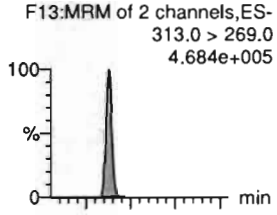


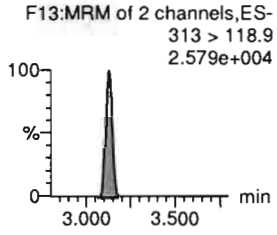
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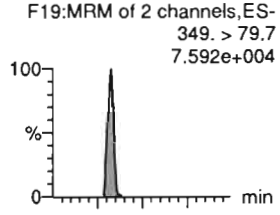
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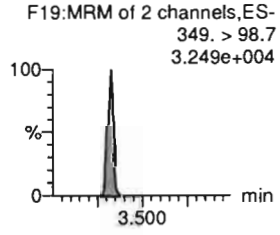
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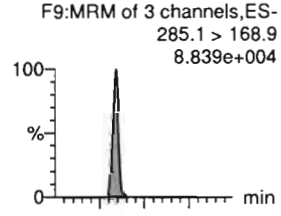


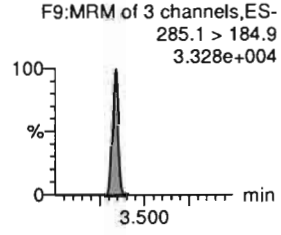
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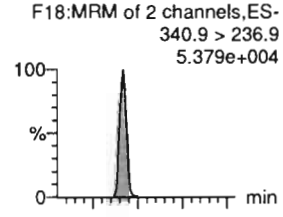


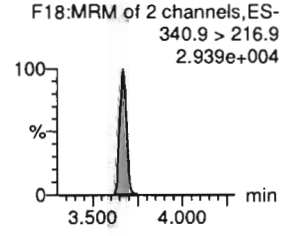
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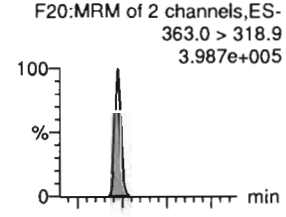


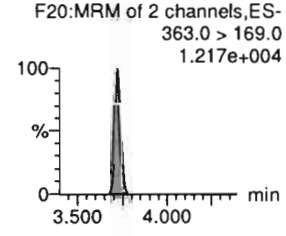
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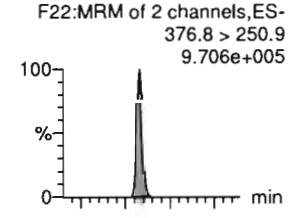


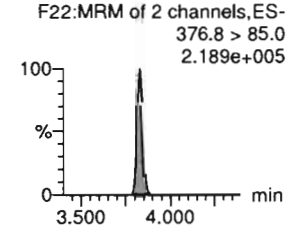
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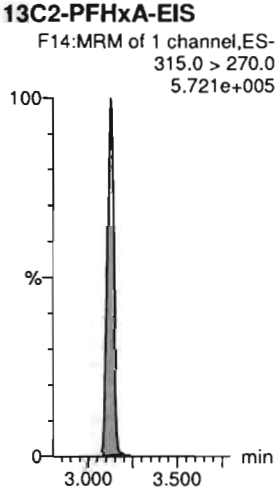


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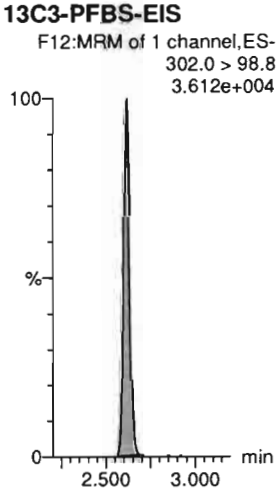




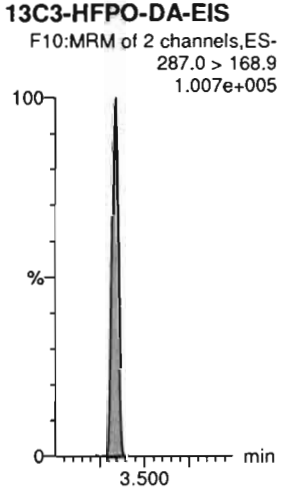
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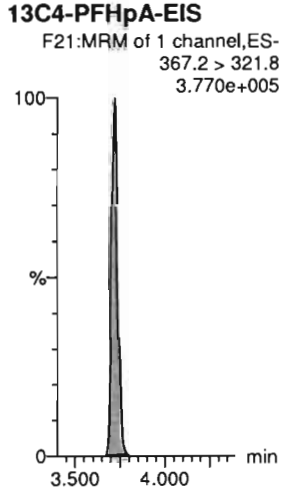
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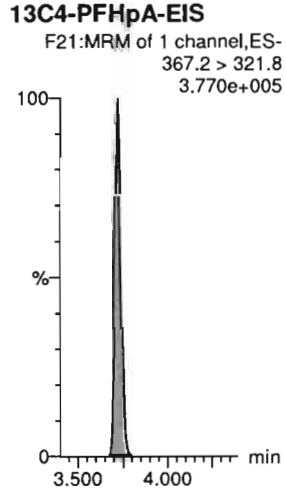
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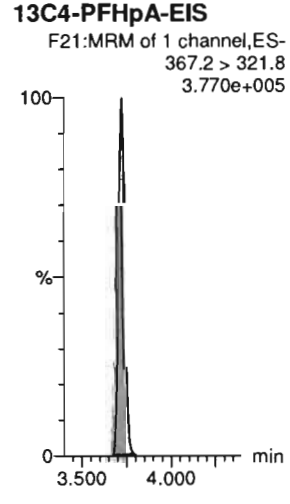
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

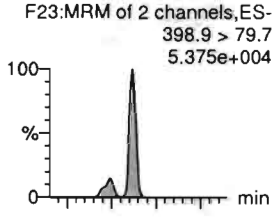


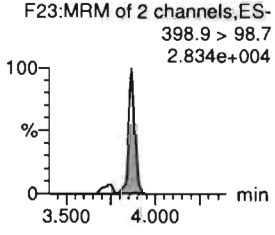
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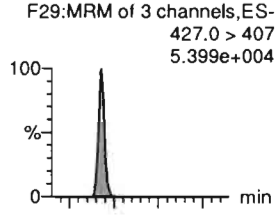
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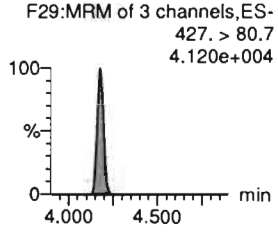
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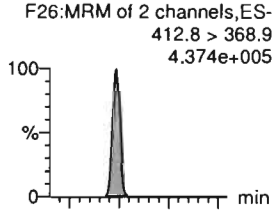


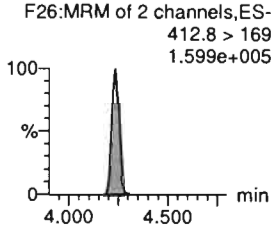
6:2 FTS



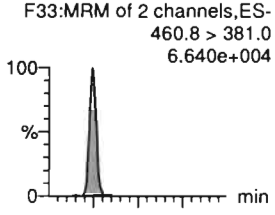


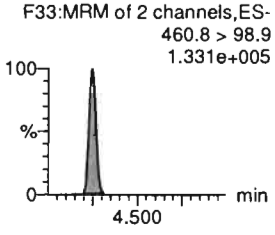
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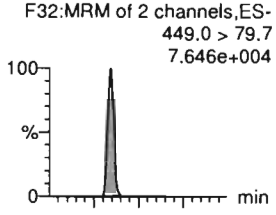


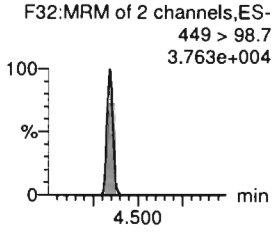
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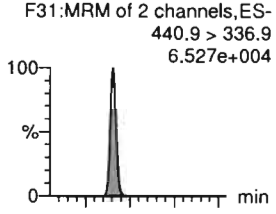


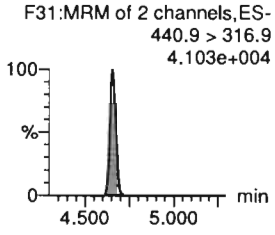
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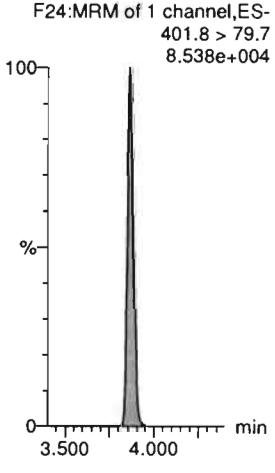


7:3 FTCA

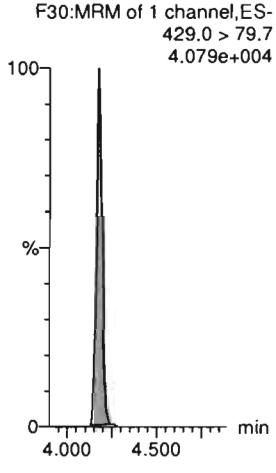




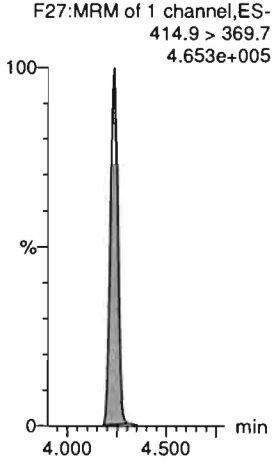
13C3-PFHxS-EIS



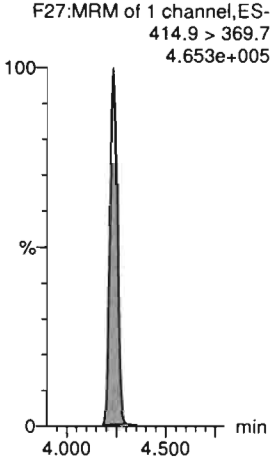
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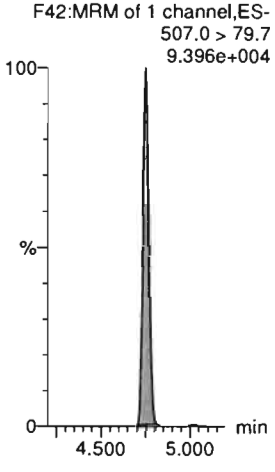
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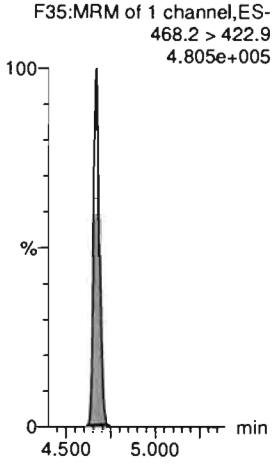
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13C8-PFOS-EIS



13C5-PFNA-EIS

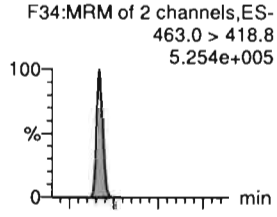


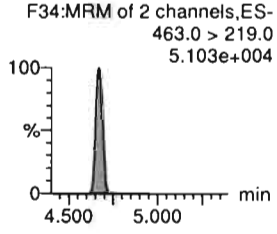
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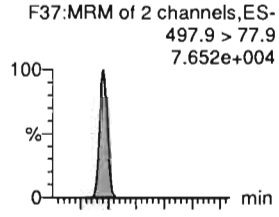
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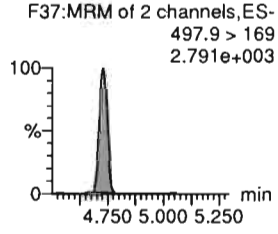
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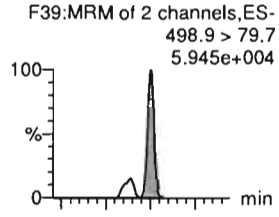


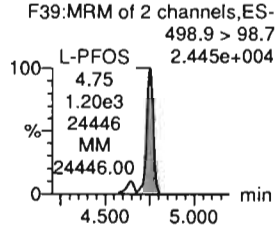
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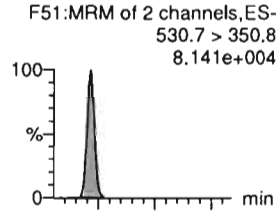


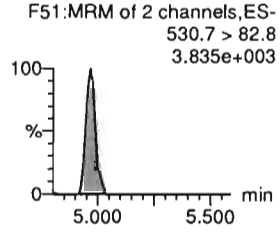
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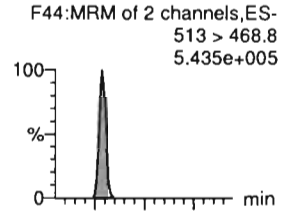


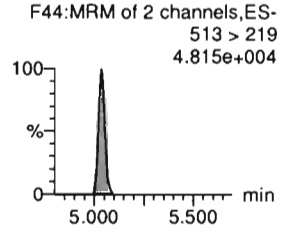
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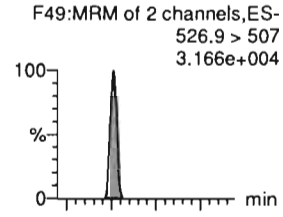


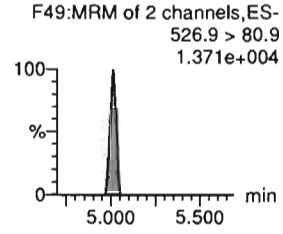
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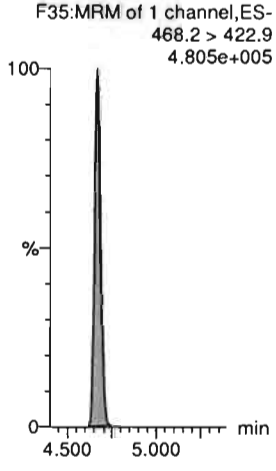


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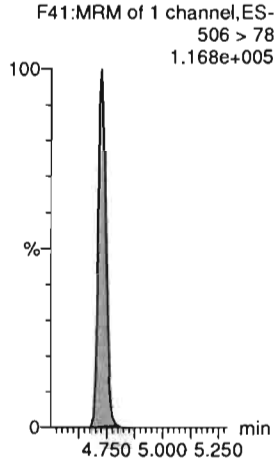




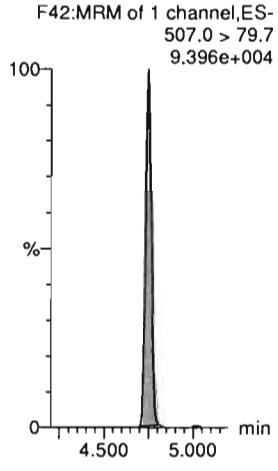
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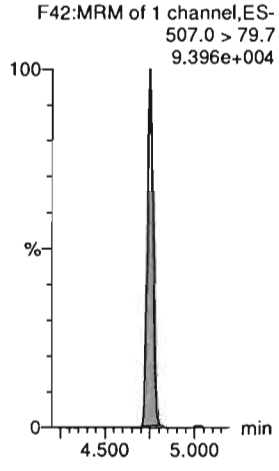
13C8-PFOSA-EIS



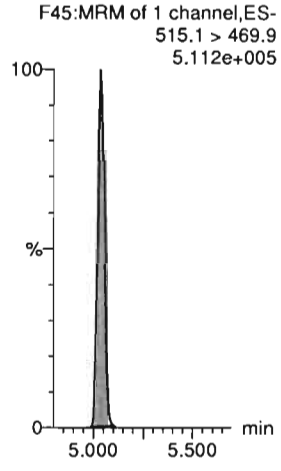
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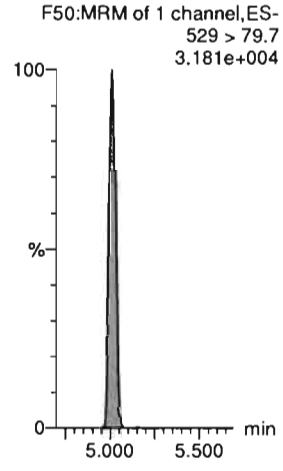
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

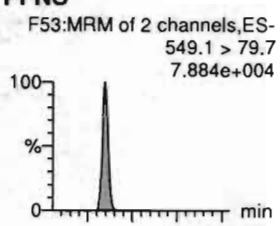


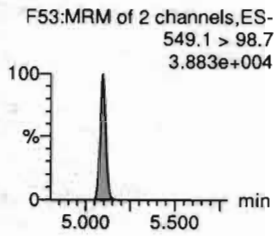
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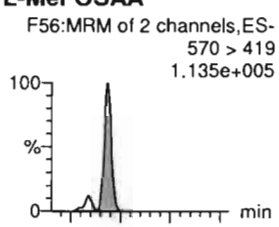
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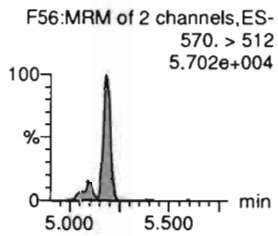
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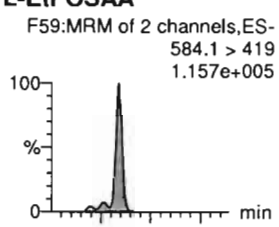


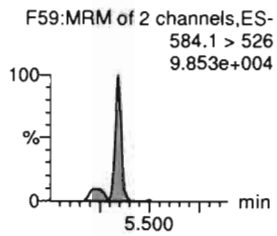
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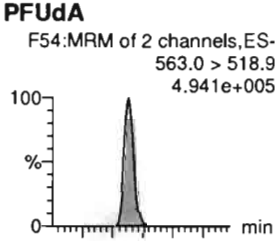


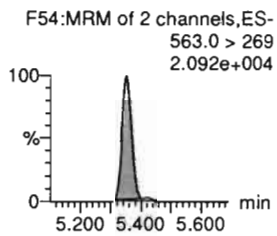
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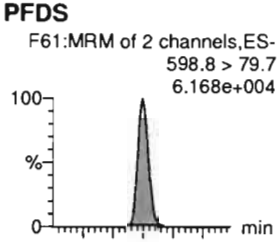


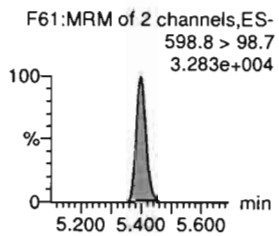
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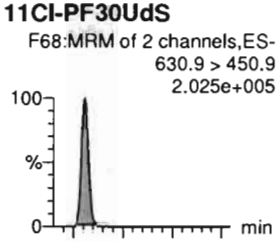


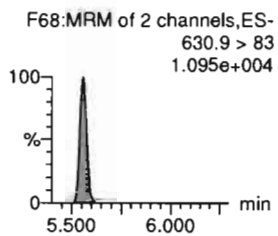
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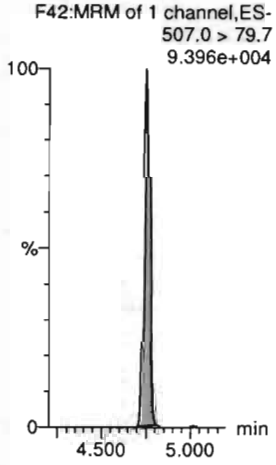


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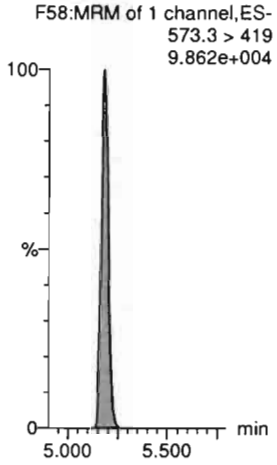




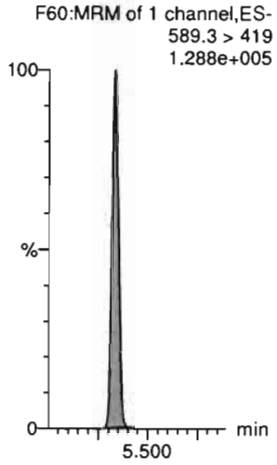
13C8-PFOS-EIS



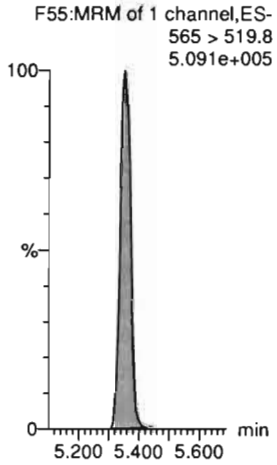
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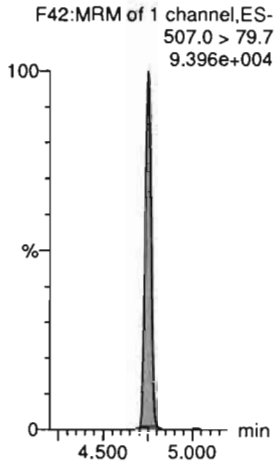
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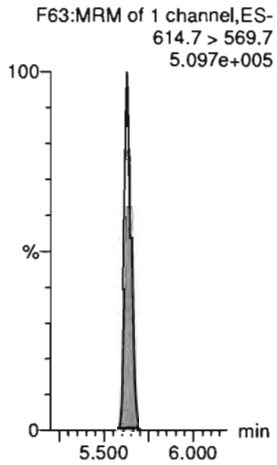
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

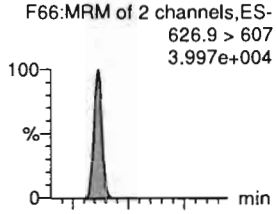


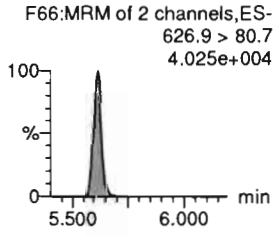
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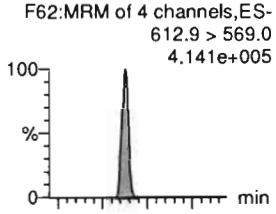
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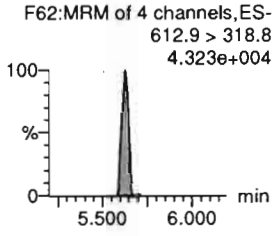
10:2 FTS



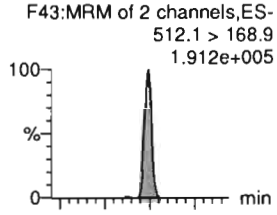


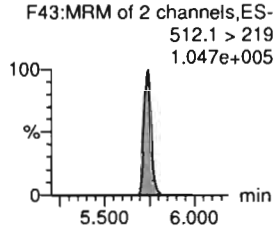
PFDoA



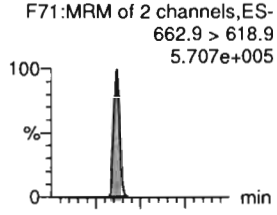


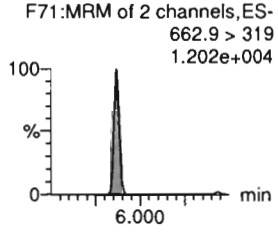
N-MeFOSA



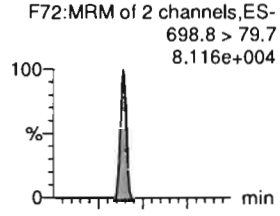


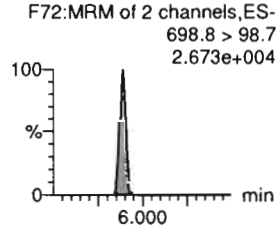
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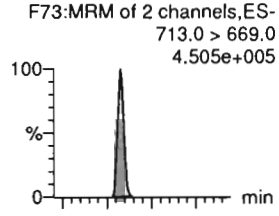


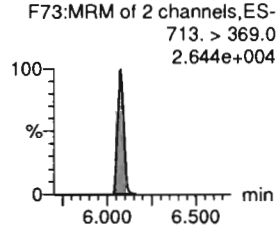
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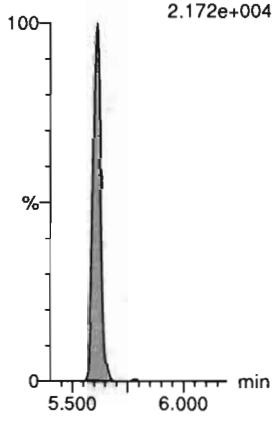


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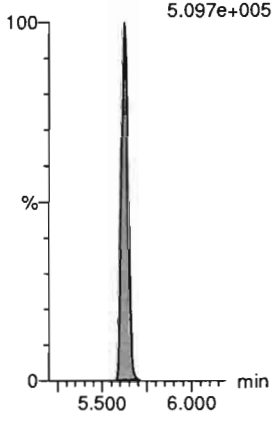




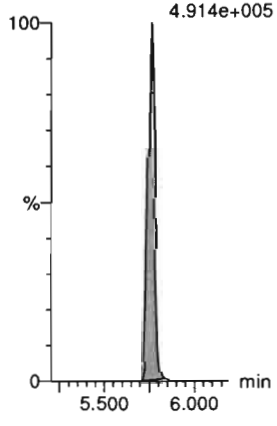
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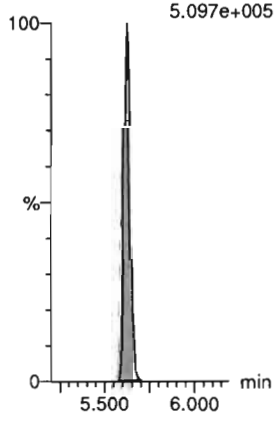
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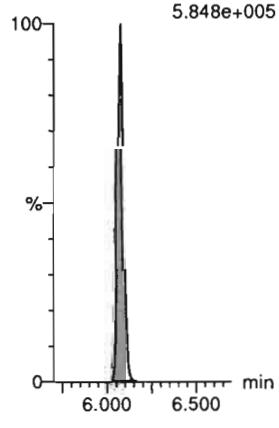
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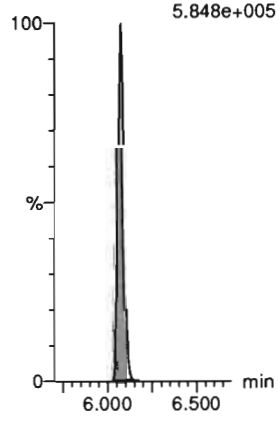
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

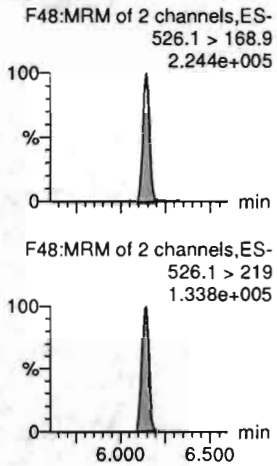


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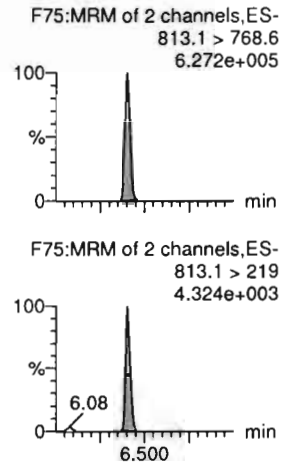
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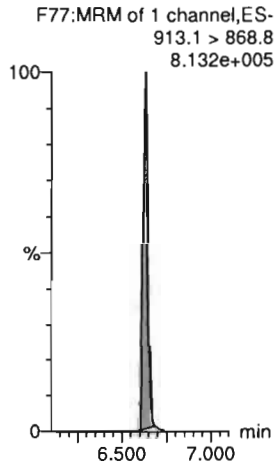
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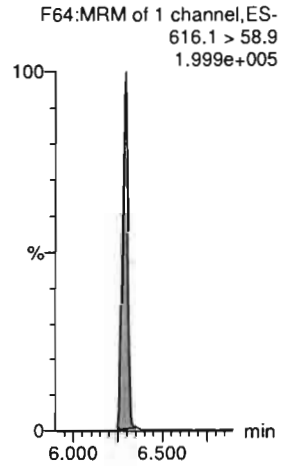
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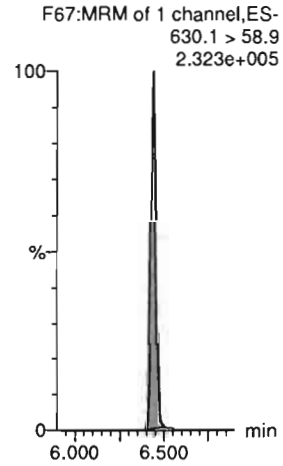
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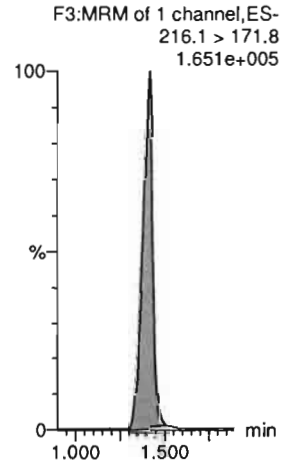
N-MeFOSE



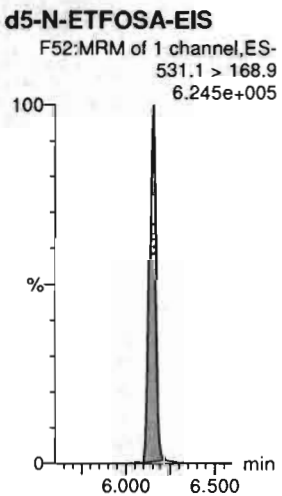
N-EtFOSE



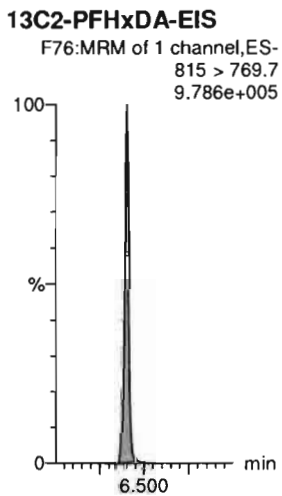
13C3-PFBA-RSD



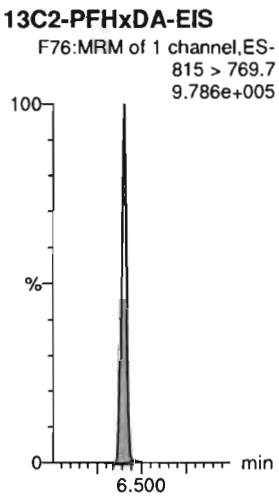
d5-N-ETFOSA-EIS



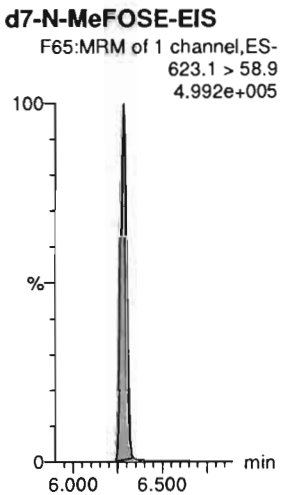
13C2-PFHxDA-EIS



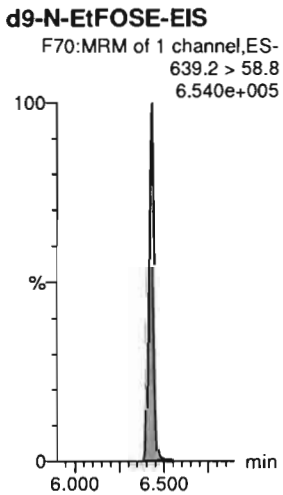
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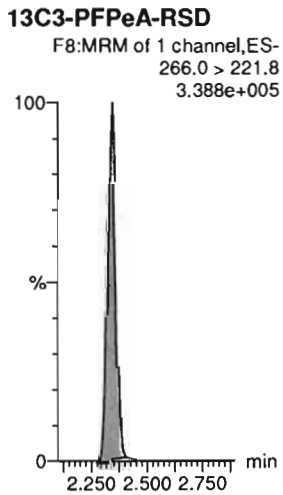
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

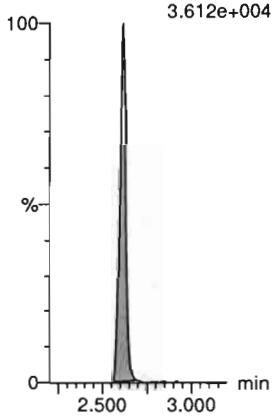


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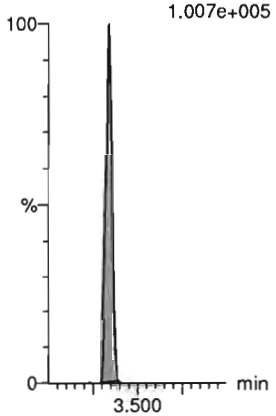
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Name: 200225P1-8, Date: 25-Feb-2020, Time: 19:12:14, ID: ST200225P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

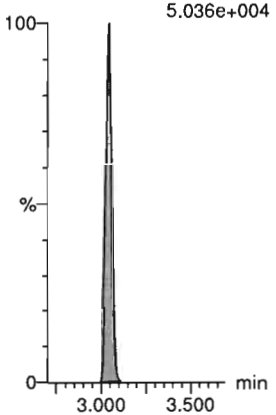
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.612e+004



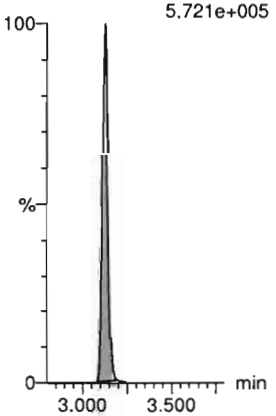
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.007e+005



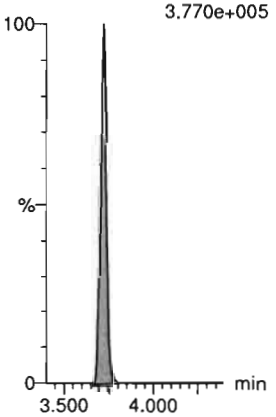
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
5.036e+004



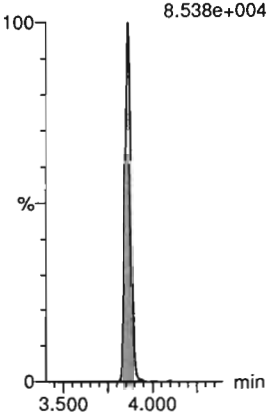
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.721e+005



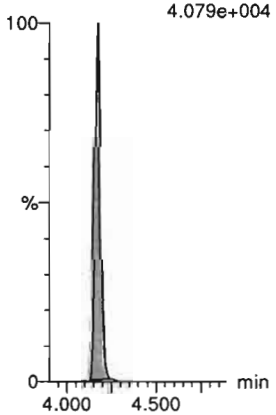
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.770e+005



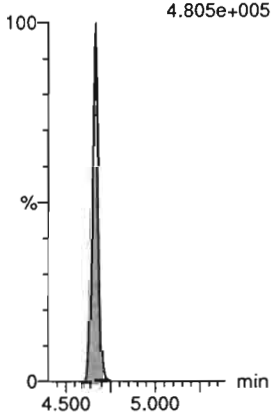
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.538e+004



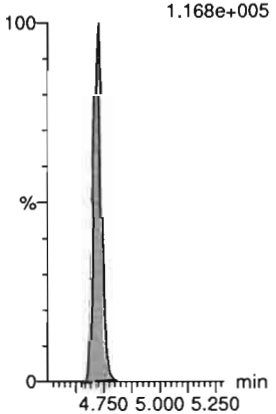
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
4.079e+004



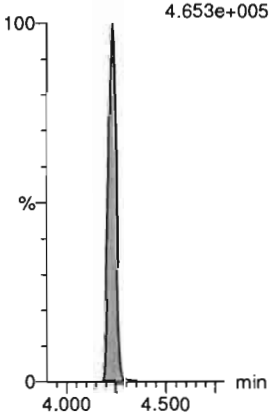
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.805e+005



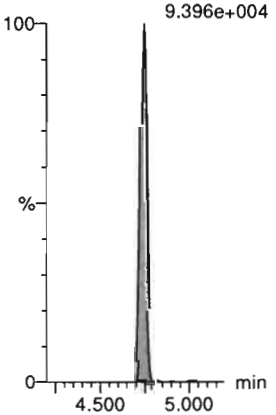
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.168e+005



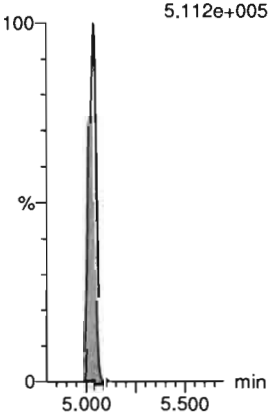
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.653e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.396e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.112e+005

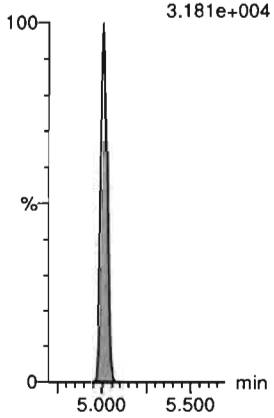


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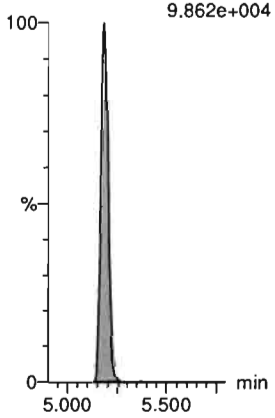
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-8, Date: 25-Feb-2020, Time: 19:12:14, ID: ST200225P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

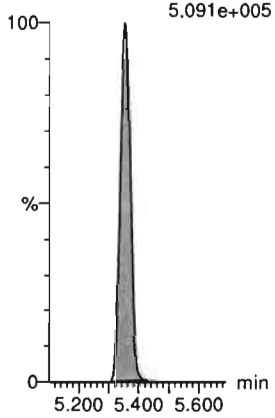
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.181e+004



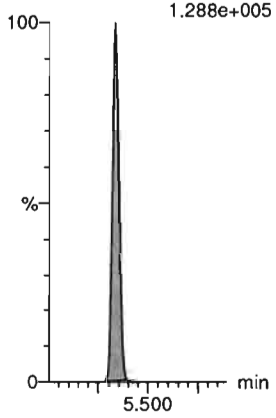
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
9.862e+004



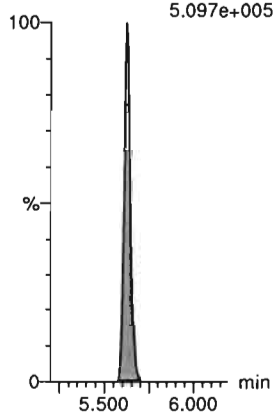
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.091e+005



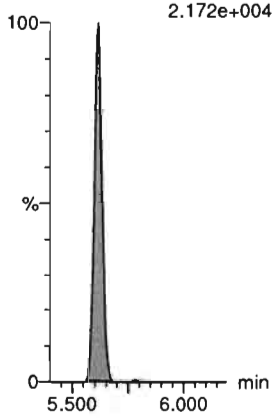
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.288e+005



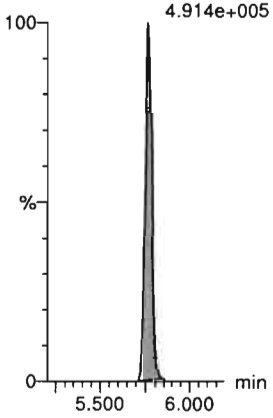
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
5.097e+005



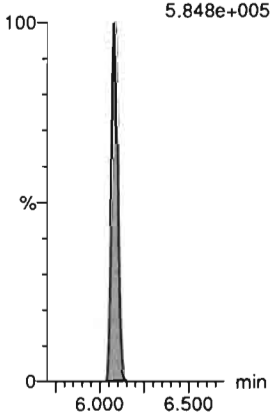
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.172e+004



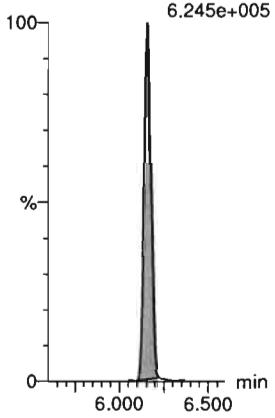
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.914e+005



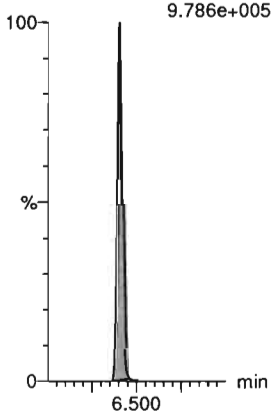
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.848e+005



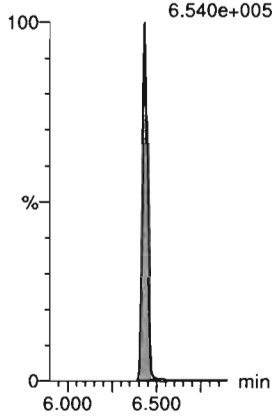
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
6.245e+005



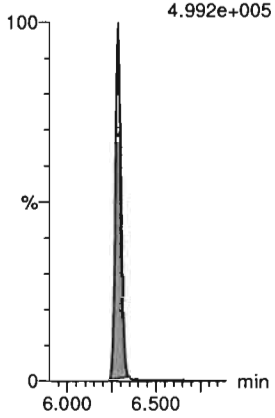
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.786e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.540e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.992e+005

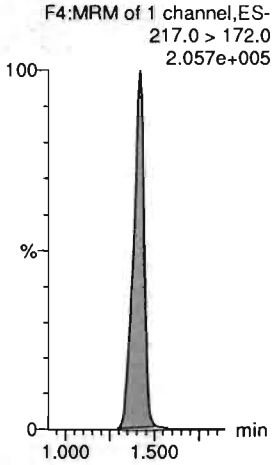


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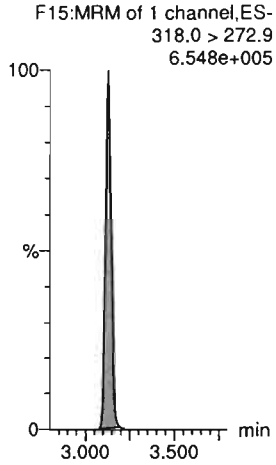
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Name: 200225P1-8, Date: 25-Feb-2020, Time: 19:12:14, ID: ST200225P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

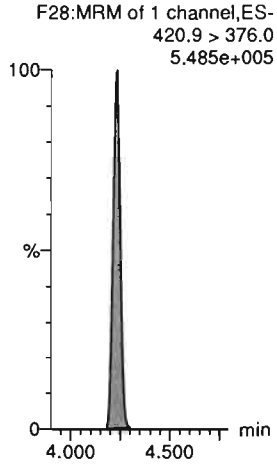
13C4-PFBA



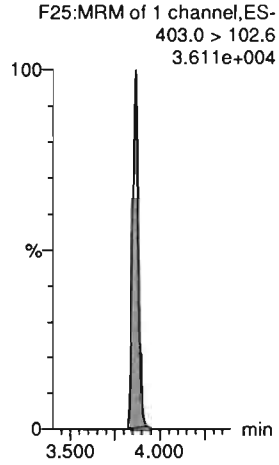
13C5-PFHxA



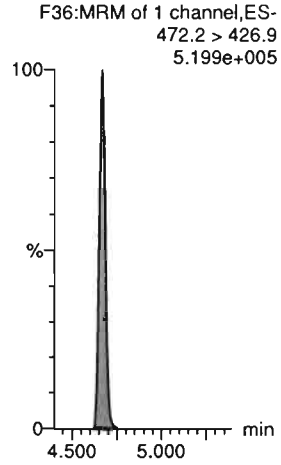
13C8-PFOA



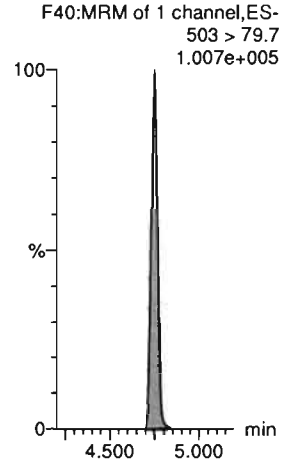
18O2-PFHxS



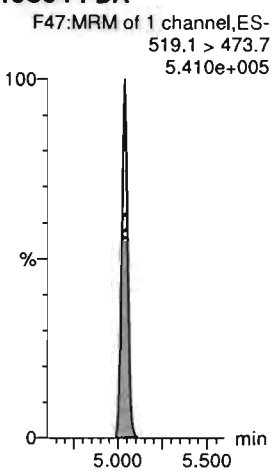
13C9-PFNA



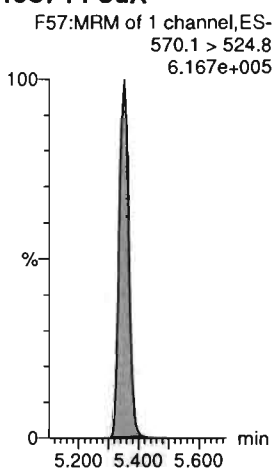
13C4-PFOS



13C6-PFDA



13C7-PFUdA

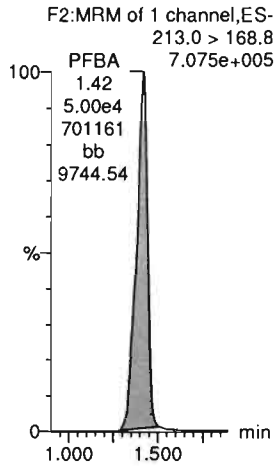


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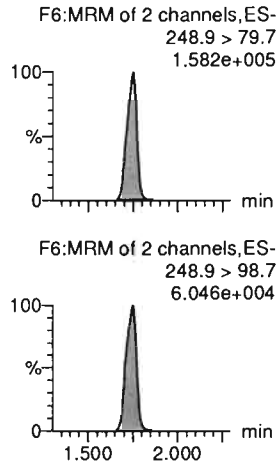
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Name: 200225P1-9, Date: 25-Feb-2020, Time: 19:22:44, ID: ST200225P1-7 PFC CS4 20B1108, Description: PFC CS4 20B1108

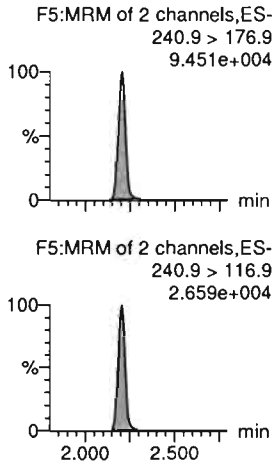
PFBA



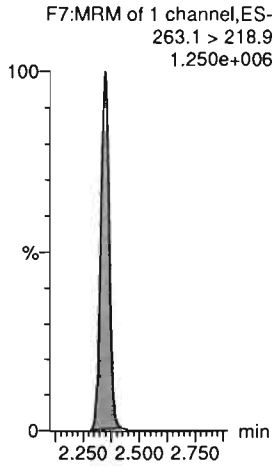
PFPrS



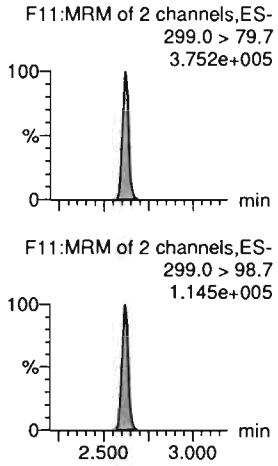
3:3 FTCA



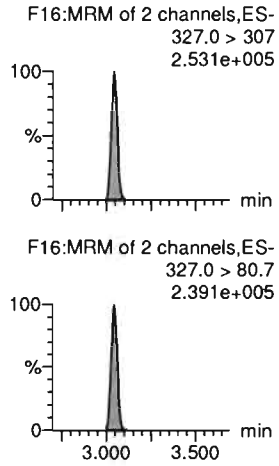
PFPeA



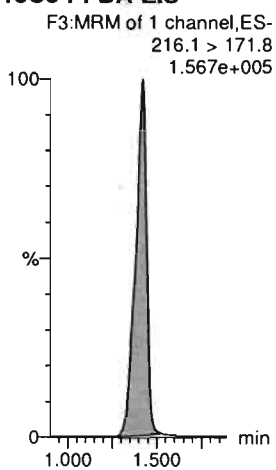
PFBS



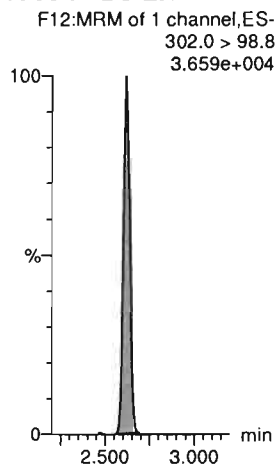
4:2 FTS



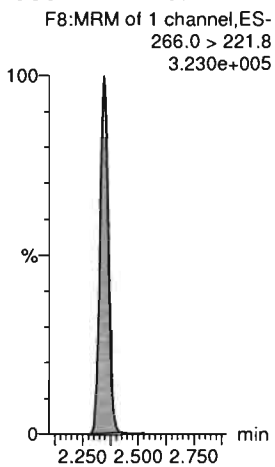
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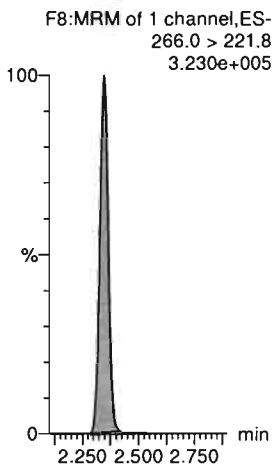
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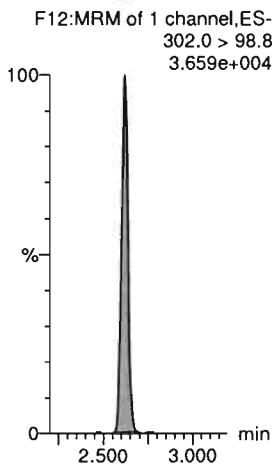
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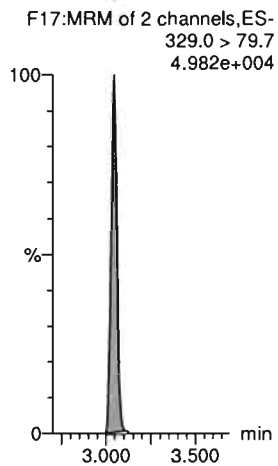
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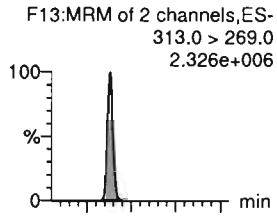


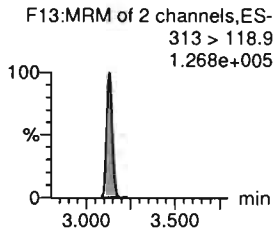
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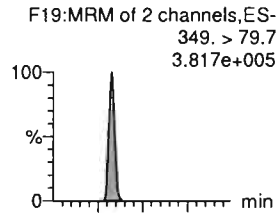
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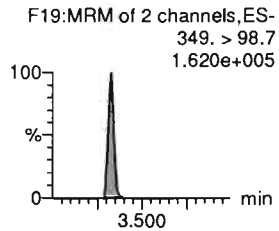
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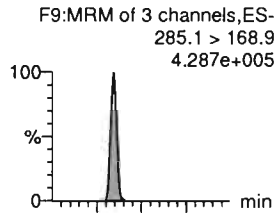


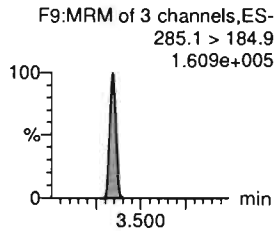
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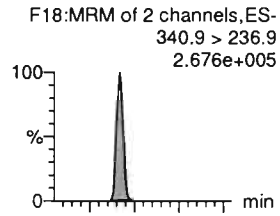


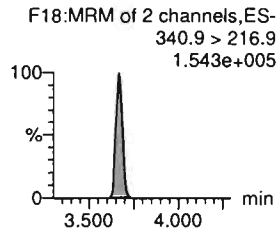
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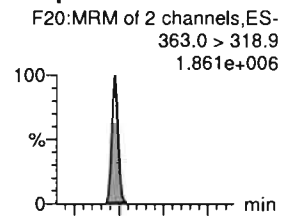


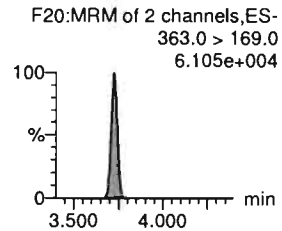
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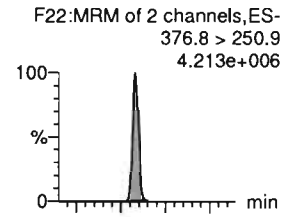


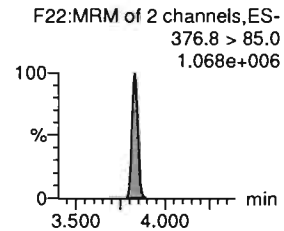
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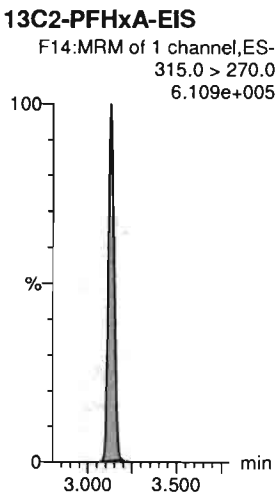


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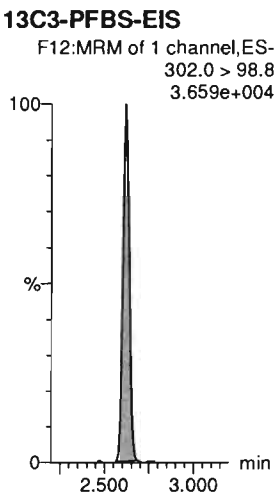




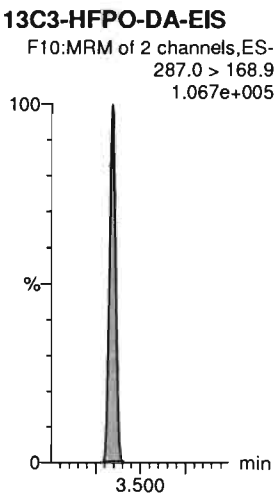
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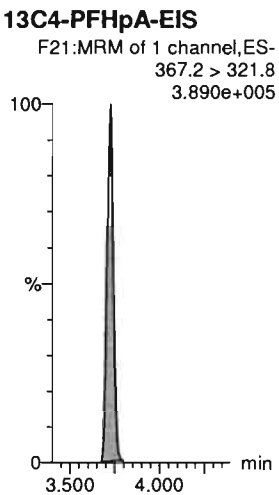
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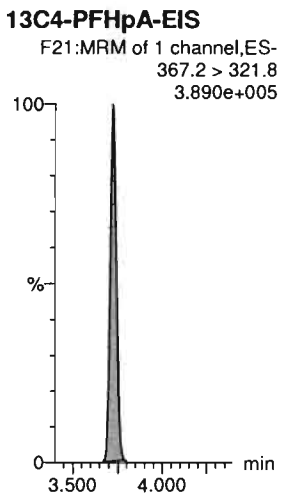
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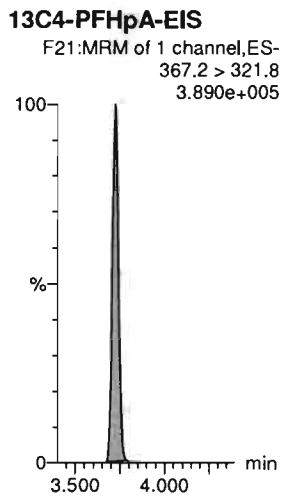
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

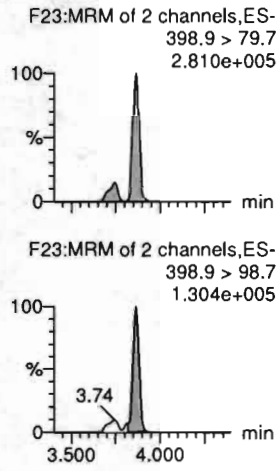


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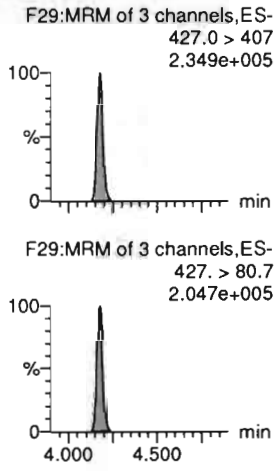
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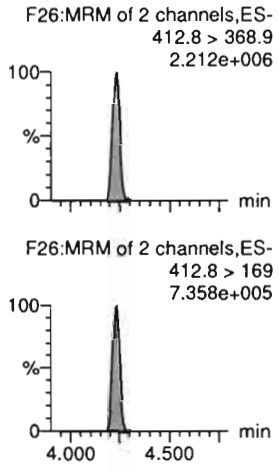
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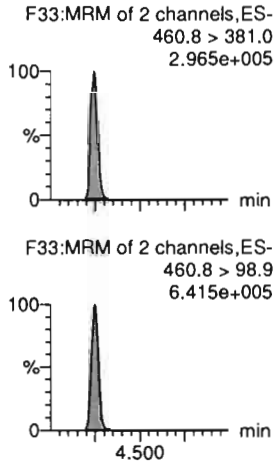
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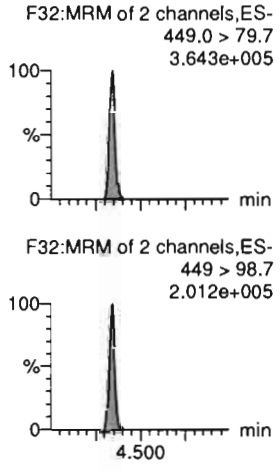
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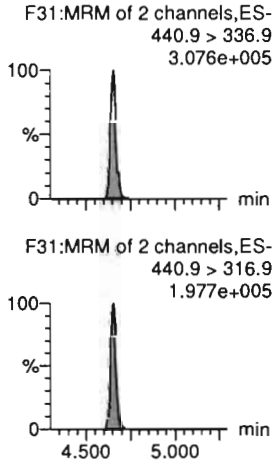
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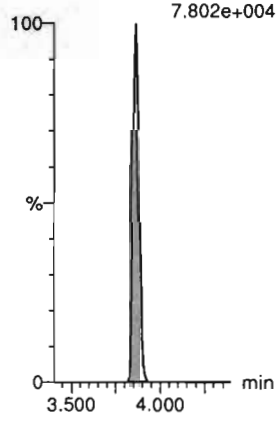
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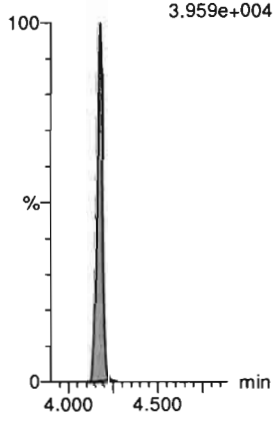
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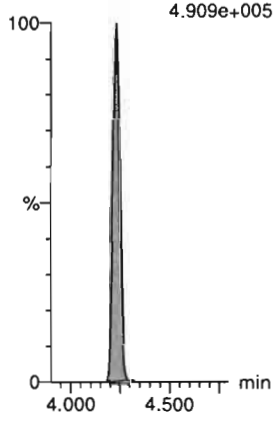
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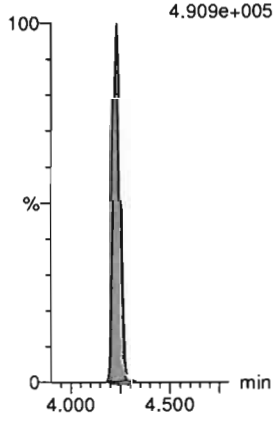
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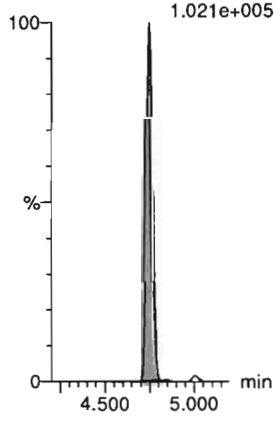
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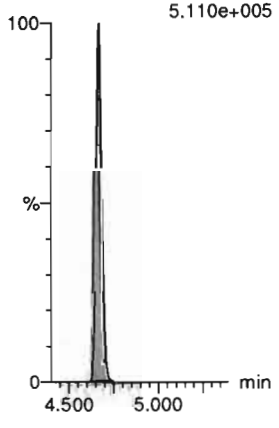
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13C8-PFOS-EIS



13C5-PFNA-EIS

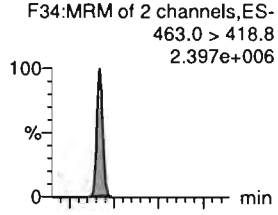


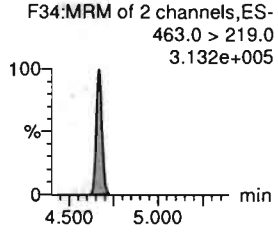
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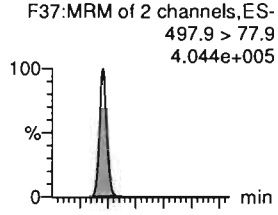
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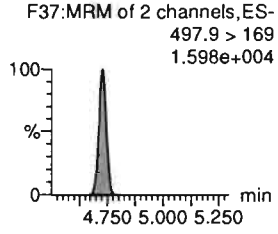
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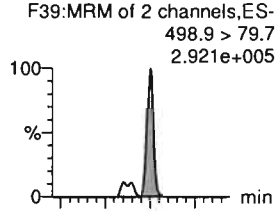


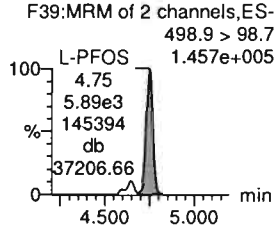
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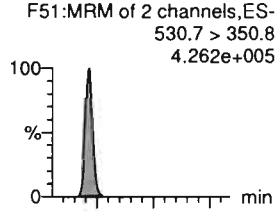


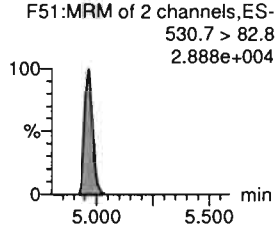
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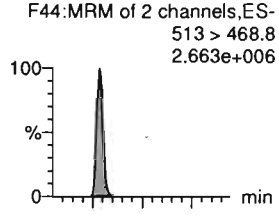


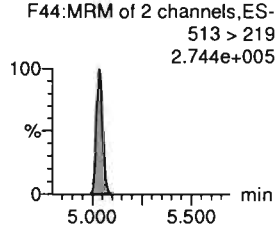
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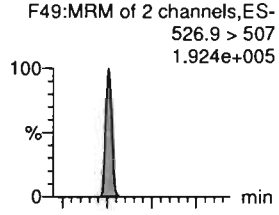


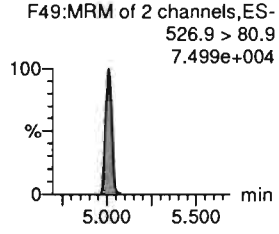
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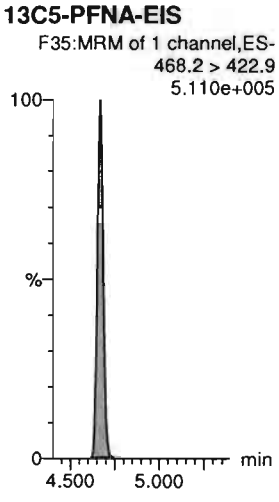


8:2 FTS

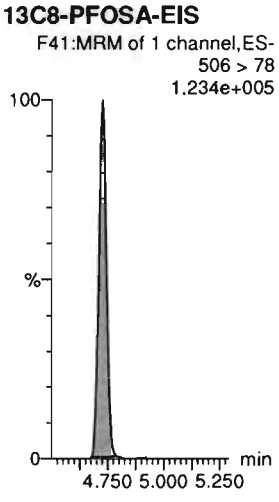




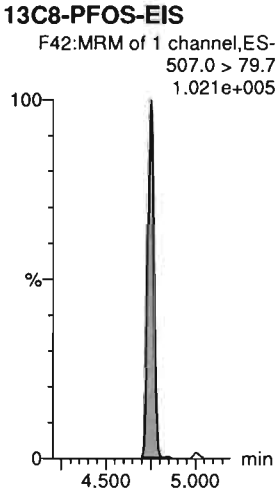
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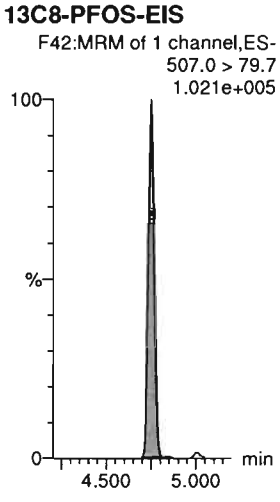
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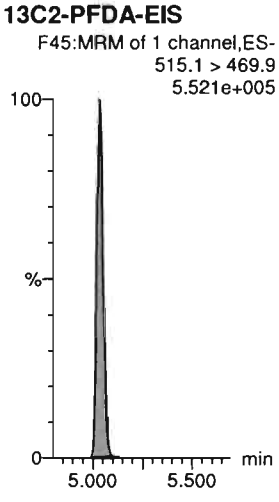
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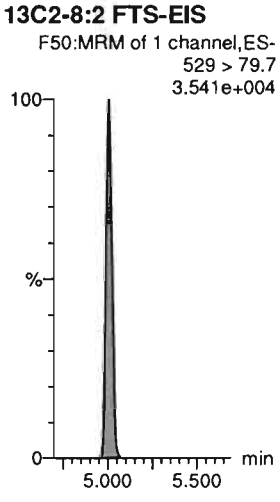
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13C2-PFDA-EIS



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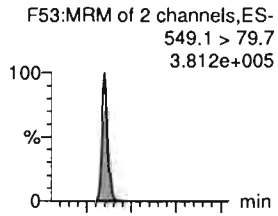


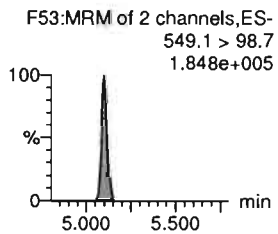
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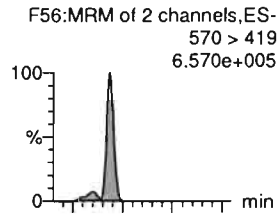
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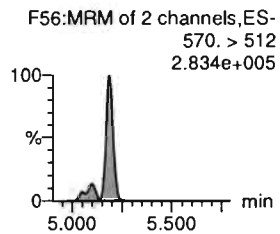
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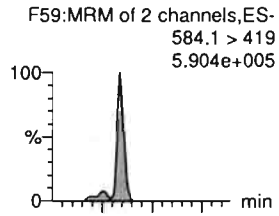


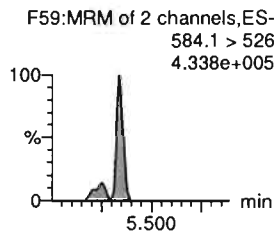
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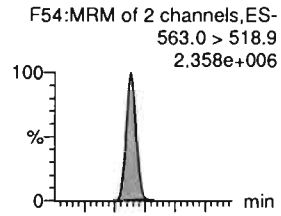


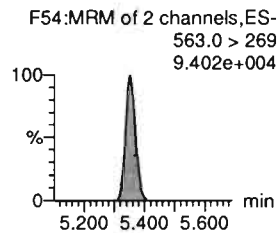
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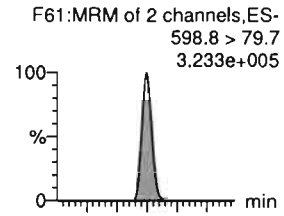


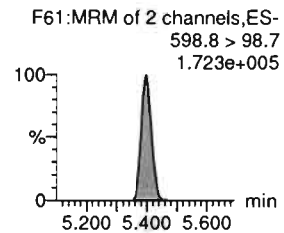
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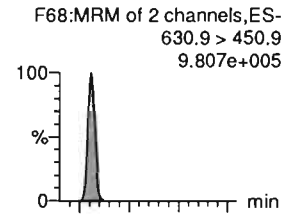


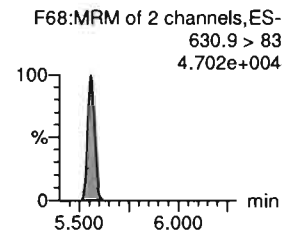
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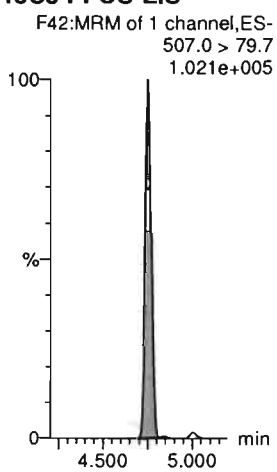


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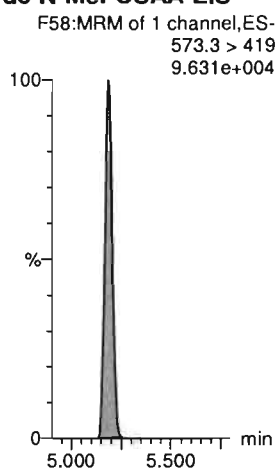




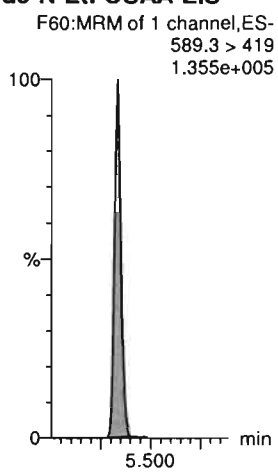
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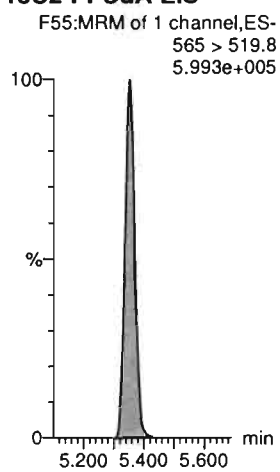
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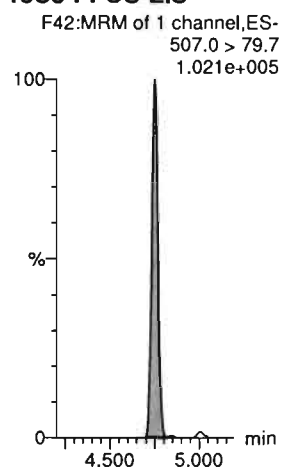
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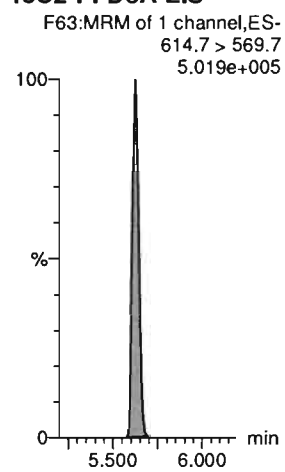
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13C8-PFOS-EIS



13C2-PFDoA-EIS

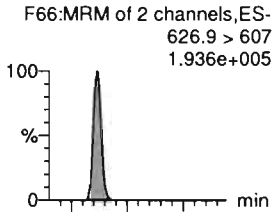


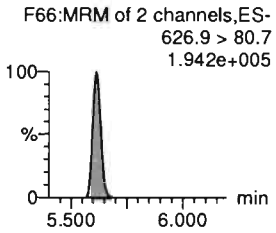
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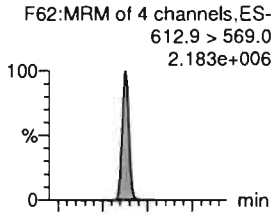
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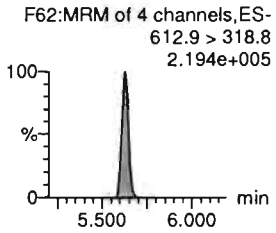
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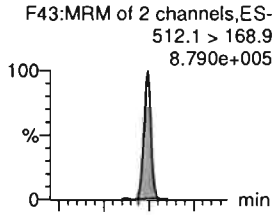


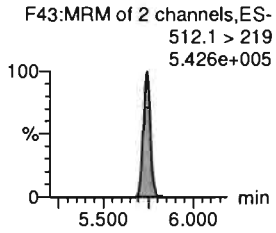
PFDoA



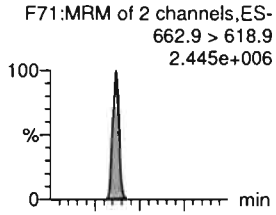


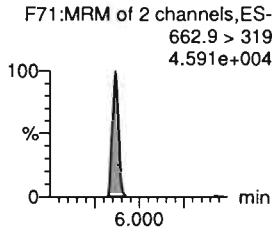
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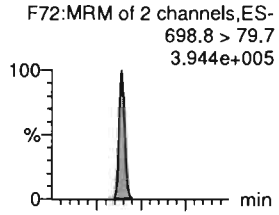


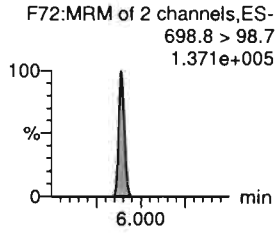
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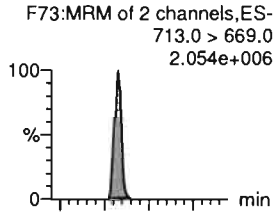


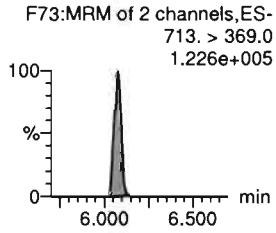
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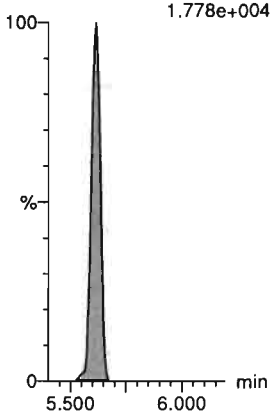


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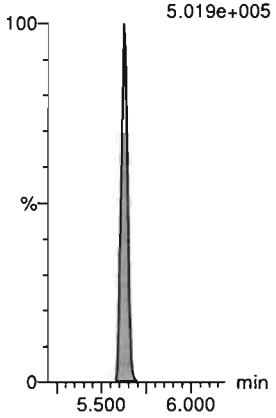




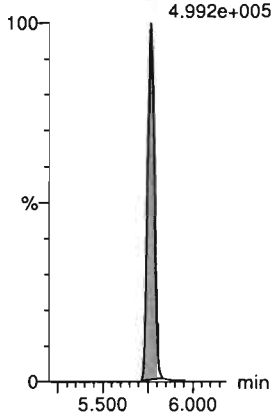
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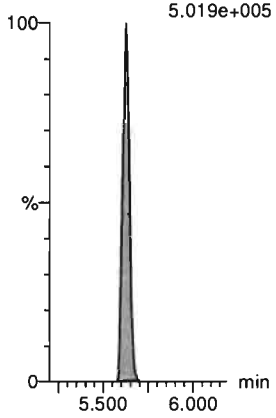
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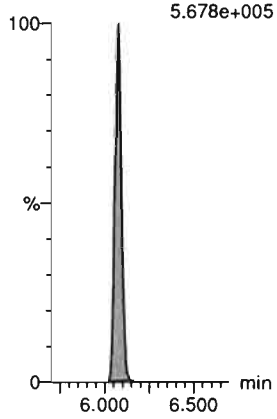
d3-N-MeFOSA-EIS



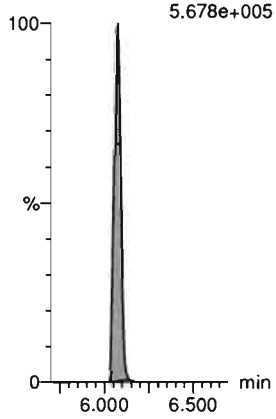
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

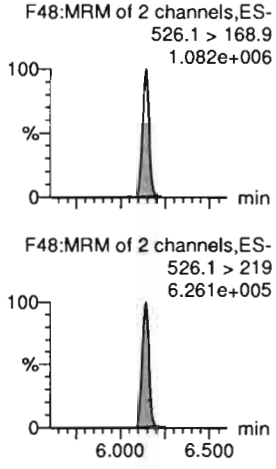


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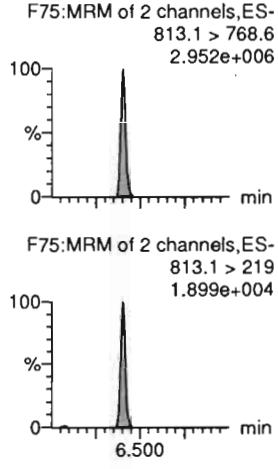
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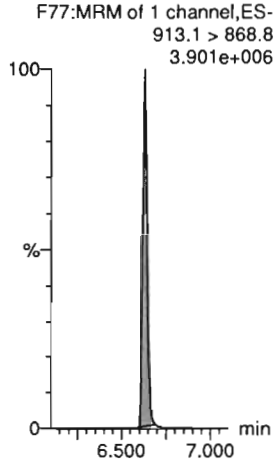
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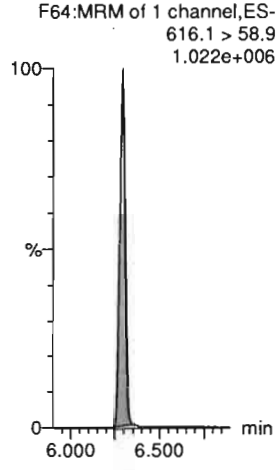
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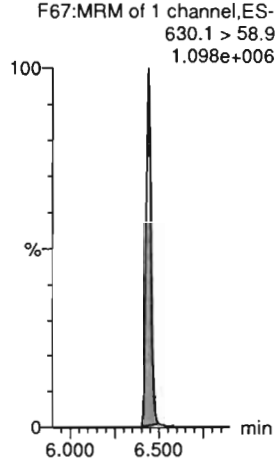
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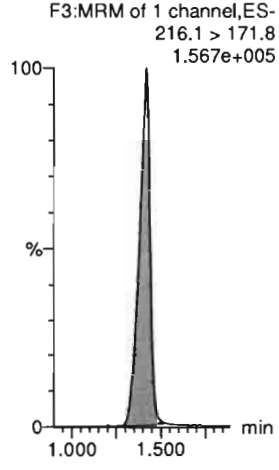
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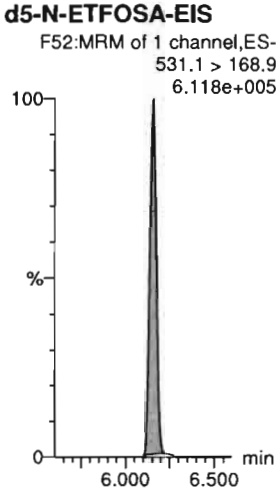
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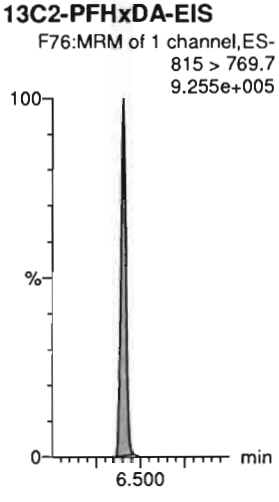
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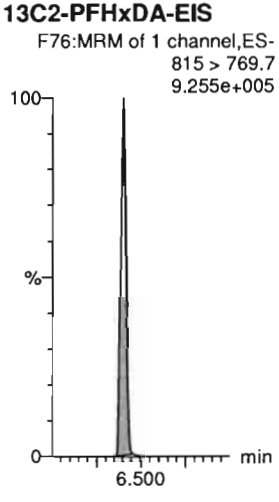
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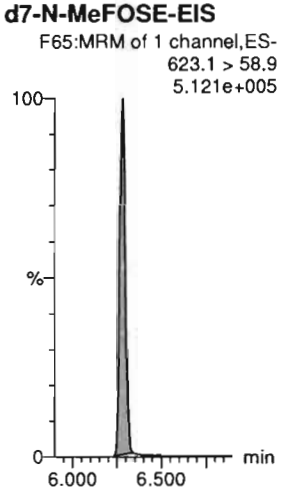
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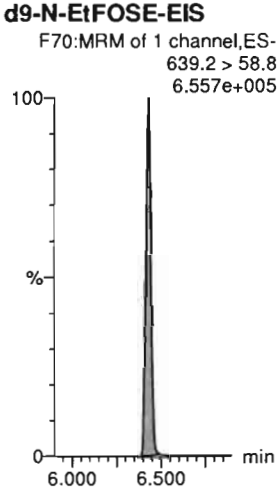
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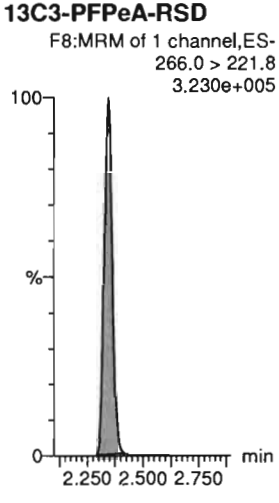
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d9-N-EtFOSE-EIS



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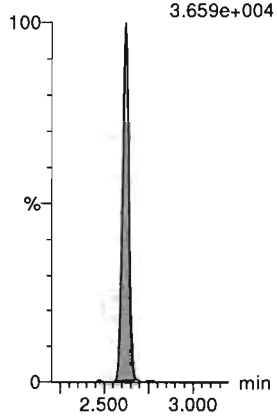


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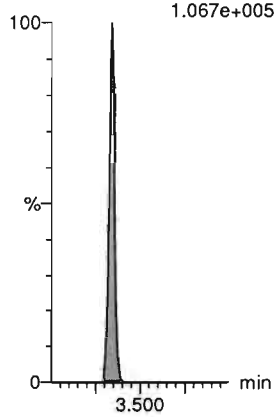
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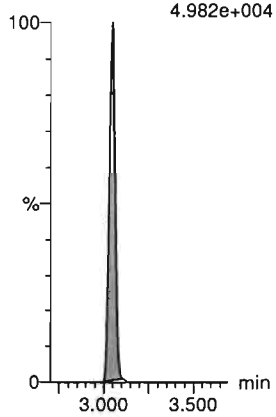
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.659e+004



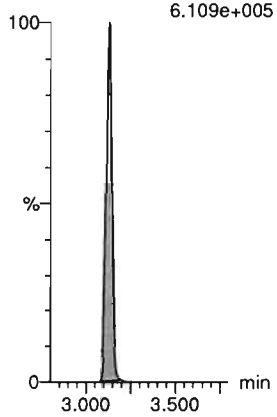
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.067e+005



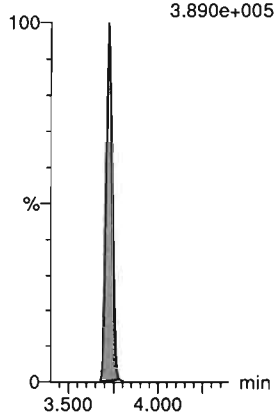
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.982e+004



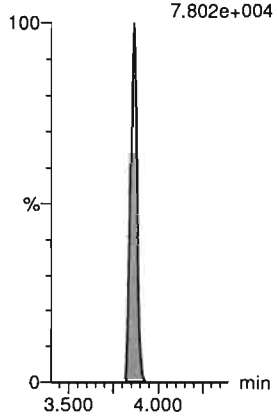
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
6.109e+005



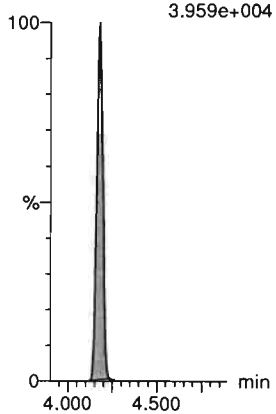
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.890e+005



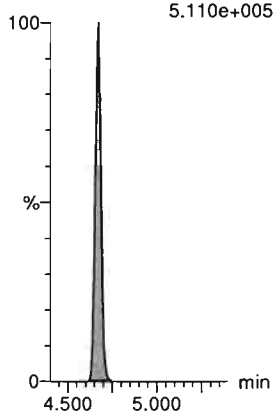
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
7.802e+004



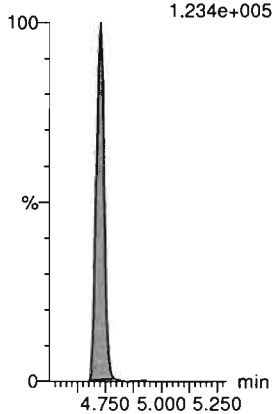
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.959e+004



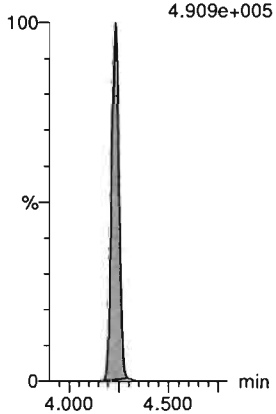
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
5.110e+005



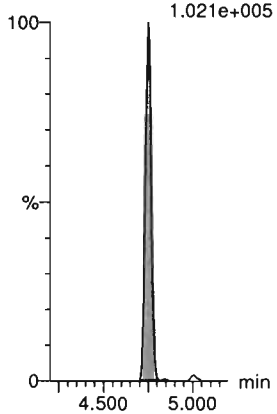
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.234e+005



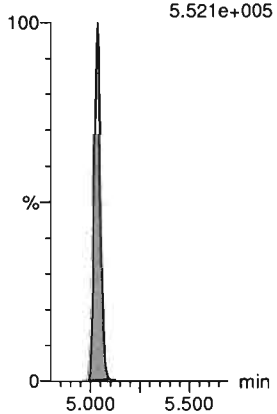
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.909e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
1.021e+005



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.521e+005

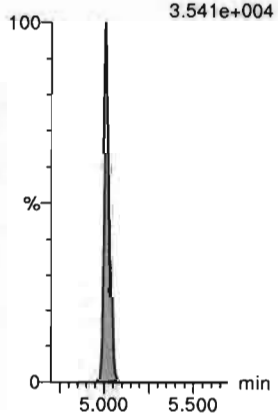


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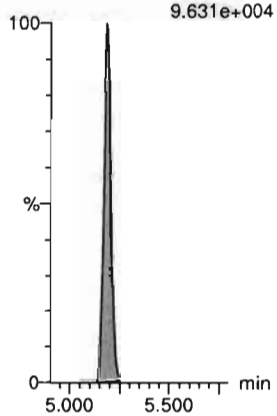
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-9, Date: 25-Feb-2020, Time: 19:22:44, ID: ST200225P1-7 PFC CS4 20B1108, Description: PFC CS4 20B1108

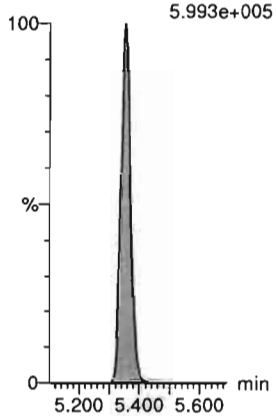
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.541e+004



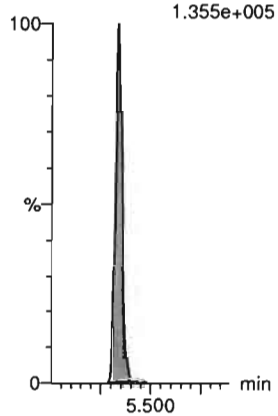
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
9.631e+004



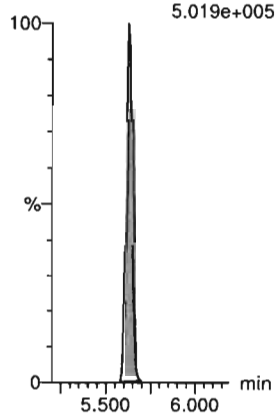
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.993e+005



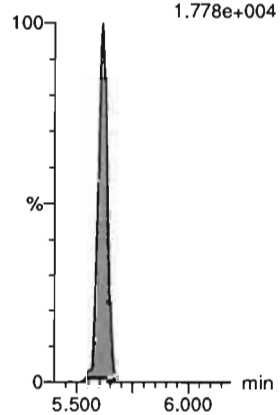
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.355e+005



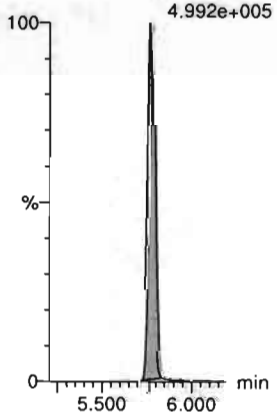
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
5.019e+005



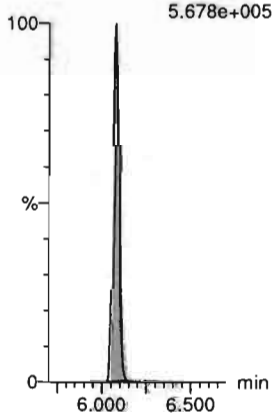
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.778e+004



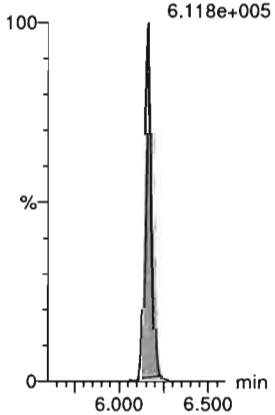
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.992e+005



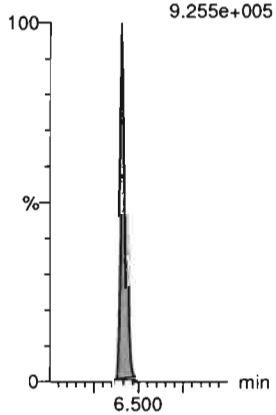
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.678e+005



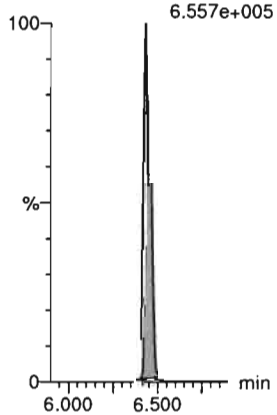
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
6.118e+005



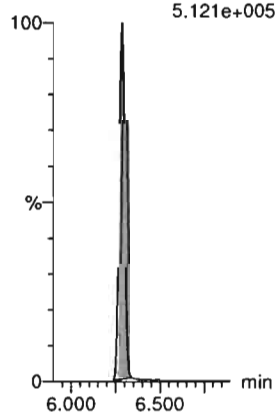
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.255e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.557e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.121e+005

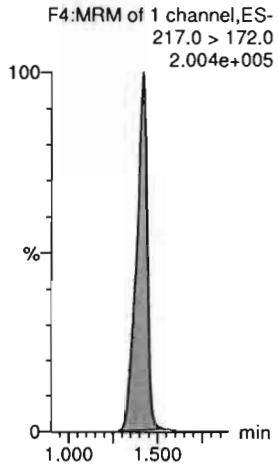


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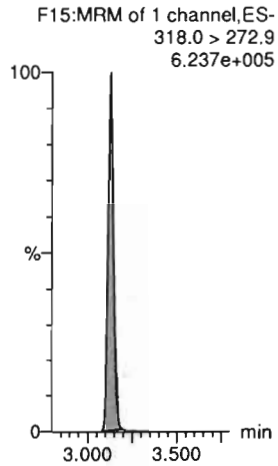
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-9, Date: 25-Feb-2020, Time: 19:22:44, ID: ST200225P1-7 PFC CS4 20B1108, Description: PFC CS4 20B1108

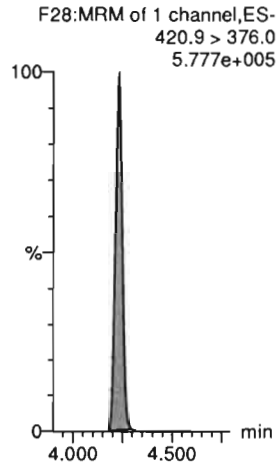
13C4-PFBA



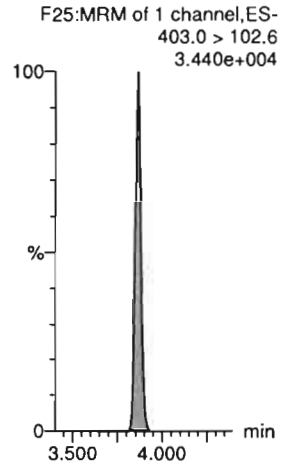
13C5-PFHxA



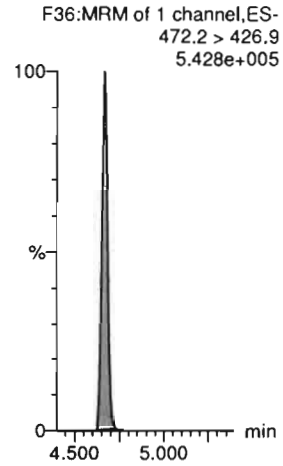
13C8-PFOA



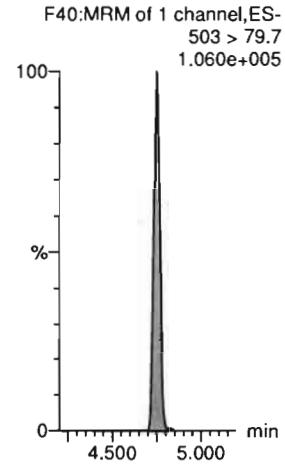
18O2-PFHxS



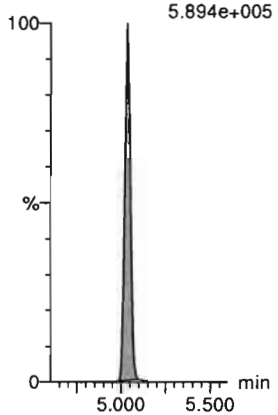
13C9-PFNA



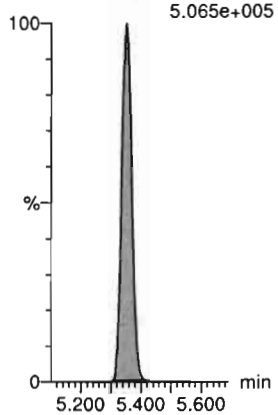
13C4-PFOS



13C6-PFDA



13C7-PFUdA

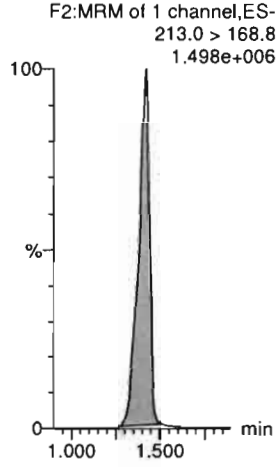


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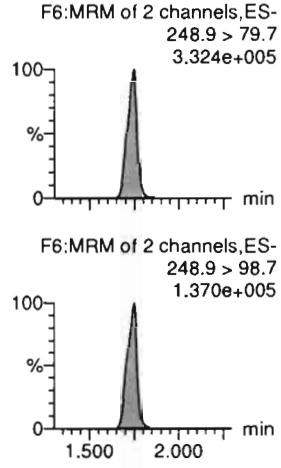
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Name: 200225P1-10, Date: 25-Feb-2020, Time: 19:33:15, ID: ST200225P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

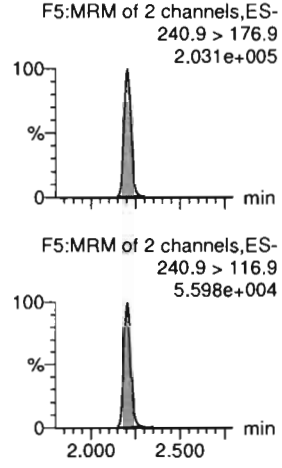
PFBA



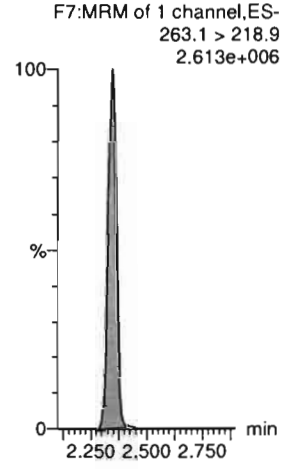
PFPrS



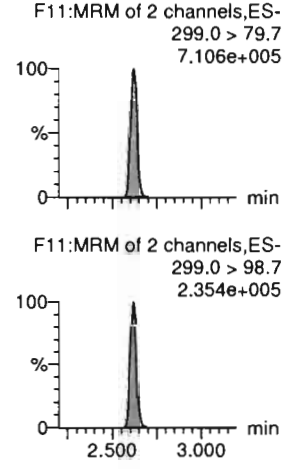
3:3 FTCA



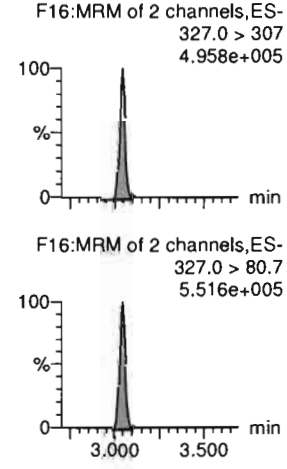
PFPeA



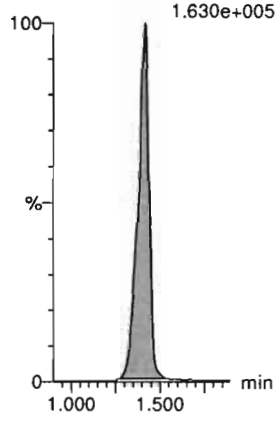
PFBS



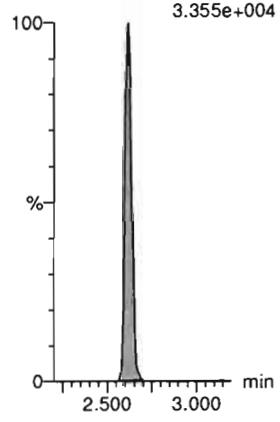
4:2 FTS



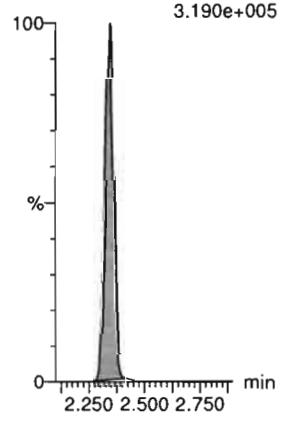
13C3-PFBA-EIS



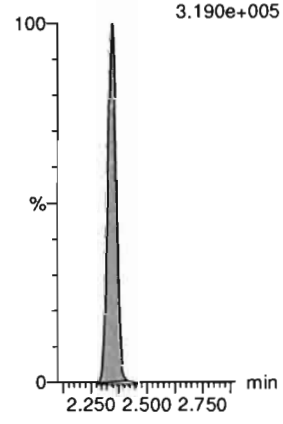
13C3-PFBS-EIS



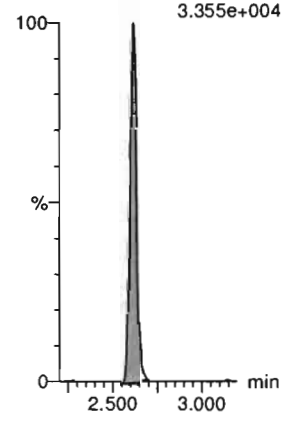
13C3-PFPeA-EIS



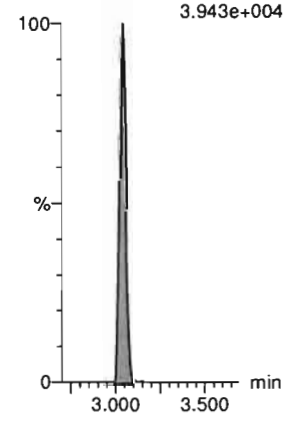
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS

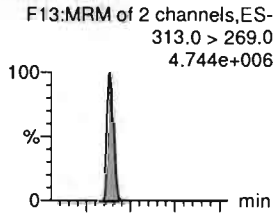


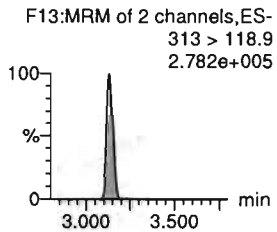
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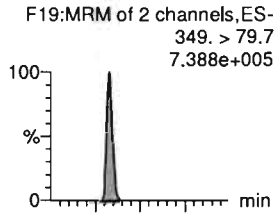
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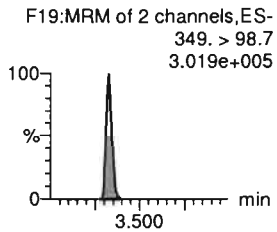
PFHxA



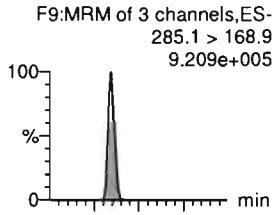


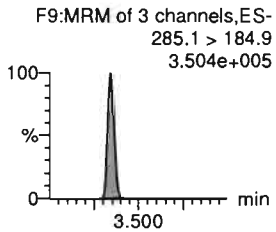
PFPeS



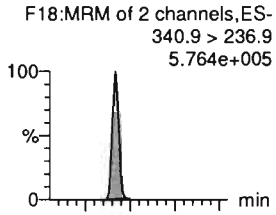


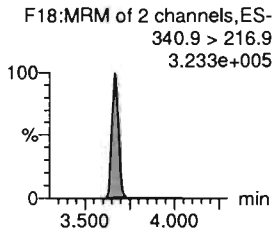
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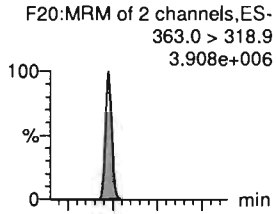


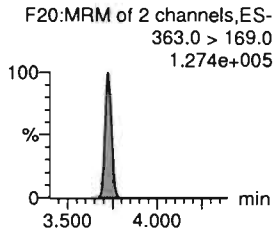
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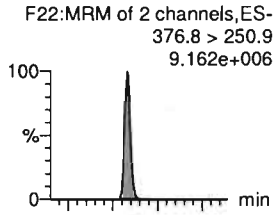


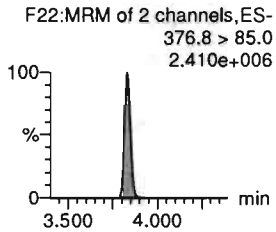
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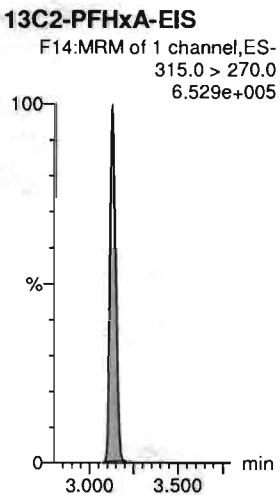


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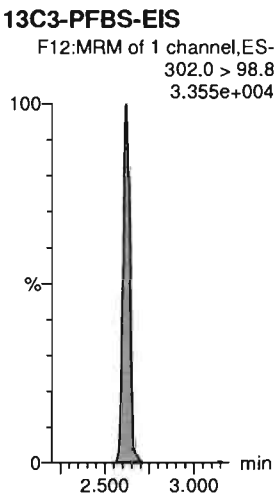




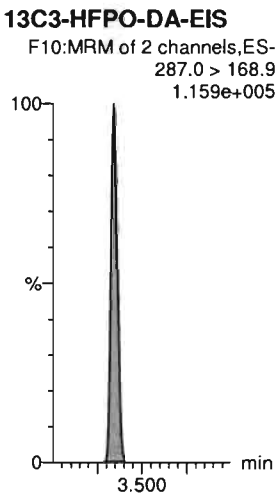
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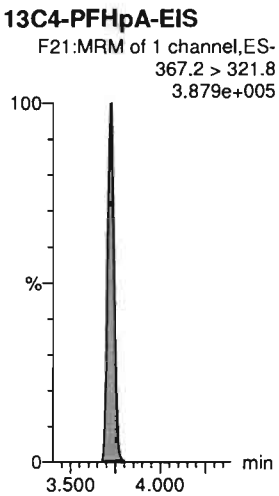
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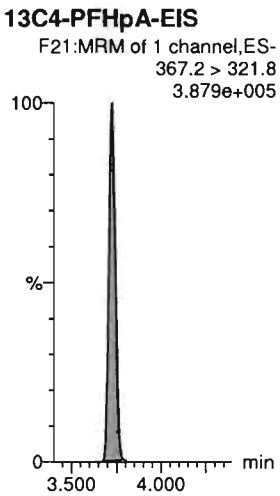
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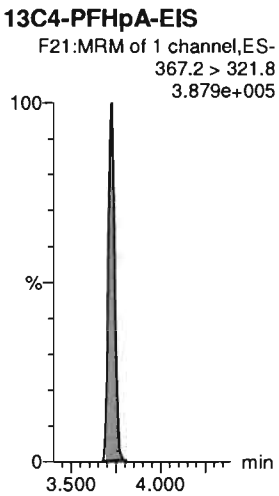
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13C4-PFHpA-EIS



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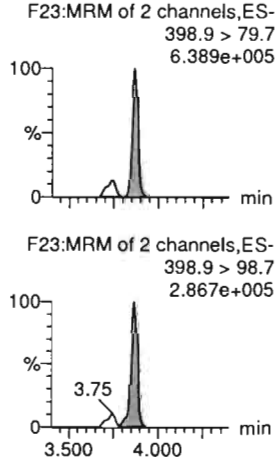


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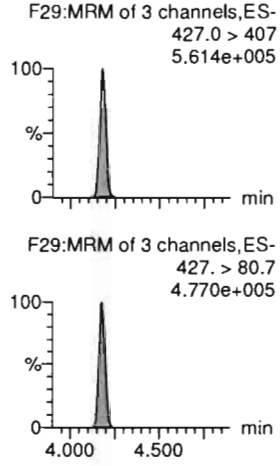
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Name: 200225P1-10, Date: 25-Feb-2020, Time: 19:33:15, ID: ST200225P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

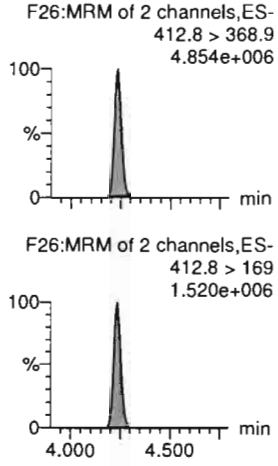
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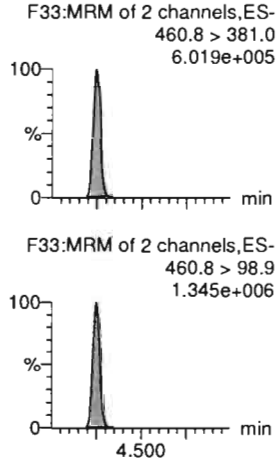
6:2 FTS



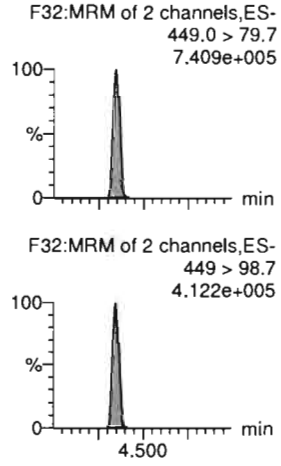
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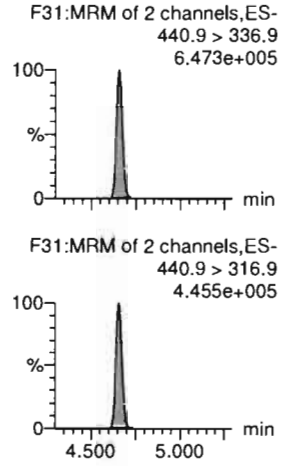
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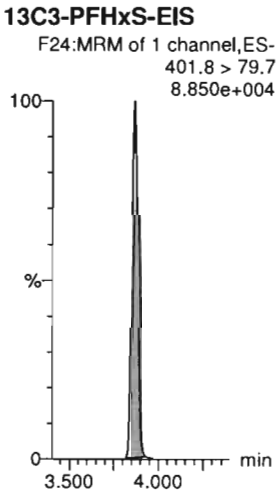
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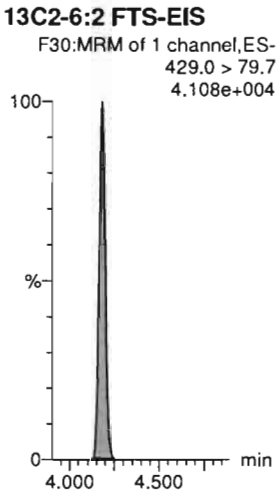
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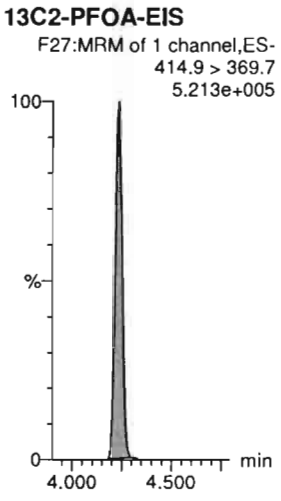
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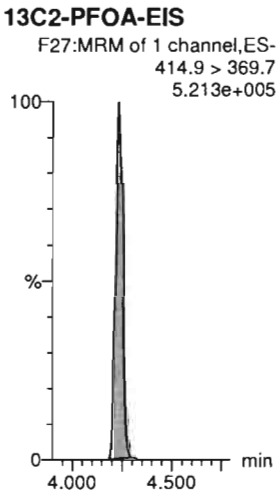
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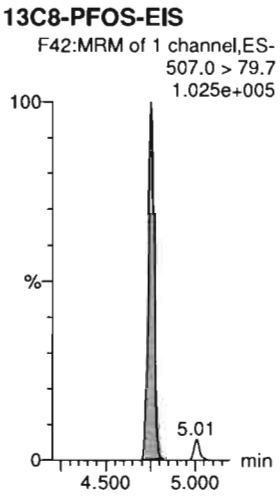
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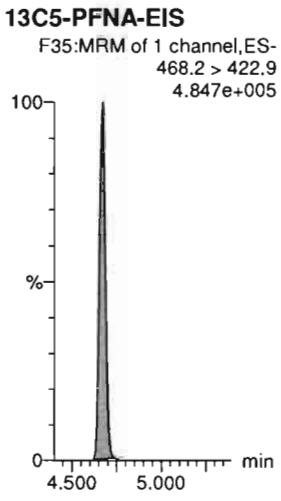
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13C8-PFOS-EIS



13C5-PFNA-EIS

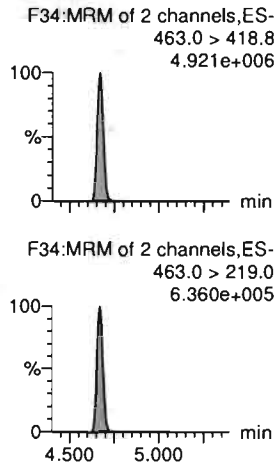


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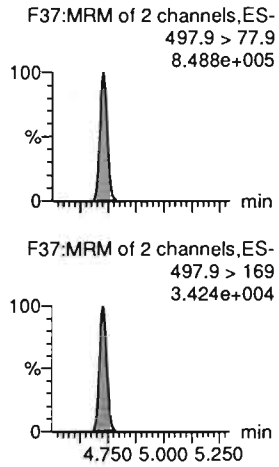
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Name: 200225P1-10, Date: 25-Feb-2020, Time: 19:33:15, ID: ST200225P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

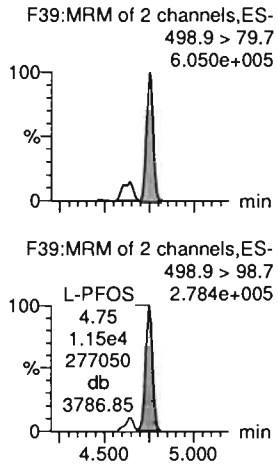
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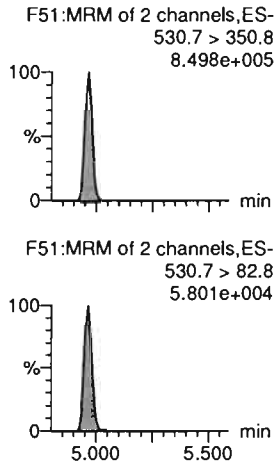
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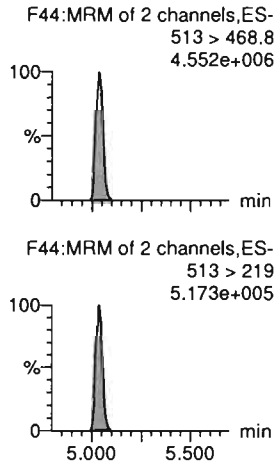
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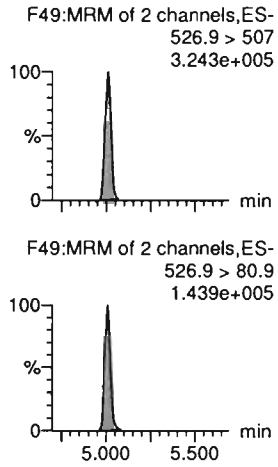
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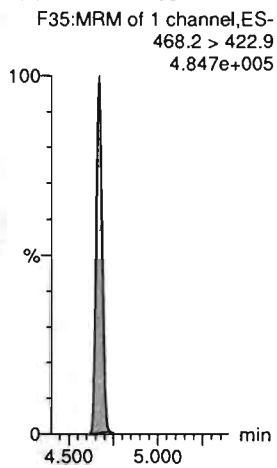
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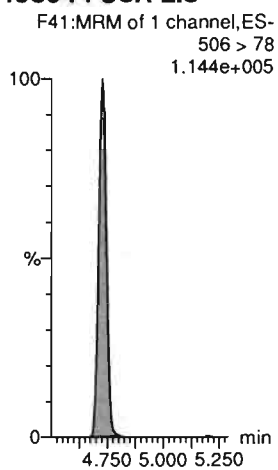
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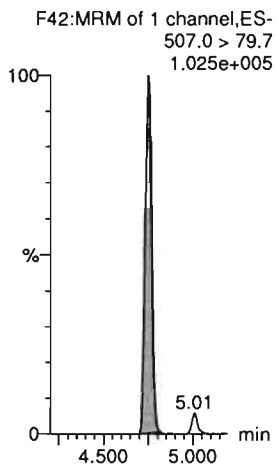
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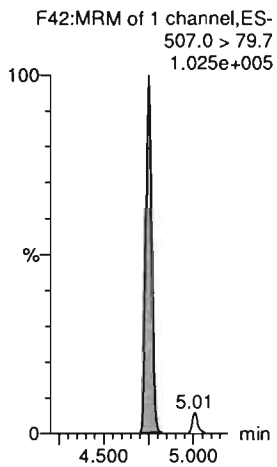
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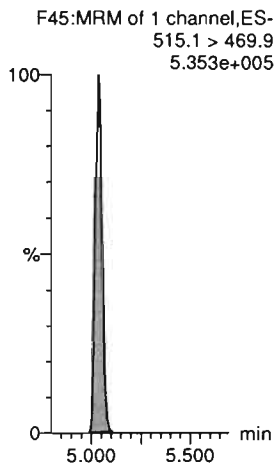
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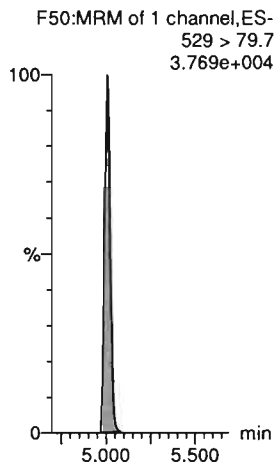
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

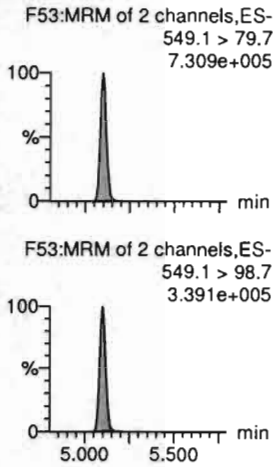


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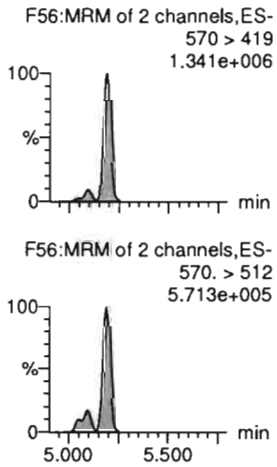
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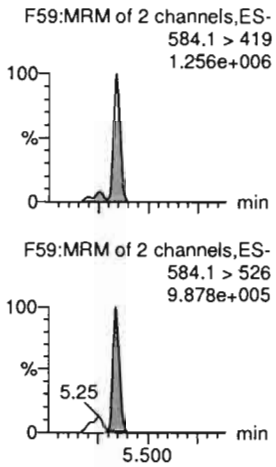
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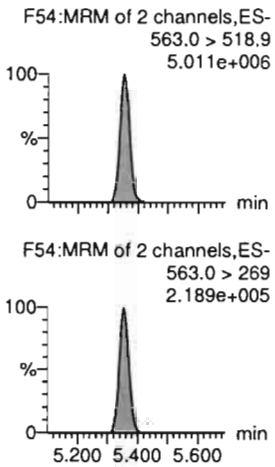
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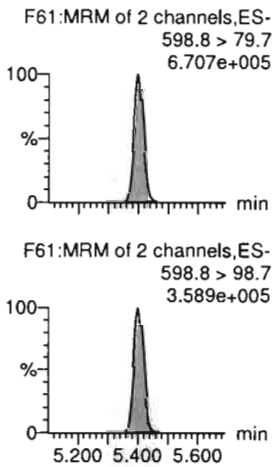
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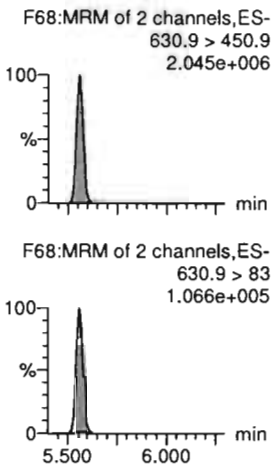
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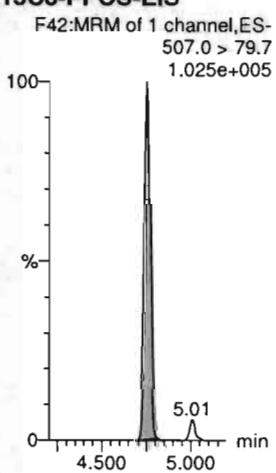
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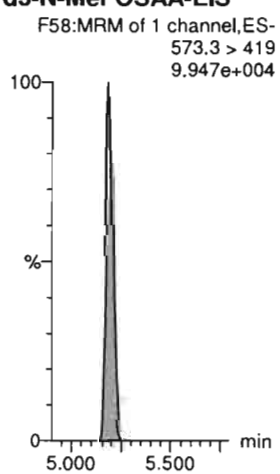
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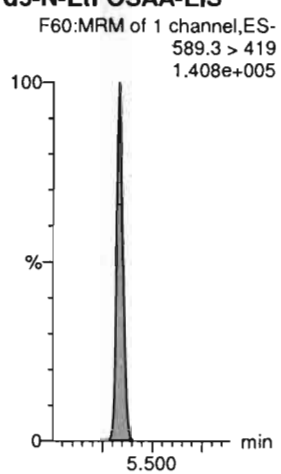
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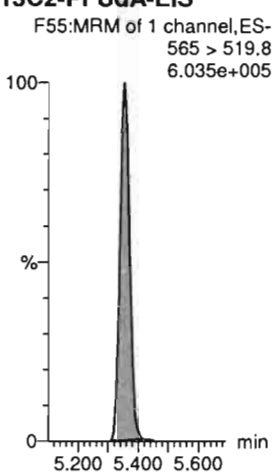
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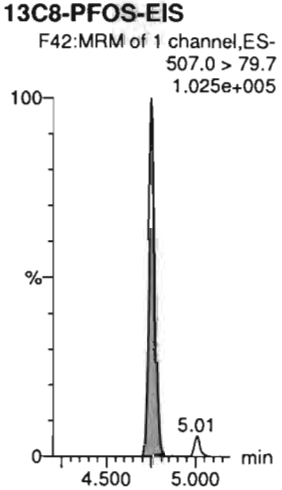
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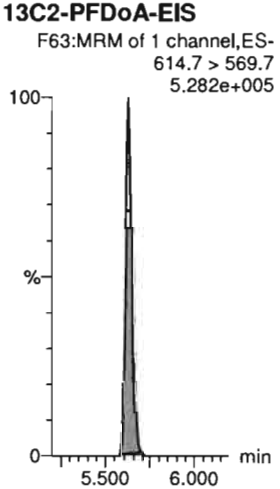
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13C8-PFOS-EIS



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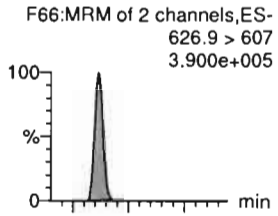


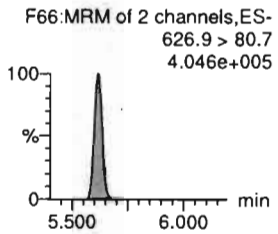
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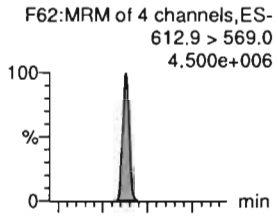
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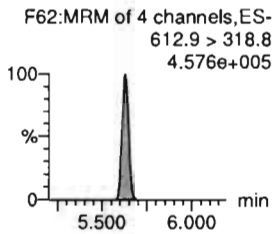
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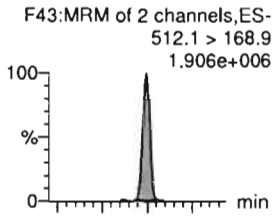


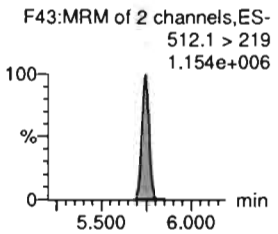
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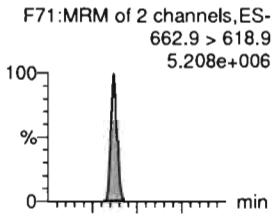


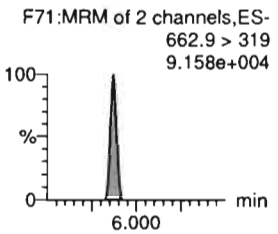
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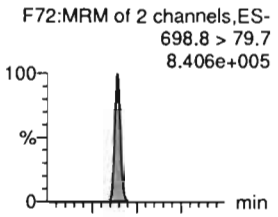


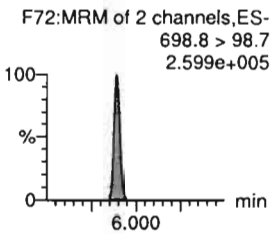
PFTrDA



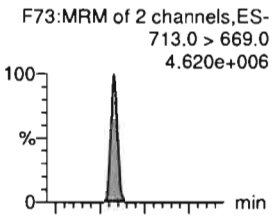


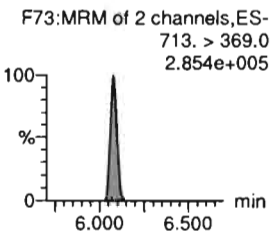
PFDoS



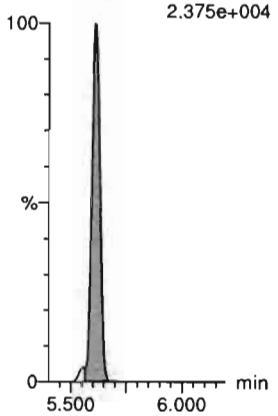


PFTeDA

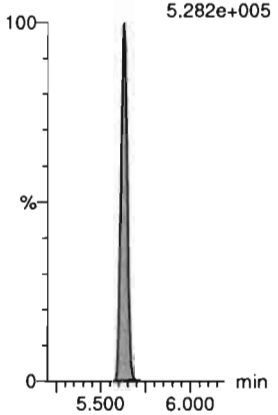




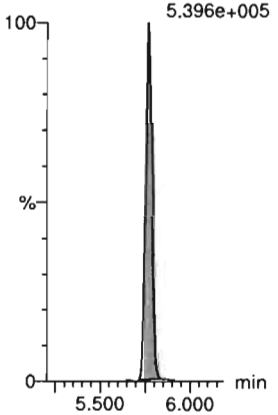
13C2-10:2 FTS-EIS



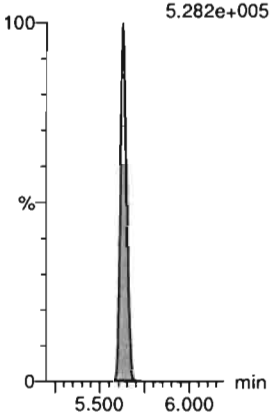
13C2-PFDoA-EIS



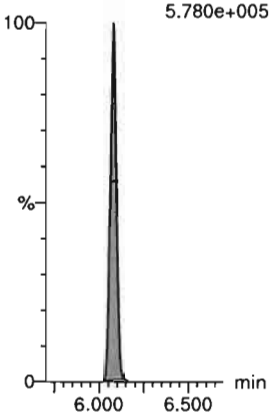
d3-N-MeFOSA-EIS



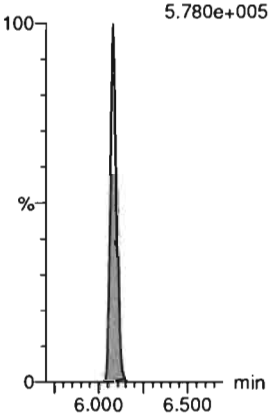
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

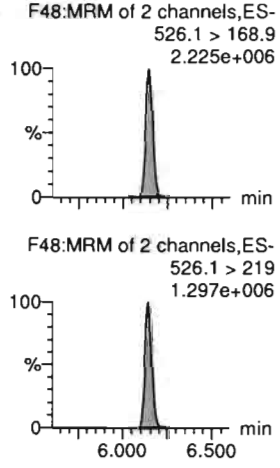


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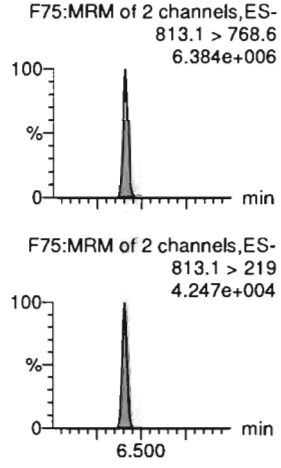
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Name: 200225P1-10, Date: 25-Feb-2020, Time: 19:33:15, ID: ST200225P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

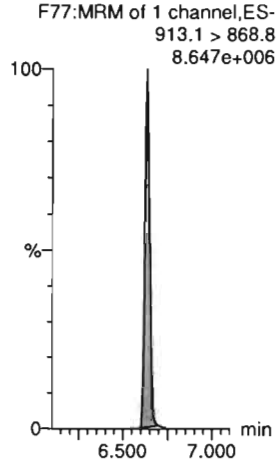
N-EtFOSA



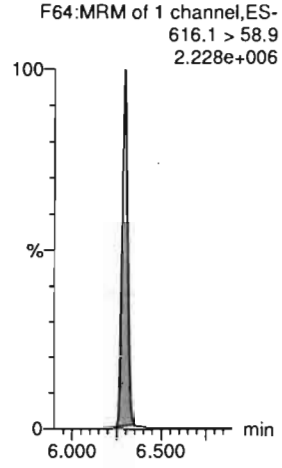
PFHxDA



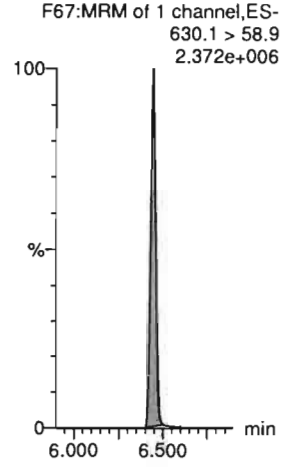
PFODA



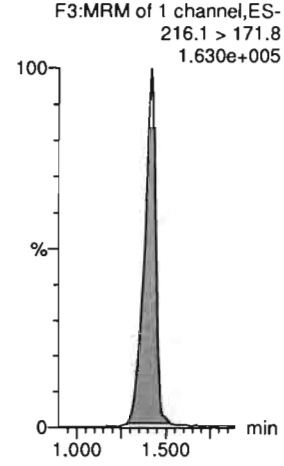
N-MeFOSE



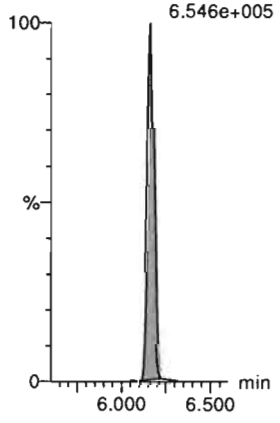
N-EtFOSE



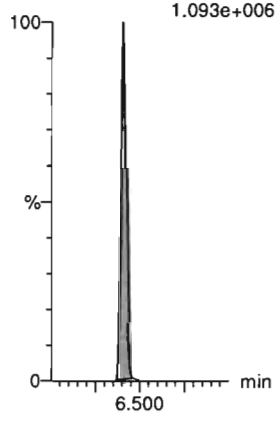
13C3-PFBA-RSD



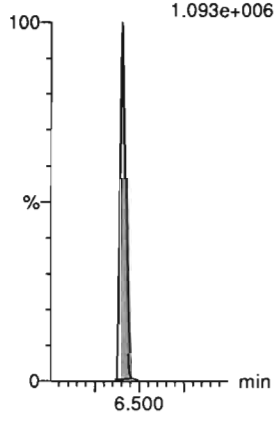
d5-N-ETFOSA-EIS



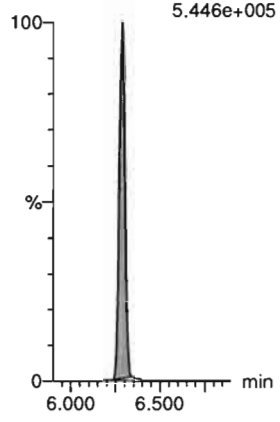
13C2-PFHxDA-EIS



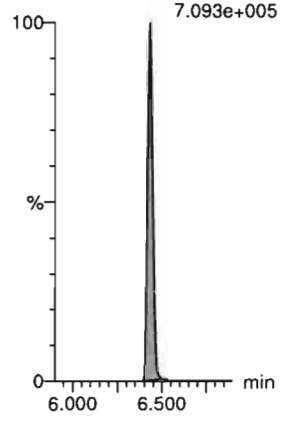
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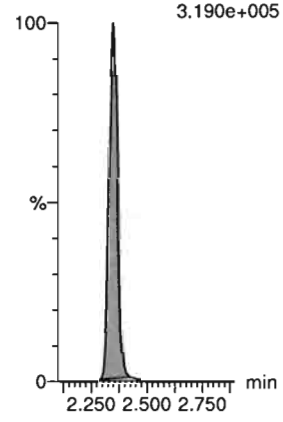
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

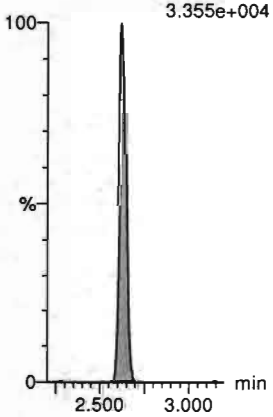


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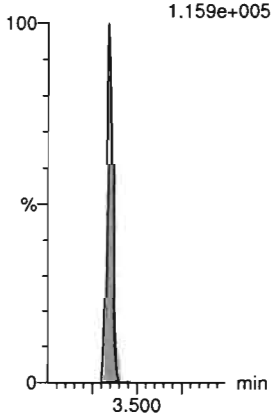
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Name: 200225P1-10, Date: 25-Feb-2020, Time: 19:33:15, ID: ST200225P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

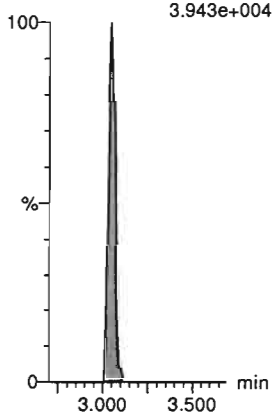
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.355e+004



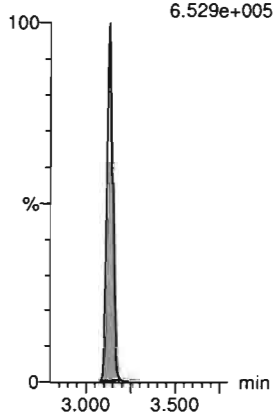
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.159e+005



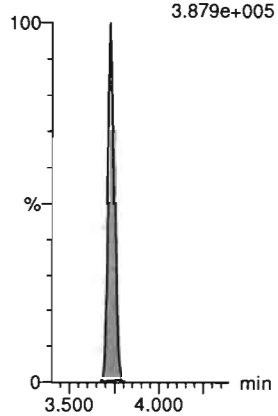
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.943e+004



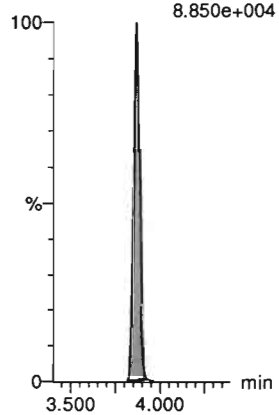
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
6.529e+005



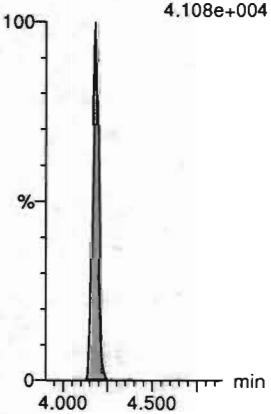
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.879e+005



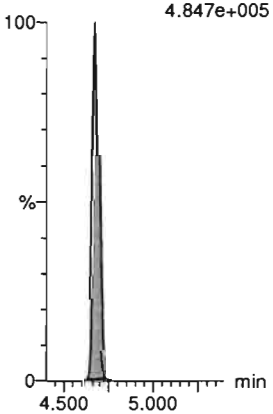
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.850e+004



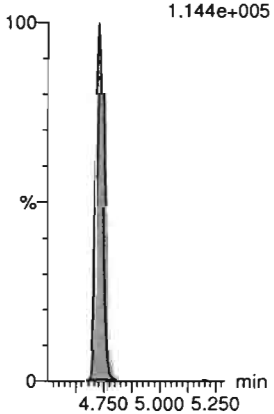
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
4.108e+004



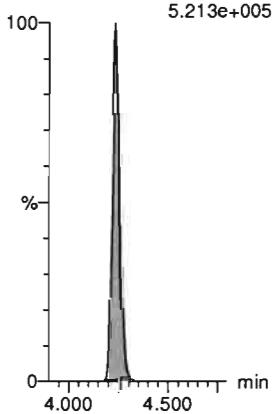
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.847e+005



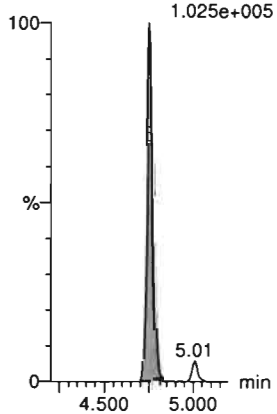
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.144e+005



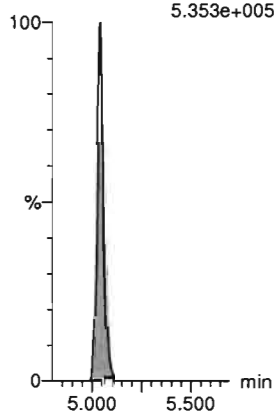
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
5.213e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
1.025e+005



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.353e+005

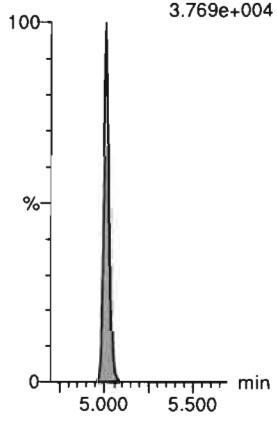


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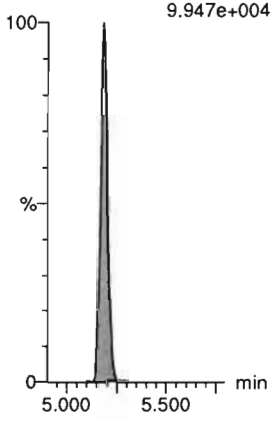
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Name: 200225P1-10, Date: 25-Feb-2020, Time: 19:33:15, ID: ST200225P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

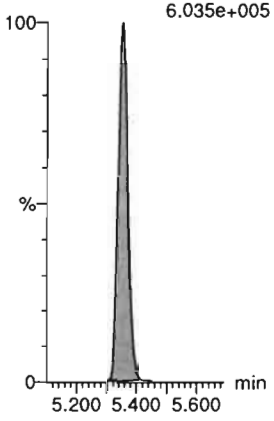
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.769e+004



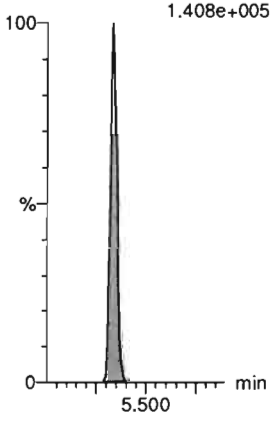
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
9.947e+004



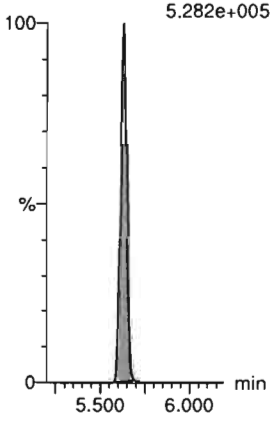
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
6.035e+005



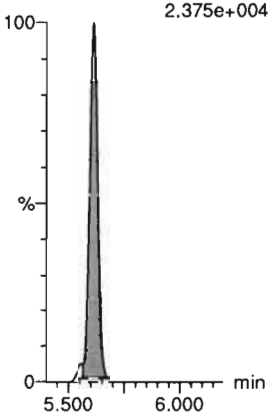
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.408e+005



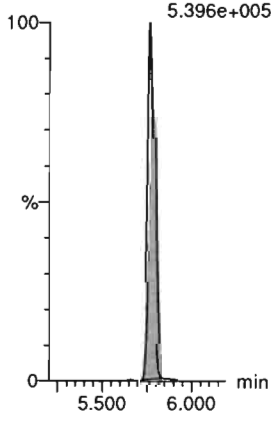
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
5.282e+005



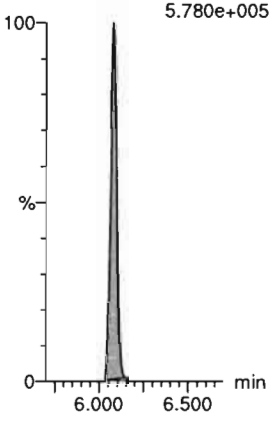
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.375e+004



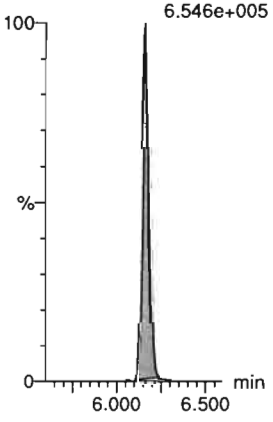
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
5.396e+005



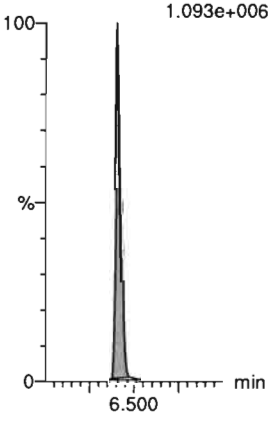
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.780e+005



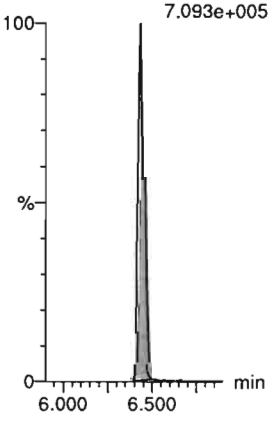
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
6.546e+005



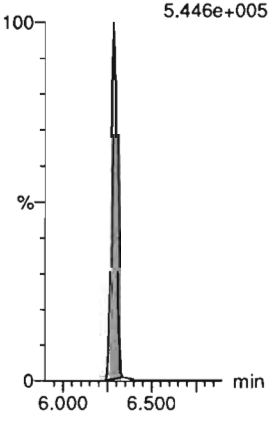
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
1.093e+006



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
7.093e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.446e+005

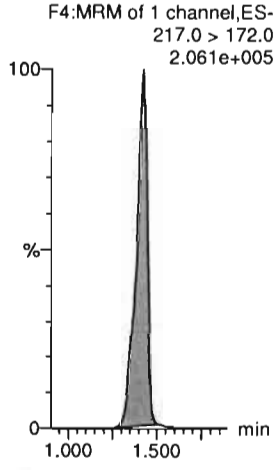


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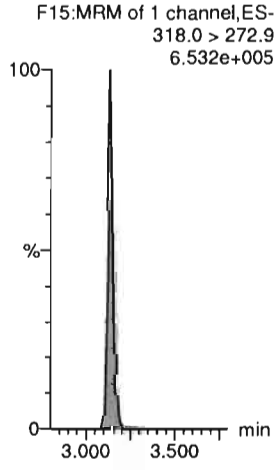
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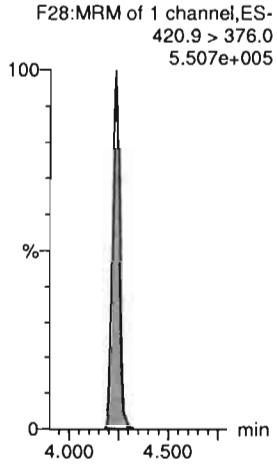
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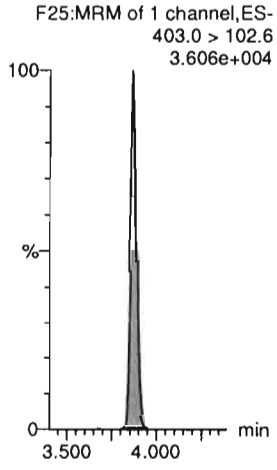
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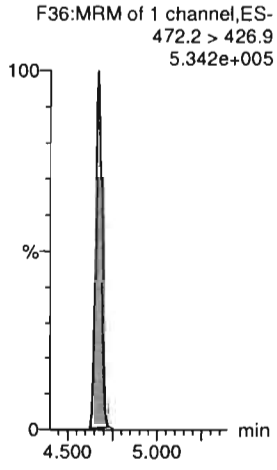
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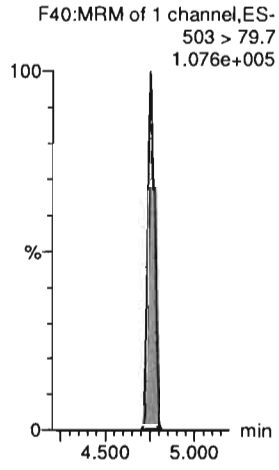
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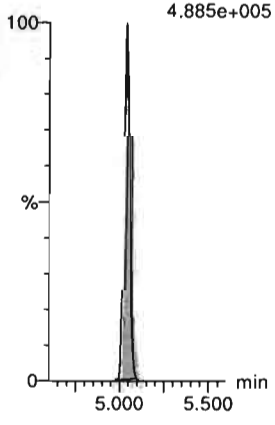
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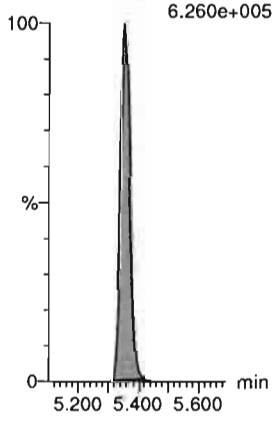
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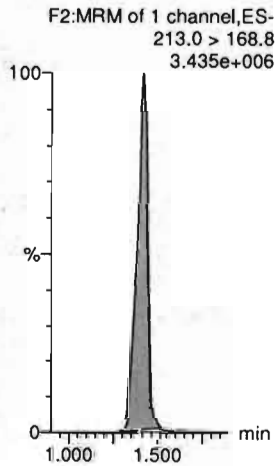


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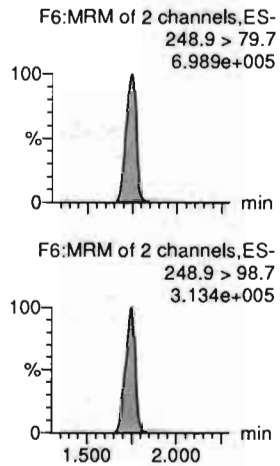
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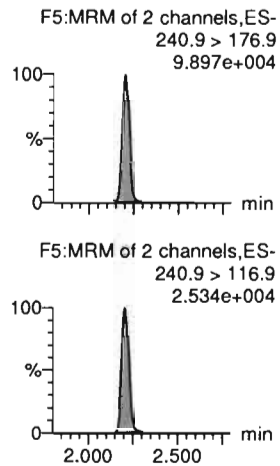
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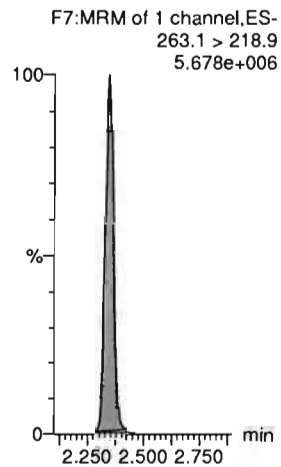
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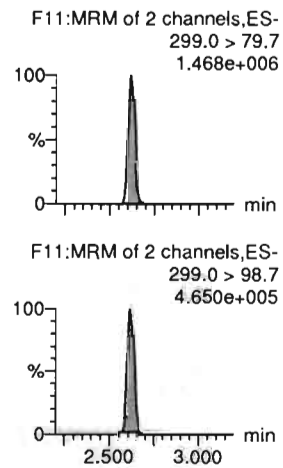
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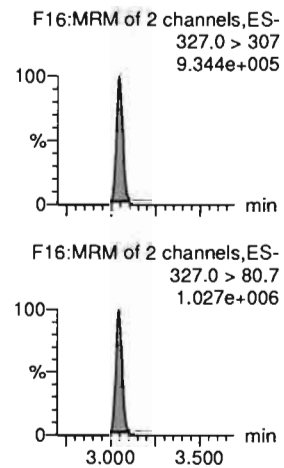
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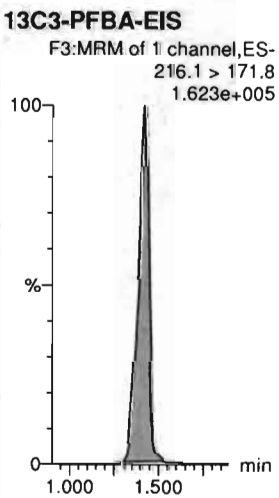
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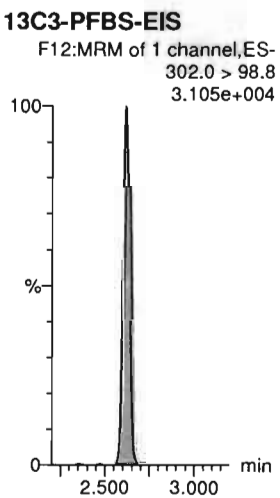
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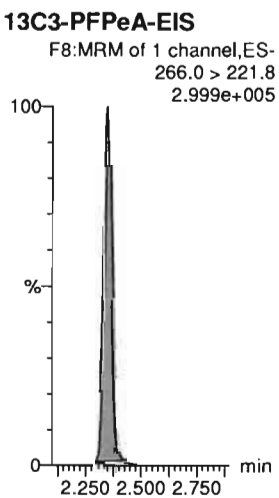
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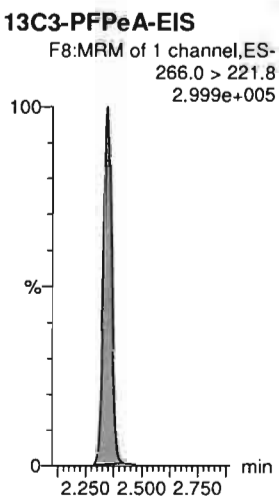
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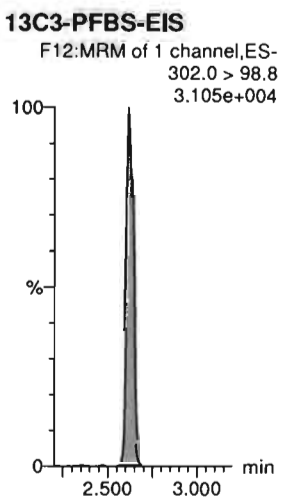
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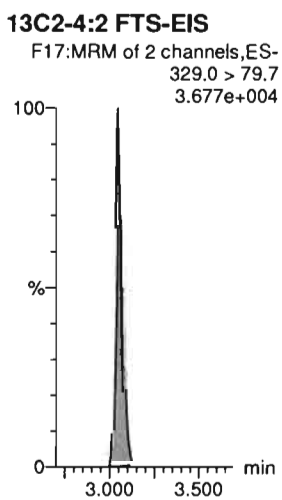
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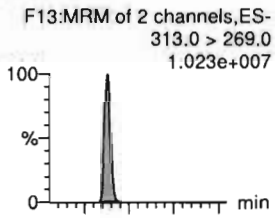


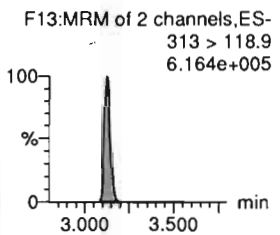
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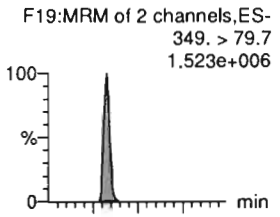
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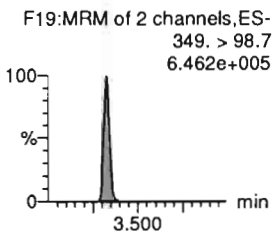
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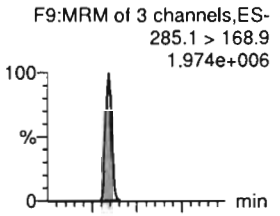


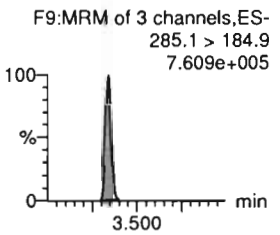
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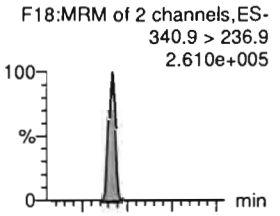


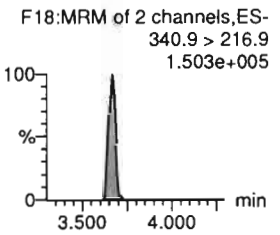
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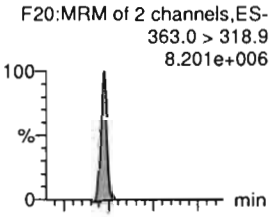


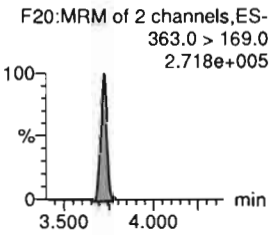
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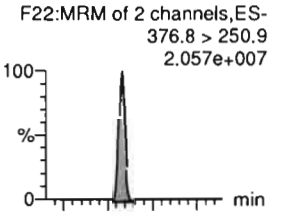


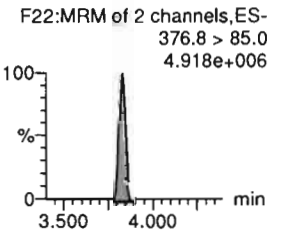
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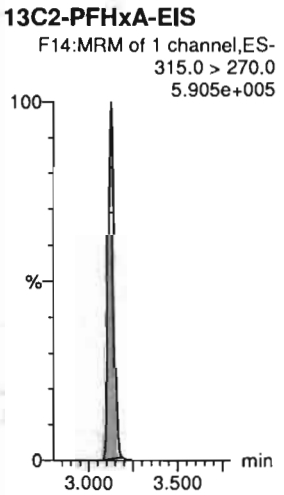


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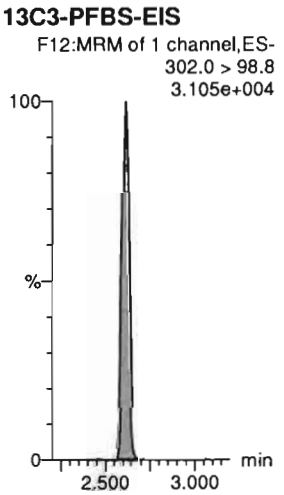




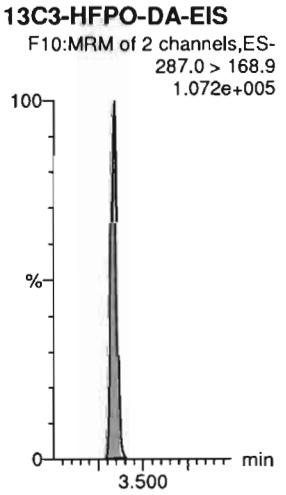
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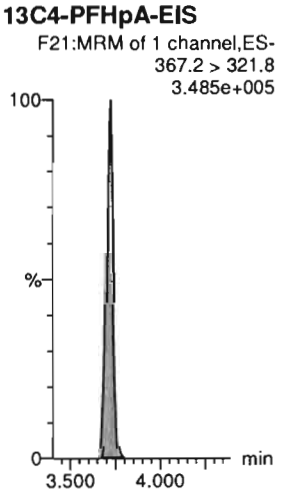
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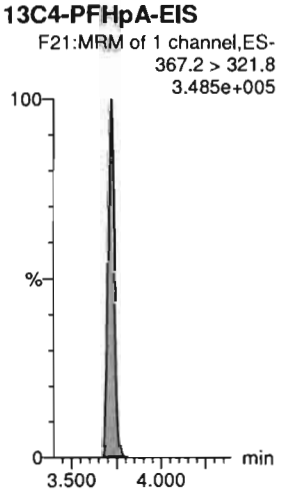
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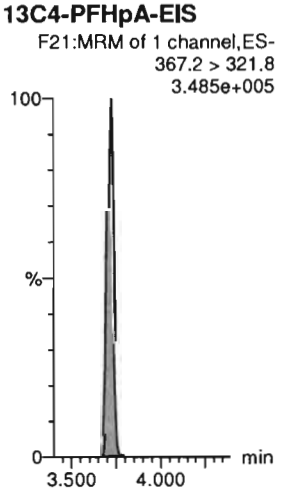
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13C4-PFHpA-EIS



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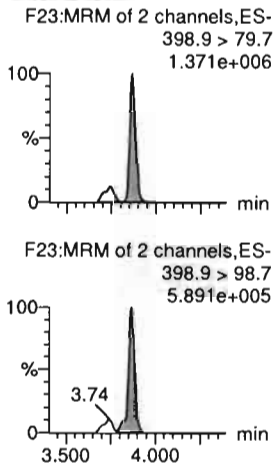


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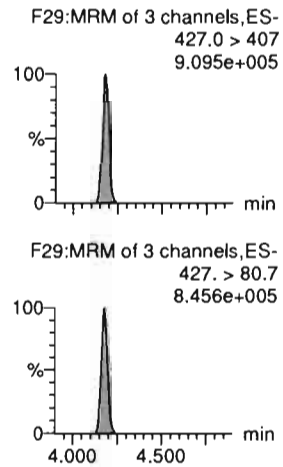
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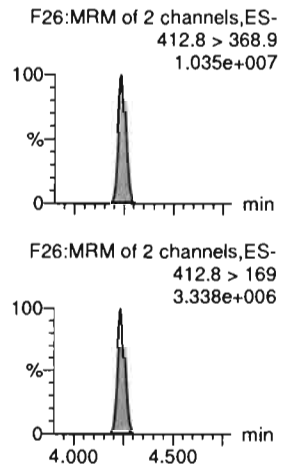
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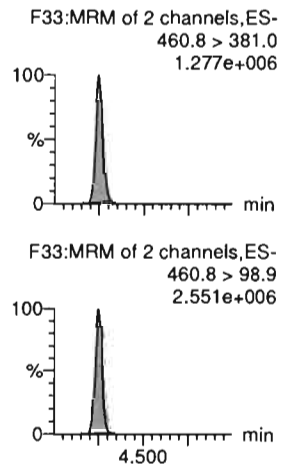
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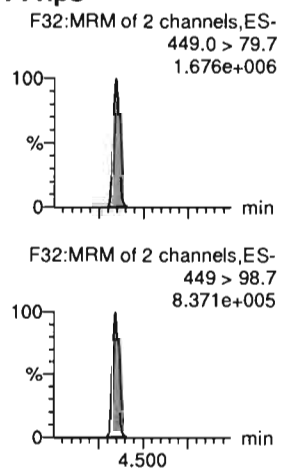
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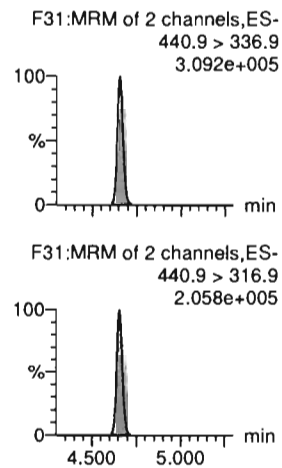
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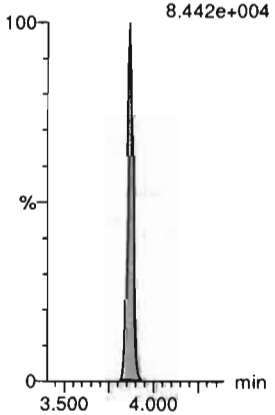
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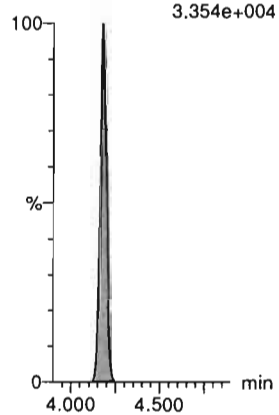
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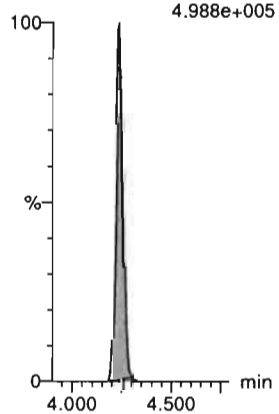
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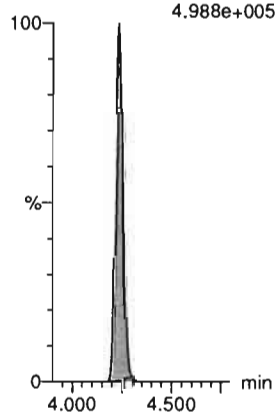
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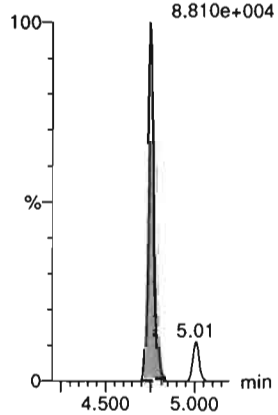
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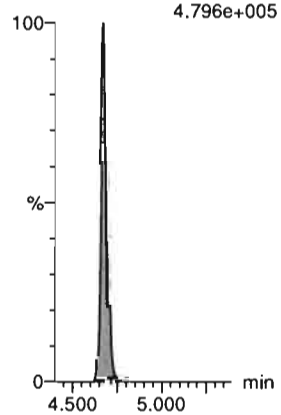
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13C8-PFOS-EIS



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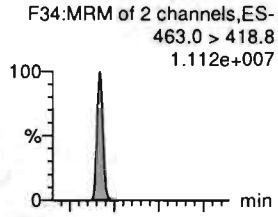


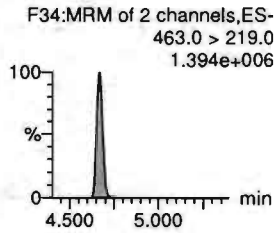
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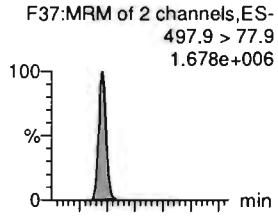
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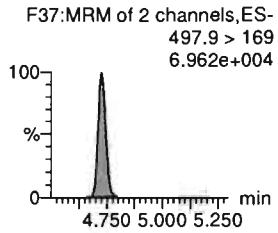
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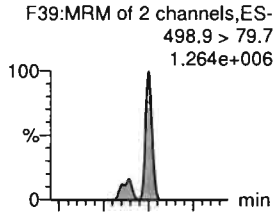


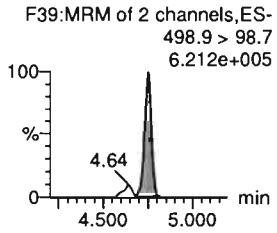
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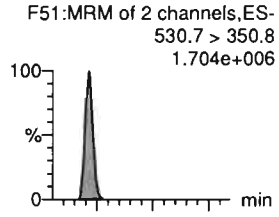


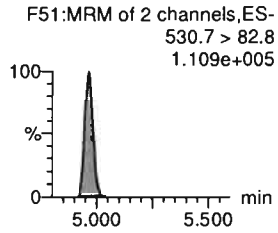
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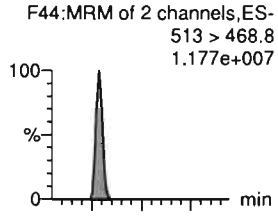


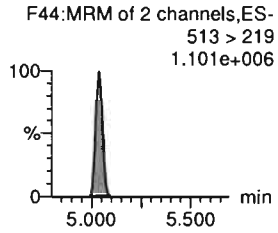
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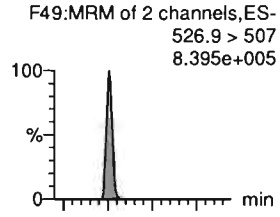


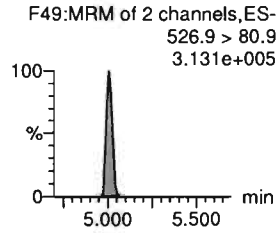
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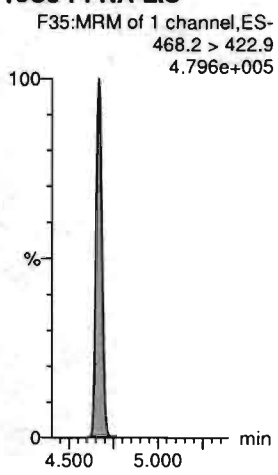


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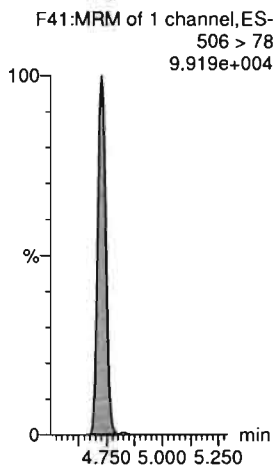




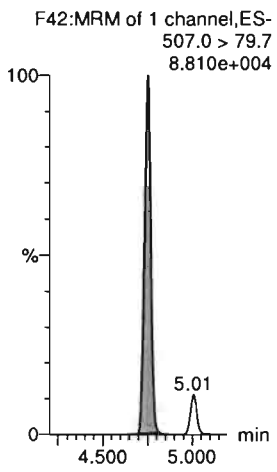
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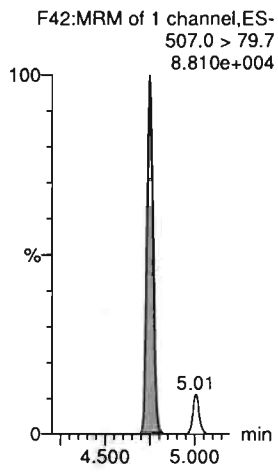
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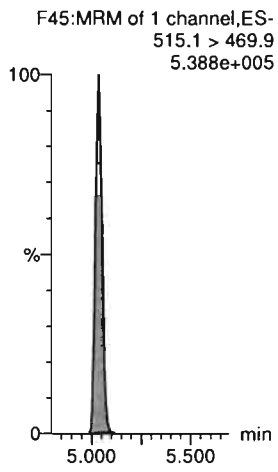
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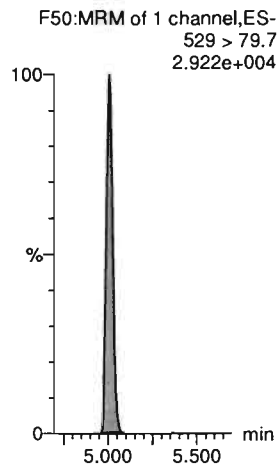
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

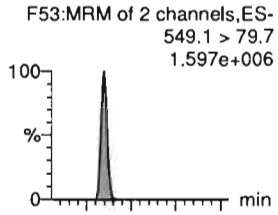


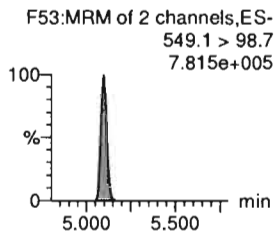
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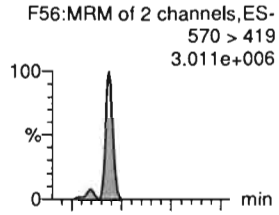
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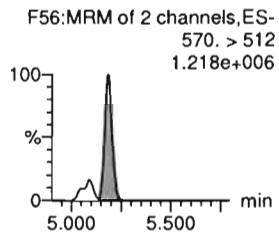
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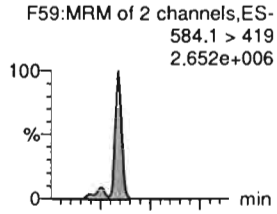


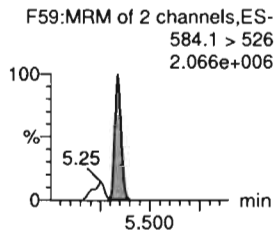
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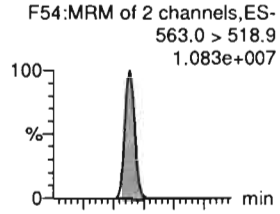


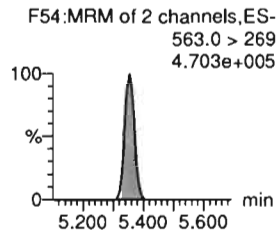
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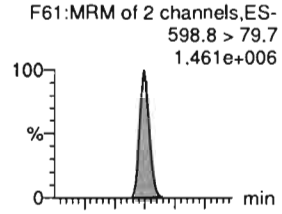


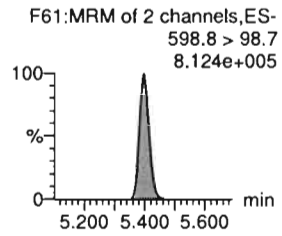
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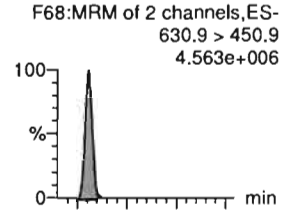


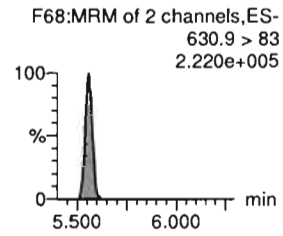
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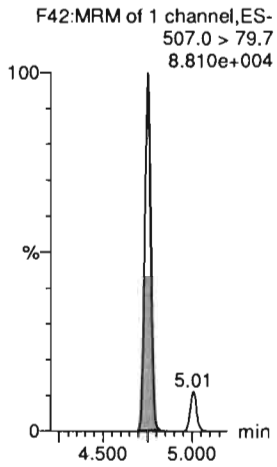


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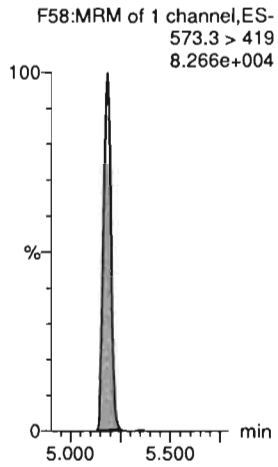




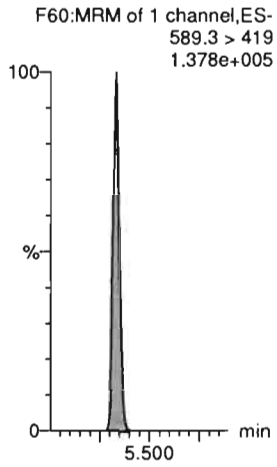
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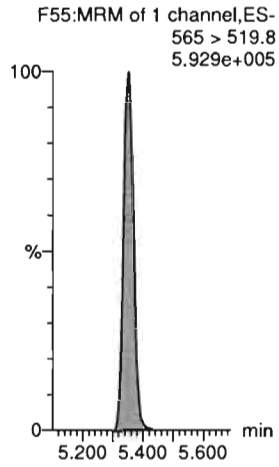
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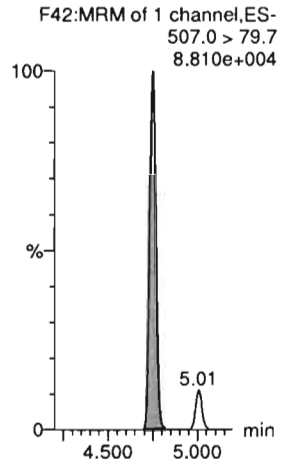
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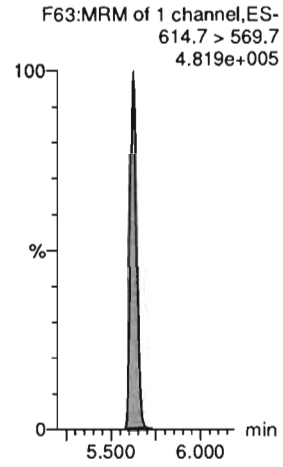
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

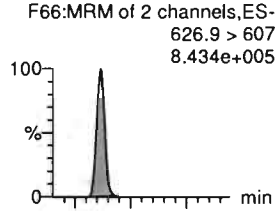


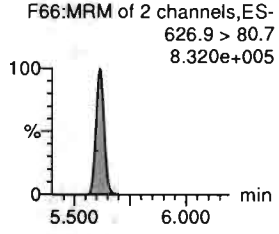
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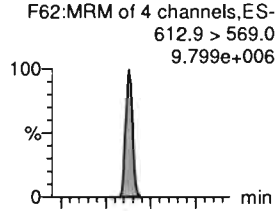
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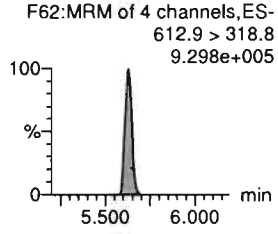
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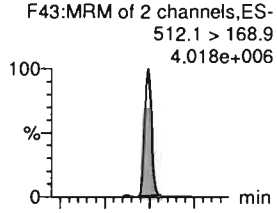


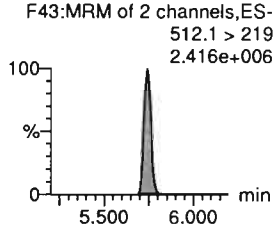
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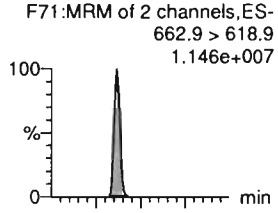


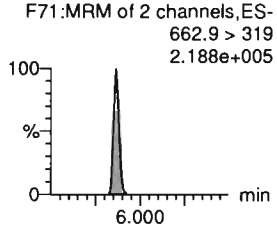
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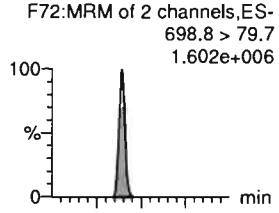


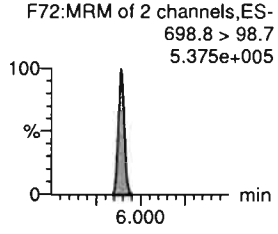
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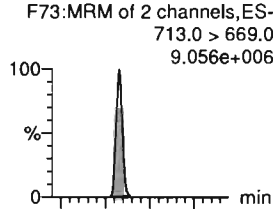


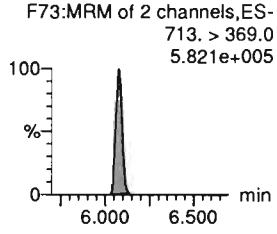
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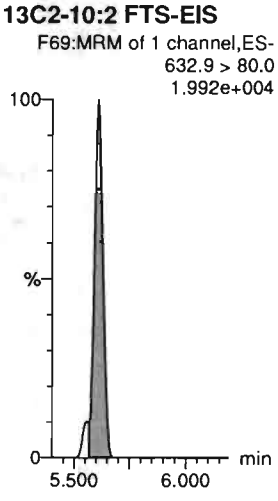


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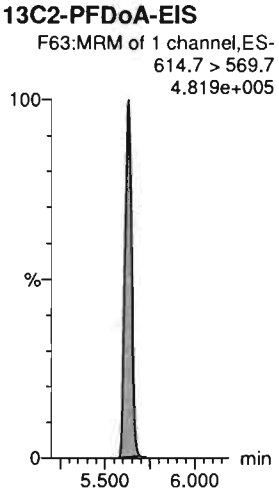




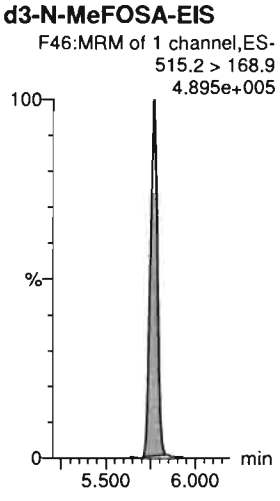
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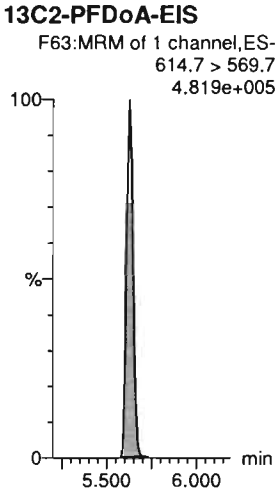
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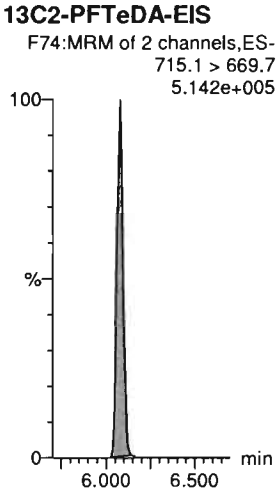
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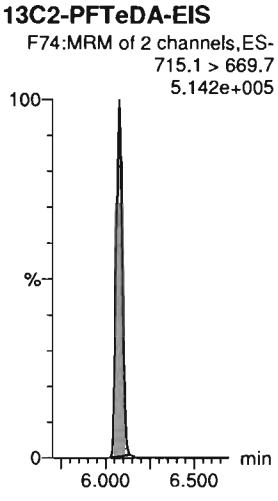
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13C2-PFTeDA-EIS



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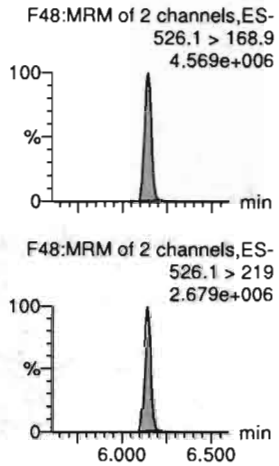


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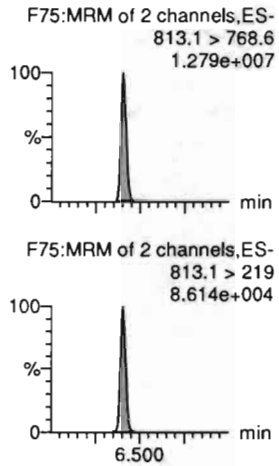
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Name: 200225P1-11, Date: 25-Feb-2020, Time: 19:43:44, ID: ST200225P1-9 PFC CS6 20B1110, Description: PFC CS6 20B1110

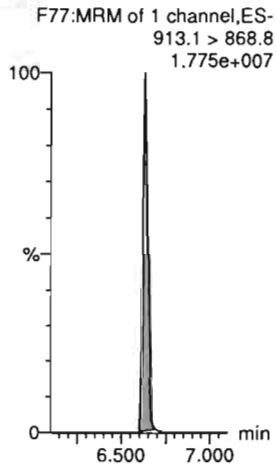
N-EtFOSA



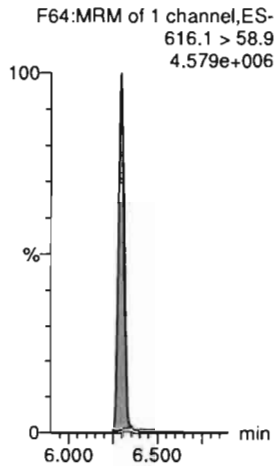
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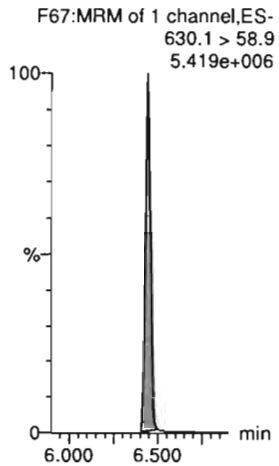
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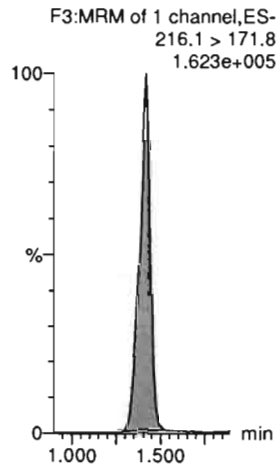
N-MeFOSE



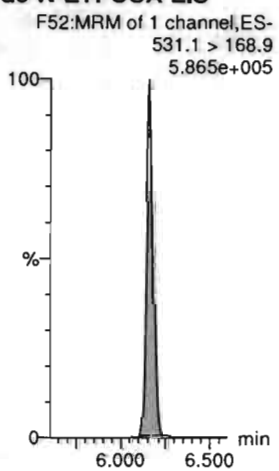
N-EtFOSE



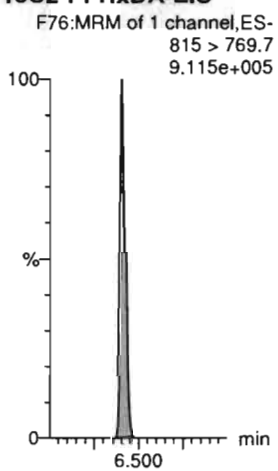
13C3-PFBA-RSD



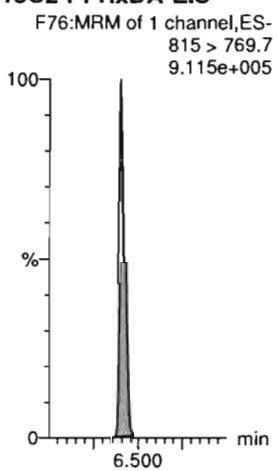
d5-N-ETFOSA-EIS



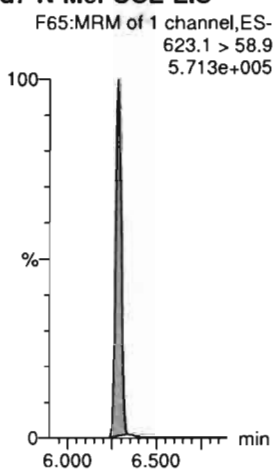
13C2-PFHxDA-EIS



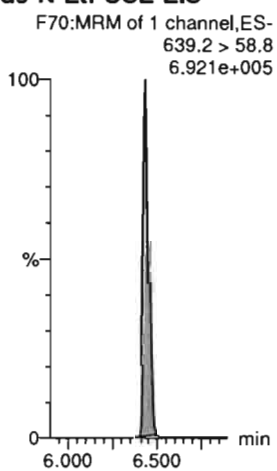
13C2-PFHxDA-EIS



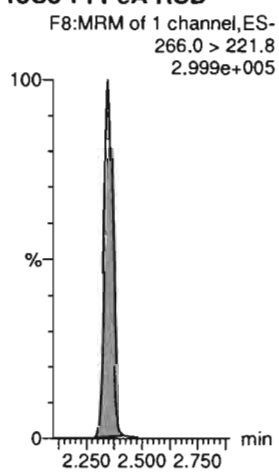
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

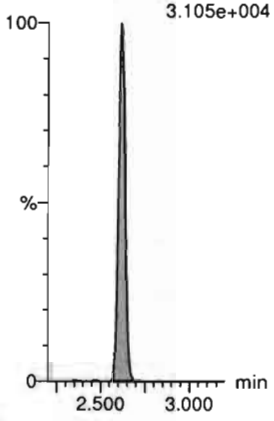


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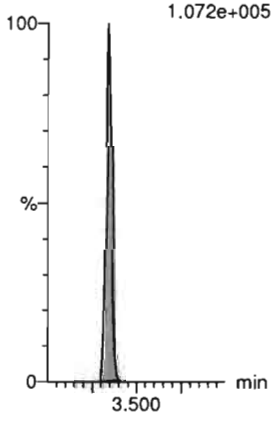
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Name: 200225P1-11, Date: 25-Feb-2020, Time: 19:43:44, ID: ST200225P1-9 PFC CS6 20B1110, Description: PFC CS6 20B1110

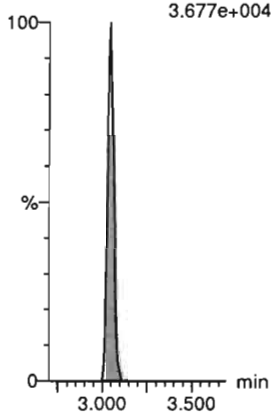
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.105e+004



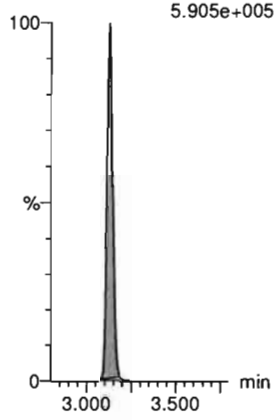
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.072e+005



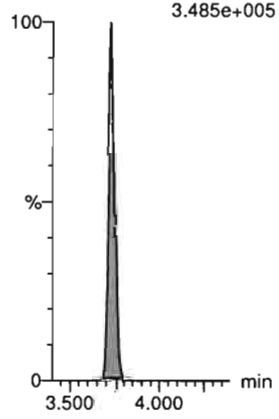
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.677e+004



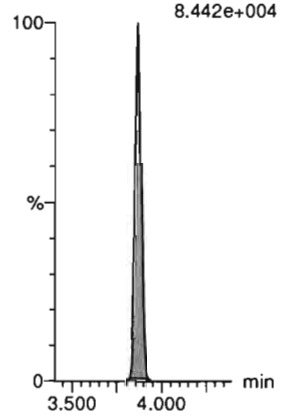
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.905e+005



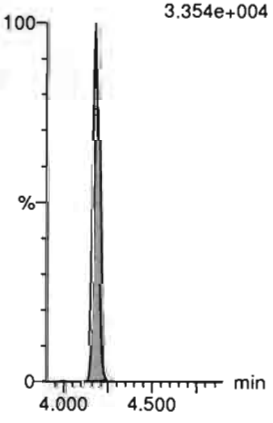
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.485e+005



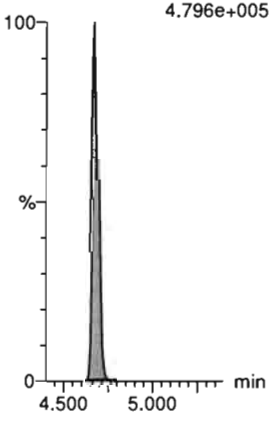
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.442e+004



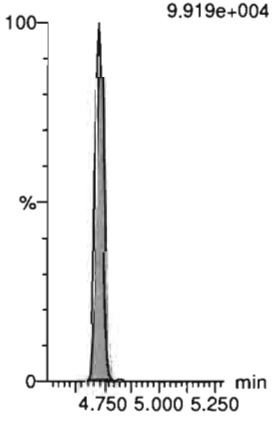
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.354e+004



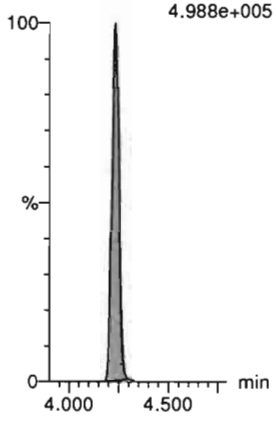
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.796e+005



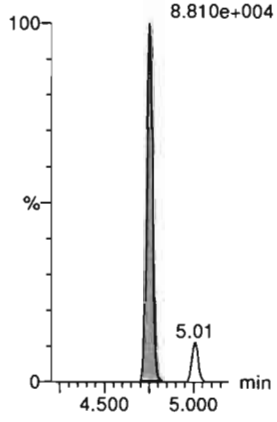
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.919e+004



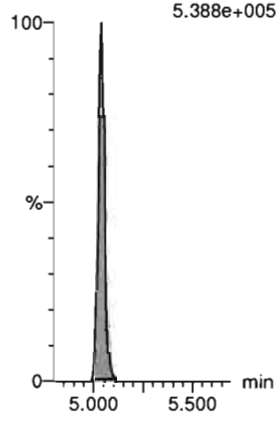
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.988e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.810e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.388e+005

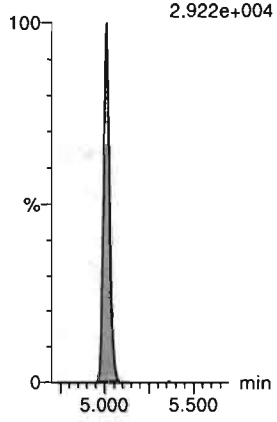


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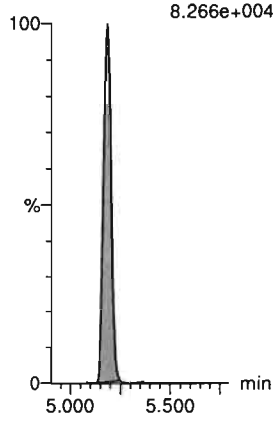
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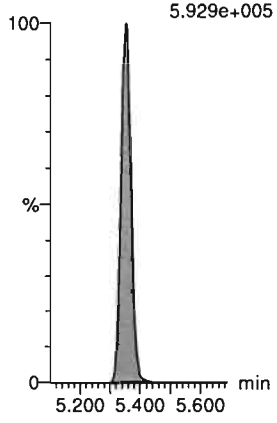
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F50:MRM of 1 channel,ES-
529 > 79.7
2.922e+004



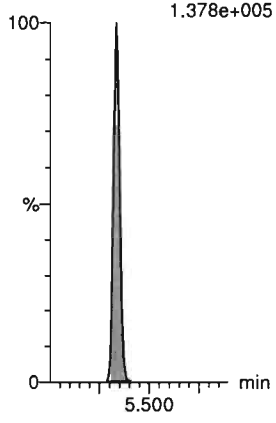
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.266e+004



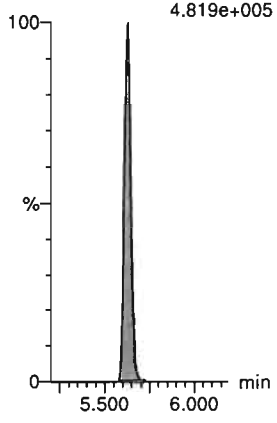
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.929e+005



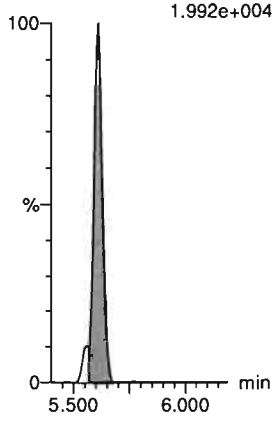
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F60:MRM of 1 channel,ES-
589.3 > 419
1.378e+005



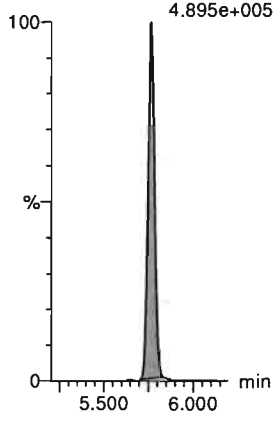
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F63:MRM of 1 channel,ES-
614.7 > 569.7
4.819e+005



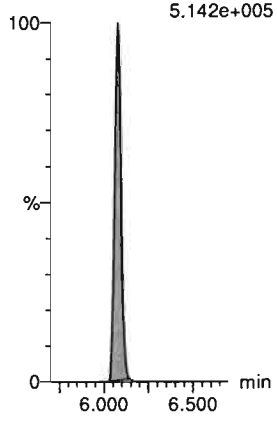
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.992e+004



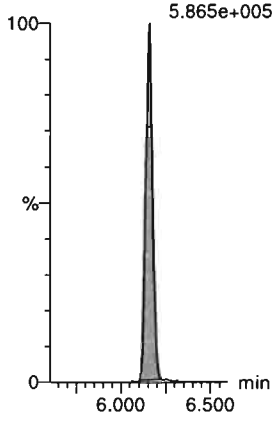
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.895e+005



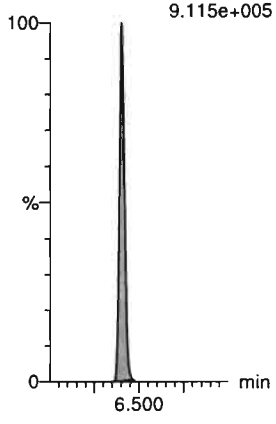
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.142e+005



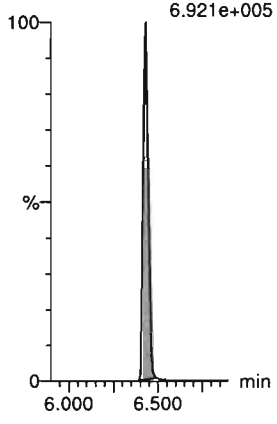
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.865e+005



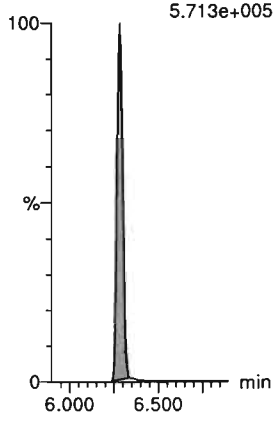
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.115e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.921e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.713e+005

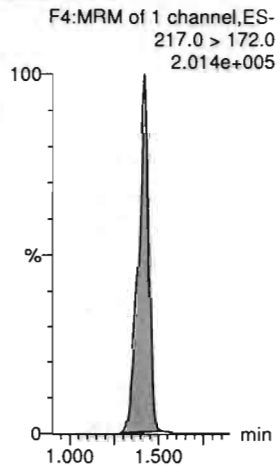


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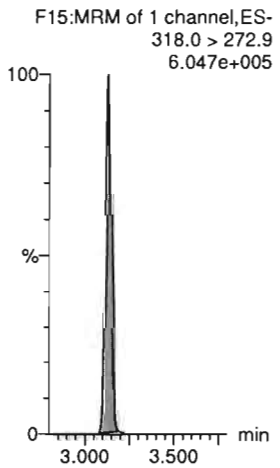
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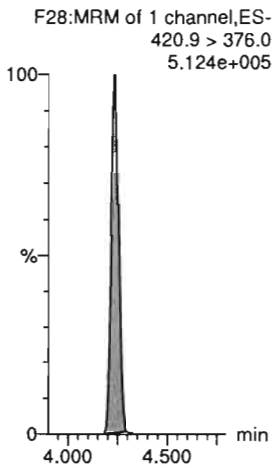
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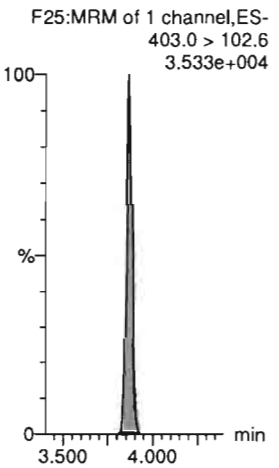
13C5-PFHxA



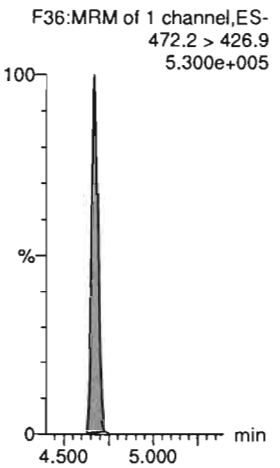
13C8-PFOA



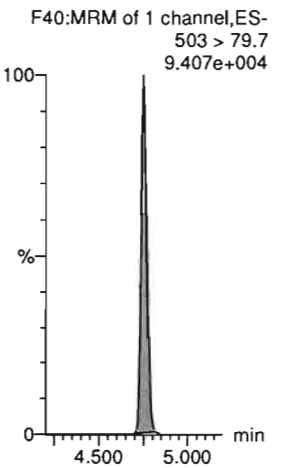
18O2-PFHxS



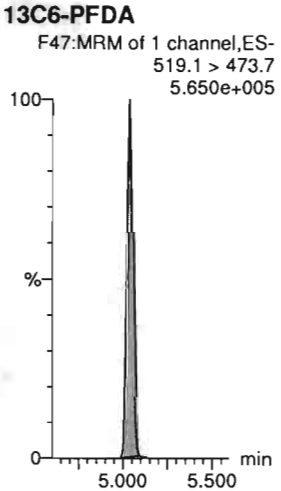
13C9-PFNA



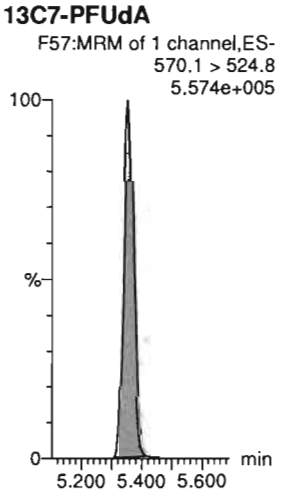
13C4-PFOS



13C6-PFDA



13C7-PFUdA

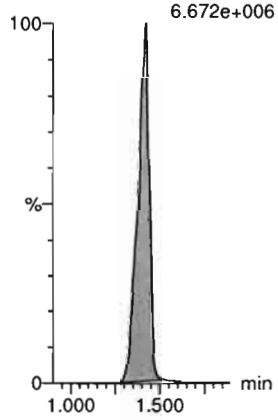


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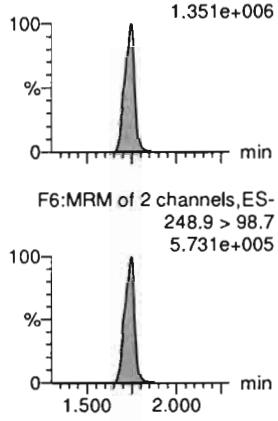
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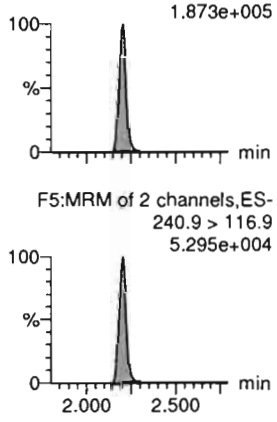
PFBA



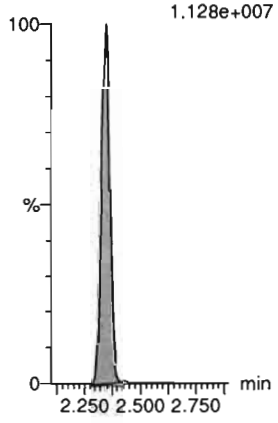
PFPrS



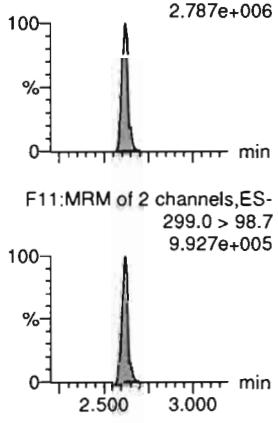
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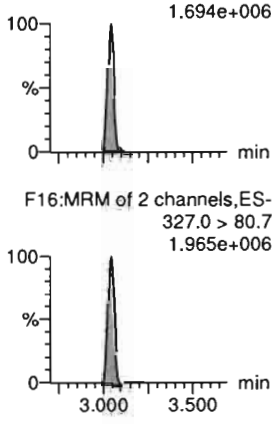
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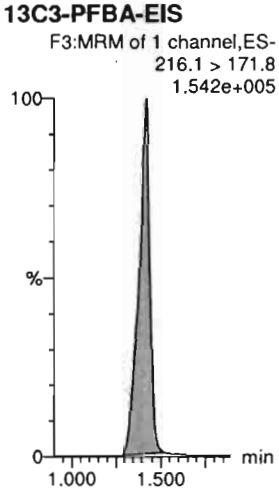
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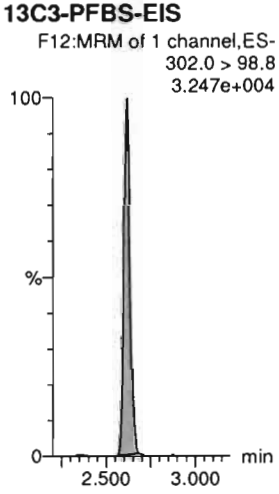
4:2 FTS



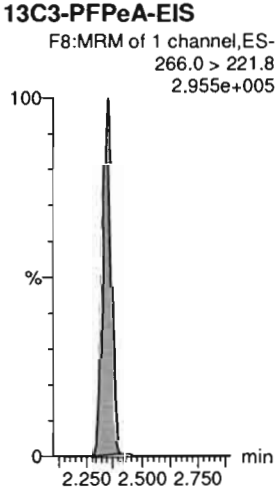
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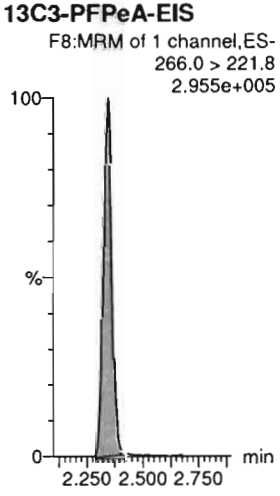
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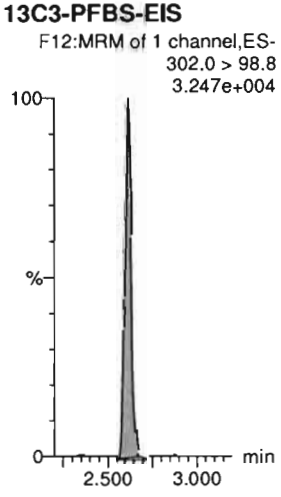
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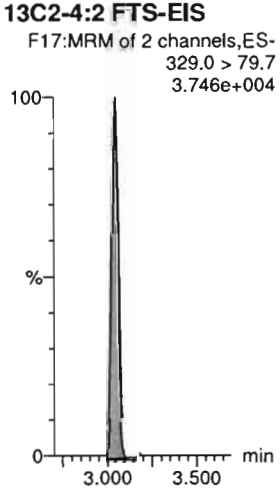
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

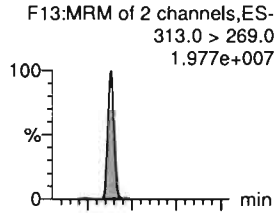


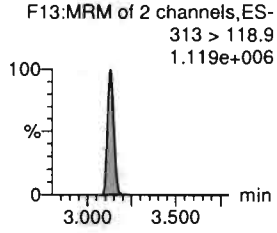
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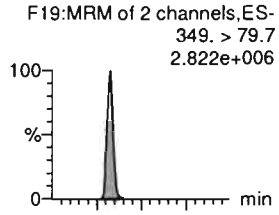
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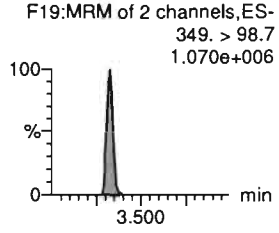
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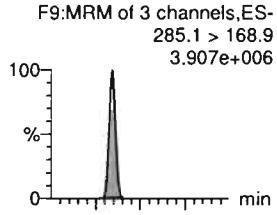


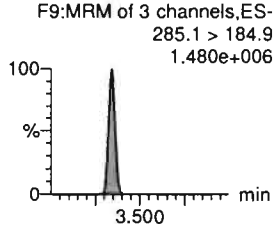
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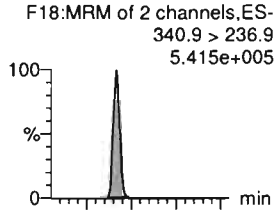


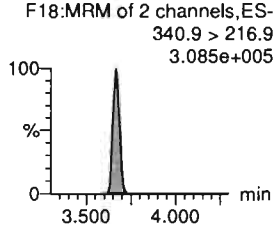
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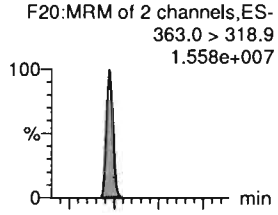


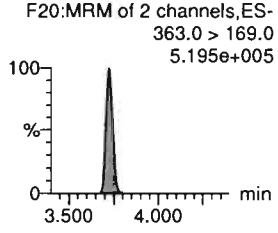
5:3 FTCA



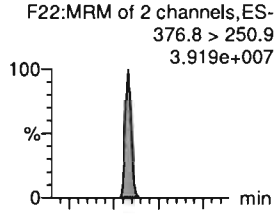


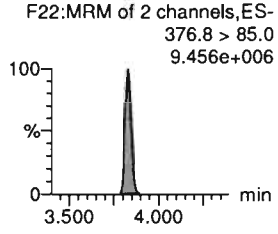
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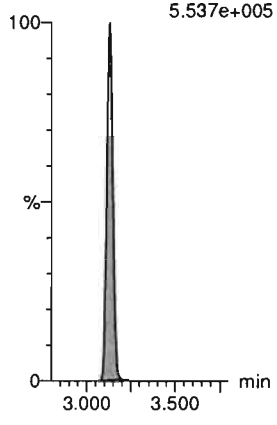


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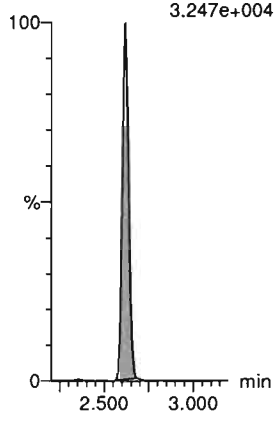




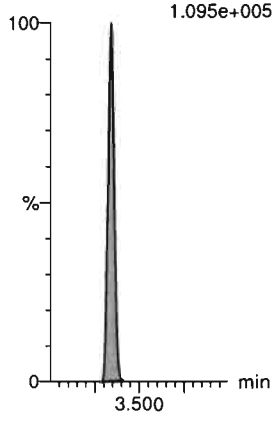
13C2-PFHxA-EIS



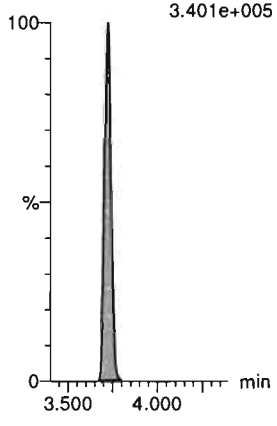
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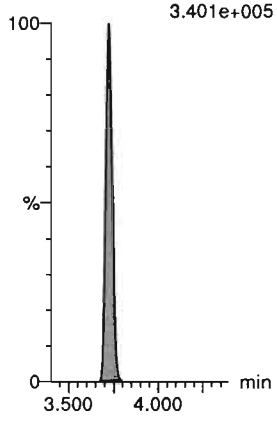
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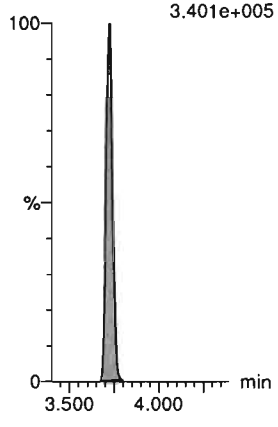
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

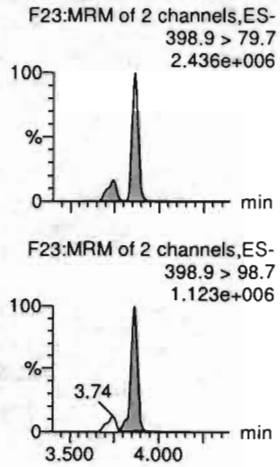


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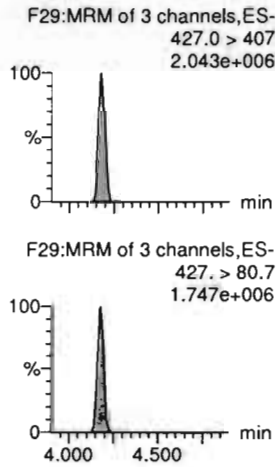
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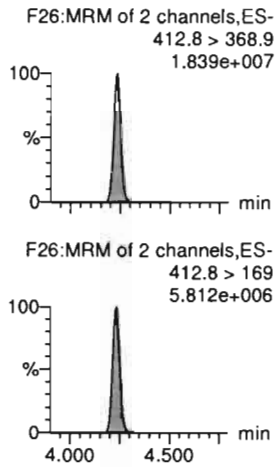
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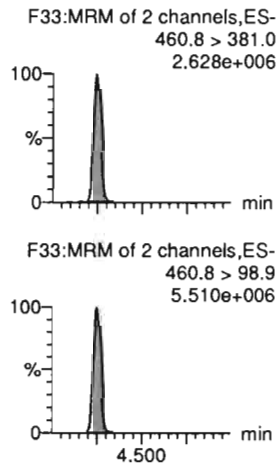
6:2 FTS



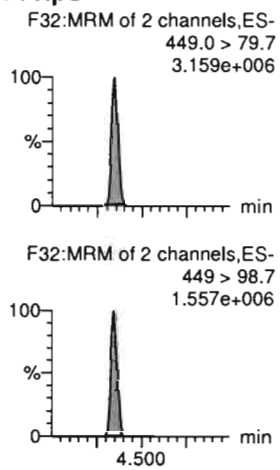
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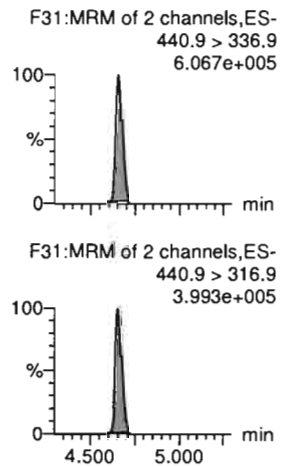
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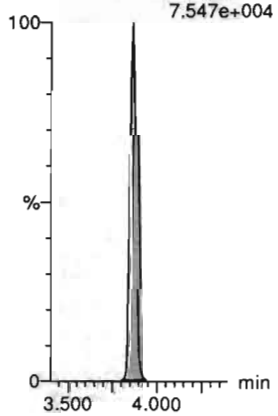
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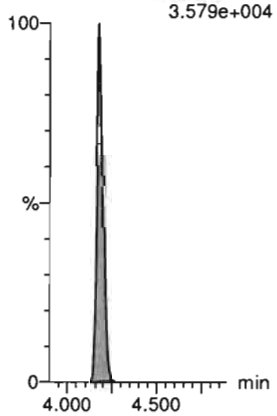
7:3 FTCA



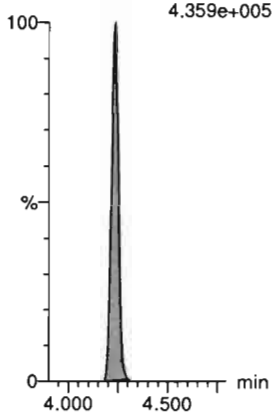
13C3-PFHxS-EIS



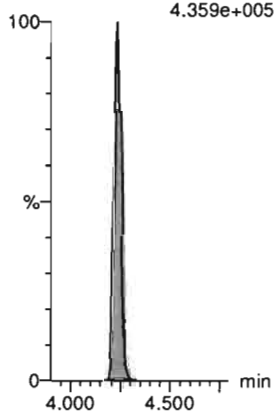
13C2-6:2 FTS-EIS



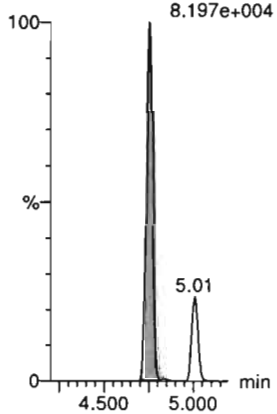
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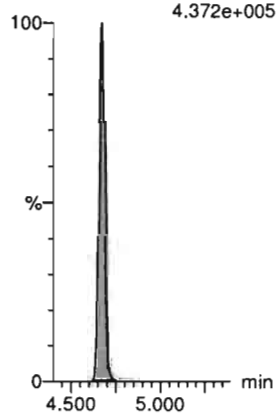
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13C8-PFOS-EIS



13C5-PFNA-EIS

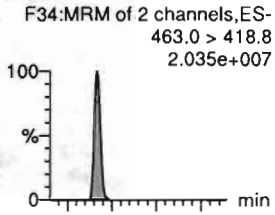


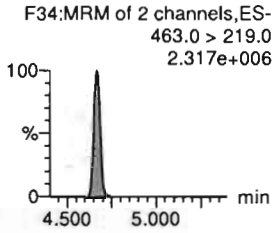
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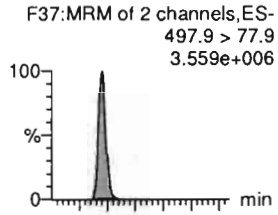
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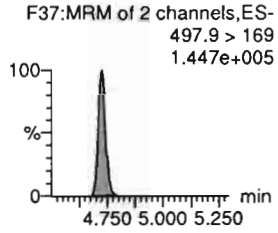
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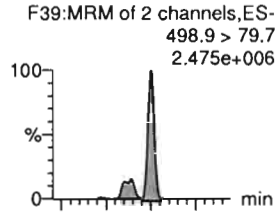


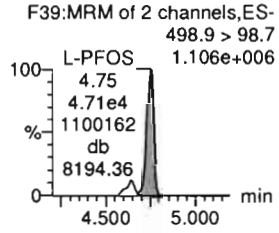
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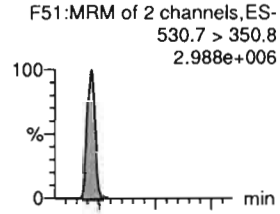


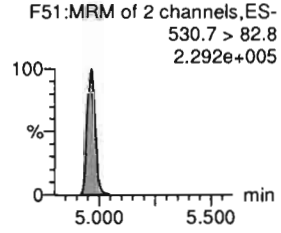
L-PFOS



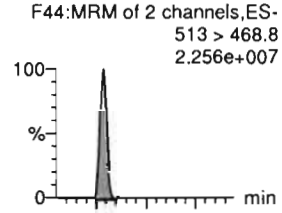


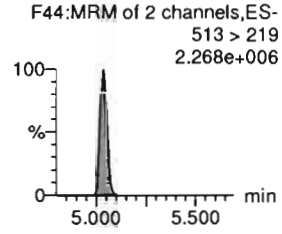
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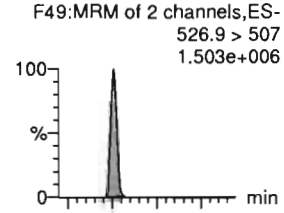


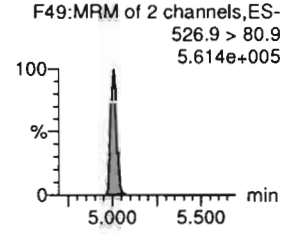
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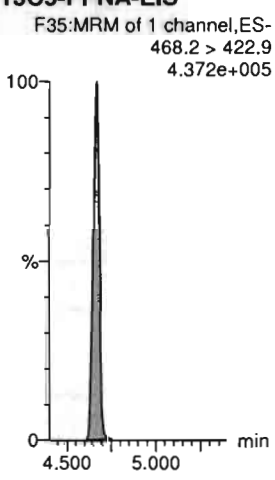


8:2 FTS

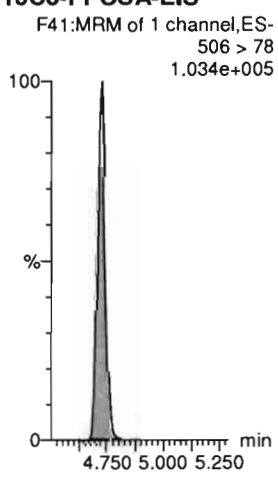




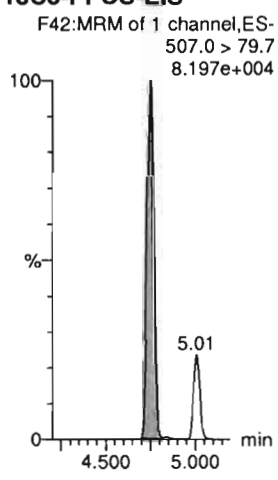
13C5-PFNA-EIS



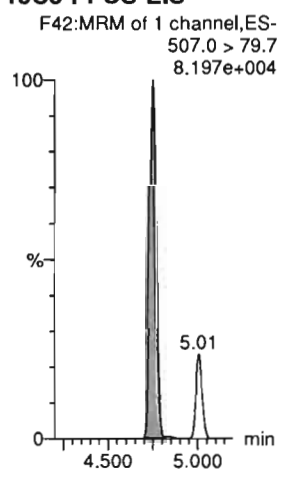
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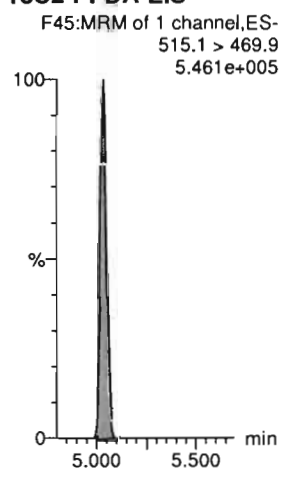
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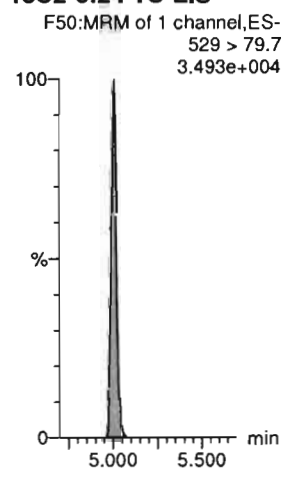
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

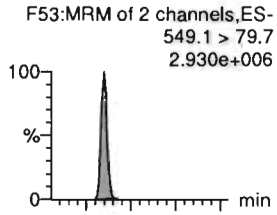


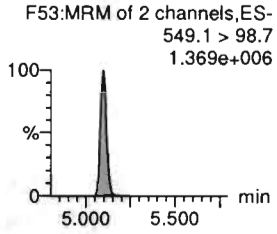
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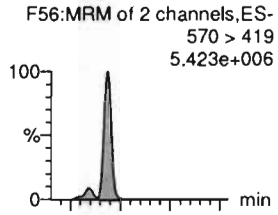
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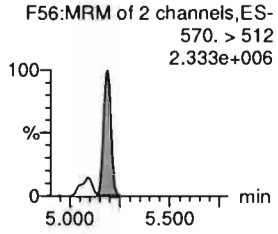
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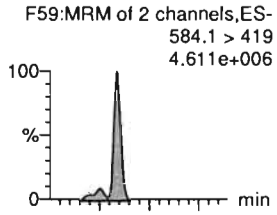


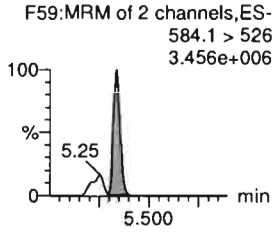
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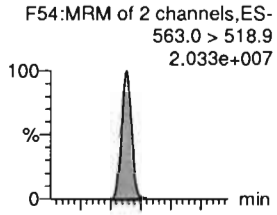


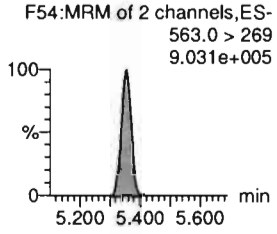
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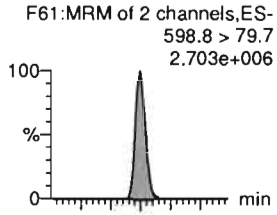


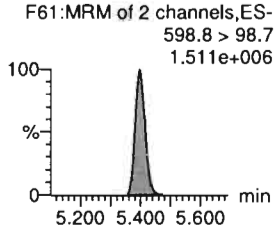
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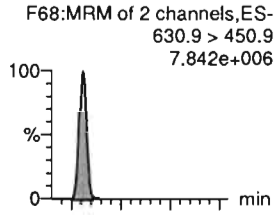


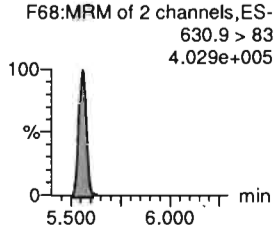
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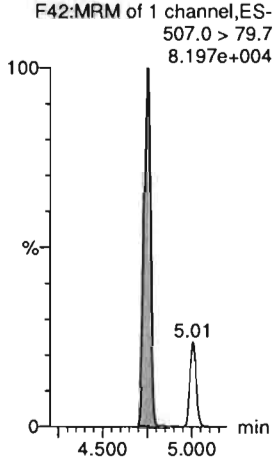


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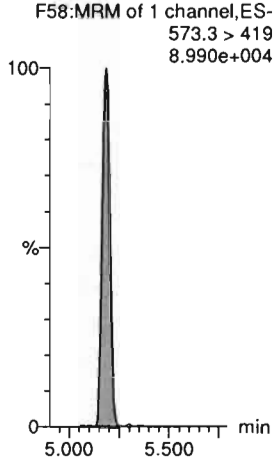




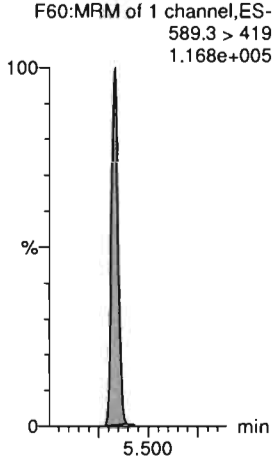
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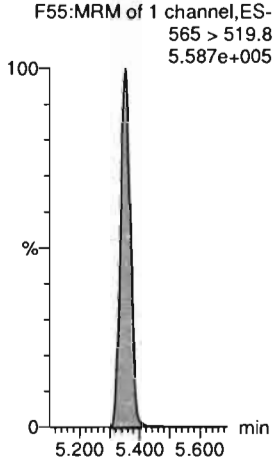
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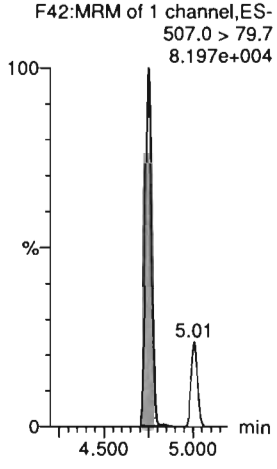
d5-N-EtFOSAA-EIS



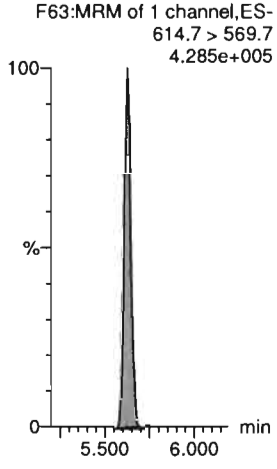
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

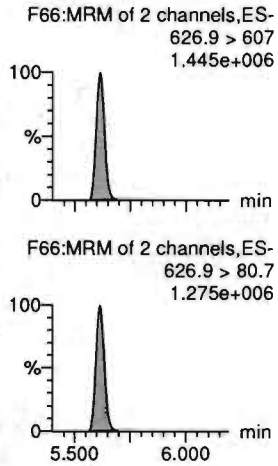


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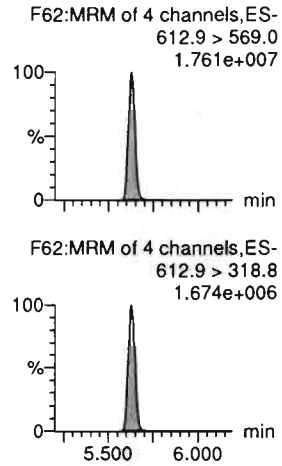
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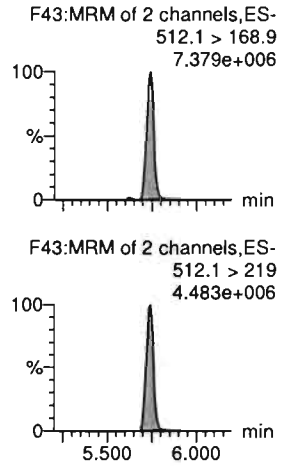
10:2 FTS



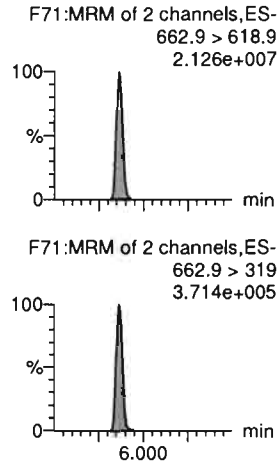
PFDoA



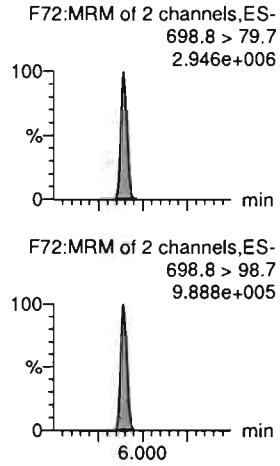
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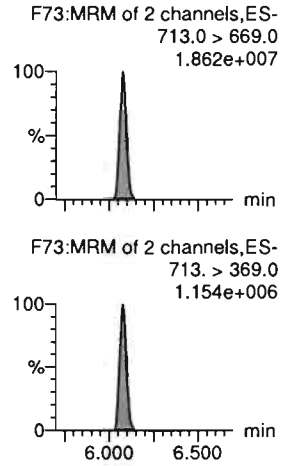
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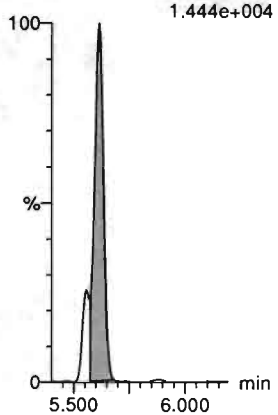
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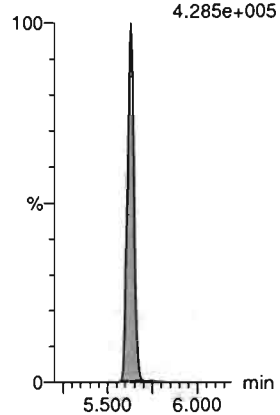
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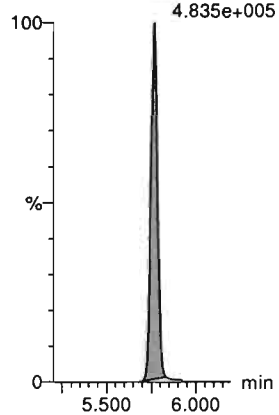
13C2-10:2 FTS-EIS



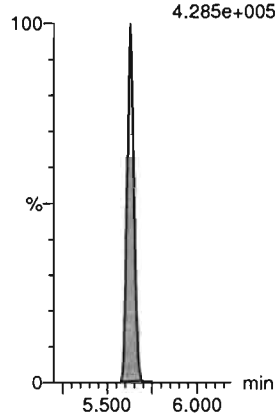
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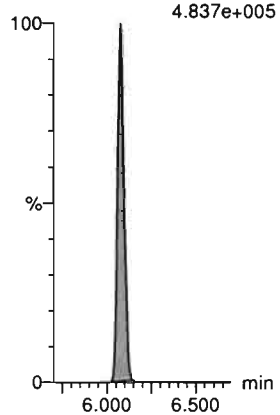
d3-N-MeFOSA-EIS



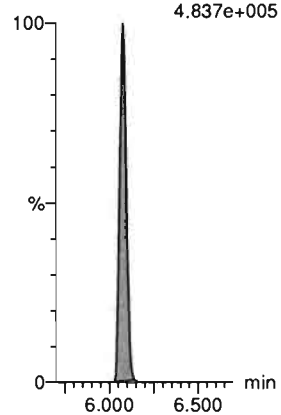
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

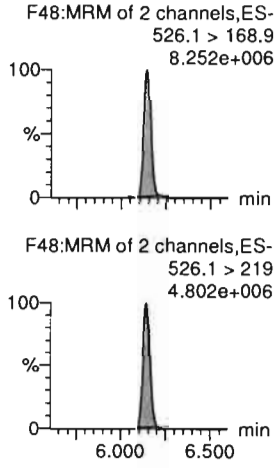


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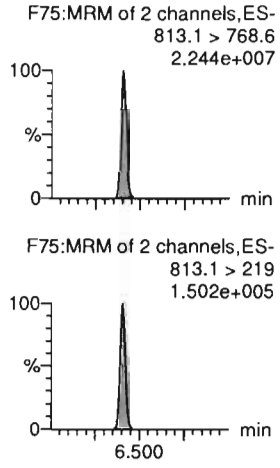
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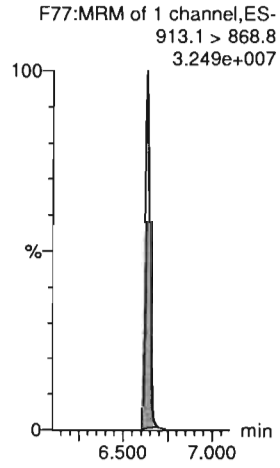
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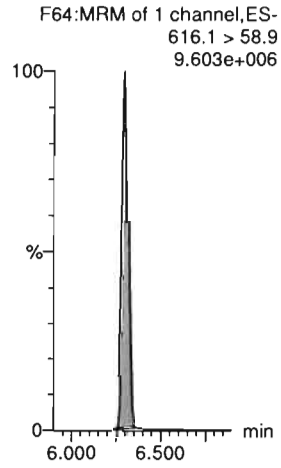
PFHxDA



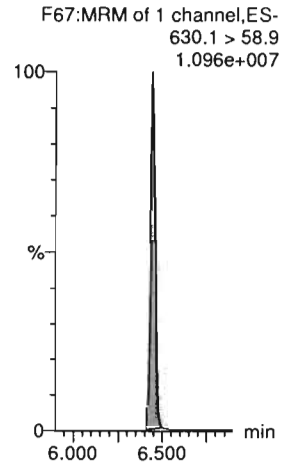
PFODA



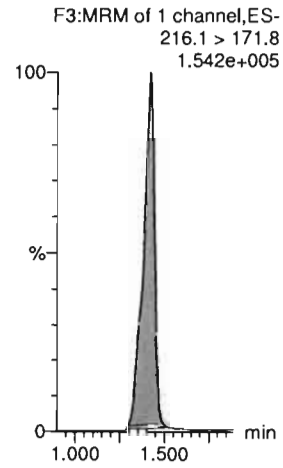
N-MeFOSE



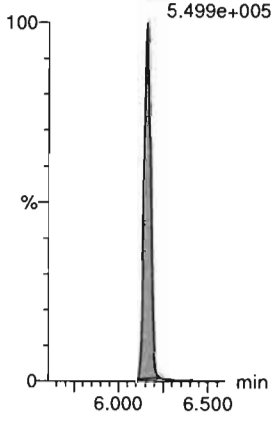
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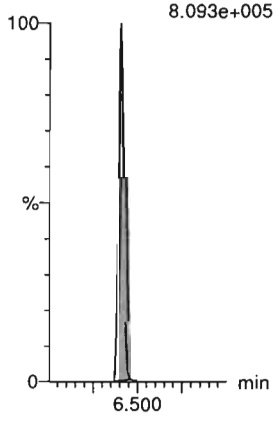
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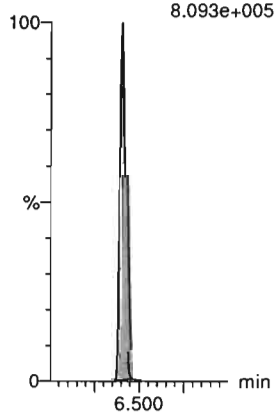
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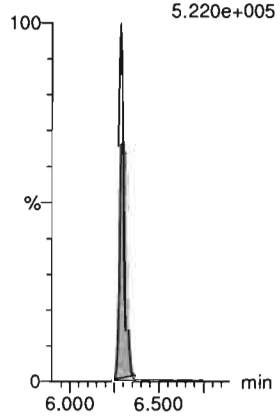
13C2-PFHxDA-EIS



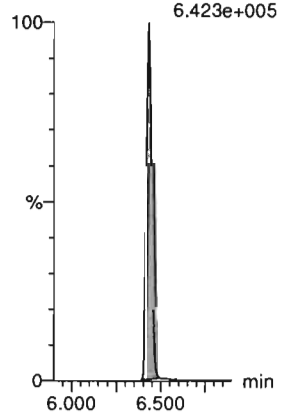
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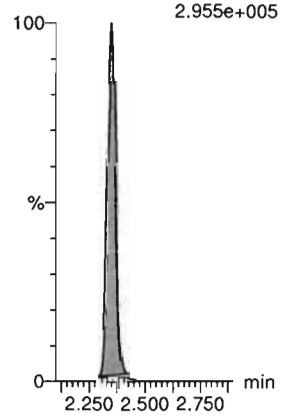
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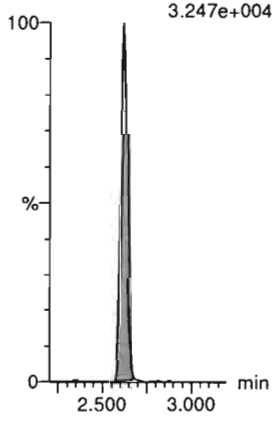


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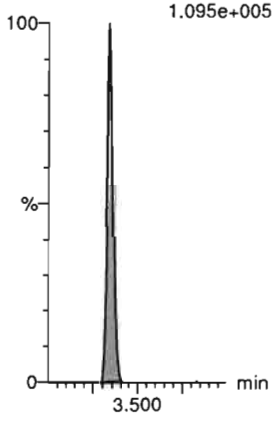
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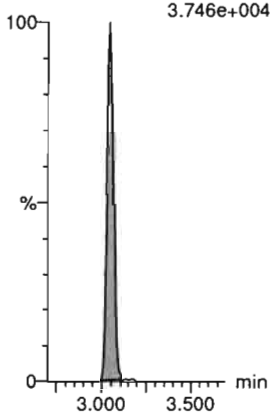
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F12:MRM of 1 channel,ES-
302.0 > 98.8
3.247e+004



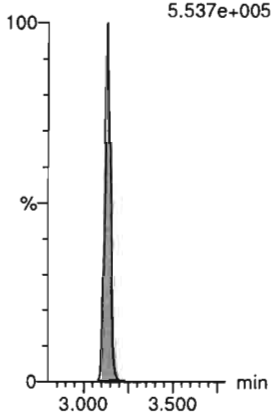
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.095e+005



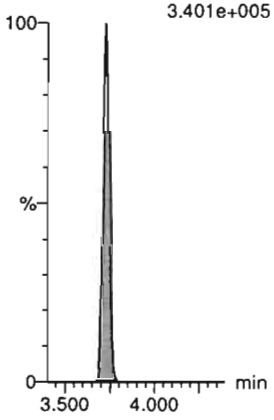
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.746e+004



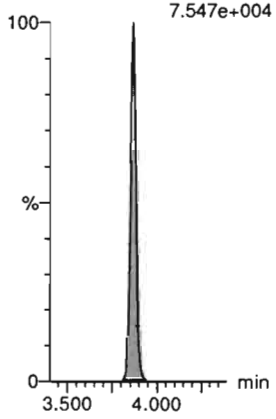
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
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5.537e+005



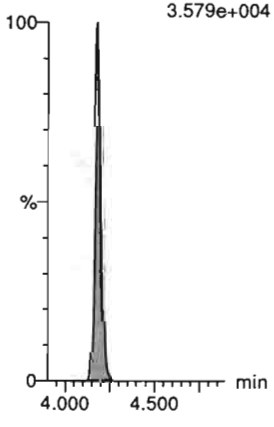
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F21:MRM of 1 channel,ES-
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3.401e+005



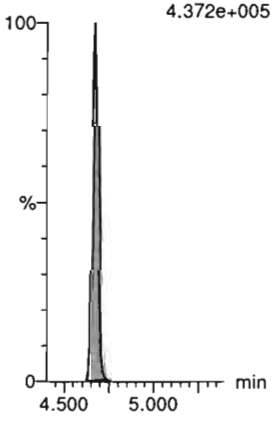
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
7.547e+004



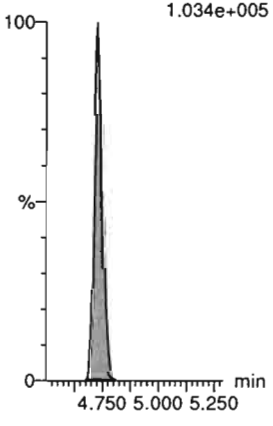
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.579e+004



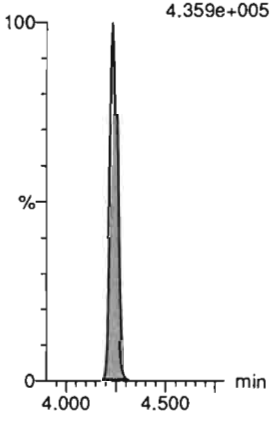
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.372e+005



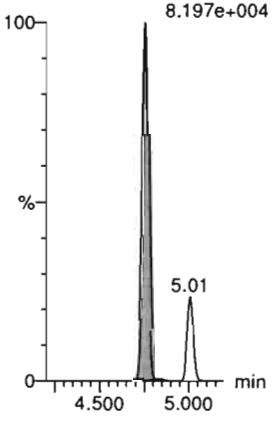
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.034e+005



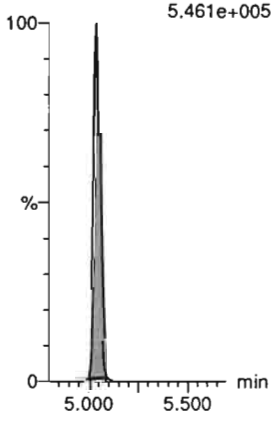
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.359e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.197e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.461e+005

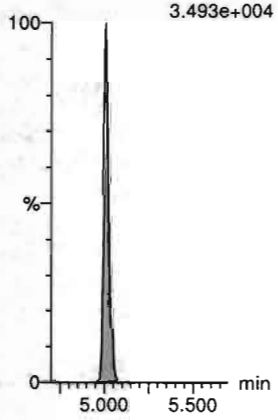


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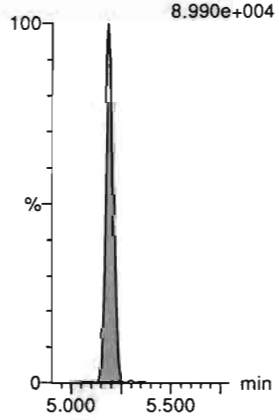
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Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-12, Date: 25-Feb-2020, Time: 19:54:16, ID: ST200225P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

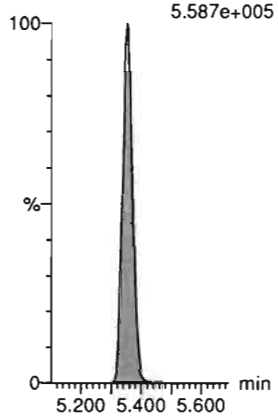
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.493e+004



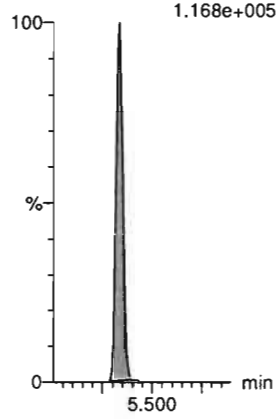
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.990e+004



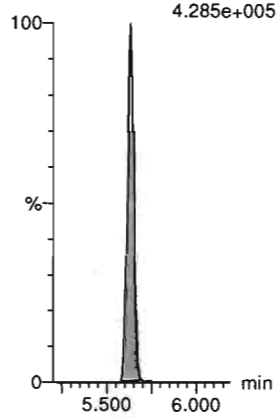
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.587e+005



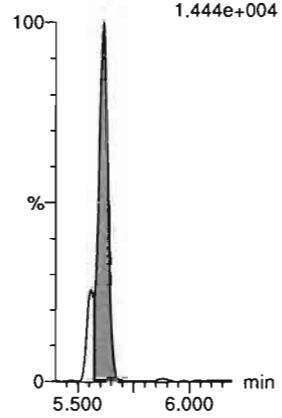
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.168e+005



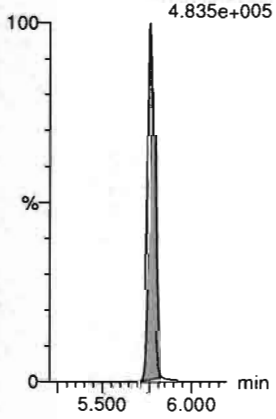
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.285e+005



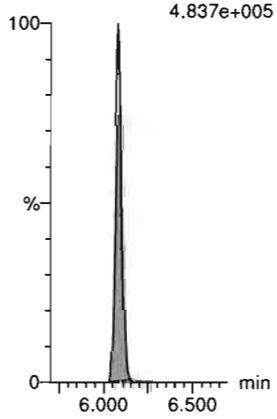
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.444e+004



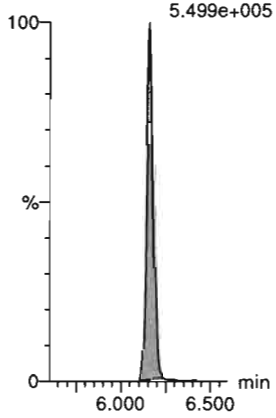
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.835e+005



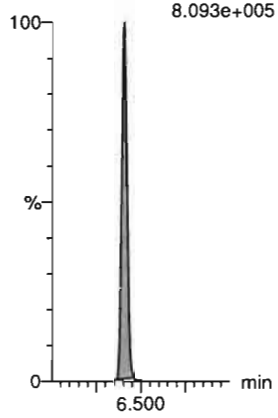
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.837e+005



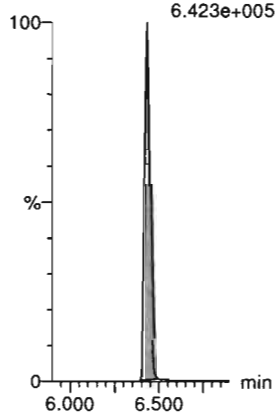
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.499e+005



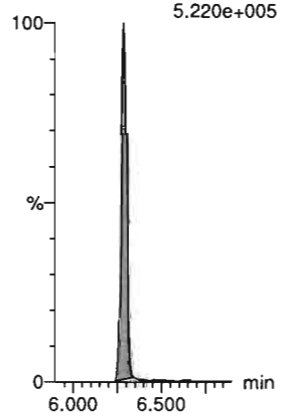
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.093e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.423e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.220e+005

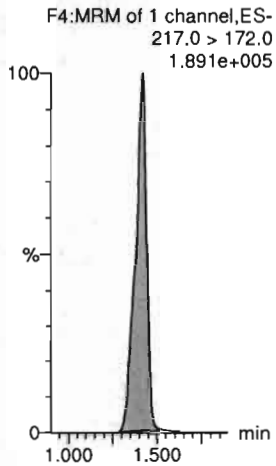


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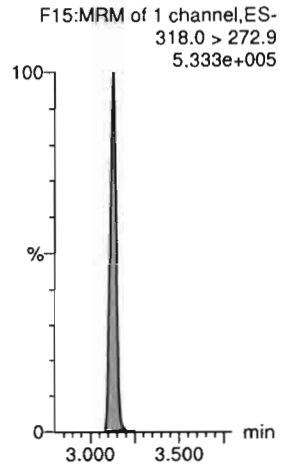
Last Altered: Wednesday, February 26, 2020 10:17:23 Pacific Standard Time
Printed: Wednesday, February 26, 2020 10:18:42 Pacific Standard Time

Name: 200225P1-12, Date: 25-Feb-2020, Time: 19:54:16, ID: ST200225P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

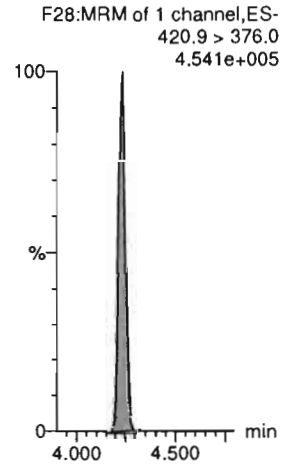
13C4-PFBA



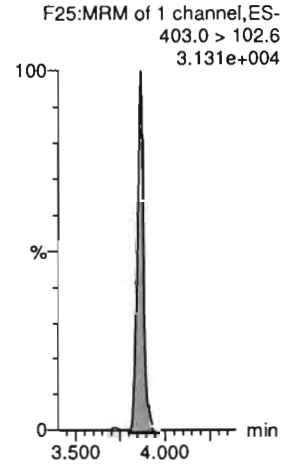
13C5-PFHxA



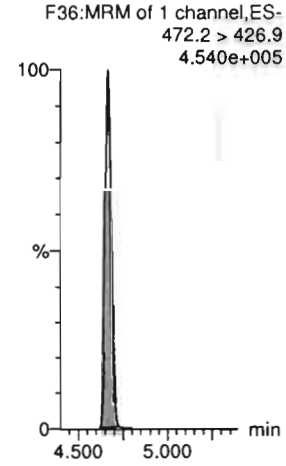
13C8-PFOA



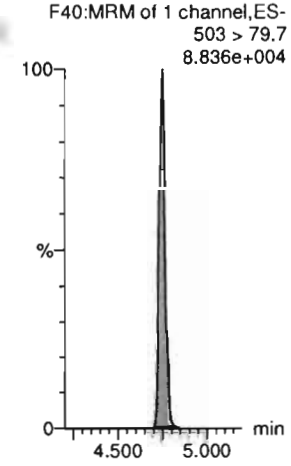
18O2-PFHxS



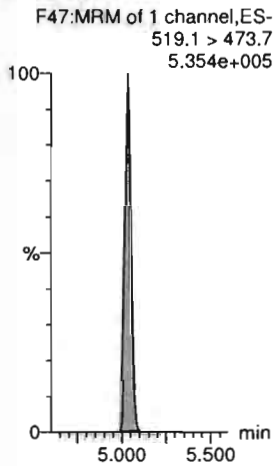
13C9-PFNA



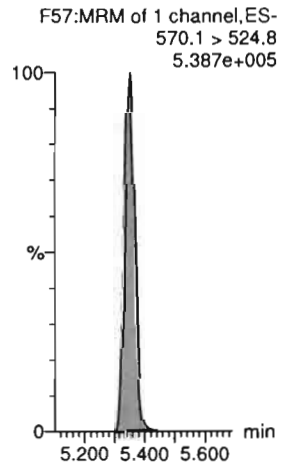
13C4-PFOS



13C6-PFDA



13C7-PFUdA



√ Lm 2/26/20

Dataset: P:\PFAS5.PRO\RESULTS\200225P1\200225P1-ICV.qld

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(A) Not in ICV RK 2/26/20

Name: 200225P1-14, Date: 25-Feb-2020, Time: 20:15:16, ID: ICV200225P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	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	10298.746	10920.761	1.00	1.42	11.788	10.000	10.6	105.7	NO		
2	2	PFPrS	248.9 > 79.7		1546.425	1.00			10.000		(A)	NO		
3	3	3:3 FTCA	240.9 > 176.9		13528.744	1.00			10.000		↓	NO		
4	4	PFPeA	263.1 > 218.9	11375.653	13528.744	1.00	2.35	10.511	10.000	10.7	107.4	NO		
5	5	PFBS	299.0 > 79.7	2863.487	1546.425	1.00	2.62	23.146	8.840	9.99	113.0	NO	3.289	NO
6	6	4:2 FTS	327.0 > 307	1939.800	1699.368	1.00	3.04	14.269	9.360	10.4	111.5	NO	0.933	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	10920.761		1.00	1.42	10920.761	12.500	12.2	97.7	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1546.425		1.00	2.62	1546.425	12.500	12.9	103.1	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	13528.744		1.00	2.34	13528.744	12.500	12.0	95.6	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	13528.744		1.00	2.34	13528.744	12.500	12.0	95.6	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1546.425		1.00	2.62	1546.425	12.500	12.9	103.1	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1699.368		1.00	3.04	1699.368	12.500	11.4	91.2	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	19142.988	24208.178	1.00	3.13	9.885	10.000	11.0	109.7	NO	15.041	NO
15	8	PFPeS	349.>79.7	2700.508	1546.425	1.00	3.32	21.829	9.360	9.22	98.5	NO	2.557	NO
16	9	HFPO-DA	285.1 > 168.9	3430.764	4035.316	1.00	3.34	10.627	10.000	10.7	106.8	NO	2.672	NO
17	10	5:3 FTCA	340.9 > 236.9		16385.832	1.00			10.000		(A)	NO		
18	11	PFHpA	363.0 > 318.9	16250.435	16385.832	1.00	3.73	12.397	10.000	9.98	99.8	NO	31.736	NO
19	12	ADONA	376.8 > 250.9	35319.387	16385.832	1.00	3.83	26.944	10.000	9.43	94.3	NO	3.962	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	24208.178		1.00	3.13	24208.178	12.500	13.5	107.9	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1546.425		1.00	2.62	1546.425	12.500	12.9	103.1	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	4035.316		1.00	3.34	4035.316	12.500	12.8	102.7	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	16385.832		1.00	3.72	16385.832	12.500	13.3	106.3	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	16385.832		1.00	3.72	16385.832	12.500	13.3	106.3	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	16385.832		1.00	3.72	16385.832	12.500	13.3	106.3	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	2530.766	3487.608	1.00	3.86	9.071	9.120	8.86	97.2	NO	2.023	NO
28	15	6:2 FTS	427.0 > 407	1664.254	1242.526	1.00	4.18	16.743	9.480	10.6	112.0	NO	1.052	NO
29	16	L-PFOA	412.8 > 368.9	21512.307	21463.426	1.00	4.23	12.528	10.000	11.0	109.9	NO	3.289	NO
30	18	PFecHS	460.8 > 381.0		21463.426	1.00			10.000		(A)	NO		
31	19	PFHpS	449.0 > 79.7	3236.478	3720.247	1.00	4.34	10.875	9.480	11.7	123.4	NO	2.010	NO
32	20	7:3 FTCA	440.9 > 336.9		18928.699	1.00			10.000		(A)	NO		
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3487.608		1.00	3.86	3487.608	12.500	12.8	102.1	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1242.526		1.00	4.18	1242.526	12.500	10.1	80.9	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	21463.426		1.00	4.23	21463.426	12.500	13.5	107.8	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	21463.426		1.00	4.23	21463.426	12.500	13.5	107.8	NO		

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Name: 200225P1-14, Date: 25-Feb-2020, Time: 20:15:16, ID: ICV200225P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	3720.247		1.00	4.75	3720.247	12.500	12.8	102.0	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	18928.699		1.00	4.67	18928.699	12.500	12.7	101.5	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	18616.787	18928.699	1.00	4.67	12.294	10.000	10.3	102.9	NO	8.250	NO
41	22	PFOSA	497.9 > 77.9	3245.099	4987.479	1.00	4.73	8.133	10.000	9.94	99.4	NO	22.910	NO
42	23	L-PFOS	498.9 > 79.7	2950.595	3720.247	1.00	4.75	9.914	9.280	10.6	114.2	NO	2.513	NO
43	25	9Cl-PF30NS	530.7 > 350.8	2930.765	3720.247	1.00	4.96	9.847	9.280	9.77	105.3	NO	15.856	NO
44	26	PFDA	513 > 468.8	18401.865	19611.957	1.00	5.04	11.729	10.000	9.96	99.6	NO	9.449	NO
45	27	8:2 FTS	526.9 > 507	1508.775	1205.674	1.00	5.01	15.642	9.600	12.4	128.9	NO	2.206	YES
46	65	13C5-PFNA-EIS	468.2 > 422.9	18928.699		1.00	4.67	18928.699	12.500	12.7	101.5	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4987.479		1.00	4.73	4987.479	12.500	13.3	106.2	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3720.247		1.00	4.75	3720.247	12.500	12.8	102.0	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3720.247		1.00	4.75	3720.247	12.500	12.8	102.0	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	19611.957		1.00	5.04	19611.957	12.500	12.0	96.0	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1205.674		1.00	5.01	1205.674	12.500	11.8	94.4	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	3022.497	3720.247	1.00	5.10	10.156	9.600	11.4	118.4	NO	2.354	NO
54	29	L-MeFOSAA	570 > 419	6104.077	4390.783	1.00	5.19	17.378	10.000	8.99	89.9	NO	1.878	NO
55	31	L-EtFOSAA	584.1 > 419	5447.836	5635.973	1.00	5.34	12.083	10.000	10.1	101.0	NO	1.164	NO
56	33	PFUdA	563.0 > 518.9	19137.322	22407.240	1.00	5.35	10.676	10.000	11.4	114.3	NO	24.952	NO
57	34	PFDS	598.8 > 79.7	2683.358	3720.247	1.00	5.40	9.016	9.600	11.7	122.3	NO	1.908	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	7882.754	18890.717	1.00	5.56	5.216	9.440	11.4	120.9	NO	19.475	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	3720.247		1.00	4.75	3720.247	12.500	12.8	102.0	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	4390.783		1.00	5.18	4390.783	12.500	13.3	106.3	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5635.973		1.00	5.33	5635.973	12.500	14.3	114.0	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	22407.240		1.00	5.35	22407.240	12.500	13.9	110.9	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3720.247		1.00	4.75	3720.247	12.500	12.8	102.0	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	18890.717		1.00	5.62	18890.717	12.500	11.2	89.6	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	5.285	845.520	1.00	5.63	0.063	10.000		(A)	NO	0.559	NO
67	37	PFDoA	612.9 > 569.0	18885.117	18890.717	1.00	5.62	12.496	10.000	11.5	115.5	NO	11.138	NO
68	38	N-MeFOSA	512.1 > 168.9		21195.408	1.00			9.600		(A)	NO		
69	39	PFTrDA	662.9 > 618.9	19907.018	18890.717	1.00	5.87	13.172	10.000	11.8	117.9	NO	53.731	NO
70	40	PFDoS	698.8 > 79.7	4.986	22225.467	1.00	5.86	0.003	10.000		(A)	NO	1.242	NO
71	41	PFTeDA	713.0 > 669.0	19661.219	22225.467	1.00	6.08	11.058	10.000	11.6	116.2	NO	15.780	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	845.520		1.00	5.61	845.520	10.000	11.7	117.5	NO		

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Name: 200225P1-14, Date: 25-Feb-2020, Time: 20:15:16, ID: ICV200225P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	18890.717		1.00	5.62	18890.717	12.500	11.2	89.6	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	21195.408		1.00	5.76	21195.408	149.200	150	100.4	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	18890.717		1.00	5.62	18890.717	12.500	11.2	89.6	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	22225.467		1.00	6.08	22225.467	12.500	11.7	93.8	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	22225.467		1.00	6.08	22225.467	12.500	11.7	93.8	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9		27160.416	1.00			9.600			NO		
80	43	PFHxDA	813.1 > 768.6		31592.230	1.00			10.000			NO		
81	44	PFODA	913.1 > 868.8	65.524	31592.230	1.00	6.63	0.026	10.000			NO		
82	45	N-MeFOSE	616.1 > 58.9		19540.221	1.00			9.600			NO		
83	46	N-EtFOSE	630.1 > 58.9		22678.684	1.00			9.600			NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	27160.416		1.00	6.15	27160.416	149.200	150	100.7	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	31592.230		1.00	6.40	31592.230	12.500	12.2	97.5	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	31592.230		1.00	6.40	31592.230	12.500	12.2	97.5	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	19540.221		1.00	6.28	19540.221	149.200	162	108.4	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	22678.684		1.00	6.43	22678.684	149.200	152	101.8	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3720.247		1.00	4.75	3720.247	12.500	12.8	102.0	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	10920.761	13872.810	1.00	1.42	9.840	12.500	12.3	98.4	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	13696.423	25504.557	1.00	2.34	6.713	12.500	11.4	91.1	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1546.675	1428.649	1.00	2.62	13.533	12.500	12.0	96.1	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	4035.316	25504.557	1.00	3.34	1.978	12.500	11.3	90.7	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1699.368	1428.649	1.00	3.04	14.869	12.500	11.3	90.6	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	24208.178	25504.557	1.00	3.13	11.865	12.500	12.2	97.5	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	16385.832	25504.557	1.00	3.72	8.031	12.500	12.2	97.5	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3487.608	1428.649	1.00	3.86	30.515	12.500	12.1	96.9	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1242.526	4206.357	1.00	4.18	3.692	12.500	9.60	76.8	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	18928.699	20125.334	1.00	4.67	11.757	12.500	12.5	100.3	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4987.479	24458.998	1.00	4.73	2.549	12.500	12.1	97.1	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	21463.426	23181.445	1.00	4.23	11.574	12.500	12.5	100.4	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3753.851	4206.357	1.00	4.75	11.155	12.500	11.7	94.0	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	19611.957	21334.279	1.00	5.04	11.491	12.500	11.9	95.2	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1202.633	4206.357	1.00	5.01	3.574	12.500	10.8	86.7	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	4390.783	24458.998	1.00	5.18	2.244	12.500	12.9	103.1	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	22407.240	24458.998	1.00	5.35	11.451	12.500	11.4	90.9	NO		

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Name: 200225P1-14, Date: 25-Feb-2020, Time: 20:15:16, ID: ICV200225P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	5635.973	24458.998	1.00	5.33	2.880	12.500	12.4	99.5	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	18890.717	21334.279	1.00	5.62	11.068	12.500	11.4	91.4	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	845.520	4206.357	1.00	5.61	2.513	10.000	10.5	105.4	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	21195.408	24458.998	1.00	5.76	10.832	149.200	135	90.4	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	22225.467	24458.998	1.00	6.08	11.359	12.500	10.8	86.8	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	27160.416	24458.998	1.00	6.15	13.881	149.200	140	93.8	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	31592.230	24458.998	1.00	6.40	16.146	12.500	10.8	86.4	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	19540.221	24458.998	1.00	6.28	9.986	149.200	137	91.9	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	22678.684	24458.998	1.00	6.43	11.590	149.200	135	90.5	NO		
119	99	13C4-PFBA	217.0 > 172.0	13872.810	13872.810	1.00	1.42	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	25504.557	25504.557	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	23181.445	23181.445	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1428.649	1428.649	1.00	3.86	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	20125.334	20125.334	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	4206.357	4206.357	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	21334.279	21334.279	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	24458.998	24458.998	1.00	5.35	12.500	12.500	12.5	100.0	NO		

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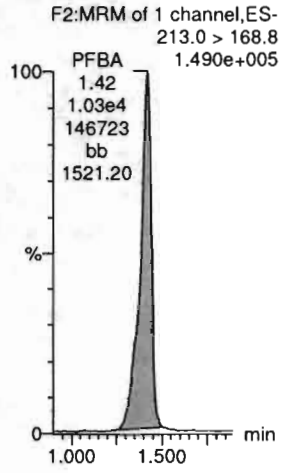
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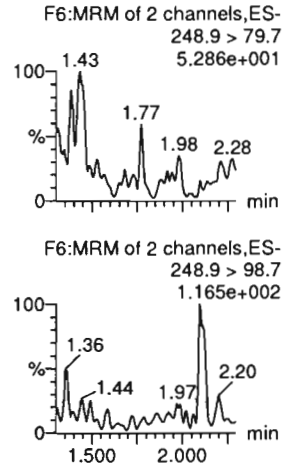
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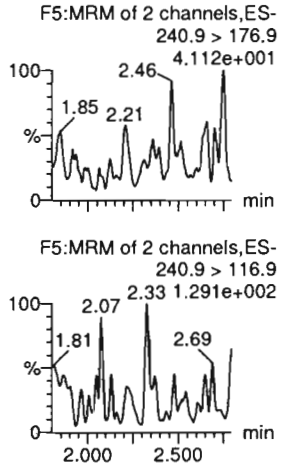
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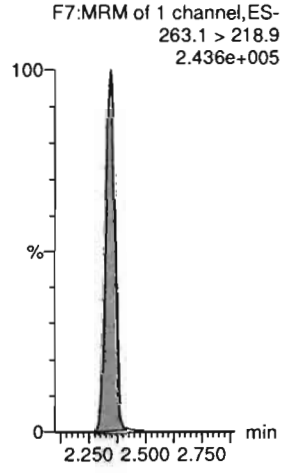
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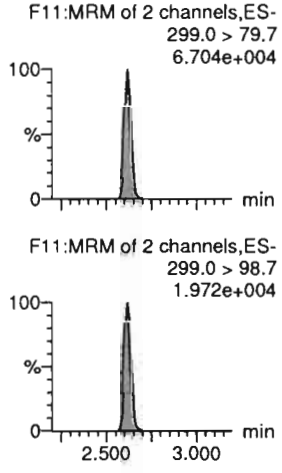
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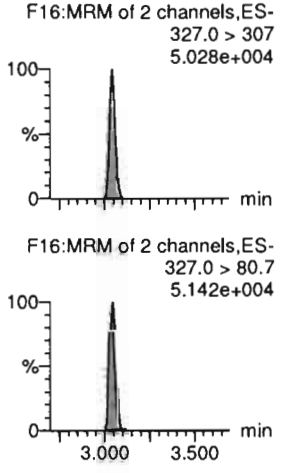
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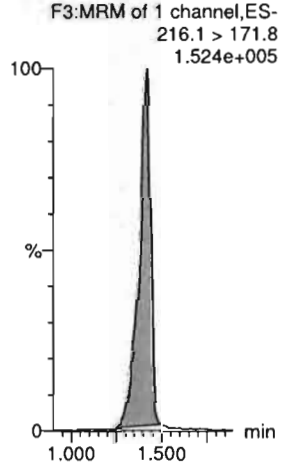
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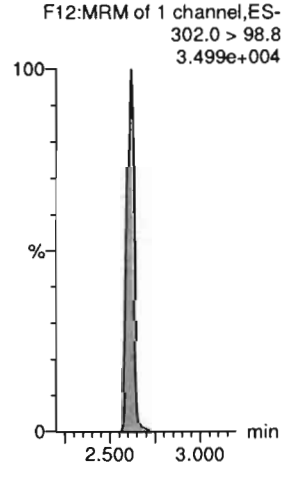
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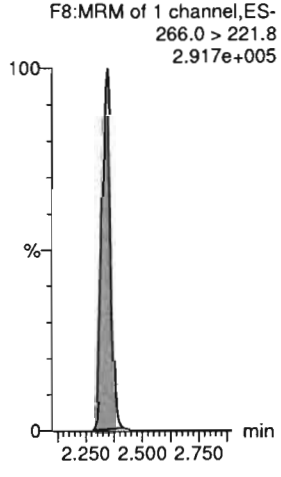
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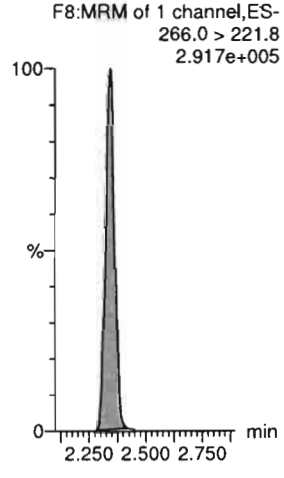
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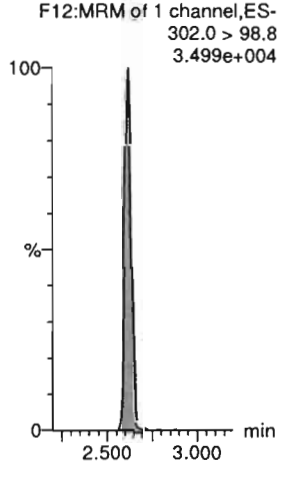
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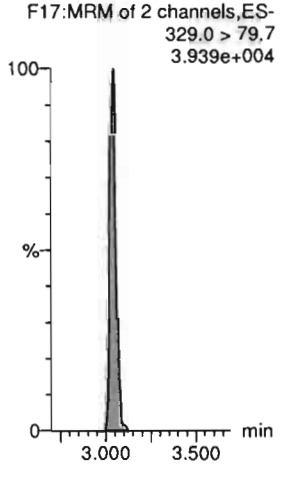
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



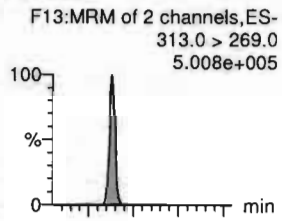
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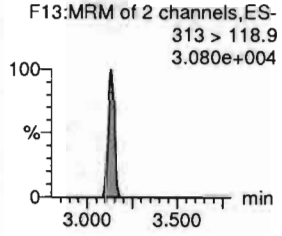
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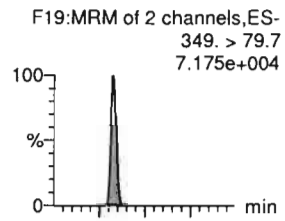
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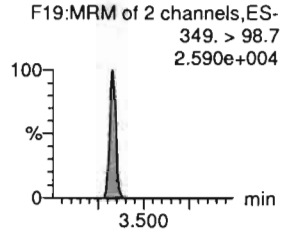
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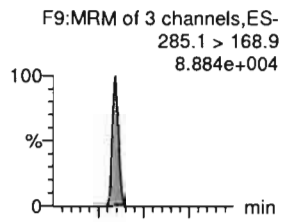


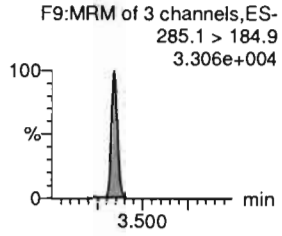
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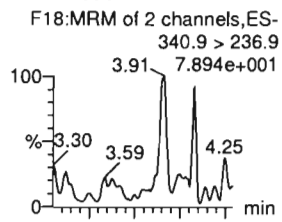


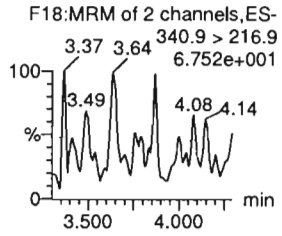
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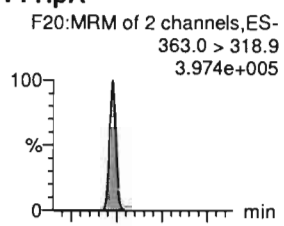


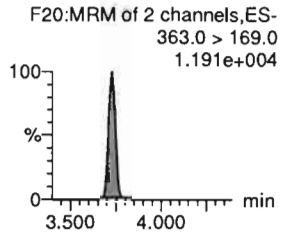
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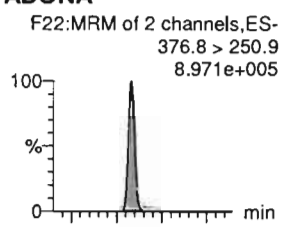


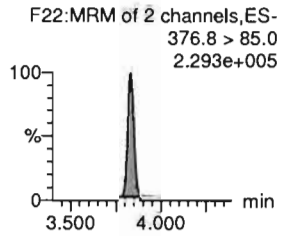
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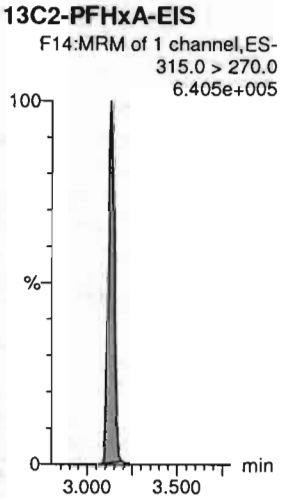


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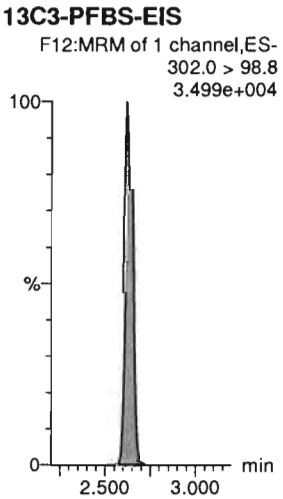




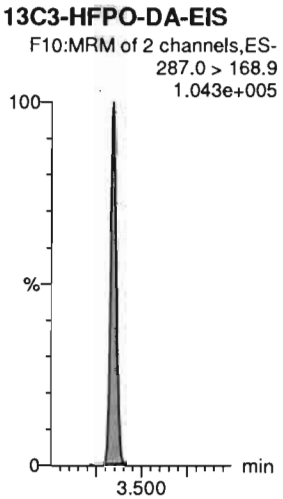
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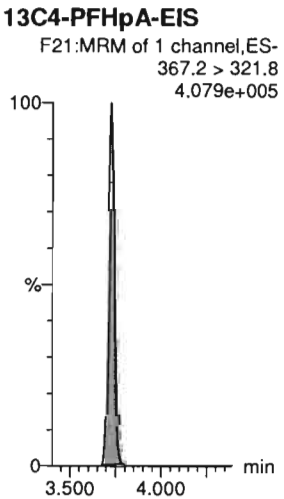
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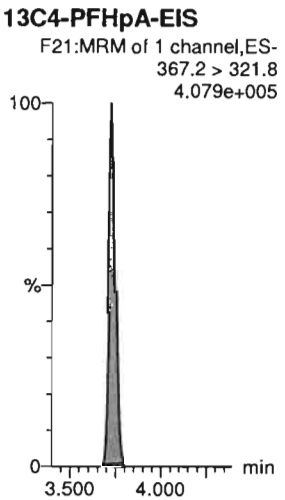
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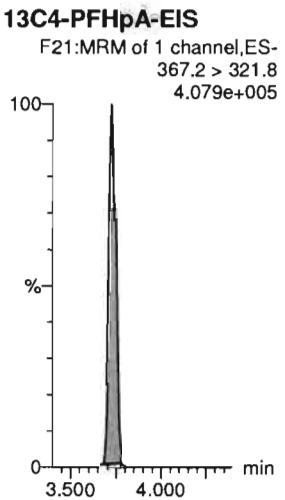
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13C4-PFHpA-EIS



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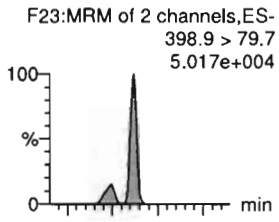
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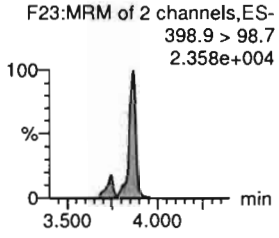
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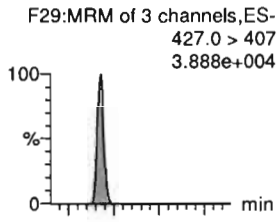
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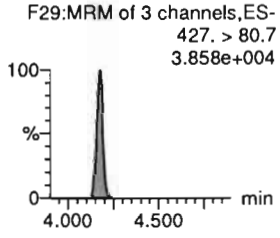
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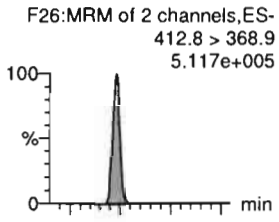


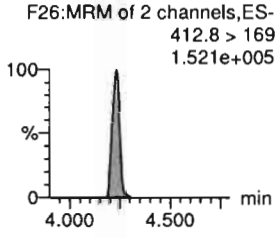
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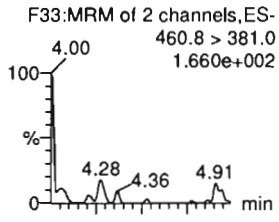


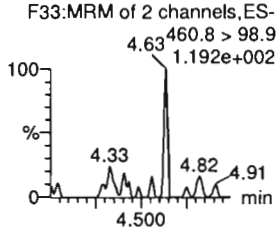
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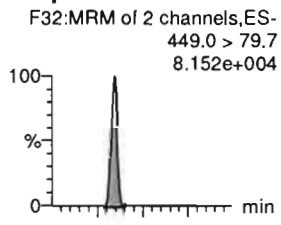


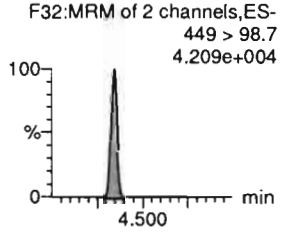
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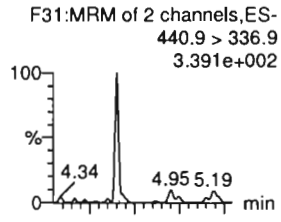


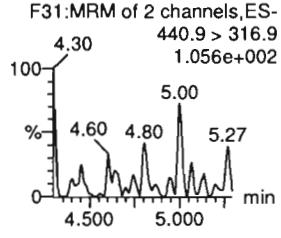
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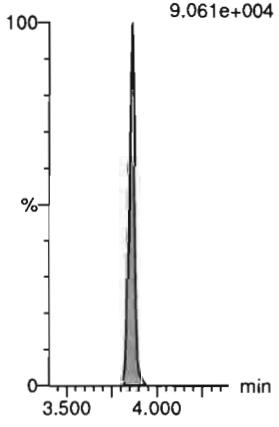


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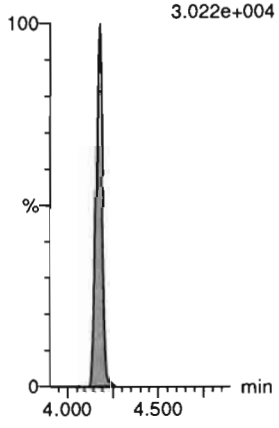




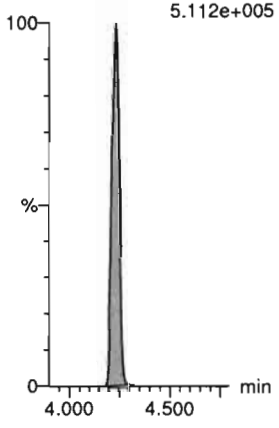
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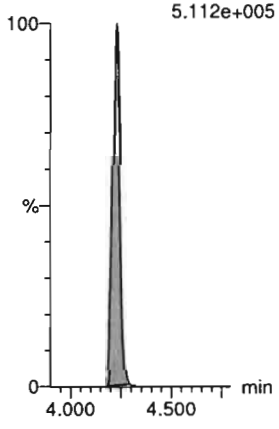
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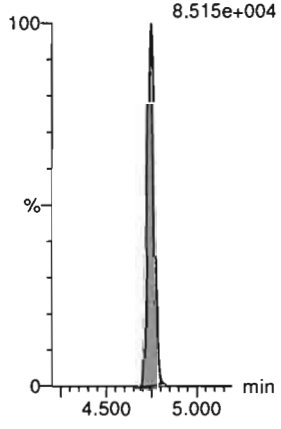
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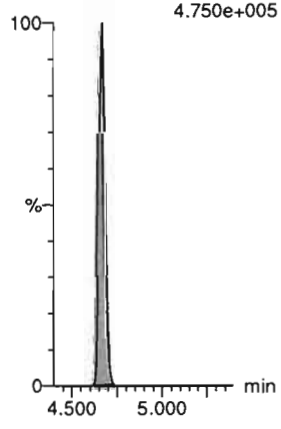
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS



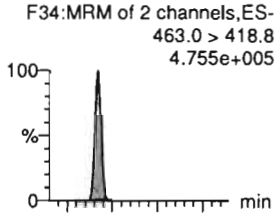
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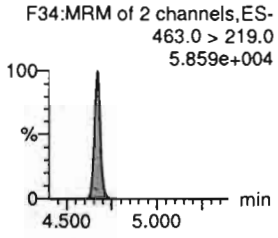
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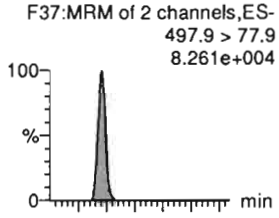
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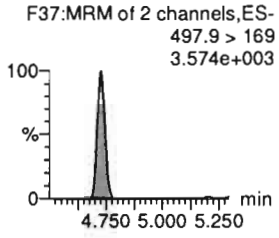
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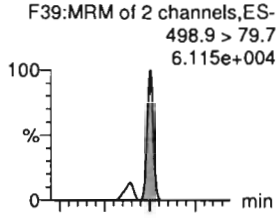


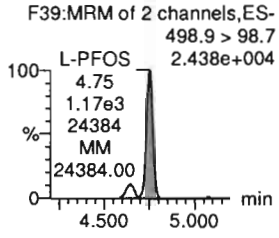
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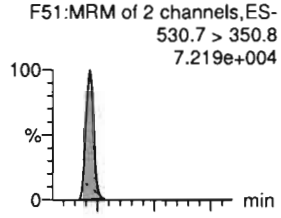


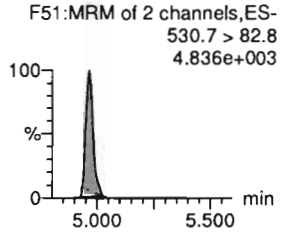
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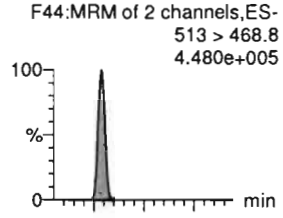


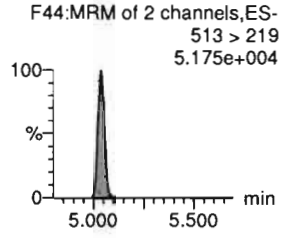
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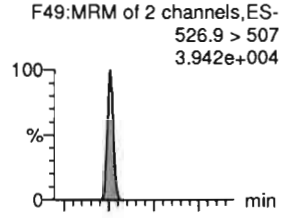


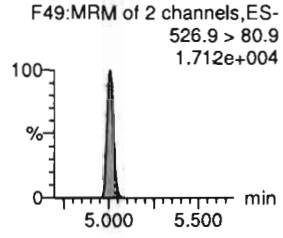
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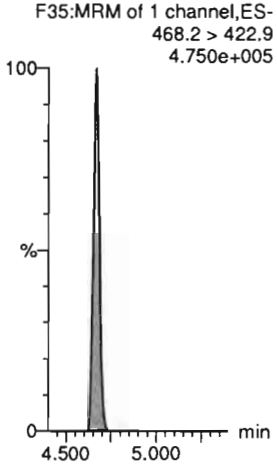


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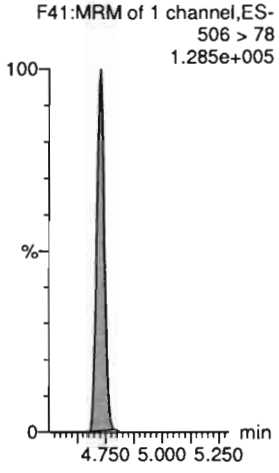




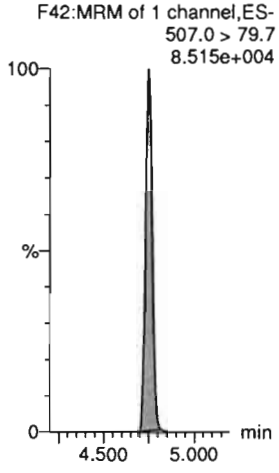
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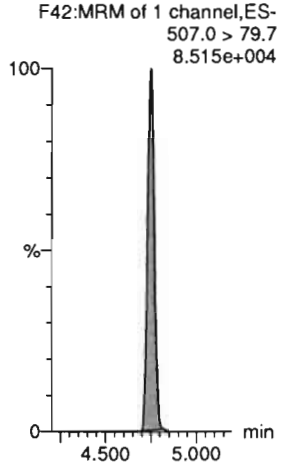
13C8-PFOSA-EIS



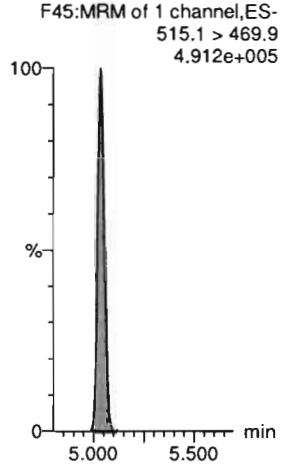
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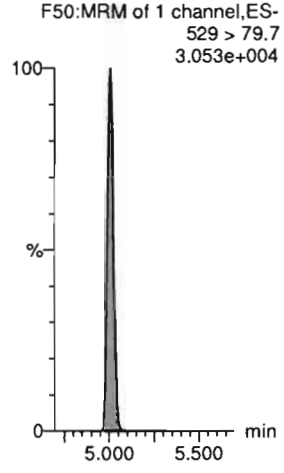
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS



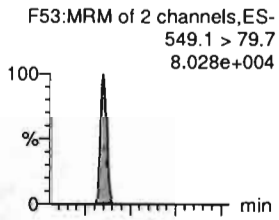
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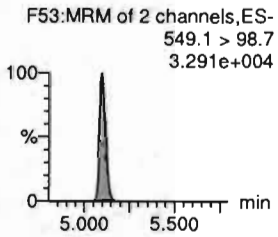
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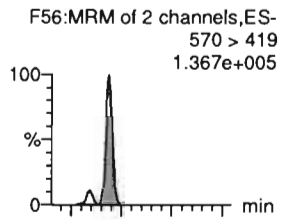
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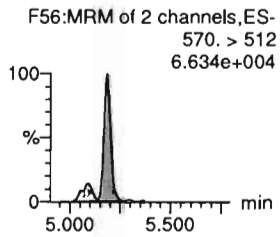
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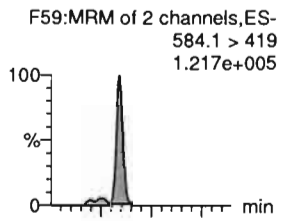


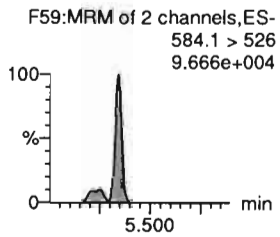
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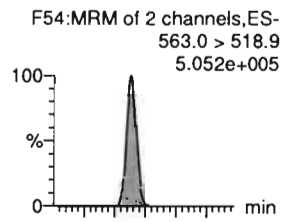


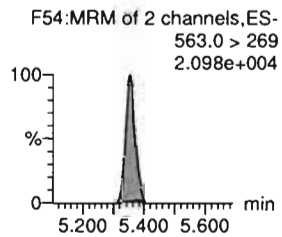
L-EtFOSAA



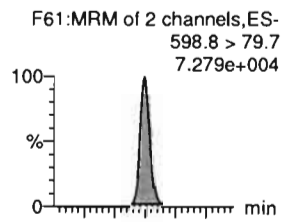


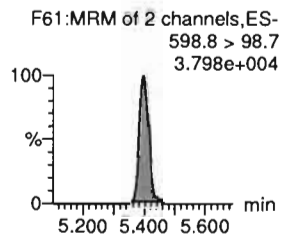
PFUdA



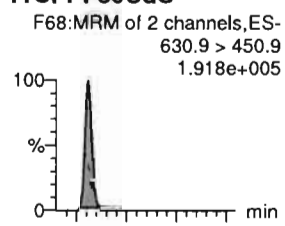


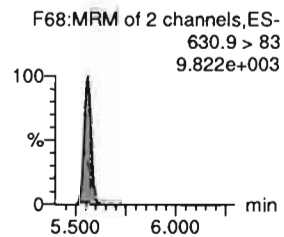
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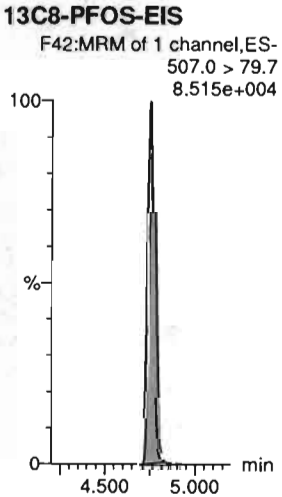


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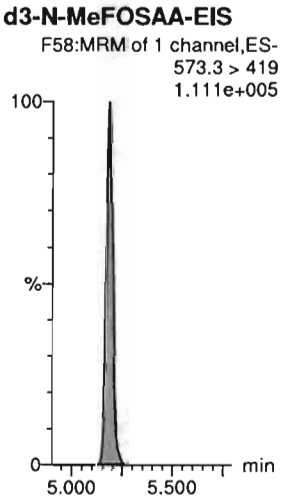




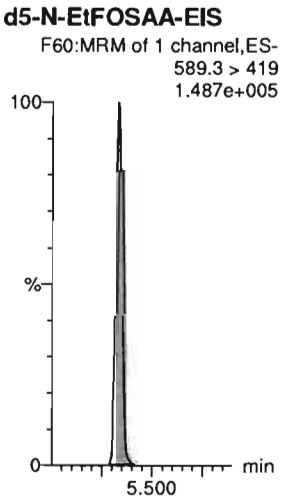
13C8-PFOS-EIS



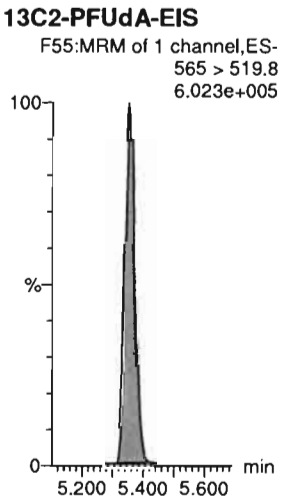
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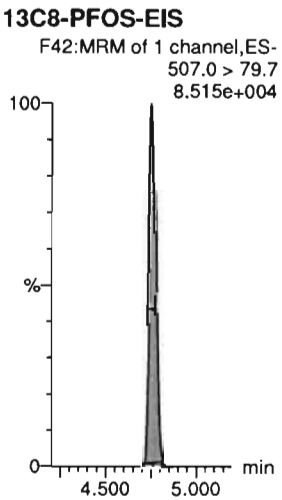
d5-N-EtFOSAA-EIS



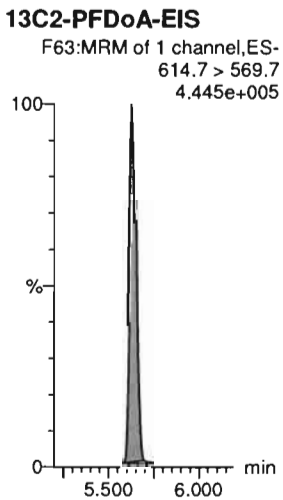
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13C8-PFOS-EIS



13C2-PFDoA-EIS



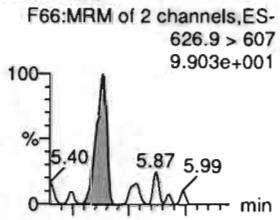
RK 2/26/2020

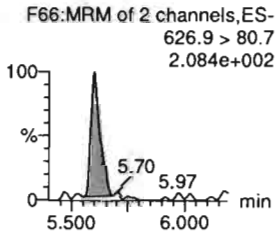
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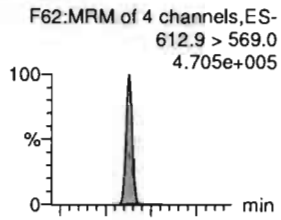
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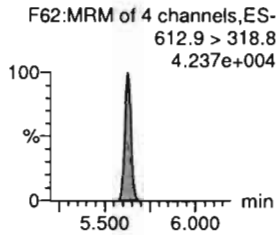
10:2 FTS



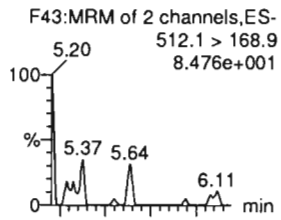


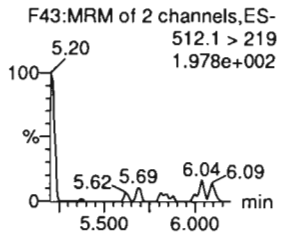
PFDoA



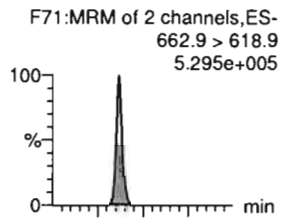


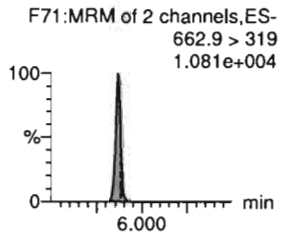
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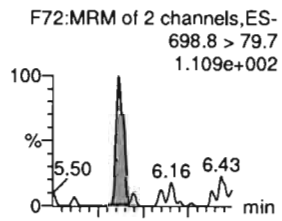


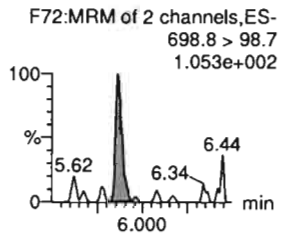
PFTrDA



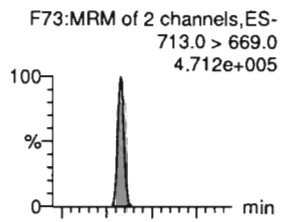


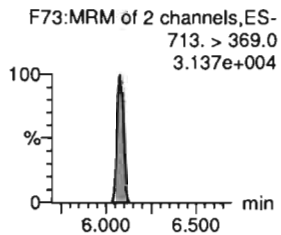
PFDoS



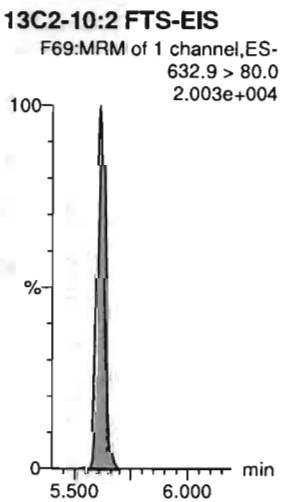


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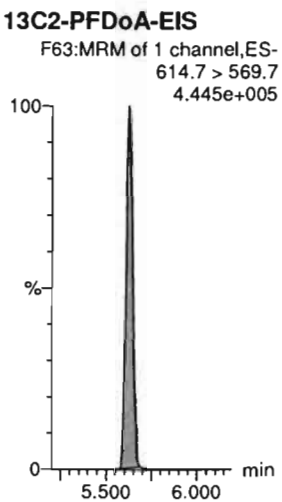




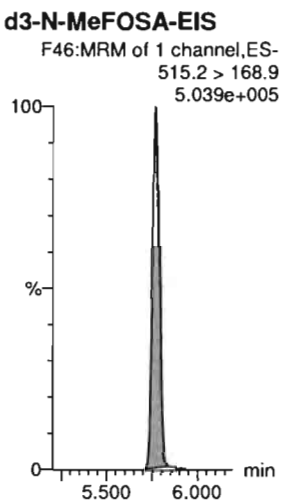
13C2-10:2 FTS-EIS



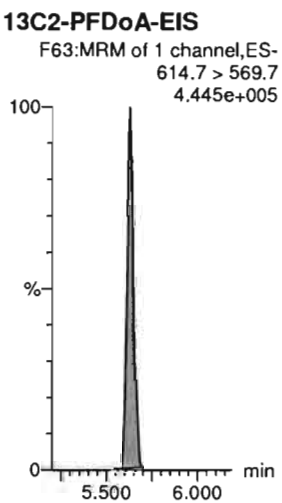
13C2-PFDoA-EIS



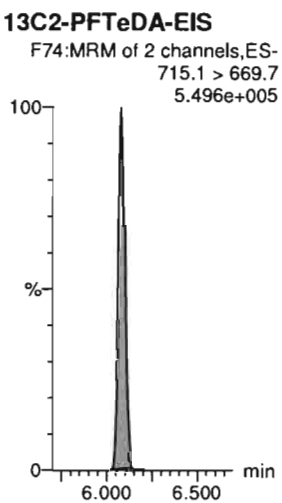
d3-N-MeFOSA-EIS



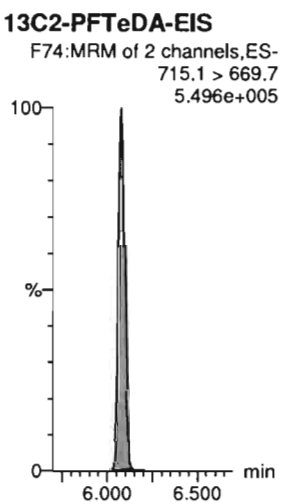
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS



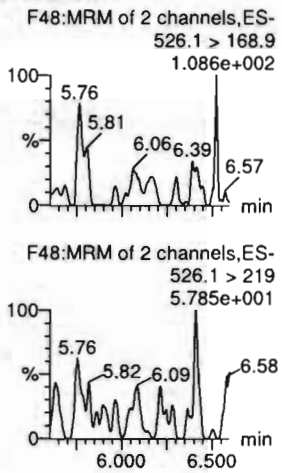
RK 2/26/2020

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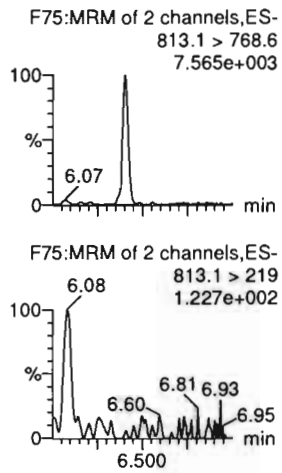
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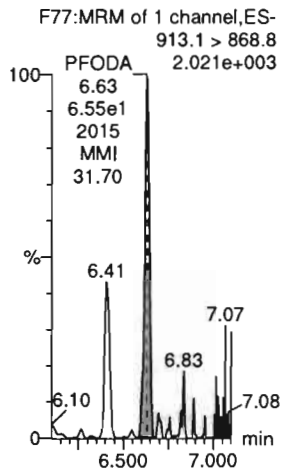
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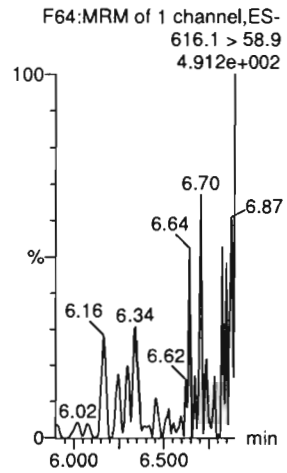
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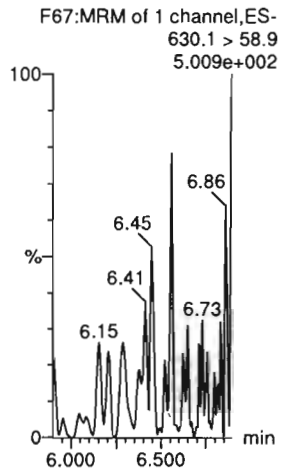
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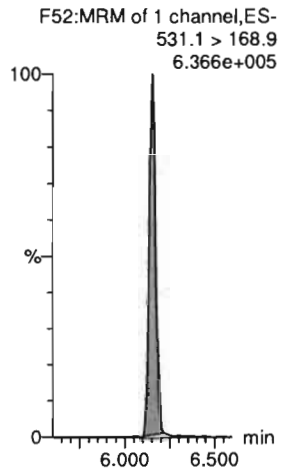
N-MeFOSE



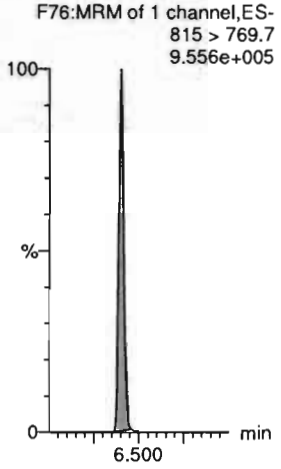
N-EtFOSE



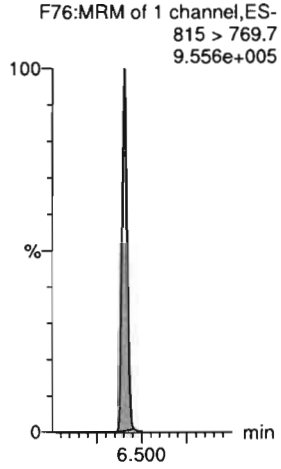
d5-N-ETFOSA-EIS



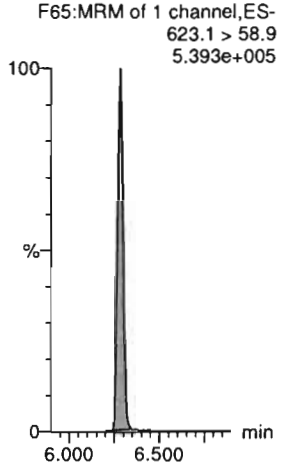
13C2-PFHxDA-EIS



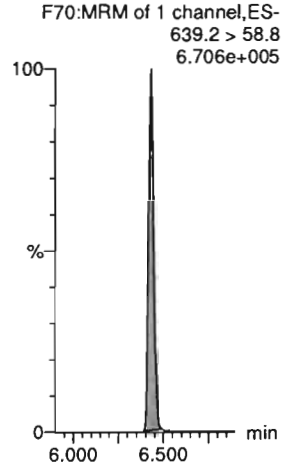
13C2-PFHxDA-EIS



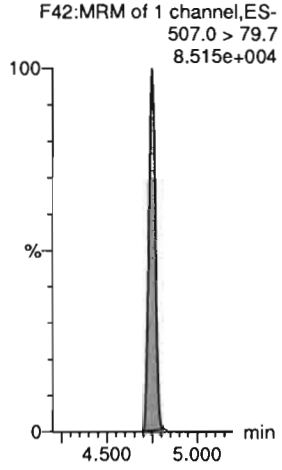
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d9-N-EtFOSE-EIS



13C8-PFOS-EIS



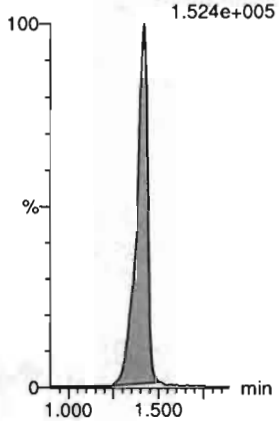
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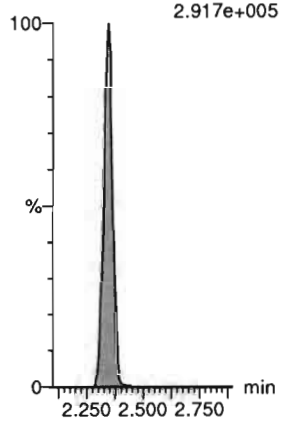
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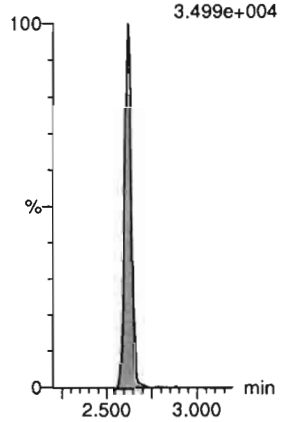
13C3-PFBA-RSD
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.524e+005



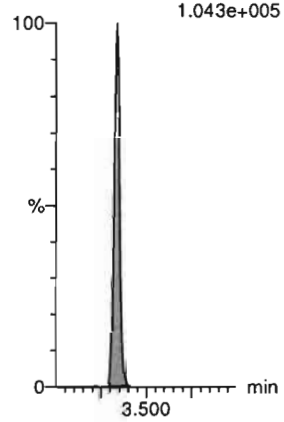
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.917e+005



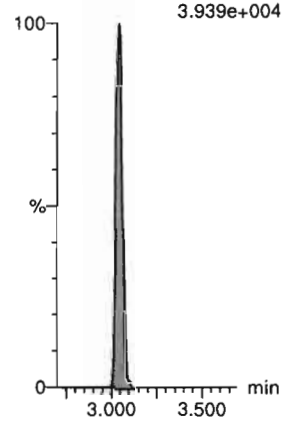
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.499e+004



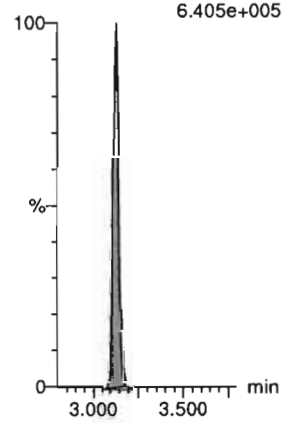
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.043e+005



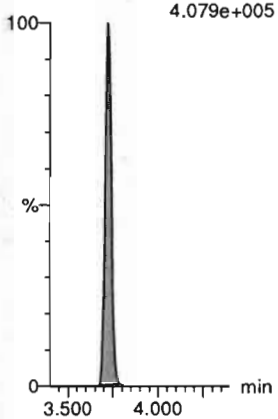
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.939e+004



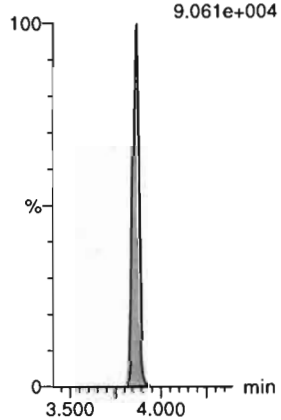
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
6.405e+005



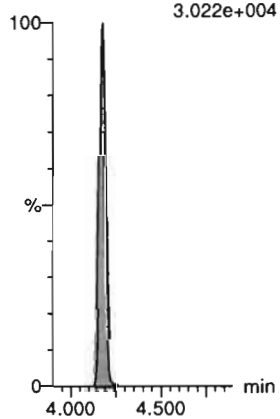
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.079e+005



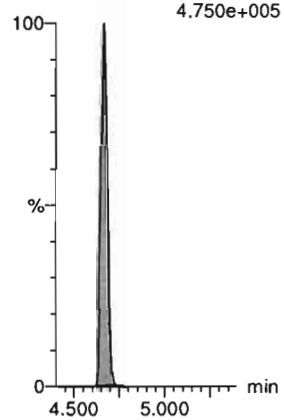
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
9.061e+004



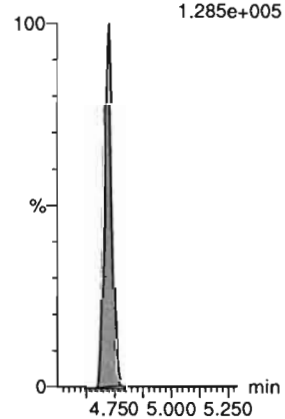
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.022e+004



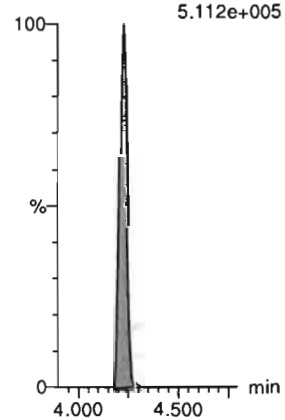
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.750e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.285e+005



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
5.112e+005



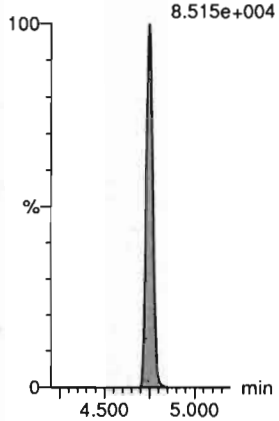
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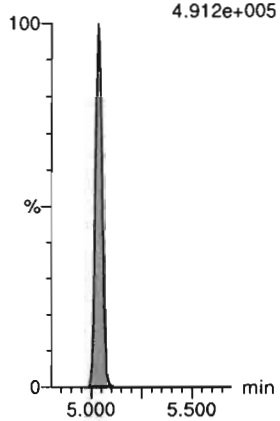
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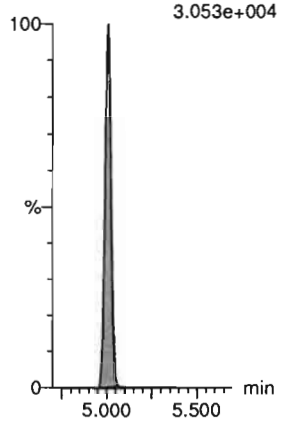
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.515e+004



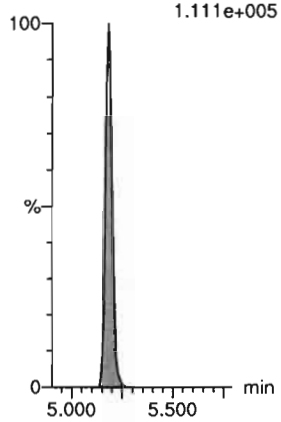
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.912e+005



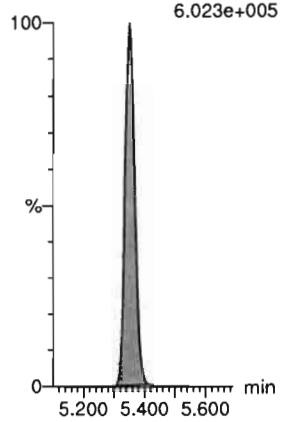
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F50:MRM of 1 channel,ES-
529 > 79.7
3.053e+004



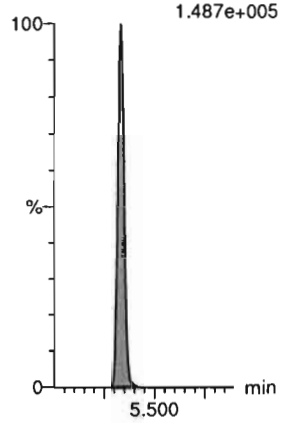
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F58:MRM of 1 channel,ES-
573.3 > 419
1.111e+005



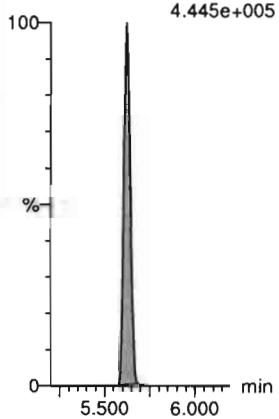
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
6.023e+005



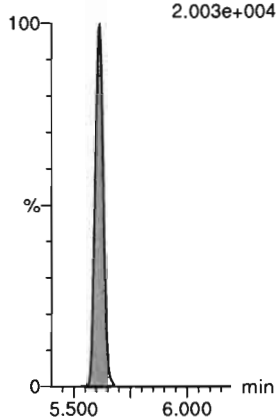
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1.487e+005



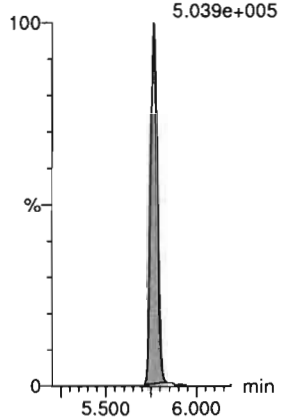
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F63:MRM of 1 channel,ES-
614.7 > 569.7
4.445e+005



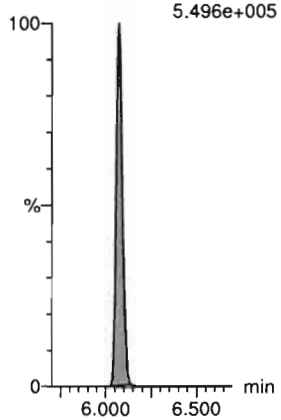
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F69:MRM of 1 channel,ES-
632.9 > 80.0
2.003e+004



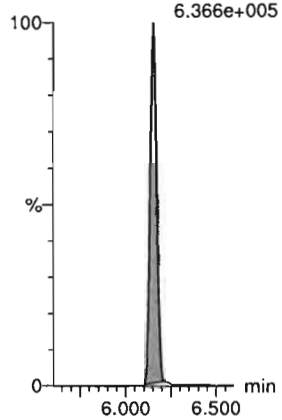
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F46:MRM of 1 channel,ES-
515.2 > 168.9
5.039e+005



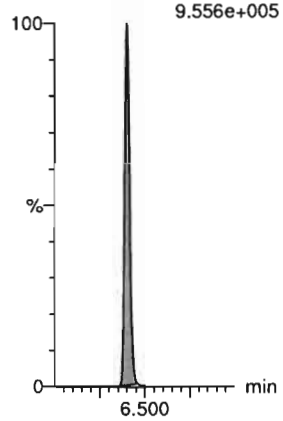
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.496e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
6.366e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.556e+005



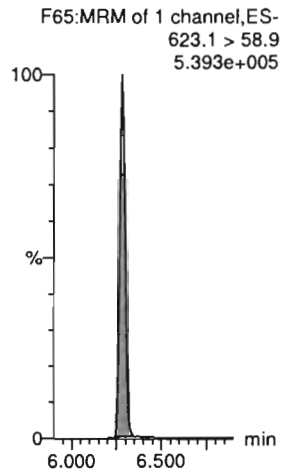
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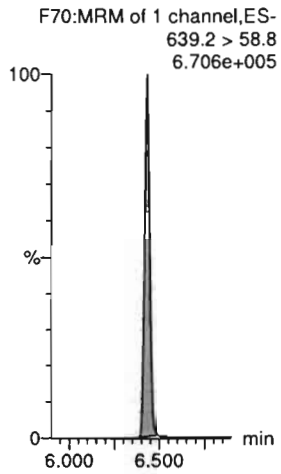
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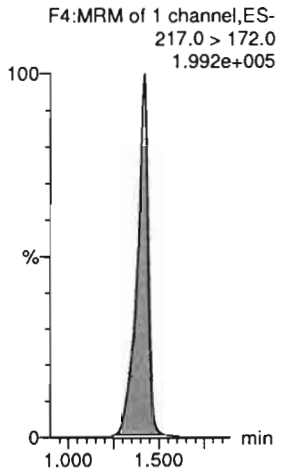
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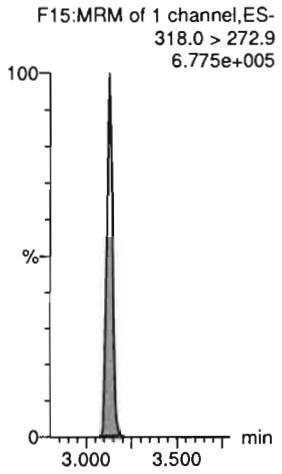
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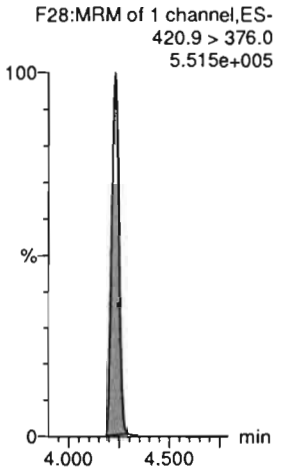
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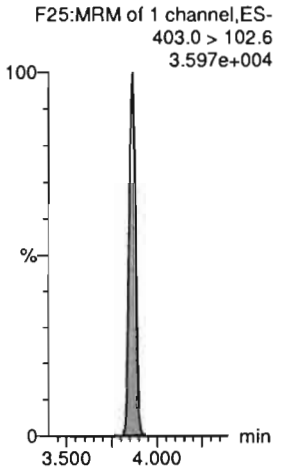
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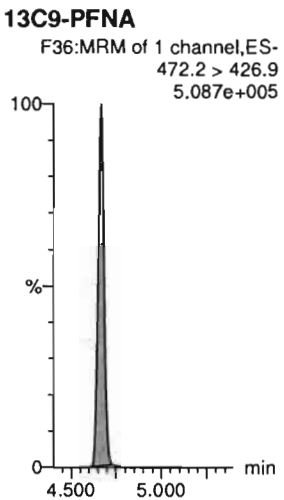
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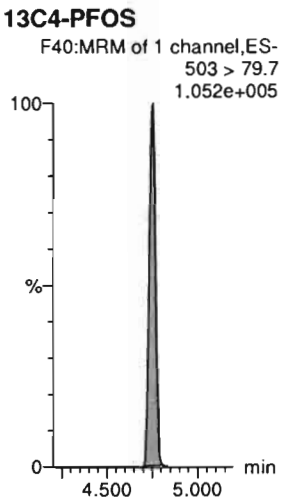
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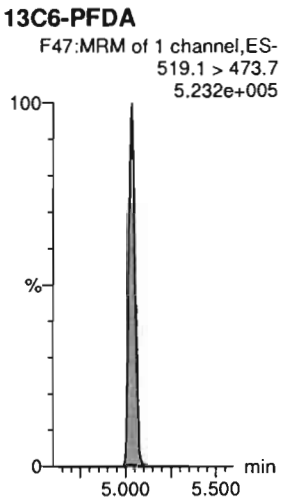
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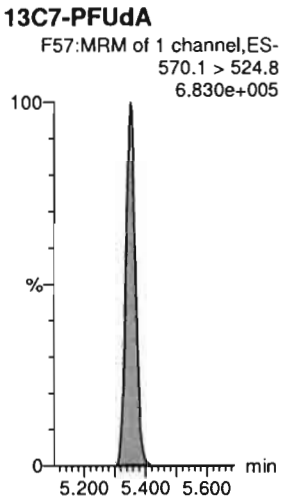
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13C7-PFUdA



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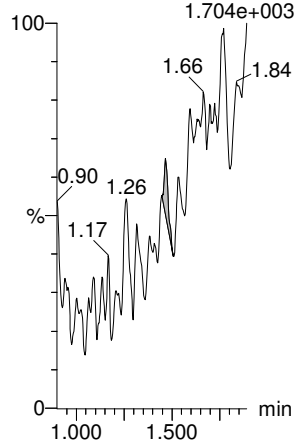
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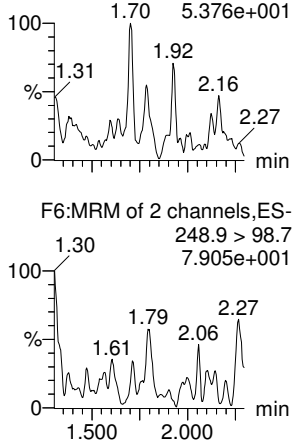
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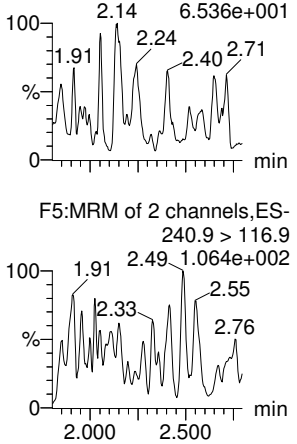
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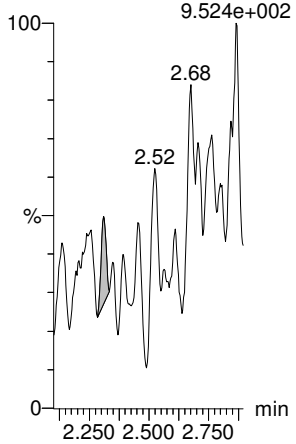
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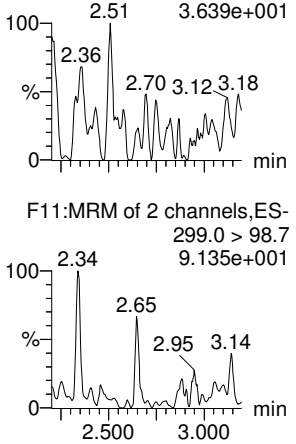
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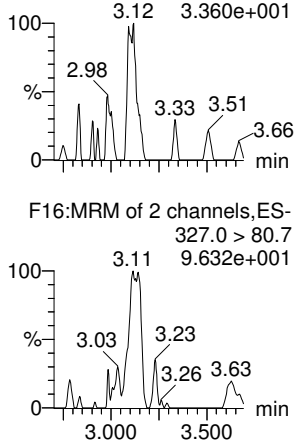
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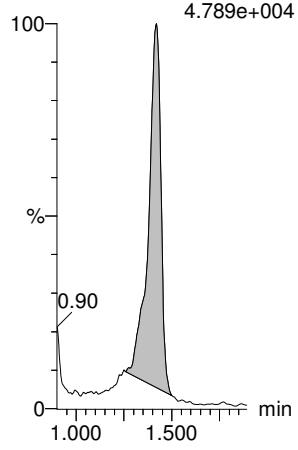
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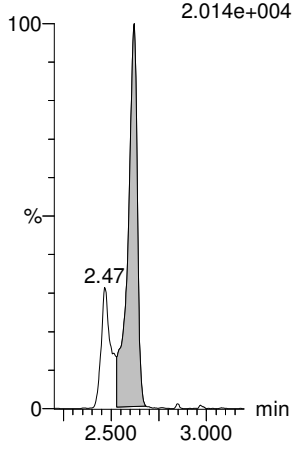
4:2 FTS



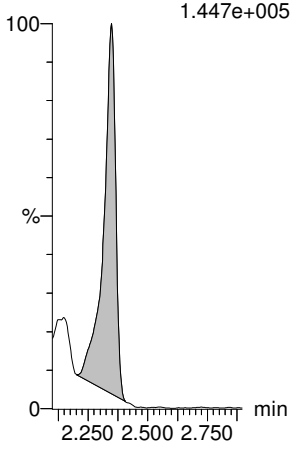
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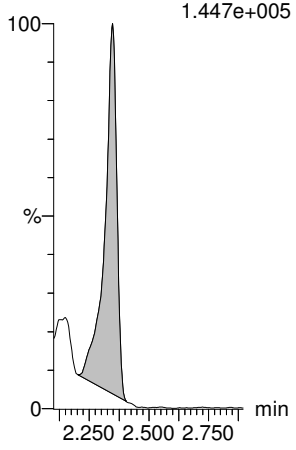
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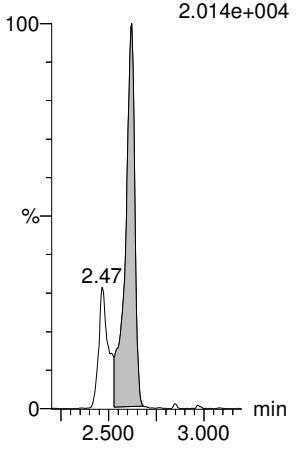
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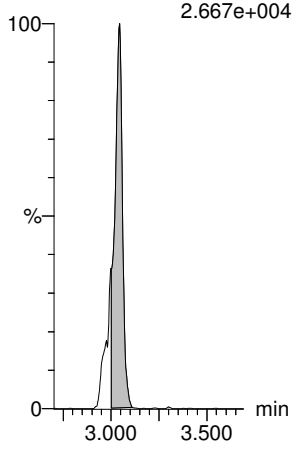
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS



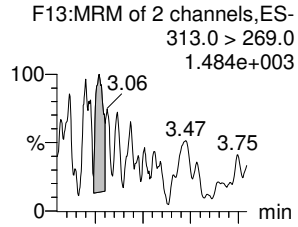
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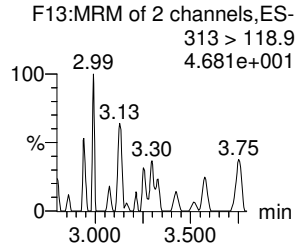
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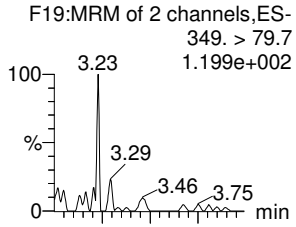
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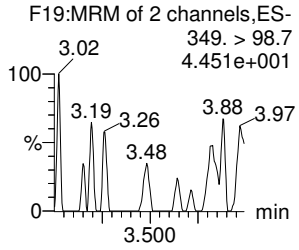
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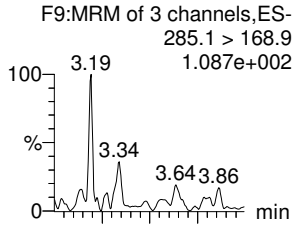


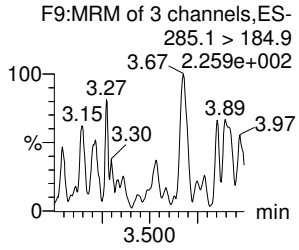
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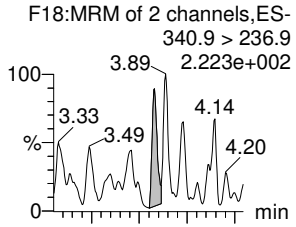


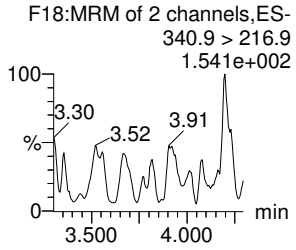
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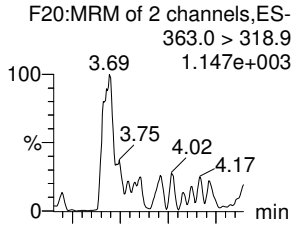


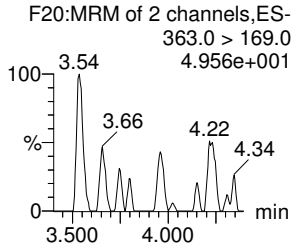
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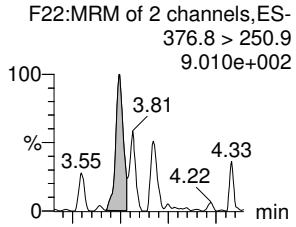


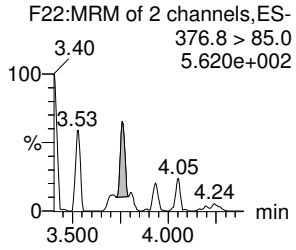
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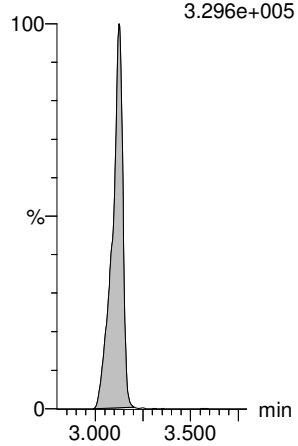


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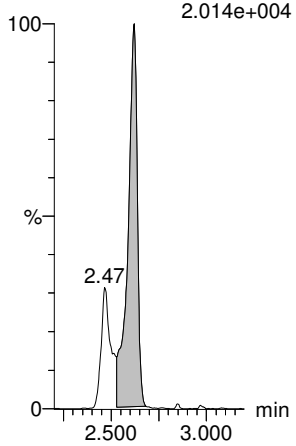




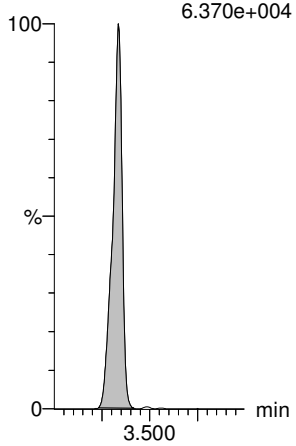
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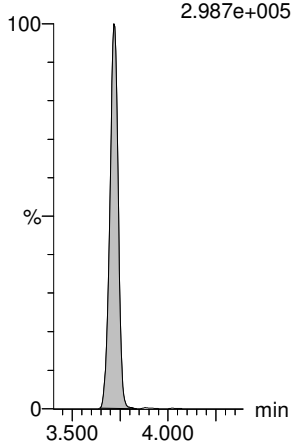
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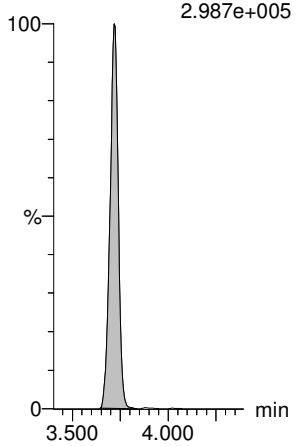
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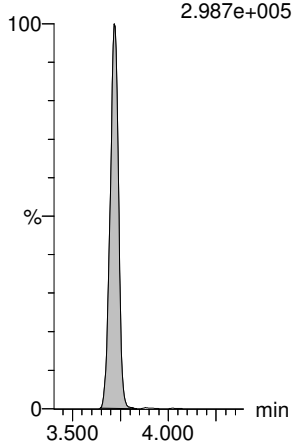
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13C4-PFHpA-EIS



13C4-PFHpA-EIS



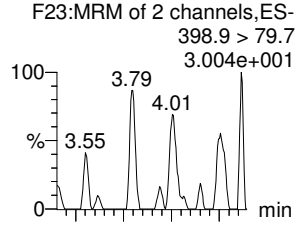
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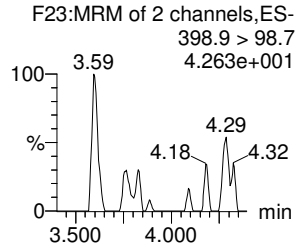
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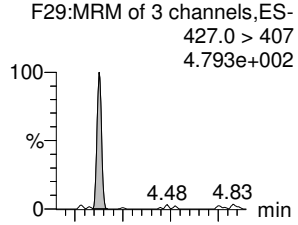
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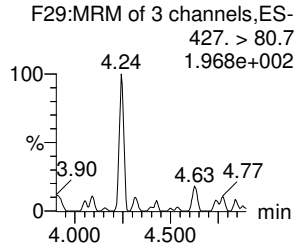
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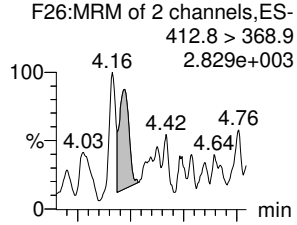


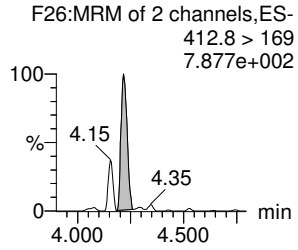
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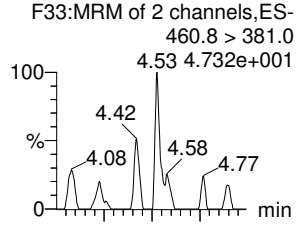


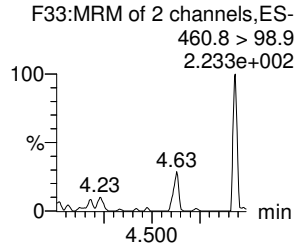
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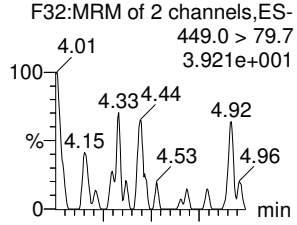


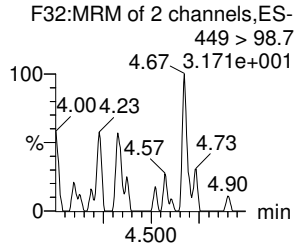
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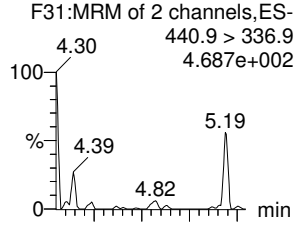


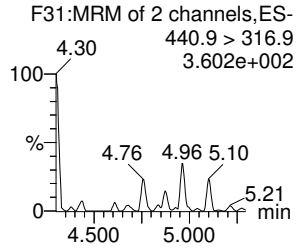
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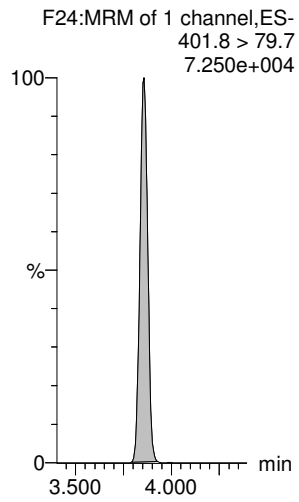


7:3 FTCA

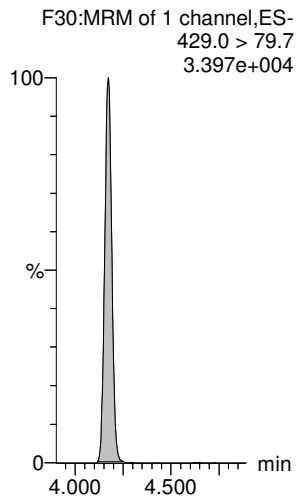




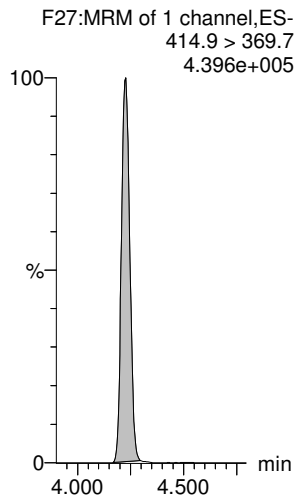
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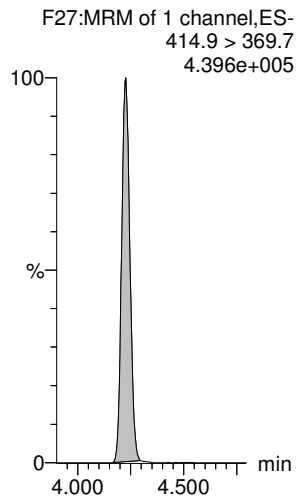
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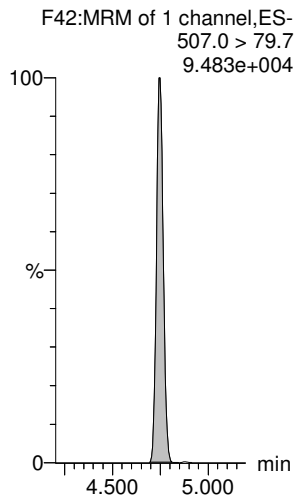
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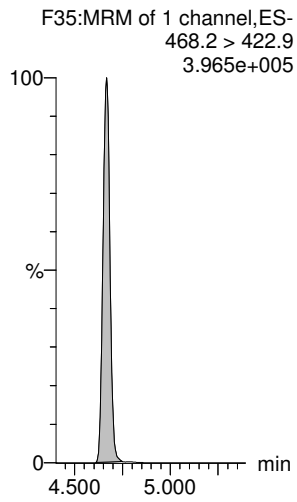
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13C8-PFOS-EIS



13C5-PFNA-EIS

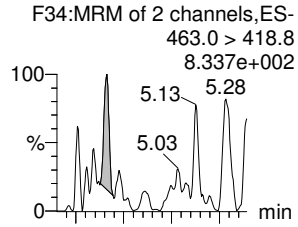


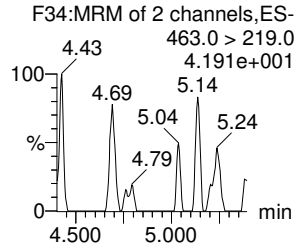
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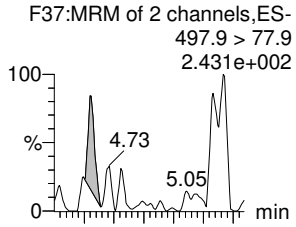
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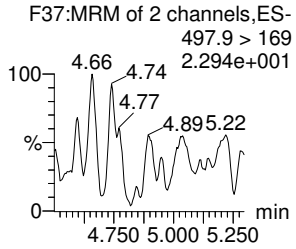
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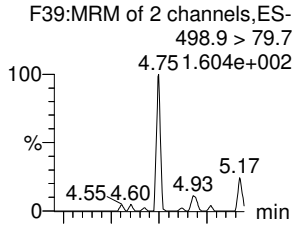


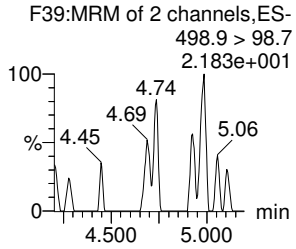
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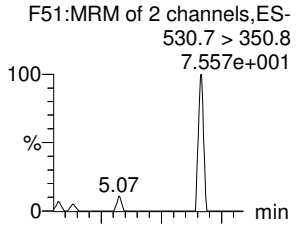


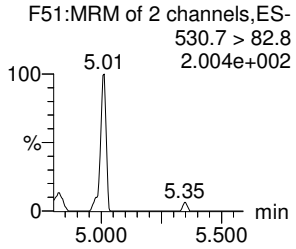
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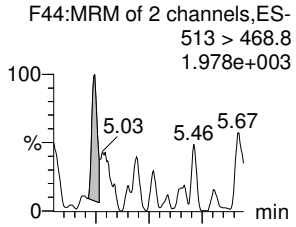


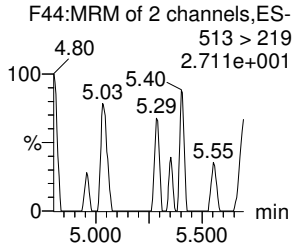
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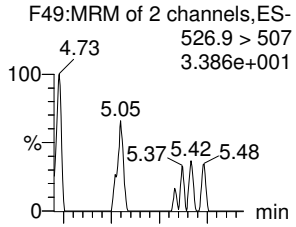


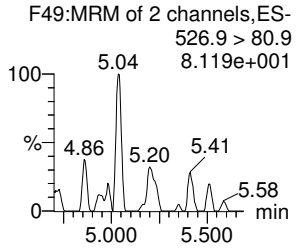
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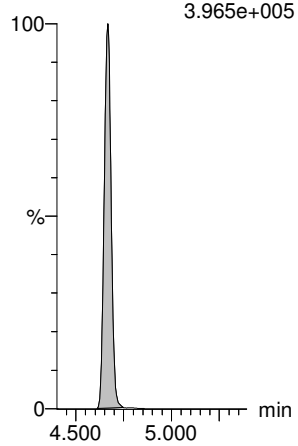


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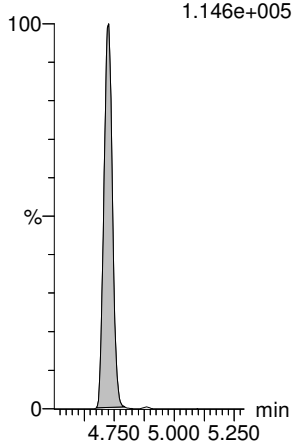




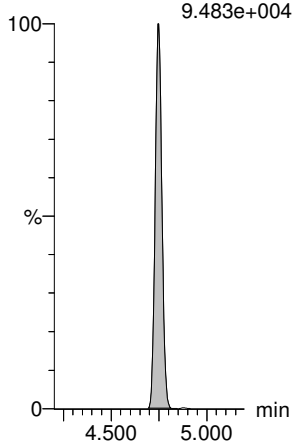
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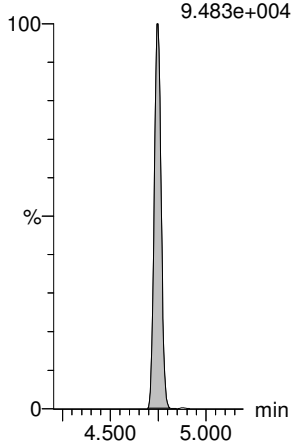
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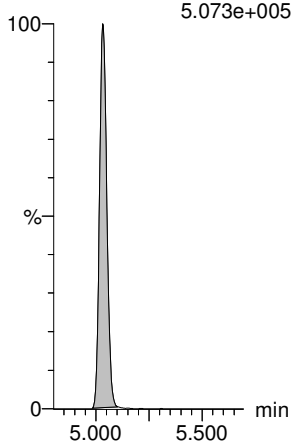
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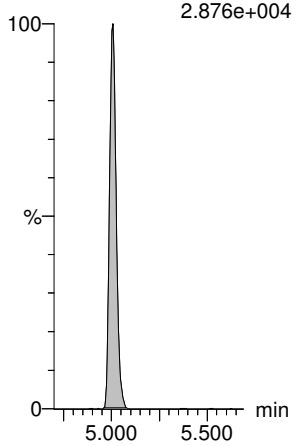
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS



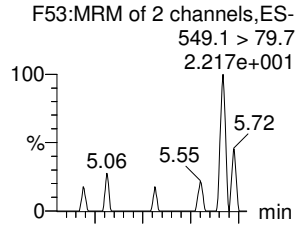
Vista Analytical Laboratory

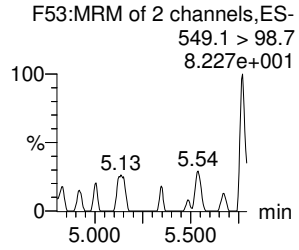
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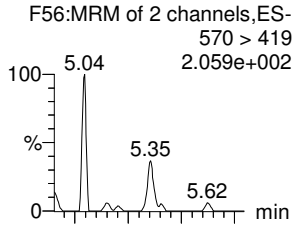
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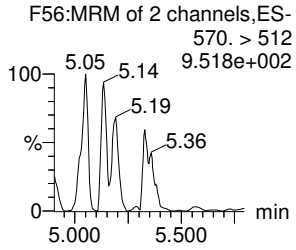
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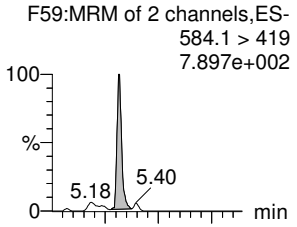


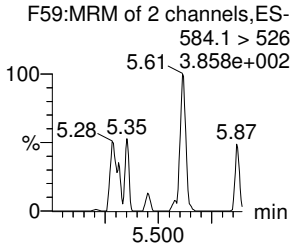
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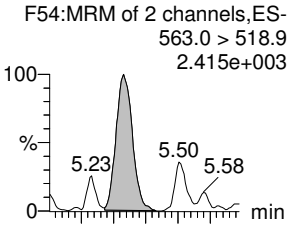


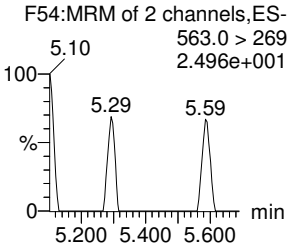
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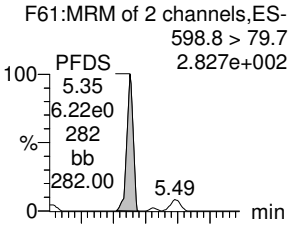


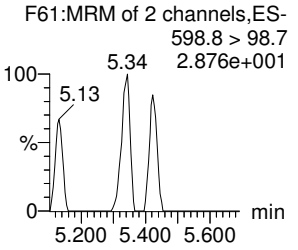
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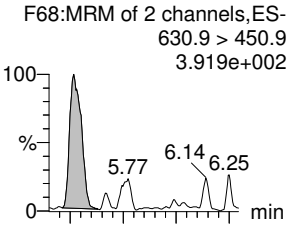


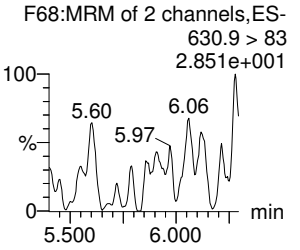
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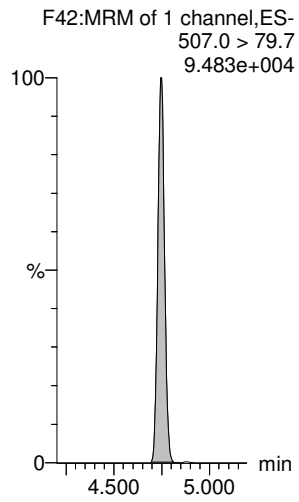


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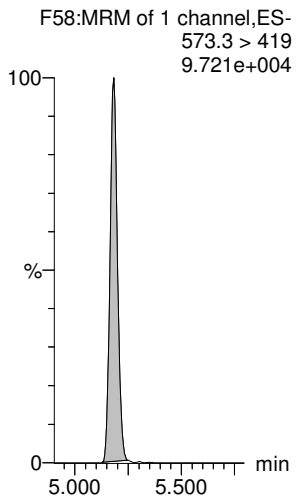




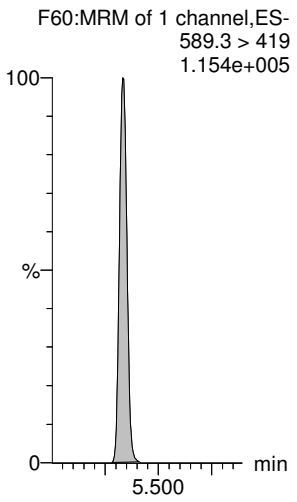
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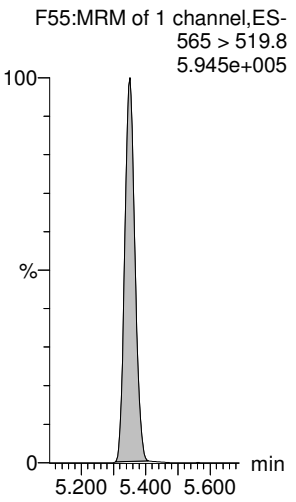
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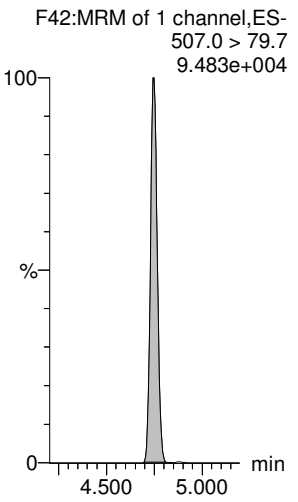
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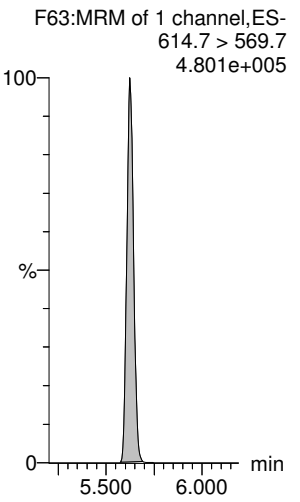
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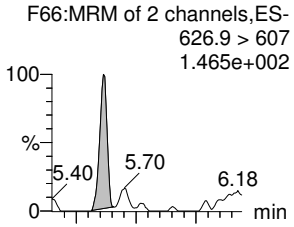


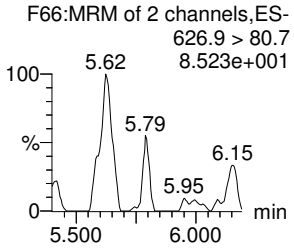
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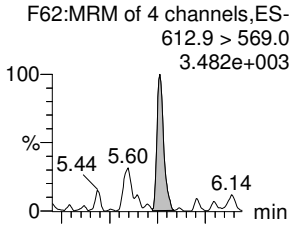
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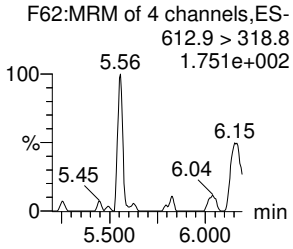
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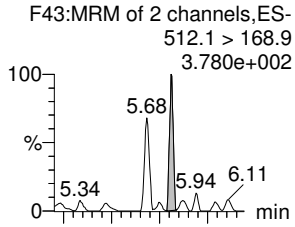


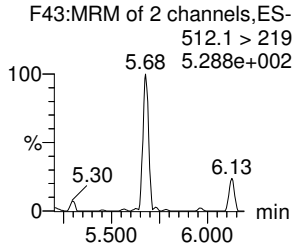
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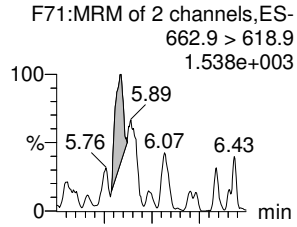


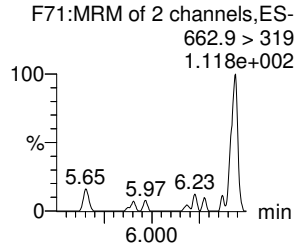
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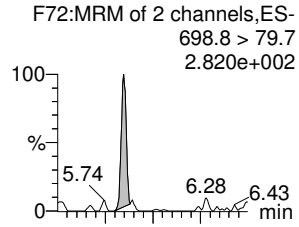


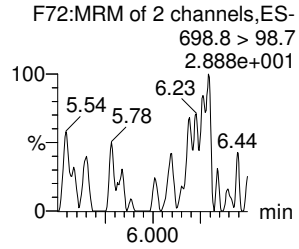
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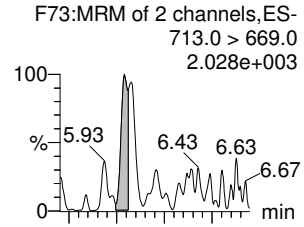


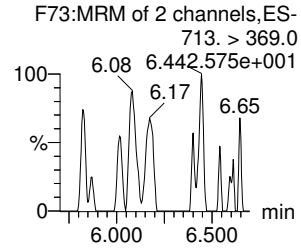
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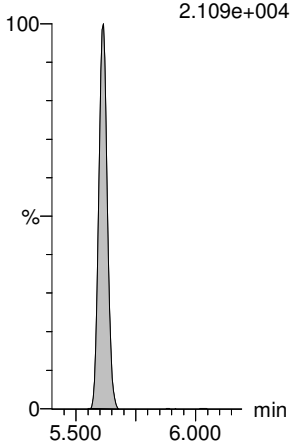


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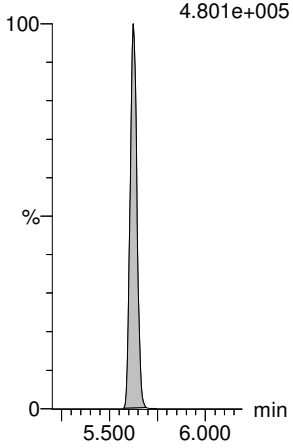




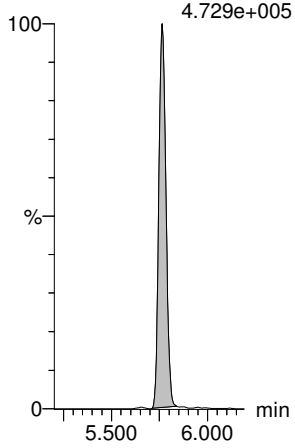
13C2-10:2 FTS-EIS



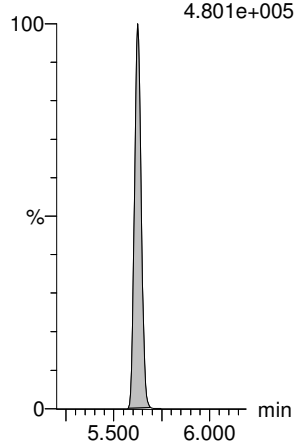
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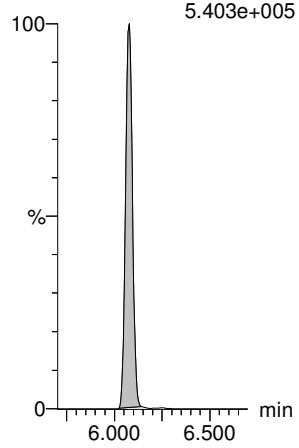
d3-N-MeFOSA-EIS



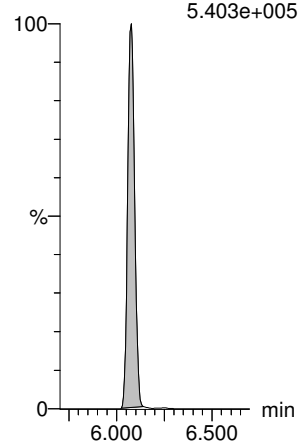
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

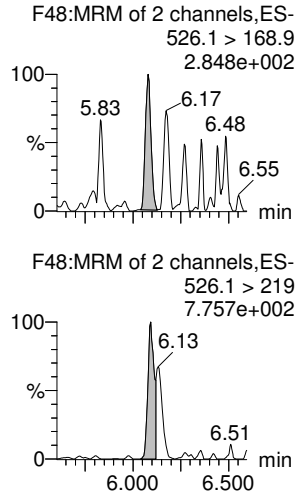


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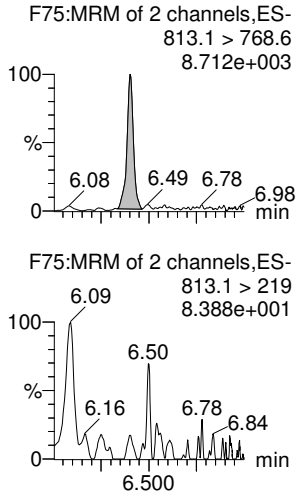
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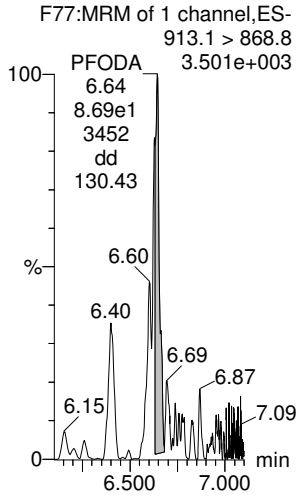
N-EtFOSA



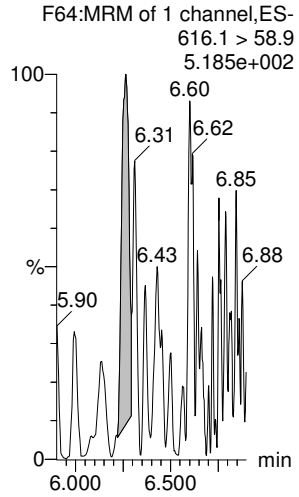
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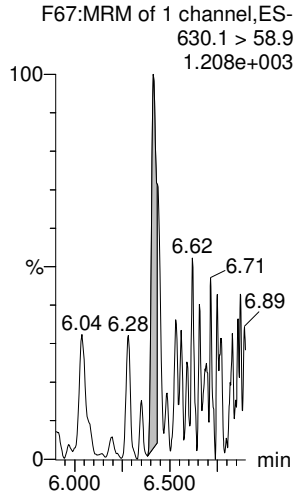
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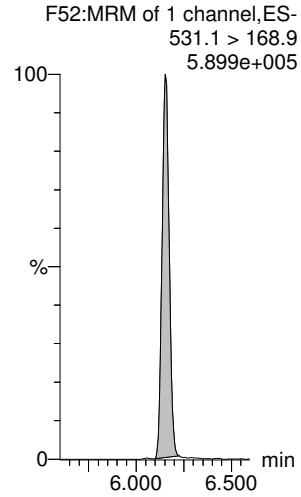
N-MeFOSE



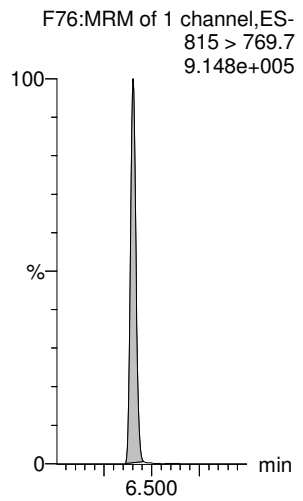
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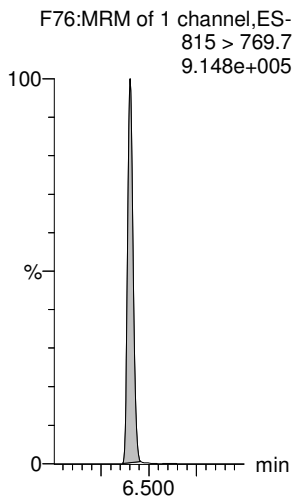
d5-N-ETFOSA-EIS



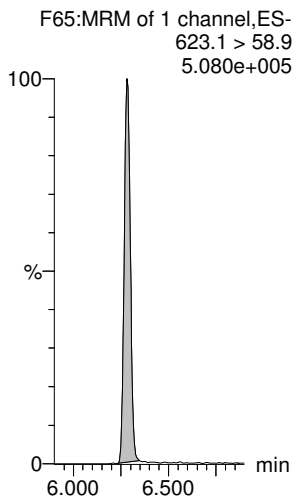
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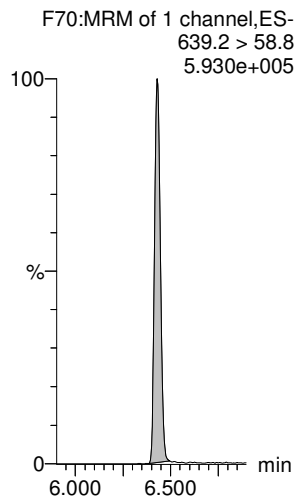
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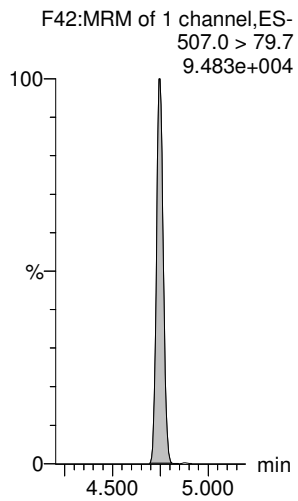
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



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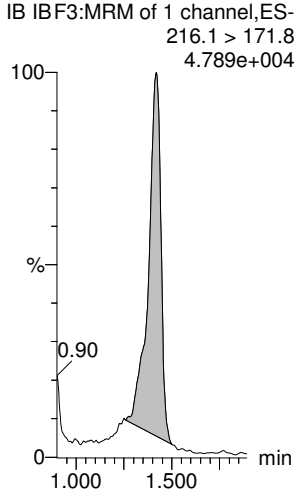


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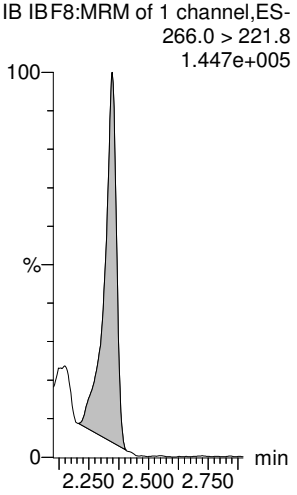
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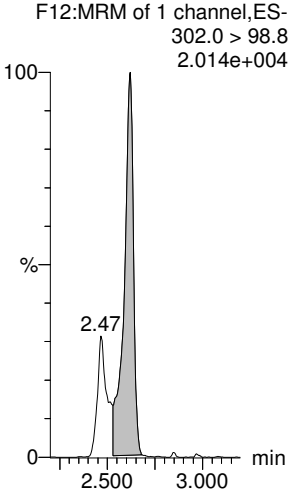
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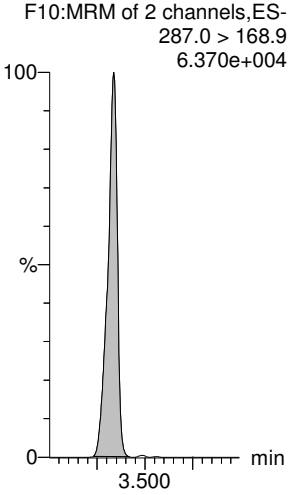
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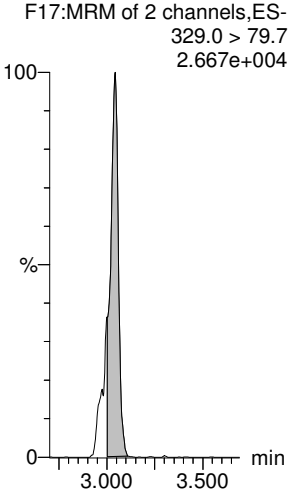
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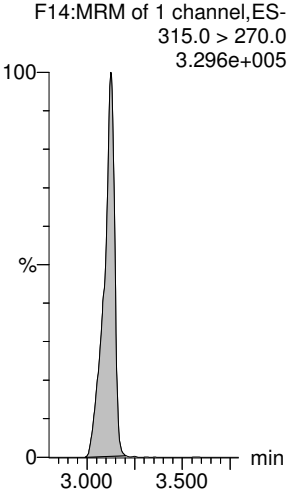
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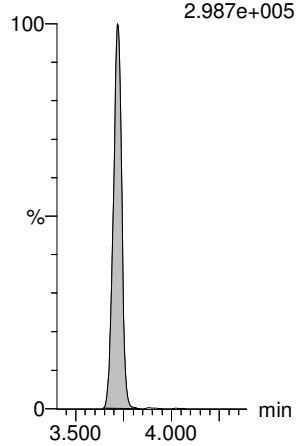
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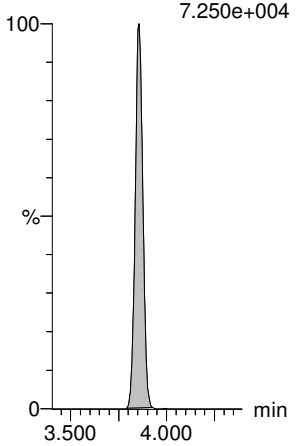
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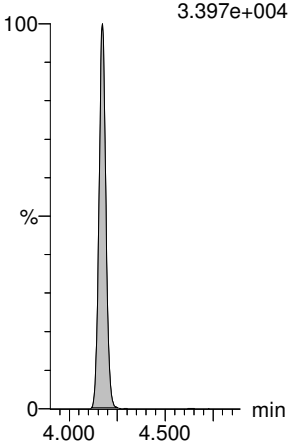
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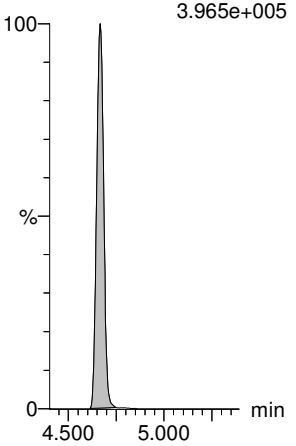
13C3-PFHxS-RSD



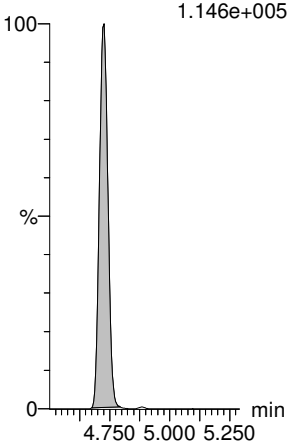
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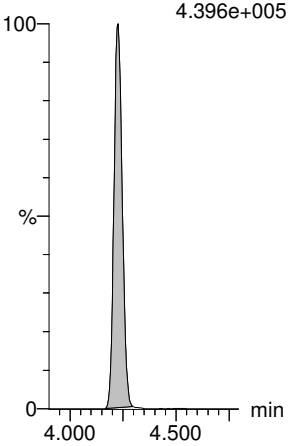
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13C8-PFOSA-RSD



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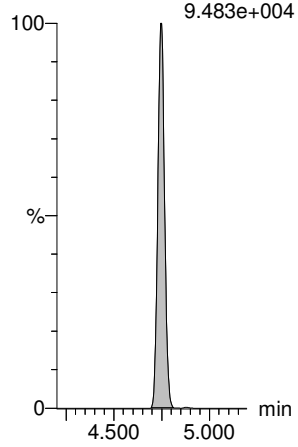


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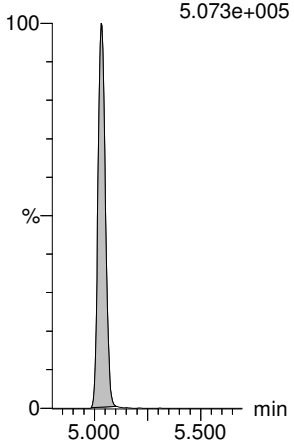
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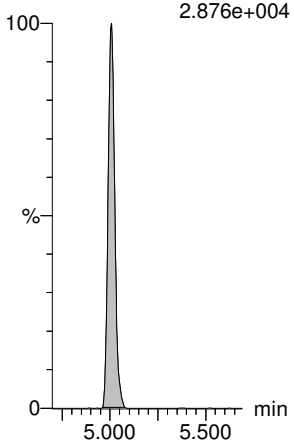
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F42:MRM of 1 channel,ES-
507.0 > 79.7
9.483e+004



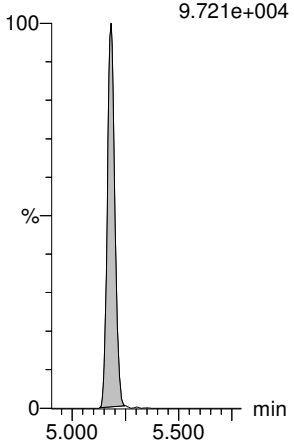
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F45:MRM of 1 channel,ES-
515.1 > 469.9
5.073e+005



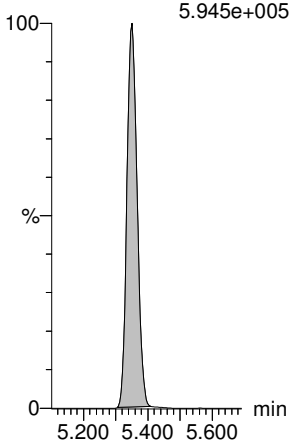
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.876e+004



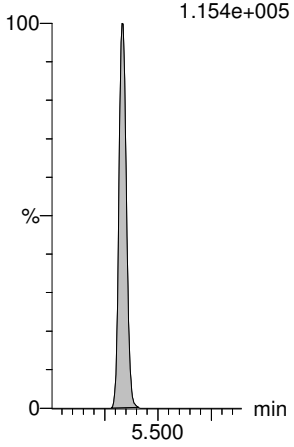
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
9.721e+004



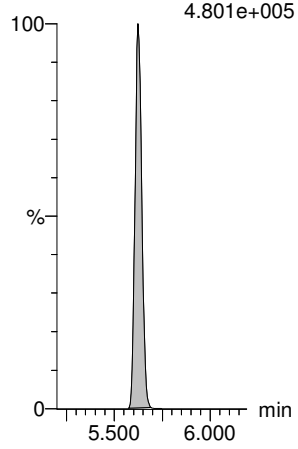
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.945e+005



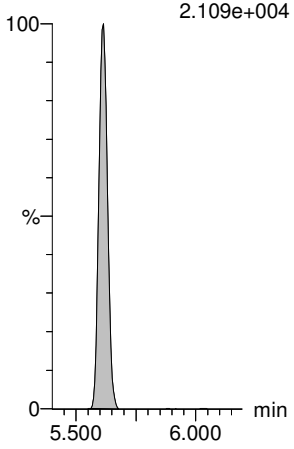
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.154e+005



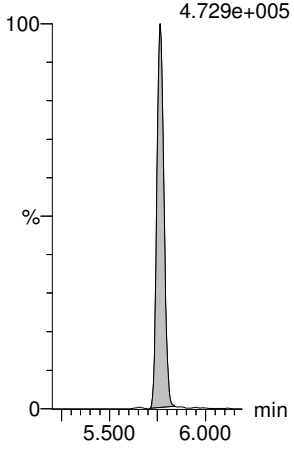
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.801e+005



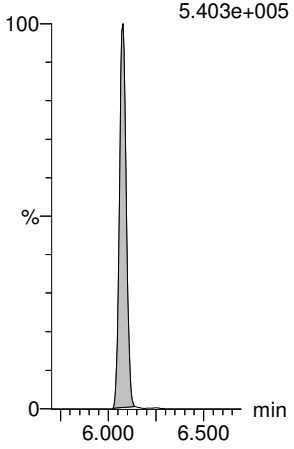
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.109e+004



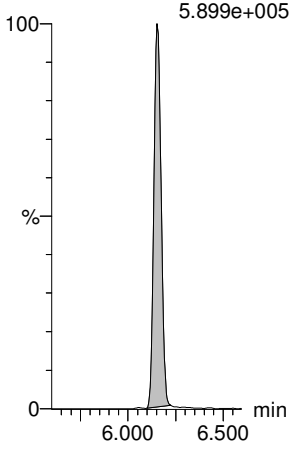
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.729e+005



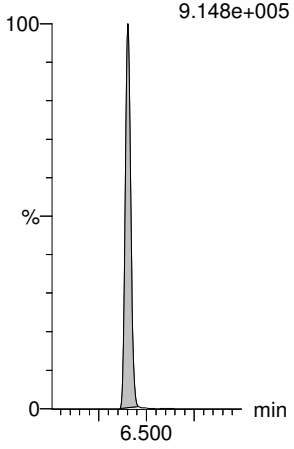
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.403e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.899e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.148e+005

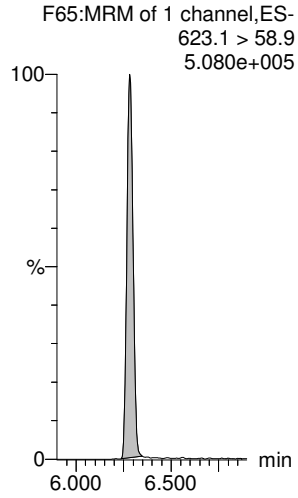


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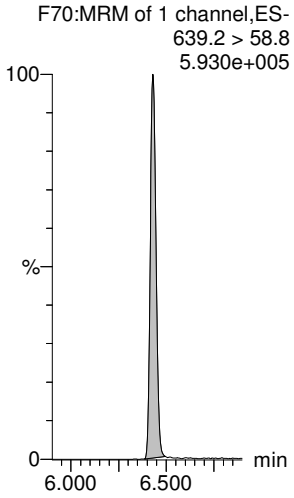
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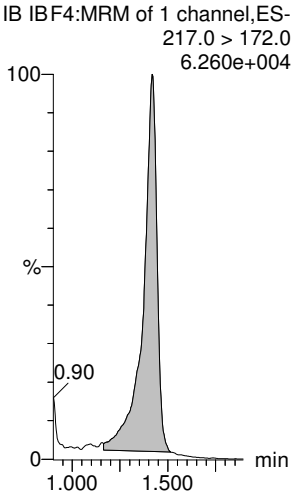
d7-N-MeFOSE-RSD



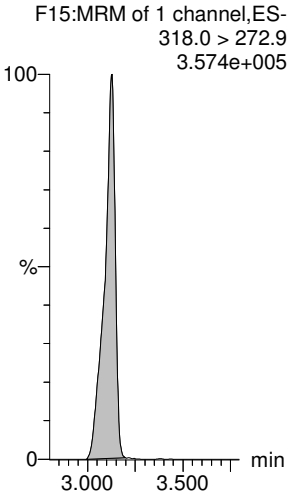
d9-N-EtFOSE-RSD



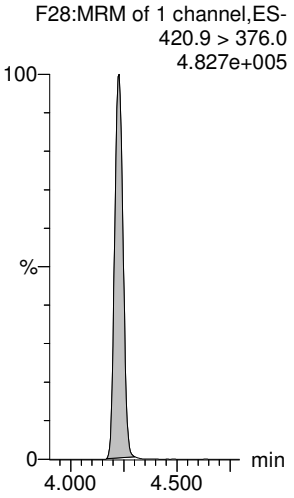
13C4-PFBA



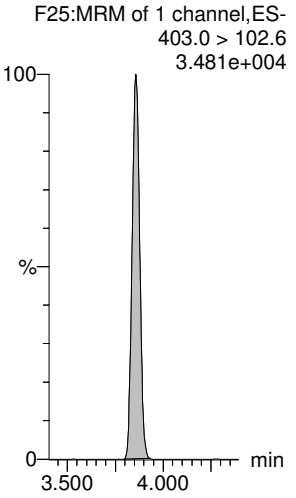
13C5-PFHxA



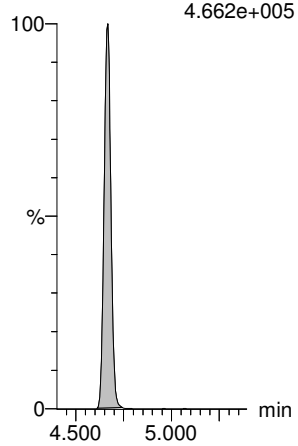
13C8-PFOA



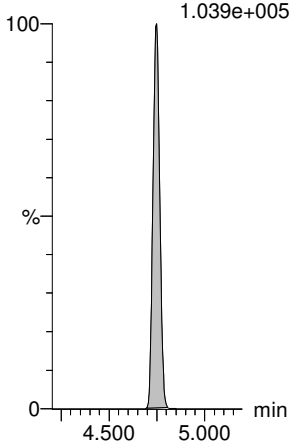
18O2-PFHxS



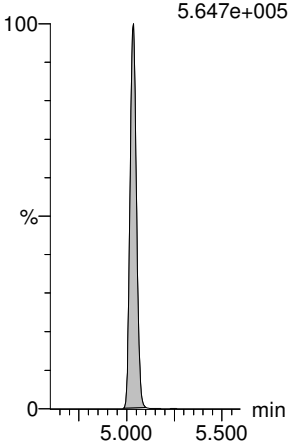
13C9-PFNA



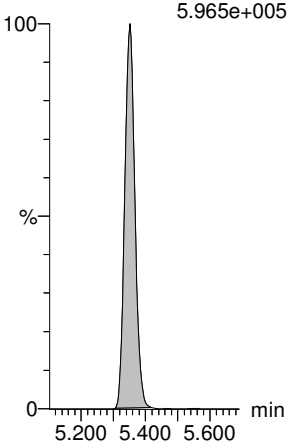
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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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	6.087	3374.603	1.00	1.47	0.023				NO		
2	2	PFPrS	248.9 > 79.7		1117.574	1.00						NO		
3	3	3:3 FTCA	240.9 > 176.9		8162.300	1.00						NO		
4	4	PFPeA	263.1 > 218.9	5.105	8162.300	1.00	2.31	0.008				NO		
5	5	PFBS	299.0 > 79.7		1117.574	1.00						NO		
6	6	4:2 FTS	327.0 > 307		1218.698	1.00						NO		
7	47	13C3-PFBA-EIS	216.1 > 171.8	3374.603		1.00	1.42	3374.603	12.500	3.77	30.2	YES		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1117.574		1.00	2.62	1117.574	12.500	9.31	74.5	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	8162.300		1.00	2.35	8162.300	12.500	7.21	57.7	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	8162.300		1.00	2.35	8162.300	12.500	7.21	57.7	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1117.574		1.00	2.62	1117.574	12.500	9.31	74.5	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1218.698		1.00	3.04	1218.698	12.500	8.18	65.4	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	59.331	20717.152	1.00	3.02	0.036				NO		
15	8	PFPeS	349.>79.7		1117.574	1.00						NO		
16	9	HFPO-DA	285.1 > 168.9		3623.440	1.00						NO		
17	10	5:3 FTCA	340.9 > 236.9	5.697	14782.707	1.00	3.83	0.005		0.0705		NO		
18	11	PFHpA	363.0 > 318.9		14782.707	1.00						NO		
19	12	ADONA	376.8 > 250.9	41.141	14782.707	1.00	3.75	0.035				NO	4.883	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	20717.152		1.00	3.12	20717.152	12.500	11.5	92.3	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1117.574		1.00	2.62	1117.574	12.500	9.31	74.5	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3623.440		1.00	3.34	3623.440	12.500	11.5	92.3	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	14782.707		1.00	3.72	14782.707	12.500	12.0	95.9	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	14782.707		1.00	3.72	14782.707	12.500	12.0	95.9	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	14782.707		1.00	3.72	14782.707	12.500	12.0	95.9	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7		3320.766	1.00						NO		
28	15	6:2 FTS	427.0 > 407	13.202	1390.905	1.00	4.13	0.119				NO		
29	16	L-PFOA	412.8 > 368.9	110.780	19666.736	1.00	4.22	0.070				NO	4.336	YES
30	18	PFecHS	460.8 > 381.0		19666.736	1.00						NO		
31	19	PFHpS	449.0 > 79.7		3852.213	1.00						NO		
32	20	7:3 FTCA	440.9 > 336.9		16544.805	1.00						NO		
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3320.766		1.00	3.86	3320.766	12.500	12.1	97.2	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1390.905		1.00	4.17	1390.905	12.500	11.3	90.6	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	19666.736		1.00	4.23	19666.736	12.500	12.3	98.7	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	19666.736		1.00	4.23	19666.736	12.500	12.3	98.7	NO		

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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	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	16544.805		1.00	4.67	16544.805	12.500	11.1	88.7	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	21.350	16544.805	1.00	4.66	0.016				NO		
41	22	PFOSA	497.9 > 77.9	5.084	4592.565	1.00	4.65	0.014		0.0480		NO		
42	23	L-PFOS	498.9 > 79.7		3852.213	1.00						NO		
43	25	9Cl-PF30NS	530.7 > 350.8		3852.213	1.00						NO		
44	26	PFDA	513 > 468.8	52.535	20059.008	1.00	4.99	0.033				NO		
45	27	8:2 FTS	526.9 > 507		1123.938	1.00						NO		
46	65	13C5-PFNA-EIS	468.2 > 422.9	16544.805		1.00	4.67	16544.805	12.500	11.1	88.7	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4592.565		1.00	4.73	4592.565	12.500	12.2	97.8	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	20059.008		1.00	5.03	20059.008	12.500	12.3	98.1	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1123.938		1.00	5.01	1123.938	12.500	11.0	88.0	NO		
52	-1													
53	28	PFNS	549.1 > 79.7		3852.213	1.00						NO		
54	29	L-MeFOSAA	570 > 419		3885.093	1.00						NO		
55	31	L-EtFOSAA	584.1 > 419	19.145	4576.282	1.00	5.32	0.052		0.0133		NO		
56	33	PFUdA	563.0 > 518.9	141.371	21489.662	1.00	5.33	0.082				NO		
57	34	PFDS	598.8 > 79.7	6.220	3852.213	1.00	5.35	0.020		0.0111		NO		
58	35	11Cl-PF30UdS	630.9 > 450.9	24.052	19587.941	1.00	5.52	0.015				NO		
59	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	3885.093		1.00	5.18	3885.093	12.500	11.8	94.1	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	4576.282		1.00	5.33	4576.282	12.500	11.6	92.6	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	21489.662		1.00	5.35	21489.662	12.500	13.3	106.3	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	19587.941		1.00	5.62	19587.941	12.500	11.6	92.9	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607	5.157	873.436	1.00	5.61	0.074				NO		
67	37	PFDoA	612.9 > 569.0	139.302	19587.941	1.00	5.76	0.089		0.0106		NO		
68	38	N-MeFOSA	512.1 > 168.9	8.689	19895.789	1.00	5.81	0.065		0.0855		NO		
69	39	PFTrDA	662.9 > 618.9	48.682	19587.941	1.00	5.84	0.031				NO		
70	40	PFDoS	698.8 > 79.7	7.948	22213.631	1.00	5.85	0.004				NO		
71	41	PFTeDA	713.0 > 669.0	80.025	22213.631	1.00	6.04	0.045				NO		
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	873.436		1.00	5.61	873.436	12.500	12.1	97.1	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	614.7 > 569.7	19587.941		1.00	5.62	19587.941	12.500	11.6	92.9	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	19895.789		1.00	5.76	19895.789	149.200	141	94.2	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	19587.941		1.00	5.62	19587.941	12.500	11.6	92.9	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	22213.631		1.00	6.08	22213.631	12.500	11.7	93.7	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	22213.631		1.00	6.08	22213.631	12.500	11.7	93.7	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	9.688	25288.002	1.00	6.08	0.057				NO	0.330	YES
80	43	PFHxDA	813.1 > 768.6	332.756	29914.744	1.00	6.40	0.139				NO		
81	44	PFODA	913.1 > 868.8	86.946	29914.744	1.00	6.64	0.036		0.00864		NO		
82	45	N-MeFOSE	616.1 > 58.9	21.383	18268.793	1.00	6.27	0.175		0.142		NO		
83	46	N-EtFOSE	630.1 > 58.9	32.575	20460.025	1.00	6.41	0.238				NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	25288.002		1.00	6.15	25288.002	149.200	140	93.8	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	29914.744		1.00	6.40	29914.744	12.500	11.5	92.3	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	29914.744		1.00	6.40	29914.744	12.500	11.5	92.3	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	18268.793		1.00	6.28	18268.793	149.200	151	101.4	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	20460.025		1.00	6.43	20460.025	149.200	137	91.9	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3852.213		1.00	4.75	3852.213	12.500	13.2	105.6	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	3374.603	5063.513	1.00	1.42	8.331	12.500	10.4	83.3	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	8143.700	22758.422	1.00	2.35	4.473	12.500	7.59	60.7	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1117.574	1564.224	1.00	2.62	8.931	12.500	7.92	63.4	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	3623.440	22758.422	1.00	3.34	1.990	12.500	11.4	91.3	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1218.698	1564.224	1.00	3.04	9.739	12.500	7.41	59.3	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	20717.152	22758.422	1.00	3.12	11.379	12.500	11.7	93.5	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	14782.707	22758.422	1.00	3.72	8.119	12.500	12.3	98.6	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3320.766	1564.224	1.00	3.86	26.537	12.500	10.5	84.3	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1390.905	4144.186	1.00	4.17	4.195	12.500	10.9	87.3	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	16544.805	19038.262	1.00	4.67	10.863	12.500	11.6	92.6	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4592.565	21475.115	1.00	4.73	2.673	12.500	12.7	101.8	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	19666.736	21630.061	1.00	4.23	11.365	12.500	12.3	98.6	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3852.213	4144.186	1.00	4.75	11.619	12.500	12.2	97.9	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	20059.008	21429.576	1.00	5.03	11.701	12.500	12.1	97.0	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1123.938	4144.186	1.00	5.01	3.390	12.500	10.3	82.2	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	3885.093	21475.115	1.00	5.18	2.261	12.500	13.0	103.9	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	21489.662	21475.115	1.00	5.35	12.508	12.500	12.4	99.2	NO		

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	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	4576.282	21475.115	1.00	5.33	2.664	12.500	11.5	92.0	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	19587.941	21429.576	1.00	5.62	11.426	12.500	11.8	94.4	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	873.436	4144.186	1.00	5.61	2.635	12.500	11.1	88.4	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	19895.789	21475.115	1.00	5.76	11.581	149.200	144	96.7	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	22213.631	21475.115	1.00	6.08	12.930	12.500	12.3	98.8	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	25288.002	21475.115	1.00	6.15	14.719	149.200	148	99.5	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	29914.744	21475.115	1.00	6.40	17.412	12.500	11.6	93.2	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	18268.793	21475.115	1.00	6.28	10.634	149.200	146	97.8	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	20460.025	21475.115	1.00	6.43	11.909	149.200	139	93.0	NO		
119	99	13C4-PFBA	217.0 > 172.0	5063.513	5063.513	1.00	1.42	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	22758.422	22758.422	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	21630.061	21630.061	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1564.224	1564.224	1.00	3.86	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	19038.262	19038.262	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	4144.186	4144.186	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	21429.576	21429.576	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	21475.115	21475.115	1.00	5.35	12.500	12.500	12.5	100.0	NO		

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02/27/20 JY

low point
PFPeS: 0.5 ✓
6:2 FTS: 0.5 ✓
~~PH~~ PFHpS: 0.5 ✓
PFOSA: 1.0 ✓
PFNS: 0.5 ✓
L-MeFOSAA: 0.5 ✓ ~~Fo~~ JY 02/27/20
PFDS: 0.5

high point
3:3 FTCA: 100 ✓
PFPeS: 250 ✓
5:3: 100 ✓
L-PFHxS: 250 ✓
7:3 FTCA: 100 ✓

✓ dpv 02/27/20

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022620.mdb 26 Feb 2020 11:36:08
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Compound name: PFBA
Correlation coefficient: r = 0.999339, r^2 = 0.998678
Calibration curve: 1.08717 * x + 0.000349124
Response type: Internal Std (Ref 47), 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 200226P1-3	Standard	0.250	1.43	153.150	8775.879	0.218	0.2	-19.9	NO	0.999	NO	bb
2	2 200226P1-4	Standard	0.500	1.43	345.142	9063.363	0.476	0.4	-12.5	NO	0.999	NO	bb
3	3 200226P1-5	Standard	1.000	1.43	696.190	8872.416	0.981	0.9	-9.8	NO	0.999	NO	bb
4	4 200226P1-6	Standard	2.000	1.42	1668.971	8588.399	2.429	2.2	11.7	NO	0.999	NO	bb
5	5 200226P1-7	Standard	5.000	1.43	4132.083	8507.578	6.071	5.6	11.7	NO	0.999	NO	bb
6	6 200226P1-8	Standard	10.000	1.43	8637.624	9337.931	11.563	10.6	6.4	NO	0.999	NO	bb
7	7 200226P1-9	Standard	50.000	1.43	42801.031	9037.192	59.201	54.5	8.9	NO	0.999	NO	MM
8	8 200226P1-10	Standard	100.000	1.43	85642.602	9241.146	115.844	106.6	6.6	NO	0.999	NO	MM
9	9 200226P1-11	Standard	250.000	1.43	200592.641	9332.476	268.676	247.1	-1.1	NO	0.999	NO	MM
10	10 200226P1-12	Standard	500.000	1.43	409682.031	9601.117	533.378	490.6	-1.9	NO	0.999	NO	MM

Compound name: PFPrS
Correlation coefficient: r = 0.998964, r^2 = 0.997928
Calibration curve: 1.50428 * x + 0.113873
Response type: Internal Std (Ref 51), 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 200226P1-3	Standard	0.250	1.76	45.382	1401.262	0.405	0.2	-22.6	NO	0.998	NO	MM
2	2 200226P1-4	Standard	0.500	1.75	105.004	1432.161	0.916	0.5	6.7	NO	0.998	NO	MM
3	3 200226P1-5	Standard	1.000	1.76	182.867	1420.159	1.610	1.0	-0.6	NO	0.998	NO	MM
4	4 200226P1-6	Standard	2.000	1.76	376.086	1448.192	3.246	2.1	4.1	NO	0.998	NO	MM
5	5 200226P1-7	Standard	5.000	1.76	1009.903	1416.076	8.915	5.9	17.0	NO	0.998	NO	MM
6	6 200226P1-8	Standard	10.000	1.76	1881.154	1367.046	17.201	11.4	13.6	NO	0.998	NO	db
7	7 200226P1-9	Standard	50.000	1.76	9380.615	1478.976	79.283	52.6	5.3	NO	0.998	NO	db
8	8 200226P1-10	Standard	100.000	1.76	19069.305	1440.453	165.480	109.9	9.9	NO	0.998	NO	bb
9	9 200226P1-11	Standard	250.000	1.76	44088.031	1469.811	374.946	249.2	-0.3	NO	0.998	NO	bb
10	10 200226P1-12	Standard	500.000	1.76	84760.727	1449.015	731.193	486.0	-2.8	NO	0.998	NO	bb

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Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.999826
Calibration curve: 7.49325e-006 * x^2 + 0.0732042 * x + -0.00244075
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	200226P1-3	Standard	0.250	2.20	14.929	12226.452	0.015	0.2	-3.3	NO	1.000	NO	bb
2	2	200226P1-4	Standard	0.500	2.20	33.263	12703.555	0.033	0.5	-3.9	NO	1.000	NO	bb
3	3	200226P1-5	Standard	1.000	2.20	69.152	13528.348	0.064	0.9	-9.4	NO	1.000	NO	bb
4	4	200226P1-6	Standard	2.000	2.21	151.514	13241.473	0.143	2.0	-0.7	NO	1.000	NO	bb
5	5	200226P1-7	Standard	5.000	2.20	384.449	13012.242	0.369	5.1	1.5	NO	1.000	NO	bb
6	6	200226P1-8	Standard	10.000	2.20	796.053	13219.570	0.753	10.3	3.0	NO	1.000	NO	bb
7	7	200226P1-9	Standard	50.000	2.21	3745.348	12843.264	3.645	49.6	-0.8	NO	1.000	NO	bb
8	8	200226P1-10	Standard	100.000	2.21	7665.141	12937.179	7.406	100.2	0.2	NO	1.000	NO	bb
9	9	200226P1-11	Standard	250.000	2.21	3909.727	12955.820	3.772	51.3	-79.5	YES	1.000	NO	bbX
10	10	200226P1-12	Standard	500.000	2.21	7731.775	12383.930	7.804	105.5	-78.9	YES	1.000	NO	bbX

Compound name: PFPeA
Coefficient of Determination: R^2 = 0.999784
Calibration curve: -9.87753e-005 * x^2 + 0.974764 * x + 0.0156962
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	200226P1-3	Standard	0.250	2.34	257.112	12226.452	0.263	0.3	1.4	NO	1.000	NO	bb
2	2	200226P1-4	Standard	0.500	2.35	511.926	12703.555	0.504	0.5	0.1	NO	1.000	NO	bb
3	3	200226P1-5	Standard	1.000	2.35	1032.775	13528.348	0.954	1.0	-3.7	NO	1.000	NO	bb
4	4	200226P1-6	Standard	2.000	2.35	2119.729	13241.473	2.001	2.0	1.9	NO	1.000	NO	bb
5	5	200226P1-7	Standard	5.000	2.35	5209.891	13012.242	5.005	5.1	2.4	NO	1.000	NO	bb
6	6	200226P1-8	Standard	10.000	2.35	10461.221	13219.570	9.892	10.1	1.4	NO	1.000	NO	bb
7	7	200226P1-9	Standard	50.000	2.35	51875.441	12843.264	50.489	52.1	4.1	NO	1.000	NO	bb
8	8	200226P1-10	Standard	100.000	2.35	100122.383	12937.179	96.739	100.2	0.2	NO	1.000	NO	bb
9	9	200226P1-11	Standard	250.000	2.35	241577.063	12955.820	233.078	245.2	-1.9	NO	1.000	NO	bb
10	10	200226P1-12	Standard	500.000	2.35	460367.875	12383.930	464.683	502.3	0.5	NO	1.000	NO	bb

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Compound name: PFBS
Coefficient of Determination: R^2 = 0.999192
Calibration curve: -0.000935095 * x^2 + 2.51262 * x + -0.00995262
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 200226P1-3	Standard	0.250	2.62	60.903	1401.262	0.543	0.2	-11.9	NO	0.999	NO	bb
2	2 200226P1-4	Standard	0.500	2.62	129.147	1432.161	1.127	0.5	-9.5	NO	0.999	NO	bb
3	3 200226P1-5	Standard	1.000	2.62	287.286	1420.159	2.529	1.0	1.1	NO	0.999	NO	bb
4	4 200226P1-6	Standard	2.000	2.62	590.538	1448.192	5.097	2.0	1.7	NO	0.999	NO	bb
5	5 200226P1-7	Standard	5.000	2.62	1521.501	1416.076	13.431	5.4	7.2	NO	0.999	NO	bb
6	6 200226P1-8	Standard	10.000	2.62	2941.949	1367.046	26.901	10.8	7.5	NO	0.999	NO	bb
7	7 200226P1-9	Standard	50.000	2.62	14903.737	1478.976	125.963	51.1	2.2	NO	0.999	NO	bb
8	8 200226P1-10	Standard	100.000	2.62	28767.580	1440.453	249.640	103.3	3.3	NO	0.999	NO	bb
9	9 200226P1-11	Standard	250.000	2.62	64341.523	1469.811	547.192	239.0	-4.4	NO	0.999	NO	bb
10	10 200226P1-12	Standard	500.000	2.62	119620.977	1449.015	1031.916	506.0	1.2	NO	0.999	NO	bb

Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.998422
Calibration curve: -0.000498509 * x^2 + 1.36684 * x + -0.0660468
Response type: Internal Std (Ref 55), 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 200226P1-3	Standard	0.250	3.05	24.354	1507.559	0.202	0.2	-21.6	NO	0.998	NO	MM
2	2 200226P1-4	Standard	0.500	3.04	65.810	1394.837	0.590	0.5	-4.0	NO	0.998	NO	bb
3	3 200226P1-5	Standard	1.000	3.05	166.392	1488.352	1.397	1.1	7.1	NO	0.998	NO	bb
4	4 200226P1-6	Standard	2.000	3.04	375.137	1521.291	3.082	2.3	15.3	NO	0.998	NO	bb
5	5 200226P1-7	Standard	5.000	3.04	817.093	1486.508	6.871	5.1	1.7	NO	0.998	NO	bb
6	6 200226P1-8	Standard	10.000	3.04	1796.390	1526.628	14.709	10.9	8.5	NO	0.998	NO	bb
7	7 200226P1-9	Standard	50.000	3.04	9232.700	1810.332	63.750	47.5	-5.0	NO	0.998	NO	bb
8	8 200226P1-10	Standard	100.000	3.04	16177.244	1632.294	123.884	93.9	-6.1	NO	0.998	NO	bb
9	9 200226P1-11	Standard	250.000	3.05	35309.449	1356.081	325.473	263.5	5.4	NO	0.998	NO	bb
10	10 200226P1-12	Standard	500.000	3.04	64483.164	1457.347	553.087	493.5	-1.3	NO	0.998	NO	bb

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Compound name: PFHxA
Coefficient of Determination: R^2 = 0.999690
Calibration curve: -7.81111e-005 * x^2 + 0.926549 * x + 0.0525548
Response type: Internal Std (Ref 57), 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	200226P1-3	Standard	0.250	3.13	365.651	20326.225	0.225	0.2	-25.6	NO	1.000	NO	MM
2	2	200226P1-4	Standard	0.500	3.13	905.675	21578.674	0.525	0.5	1.9	NO	1.000	NO	bb
3	3	200226P1-5	Standard	1.000	3.13	1922.621	19595.377	1.226	1.3	26.7	NO	1.000	NO	bb
4	4	200226P1-6	Standard	2.000	3.13	3341.915	21589.557	1.935	2.0	1.6	NO	1.000	NO	bb
5	5	200226P1-7	Standard	5.000	3.13	8757.113	20855.104	5.249	5.6	12.2	NO	1.000	NO	bb
6	6	200226P1-8	Standard	10.000	3.13	17212.057	21766.389	9.885	10.6	6.2	NO	1.000	NO	bb
7	7	200226P1-9	Standard	50.000	3.13	83600.625	22347.168	46.762	50.6	1.3	NO	1.000	NO	bb
8	8	200226P1-10	Standard	100.000	3.13	156398.141	21415.428	91.288	99.3	-0.7	NO	1.000	NO	bb
9	9	200226P1-11	Standard	250.000	3.13	384572.844	21451.742	224.092	246.9	-1.2	NO	1.000	NO	bb
10	10	200226P1-12	Standard	500.000	3.13	721310.563	20252.008	445.209	501.7	0.3	NO	1.000	NO	bb

Compound name: PFPeS
Coefficient of Determination: R^2 = 0.999231
Calibration curve: -0.00156545 * x^2 + 2.47524 * x + -0.0893165
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	200226P1-3	Standard	0.250	3.32	110.067	1401.262	0.982	0.4	73.1	YES	0.999	NO	bbX
2	2	200226P1-4	Standard	0.500	3.31	117.524	1432.161	1.026	0.5	-9.9	NO	0.999	NO	bb
3	3	200226P1-5	Standard	1.000	3.32	296.904	1420.159	2.613	1.1	9.3	NO	0.999	NO	bb
4	4	200226P1-6	Standard	2.000	3.33	471.515	1448.192	4.070	1.7	-15.9	NO	0.999	NO	bb
5	5	200226P1-7	Standard	5.000	3.33	1357.557	1416.076	11.983	4.9	-2.1	NO	0.999	NO	bb
6	6	200226P1-8	Standard	10.000	3.32	3023.427	1367.046	27.646	11.3	12.9	NO	0.999	NO	bb
7	7	200226P1-9	Standard	50.000	3.32	14137.481	1478.976	119.487	49.9	-0.2	NO	0.999	NO	bb
8	8	200226P1-10	Standard	100.000	3.32	26351.463	1440.453	228.673	98.6	-1.4	NO	0.999	NO	bb
9	9	200226P1-11	Standard	250.000	3.32	61386.691	1469.811	522.063	250.7	0.3	NO	0.999	NO	bb
10	10	200226P1-12	Standard	500.000	3.32	102353.336	1449.015	882.956	543.7	8.7	NO	0.999	NO	bbX

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Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.999468
Calibration curve: -0.000114399 * x^2 + 1.01445 * x + 0.0442659
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 200226P1-3	Standard	0.250	3.34	80.455	3486.409	0.288	0.2	-3.7	NO	0.999	NO	bb
2	2 200226P1-4	Standard	0.500	3.34	149.585	3482.546	0.537	0.5	-2.9	NO	0.999	NO	bb
3	3 200226P1-5	Standard	1.000	3.34	317.577	3641.377	1.090	1.0	3.1	NO	0.999	NO	bb
4	4 200226P1-6	Standard	2.000	3.34	619.757	3678.129	2.106	2.0	1.7	NO	0.999	NO	bb
5	5 200226P1-7	Standard	5.000	3.34	1553.062	3533.267	5.494	5.4	7.5	NO	0.999	NO	bb
6	6 200226P1-8	Standard	10.000	3.34	3415.283	3834.412	11.134	10.9	9.4	NO	0.999	NO	bb
7	7 200226P1-9	Standard	50.000	3.34	15816.563	3693.687	53.526	53.0	6.1	NO	0.999	NO	bb
8	8 200226P1-10	Standard	100.000	3.34	30371.143	3879.430	97.860	97.5	-2.5	NO	0.999	NO	bb
9	9 200226P1-11	Standard	250.000	3.34	72772.805	3754.341	242.296	245.6	-1.8	NO	0.999	NO	bb
10	10 200226P1-12	Standard	500.000	3.34	140178.906	3643.298	480.948	502.5	0.5	NO	0.999	NO	bb

Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999423
Calibration curve: 9.80953e-005 * x^2 + 0.170689 * x + 0.013798
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 200226P1-3	Standard	0.250	3.67	52.612	13650.170	0.048	0.2	-19.4	NO	0.999	NO	bb
2	2 200226P1-4	Standard	0.500	3.67	116.515	13840.126	0.105	0.5	7.1	NO	0.999	NO	bb
3	3 200226P1-5	Standard	1.000	3.67	218.693	15369.799	0.178	1.0	-3.9	NO	0.999	NO	bb
4	4 200226P1-6	Standard	2.000	3.67	421.891	13469.587	0.392	2.2	10.5	NO	0.999	NO	bb
5	5 200226P1-7	Standard	5.000	3.67	1062.353	14691.437	0.904	5.2	4.0	NO	0.999	NO	bb
6	6 200226P1-8	Standard	10.000	3.67	2056.839	14310.660	1.797	10.4	3.8	NO	0.999	NO	bb
7	7 200226P1-9	Standard	50.000	3.67	10233.822	14949.658	8.557	48.7	-2.6	NO	0.999	NO	bb
8	8 200226P1-10	Standard	100.000	3.67	20214.705	13904.348	18.173	100.6	0.6	NO	0.999	NO	bb
9	9 200226P1-11	Standard	250.000	3.67	10131.365	14160.083	8.944	50.8	-79.7	YES	0.999	NO	bbX
10	10 200226P1-12	Standard	500.000	3.67	20017.662	13820.709	18.105	100.2	-80.0	YES	0.999	NO	bbX

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Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999856
Calibration curve: -0.000239938 * x^2 + 1.24578 * x + 0.0519646
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 200226P1-3	Standard	0.250	3.72	391.060	13650.170	0.358	0.2	-1.7	NO	1.000	NO	bb
2	2 200226P1-4	Standard	0.500	3.72	666.928	13840.126	0.602	0.4	-11.6	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	3.72	1648.480	15369.799	1.341	1.0	3.5	NO	1.000	NO	bd
4	4 200226P1-6	Standard	2.000	3.73	3012.700	13469.587	2.796	2.2	10.2	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	3.73	7387.480	14691.437	6.286	5.0	0.2	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	3.73	14443.984	14310.660	12.616	10.1	1.1	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	3.73	71530.492	14949.658	59.809	48.4	-3.2	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	3.73	138503.016	13904.348	124.514	101.9	1.9	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	3.73	334869.156	14160.083	295.610	249.2	-0.3	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	3.73	622632.875	13820.709	563.134	500.2	0.0	NO	1.000	NO	bb

Compound name: ADONA
Coefficient of Determination: R^2 = 0.999916
Calibration curve: -0.000912242 * x^2 + 2.92006 * x + 0.139941
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 200226P1-3	Standard	0.250	3.83	985.677	13650.170	0.903	0.3	4.5	NO	1.000	NO	bb
2	2 200226P1-4	Standard	0.500	3.83	1680.556	13840.126	1.518	0.5	-5.6	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	3.83	3682.260	15369.799	2.995	1.0	-2.2	NO	1.000	NO	bb
4	4 200226P1-6	Standard	2.000	3.83	6858.231	13469.587	6.365	2.1	6.7	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	3.83	16942.699	14691.437	14.415	4.9	-2.1	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	3.83	33351.715	14310.660	29.132	10.0	-0.4	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	3.83	168208.781	14949.658	140.646	48.9	-2.3	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	3.83	319639.938	13904.348	287.356	101.6	1.6	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	3.83	761559.188	14160.083	672.276	249.7	-0.1	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	3.83	1362166.375	13820.709	1231.998	499.9	-0.0	NO	1.000	NO	bb

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Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.999160
Calibration curve: -0.000871883 * x^2 + 1.14828 * x + -0.0782219
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 200226P1-3	Standard	0.250	3.86	37.069	3170.492	0.146	0.2	-21.8	NO	0.999	NO	MM
2	2 200226P1-4	Standard	0.500	3.86	135.057	3094.256	0.546	0.5	8.7	NO	0.999	NO	MM
3	3 200226P1-5	Standard	1.000	3.87	272.451	3226.867	1.055	1.0	-1.2	NO	0.999	NO	MM
4	4 200226P1-6	Standard	2.000	3.86	506.435	2938.056	2.155	1.9	-2.6	NO	0.999	NO	MM
5	5 200226P1-7	Standard	5.000	3.86	1562.348	3256.344	5.997	5.3	6.2	NO	0.999	NO	MM
6	6 200226P1-8	Standard	10.000	3.86	2988.929	2903.356	12.868	11.4	13.7	NO	0.999	NO	MM
7	7 200226P1-9	Standard	50.000	3.87	13917.029	3203.302	54.307	49.2	-1.6	NO	0.999	NO	MM
8	8 200226P1-10	Standard	100.000	3.86	26133.781	3133.727	104.244	98.2	-1.8	NO	0.999	NO	MM
9	9 200226P1-11	Standard	250.000	3.87	59544.660	3190.129	233.316	251.1	0.5	NO	0.999	NO	MM
10	10 200226P1-12	Standard	500.000	3.86	111018.617	2676.631	518.462			NO	0.999	NO	MMXI

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.999490
Calibration curve: -0.00054644 * x^2 + 1.59373 * x + 0.328621
Response type: Internal Std (Ref 63), 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 200226P1-3	Standard	0.250	4.18	44.556	1278.658	0.436	0.1	-73.2	YES	0.999	NO	bbX
2	2 200226P1-4	Standard	0.500	4.17	105.751	1397.198	0.946	0.4	-22.5	NO	0.999	NO	bb
3	3 200226P1-5	Standard	1.000	4.17	219.561	1157.952	2.370	1.3	28.2	NO	0.999	NO	bb
4	4 200226P1-6	Standard	2.000	4.18	361.458	1477.219	3.059	1.7	-14.3	NO	0.999	NO	bb
5	5 200226P1-7	Standard	5.000	4.18	1060.823	1574.625	8.421	5.1	1.7	NO	0.999	NO	bb
6	6 200226P1-8	Standard	10.000	4.18	2001.182	1475.602	16.952	10.5	4.7	NO	0.999	NO	bb
7	7 200226P1-9	Standard	50.000	4.18	9577.545	1484.250	80.660	51.3	2.6	NO	0.999	NO	bb
8	8 200226P1-10	Standard	100.000	4.18	17148.861	1368.893	156.594	101.6	1.6	NO	0.999	NO	bb
9	9 200226P1-11	Standard	250.000	4.18	41595.738	1461.090	355.862	243.4	-2.6	NO	0.999	NO	bb
10	10 200226P1-12	Standard	500.000	4.18	78155.781	1470.713	664.268	503.5	0.7	NO	0.999	NO	bb

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Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999766
Calibration curve: -0.000209775 * x^2 + 1.14636 * x + 0.120191
Response type: Internal Std (Ref 69), 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 200226P1-3	Standard	0.250	4.23	572.139	19630.277	0.364	0.2	-14.8	NO	1.000	NO	MM
2	2 200226P1-4	Standard	0.500	4.23	1045.139	18155.506	0.720	0.5	4.6	NO	1.000	NO	bd
3	3 200226P1-5	Standard	1.000	4.23	2100.121	19415.357	1.352	1.1	7.5	NO	1.000	NO	bb
4	4 200226P1-6	Standard	2.000	4.23	3927.260	20442.738	2.401	2.0	-0.5	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	4.23	9463.563	19587.465	6.039	5.2	3.4	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	4.23	18455.270	19605.205	11.767	10.2	1.8	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	4.23	92051.766	21094.199	54.548	47.9	-4.2	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	4.23	171025.484	18472.771	115.728	102.8	2.8	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	4.23	401304.875	18439.023	272.049	248.5	-0.6	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	4.23	696387.000	16699.938	521.250	500.4	0.1	NO	1.000	NO	bb

Compound name: PFecHS
Coefficient of Determination: R^2 = 0.999124
Calibration curve: -1.51462e-005 * x^2 + 0.170978 * x + -0.00529494
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 200226P1-3	Standard	0.250	4.24	43.293	19630.277	0.028	0.2	-23.1	NO	0.999	NO	bb
2	2 200226P1-4	Standard	0.500	4.24	129.503	18155.506	0.089	0.6	10.5	NO	0.999	NO	bb
3	3 200226P1-5	Standard	1.000	4.24	229.416	19415.357	0.148	0.9	-10.5	NO	0.999	NO	bb
4	4 200226P1-6	Standard	2.000	4.24	596.876	20442.738	0.365	2.2	8.3	NO	0.999	NO	bb
5	5 200226P1-7	Standard	5.000	4.24	1378.877	19587.465	0.880	5.2	3.6	NO	0.999	NO	dd
6	6 200226P1-8	Standard	10.000	4.24	2701.028	19605.205	1.722	10.1	1.1	NO	0.999	NO	bd
7	7 200226P1-9	Standard	50.000	4.24	13350.083	21094.199	7.911	46.5	-7.0	NO	0.999	NO	dd
8	8 200226P1-10	Standard	100.000	4.25	26586.131	18472.771	17.990	106.2	6.2	NO	0.999	NO	bb
9	9 200226P1-11	Standard	250.000	4.25	60579.426	18439.023	41.067	245.6	-1.8	NO	0.999	NO	bb
10	10 200226P1-12	Standard	500.000	4.25	109429.516	16699.938	81.909	501.4	0.3	NO	0.999	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999917
Calibration curve: 0.000183998 * x^2 + 0.970731 * x + 0.09169
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 200226P1-3	Standard	0.250	4.34	43.933	3303.435	0.166	0.1	-69.3	YES	1.000	NO	bbX
2	2 200226P1-4	Standard	0.500	4.34	144.592	3335.062	0.542	0.5	-7.2	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	4.34	276.635	3406.551	1.015	1.0	-4.9	NO	1.000	NO	bb
4	4 200226P1-6	Standard	2.000	4.34	614.042	3782.974	2.029	2.0	-0.3	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	4.34	1456.297	3374.405	5.395	5.5	9.1	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	4.34	2886.319	3501.653	10.303	10.5	5.0	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	4.34	14686.003	3791.955	48.412	49.3	-1.4	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	4.34	27511.844	3491.849	98.486	99.5	-0.5	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	4.35	65702.102	3224.941	254.664	250.4	0.1	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	4.34	122541.023	2882.400	531.419	500.0	-0.0	NO	1.000	NO	bb

Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.999635
Calibration curve: -3.94839e-005 * x^2 + 0.151776 * x + -0.0116975
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 200226P1-3	Standard	0.250	4.64	35.257	17896.023	0.025	0.2	-4.3	NO	1.000	NO	bb
2	2 200226P1-4	Standard	0.500	4.65	87.610	16870.066	0.065	0.5	1.0	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	4.66	223.374	19708.268	0.142	1.0	1.1	NO	1.000	NO	bb
4	4 200226P1-6	Standard	2.000	4.66	406.603	18591.836	0.273	1.9	-6.0	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	4.66	1105.080	17133.848	0.806	5.4	7.9	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	4.66	2223.969	18212.945	1.526	10.2	1.6	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	4.66	11143.328	18937.879	7.355	49.2	-1.7	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	4.66	22326.215	18821.439	14.828	100.4	0.4	NO	1.000	NO	bd
9	9 200226P1-11	Standard	250.000	4.66	10770.805	18465.115	7.291	48.7	-80.5	YES	1.000	NO	bbX
10	10 200226P1-12	Standard	500.000	4.66	21481.018	17516.205	15.329	103.9	-79.2	YES	1.000	NO	bbX

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Compound name: PFNA
Correlation coefficient: r = 0.998874, r^2 = 0.997750
Calibration curve: 1.05383 * x + 0.0908492
Response type: Internal Std (Ref 65), 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	200226P1-3	Standard	0.250	4.67	444.081	17896.023	0.310	0.2	-16.7	NO	0.998	NO	bb
2	2	200226P1-4	Standard	0.500	4.67	754.476	16870.066	0.559	0.4	-11.1	NO	0.998	NO	bb
3	3	200226P1-5	Standard	1.000	4.67	1951.141	19708.268	1.238	1.1	8.8	NO	0.998	NO	bb
4	4	200226P1-6	Standard	2.000	4.67	3978.410	18591.836	2.675	2.5	22.6	NO	0.998	NO	bb
5	5	200226P1-7	Standard	5.000	4.67	7492.979	17133.848	5.467	5.1	2.0	NO	0.998	NO	bb
6	6	200226P1-8	Standard	10.000	4.67	17454.762	18212.945	11.980	11.3	12.8	NO	0.998	NO	bb
7	7	200226P1-9	Standard	50.000	4.67	89888.734	18937.879	59.331	56.2	12.4	NO	0.998	NO	bb
8	8	200226P1-10	Standard	100.000	4.67	171330.453	18821.439	113.787	107.9	7.9	NO	0.998	NO	bb
9	9	200226P1-11	Standard	250.000	4.67	381552.906	18465.115	258.293	245.0	-2.0	NO	0.998	NO	bb
10	10	200226P1-12	Standard	500.000	4.67	722337.563	17516.205	515.478	489.1	-2.2	NO	0.998	NO	bb

Compound name: PFOSA
Coefficient of Determination: R^2 = 0.998243
Calibration curve: -7.08767e-005 * x^2 + 0.814179 * x + 0.121209
Response type: Internal Std (Ref 67), 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	200226P1-3	Standard	0.250	4.73	34.322	3567.388	0.120			NO	0.998	NO	MMXI
2	2	200226P1-4	Standard	0.500	4.73	112.935	3983.528	0.354	0.3	-42.7	YES	0.998	NO	bbX
3	3	200226P1-5	Standard	1.000	4.73	335.927	3893.823	1.078	1.2	17.6	NO	0.998	NO	bb
4	4	200226P1-6	Standard	2.000	4.73	540.753	4361.401	1.550	1.8	-12.3	NO	0.998	NO	bb
5	5	200226P1-7	Standard	5.000	4.73	1424.978	4190.942	4.250	5.1	1.5	NO	0.998	NO	bb
6	6	200226P1-8	Standard	10.000	4.73	2743.301	4053.762	8.459	10.3	2.5	NO	0.998	NO	bb
7	7	200226P1-9	Standard	50.000	4.73	11974.147	4165.779	35.930	44.2	-11.7	NO	0.998	NO	bd
8	8	200226P1-10	Standard	100.000	4.73	26422.080	4154.662	79.495	98.3	-1.7	NO	0.998	NO	bb
9	9	200226P1-11	Standard	250.000	4.73	63762.598	3805.025	209.468	263.2	5.3	NO	0.998	NO	bb
10	10	200226P1-12	Standard	500.000	4.73	117182.648	3803.539	385.111	494.1	-1.2	NO	0.998	NO	bb

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Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999285
Calibration curve: -4.2461e-005 * x^2 + 1.00728 * x + -0.00488973
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 200226P1-3	Standard	0.250	4.75	66.897	3303.435	0.253	0.3	2.5	NO	0.999	NO	MM
2	2 200226P1-4	Standard	0.500	4.74	104.574	3335.062	0.392	0.4	-21.2	NO	0.999	NO	MM
3	3 200226P1-5	Standard	1.000	4.75	330.593	3406.551	1.213	1.2	20.9	NO	0.999	NO	MM
4	4 200226P1-6	Standard	2.000	4.75	549.376	3782.974	1.815	1.8	-9.6	NO	0.999	NO	MM
5	5 200226P1-7	Standard	5.000	4.75	1421.440	3374.405	5.266	5.2	4.7	NO	0.999	NO	MM
6	6 200226P1-8	Standard	10.000	4.75	3071.660	3501.653	10.965	10.9	9.0	NO	0.999	NO	MM
7	7 200226P1-9	Standard	50.000	4.75	13912.604	3791.955	45.862	45.6	-8.8	NO	0.999	NO	MM
8	8 200226P1-10	Standard	100.000	4.75	28450.602	3491.849	101.846	101.6	1.6	NO	0.999	NO	MM
9	9 200226P1-11	Standard	250.000	4.75	65149.566	3224.941	252.522	253.4	1.4	NO	0.999	NO	MM
10	10 200226P1-12	Standard	500.000	4.75	113324.023	2882.400	491.448	498.4	-0.3	NO	0.999	NO	MM

Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.999526
Calibration curve: 8.05043e-005 * x^2 + 0.974955 * x + 0.0140678
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 200226P1-3	Standard	0.250	4.96	54.262	3303.435	0.205	0.2	-21.5	NO	1.000	NO	bb
2	2 200226P1-4	Standard	0.500	4.96	148.346	3335.062	0.556	0.6	11.2	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	4.96	270.635	3406.551	0.993	1.0	0.4	NO	1.000	NO	bb
4	4 200226P1-6	Standard	2.000	4.96	531.110	3782.974	1.755	1.8	-10.7	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	4.96	1463.574	3374.405	5.422	5.5	10.9	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	4.96	3041.156	3501.653	10.856	11.1	11.1	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	4.96	14474.625	3791.955	47.715	48.7	-2.5	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	4.96	28250.838	3491.849	101.131	102.8	2.8	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	4.96	62887.102	3224.941	243.753	245.0	-2.0	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	4.96	117525.469	2882.400	509.668	501.9	0.4	NO	1.000	NO	bb

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999420
Calibration curve: -8.16212e-005 * x^2 + 1.09544 * x + 0.0707672
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	200226P1-3	Standard	0.250	5.03	493.999	19112.938	0.323	0.2	-7.9	NO	0.999	NO	bb
2	2	200226P1-4	Standard	0.500	5.03	875.378	19676.736	0.556	0.4	-11.4	NO	0.999	NO	bb
3	3	200226P1-5	Standard	1.000	5.04	2047.514	19071.092	1.342	1.2	16.1	NO	0.999	NO	bb
4	4	200226P1-6	Standard	2.000	5.04	3471.342	17768.326	2.442	2.2	8.3	NO	0.999	NO	bb
5	5	200226P1-7	Standard	5.000	5.04	9616.444	19582.832	6.138	5.5	10.8	NO	0.999	NO	bb
6	6	200226P1-8	Standard	10.000	5.04	19691.557	19949.309	12.338	11.2	12.1	NO	0.999	NO	bb
7	7	200226P1-9	Standard	50.000	5.04	92959.969	21917.035	53.018	48.5	-3.0	NO	0.999	NO	bb
8	8	200226P1-10	Standard	100.000	5.04	163964.500	18368.156	111.582	102.6	2.6	NO	0.999	NO	bb
9	9	200226P1-11	Standard	250.000	5.04	421251.094	20022.633	262.984	244.5	-2.2	NO	0.999	NO	bb
10	10	200226P1-12	Standard	500.000	5.04	763741.188	18016.928	529.878	502.5	0.5	NO	0.999	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.994169
Calibration curve: -0.000185953 * x^2 + 1.2689 * x + -0.110466
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	200226P1-3	Standard	0.250	5.01	13.559	1184.474	0.143	0.2	-20.1	NO	0.994	NO	bb
2	2	200226P1-4	Standard	0.500	5.01	43.941	1175.995	0.467	0.5	-9.0	NO	0.994	NO	bb
3	3	200226P1-5	Standard	1.000	5.00	96.917	1032.979	1.173	1.0	1.1	NO	0.994	NO	MM
4	4	200226P1-6	Standard	2.000	5.02	180.317	1128.538	1.997	1.7	-16.9	NO	0.994	NO	bb
5	5	200226P1-7	Standard	5.000	5.00	685.057	1230.001	6.962	5.6	11.6	NO	0.994	NO	bb
6	6	200226P1-8	Standard	10.000	5.01	1385.917	1146.276	15.113	12.0	20.2	NO	0.994	NO	bb
7	7	200226P1-9	Standard	50.000	5.01	6872.333	1111.042	77.319	61.6	23.2	NO	0.994	NO	bb
8	8	200226P1-10	Standard	100.000	5.01	11786.077	1230.994	119.680	95.7	-4.3	NO	0.994	NO	bb
9	9	200226P1-11	Standard	250.000	5.01	27992.840	1238.720	282.477	230.5	-7.8	NO	0.994	NO	bb
10	10	200226P1-12	Standard	500.000	5.01	52771.402	1101.419	598.902	510.2	2.0	NO	0.994	NO	bb

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Compound name: PFNS
Coefficient of Determination: R^2 = 0.998441
Calibration curve: 0.000167105 * x^2 + 0.95941 * x + 0.168307
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 200226P1-3	Standard	0.250	5.09	38.762	3303.435	0.147			NO	0.998	NO	bbXI
2	2 200226P1-4	Standard	0.500	5.09	185.293	3335.062	0.694	0.5	9.7	NO	0.998	NO	bb
3	3 200226P1-5	Standard	1.000	5.10	282.809	3406.551	1.038	0.9	-9.4	NO	0.998	NO	bb
4	4 200226P1-6	Standard	2.000	5.10	575.991	3782.974	1.903	1.8	-9.6	NO	0.998	NO	bb
5	5 200226P1-7	Standard	5.000	5.10	1448.040	3374.405	5.364	5.4	8.2	NO	0.998	NO	bb
6	6 200226P1-8	Standard	10.000	5.10	3034.729	3501.653	10.833	11.1	10.9	NO	0.998	NO	bb
7	7 200226P1-9	Standard	50.000	5.10	12532.986	3791.955	41.314	42.6	-14.9	NO	0.998	NO	bb
8	8 200226P1-10	Standard	100.000	5.10	28289.943	3491.849	101.271	103.5	3.5	NO	0.998	NO	bb
9	9 200226P1-11	Standard	250.000	5.10	65923.672	3224.941	255.523	254.8	1.9	NO	0.998	NO	bb
10	10 200226P1-12	Standard	500.000	5.10	119705.461	2882.400	519.122	497.8	-0.4	NO	0.998	NO	bb

Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.999456
Calibration curve: -0.000172774 * x^2 + 1.22673 * x + 0.215642
Response type: Internal Std (Ref 77), 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 200226P1-3	Standard	0.250	5.18	48.463	4524.871	0.134			NO	0.999	NO	MMXI
2	2 200226P1-4	Standard	0.500	5.18	314.784	4995.435	0.788	0.5	-6.7	NO	0.999	NO	MM
3	3 200226P1-5	Standard	1.000	5.18	472.266	4884.326	1.209	0.8	-19.0	NO	0.999	NO	MM
4	4 200226P1-6	Standard	2.000	5.18	1136.452	5536.107	2.566	1.9	-4.2	NO	0.999	NO	MM
5	5 200226P1-7	Standard	5.000	5.19	2893.672	4678.732	7.731	6.1	22.6	NO	0.999	NO	MM
6	6 200226P1-8	Standard	10.000	5.19	5446.146	4972.196	13.692	11.0	10.0	NO	0.999	NO	MM
7	7 200226P1-9	Standard	50.000	5.19	27059.063	5666.323	59.693	48.8	-2.4	NO	0.999	NO	MM
8	8 200226P1-10	Standard	100.000	5.19	55967.082	5760.376	121.448	100.2	0.2	NO	0.999	NO	MM
9	9 200226P1-11	Standard	250.000	5.19	131302.766	5586.125	293.815	248.0	-0.8	NO	0.999	NO	MM
10	10 200226P1-12	Standard	500.000	5.19	238405.281	5213.762	571.577	501.1	0.2	NO	0.999	NO	MM

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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022620.mdb 26 Feb 2020 11:36:08
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Compound name: L-EtFOSAA
Correlation coefficient: r = 0.999779, r^2 = 0.999559
Calibration curve: 1.031 * x + 0.0258793
Response type: Internal Std (Ref 81), 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 200226P1-3	Standard	0.250	5.34	108.888	6079.509	0.224	0.2	-23.2	NO	1.000	NO	MM
2	2 200226P1-4	Standard	0.500	5.34	273.578	5298.606	0.645	0.6	20.2	NO	1.000	NO	MM
3	3 200226P1-5	Standard	1.000	5.34	469.758	5543.522	1.059	1.0	0.2	NO	1.000	NO	MM
4	4 200226P1-6	Standard	2.000	5.34	1020.463	6098.918	2.091	2.0	0.2	NO	1.000	NO	MM
5	5 200226P1-7	Standard	5.000	5.34	2362.712	5753.840	5.133	5.0	-0.9	NO	1.000	NO	MM
6	6 200226P1-8	Standard	10.000	5.34	5660.904	6102.862	11.595	11.2	12.2	NO	1.000	NO	MM
7	7 200226P1-9	Standard	50.000	5.34	25962.047	6056.245	53.585	51.9	3.9	NO	1.000	NO	MM
8	8 200226P1-10	Standard	100.000	5.34	50789.168	6223.313	102.014	98.9	-1.1	NO	1.000	NO	MM
9	9 200226P1-11	Standard	250.000	5.34	110305.961	5462.925	252.397	244.8	-2.1	NO	1.000	NO	MM
10	10 200226P1-12	Standard	500.000	5.34	189372.000	4563.211	518.747	503.1	0.6	NO	1.000	NO	MM

Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999581
Calibration curve: -0.000267739 * x^2 + 1.05488 * x + 0.0198596
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 200226P1-3	Standard	0.250	5.34	372.191	19378.490	0.240	0.2	-16.5	NO	1.000	NO	bb
2	2 200226P1-4	Standard	0.500	5.35	833.927	20849.092	0.500	0.5	-9.0	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	5.35	1965.180	19659.873	1.249	1.2	16.6	NO	1.000	NO	bd
4	4 200226P1-6	Standard	2.000	5.35	3514.335	21372.131	2.055	1.9	-3.5	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	5.35	9426.617	21542.408	5.470	5.2	3.5	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	5.35	18318.537	20328.416	11.264	10.7	6.9	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	5.35	87095.750	20356.004	53.483	51.4	2.7	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	5.35	174755.047	20956.500	104.237	101.4	1.4	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	5.35	359296.531	18677.668	240.459	242.9	-2.8	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	5.35	651215.125	17567.635	463.363	503.6	0.7	NO	1.000	NO	bb

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Compound name: PFDS
Coefficient of Determination: R^2 = 0.999466
Calibration curve: -4.04898e-005 * x^2 + 0.848979 * x + 0.00377623
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 200226P1-3	Standard	0.250	5.38	95.231	3303.435	0.360	0.4	68.0	YES	0.999	NO	bbX
2	2 200226P1-4	Standard	0.500	5.39	89.645	3335.062	0.336	0.4	-21.7	NO	0.999	NO	bb
3	3 200226P1-5	Standard	1.000	5.40	247.981	3406.551	0.910	1.1	6.7	NO	0.999	NO	bb
4	4 200226P1-6	Standard	2.000	5.39	557.642	3782.974	1.843	2.2	8.3	NO	0.999	NO	bb
5	5 200226P1-7	Standard	5.000	5.40	1239.297	3374.405	4.591	5.4	8.1	NO	0.999	NO	bb
6	6 200226P1-8	Standard	10.000	5.40	2463.911	3501.653	8.796	10.4	3.6	NO	0.999	NO	bb
7	7 200226P1-9	Standard	50.000	5.40	11838.963	3791.955	39.027	46.1	-7.9	NO	0.999	NO	bb
8	8 200226P1-10	Standard	100.000	5.40	24181.434	3491.849	86.564	102.5	2.5	NO	0.999	NO	bb
9	9 200226P1-11	Standard	250.000	5.40	54412.660	3224.941	210.906	251.4	0.6	NO	0.999	NO	bb
10	10 200226P1-12	Standard	500.000	5.40	95392.719	2882.400	413.686	499.2	-0.2	NO	0.999	NO	bb

Compound name: 11Cl-PF30UdS
Coefficient of Determination: R^2 = 0.999863
Calibration curve: -0.00014666 * x^2 + 0.523301 * x + -0.00222767
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 200226P1-3	Standard	0.250	5.55	186.801	18594.955	0.126	0.2	-2.3	NO	1.000	NO	bb
2	2 200226P1-4	Standard	0.500	5.56	349.784	16930.148	0.258	0.5	-0.4	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	5.56	776.022	18590.652	0.522	1.0	0.2	NO	1.000	NO	bb
4	4 200226P1-6	Standard	2.000	5.56	1512.453	17800.672	1.062	2.0	1.7	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	5.56	4003.459	19047.693	2.627	5.0	0.6	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	5.56	7703.014	18207.182	5.288	10.1	1.4	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	5.56	37039.648	18501.973	25.024	48.5	-3.0	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	5.56	74979.250	18021.318	52.007	102.3	2.3	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	5.56	169125.750	17470.451	121.008	248.6	-0.6	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	5.56	318899.594	17704.520	225.154	500.5	0.1	NO	1.000	NO	bb

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Compound name: 10:2 FTS
Coefficient of Determination: R^2 = 0.999790
Calibration curve: -0.00152805 * x^2 + 2.36021 * x + 0.136698
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	200226P1-3	Standard	0.250	5.61	68.015	966.645	0.880	0.3	25.9	NO	1.000	NO	bb
2	2	200226P1-4	Standard	0.500	5.61	111.171	985.242	1.410	0.5	8.0	NO	1.000	NO	bb
3	3	200226P1-5	Standard	1.000	5.61	158.300	891.342	2.220	0.9	-11.7	NO	1.000	NO	bb
4	4	200226P1-6	Standard	2.000	5.61	315.471	827.543	4.765	2.0	-1.8	NO	1.000	NO	bb
5	5	200226P1-7	Standard	5.000	5.61	920.854	902.200	12.758	5.4	7.3	NO	1.000	NO	bb
6	6	200226P1-8	Standard	10.000	5.61	1647.625	924.372	22.280	9.4	-5.6	NO	1.000	NO	bb
7	7	200226P1-9	Standard	50.000	5.61	7790.219	843.063	115.505	50.5	1.1	NO	1.000	NO	bb
8	8	200226P1-10	Standard	100.000	5.61	14347.635	808.820	221.737	100.4	0.4	NO	1.000	NO	bb
9	9	200226P1-11	Standard	250.000	5.61	33747.965	856.935	492.277	248.5	-0.6	NO	1.000	NO	bb
10	10	200226P1-12	Standard	500.000	5.61	53600.188	838.380	799.163	501.1	0.2	NO	1.000	NO	bb

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.997130
Calibration curve: -0.000475915 * x^2 + 1.2307 * x + -0.0179842
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	200226P1-3	Standard	0.250	5.62	356.584	18594.955	0.240	0.2	-16.2	NO	0.997	NO	bb
2	2	200226P1-4	Standard	0.500	5.63	912.757	16930.148	0.674	0.6	12.5	NO	0.997	NO	bb
3	3	200226P1-5	Standard	1.000	5.62	1988.571	18590.652	1.337	1.1	10.2	NO	0.997	NO	bb
4	4	200226P1-6	Standard	2.000	5.62	3229.358	17800.672	2.268	1.9	-7.1	NO	0.997	NO	bb
5	5	200226P1-7	Standard	5.000	5.63	9978.861	19047.693	6.549	5.3	6.9	NO	0.997	NO	bb
6	6	200226P1-8	Standard	10.000	5.62	17316.504	18207.182	11.889	9.7	-2.9	NO	0.997	NO	bb
7	7	200226P1-9	Standard	50.000	5.62	80861.227	18501.973	54.630	45.2	-9.6	NO	0.997	NO	bb
8	8	200226P1-10	Standard	100.000	5.62	161301.469	18021.318	111.882	94.4	-5.6	NO	0.997	NO	bb
9	9	200226P1-11	Standard	250.000	5.63	416936.969	17470.451	298.316	270.8	8.3	NO	0.997	NO	bb
10	10	200226P1-12	Standard	500.000	5.63	691190.500	17704.520	488.004	489.0	-2.2	NO	0.997	NO	bb

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Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.998681
Calibration curve: -5.94168e-005 * x^2 + 1.03954 * x + 0.305369
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 200226P1-3	Standard	1.250	5.75	194.371	18218.621	1.592	1.2	-1.0	NO	0.999	NO	bb
2	2 200226P1-4	Standard	2.500	5.75	312.845	18583.953	2.512	2.1	-15.1	NO	0.999	NO	bb
3	3 200226P1-5	Standard	5.000	5.75	789.134	18213.791	6.464	5.9	18.5	NO	0.999	NO	bb
4	4 200226P1-6	Standard	10.000	5.75	1457.667	19261.279	11.291	10.6	5.7	NO	0.999	NO	bb
5	5 200226P1-7	Standard	25.000	5.75	3631.448	18854.154	28.737	27.4	9.6	NO	0.999	NO	bb
6	6 200226P1-8	Standard	50.000	5.75	6822.671	19389.584	52.499	50.4	0.7	NO	0.999	NO	bb
7	7 200226P1-9	Standard	250.000	5.76	35768.695	19710.025	270.760	264.2	5.7	NO	0.999	NO	bb
8	8 200226P1-10	Standard	500.000	5.75	68791.570	19648.410	522.368	517.5	3.5	NO	0.999	NO	bb
9	9 200226P1-11	Standard	1250.000	5.75	154901.453	20169.953	1145.828	1181.8	-5.5	NO	0.999	NO	bb
10	10 200226P1-12	Standard	2500.000	5.75	292251.031	19349.824	2253.450	2534.6	1.4	NO	0.999	NO	bb

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999381
Calibration curve: -0.000469238 * x^2 + 1.25966 * x + 0.0564309
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 200226P1-3	Standard	0.250	5.86	527.398	18594.955	0.355	0.2	-5.3	NO	0.999	NO	bb
2	2 200226P1-4	Standard	0.500	5.87	1007.426	16930.148	0.744	0.5	9.2	NO	0.999	NO	bb
3	3 200226P1-5	Standard	1.000	5.86	1990.772	18590.652	1.339	1.0	1.8	NO	0.999	NO	bb
4	4 200226P1-6	Standard	2.000	5.86	3864.301	17800.672	2.714	2.1	5.6	NO	0.999	NO	bb
5	5 200226P1-7	Standard	5.000	5.87	8555.545	19047.693	5.615	4.4	-11.6	NO	0.999	NO	bb
6	6 200226P1-8	Standard	10.000	5.86	19094.504	18207.182	13.109	10.4	4.0	NO	0.999	NO	bb
7	7 200226P1-9	Standard	50.000	5.87	88372.055	18501.973	59.704	48.2	-3.6	NO	0.999	NO	bb
8	8 200226P1-10	Standard	100.000	5.86	170526.859	18021.318	118.281	97.4	-2.6	NO	0.999	NO	bb
9	9 200226P1-11	Standard	250.000	5.87	411551.406	17470.451	294.462	258.6	3.5	NO	0.999	NO	bb
10	10 200226P1-12	Standard	500.000	5.87	720911.813	17704.520	508.989	495.5	-0.9	NO	0.999	NO	bb

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Compound name: PFDoS
Coefficient of Determination: R^2 = 0.996197
Calibration curve: -1.29293e-005 * x^2 + 0.163876 * x + 0.00637093
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 200226P1-3	Standard	0.250	5.88	75.448	21742.072	0.043	0.2	-9.7	NO	0.996	NO	bb
2	2 200226P1-4	Standard	0.500	5.89	138.049	18952.719	0.091	0.5	3.3	NO	0.996	NO	bb
3	3 200226P1-5	Standard	1.000	5.89	263.054	22596.455	0.146	0.8	-15.1	NO	0.996	NO	bb
4	4 200226P1-6	Standard	2.000	5.89	568.673	20139.611	0.353	2.1	5.8	NO	0.996	NO	bb
5	5 200226P1-7	Standard	5.000	5.89	1565.342	22269.361	0.879	5.3	6.5	NO	0.996	NO	bb
6	6 200226P1-8	Standard	10.000	5.89	2703.210	21222.449	1.592	9.7	-3.2	NO	0.996	NO	bb
7	7 200226P1-9	Standard	50.000	5.89	14751.945	19972.578	9.233	56.6	13.1	NO	0.996	NO	bb
8	8 200226P1-10	Standard	100.000	5.89	27384.129	19827.012	17.264	106.2	6.2	NO	0.996	NO	bb
9	9 200226P1-11	Standard	250.000	5.89	60082.672	20485.729	36.661	227.8	-8.9	NO	0.996	NO	bb
10	10 200226P1-12	Standard	500.000	5.89	113643.922	17721.580	80.159	509.6	1.9	NO	0.996	NO	bb

Compound name: PFTeDA
Correlation coefficient: r = 0.998409, r^2 = 0.996820
Calibration curve: 0.949597 * x + 0.133795
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 200226P1-3	Standard	0.250	6.07	536.523	21742.072	0.308	0.2	-26.4	NO	0.997	NO	bb
2	2 200226P1-4	Standard	0.500	6.07	879.299	18952.719	0.580	0.5	-6.0	NO	0.997	NO	bb
3	3 200226P1-5	Standard	1.000	6.08	1741.302	22596.455	0.963	0.9	-12.7	NO	0.997	NO	db
4	4 200226P1-6	Standard	2.000	6.07	3513.305	20139.611	2.181	2.2	7.8	NO	0.997	NO	bb
5	5 200226P1-7	Standard	5.000	6.08	9485.328	22269.361	5.324	5.5	9.3	NO	0.997	NO	bb
6	6 200226P1-8	Standard	10.000	6.07	17642.865	21222.449	10.392	10.8	8.0	NO	0.997	NO	bb
7	7 200226P1-9	Standard	50.000	6.08	89574.539	19972.578	56.061	58.9	17.8	NO	0.997	NO	bb
8	8 200226P1-10	Standard	100.000	6.08	162645.516	19827.012	102.540	107.8	7.8	NO	0.997	NO	bb
9	9 200226P1-11	Standard	250.000	6.08	373368.344	20485.729	227.822	239.8	-4.1	NO	0.997	NO	bb
10	10 200226P1-12	Standard	500.000	6.08	662941.063	17721.580	467.609	492.3	-1.5	NO	0.997	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999959
Calibration curve: -3.98498e-005 * x^2 + 1.02339 * x + 0.489956
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 200226P1-3	Standard	1.250	6.15	267.731	22781.383	1.753	1.2	-1.2	NO	1.000	NO	bb
2	2 200226P1-4	Standard	2.500	6.15	462.778	23045.834	2.996	2.4	-2.0	NO	1.000	NO	bb
3	3 200226P1-5	Standard	5.000	6.15	852.760	23851.129	5.334	4.7	-5.3	NO	1.000	NO	bb
4	4 200226P1-6	Standard	10.000	6.15	1766.063	23662.188	11.136	10.4	4.1	NO	1.000	NO	bb
5	5 200226P1-7	Standard	25.000	6.15	4316.530	24094.385	26.729	25.7	2.7	NO	1.000	NO	bb
6	6 200226P1-8	Standard	50.000	6.15	8594.396	24338.072	52.686	51.1	2.2	NO	1.000	NO	bb
7	7 200226P1-9	Standard	250.000	6.15	41541.750	24596.867	251.984	248.1	-0.7	NO	1.000	NO	bb
8	8 200226P1-10	Standard	500.000	6.15	81024.945	23871.867	506.409	504.3	0.9	NO	1.000	NO	bb
9	9 200226P1-11	Standard	1250.000	6.15	187430.438	23103.365	1210.413	1242.4	-0.6	NO	1.000	NO	bb
10	10 200226P1-12	Standard	2500.000	6.15	324406.656	20928.121	2312.748	2503.5	0.1	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999555
Calibration curve: -0.000224596 * x^2 + 0.706375 * x + 0.110122
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 200226P1-3	Standard	0.250	6.39	691.035	30956.195	0.279	0.2	-4.3	NO	1.000	NO	bb
2	2 200226P1-4	Standard	0.500	6.40	1060.715	30296.525	0.438	0.5	-7.3	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	6.40	2029.374	29944.850	0.847	1.0	4.4	NO	1.000	NO	bb
4	4 200226P1-6	Standard	2.000	6.40	3782.969	30873.531	1.532	2.0	0.7	NO	1.000	NO	bb
5	5 200226P1-7	Standard	5.000	6.40	9371.958	29888.625	3.920	5.4	8.0	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	6.40	16795.816	28707.693	7.313	10.2	2.3	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	6.40	81880.680	30190.695	33.901	48.6	-2.8	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	6.40	168398.906	31695.459	66.413	96.8	-3.2	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	6.40	390160.094	29228.939	166.855	257.1	2.8	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	6.40	681167.688	28808.082	295.563	496.7	-0.7	NO	1.000	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.999545
Calibration curve: -0.000309559 * x^2 + 0.978767 * x + 0.0270046
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 200226P1-3	Standard	0.250	6.62	622.617	30956.195	0.251	0.2	-8.3	NO	1.000	NO	bb
2	2 200226P1-4	Standard	0.500	6.62	1222.074	30296.525	0.504	0.5	-2.5	NO	1.000	NO	bb
3	3 200226P1-5	Standard	1.000	6.63	2622.916	29944.850	1.095	1.1	9.1	NO	1.000	NO	bd
4	4 200226P1-6	Standard	2.000	6.63	4899.674	30873.531	1.984	2.0	0.0	NO	1.000	NO	bd
5	5 200226P1-7	Standard	5.000	6.63	12543.356	29888.625	5.246	5.3	6.8	NO	1.000	NO	bb
6	6 200226P1-8	Standard	10.000	6.63	23911.938	28707.693	10.412	10.6	6.5	NO	1.000	NO	bb
7	7 200226P1-9	Standard	50.000	6.63	119848.578	30190.695	49.621	51.5	3.0	NO	1.000	NO	bb
8	8 200226P1-10	Standard	100.000	6.63	229675.484	31695.459	90.579	95.4	-4.6	NO	1.000	NO	bb
9	9 200226P1-11	Standard	250.000	6.63	532104.688	29228.939	227.559	252.7	1.1	NO	1.000	NO	bb
10	10 200226P1-12	Standard	500.000	6.63	948623.938	28808.082	411.614	499.4	-0.1	NO	1.000	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.999919, r^2 = 0.999839
Calibration curve: 1.09622 * x + 0.439908
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 200226P1-3	Standard	1.250	6.29	189.901	16803.922	1.686	1.1	-9.1	NO	1.000	NO	bb
2	2 200226P1-4	Standard	2.500	6.29	355.017	15992.061	3.312	2.6	4.8	NO	1.000	NO	bb
3	3 200226P1-5	Standard	5.000	6.30	635.987	17092.895	5.551	4.7	-6.7	NO	1.000	NO	bb
4	4 200226P1-6	Standard	10.000	6.30	1301.667	16997.414	11.426	10.0	0.2	NO	1.000	NO	bb
5	5 200226P1-7	Standard	25.000	6.30	3210.684	17268.498	27.740	24.9	-0.4	NO	1.000	NO	bb
6	6 200226P1-8	Standard	50.000	6.30	6895.532	16841.729	61.087	55.3	10.6	NO	1.000	NO	bb
7	7 200226P1-9	Standard	250.000	6.30	32187.133	17462.277	275.011	250.5	0.2	NO	1.000	NO	bb
8	8 200226P1-10	Standard	500.000	6.30	64955.879	17474.543	554.602	505.5	1.1	NO	1.000	NO	bb
9	9 200226P1-11	Standard	1250.000	6.30	158274.422	17347.602	1361.257	1241.4	-0.7	NO	1.000	NO	bb
10	10 200226P1-12	Standard	2500.000	6.30	300586.563	16376.771	2738.483	2497.7	-0.1	NO	1.000	NO	bb

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Compound name: N-EtFOSE
Coefficient of Determination: R^2 = 0.999812
Calibration curve: -2.01665e-005 * x^2 + 1.00895 * x + 0.285073
Response type: Internal Std (Ref 97), 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	200226P1-3	Standard	1.250	6.45	168.498	20339.033	1.236	0.9	-24.6	NO	1.000	NO	bb
2	2	200226P1-4	Standard	2.500	6.44	356.905	18784.813	2.835	2.5	1.1	NO	1.000	NO	bb
3	3	200226P1-5	Standard	5.000	6.44	777.074	19332.000	5.997	5.7	13.2	NO	1.000	NO	bb
4	4	200226P1-6	Standard	10.000	6.44	1328.185	18867.645	10.503	10.1	1.3	NO	1.000	NO	bb
5	5	200226P1-7	Standard	25.000	6.45	3487.905	19913.459	26.133	25.6	2.5	NO	1.000	NO	bb
6	6	200226P1-8	Standard	50.000	6.44	7337.320	20583.693	53.184	52.5	5.0	NO	1.000	NO	bb
7	7	200226P1-9	Standard	250.000	6.44	35431.684	20402.227	259.109	257.9	3.1	NO	1.000	NO	bb
8	8	200226P1-10	Standard	500.000	6.44	69890.836	21009.637	496.330	496.6	-0.7	NO	1.000	NO	bb
9	9	200226P1-11	Standard	1250.000	6.44	167278.453	20557.533	1214.054	1233.4	-1.3	NO	1.000	NO	bb
10	10	200226P1-12	Standard	2500.000	6.45	317749.469	19717.336	2404.393	2508.6	0.3	NO	1.000	NO	bb

Compound name: 13C3-PFBA-EIS
Response Factor: 747.034
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	200226P1-3	Standard	12.500	1.42	8775.879		8775.879	11.7	-6.0	NO		NO	bbX
2	2	200226P1-4	Standard	12.500	1.42	9063.363		9063.363	12.1	-2.9	NO		NO	MMX
3	3	200226P1-5	Standard	12.500	1.43	8872.416		8872.416	11.9	-5.0	NO		NO	MMX
4	4	200226P1-6	Standard	12.500	1.42	8588.399		8588.399	11.5	-8.0	NO		NO	MMX
5	5	200226P1-7	Standard	12.500	1.43	8507.578		8507.578	11.4	-8.9	NO		NO	MMX
6	6	200226P1-8	Standard	12.500	1.43	9337.931		9337.931	12.5	0.0	NO		NO	MM
7	7	200226P1-9	Standard	12.500	1.43	9037.192		9037.192	12.1	-3.2	NO		NO	bbX
8	8	200226P1-10	Standard	12.500	1.43	9241.146		9241.146	12.4	-1.0	NO		NO	MMX
9	9	200226P1-11	Standard	12.500	1.43	9332.476		9332.476	12.5	-0.1	NO		NO	MMX
10	10	200226P1-12	Standard	12.500	1.43	9601.117		9601.117	12.9	2.8	NO		NO	MMX

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Compound name: 13C3-PFBA-RSD
Response Factor: 0.801843
RRF SD: 0.0196473, Relative SD: 2.45026
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	200226P1-3	Standard	12.500	1.42	8775.879	10993.113	9.979	12.4	-0.4	NO		NO	bb
2	2	200226P1-4	Standard	12.500	1.42	9070.684	11383.422	9.960	12.4	-0.6	NO		NO	MM
3	3	200226P1-5	Standard	12.500	1.43	8870.304	10842.490	10.226	12.8	2.0	NO		NO	MM
4	4	200226P1-6	Standard	12.500	1.42	8582.087	11170.034	9.604	12.0	-4.2	NO		NO	MM
5	5	200226P1-7	Standard	12.500	1.43	8511.604	10937.148	9.728	12.1	-2.9	NO		NO	MM
6	6	200226P1-8	Standard	12.500	1.43	9347.663	11527.919	10.136	12.6	1.1	NO		NO	MM
7	7	200226P1-9	Standard	12.500	1.43	9037.192	11312.696	9.986	12.5	-0.4	NO		NO	bb
8	8	200226P1-10	Standard	12.500	1.43	9236.576	11619.921	9.936	12.4	-0.9	NO		NO	MM
9	9	200226P1-11	Standard	12.500	1.43	9341.169	11207.089	10.419	13.0	3.9	NO		NO	bb
10	10	200226P1-12	Standard	12.500	1.43	9401.678	11458.164	10.257	12.8	2.3	NO		NO	bb

Compound name: 13C3-PFPeA-EIS
Response Factor: 1057.57
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	200226P1-3	Standard	12.500	2.35	12226.452		12226.452	11.6	-7.5	NO		NO	bbX
2	2	200226P1-4	Standard	12.500	2.35	12703.555		12703.555	12.0	-3.9	NO		NO	bbX
3	3	200226P1-5	Standard	12.500	2.35	13528.348		13528.348	12.8	2.3	NO		NO	bbX
4	4	200226P1-6	Standard	12.500	2.35	13241.473		13241.473	12.5	0.2	NO		NO	bbX
5	5	200226P1-7	Standard	12.500	2.35	13012.242		13012.242	12.3	-1.6	NO		NO	bbX
6	6	200226P1-8	Standard	12.500	2.35	13219.570		13219.570	12.5	0.0	NO		NO	bb
7	7	200226P1-9	Standard	12.500	2.35	12843.264		12843.264	12.1	-2.8	NO		NO	bbX
8	8	200226P1-10	Standard	12.500	2.35	12937.179		12937.179	12.2	-2.1	NO		NO	bbX
9	9	200226P1-11	Standard	12.500	2.35	12955.820		12955.820	12.3	-2.0	NO		NO	bbX
10	10	200226P1-12	Standard	12.500	2.35	12383.930		12383.930	11.7	-6.3	NO		NO	bbX

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Compound name: 13C3-PFPeA-RSD
Response Factor: 0.585641
RRF SD: 0.0321716, Relative SD: 5.4934
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200226P1-3	Standard	12.500	2.35	12226.452	21059.807	7.257	12.4	-0.9	NO		NO	bb
2	2 200226P1-4	Standard	12.500	2.35	12703.555	22726.564	6.987	11.9	-4.6	NO		NO	bb
3	3 200226P1-5	Standard	12.500	2.35	13528.348	20872.711	8.102	13.8	10.7	NO		NO	bb
4	4 200226P1-6	Standard	12.500	2.35	13241.473	23392.611	7.076	12.1	-3.3	NO		NO	bb
5	5 200226P1-7	Standard	12.500	2.35	13012.242	21856.619	7.442	12.7	1.7	NO		NO	bb
6	6 200226P1-8	Standard	12.500	2.35	13219.570	23177.387	7.130	12.2	-2.6	NO		NO	bb
7	7 200226P1-9	Standard	12.500	2.35	12843.264	23802.660	6.745	11.5	-7.9	NO		NO	bb
8	8 200226P1-10	Standard	12.500	2.35	12937.179	21603.768	7.485	12.8	2.3	NO		NO	bb
9	9 200226P1-11	Standard	12.500	2.35	12955.820	22576.764	7.173	12.2	-2.0	NO		NO	bb
10	10 200226P1-12	Standard	12.500	2.35	12383.930	19823.650	7.809	13.3	6.7	NO		NO	bb

Compound name: 13C3-PFBS-EIS
Response Factor: 109.364
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 200226P1-3	Standard	12.500	2.61	1401.262		1401.262	12.8	2.5	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	2.61	1432.161		1432.161	13.1	4.8	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	2.62	1420.159		1420.159	13.0	3.9	NO		NO	bdX
4	4 200226P1-6	Standard	12.500	2.62	1448.192		1448.192	13.2	5.9	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	2.62	1416.076		1416.076	12.9	3.6	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	2.62	1367.046		1367.046	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	2.62	1478.976		1478.976	13.5	8.2	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	2.62	1440.453		1440.453	13.2	5.4	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	2.62	1469.811		1469.811	13.4	7.5	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	2.62	1449.015		1449.015	13.2	6.0	NO		NO	bbX

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Compound name: 13C3-PFBS-RSD
Response Factor: 1.13404
RRF SD: 0.0428898, Relative SD: 3.78204
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 200226P1-3	Standard	12.500	2.61	1401.262	1331.304	13.157	11.6	-7.2	NO		NO	bb
2	2 200226P1-4	Standard	12.500	2.61	1432.161	1220.489	14.668	12.9	3.5	NO		NO	bb
3	3 200226P1-5	Standard	12.500	2.62	1420.159	1278.292	13.887	12.2	-2.0	NO		NO	bd
4	4 200226P1-6	Standard	12.500	2.62	1448.192	1234.121	14.668	12.9	3.5	NO		NO	bb
5	5 200226P1-7	Standard	12.500	2.62	1416.076	1257.842	14.072	12.4	-0.7	NO		NO	bb
6	6 200226P1-8	Standard	12.500	2.62	1367.046	1157.274	14.766	13.0	4.2	NO		NO	bb
7	7 200226P1-9	Standard	12.500	2.62	1478.976	1294.718	14.279	12.6	0.7	NO		NO	bb
8	8 200226P1-10	Standard	12.500	2.62	1440.453	1288.584	13.973	12.3	-1.4	NO		NO	bb
9	9 200226P1-11	Standard	12.500	2.62	1469.811	1350.014	13.609	12.0	-4.0	NO		NO	bb
10	10 200226P1-12	Standard	12.500	2.62	1449.015	1234.254	14.675	12.9	3.5	NO		NO	bb

Compound name: 13C3-HFPO-DA-EIS
Response Factor: 306.753
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 200226P1-3	Standard	12.500	3.34	3486.409		3486.409	11.4	-9.1	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	3.34	3482.546		3482.546	11.4	-9.2	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	3.34	3641.377		3641.377	11.9	-5.0	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	3.34	3678.129		3678.129	12.0	-4.1	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	3.34	3533.267		3533.267	11.5	-7.9	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	3.34	3834.412		3834.412	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.34	3693.687		3693.687	12.0	-3.7	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	3.34	3879.430		3879.430	12.6	1.2	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	3.34	3754.341		3754.341	12.2	-2.1	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	3.34	3643.298		3643.298	11.9	-5.0	NO		NO	bbX

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Compound name: 13C3-HFPO-DA-RSD
Response Factor: 0.16624
RRF SD: 0.0102618, Relative SD: 6.17287
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200226P1-3	Standard	12.500	3.34	3486.409	21059.807	2.069	12.4	-0.4	NO		NO	bb
2	2 200226P1-4	Standard	12.500	3.34	3482.546	22726.564	1.915	11.5	-7.8	NO		NO	bb
3	3 200226P1-5	Standard	12.500	3.34	3641.377	20872.711	2.181	13.1	4.9	NO		NO	bb
4	4 200226P1-6	Standard	12.500	3.34	3678.129	23392.611	1.965	11.8	-5.4	NO		NO	bb
5	5 200226P1-7	Standard	12.500	3.34	3533.267	21856.619	2.021	12.2	-2.8	NO		NO	bb
6	6 200226P1-8	Standard	12.500	3.34	3834.412	23177.387	2.068	12.4	-0.5	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.34	3693.687	23802.660	1.940	11.7	-6.7	NO		NO	bb
8	8 200226P1-10	Standard	12.500	3.34	3879.430	21603.768	2.245	13.5	8.0	NO		NO	bb
9	9 200226P1-11	Standard	12.500	3.34	3754.341	22576.764	2.079	12.5	0.0	NO		NO	bb
10	10 200226P1-12	Standard	12.500	3.34	3643.298	19823.650	2.297	13.8	10.6	NO		NO	bb

Compound name: 13C2-4:2 FTS-EIS
Response Factor: 122.13
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 200226P1-3	Standard	12.500	3.04	1507.559		1507.559	12.3	-1.2	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	3.04	1394.837		1394.837	11.4	-8.6	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	3.04	1488.352		1488.352	12.2	-2.5	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	3.04	1521.291		1521.291	12.5	-0.3	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	3.04	1486.508		1486.508	12.2	-2.6	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	3.04	1526.628		1526.628	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.04	1810.332		1810.332	14.8	18.6	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	3.05	1632.294		1632.294	13.4	6.9	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	3.04	1356.081		1356.081	11.1	-11.2	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	3.04	1457.347		1457.347	11.9	-4.5	NO		NO	bdX

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Compound name: 13C2-4:2 FTS-RSD
Response Factor: 1.20234
RRF SD: 0.109037, Relative SD: 9.06867
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 200226P1-3	Standard	12.500	3.04	1507.559	1331.304	14.155	11.8	-5.8	NO		NO	bb
2	2 200226P1-4	Standard	12.500	3.04	1394.837	1220.489	14.286	11.9	-4.9	NO		NO	bb
3	3 200226P1-5	Standard	12.500	3.04	1488.352	1278.292	14.554	12.1	-3.2	NO		NO	bb
4	4 200226P1-6	Standard	12.500	3.04	1521.291	1234.121	15.409	12.8	2.5	NO		NO	bb
5	5 200226P1-7	Standard	12.500	3.04	1486.508	1257.842	14.772	12.3	-1.7	NO		NO	bb
6	6 200226P1-8	Standard	12.500	3.04	1526.628	1157.274	16.489	13.7	9.7	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.04	1810.332	1294.718	17.478	14.5	16.3	NO		NO	bb
8	8 200226P1-10	Standard	12.500	3.05	1632.294	1288.584	15.834	13.2	5.4	NO		NO	bb
9	9 200226P1-11	Standard	12.500	3.04	1356.081	1350.014	12.556	10.4	-16.5	NO		NO	bb
10	10 200226P1-12	Standard	12.500	3.04	1457.347	1234.254	14.759	12.3	-1.8	NO		NO	bd

Compound name: 13C2-PFHxA-EIS
Response Factor: 1741.31
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 200226P1-3	Standard	12.500	3.13	20326.225		20326.225	11.7	-6.6	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	3.13	21578.674		21578.674	12.4	-0.9	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	3.13	19595.377		19595.377	11.3	-10.0	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	3.13	21589.557		21589.557	12.4	-0.8	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	3.13	20855.104		20855.104	12.0	-4.2	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	3.13	21766.389		21766.389	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.13	22347.168		22347.168	12.8	2.7	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	3.13	21415.428		21415.428	12.3	-1.6	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	3.13	21451.742		21451.742	12.3	-1.4	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	3.13	20252.008		20252.008	11.6	-7.0	NO		NO	bbX

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Compound name: 13C2-PFHxA-RSD
Response Factor: 0.957159
RRF SD: 0.0291897, Relative SD: 3.04962
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200226P1-3	Standard	12.500	3.13	20326.225	21059.807	12.065	12.6	0.8	NO		NO	bb
2	2 200226P1-4	Standard	12.500	3.13	21578.674	22726.564	11.869	12.4	-0.8	NO		NO	bb
3	3 200226P1-5	Standard	12.500	3.13	19595.377	20872.711	11.735	12.3	-1.9	NO		NO	bb
4	4 200226P1-6	Standard	12.500	3.13	21589.557	23392.611	11.537	12.1	-3.6	NO		NO	bb
5	5 200226P1-7	Standard	12.500	3.13	20855.104	21856.619	11.927	12.5	-0.3	NO		NO	bb
6	6 200226P1-8	Standard	12.500	3.13	21766.389	23177.387	11.739	12.3	-1.9	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.13	22347.168	23802.660	11.736	12.3	-1.9	NO		NO	bb
8	8 200226P1-10	Standard	12.500	3.13	21415.428	21603.768	12.391	12.9	3.6	NO		NO	bb
9	9 200226P1-11	Standard	12.500	3.13	21451.742	22576.764	11.877	12.4	-0.7	NO		NO	bb
10	10 200226P1-12	Standard	12.500	3.13	20252.008	19823.650	12.770	13.3	6.7	NO		NO	bb

Compound name: 13C4-PFHpA-EIS
Response Factor: 1144.85
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 200226P1-3	Standard	12.500	3.72	13650.170		13650.170	11.9	-4.6	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	3.72	13840.126		13840.126	12.1	-3.3	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	3.72	15369.799		15369.799	13.4	7.4	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	3.73	13469.587		13469.587	11.8	-5.9	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	3.73	14691.437		14691.437	12.8	2.7	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	3.72	14310.660		14310.660	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.73	14949.658		14949.658	13.1	4.5	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	3.73	13904.348		13904.348	12.1	-2.8	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	3.73	14160.083		14160.083	12.4	-1.1	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	3.73	13820.709		13820.709	12.1	-3.4	NO		NO	bbX

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Compound name: 13C4-PFHpA-RSD
Response Factor: 0.645498
RRF SD: 0.0462668, Relative SD: 7.16761
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200226P1-3	Standard	12.500	3.72	13650.170	21059.807	8.102	12.6	0.4	NO		NO	bb
2	2	200226P1-4	Standard	12.500	3.72	13840.126	22726.564	7.612	11.8	-5.7	NO		NO	bb
3	3	200226P1-5	Standard	12.500	3.72	15369.799	20872.711	9.204	14.3	14.1	NO		NO	bb
4	4	200226P1-6	Standard	12.500	3.73	13469.587	23392.611	7.198	11.2	-10.8	NO		NO	bb
5	5	200226P1-7	Standard	12.500	3.73	14691.437	21856.619	8.402	13.0	4.1	NO		NO	bb
6	6	200226P1-8	Standard	12.500	3.72	14310.660	23177.387	7.718	12.0	-4.3	NO		NO	bb
7	7	200226P1-9	Standard	12.500	3.73	14949.658	23802.660	7.851	12.2	-2.7	NO		NO	bb
8	8	200226P1-10	Standard	12.500	3.73	13904.348	21603.768	8.045	12.5	-0.3	NO		NO	bb
9	9	200226P1-11	Standard	12.500	3.73	14160.083	22576.764	7.840	12.1	-2.8	NO		NO	bb
10	10	200226P1-12	Standard	12.500	3.73	13820.709	19823.650	8.715	13.5	8.0	NO		NO	bb

Compound name: 13C3-PFHxS-EIS
Response Factor: 232.268
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	200226P1-3	Standard	12.500	3.86	3170.492		3170.492	13.7	9.2	NO		NO	bbX
2	2	200226P1-4	Standard	12.500	3.86	3094.256		3094.256	13.3	6.6	NO		NO	bdX
3	3	200226P1-5	Standard	12.500	3.86	3226.867		3226.867	13.9	11.1	NO		NO	bbX
4	4	200226P1-6	Standard	12.500	3.86	2938.056		2938.056	12.6	1.2	NO		NO	bbX
5	5	200226P1-7	Standard	12.500	3.87	3256.344		3256.344	14.0	12.2	NO		NO	bbX
6	6	200226P1-8	Standard	12.500	3.86	2903.356		2903.356	12.5	0.0	NO		NO	bb
7	7	200226P1-9	Standard	12.500	3.86	3203.302		3203.302	13.8	10.3	NO		NO	bbX
8	8	200226P1-10	Standard	12.500	3.86	3133.727		3133.727	13.5	7.9	NO		NO	bbX
9	9	200226P1-11	Standard	12.500	3.86	3190.129		3190.129	13.7	9.9	NO		NO	bbX
10	10	200226P1-12	Standard	12.500	3.86	2676.631		2676.631	11.5	-7.8	NO		NO	bbX

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Compound name: 13C3-PFHxS-RSD
Response Factor: 2.43571
RRF SD: 0.120476, Relative SD: 4.94625
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	200226P1-3	Standard	12.500	3.86	3170.492	1331.304	29.769	12.2	-2.2	NO		NO	bb
2	2	200226P1-4	Standard	12.500	3.86	3094.256	1220.489	31.691	13.0	4.1	NO		NO	bd
3	3	200226P1-5	Standard	12.500	3.86	3226.867	1278.292	31.554	13.0	3.6	NO		NO	bb
4	4	200226P1-6	Standard	12.500	3.86	2938.056	1234.121	29.759	12.2	-2.3	NO		NO	bb
5	5	200226P1-7	Standard	12.500	3.87	3256.344	1257.842	32.360	13.3	6.3	NO		NO	bb
6	6	200226P1-8	Standard	12.500	3.86	2903.356	1157.274	31.360	12.9	3.0	NO		NO	bb
7	7	200226P1-9	Standard	12.500	3.86	3203.302	1294.718	30.927	12.7	1.6	NO		NO	bb
8	8	200226P1-10	Standard	12.500	3.86	3133.727	1288.584	30.399	12.5	-0.2	NO		NO	bb
9	9	200226P1-11	Standard	12.500	3.86	3190.129	1350.014	29.538	12.1	-3.0	NO		NO	bb
10	10	200226P1-12	Standard	12.500	3.86	2676.631	1234.254	27.108	11.1	-11.0	NO		NO	bb

Compound name: 13C2-6:2 FTS-EIS
Response Factor: 118.048
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	200226P1-3	Standard	12.500	4.17	1278.658		1278.658	10.8	-13.3	NO		NO	bbX
2	2	200226P1-4	Standard	12.500	4.17	1397.198		1397.198	11.8	-5.3	NO		NO	bbX
3	3	200226P1-5	Standard	12.500	4.18	1157.952		1157.952	9.8	-21.5	NO		NO	bbX
4	4	200226P1-6	Standard	12.500	4.18	1477.219		1477.219	12.5	0.1	NO		NO	bbX
5	5	200226P1-7	Standard	12.500	4.18	1574.625		1574.625	13.3	6.7	NO		NO	bbX
6	6	200226P1-8	Standard	12.500	4.18	1475.602		1475.602	12.5	0.0	NO		NO	bb
7	7	200226P1-9	Standard	12.500	4.17	1484.250		1484.250	12.6	0.6	NO		NO	bbX
8	8	200226P1-10	Standard	12.500	4.18	1368.893		1368.893	11.6	-7.2	NO		NO	bbX
9	9	200226P1-11	Standard	12.500	4.18	1461.090		1461.090	12.4	-1.0	NO		NO	bbX
10	10	200226P1-12	Standard	12.500	4.18	1470.713		1470.713	12.5	-0.3	NO		NO	bbX

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Compound name: 13C2-6:2 FTS-RSD
Response Factor: 0.382897
RRF SD: 0.0440562, Relative SD: 11.506
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 200226P1-3	Standard	12.500	4.17	1278.658	4060.972	3.936	10.3	-17.8	NO		NO	bb
2	2 200226P1-4	Standard	12.500	4.17	1397.198	3502.115	4.987	13.0	4.2	NO		NO	bb
3	3 200226P1-5	Standard	12.500	4.18	1157.952	3499.545	4.136	10.8	-13.6	NO		NO	bb
4	4 200226P1-6	Standard	12.500	4.18	1477.219	4021.343	4.592	12.0	-4.1	NO		NO	bb
5	5 200226P1-7	Standard	12.500	4.18	1574.625	3436.151	5.728	15.0	19.7	NO		NO	bb
6	6 200226P1-8	Standard	12.500	4.18	1475.602	4022.751	4.585	12.0	-4.2	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.17	1484.250	3632.123	5.108	13.3	6.7	NO		NO	bb
8	8 200226P1-10	Standard	12.500	4.18	1368.893	3763.527	4.547	11.9	-5.0	NO		NO	bb
9	9 200226P1-11	Standard	12.500	4.18	1461.090	3795.256	4.812	12.6	0.5	NO		NO	bb
10	10 200226P1-12	Standard	12.500	4.18	1470.713	3384.810	5.431	14.2	13.5	NO		NO	bb

Compound name: 13C5-PFNA-EIS
Response Factor: 1457.04
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 200226P1-3	Standard	12.500	4.66	17896.023		17896.023	12.3	-1.7	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	4.67	16870.066		16870.066	11.6	-7.4	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	4.67	19708.268		19708.268	13.5	8.2	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	4.67	18591.836		18591.836	12.8	2.1	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	4.67	17133.848		17133.848	11.8	-5.9	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	4.67	18212.945		18212.945	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.67	18937.879		18937.879	13.0	4.0	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	4.67	18821.439		18821.439	12.9	3.3	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	4.67	18465.115		18465.115	12.7	1.4	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	4.67	17516.205		17516.205	12.0	-3.8	NO		NO	bbX

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Compound name: 13C5-PFNA-RSD
Response Factor: 0.938998
RRF SD: 0.0315727, Relative SD: 3.36238
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 200226P1-3	Standard	12.500	4.66	17896.023	19321.490	11.578	12.3	-1.4	NO		NO	bb
2	2 200226P1-4	Standard	12.500	4.67	16870.066	18674.686	11.292	12.0	-3.8	NO		NO	bb
3	3 200226P1-5	Standard	12.500	4.67	19708.268	20086.387	12.265	13.1	4.5	NO		NO	bb
4	4 200226P1-6	Standard	12.500	4.67	18591.836	19913.479	11.670	12.4	-0.6	NO		NO	bb
5	5 200226P1-7	Standard	12.500	4.67	17133.848	18660.270	11.477	12.2	-2.2	NO		NO	bb
6	6 200226P1-8	Standard	12.500	4.67	18212.945	20507.006	11.102	11.8	-5.4	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.67	18937.879	19328.113	12.248	13.0	4.3	NO		NO	bb
8	8 200226P1-10	Standard	12.500	4.67	18821.439	20087.057	11.712	12.5	-0.2	NO		NO	bb
9	9 200226P1-11	Standard	12.500	4.67	18465.115	19313.738	11.951	12.7	1.8	NO		NO	bb
10	10 200226P1-12	Standard	12.500	4.67	17516.205	18125.420	12.080	12.9	2.9	NO		NO	bb

Compound name: 13C8-PFOSA-EIS
Response Factor: 324.301
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 200226P1-3	Standard	12.500	4.72	3567.388		3567.388	11.0	-12.0	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	4.73	3983.528		3983.528	12.3	-1.7	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	4.73	3893.823		3893.823	12.0	-3.9	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	4.73	4361.401		4361.401	13.4	7.6	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	4.73	4190.942		4190.942	12.9	3.4	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	4.73	4053.762		4053.762	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.73	4165.779		4165.779	12.8	2.8	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	4.73	4154.662		4154.662	12.8	2.5	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	4.73	3805.025		3805.025	11.7	-6.1	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	4.73	3803.539		3803.539	11.7	-6.2	NO		NO	bbX

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Compound name: 13C8-PFOSA-RSD
Response Factor: 0.200106
RRF SD: 0.0138943, Relative SD: 6.94344
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 200226P1-3	Standard	12.500	4.72	3567.388	20396.953	2.186	10.9	-12.6	NO		NO	bb
2	2 200226P1-4	Standard	12.500	4.73	3983.528	21049.619	2.366	11.8	-5.4	NO		NO	bb
3	3 200226P1-5	Standard	12.500	4.73	3893.823	20614.318	2.361	11.8	-5.6	NO		NO	bb
4	4 200226P1-6	Standard	12.500	4.73	4361.401	20846.535	2.615	13.1	4.6	NO		NO	bb
5	5 200226P1-7	Standard	12.500	4.73	4190.942	21623.617	2.423	12.1	-3.1	NO		NO	bb
6	6 200226P1-8	Standard	12.500	4.73	4053.762	18270.945	2.773	13.9	10.9	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.73	4165.779	20272.674	2.569	12.8	2.7	NO		NO	bb
8	8 200226P1-10	Standard	12.500	4.73	4154.662	20548.398	2.527	12.6	1.0	NO		NO	bb
9	9 200226P1-11	Standard	12.500	4.73	3805.025	19003.396	2.503	12.5	0.1	NO		NO	bb
10	10 200226P1-12	Standard	12.500	4.73	3803.539	17672.053	2.690	13.4	7.6	NO		NO	bb

Compound name: 13C2-PFOA-EIS
Response Factor: 1568.42
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 200226P1-3	Standard	12.500	4.23	19630.277		19630.277	12.5	0.1	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	4.23	18155.506		18155.506	11.6	-7.4	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	4.23	19415.357		19415.357	12.4	-1.0	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	4.23	20442.738		20442.738	13.0	4.3	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	4.23	19587.465		19587.465	12.5	-0.1	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	4.23	19605.205		19605.205	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.23	21094.199		21094.199	13.4	7.6	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	4.23	18472.771		18472.771	11.8	-5.8	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	4.23	18439.023		18439.023	11.8	-5.9	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	4.23	16699.938		16699.938	10.6	-14.8	NO		NO	bbX

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Compound name: 13C2-PFOA-RSD
Response Factor: 0.902072
RRF SD: 0.0402098, Relative SD: 4.45749
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	200226P1-3	Standard	12.500	4.23	19630.277	19807.820	12.388	13.7	9.9	NO		NO	bb
2	2	200226P1-4	Standard	12.500	4.23	18155.506	21227.744	10.691	11.9	-5.2	NO		NO	bb
3	3	200226P1-5	Standard	12.500	4.23	19415.357	21711.418	11.178	12.4	-0.9	NO		NO	bb
4	4	200226P1-6	Standard	12.500	4.23	20442.738	21831.564	11.705	13.0	3.8	NO		NO	bb
5	5	200226P1-7	Standard	12.500	4.23	19587.465	22642.680	10.813	12.0	-4.1	NO		NO	bb
6	6	200226P1-8	Standard	12.500	4.23	19605.205	22651.627	10.819	12.0	-4.1	NO		NO	bb
7	7	200226P1-9	Standard	12.500	4.23	21094.199	23217.174	11.357	12.6	0.7	NO		NO	bb
8	8	200226P1-10	Standard	12.500	4.23	18472.771	20758.432	11.124	12.3	-1.4	NO		NO	bb
9	9	200226P1-11	Standard	12.500	4.23	18439.023	20071.400	11.483	12.7	1.8	NO		NO	bb
10	10	200226P1-12	Standard	12.500	4.23	16699.938	18636.627	11.201	12.4	-0.7	NO		NO	bb

Compound name: 13C8-PFOS-EIS
Response Factor: 280.132
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	200226P1-3	Standard	12.500	4.74	3303.435		3303.435	11.8	-5.7	NO		NO	bbX
2	2	200226P1-4	Standard	12.500	4.74	3335.062		3335.062	11.9	-4.8	NO		NO	bbX
3	3	200226P1-5	Standard	12.500	4.75	3406.551		3406.551	12.2	-2.7	NO		NO	bbX
4	4	200226P1-6	Standard	12.500	4.75	3782.974		3782.974	13.5	8.0	NO		NO	bbX
5	5	200226P1-7	Standard	12.500	4.75	3374.405		3374.405	12.0	-3.6	NO		NO	bbX
6	6	200226P1-8	Standard	12.500	4.75	3501.653		3501.653	12.5	0.0	NO		NO	bb
7	7	200226P1-9	Standard	12.500	4.75	3791.955		3791.955	13.5	8.3	NO		NO	bbX
8	8	200226P1-10	Standard	12.500	4.75	3491.849		3491.849	12.5	-0.3	NO		NO	bbX
9	9	200226P1-11	Standard	12.500	4.75	3224.941		3224.941	11.5	-7.9	NO		NO	bbX
10	10	200226P1-12	Standard	12.500	4.75	2882.400		2882.400	10.3	-17.7	NO		NO	bbX

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Compound name: 13C8-PFOS-RSD
Response Factor: 0.920552
RRF SD: 0.0722925, Relative SD: 7.85317
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 200226P1-3	Standard	12.500	4.74	3303.435	4060.972	10.168	11.0	-11.6	NO		NO	bb
2	2 200226P1-4	Standard	12.500	4.74	3335.062	3502.115	11.904	12.9	3.4	NO		NO	bb
3	3 200226P1-5	Standard	12.500	4.75	3406.551	3499.545	12.168	13.2	5.7	NO		NO	bb
4	4 200226P1-6	Standard	12.500	4.75	3782.974	4021.343	11.759	12.8	2.2	NO		NO	bb
5	5 200226P1-7	Standard	12.500	4.75	3374.405	3436.151	12.275	13.3	6.7	NO		NO	bb
6	6 200226P1-8	Standard	12.500	4.75	3501.653	4022.751	10.881	11.8	-5.4	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.75	3791.955	3632.123	13.050	14.2	13.4	NO		NO	bb
8	8 200226P1-10	Standard	12.500	4.75	3491.849	3763.527	11.598	12.6	0.8	NO		NO	bb
9	9 200226P1-11	Standard	12.500	4.75	3224.941	3795.256	10.622	11.5	-7.7	NO		NO	bb
10	10 200226P1-12	Standard	12.500	4.75	2882.400	3384.810	10.645	11.6	-7.5	NO		NO	bb

Compound name: 13C2-PFDA-EIS
Response Factor: 1595.94
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 200226P1-3	Standard	12.500	5.03	19112.938		19112.938	12.0	-4.2	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	5.04	19676.736		19676.736	12.3	-1.4	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	5.04	19071.092		19071.092	11.9	-4.4	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	5.04	17768.326		17768.326	11.1	-10.9	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	5.04	19582.832		19582.832	12.3	-1.8	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	5.04	19949.309		19949.309	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.04	21917.035		21917.035	13.7	9.9	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	5.04	18368.156		18368.156	11.5	-7.9	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	5.04	20022.633		20022.633	12.5	0.4	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	5.04	18016.928		18016.928	11.3	-9.7	NO		NO	bdX

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Compound name: 13C2-PFDA-RSD
Response Factor: 1.00948
RRF SD: 0.0565435, Relative SD: 5.60123
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	200226P1-3	Standard	12.500	5.03	19112.938	18949.578	12.608	12.5	-0.1	NO		NO	bb
2	2	200226P1-4	Standard	12.500	5.04	19676.736	19268.838	12.765	12.6	1.2	NO		NO	bb
3	3	200226P1-5	Standard	12.500	5.04	19071.092	18243.666	13.067	12.9	3.6	NO		NO	bb
4	4	200226P1-6	Standard	12.500	5.04	17768.326	20029.129	11.089	11.0	-12.1	NO		NO	bb
5	5	200226P1-7	Standard	12.500	5.04	19582.832	19256.006	12.712	12.6	0.7	NO		NO	bb
6	6	200226P1-8	Standard	12.500	5.04	19949.309	21229.350	11.746	11.6	-6.9	NO		NO	bb
7	7	200226P1-9	Standard	12.500	5.04	21917.035	21692.471	12.629	12.5	0.1	NO		NO	bb
8	8	200226P1-10	Standard	12.500	5.04	18368.156	17373.381	13.216	13.1	4.7	NO		NO	bb
9	9	200226P1-11	Standard	12.500	5.04	20022.633	18566.061	13.481	13.4	6.8	NO		NO	bb
10	10	200226P1-12	Standard	12.500	5.04	18016.928	17495.297	12.873	12.8	2.0	NO		NO	bd

Compound name: 13C2-8:2 FTS-EIS
Response Factor: 91.7021
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	200226P1-3	Standard	12.500	5.00	1184.474		1184.474	12.9	3.3	NO		NO	bbX
2	2	200226P1-4	Standard	12.500	5.01	1175.995		1175.995	12.8	2.6	NO		NO	bbX
3	3	200226P1-5	Standard	12.500	5.01	1032.979		1032.979	11.3	-9.9	NO		NO	bbX
4	4	200226P1-6	Standard	12.500	5.01	1128.538		1128.538	12.3	-1.5	NO		NO	bbX
5	5	200226P1-7	Standard	12.500	5.01	1230.001		1230.001	13.4	7.3	NO		NO	bdX
6	6	200226P1-8	Standard	12.500	5.01	1146.276		1146.276	12.5	0.0	NO		NO	bb
7	7	200226P1-9	Standard	12.500	5.01	1111.042		1111.042	12.1	-3.1	NO		NO	bbX
8	8	200226P1-10	Standard	12.500	5.00	1230.994		1230.994	13.4	7.4	NO		NO	bbX
9	9	200226P1-11	Standard	12.500	5.01	1238.720		1238.720	13.5	8.1	NO		NO	bbX
10	10	200226P1-12	Standard	12.500	5.01	1101.419		1101.419	12.0	-3.9	NO		NO	bbX

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Compound name: 13C2-8:2 FTS-RSD
Response Factor: 0.313095
RRF SD: 0.0252313, Relative SD: 8.05866
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 200226P1-3	Standard	12.500	5.00	1184.474	4060.972	3.646	11.6	-6.8	NO		NO	bb
2	2 200226P1-4	Standard	12.500	5.01	1175.995	3502.115	4.197	13.4	7.3	NO		NO	bb
3	3 200226P1-5	Standard	12.500	5.01	1032.979	3499.545	3.690	11.8	-5.7	NO		NO	bb
4	4 200226P1-6	Standard	12.500	5.01	1128.538	4021.343	3.508	11.2	-10.4	NO		NO	bb
5	5 200226P1-7	Standard	12.500	5.01	1230.001	3436.151	4.474	14.3	14.3	NO		NO	bd
6	6 200226P1-8	Standard	12.500	5.01	1146.276	4022.751	3.562	11.4	-9.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.01	1111.042	3632.123	3.824	12.2	-2.3	NO		NO	bb
8	8 200226P1-10	Standard	12.500	5.00	1230.994	3763.527	4.089	13.1	4.5	NO		NO	bb
9	9 200226P1-11	Standard	12.500	5.01	1238.720	3795.256	4.080	13.0	4.2	NO		NO	bb
10	10 200226P1-12	Standard	12.500	5.01	1101.419	3384.810	4.068	13.0	3.9	NO		NO	bb

Compound name: d3-N-MeFOSAA-EIS
Response Factor: 397.776
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 200226P1-3	Standard	12.500	5.18	4524.871		4524.871	11.4	-9.0	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	5.18	4995.435		4995.435	12.6	0.5	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	5.18	4884.326		4884.326	12.3	-1.8	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	5.18	5536.107		5536.107	13.9	11.3	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	5.18	4678.732		4678.732	11.8	-5.9	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	5.18	4972.196		4972.196	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.18	5666.323		5666.323	14.2	14.0	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	5.18	5760.376		5760.376	14.5	15.9	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	5.18	5586.125		5586.125	14.0	12.3	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	5.19	5213.762		5213.762	13.1	4.9	NO		NO	bbX

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Compound name: d3-N-MeFOSAA-RSD
Response Factor: 0.259899
RRF SD: 0.0293596, Relative SD: 11.2965
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 200226P1-3	Standard	12.500	5.18	4524.871	20396.953	2.773	10.7	-14.6	NO		NO	bb
2	2 200226P1-4	Standard	12.500	5.18	4995.435	21049.619	2.966	11.4	-8.7	NO		NO	bb
3	3 200226P1-5	Standard	12.500	5.18	4884.326	20614.318	2.962	11.4	-8.8	NO		NO	bb
4	4 200226P1-6	Standard	12.500	5.18	5536.107	20846.535	3.320	12.8	2.2	NO		NO	bb
5	5 200226P1-7	Standard	12.500	5.18	4678.732	21623.617	2.705	10.4	-16.7	NO		NO	bb
6	6 200226P1-8	Standard	12.500	5.18	4972.196	18270.945	3.402	13.1	4.7	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.18	5666.323	20272.674	3.494	13.4	7.5	NO		NO	bb
8	8 200226P1-10	Standard	12.500	5.18	5760.376	20548.398	3.504	13.5	7.9	NO		NO	bb
9	9 200226P1-11	Standard	12.500	5.18	5586.125	19003.396	3.674	14.1	13.1	NO		NO	bb
10	10 200226P1-12	Standard	12.500	5.19	5213.762	17672.053	3.688	14.2	13.5	NO		NO	bb

Compound name: 13C2-PFUdA-EIS
Response Factor: 1626.27
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 200226P1-3	Standard	12.500	5.34	19378.490		19378.490	11.9	-4.7	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	5.35	20849.092		20849.092	12.8	2.6	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	5.35	19659.873		19659.873	12.1	-3.3	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	5.35	21372.131		21372.131	13.1	5.1	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	5.35	21542.408		21542.408	13.2	6.0	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	5.35	20328.416		20328.416	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.35	20356.004		20356.004	12.5	0.1	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	5.35	20956.500		20956.500	12.9	3.1	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	5.35	18677.668		18677.668	11.5	-8.1	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	5.35	17567.635		17567.635	10.8	-13.6	NO		NO	bbX

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Compound name: 13C2-PFUdA-RSD
Response Factor: 1.00292
RRF SD: 0.0455983, Relative SD: 4.54654
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	200226P1-3	Standard	12.500	5.34	19378.490	20396.953	11.876	11.8	-5.3	NO		NO	bb
2	2	200226P1-4	Standard	12.500	5.35	20849.092	21049.619	12.381	12.3	-1.2	NO		NO	bb
3	3	200226P1-5	Standard	12.500	5.35	19659.873	20614.318	11.921	11.9	-4.9	NO		NO	bb
4	4	200226P1-6	Standard	12.500	5.35	21372.131	20846.535	12.815	12.8	2.2	NO		NO	bb
5	5	200226P1-7	Standard	12.500	5.35	21542.408	21623.617	12.453	12.4	-0.7	NO		NO	bb
6	6	200226P1-8	Standard	12.500	5.35	20328.416	18270.945	13.908	13.9	10.9	NO		NO	bb
7	7	200226P1-9	Standard	12.500	5.35	20356.004	20272.674	12.551	12.5	0.1	NO		NO	bb
8	8	200226P1-10	Standard	12.500	5.35	20956.500	20548.398	12.748	12.7	1.7	NO		NO	bb
9	9	200226P1-11	Standard	12.500	5.35	18677.668	19003.396	12.286	12.2	-2.0	NO		NO	bb
10	10	200226P1-12	Standard	12.500	5.35	17567.635	17672.053	12.426	12.4	-0.9	NO		NO	bb

Compound name: d5-N-EtFOSAA-EIS
Response Factor: 488.229
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	200226P1-3	Standard	12.500	5.33	6079.509		6079.509	12.5	-0.4	NO		NO	bbX
2	2	200226P1-4	Standard	12.500	5.33	5298.606		5298.606	10.9	-13.2	NO		NO	bbX
3	3	200226P1-5	Standard	12.500	5.33	5543.522		5543.522	11.4	-9.2	NO		NO	bbX
4	4	200226P1-6	Standard	12.500	5.34	6098.918		6098.918	12.5	-0.1	NO		NO	bbX
5	5	200226P1-7	Standard	12.500	5.34	5753.840		5753.840	11.8	-5.7	NO		NO	bbX
6	6	200226P1-8	Standard	12.500	5.33	6102.862		6102.862	12.5	0.0	NO		NO	bb
7	7	200226P1-9	Standard	12.500	5.33	6056.245		6056.245	12.4	-0.8	NO		NO	bbX
8	8	200226P1-10	Standard	12.500	5.33	6223.313		6223.313	12.7	2.0	NO		NO	bbX
9	9	200226P1-11	Standard	12.500	5.33	5462.925		5462.925	11.2	-10.5	NO		NO	bbX
10	10	200226P1-12	Standard	12.500	5.34	4563.211		4563.211	9.3	-25.2	NO		NO	bbX

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Compound name: d5-N-EtFOSAA-RSD
Response Factor: 0.285866
RRF SD: 0.024896, Relative SD: 8.709
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 200226P1-3	Standard	12.500	5.33	6079.509	20396.953	3.726	13.0	4.3	NO		NO	bb
2	2 200226P1-4	Standard	12.500	5.33	5298.606	21049.619	3.146	11.0	-11.9	NO		NO	bb
3	3 200226P1-5	Standard	12.500	5.33	5543.522	20614.318	3.361	11.8	-5.9	NO		NO	bb
4	4 200226P1-6	Standard	12.500	5.34	6098.918	20846.535	3.657	12.8	2.3	NO		NO	bb
5	5 200226P1-7	Standard	12.500	5.34	5753.840	21623.617	3.326	11.6	-6.9	NO		NO	bb
6	6 200226P1-8	Standard	12.500	5.33	6102.862	18270.945	4.175	14.6	16.8	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.33	6056.245	20272.674	3.734	13.1	4.5	NO		NO	bb
8	8 200226P1-10	Standard	12.500	5.33	6223.313	20548.398	3.786	13.2	5.9	NO		NO	bb
9	9 200226P1-11	Standard	12.500	5.33	5462.925	19003.396	3.593	12.6	0.6	NO		NO	bb
10	10 200226P1-12	Standard	12.500	5.34	4563.211	17672.053	3.228	11.3	-9.7	NO		NO	bb

Compound name: 13C2-PFDoA-EIS
Response Factor: 1456.57
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 200226P1-3	Standard	12.500	5.62	18594.955		18594.955	12.8	2.1	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	5.62	16930.148		16930.148	11.6	-7.0	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	5.62	18590.652		18590.652	12.8	2.1	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	5.62	17800.672		17800.672	12.2	-2.2	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	5.63	19047.693		19047.693	13.1	4.6	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	5.62	18207.182		18207.182	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.62	18501.973		18501.973	12.7	1.6	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	5.62	18021.318		18021.318	12.4	-1.0	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	5.63	17470.451		17470.451	12.0	-4.0	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	5.63	17704.520		17704.520	12.2	-2.8	NO		NO	bbX

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Compound name: 13C2-PFDoA-RSD
Response Factor: 0.945766
RRF SD: 0.0710555, Relative SD: 7.51301
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 200226P1-3	Standard	12.500	5.62	18594.955	18949.578	12.266	13.0	3.8	NO		NO	bb
2	2 200226P1-4	Standard	12.500	5.62	16930.148	19268.838	10.983	11.6	-7.1	NO		NO	bb
3	3 200226P1-5	Standard	12.500	5.62	18590.652	18243.666	12.738	13.5	7.7	NO		NO	bb
4	4 200226P1-6	Standard	12.500	5.62	17800.672	20029.129	11.109	11.7	-6.0	NO		NO	bb
5	5 200226P1-7	Standard	12.500	5.63	19047.693	19256.006	12.365	13.1	4.6	NO		NO	bb
6	6 200226P1-8	Standard	12.500	5.62	18207.182	21229.350	10.721	11.3	-9.3	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.62	18501.973	21692.471	10.662	11.3	-9.8	NO		NO	bb
8	8 200226P1-10	Standard	12.500	5.62	18021.318	17373.381	12.966	13.7	9.7	NO		NO	bb
9	9 200226P1-11	Standard	12.500	5.63	17470.451	18566.061	11.762	12.4	-0.5	NO		NO	bb
10	10 200226P1-12	Standard	12.500	5.63	17704.520	17495.297	12.649	13.4	7.0	NO		NO	bb

Compound name: 13C2-10:2 FTS-EIS
Response Factor: 73.9498
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 200226P1-3	Standard	12.500	5.60	966.645		966.645	13.1	4.6	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	5.61	985.242		985.242	13.3	6.6	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	5.61	891.342		891.342	12.1	-3.6	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	5.61	827.543		827.543	11.2	-10.5	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	5.61	902.200		902.200	12.2	-2.4	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	5.61	924.372		924.372	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.61	843.063		843.063	11.4	-8.8	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	5.61	808.820		808.820	10.9	-12.5	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	5.61	856.935		856.935	11.6	-7.3	NO		NO	MMX
10	10 200226P1-12	Standard	12.500	5.61	838.380		838.380	11.3	-9.3	NO		NO	MMX

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Compound name: 13C2-10:2 FTS-RSD
Response Factor: 0.235431
RRF SD: 0.0240616, Relative SD: 10.2203
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 200226P1-3	Standard	12.500	5.60	966.645	4060.972	2.975	12.6	1.1	NO		NO	bb
2	2 200226P1-4	Standard	12.500	5.61	985.242	3502.115	3.517	14.9	19.5	NO		NO	bb
3	3 200226P1-5	Standard	12.500	5.61	891.342	3499.545	3.184	13.5	8.2	NO		NO	bb
4	4 200226P1-6	Standard	12.500	5.61	827.543	4021.343	2.572	10.9	-12.6	NO		NO	bb
5	5 200226P1-7	Standard	12.500	5.61	902.200	3436.151	3.282	13.9	11.5	NO		NO	bb
6	6 200226P1-8	Standard	12.500	5.61	924.372	4022.751	2.872	12.2	-2.4	NO		NO	bb
7	7 200226P1-9	Standard	12.500	5.61	843.063	3632.123	2.901	12.3	-1.4	NO		NO	bb
8	8 200226P1-10	Standard	12.500	5.61	808.820	3763.527	2.686	11.4	-8.7	NO		NO	bb
9	9 200226P1-11	Standard	12.500	5.61	818.412	3795.256	2.696	11.4	-8.4	NO		NO	db
10	10 200226P1-12	Standard	12.500	5.61	742.776	3384.810	2.743	11.7	-6.8	NO		NO	db

Compound name: d3-N-MeFOSA-EIS
Response Factor: 129.957
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 200226P1-3	Standard	149.200	5.78	18218.621		18218.621	140.2	-6.0	NO		NO	bbX
2	2 200226P1-4	Standard	149.200	5.78	18583.953		18583.953	143.0	-4.2	NO		NO	bbX
3	3 200226P1-5	Standard	149.200	5.78	18213.791		18213.791	140.2	-6.1	NO		NO	bbX
4	4 200226P1-6	Standard	149.200	5.78	19261.279		19261.279	148.2	-0.7	NO		NO	bbX
5	5 200226P1-7	Standard	149.200	5.78	18854.154		18854.154	145.1	-2.8	NO		NO	bbX
6	6 200226P1-8	Standard	149.200	5.78	19389.584		19389.584	149.2	0.0	NO		NO	bb
7	7 200226P1-9	Standard	149.200	5.78	19710.025		19710.025	151.7	1.7	NO		NO	bbX
8	8 200226P1-10	Standard	149.200	5.78	19648.410		19648.410	151.2	1.3	NO		NO	bbX
9	9 200226P1-11	Standard	149.200	5.78	20169.953		20169.953	155.2	4.0	NO		NO	bbX
10	10 200226P1-12	Standard	149.200	5.78	19349.824		19349.824	148.9	-0.2	NO		NO	bbX

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Compound name: d3-N-MeFOSA-RSD
Response Factor: 0.0804415
RRF SD: 0.00707662, Relative SD: 8.79723
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 200226P1-3	Standard	149.200	5.78	18218.621	20396.953	11.165	138.8	-7.0	NO		NO	bb
2	2 200226P1-4	Standard	149.200	5.78	18583.953	21049.619	11.036	137.2	-8.0	NO		NO	bb
3	3 200226P1-5	Standard	149.200	5.78	18213.791	20614.318	11.044	137.3	-8.0	NO		NO	bb
4	4 200226P1-6	Standard	149.200	5.78	19261.279	20846.535	11.549	143.6	-3.8	NO		NO	bb
5	5 200226P1-7	Standard	149.200	5.78	18854.154	21623.617	10.899	135.5	-9.2	NO		NO	bb
6	6 200226P1-8	Standard	149.200	5.78	19389.584	18270.945	13.265	164.9	10.5	NO		NO	bb
7	7 200226P1-9	Standard	149.200	5.78	19710.025	20272.674	12.153	151.1	1.3	NO		NO	bb
8	8 200226P1-10	Standard	149.200	5.78	19648.410	20548.398	11.953	148.6	-0.4	NO		NO	bb
9	9 200226P1-11	Standard	149.200	5.78	20169.953	19003.396	13.267	164.9	10.5	NO		NO	bb
10	10 200226P1-12	Standard	149.200	5.78	19349.824	17672.053	13.687	170.1	14.0	NO		NO	bb

Compound name: 13C2-PFTeDA-EIS
Response Factor: 1697.8
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 200226P1-3	Standard	12.500	6.07	21742.072		21742.072	12.8	2.4	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	6.07	18952.719		18952.719	11.2	-10.7	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	6.07	22596.455		22596.455	13.3	6.5	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	6.07	20139.611		20139.611	11.9	-5.1	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	6.08	22269.361		22269.361	13.1	4.9	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	6.07	21222.449		21222.449	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	6.08	19972.578		19972.578	11.8	-5.9	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	6.08	19827.012		19827.012	11.7	-6.6	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	6.08	20485.729		20485.729	12.1	-3.5	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	6.08	17721.580		17721.580	10.4	-16.5	NO		NO	bbX

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Compound name: 13C2-PFTeDA-RSD
Response Factor: 1.02509
RRF SD: 0.0766707, Relative SD: 7.47943
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	200226P1-3	Standard	12.500	6.07	21742.072	20396.953	13.324	13.0	4.0	NO		NO	bb
2	2	200226P1-4	Standard	12.500	6.07	18952.719	21049.619	11.255	11.0	-12.2	NO		NO	bb
3	3	200226P1-5	Standard	12.500	6.07	22596.455	20614.318	13.702	13.4	6.9	NO		NO	bb
4	4	200226P1-6	Standard	12.500	6.07	20139.611	20846.535	12.076	11.8	-5.8	NO		NO	bb
5	5	200226P1-7	Standard	12.500	6.08	22269.361	21623.617	12.873	12.6	0.5	NO		NO	bb
6	6	200226P1-8	Standard	12.500	6.07	21222.449	18270.945	14.519	14.2	13.3	NO		NO	bb
7	7	200226P1-9	Standard	12.500	6.08	19972.578	20272.674	12.315	12.0	-3.9	NO		NO	bb
8	8	200226P1-10	Standard	12.500	6.08	19827.012	20548.398	12.061	11.8	-5.9	NO		NO	bb
9	9	200226P1-11	Standard	12.500	6.08	20485.729	19003.396	13.475	13.1	5.2	NO		NO	bb
10	10	200226P1-12	Standard	12.500	6.08	17721.580	17672.053	12.535	12.2	-2.2	NO		NO	bb

Compound name: d5-N-ETFOSA-EIS
Response Factor: 163.124
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	200226P1-3	Standard	149.200	6.16	22781.383		22781.383	139.7	-6.4	NO		NO	bbX
2	2	200226P1-4	Standard	149.200	6.16	23045.834		23045.834	141.3	-5.3	NO		NO	bbX
3	3	200226P1-5	Standard	149.200	6.16	23851.129		23851.129	146.2	-2.0	NO		NO	bbX
4	4	200226P1-6	Standard	149.200	6.16	23662.188		23662.188	145.1	-2.8	NO		NO	bbX
5	5	200226P1-7	Standard	149.200	6.16	24094.385		24094.385	147.7	-1.0	NO		NO	bbX
6	6	200226P1-8	Standard	149.200	6.16	24338.072		24338.072	149.2	0.0	NO		NO	bb
7	7	200226P1-9	Standard	149.200	6.16	24596.867		24596.867	150.8	1.1	NO		NO	bbX
8	8	200226P1-10	Standard	149.200	6.16	23871.867		23871.867	146.3	-1.9	NO		NO	bbX
9	9	200226P1-11	Standard	149.200	6.16	23103.365		23103.365	141.6	-5.1	NO		NO	bbX
10	10	200226P1-12	Standard	149.200	6.16	20928.121		20928.121	128.3	-14.0	NO		NO	bbX

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Compound name: d5-N-ETFOSA-RSD
Response Factor: 0.0982338
RRF SD: 0.00581827, Relative SD: 5.92288
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 200226P1-3	Standard	149.200	6.16	22781.383	20396.953	13.961	142.1	-4.7	NO		NO	bb
2	2 200226P1-4	Standard	149.200	6.16	23045.834	21049.619	13.685	139.3	-6.6	NO		NO	bb
3	3 200226P1-5	Standard	149.200	6.16	23851.129	20614.318	14.463	147.2	-1.3	NO		NO	bb
4	4 200226P1-6	Standard	149.200	6.16	23662.188	20846.535	14.188	144.4	-3.2	NO		NO	bb
5	5 200226P1-7	Standard	149.200	6.16	24094.385	21623.617	13.928	141.8	-5.0	NO		NO	bb
6	6 200226P1-8	Standard	149.200	6.16	24338.072	18270.945	16.651	169.5	13.6	NO		NO	bb
7	7 200226P1-9	Standard	149.200	6.16	24596.867	20272.674	15.166	154.4	3.5	NO		NO	bb
8	8 200226P1-10	Standard	149.200	6.16	23871.867	20548.398	14.522	147.8	-0.9	NO		NO	bb
9	9 200226P1-11	Standard	149.200	6.16	23103.365	19003.396	15.197	154.7	3.7	NO		NO	bb
10	10 200226P1-12	Standard	149.200	6.16	20928.121	17672.053	14.803	150.7	1.0	NO		NO	bb

Compound name: 13C2-PFHxDA-EIS
Response Factor: 2296.62
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 200226P1-3	Standard	12.500	6.39	30956.195		30956.195	13.5	7.8	NO		NO	bbX
2	2 200226P1-4	Standard	12.500	6.40	30296.525		30296.525	13.2	5.5	NO		NO	bbX
3	3 200226P1-5	Standard	12.500	6.40	29944.850		29944.850	13.0	4.3	NO		NO	bbX
4	4 200226P1-6	Standard	12.500	6.40	30873.531		30873.531	13.4	7.5	NO		NO	bbX
5	5 200226P1-7	Standard	12.500	6.40	29888.625		29888.625	13.0	4.1	NO		NO	bbX
6	6 200226P1-8	Standard	12.500	6.40	28707.693		28707.693	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	6.40	30190.695		30190.695	13.1	5.2	NO		NO	bbX
8	8 200226P1-10	Standard	12.500	6.40	31695.459		31695.459	13.8	10.4	NO		NO	bbX
9	9 200226P1-11	Standard	12.500	6.40	29228.939		29228.939	12.7	1.8	NO		NO	bbX
10	10 200226P1-12	Standard	12.500	6.40	28808.082		28808.082	12.5	0.3	NO		NO	bbX

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Compound name: 13C2-PFHxDA-RSD
Response Factor: 1.5044
RRF SD: 0.0712313, Relative SD: 4.73487
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 200226P1-3	Standard	12.500	6.39	30956.195	20396.953	18.971	12.6	0.9	NO		NO	bb
2	2 200226P1-4	Standard	12.500	6.40	30296.525	21049.619	17.991	12.0	-4.3	NO		NO	bb
3	3 200226P1-5	Standard	12.500	6.40	29944.850	20614.318	18.158	12.1	-3.4	NO		NO	bb
4	4 200226P1-6	Standard	12.500	6.40	30873.531	20846.535	18.512	12.3	-1.6	NO		NO	bb
5	5 200226P1-7	Standard	12.500	6.40	29888.625	21623.617	17.278	11.5	-8.1	NO		NO	bb
6	6 200226P1-8	Standard	12.500	6.40	28707.693	18270.945	19.640	13.1	4.4	NO		NO	bb
7	7 200226P1-9	Standard	12.500	6.40	30190.695	20272.674	18.615	12.4	-1.0	NO		NO	bb
8	8 200226P1-10	Standard	12.500	6.40	31695.459	20548.398	19.281	12.8	2.5	NO		NO	bb
9	9 200226P1-11	Standard	12.500	6.40	29228.939	19003.396	19.226	12.8	2.2	NO		NO	bb
10	10 200226P1-12	Standard	12.500	6.40	28808.082	17672.053	20.377	13.5	8.4	NO		NO	bb

Compound name: d7-N-MeFOSE-EIS
Response Factor: 112.88
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 200226P1-3	Standard	149.200	6.28	16803.922		16803.922	148.9	-0.2	NO		NO	bbX
2	2 200226P1-4	Standard	149.200	6.29	15992.061		15992.061	141.7	-5.0	NO		NO	bbX
3	3 200226P1-5	Standard	149.200	6.29	17092.895		17092.895	151.4	1.5	NO		NO	bbX
4	4 200226P1-6	Standard	149.200	6.29	16997.414		16997.414	150.6	0.9	NO		NO	bbX
5	5 200226P1-7	Standard	149.200	6.29	17268.498		17268.498	153.0	2.5	NO		NO	bbX
6	6 200226P1-8	Standard	149.200	6.29	16841.729		16841.729	149.2	0.0	NO		NO	bb
7	7 200226P1-9	Standard	149.200	6.29	17462.277		17462.277	154.7	3.7	NO		NO	bbX
8	8 200226P1-10	Standard	149.200	6.28	17474.543		17474.543	154.8	3.8	NO		NO	bbX
9	9 200226P1-11	Standard	149.200	6.28	17347.602		17347.602	153.7	3.0	NO		NO	bbX
10	10 200226P1-12	Standard	149.200	6.28	16376.771		16376.771	145.1	-2.8	NO		NO	bbX

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Compound name: d7-N-MeFOSE-RSD
Response Factor: 0.0712118
RRF SD: 0.00469186, Relative SD: 6.5886
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 200226P1-3	Standard	149.200	6.28	16803.922	20396.953	10.298	144.6	-3.1	NO		NO	bb
2	2 200226P1-4	Standard	149.200	6.29	15992.061	21049.619	9.497	133.4	-10.6	NO		NO	bb
3	3 200226P1-5	Standard	149.200	6.29	17092.895	20614.318	10.365	145.5	-2.4	NO		NO	bb
4	4 200226P1-6	Standard	149.200	6.29	16997.414	20846.535	10.192	143.1	-4.1	NO		NO	bb
5	5 200226P1-7	Standard	149.200	6.29	17268.498	21623.617	9.982	140.2	-6.0	NO		NO	bb
6	6 200226P1-8	Standard	149.200	6.29	16841.729	18270.945	11.522	161.8	8.4	NO		NO	bb
7	7 200226P1-9	Standard	149.200	6.29	17462.277	20272.674	10.767	151.2	1.3	NO		NO	bb
8	8 200226P1-10	Standard	149.200	6.28	17474.543	20548.398	10.630	149.3	0.1	NO		NO	bb
9	9 200226P1-11	Standard	149.200	6.28	17347.602	19003.396	11.411	160.2	7.4	NO		NO	bb
10	10 200226P1-12	Standard	149.200	6.28	16376.771	17672.053	11.584	162.7	9.0	NO		NO	bb

Compound name: d9-N-EtFOSE-EIS
Response Factor: 137.96
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 200226P1-3	Standard	149.200	6.43	20339.033		20339.033	147.4	-1.2	NO		NO	bbX
2	2 200226P1-4	Standard	149.200	6.43	18784.813		18784.813	136.2	-8.7	NO		NO	bbX
3	3 200226P1-5	Standard	149.200	6.43	19332.000		19332.000	140.1	-6.1	NO		NO	bbX
4	4 200226P1-6	Standard	149.200	6.43	18867.645		18867.645	136.8	-8.3	NO		NO	bbX
5	5 200226P1-7	Standard	149.200	6.44	19913.459		19913.459	144.3	-3.3	NO		NO	bbX
6	6 200226P1-8	Standard	149.200	6.43	20583.693		20583.693	149.2	0.0	NO		NO	bb
7	7 200226P1-9	Standard	149.200	6.43	20402.227		20402.227	147.9	-0.9	NO		NO	bbX
8	8 200226P1-10	Standard	149.200	6.43	21009.637		21009.637	152.3	2.1	NO		NO	bbX
9	9 200226P1-11	Standard	149.200	6.43	20557.533		20557.533	149.0	-0.1	NO		NO	bbX
10	10 200226P1-12	Standard	149.200	6.43	19717.336		19717.336	142.9	-4.2	NO		NO	bbX

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Compound name: d9-N-EtFOSE-RSD
Response Factor: 0.0838328
RRF SD: 0.00724838, Relative SD: 8.64624
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	200226P1-3	Standard	149.200	6.43	20339.033	20396.953	12.465	148.7	-0.3	NO		NO	bb
2	2	200226P1-4	Standard	149.200	6.43	18784.813	21049.619	11.155	133.1	-10.8	NO		NO	bb
3	3	200226P1-5	Standard	149.200	6.43	19332.000	20614.318	11.722	139.8	-6.3	NO		NO	bb
4	4	200226P1-6	Standard	149.200	6.43	18867.645	20846.535	11.313	135.0	-9.5	NO		NO	bb
5	5	200226P1-7	Standard	149.200	6.44	19913.459	21623.617	11.511	137.3	-8.0	NO		NO	bb
6	6	200226P1-8	Standard	149.200	6.43	20583.693	18270.945	14.082	168.0	12.6	NO		NO	bb
7	7	200226P1-9	Standard	149.200	6.43	20402.227	20272.674	12.580	150.1	0.6	NO		NO	bb
8	8	200226P1-10	Standard	149.200	6.43	21009.637	20548.398	12.781	152.5	2.2	NO		NO	bb
9	9	200226P1-11	Standard	149.200	6.43	20557.533	19003.396	13.522	161.3	8.1	NO		NO	bb
10	10	200226P1-12	Standard	149.200	6.43	19717.336	17672.053	13.947	166.4	11.5	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	200226P1-3	Standard	12.500	1.42	10993.113	10993.113	12.500	12.5	0.0	NO		NO	MM
2	2	200226P1-4	Standard	12.500	1.42	11383.422	11383.422	12.500	12.5	0.0	NO		NO	MM
3	3	200226P1-5	Standard	12.500	1.43	10842.490	10842.490	12.500	12.5	0.0	NO		NO	MM
4	4	200226P1-6	Standard	12.500	1.42	11170.034	11170.034	12.500	12.5	0.0	NO		NO	MM
5	5	200226P1-7	Standard	12.500	1.43	10937.148	10937.148	12.500	12.5	0.0	NO		NO	MM
6	6	200226P1-8	Standard	12.500	1.42	11527.919	11527.919	12.500	12.5	0.0	NO		NO	MM
7	7	200226P1-9	Standard	12.500	1.42	11312.696	11312.696	12.500	12.5	0.0	NO		NO	MM
8	8	200226P1-10	Standard	12.500	1.42	11619.921	11619.921	12.500	12.5	0.0	NO		NO	MM
9	9	200226P1-11	Standard	12.500	1.42	11207.089	11207.089	12.500	12.5	0.0	NO		NO	MM
10	10	200226P1-12	Standard	12.500	1.42	11458.164	11458.164	12.500	12.5	0.0	NO		NO	MM

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Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200226P1-3	Standard	12.500	3.12	21059.807	21059.807	12.500	12.5	0.0	NO		NO	bb
2	2 200226P1-4	Standard	12.500	3.13	22726.564	22726.564	12.500	12.5	0.0	NO		NO	bb
3	3 200226P1-5	Standard	12.500	3.13	20872.711	20872.711	12.500	12.5	0.0	NO		NO	bb
4	4 200226P1-6	Standard	12.500	3.13	23392.611	23392.611	12.500	12.5	0.0	NO		NO	bb
5	5 200226P1-7	Standard	12.500	3.13	21856.619	21856.619	12.500	12.5	0.0	NO		NO	bb
6	6 200226P1-8	Standard	12.500	3.13	23177.387	23177.387	12.500	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.13	23802.660	23802.660	12.500	12.5	0.0	NO		NO	bb
8	8 200226P1-10	Standard	12.500	3.13	21603.768	21603.768	12.500	12.5	0.0	NO		NO	bb
9	9 200226P1-11	Standard	12.500	3.13	22576.764	22576.764	12.500	12.5	0.0	NO		NO	bb
10	10 200226P1-12	Standard	12.500	3.13	19823.650	19823.650	12.500	12.5	0.0	NO		NO	bb

Compound name: 18O2-PFHxS
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 200226P1-3	Standard	12.500	3.86	1331.304	1331.304	12.500	12.5	0.0	NO		NO	bb
2	2 200226P1-4	Standard	12.500	3.86	1220.489	1220.489	12.500	12.5	0.0	NO		NO	bb
3	3 200226P1-5	Standard	12.500	3.86	1278.292	1278.292	12.500	12.5	0.0	NO		NO	bb
4	4 200226P1-6	Standard	12.500	3.86	1234.121	1234.121	12.500	12.5	0.0	NO		NO	bb
5	5 200226P1-7	Standard	12.500	3.86	1257.842	1257.842	12.500	12.5	0.0	NO		NO	bd
6	6 200226P1-8	Standard	12.500	3.86	1157.274	1157.274	12.500	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	3.86	1294.718	1294.718	12.500	12.5	0.0	NO		NO	bb
8	8 200226P1-10	Standard	12.500	3.86	1288.584	1288.584	12.500	12.5	0.0	NO		NO	bb
9	9 200226P1-11	Standard	12.500	3.87	1350.014	1350.014	12.500	12.5	0.0	NO		NO	bb
10	10 200226P1-12	Standard	12.500	3.86	1234.254	1234.254	12.500	12.5	0.0	NO		NO	bb

Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

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Compound name: 13C8-PFOA
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 200226P1-3	Standard	12.500	4.23	19807.820	19807.820	12.500	12.5	0.0	NO		NO	bb
2	2 200226P1-4	Standard	12.500	4.23	21227.744	21227.744	12.500	12.5	0.0	NO		NO	bb
3	3 200226P1-5	Standard	12.500	4.23	21711.418	21711.418	12.500	12.5	0.0	NO		NO	bb
4	4 200226P1-6	Standard	12.500	4.23	21831.564	21831.564	12.500	12.5	0.0	NO		NO	bb
5	5 200226P1-7	Standard	12.500	4.23	22642.680	22642.680	12.500	12.5	0.0	NO		NO	bb
6	6 200226P1-8	Standard	12.500	4.23	22651.627	22651.627	12.500	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.23	23217.174	23217.174	12.500	12.5	0.0	NO		NO	bb
8	8 200226P1-10	Standard	12.500	4.23	20758.432	20758.432	12.500	12.5	0.0	NO		NO	bb
9	9 200226P1-11	Standard	12.500	4.23	20071.400	20071.400	12.500	12.5	0.0	NO		NO	bb
10	10 200226P1-12	Standard	12.500	4.23	18636.627	18636.627	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 7.40149e-017, Relative SD: 7.40149e-015
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 200226P1-3	Standard	12.500	4.66	19321.490	19321.490	12.500	12.5	0.0	NO		NO	bb
2	2 200226P1-4	Standard	12.500	4.67	18674.686	18674.686	12.500	12.5	0.0	NO		NO	bb
3	3 200226P1-5	Standard	12.500	4.67	20086.387	20086.387	12.500	12.5	0.0	NO		NO	bb
4	4 200226P1-6	Standard	12.500	4.67	19913.479	19913.479	12.500	12.5	0.0	NO		NO	bb
5	5 200226P1-7	Standard	12.500	4.67	18660.270	18660.270	12.500	12.5	0.0	NO		NO	bb
6	6 200226P1-8	Standard	12.500	4.67	20507.006	20507.006	12.500	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.67	19328.113	19328.113	12.500	12.5	0.0	NO		NO	bb
8	8 200226P1-10	Standard	12.500	4.67	20087.057	20087.057	12.500	12.5	0.0	NO		NO	bb
9	9 200226P1-11	Standard	12.500	4.67	19313.738	19313.738	12.500	12.5	0.0	NO		NO	bb
10	10 200226P1-12	Standard	12.500	4.67	18125.420	18125.420	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 1.33432e-016, Relative SD: 1.33432e-014
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 200226P1-3	Standard	12.500	4.74	4060.972	4060.972	12.500	12.5	0.0	NO		NO	bb
2	2 200226P1-4	Standard	12.500	4.74	3502.115	3502.115	12.500	12.5	0.0	NO		NO	bb
3	3 200226P1-5	Standard	12.500	4.75	3499.545	3499.545	12.500	12.5	0.0	NO		NO	bb
4	4 200226P1-6	Standard	12.500	4.75	4021.343	4021.343	12.500	12.5	0.0	NO		NO	bd
5	5 200226P1-7	Standard	12.500	4.75	3436.151	3436.151	12.500	12.5	0.0	NO		NO	bb
6	6 200226P1-8	Standard	12.500	4.75	4022.751	4022.751	12.500	12.5	0.0	NO		NO	bb
7	7 200226P1-9	Standard	12.500	4.75	3632.123	3632.123	12.500	12.5	0.0	NO		NO	bb
8	8 200226P1-10	Standard	12.500	4.75	3763.527	3763.527	12.500	12.5	0.0	NO		NO	bb
9	9 200226P1-11	Standard	12.500	4.75	3795.256	3795.256	12.500	12.5	0.0	NO		NO	bb
10	10 200226P1-12	Standard	12.500	4.75	3384.810	3384.810	12.500	12.5	0.0	NO		NO	bb

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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022620.mdb 26 Feb 2020 11:36:08
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	IS#	CoD	CoD Flag	%RSD
1	1	PFBA	47	0.9987	NO	
2	2	PFPrS	51	0.9979	NO	
3	3	3:3 FTCA	49	0.9998	NO	
4	4	PFPeA	49	0.9998	NO	
5	5	PFBS	51	0.9992	NO	
6	6	4:2 FTS	55	0.9984	NO	
7	7	PFHxA	57	0.9997	NO	
8	8	PFPeS	51	0.9992	NO	
9	9	HFPO-DA	53	0.9995	NO	
10	10	5:3 FTCA	59	0.9994	NO	
11	11	PFHpA	59	0.9999	NO	
12	12	ADONA	59	0.9999	NO	
13	13	L-PFHxS	61	0.9992	NO	
14	15	6:2 FTS	63	0.9995	NO	
15	16	L-PFOA	69	0.9998	NO	
16	18	PFecHS	69	0.9991	NO	
17	19	PFHpS	71	0.9999	NO	
18	20	7:3 FTCA	65	0.9996	NO	
19	21	PFNA	65	0.9978	NO	
20	22	PFOSA	67	0.9982	NO	
21	23	L-PFOS	71	0.9993	NO	
22	25	9Cl-PF30NS	71	0.9995	NO	
23	26	PFDA	73	0.9994	NO	
24	27	8:2 FTS	75	0.9942	NO	
25	28	PFNS	71	0.9984	NO	
26	29	L-MeFOSAA	77	0.9995	NO	

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Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022620.mdb 26 Feb 2020 11:36:08
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	IS#	CoD	CoD Flag	%RSD
1	31	L-EtFOSAA	81	0.9996	NO	
2	33	PFUdA	79	0.9996	NO	
3	34	PFDS	71	0.9995	NO	
4	35	11Cl-PF30UdS	83	0.9999	NO	
5	36	10:2 FTS	85	0.9998	NO	
6	37	PFDoA	83	0.9971	NO	
7	38	N-MeFOSA	87	0.9987	NO	
8	39	PFTrDA	83	0.9994	NO	
9	40	PFDoS	89	0.9962	NO	
10	41	PFTeDA	89	0.9968	NO	
11	42	N-EtFOSA	91	1.0000	NO	
12	43	PFHxDA	93	0.9996	NO	
13	44	PFODA	93	0.9995	NO	
14	45	N-MeFOSE	95	0.9998	NO	
15	46	N-EtFOSE	97	0.9998	NO	
16	47	13C3-PFBA-EIS			NO	0.000
17	48	13C3-PFBA-RSD	99		NO	2.450
18	49	13C3-PFPeA-EIS			NO	0.000
19	50	13C3-PFPeA-RSD	100		NO	5.493
20	51	13C3-PFBS-EIS			NO	0.000
21	52	13C3-PFBS-RSD	101		NO	3.782
22	53	13C3-HFPO-DA-EIS			NO	0.000
23	54	13C3-HFPO-DA-RSD	100		NO	6.173
24	55	13C2-4:2 FTS-EIS			NO	0.000
25	56	13C2-4:2 FTS-RSD	101		NO	9.069
26	57	13C2-PFHxA-EIS			NO	0.000
27	58	13C2-PFHxA-RSD	100		NO	3.050
28	59	13C4-PFHpA-EIS			NO	0.000
29	60	13C4-PFHpA-RSD	100		NO	7.168
30	61	13C3-PFHxS-EIS			NO	0.000
31	62	13C3-PFHxS-RSD	101		NO	4.946
32	63	13C2-6:2 FTS-EIS			NO	0.000

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Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	IS#	CoD	CoD Flag	%RSD
33	64	13C2-6:2 FTS-RSD	104		NO	11.506
34	65	13C5-PFNA-EIS			NO	0.000
35	66	13C5-PFNA-RSD	103		NO	3.362
36	67	13C8-PFOSA-EIS			NO	0.000
37	68	13C8-PFOSA-RSD	106		NO	6.943
38	69	13C2-PFOA-EIS			NO	0.000
39	70	13C2-PFOA-RSD	102		NO	4.457
40	71	13C8-PFOS-EIS			NO	0.000
41	72	13C8-PFOS-RSD	104		NO	7.853
42	73	13C2-PFDA-EIS			NO	0.000
43	74	13C2-PFDA-RSD	105		NO	5.601
44	75	13C2-8:2 FTS-EIS			NO	0.000
45	76	13C2-8:2 FTS-RSD	104		NO	8.059
46	77	d3-N-MeFOSAA-EIS			NO	0.000
47	78	d3-N-MeFOSAA-RSD	106		NO	11.297
48	79	13C2-PFUdA-EIS			NO	0.000
49	80	13C2-PFUdA-RSD	106		NO	4.547
50	81	d5-N-EtFOSAA-EIS			NO	0.000
51	82	d5-N-EtFOSAA-RSD	106		NO	8.709
52	83	13C2-PFDoA-EIS			NO	0.000
53	84	13C2-PFDoA-RSD	105		NO	7.513
54	85	13C2-10:2 FTS-EIS			NO	0.000
55	86	13C2-10:2 FTS-RSD	104		NO	10.220
56	87	d3-N-MeFOSA-EIS			NO	0.000
57	88	d3-N-MeFOSA-RSD	106		NO	8.797
58	89	13C2-PFTeDA-EIS			NO	0.000
59	90	13C2-PFTeDA-RSD	106		NO	7.479
60	91	d5-N-ETFOSA-EIS			NO	0.000
61	92	d5-N-ETFOSA-RSD	106		NO	5.923
62	93	13C2-PFHxDA-EIS			NO	0.000
63	94	13C2-PFHxDA-RSD	106		NO	4.735
64	95	d7-N-MeFOSE-EIS			NO	0.000
65	96	d7-N-MeFOSE-RSD	106		NO	6.589
66	97	d9-N-EtFOSE-EIS			NO	0.000
67	98	d9-N-EtFOSE-RSD	106		NO	8.646
68	99	13C4-PFBA	99		NO	0.000

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Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	IS#	CoD	CoD Flag	%RSD
69	1...	13C5-PFHxA	100		NO	0.000
70	1...	18O2-PFHxS	101		NO	0.000
71	1...	13C8-PFOA	102		NO	0.000
72	1...	13C9-PFNA	103		NO	0.000
73	1...	13C4-PFOS	104		NO	0.000

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Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022620.mdb 26 Feb 2020 11:36:08
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	PFBA	1.43	1.43			
2	PFPrS	1.76	1.76	2.395	2.394	NO
3	3:3 FTCA	2.20	2.20	3.660	3.772	NO
4	PFPeA	2.35	2.35			
5	PFBS	2.62	2.62	3.139	3.051	NO
6	4:2 FTS	3.04	3.04	0.899	0.923	NO
7	PFHxA	3.13	3.13	16.931	16.621	NO
8	PFPeS	3.31	3.32	2.432	2.603	NO
9	HFPO-DA	3.34	3.34	2.776	2.845	NO
10	5:3 FTCA	3.67	3.67	1.853	1.774	NO
11	PFHpA	3.72	3.73	33.693	32.896	NO
12	ADONA	3.81	3.83	4.296	4.001	NO
13	L-PFHxS	3.86	3.86	2.174	2.313	NO
14	6:2 FTS	4.18	4.18	1.229	1.265	NO
15	L-PFOA	4.23	4.23	2.800	3.192	NO
16	PFecHS	4.25	4.24	0.486	0.471	NO
17	PFHpS	4.35	4.34	2.025	1.970	NO
18	7:3 FTCA	4.66	4.66	1.539	1.447	NO
19	PFNA	4.67	4.67	9.406	7.986	NO
20	PFOSA	4.73	4.73	26.472	27.733	NO
21	L-PFOS	4.75	4.75	2.608	2.510	NO
22	9Cl-PF30NS	4.96	4.96	16.976	20.081	NO
23	PFDA	5.04	5.04	11.681	10.464	NO
24	8:2 FTS	5.01	5.01	2.559	2.672	NO
25	PFNS	5.09	5.10	2.122	2.549	NO
26	L-MeFOSAA	5.18	5.19	1.874	2.027	NO

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Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022620.mdb 26 Feb 2020 11:36:08
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	L-EtFOSAA	5.33	5.34	1.127	1.385	NO
2	PFUdA	5.35	5.35	23.768	26.950	NO
3	PFDS	5.38	5.40	2.050	1.803	NO
4	11Cl-PF30UdS	5.56	5.56	19.229	20.922	NO
5	10:2 FTS	5.61	5.61	0.992	1.036	NO
6	PFDoA	5.62	5.62	9.903	13.634	NO
7	N-MeFOSA	5.77	5.75	1.781	1.606	NO
8	PFTrDA	5.88	5.86	50.652	60.265	NO
9	PFDoS	5.88	5.89	3.011	2.958	NO
10	PFTeDA	6.07	6.07	17.346	15.745	NO
11	N-EtFOSA	6.14	6.15	1.652	1.662	NO
12	PFHxDA	6.40	6.40	155.012	149.446	NO
13	PFODA	6.61	6.63			
14	N-MeFOSE	6.29	6.30			
15	N-EtFOSE	6.43	6.44			

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Dataset: Untitled

Last Altered: Thursday, February 27, 2020 10:02:32 Pacific Standard Time
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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022620.mdb 27 Feb 2020 10:00:22
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	200226P1-1	IPA	26-Feb-20	16:38:01
2	2	200226P1-2	IPA	26-Feb-20	16:48:38
3	3	200226P1-3	ST200226P1-1 PFC CS-2 20B1102	26-Feb-20	16:59:08
4	4	200226P1-4	ST200226P1-2 PFC CS-1 20B1103	26-Feb-20	17:09:41
5	5	200226P1-5	ST200226P1-3 PFC CS0 20B1104	26-Feb-20	17:20:09
6	6	200226P1-6	ST200226P1-4 PFC CS1 20B1105	26-Feb-20	17:30:39
7	7	200226P1-7	ST200226P1-5 PFC CS2 20B1106	26-Feb-20	17:41:11
8	8	200226P1-8	ST200226P1-6 PFC CS3 20B1107	26-Feb-20	17:51:42
9	9	200226P1-9	ST200226P1-7 PFC CS4 20B1108	26-Feb-20	18:02:12
10	10	200226P1-10	ST200226P1-8 PFC CS5 20B1109	26-Feb-20	18:12:43
11	11	200226P1-11	ST200226P1-9 PFC CS6 20B1110	26-Feb-20	18:23:12
12	12	200226P1-12	ST200226P1-10 PFC CS7 20B1111	26-Feb-20	18:33:43
13	13	200226P1-13	IB	26-Feb-20	18:44:12
14	14	200226P1-14	ICV200226P1-1 PFC ICV 20B1112	26-Feb-20	18:54:43
15	15	200226P1-15	IB	26-Feb-20	19:05:14

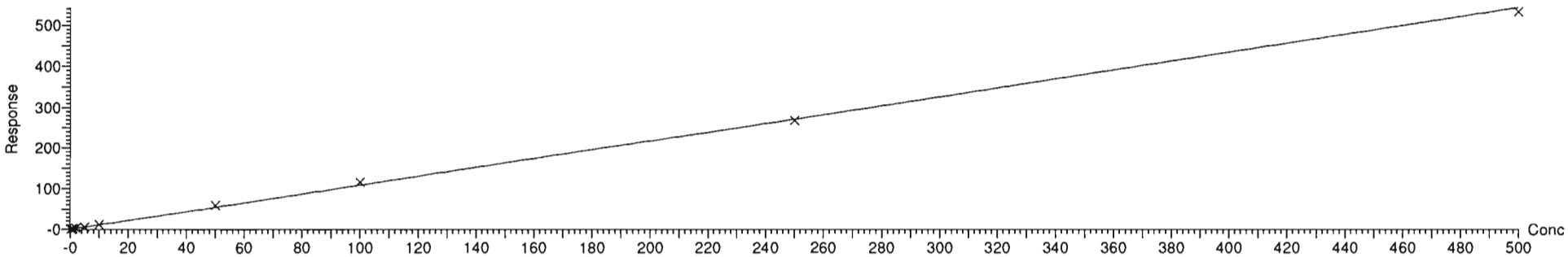
Vista Analytical Laboratory Q1

Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

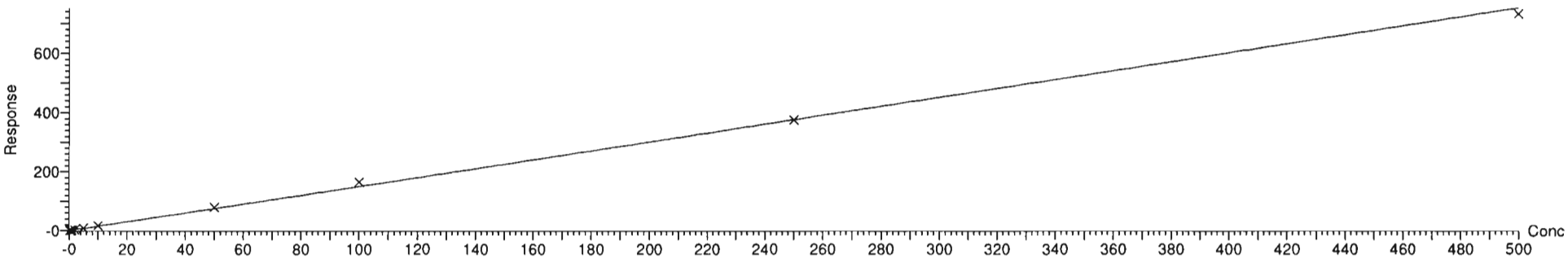
Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:52:29 Pacific Standard Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022620.mdb 26 Feb 2020 11:36:08
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-26-20.cdb 27 Feb 2020 09:28:59

Compound name: PFBA
Correlation coefficient: r = 0.999339, r^2 = 0.998678
Calibration curve: 1.08717 * x + 0.000349124
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



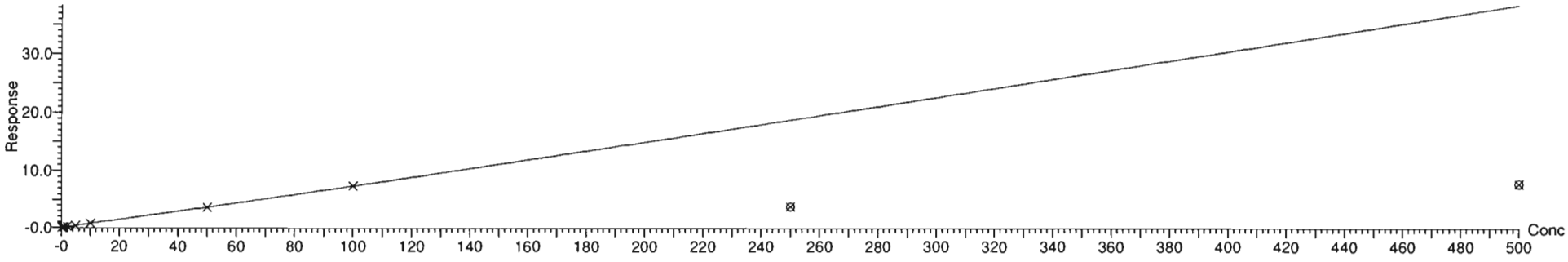
Compound name: PFPrS
Correlation coefficient: r = 0.998964, r^2 = 0.997928
Calibration curve: 1.50428 * x + 0.113873
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



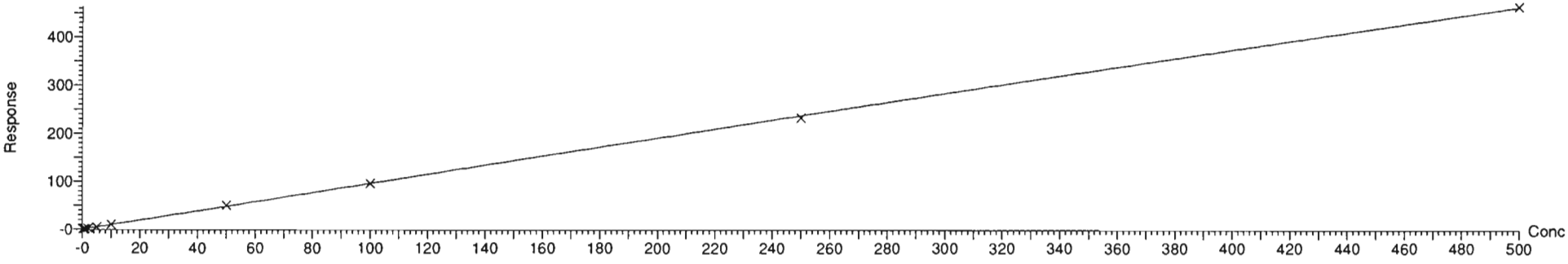
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Printed: Thursday, February 27, 2020 09:52:29 Pacific Standard Time

Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.999826
Calibration curve: 7.49325e-006 * x^2 + 0.0732042 * x + -0.00244075
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



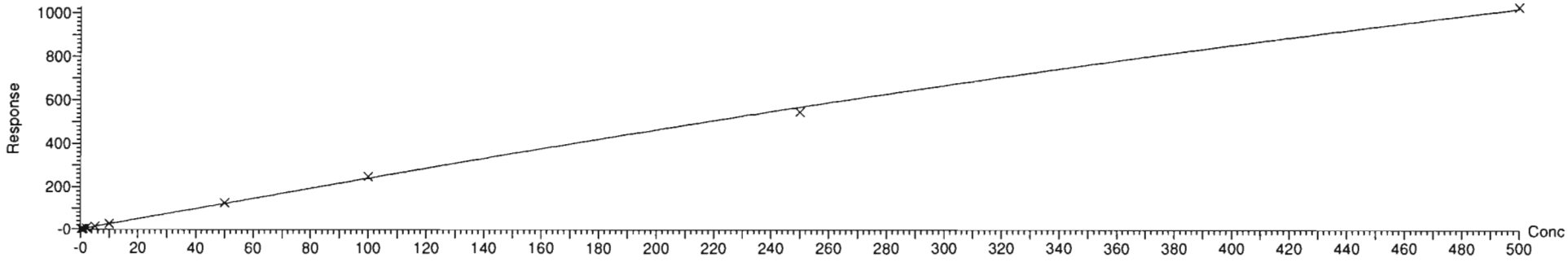
Compound name: PFPeA
Coefficient of Determination: R^2 = 0.999784
Calibration curve: -9.87753e-005 * x^2 + 0.974764 * x + 0.0156962
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



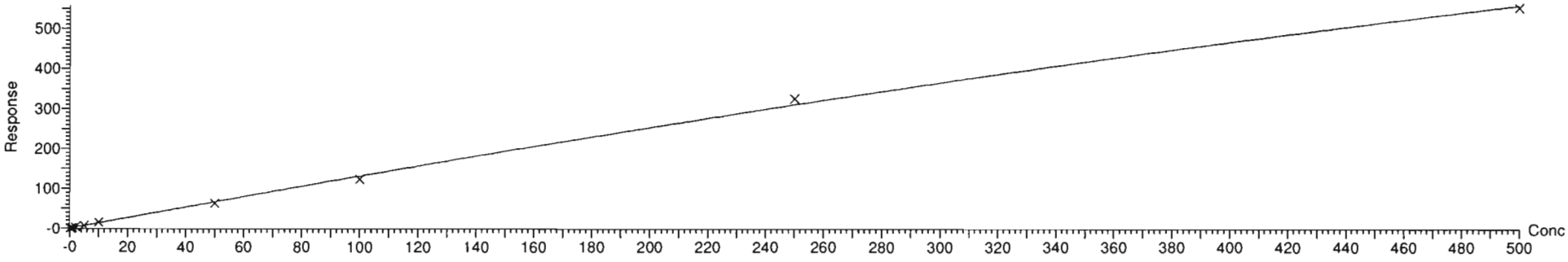
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Compound name: PFBS
Coefficient of Determination: R^2 = 0.999192
Calibration curve: -0.000935095 * x^2 + 2.51262 * x + -0.00995262
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



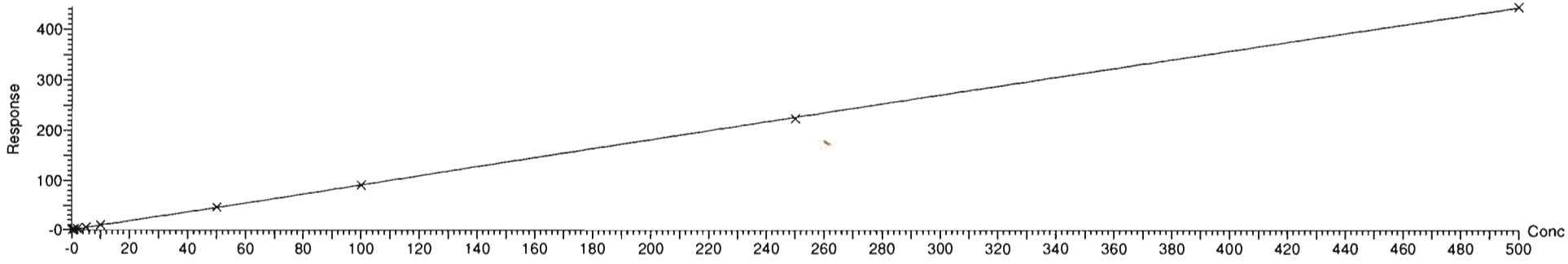
Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.998422
Calibration curve: -0.000498509 * x^2 + 1.36684 * x + -0.0660468
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



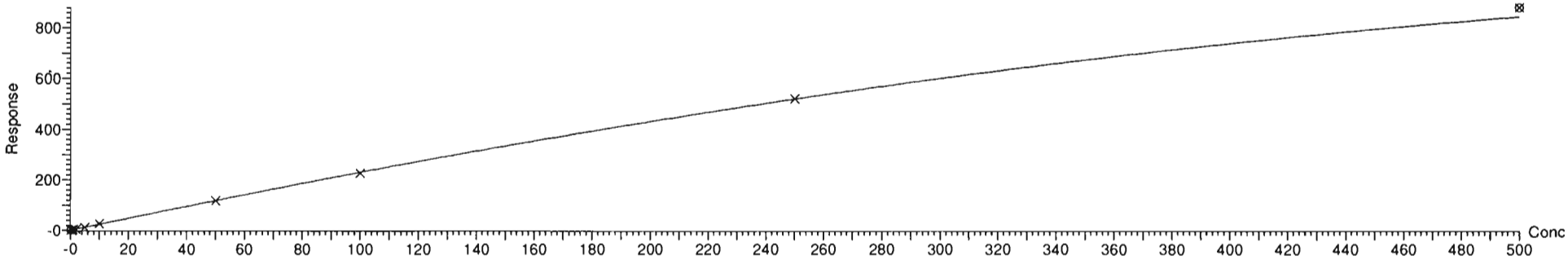
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Compound name: PFHxA
Coefficient of Determination: R^2 = 0.999690
Calibration curve: -7.81111e-005 * x^2 + 0.926549 * x + 0.0525548
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



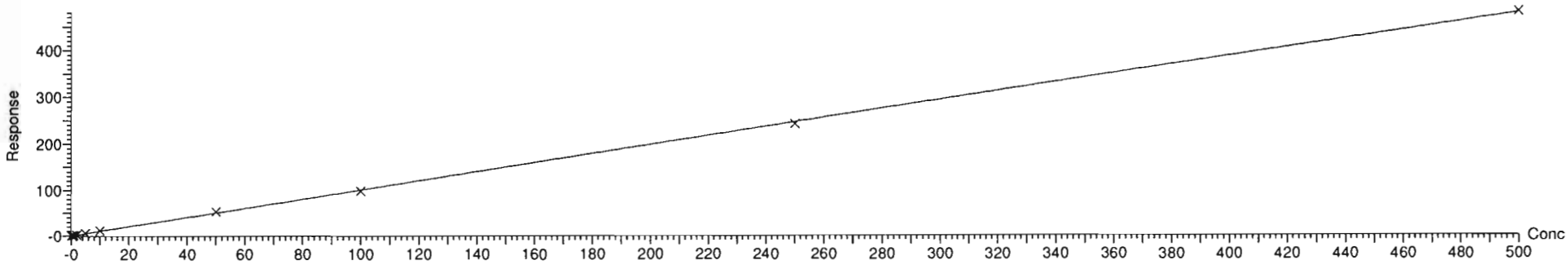
Compound name: PFPeS
Coefficient of Determination: R^2 = 0.999231
Calibration curve: -0.00156545 * x^2 + 2.47524 * x + -0.0893165
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



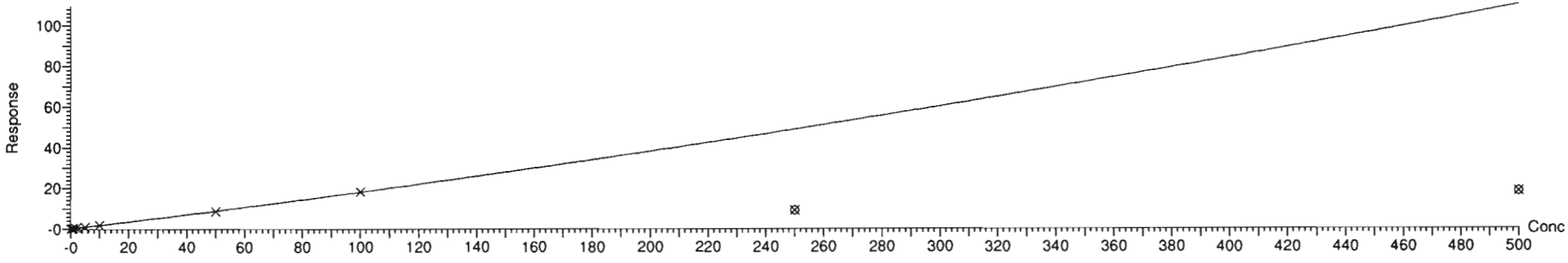
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Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.999468
Calibration curve: -0.000114399 * x^2 + 1.01445 * x + 0.0442659
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



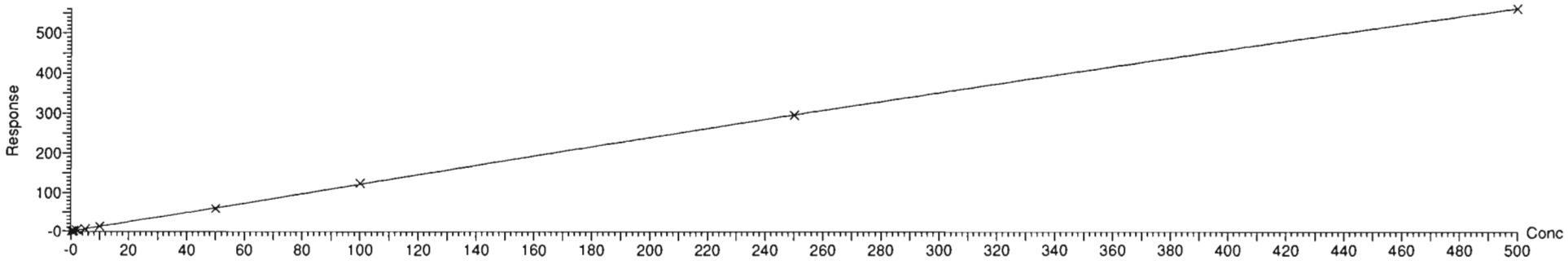
Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999423
Calibration curve: 9.80953e-005 * x^2 + 0.170689 * x + 0.013798
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



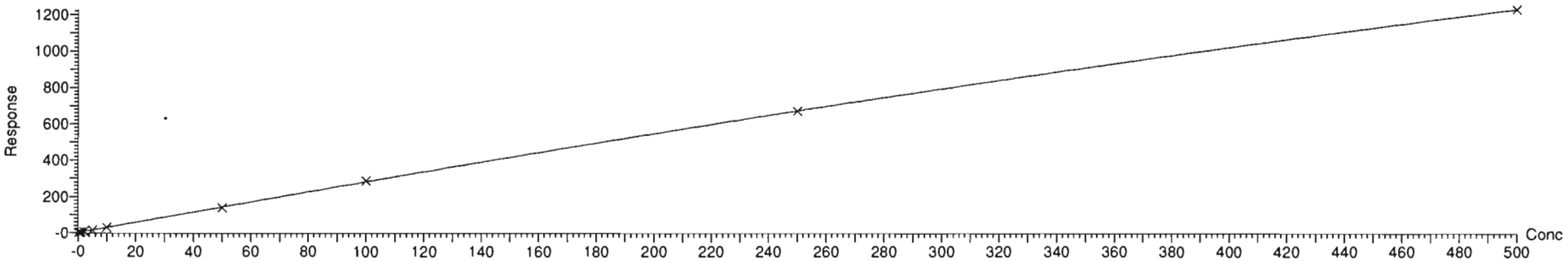
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Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999856
Calibration curve: -0.000239938 * x^2 + 1.24578 * x + 0.0519646
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
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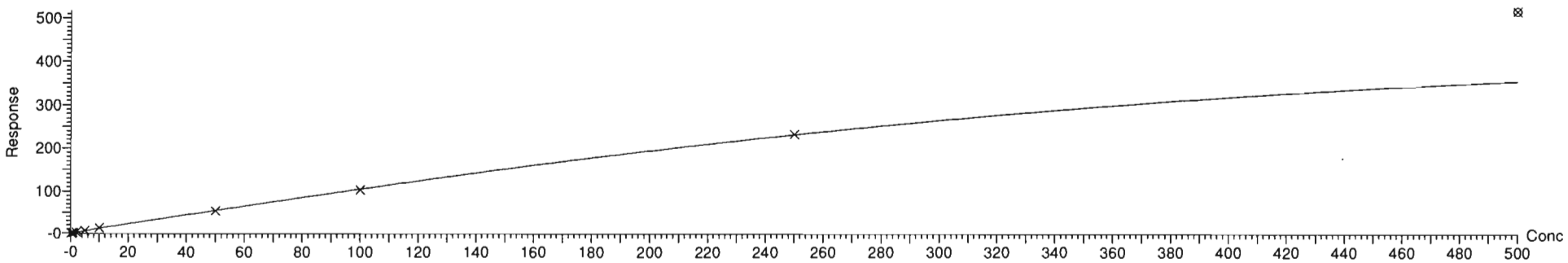
Compound name: ADONA
Coefficient of Determination: R^2 = 0.999916
Calibration curve: -0.000912242 * x^2 + 2.92006 * x + 0.139941
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



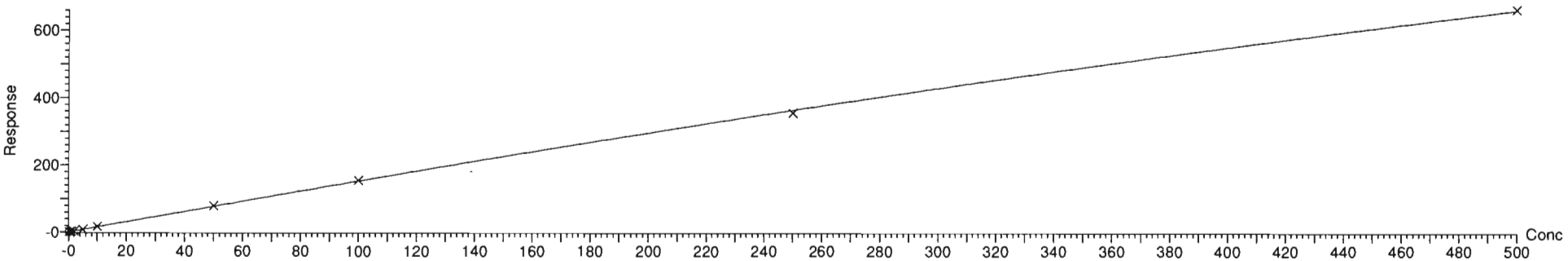
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Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.999160
Calibration curve: -0.000871883 * x^2 + 1.14828 * x + -0.0782219
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
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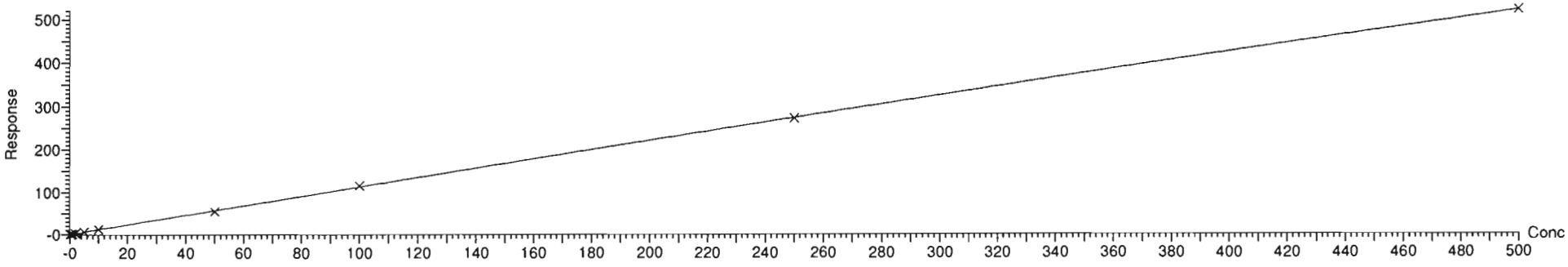
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.999490
Calibration curve: -0.00054644 * x^2 + 1.59373 * x + 0.328621
Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



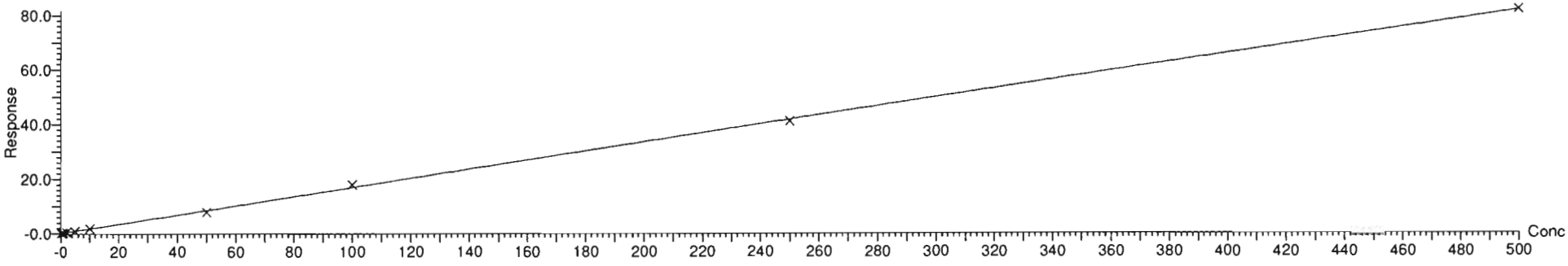
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Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999766
Calibration curve: -0.000209775 * x^2 + 1.14636 * x + 0.120191
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



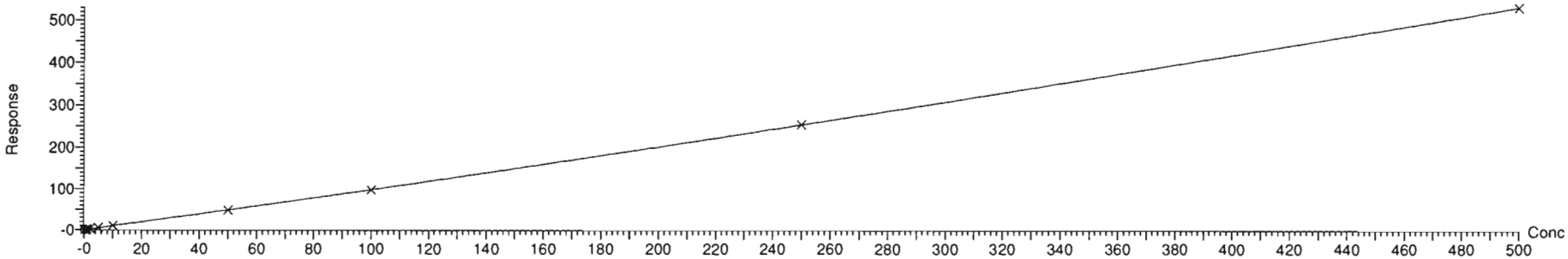
Compound name: PFecHS
Coefficient of Determination: R^2 = 0.999124
Calibration curve: -1.51462e-005 * x^2 + 0.170978 * x + -0.00529494
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



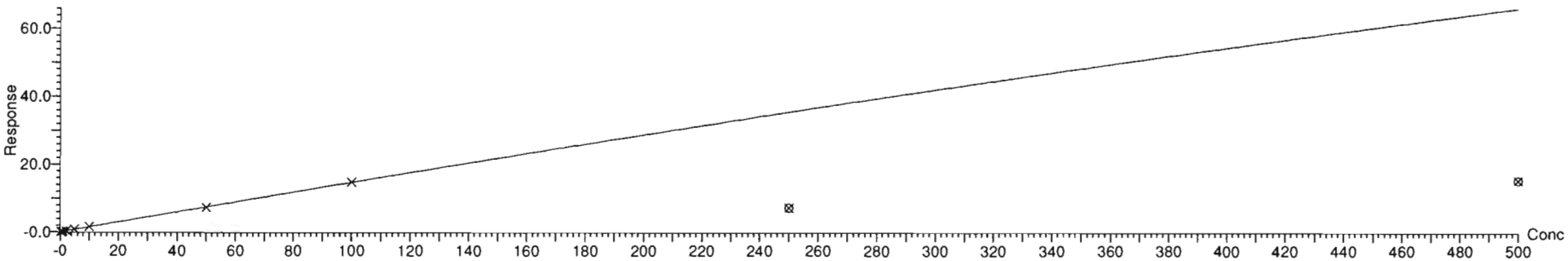
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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999917
Calibration curve: 0.000183998 * x^2 + 0.970731 * x + 0.09169
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



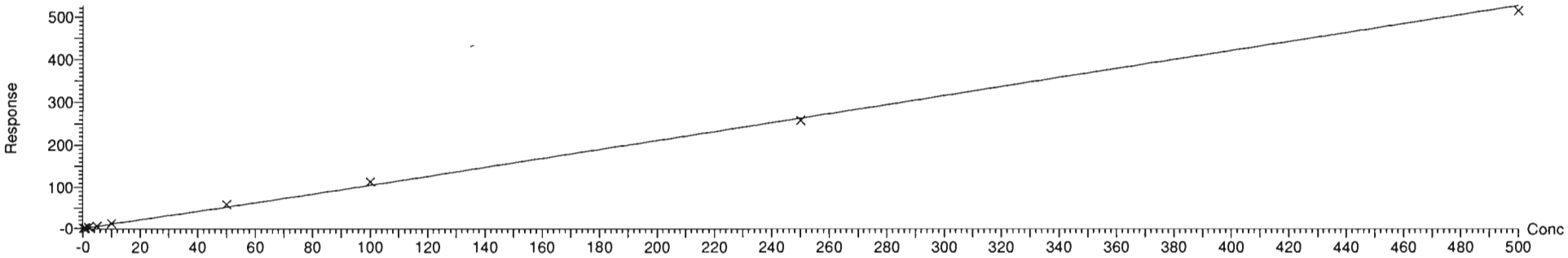
Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.999635
Calibration curve: -3.94839e-005 * x^2 + 0.151776 * x + -0.0116975
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



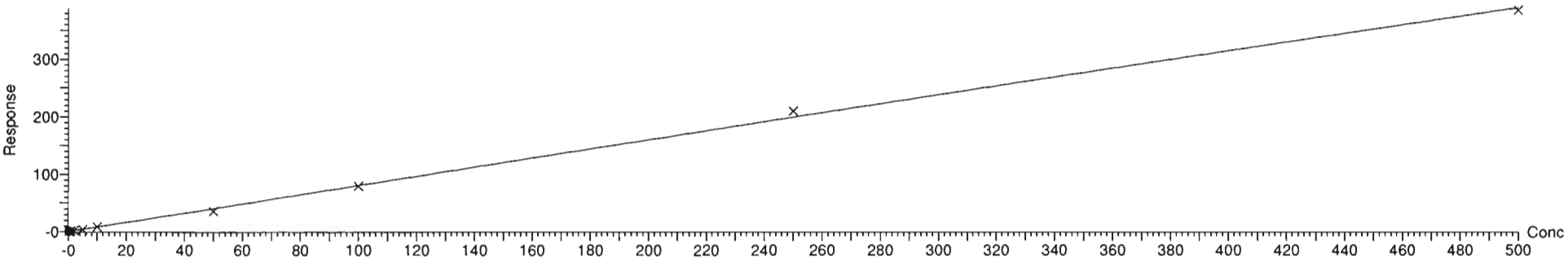
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Compound name: PFNA
Correlation coefficient: r = 0.998874, r^2 = 0.997750
Calibration curve: 1.05383 * x + 0.0908492
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



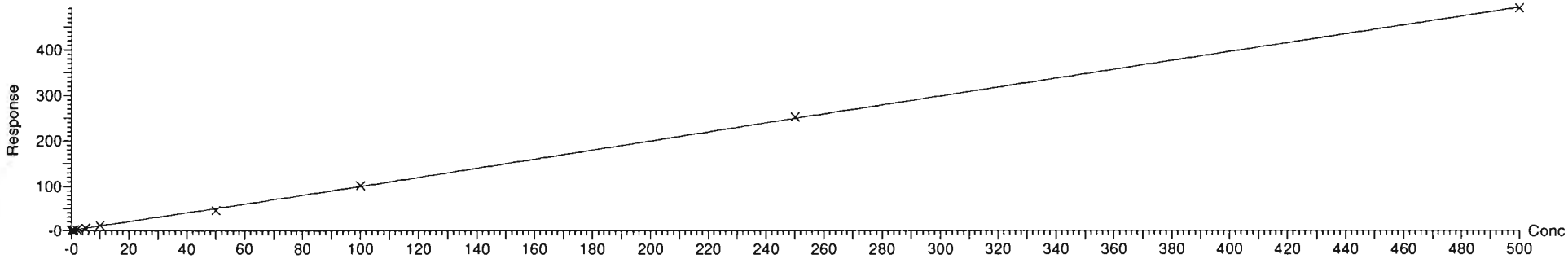
Compound name: PFOSA
Coefficient of Determination: R^2 = 0.998243
Calibration curve: -7.08767e-005 * x^2 + 0.814179 * x + 0.121209
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



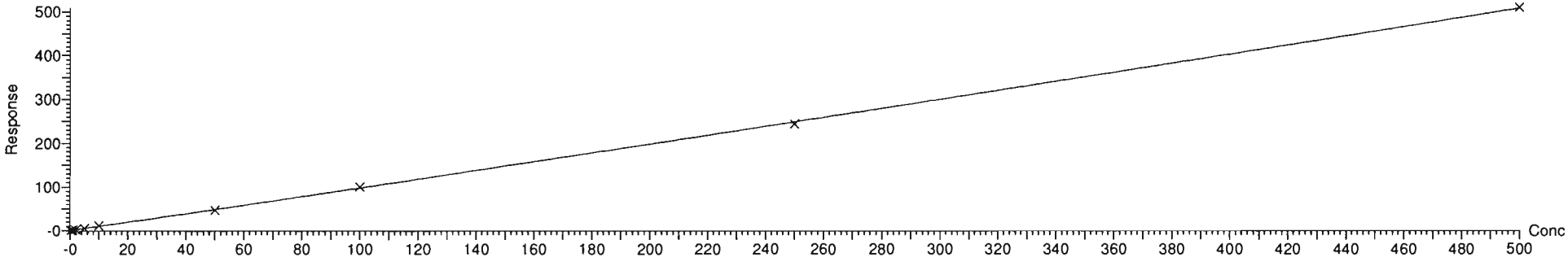
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Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999285
Calibration curve: -4.2461e-005 * x^2 + 1.00728 * x + -0.00488973
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



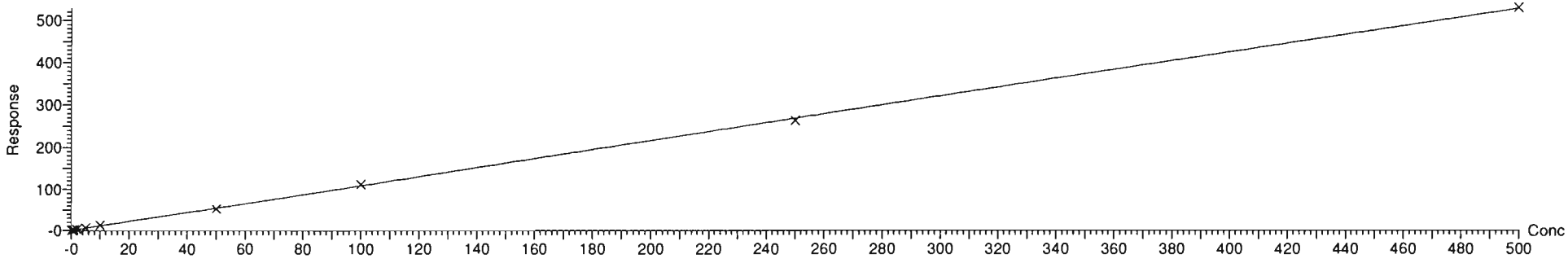
Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.999526
Calibration curve: 8.05043e-005 * x^2 + 0.974955 * x + 0.0140678
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



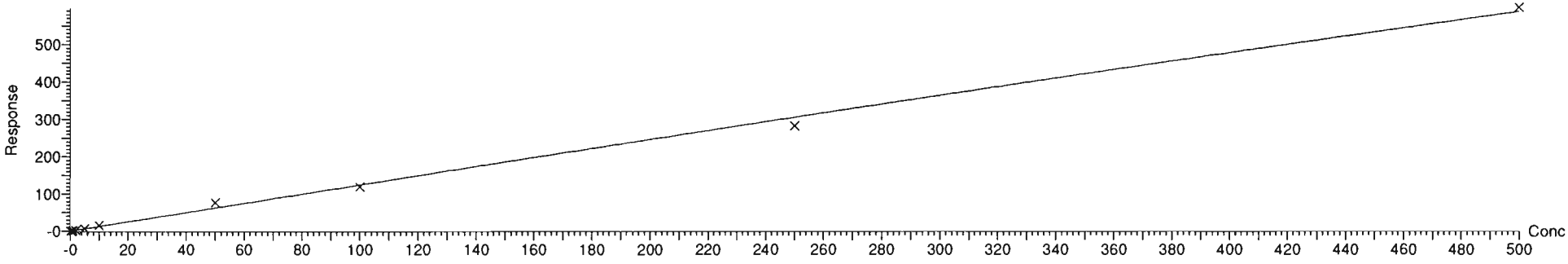
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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999420
Calibration curve: -8.16212e-005 * x^2 + 1.09544 * x + 0.0707672
Response type: Internal Std (Ref 73), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.994169
Calibration curve: -0.000185953 * x^2 + 1.2689 * x + -0.110466
Response type: Internal Std (Ref 75), Area * (IS Conc. / IS Area)
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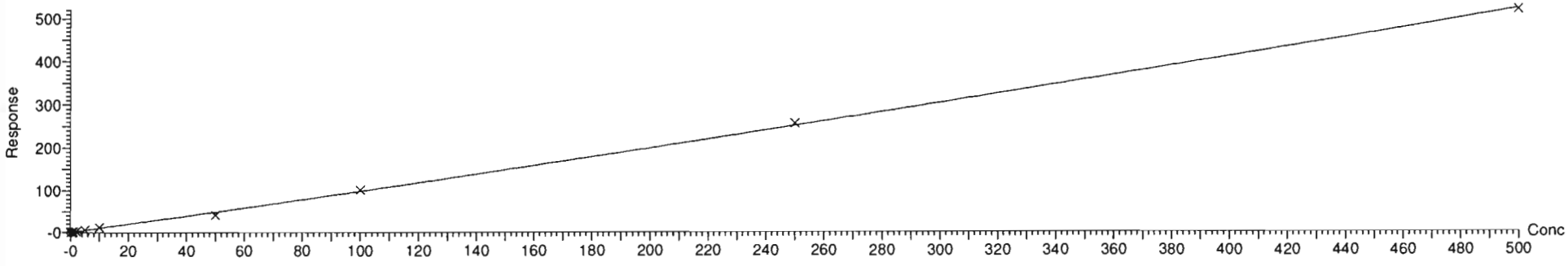


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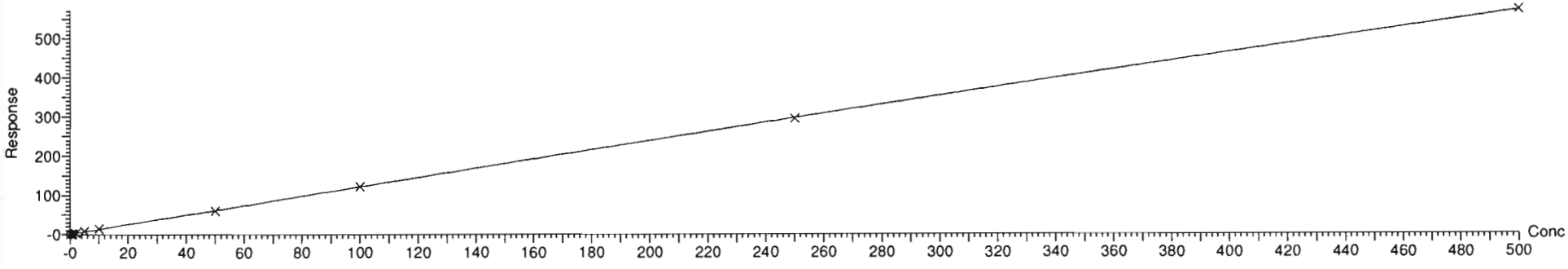
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Compound name: PFNS
Coefficient of Determination: R^2 = 0.998441
Calibration curve: 0.000167105 * x^2 + 0.95941 * x + 0.168307
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.999456
Calibration curve: -0.000172774 * x^2 + 1.22673 * x + 0.215642
Response type: Internal Std (Ref 77), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



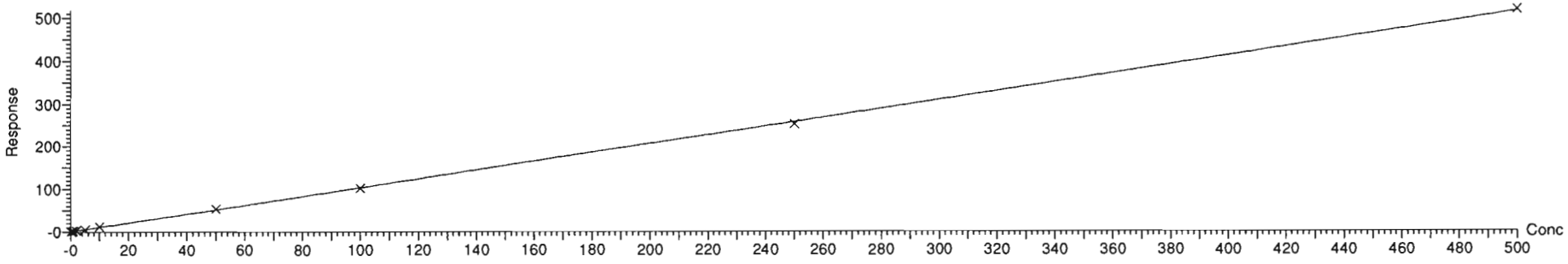
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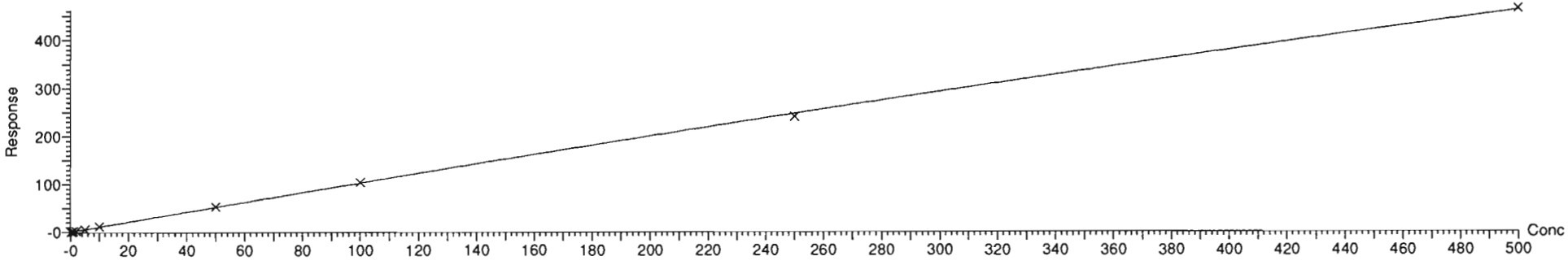
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Compound name: L-EtFOSAA
Correlation coefficient: r = 0.999779, r^2 = 0.999559
Calibration curve: 1.031 * x + 0.0258793
Response type: Internal Std (Ref 81), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



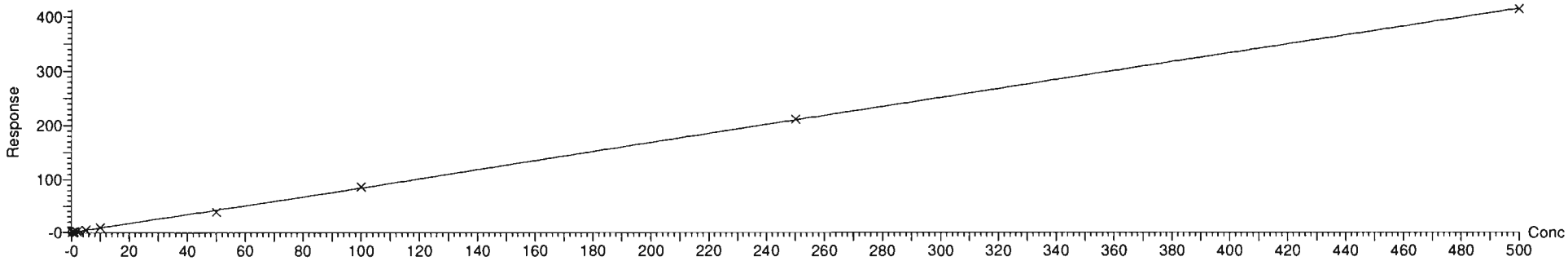
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999581
Calibration curve: -0.000267739 * x^2 + 1.05488 * x + 0.0198596
Response type: Internal Std (Ref 79), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



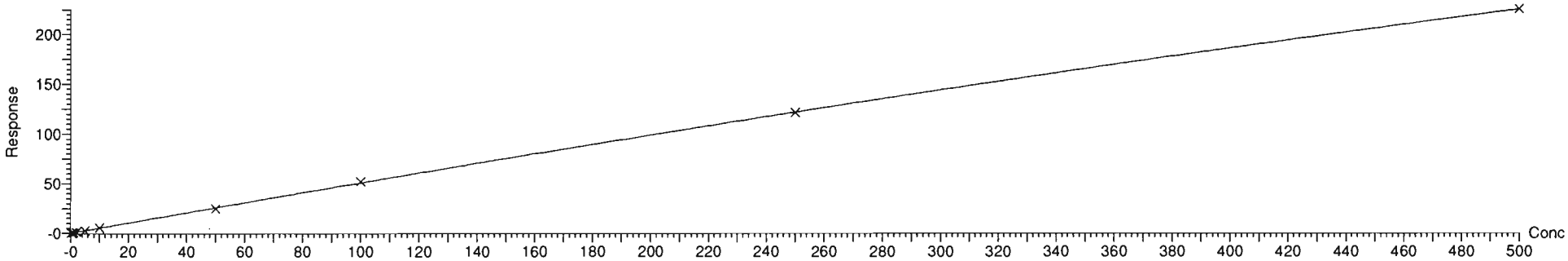
Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:53:23 Pacific Standard Time

Compound name: PFDS
Coefficient of Determination: R^2 = 0.999466
Calibration curve: -4.04898e-005 * x^2 + 0.848979 * x + 0.00377623
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



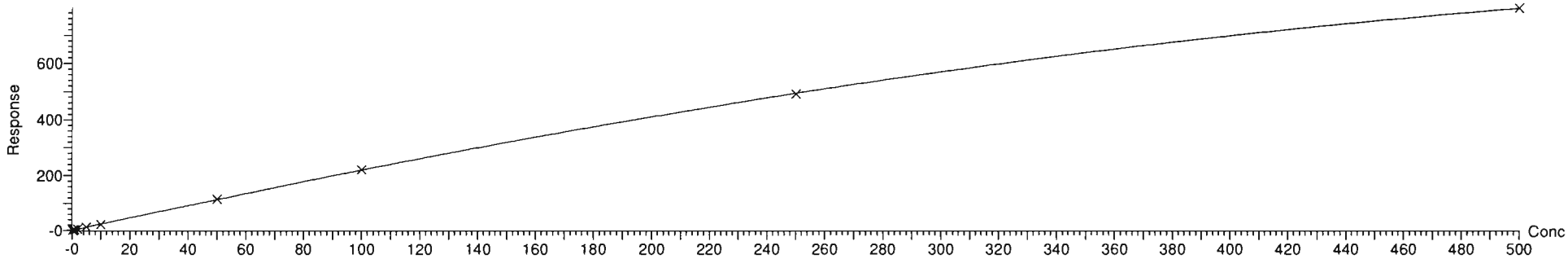
Compound name: 11Cl-PF30UdS
Coefficient of Determination: R^2 = 0.999863
Calibration curve: -0.00014666 * x^2 + 0.523301 * x + -0.00222767
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



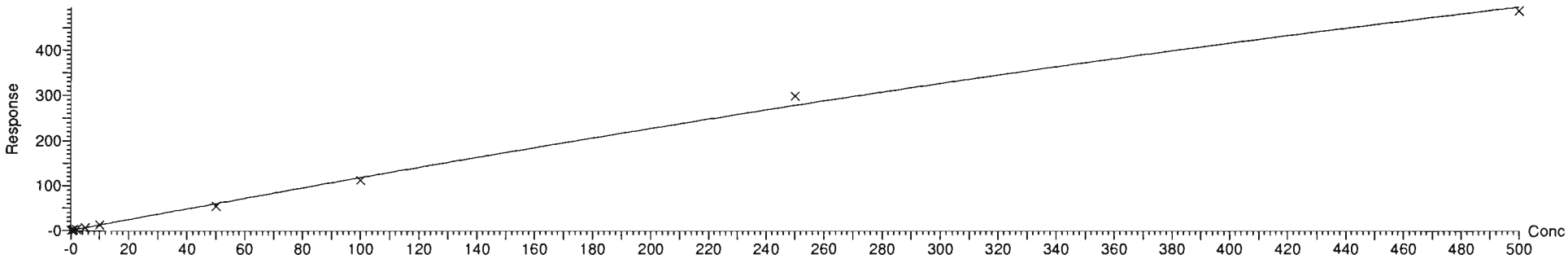
Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:53:23 Pacific Standard Time

Compound name: 10:2 FTS
Coefficient of Determination: R^2 = 0.999790
Calibration curve: -0.00152805 * x^2 + 2.36021 * x + 0.136698
Response type: Internal Std (Ref 85), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



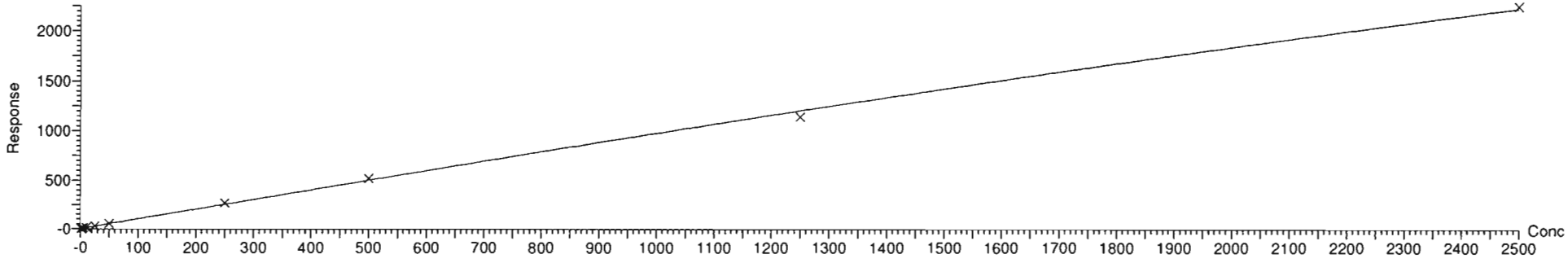
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.997130
Calibration curve: -0.000475915 * x^2 + 1.2307 * x + -0.0179842
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



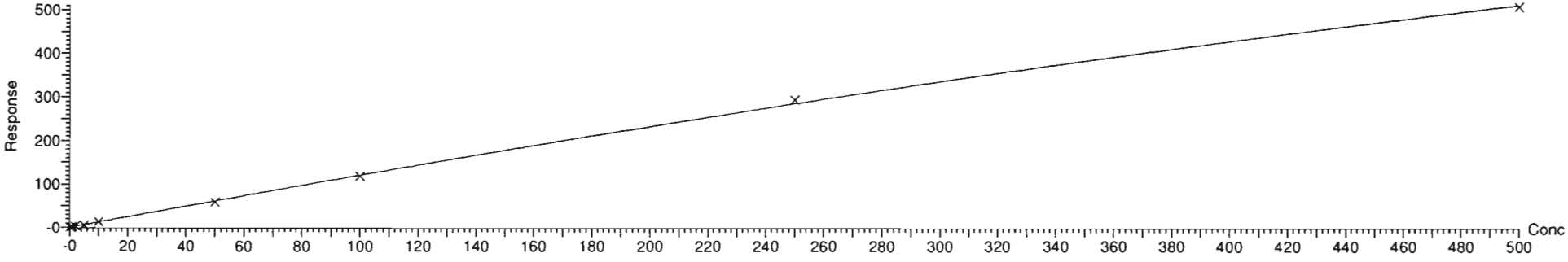
Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:53:23 Pacific Standard Time

Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.998681
Calibration curve: -5.94168e-005 * x^2 + 1.03954 * x + 0.305369
Response type: Internal Std (Ref 87), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



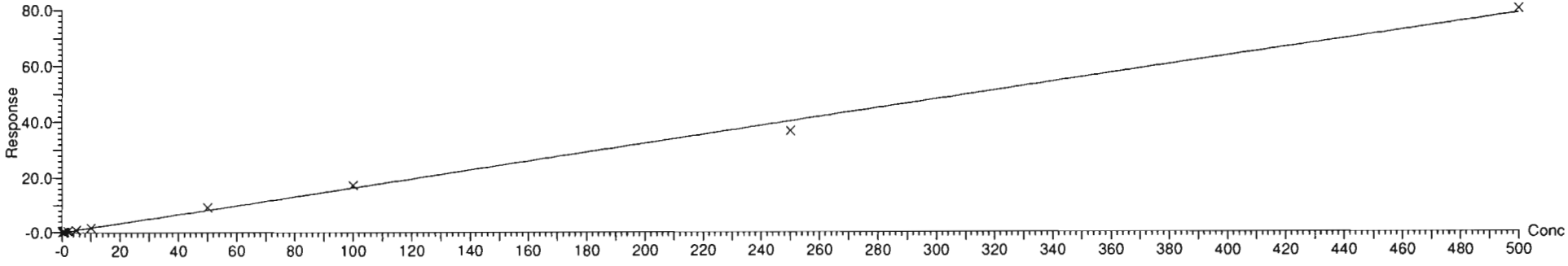
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999381
Calibration curve: -0.000469238 * x^2 + 1.25966 * x + 0.0564309
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



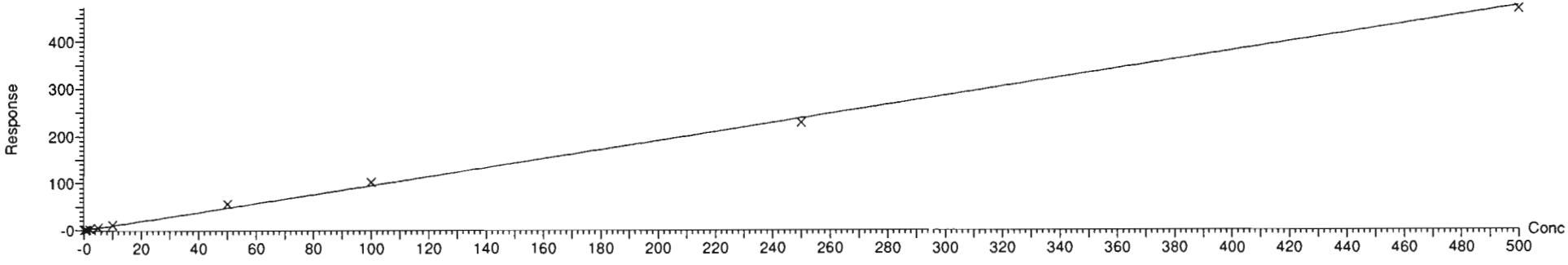
Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:53:23 Pacific Standard Time

Compound name: PFDoS
Coefficient of Determination: R^2 = 0.996197
Calibration curve: -1.29293e-005 * x^2 + 0.163876 * x + 0.00637093
Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



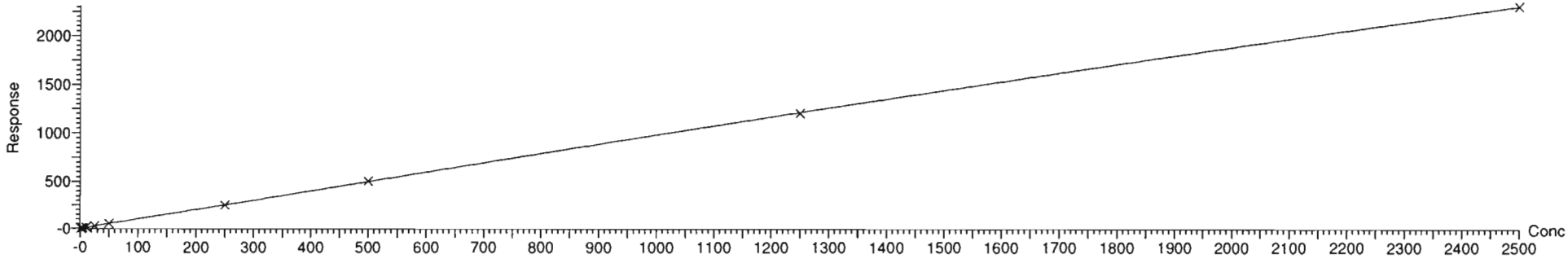
Compound name: PFTeDA
Correlation coefficient: r = 0.998409, r^2 = 0.996820
Calibration curve: 0.949597 * x + 0.133795
Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



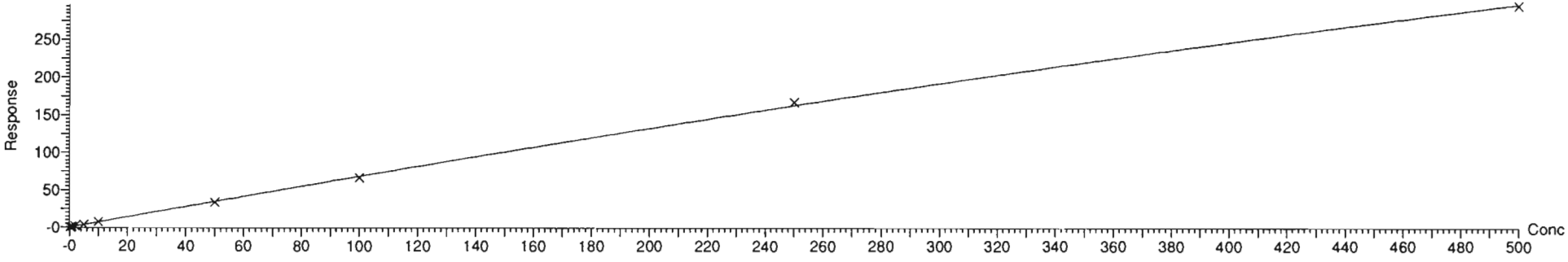
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Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:53:23 Pacific Standard Time

Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999959
Calibration curve: -3.98498e-005 * x^2 + 1.02339 * x + 0.489956
Response type: Internal Std (Ref 91), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



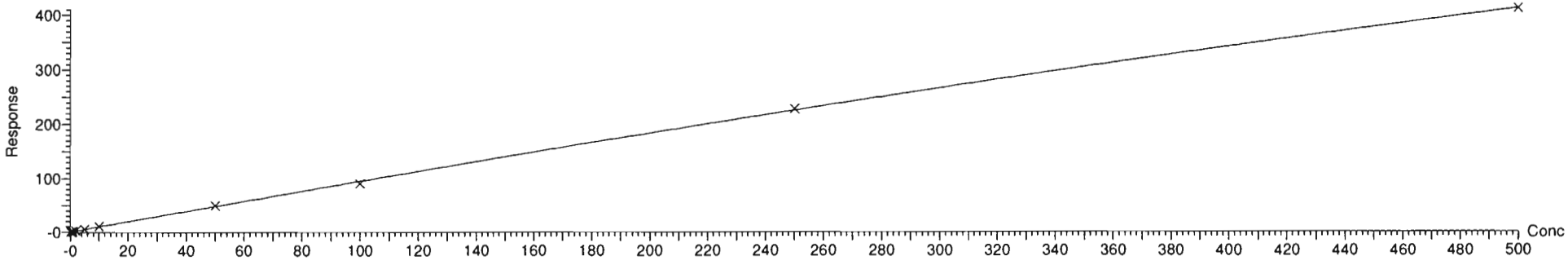
Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999555
Calibration curve: -0.000224596 * x^2 + 0.706375 * x + 0.110122
Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



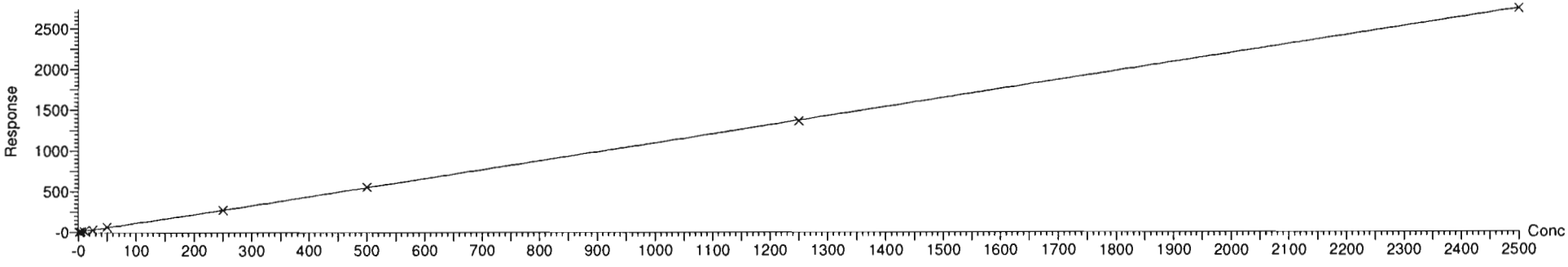
Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:53:23 Pacific Standard Time

Compound name: PFODA
Coefficient of Determination: R^2 = 0.999545
Calibration curve: -0.000309559 * x^2 + 0.978767 * x + 0.0270046
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 = 0.999919, r^2 = 0.999839
Calibration curve: 1.09622 * x + 0.439908
Response type: Internal Std (Ref 95), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

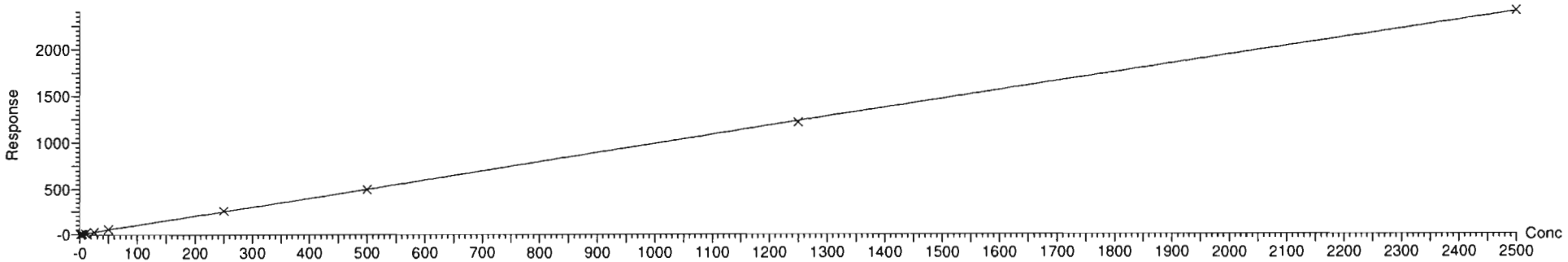


Vista Analytical Laboratory Q1

Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-CRV.qld

Last Altered: Thursday, February 27, 2020 09:28:59 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:53:23 Pacific Standard Time

Compound name: N-EtFOSE
Coefficient of Determination: R^2 = 0.999812
Calibration curve: -2.01665e-005 * x^2 + 1.00895 * x + 0.285073
Response type: Internal Std (Ref 97), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory

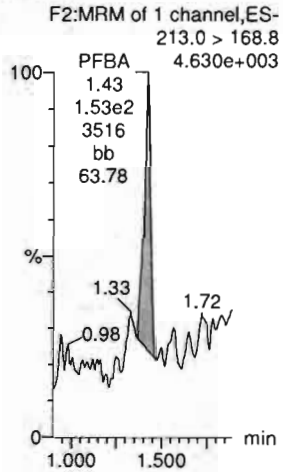
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Last Altered: Thursday, February 27, 2020 08:34:02 Pacific Standard Time
Printed: Thursday, February 27, 2020 08:34:37 Pacific Standard Time

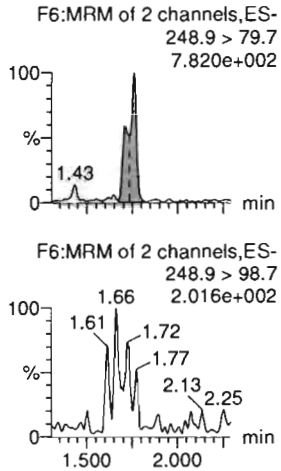
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Calibration: 27 Feb 2020 08:34:02

Name: 200226P1-3, Date: 26-Feb-2020, Time: 16:59:08, ID: ST200226P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

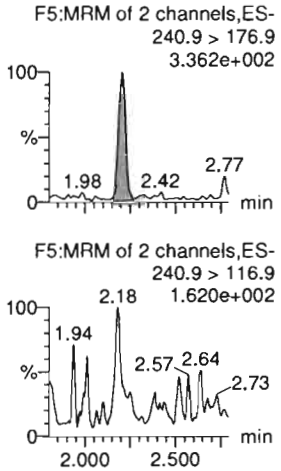
PFBA



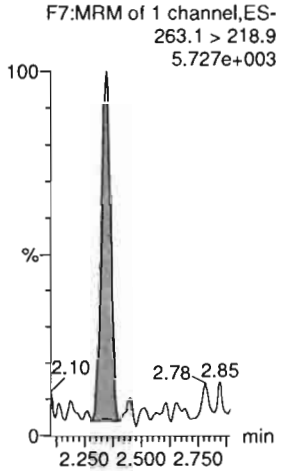
PFPrS



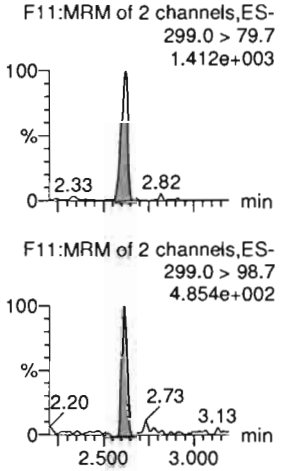
3:3 FTCA



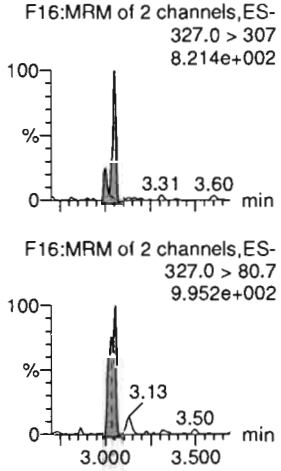
PFPeA



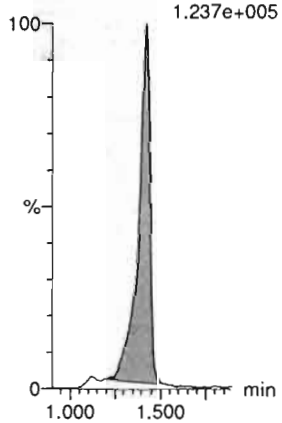
PFBS



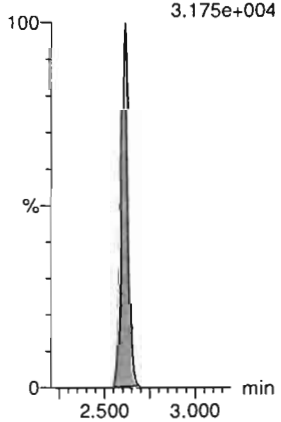
4:2 FTS



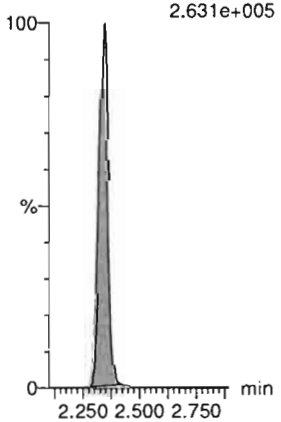
13C3-PFBA-EIS



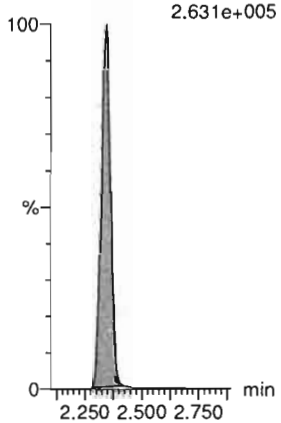
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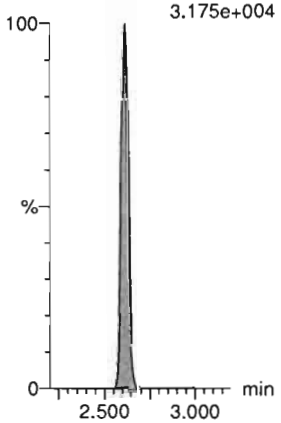
13C3-PFPeA-EIS



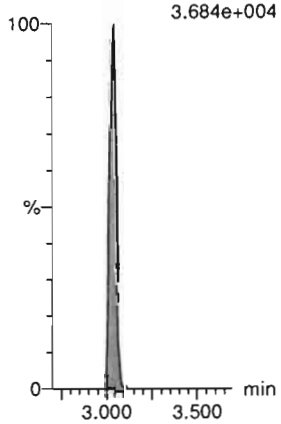
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS

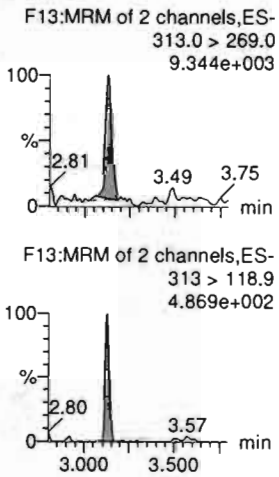


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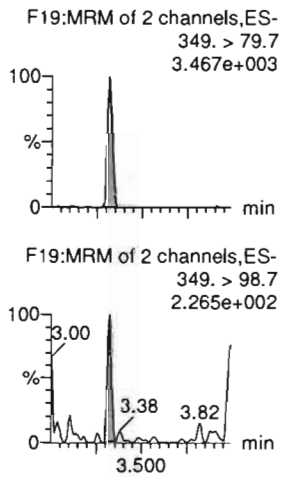
Last Altered: Thursday, February 27, 2020 08:34:02 Pacific Standard Time
Printed: Thursday, February 27, 2020 08:34:37 Pacific Standard Time

Name: 200226P1-3, Date: 26-Feb-2020, Time: 16:59:08, ID: ST200226P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

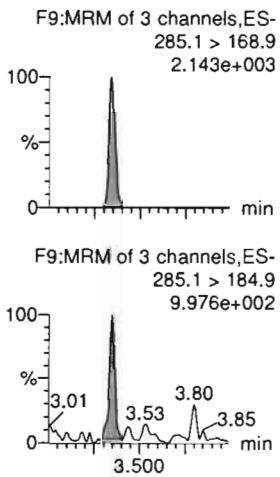
PFHxA



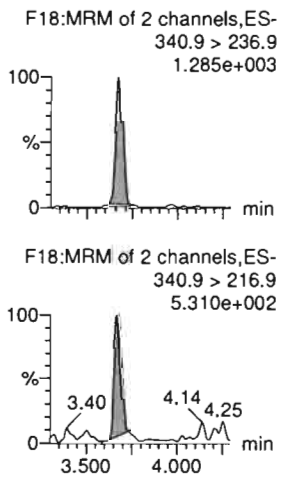
PFPeS



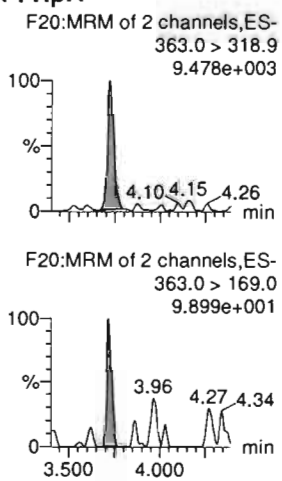
HFPO-DA



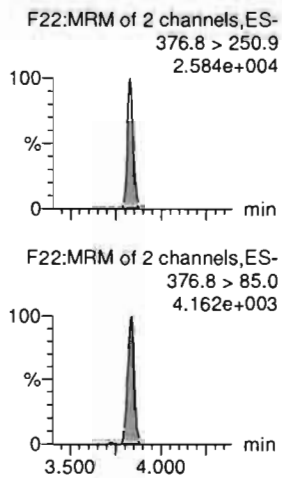
5:3 FTCA



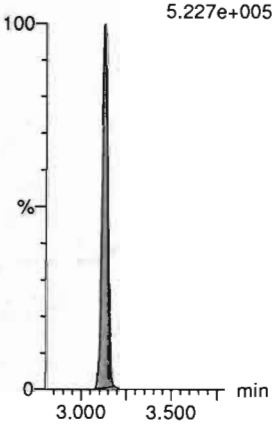
PFHpA



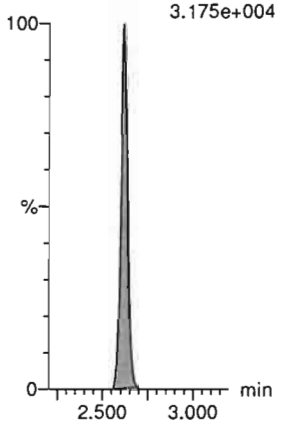
ADONA



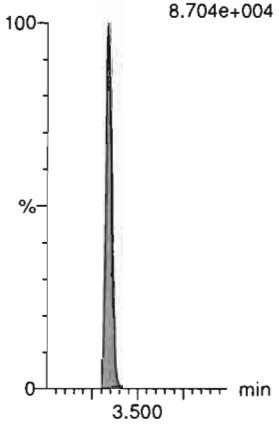
13C2-PFHxA-EIS



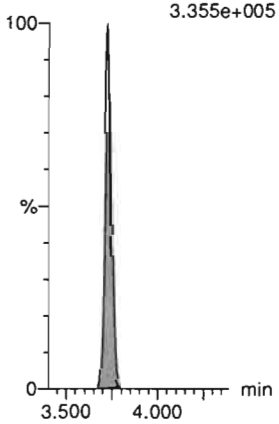
13C3-PFBS-EIS



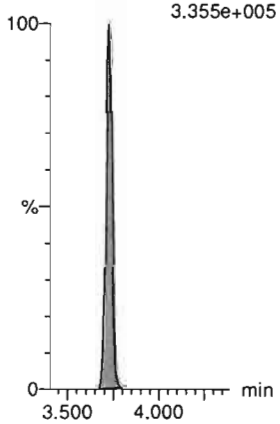
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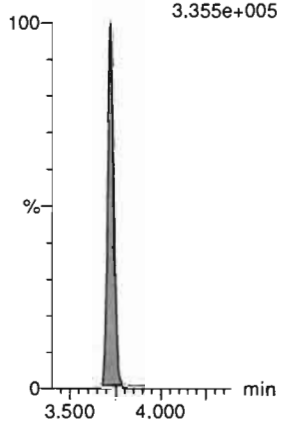
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

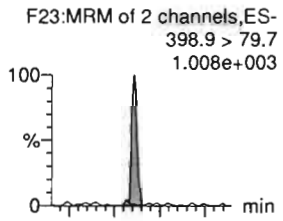


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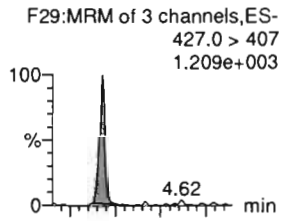
Last Altered: Thursday, February 27, 2020 09:00:50 Pacific Standard Time
Printed: Thursday, February 27, 2020 09:01:25 Pacific Standard Time

Name: 200226P1-3, Date: 26-Feb-2020, Time: 16:59:08, ID: ST200226P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

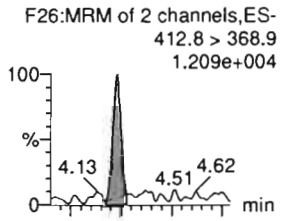
L-PFHxS



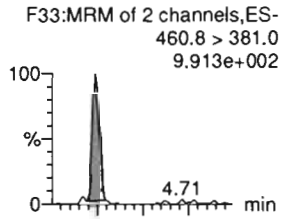
6:2 FTS



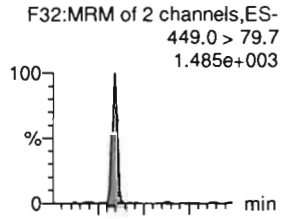
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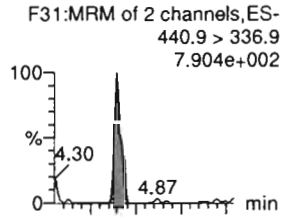
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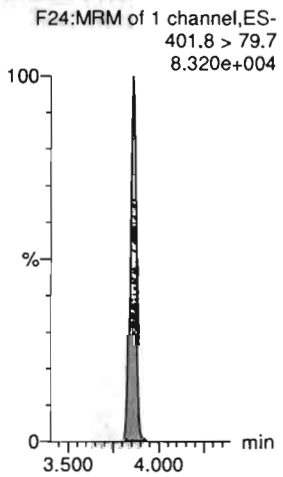
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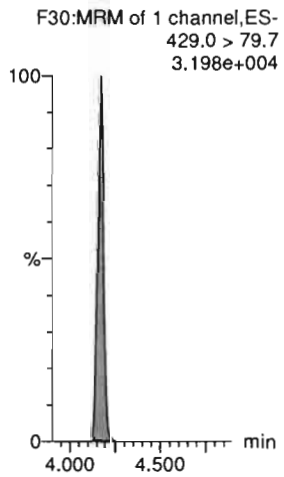
7:3 FTCA



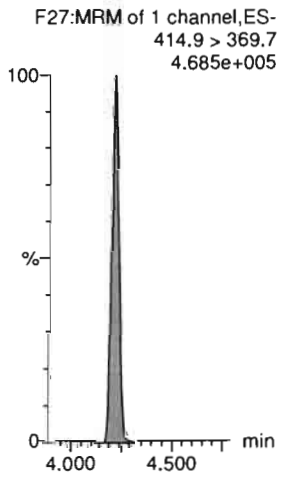
13C3-PFHxS-EIS



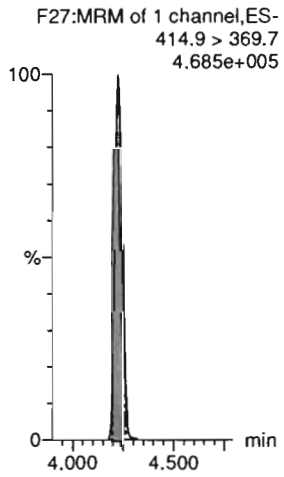
13C2-6:2 FTS-EIS



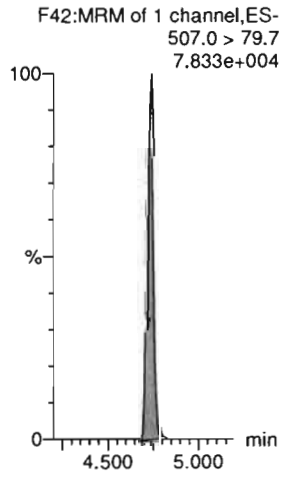
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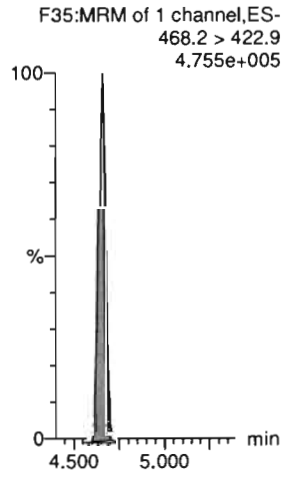
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13C8-PFOS-EIS



13C5-PFNA-EIS

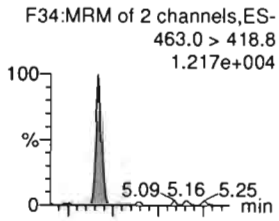


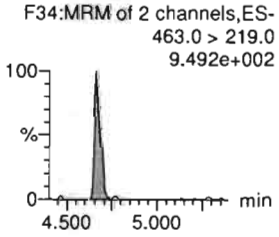
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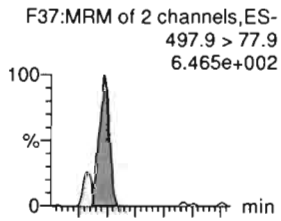
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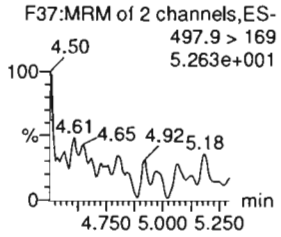
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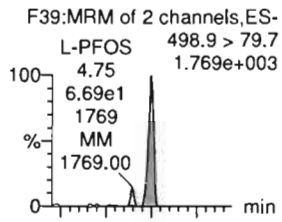


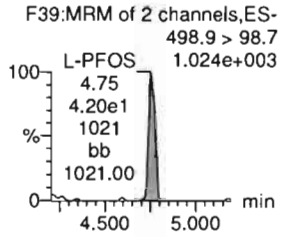
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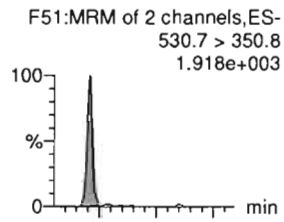


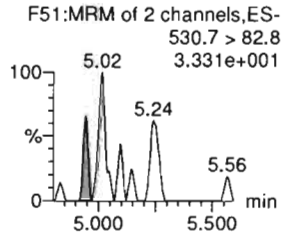
L-PFOS



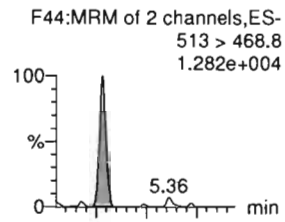


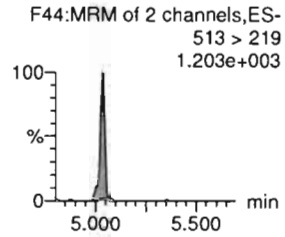
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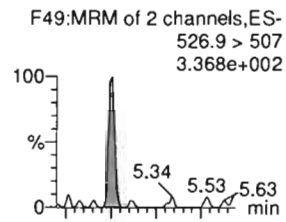


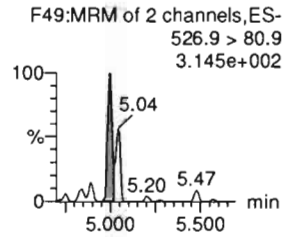
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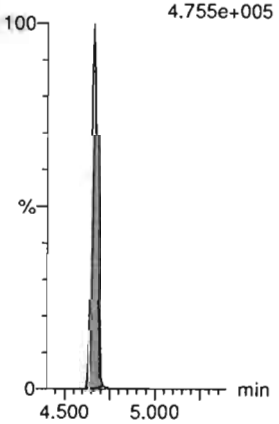


8:2 FTS

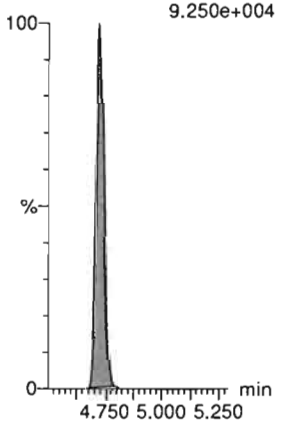




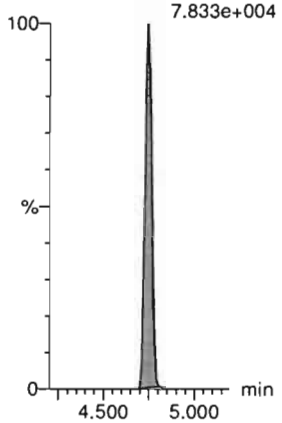
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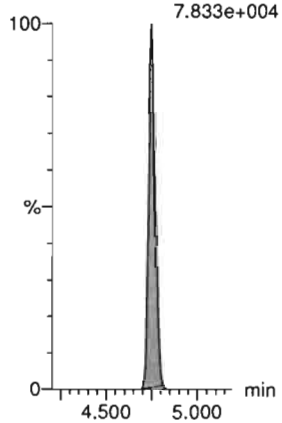
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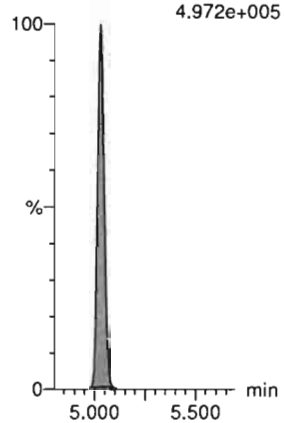
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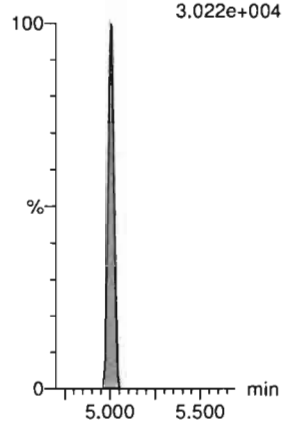
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

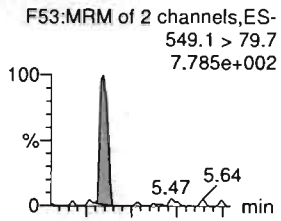


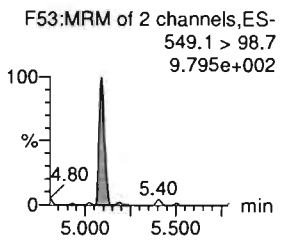
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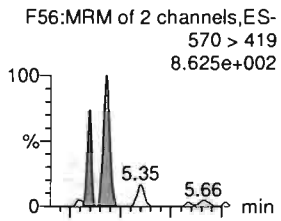
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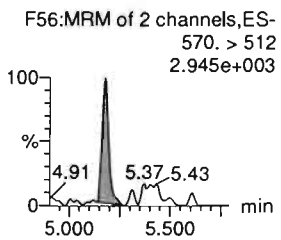
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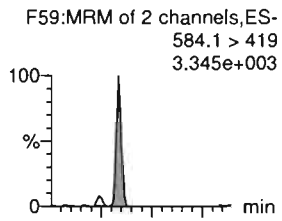


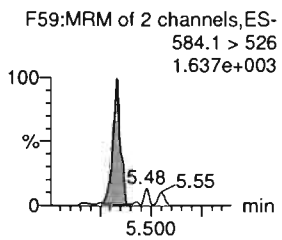
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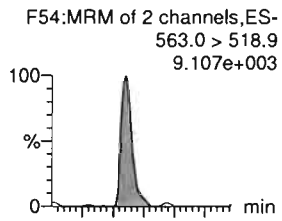


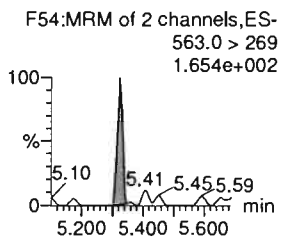
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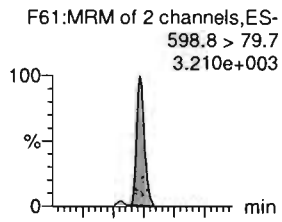


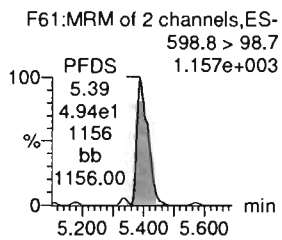
PFUdA



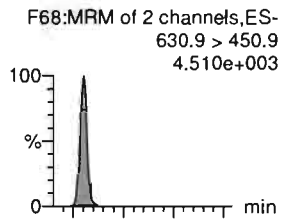


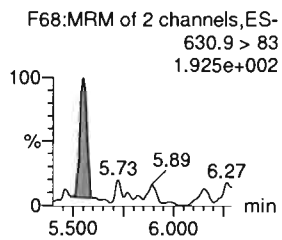
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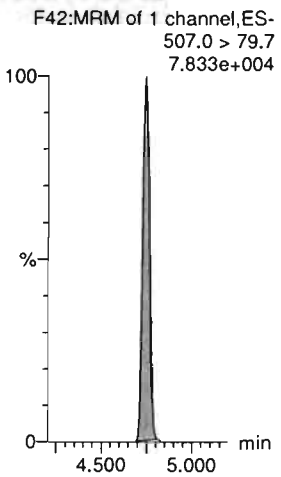


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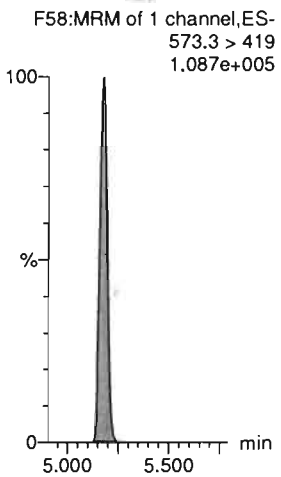




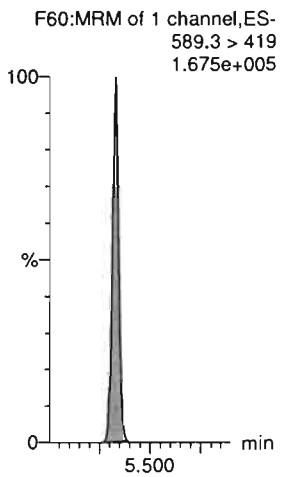
13C8-PFOS-EIS



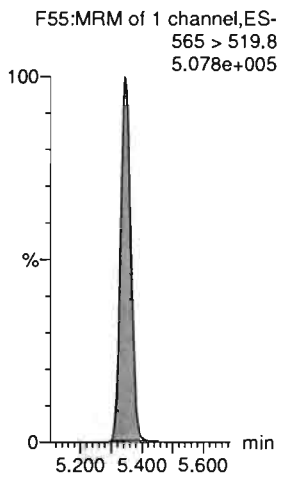
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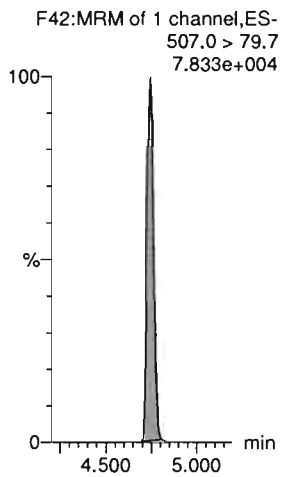
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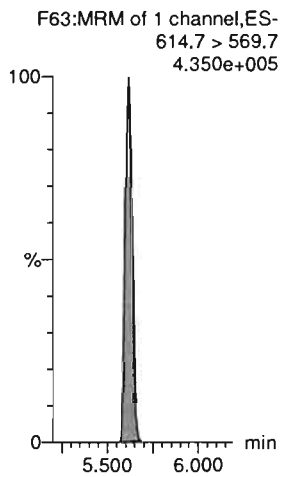
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13C8-PFOS-EIS



13C2-PFDoA-EIS

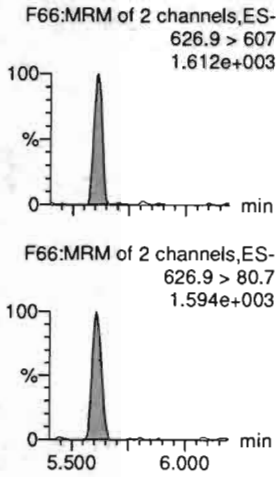


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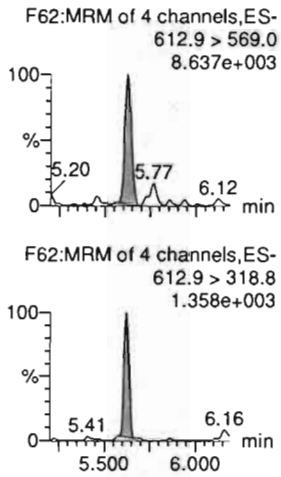
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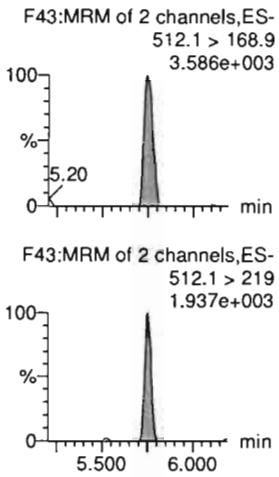
10:2 FTS



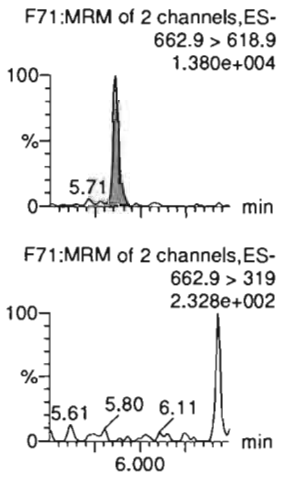
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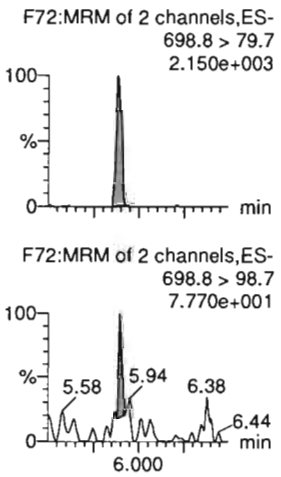
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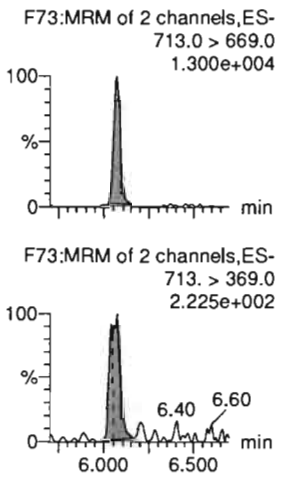
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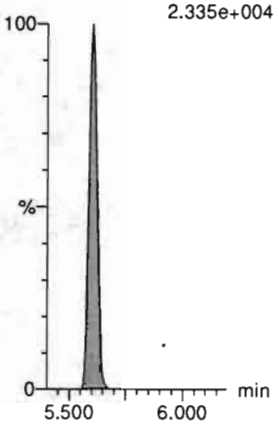
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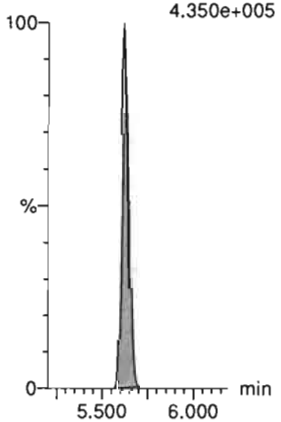
PFTeDA



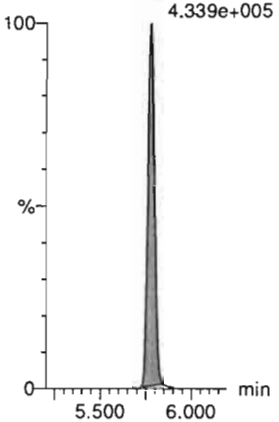
13C2-10:2 FTS-EIS



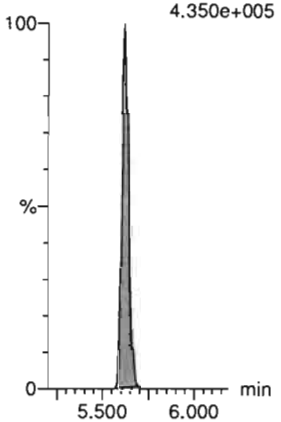
13C2-PFDoA-EIS



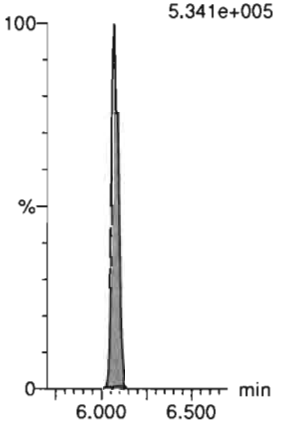
d3-N-MeFOSA-EIS



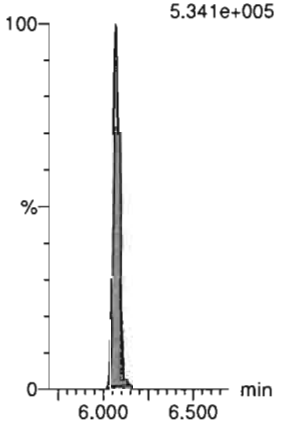
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

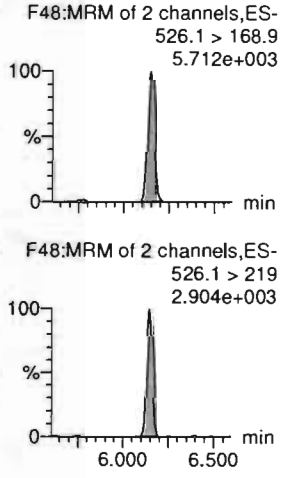


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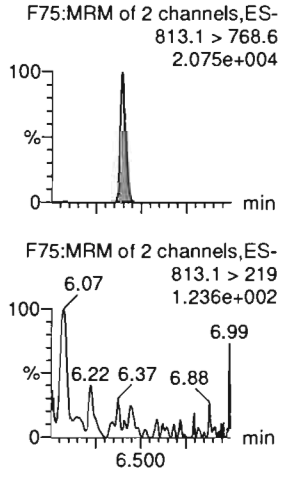
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Name: 200226P1-3, Date: 26-Feb-2020, Time: 16:59:08, ID: ST200226P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

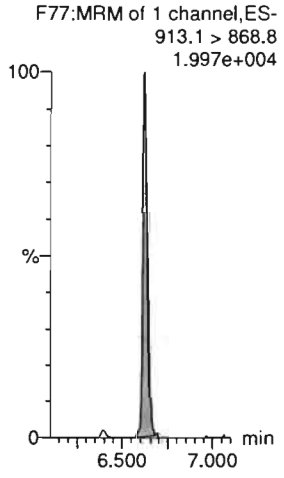
N-EtFOSA



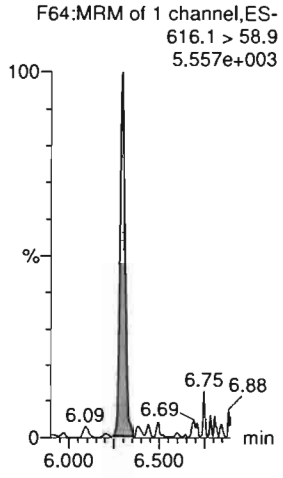
PFHxDA



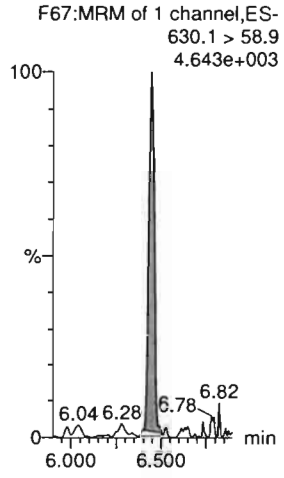
PFODA



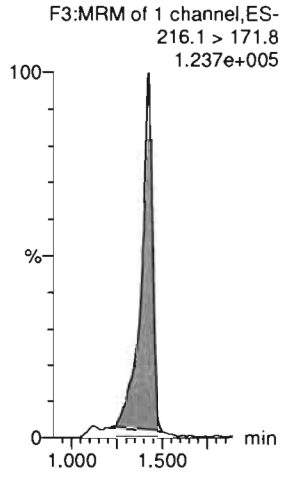
N-MeFOSE



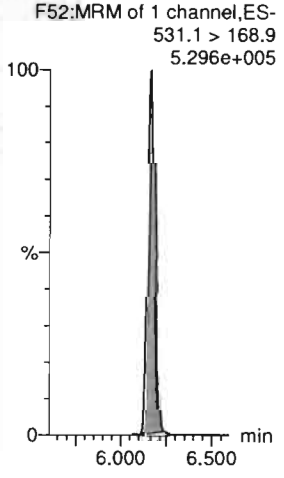
N-EtFOSE



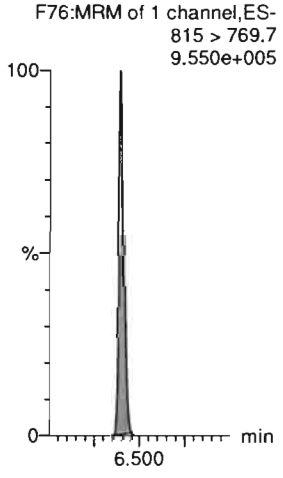
13C3-PFBA-RSD



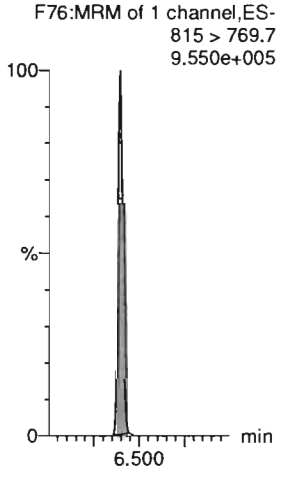
d5-N-ETFOSA-EIS



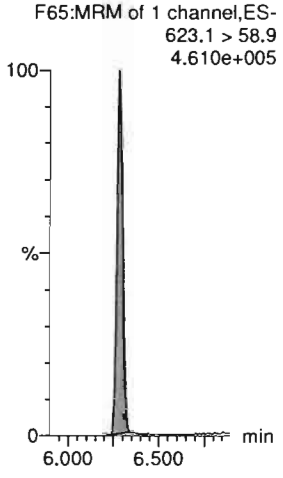
13C2-PFHxDA-EIS



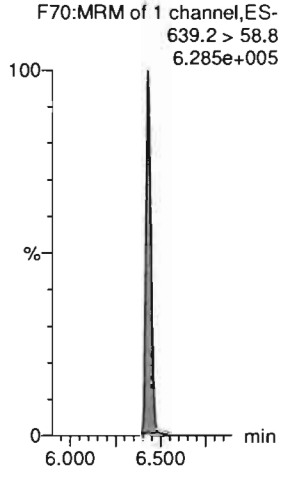
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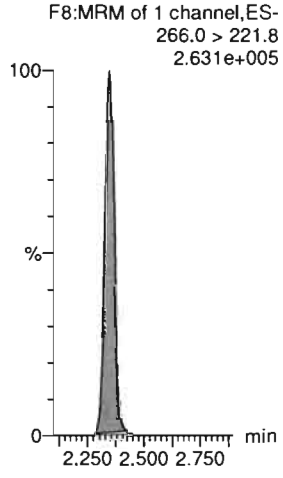
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

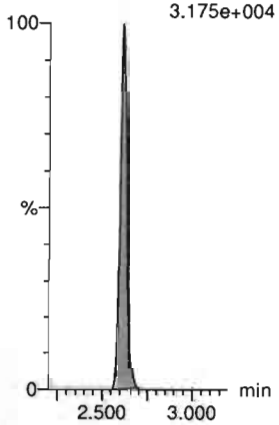


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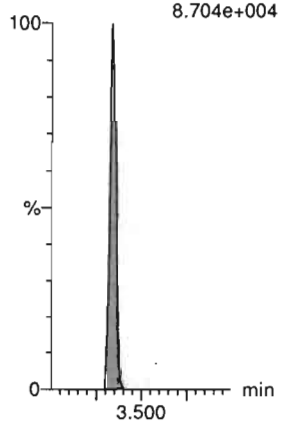
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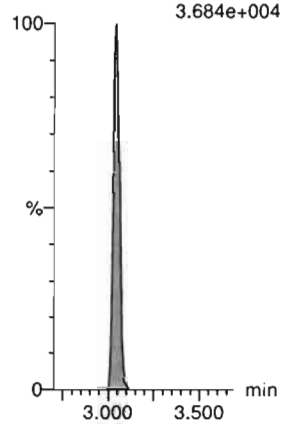
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.175e+004



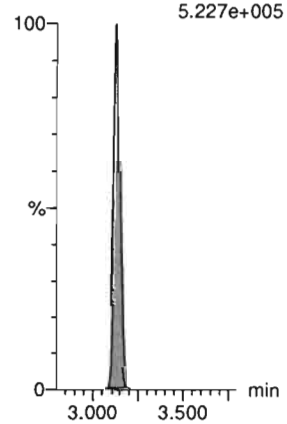
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.704e+004



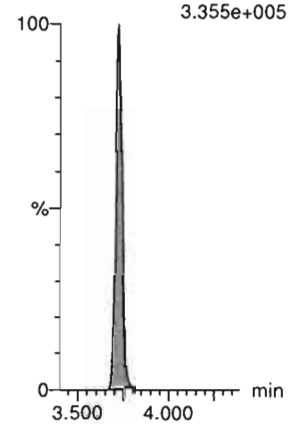
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.684e+004



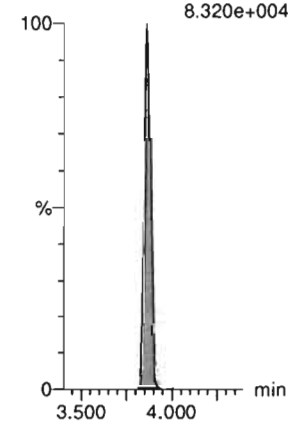
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.227e+005



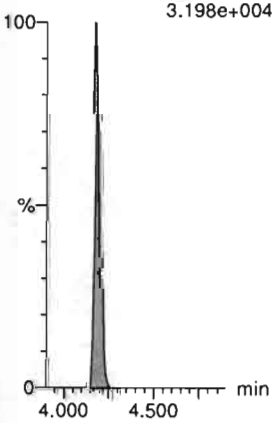
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.355e+005



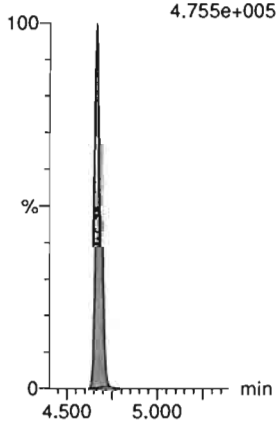
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.320e+004



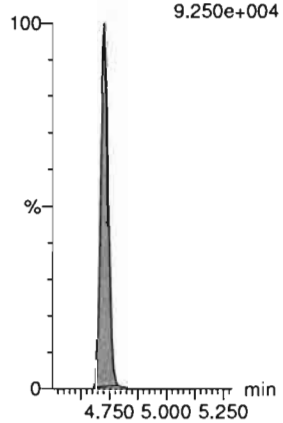
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.198e+004



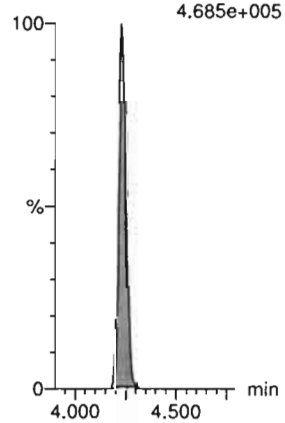
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.755e+005



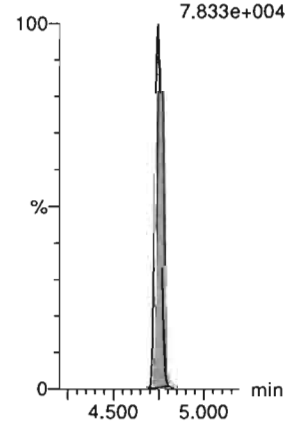
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.250e+004



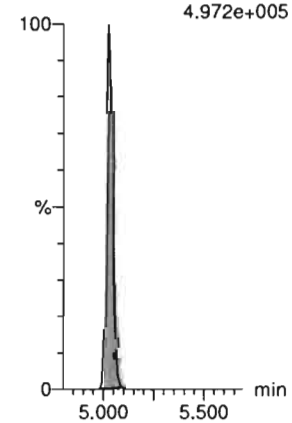
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.685e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
7.833e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.972e+005

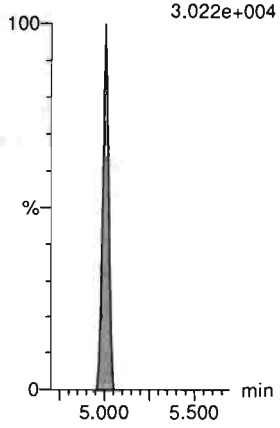


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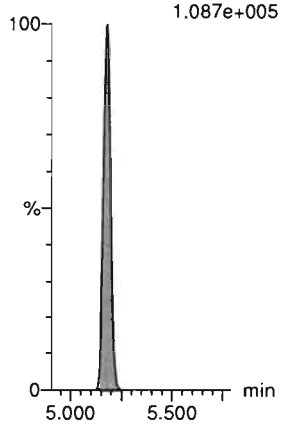
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Name: 200226P1-3, Date: 26-Feb-2020, Time: 16:59:08, ID: ST200226P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

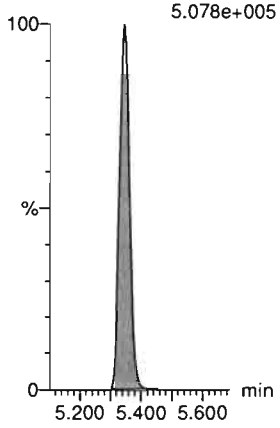
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.022e+004



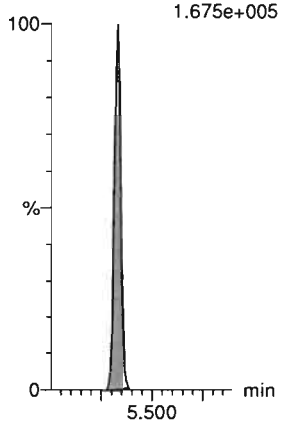
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.087e+005



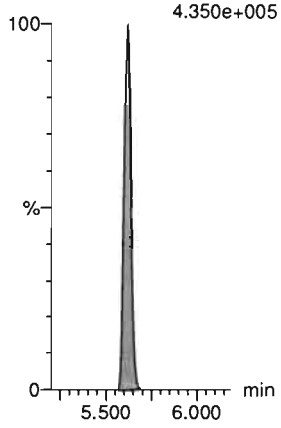
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.078e+005



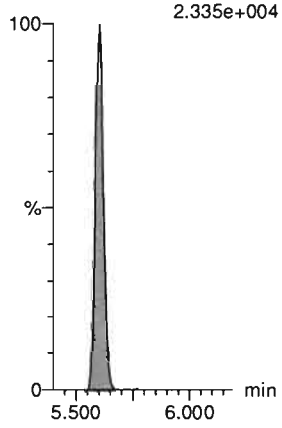
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.675e+005



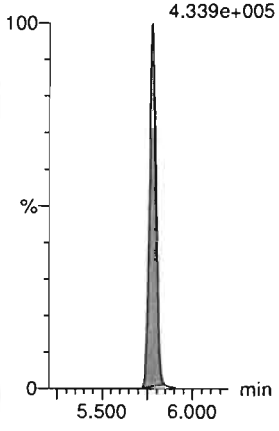
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.350e+005



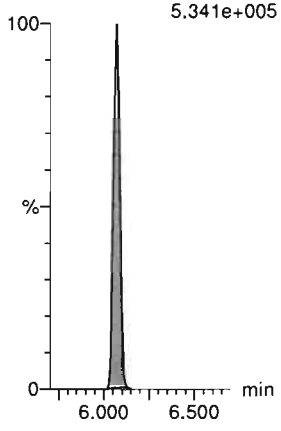
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.335e+004



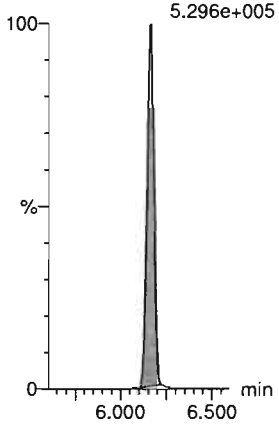
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.339e+005



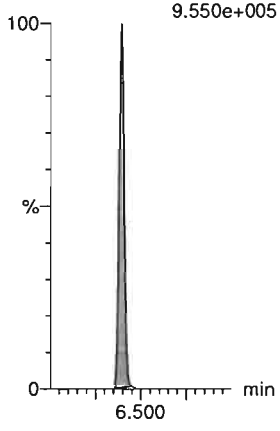
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.341e+005



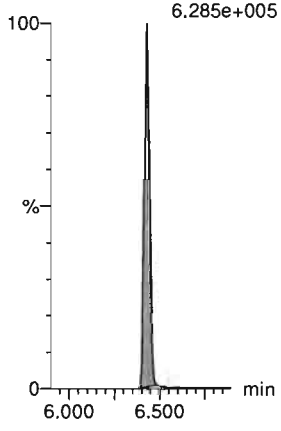
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.296e+005



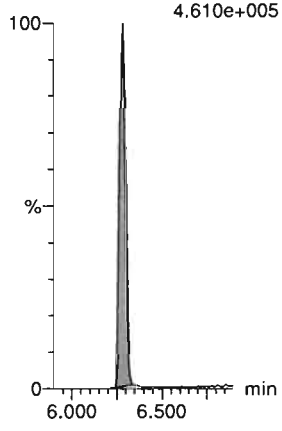
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.550e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.285e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.610e+005

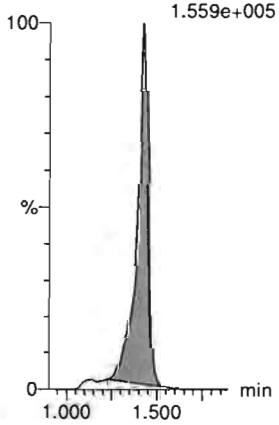


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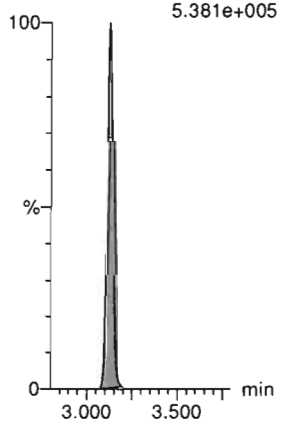
Last Altered: Thursday, February 27, 2020 08:34:02 Pacific Standard Time
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Name: 200226P1-3, Date: 26-Feb-2020, Time: 16:59:08, ID: ST200226P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

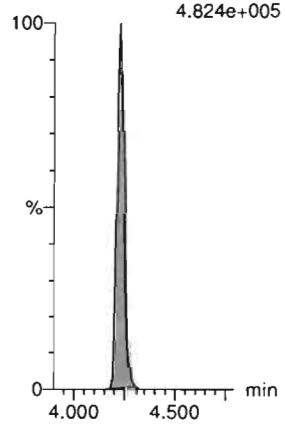
13C4-PFBA



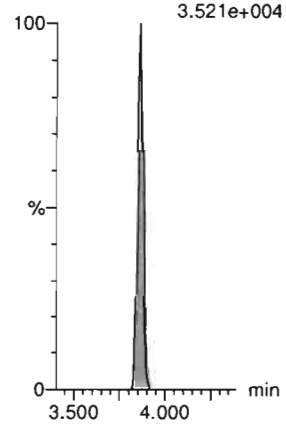
13C5-PFHxA



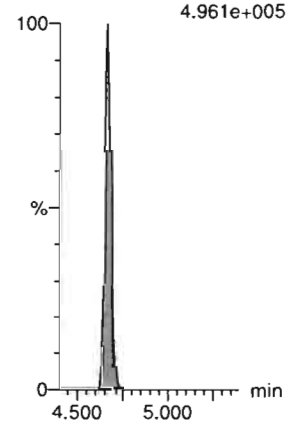
13C8-PFOA



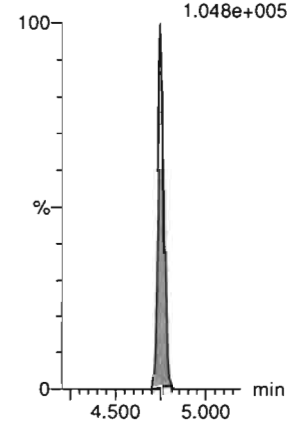
18O2-PFHxS



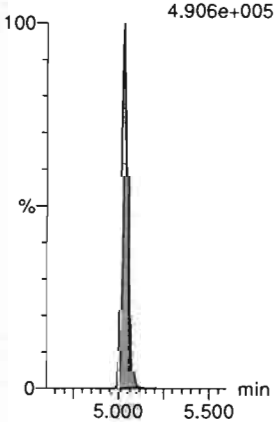
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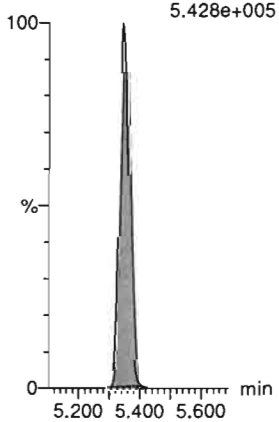
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13C6-PFDA



13C7-PFUdA

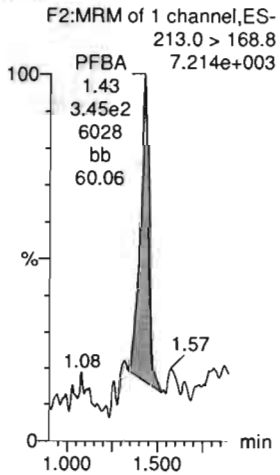


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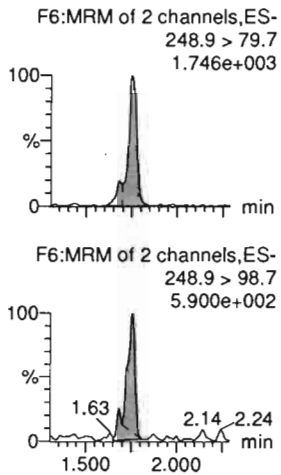
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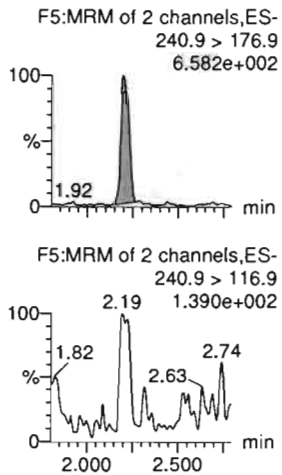
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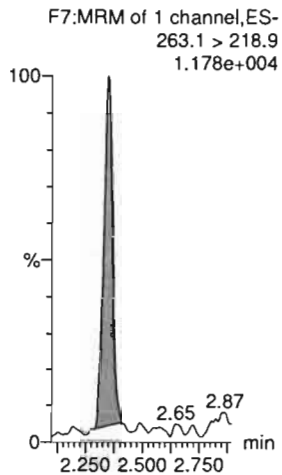
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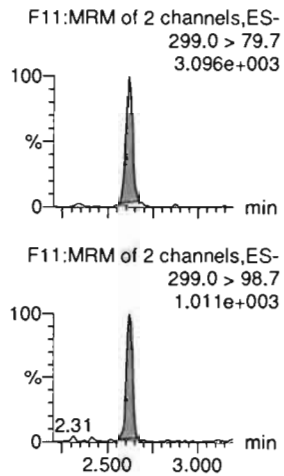
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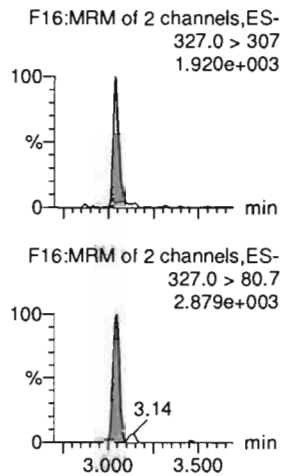
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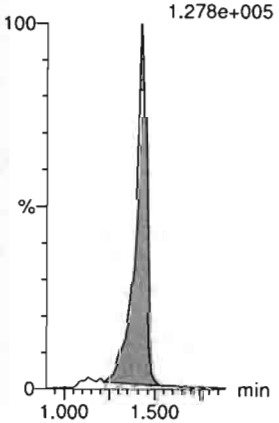
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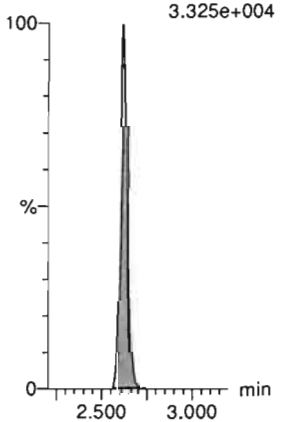
4:2 FTS



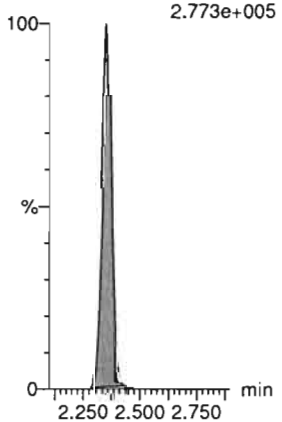
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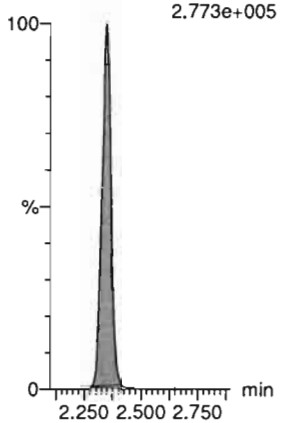
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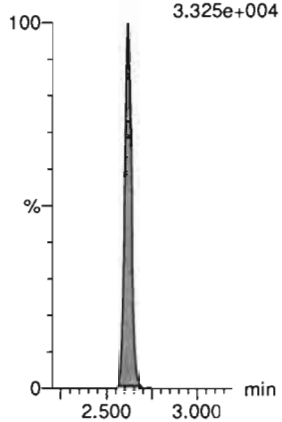
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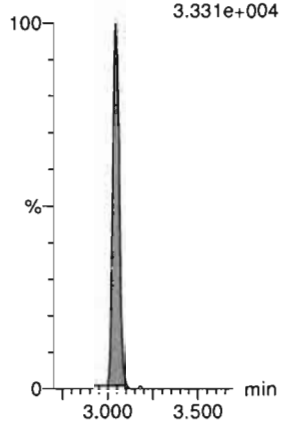
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13C3-PFBS-EIS



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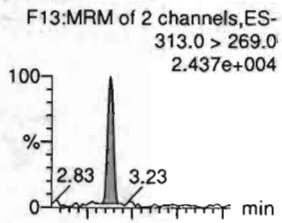


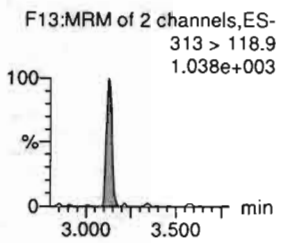
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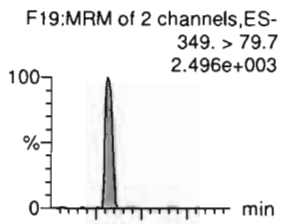
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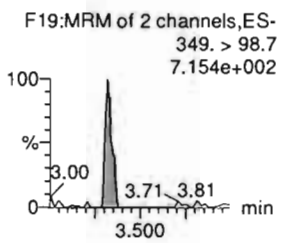
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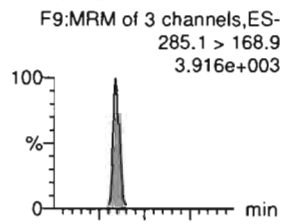


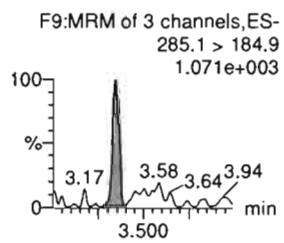
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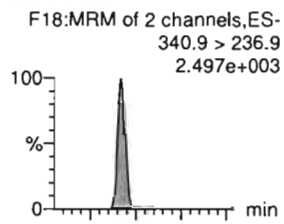


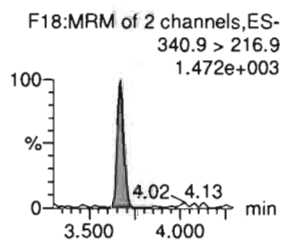
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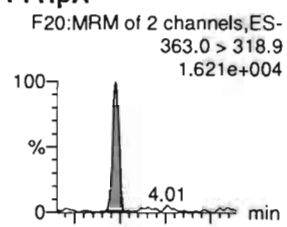


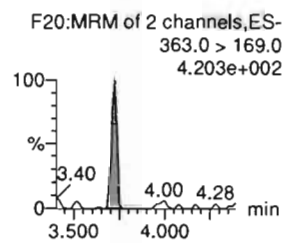
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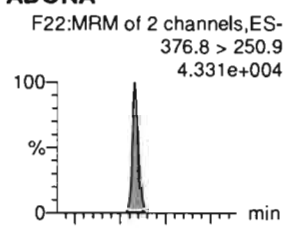


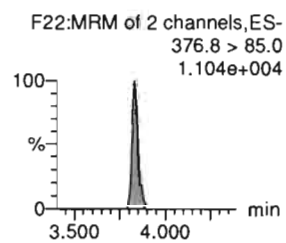
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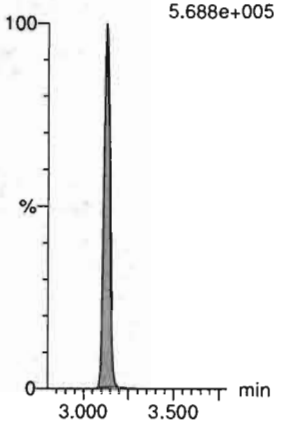


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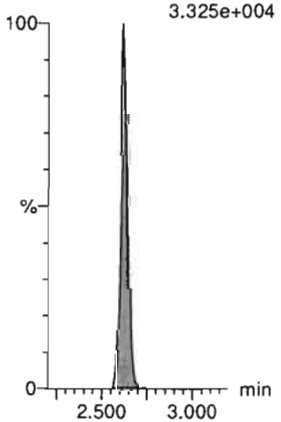




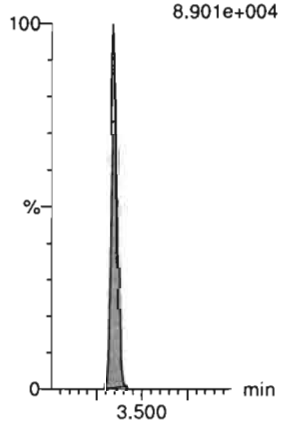
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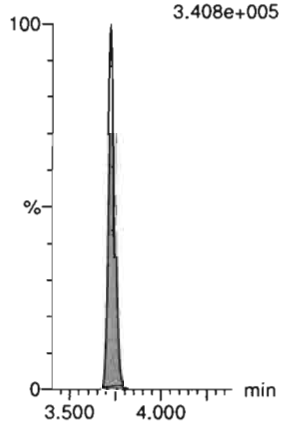
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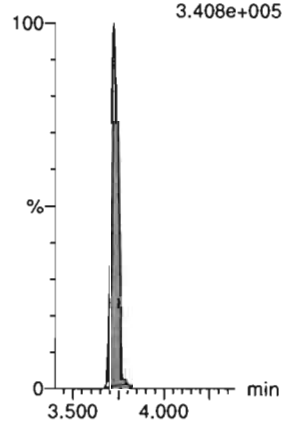
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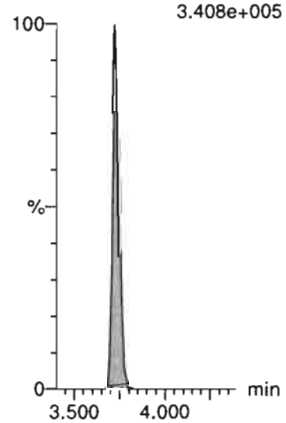
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

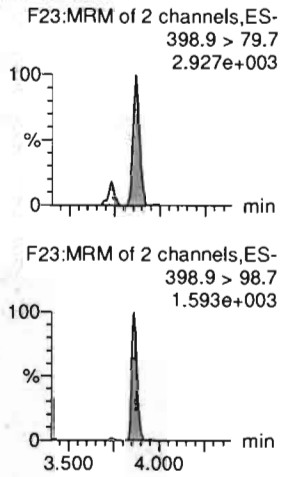


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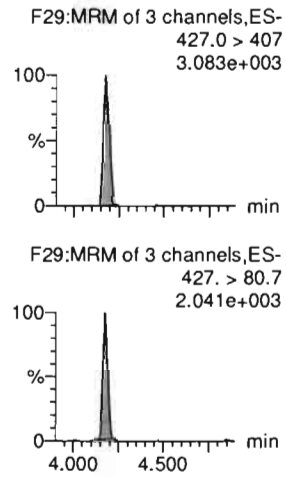
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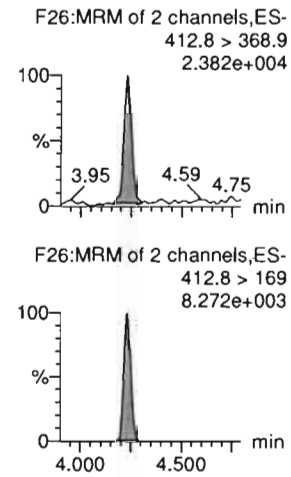
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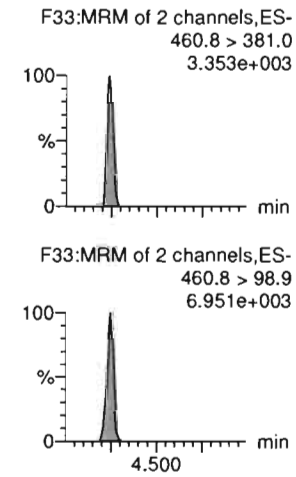
6:2 FTS



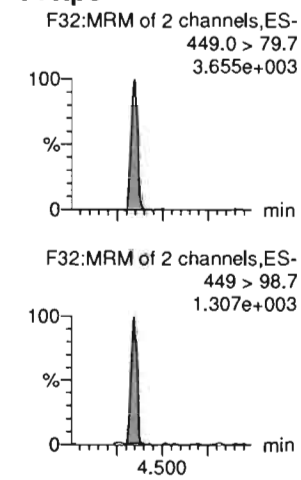
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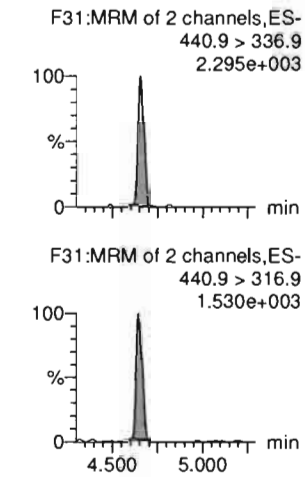
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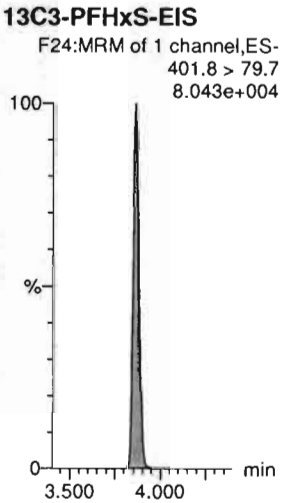
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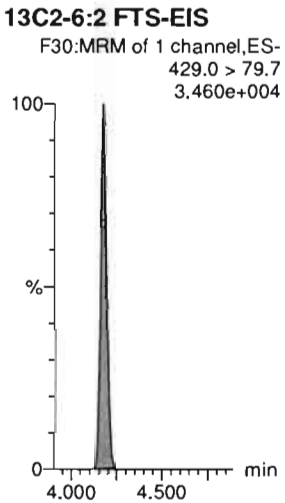
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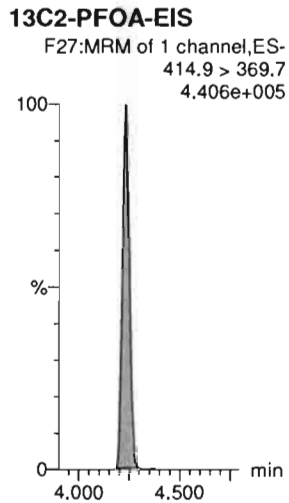
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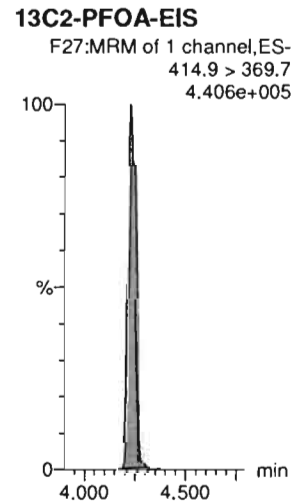
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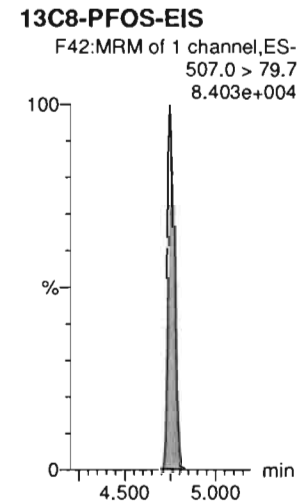
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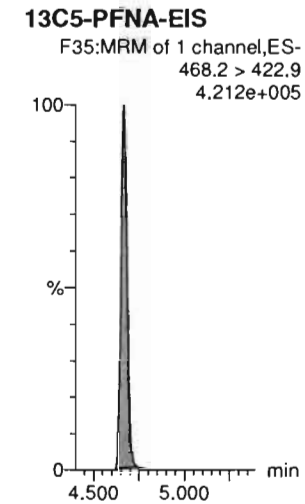
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13C8-PFOS-EIS



13C5-PFNA-EIS

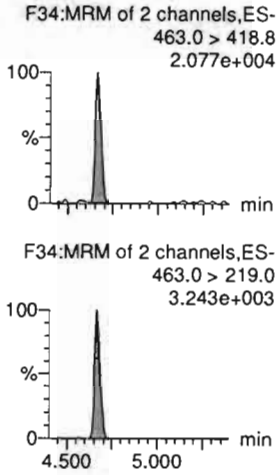


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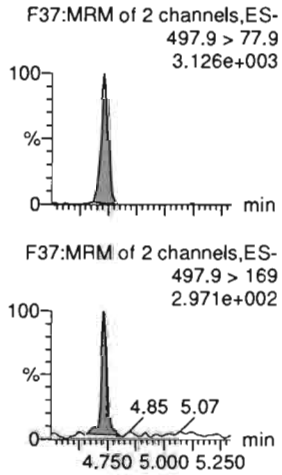
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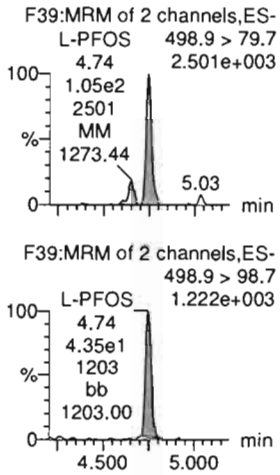
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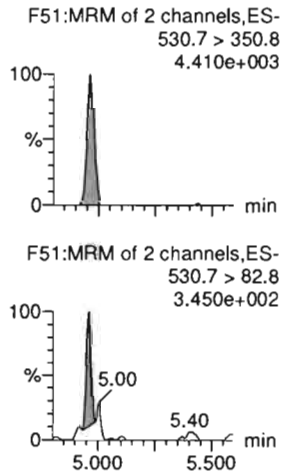
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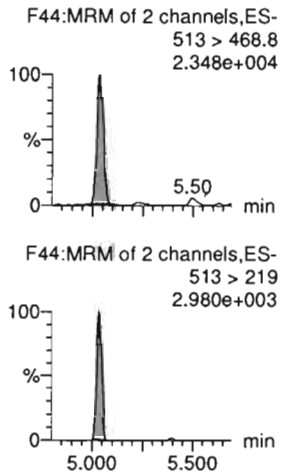
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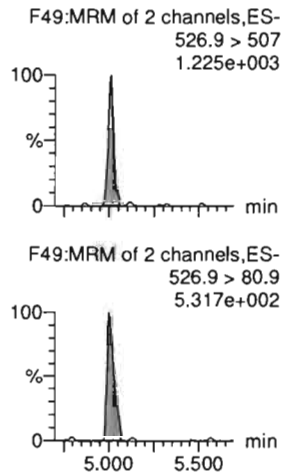
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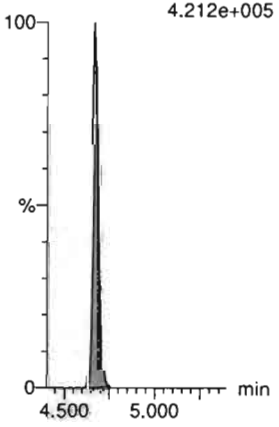
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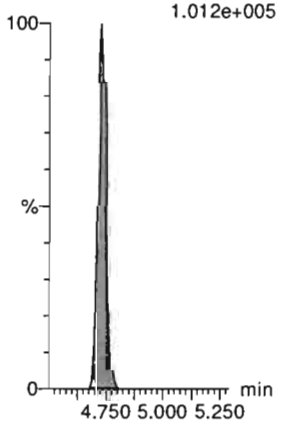
8:2 FTS



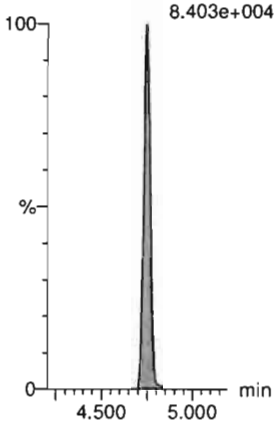
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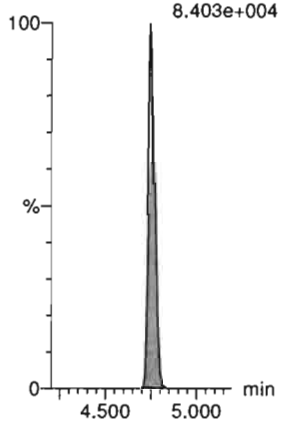
13C8-PFOSA-EIS



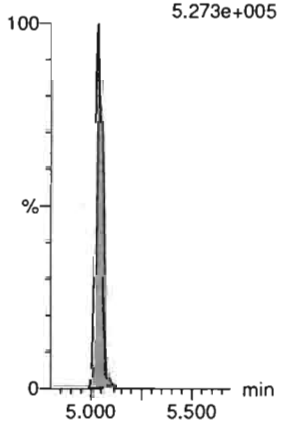
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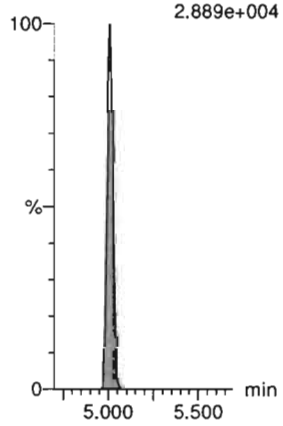
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

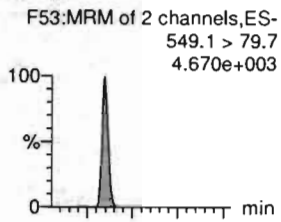


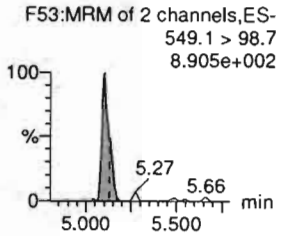
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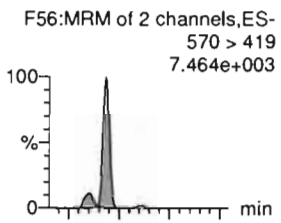
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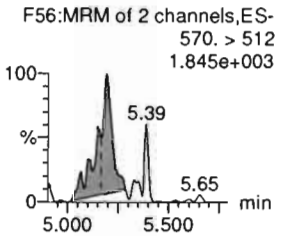
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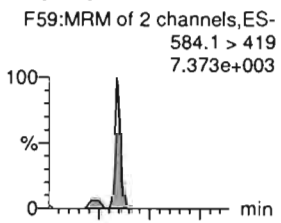


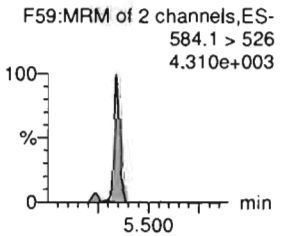
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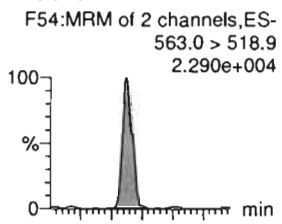


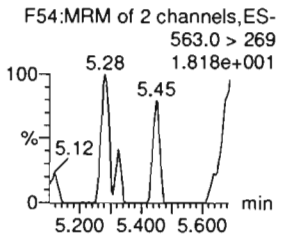
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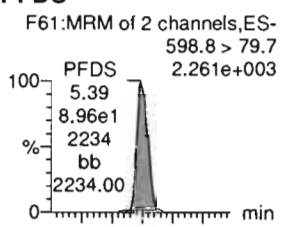


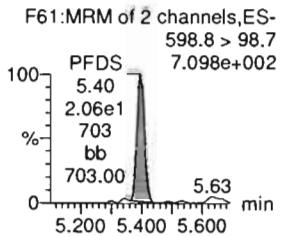
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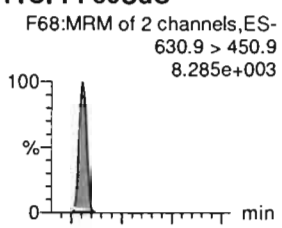


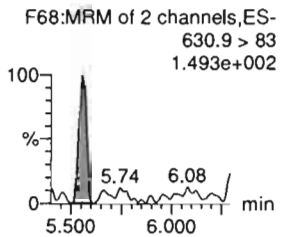
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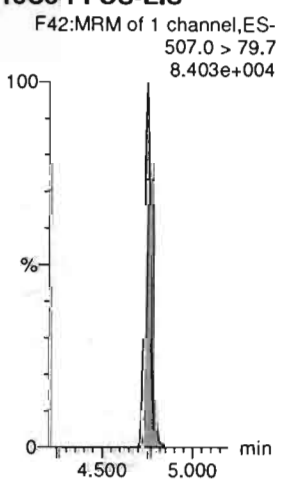


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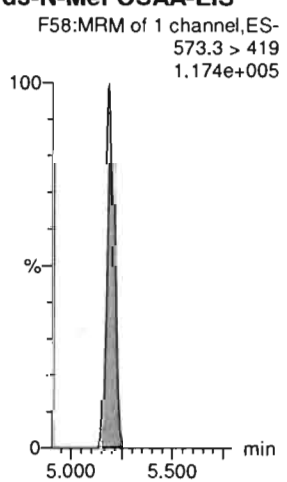




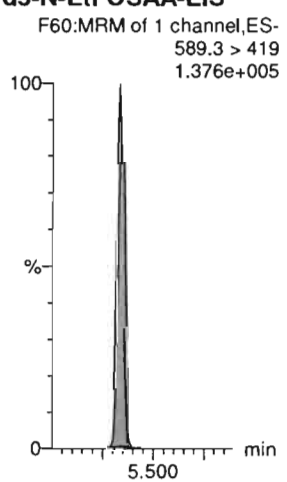
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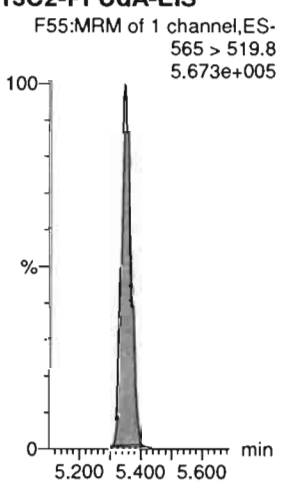
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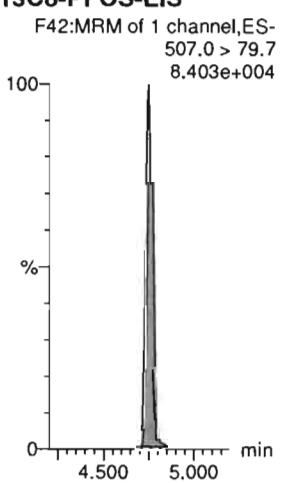
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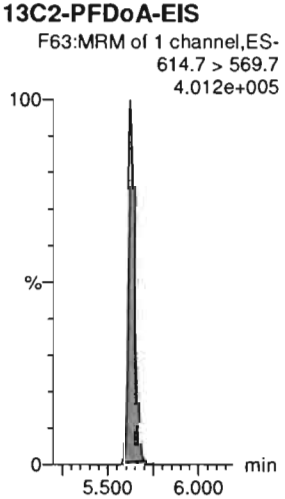
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13C8-PFOS-EIS



13C2-PFDoA-EIS

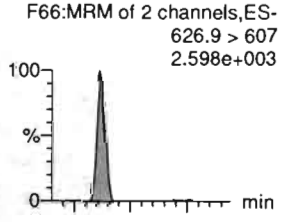


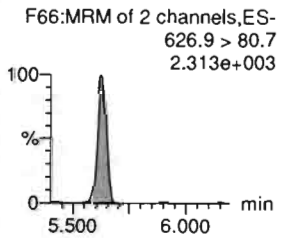
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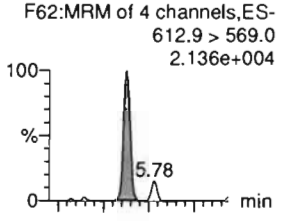
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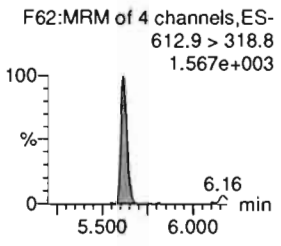
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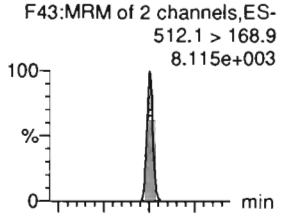


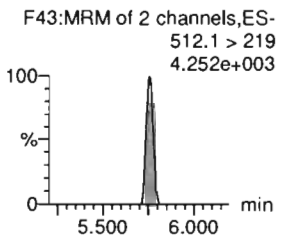
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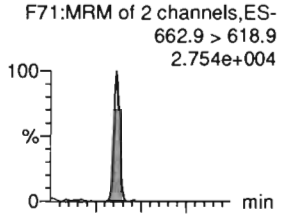


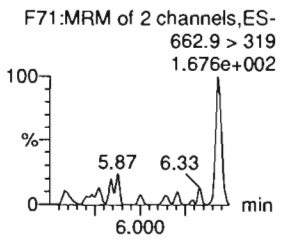
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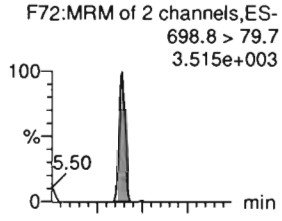


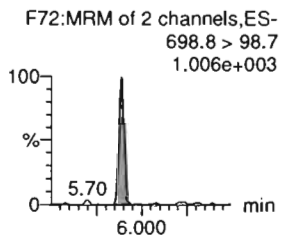
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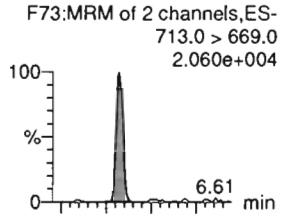


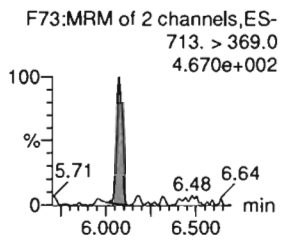
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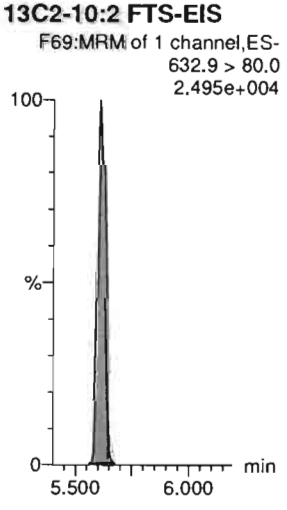


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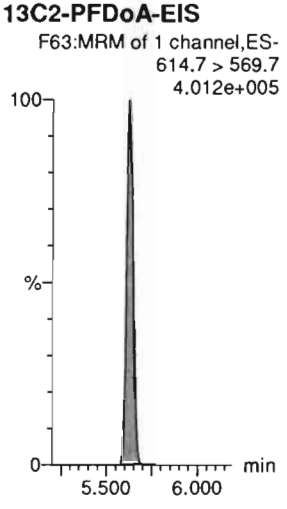




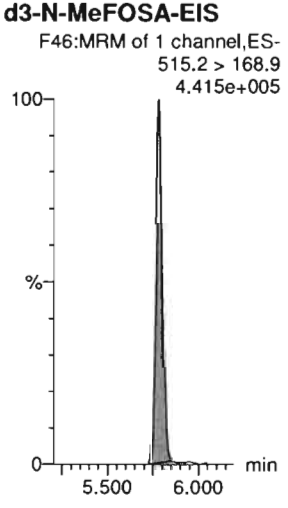
13C2-10:2 FTS-EIS



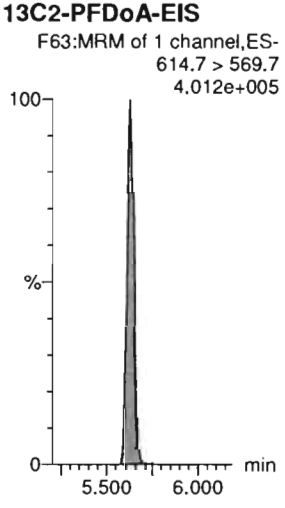
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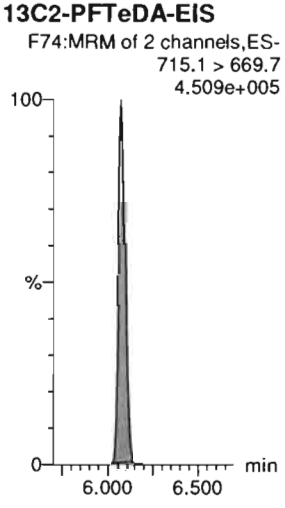
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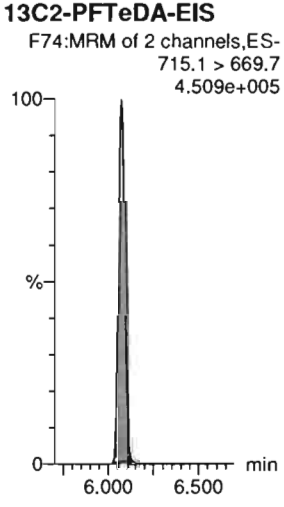
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

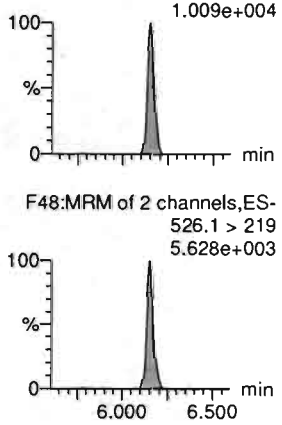


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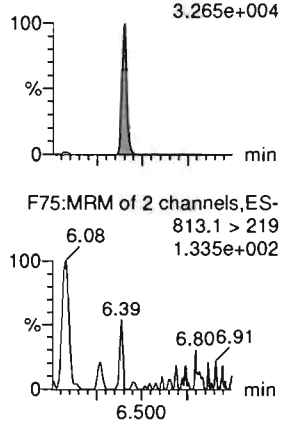
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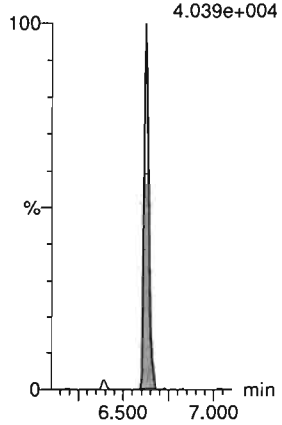
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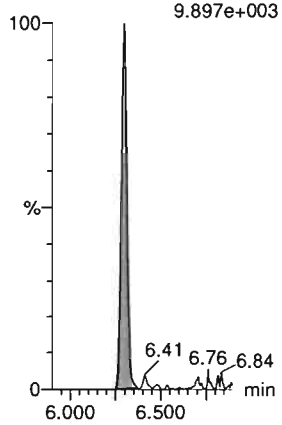
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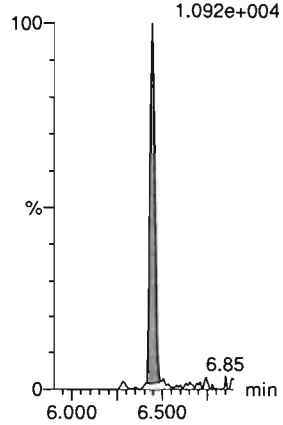
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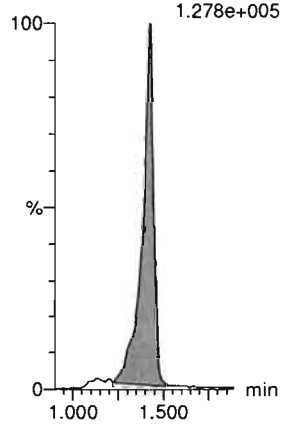
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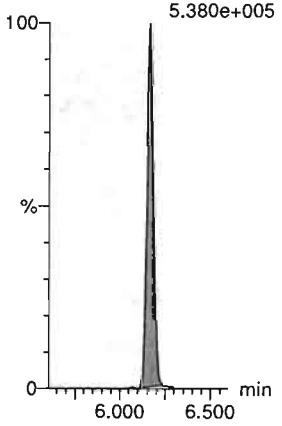
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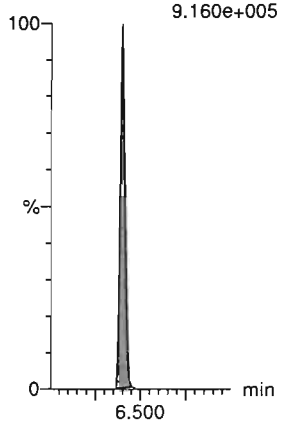
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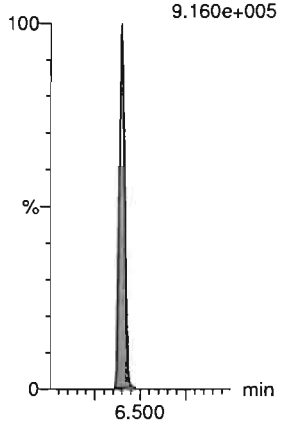
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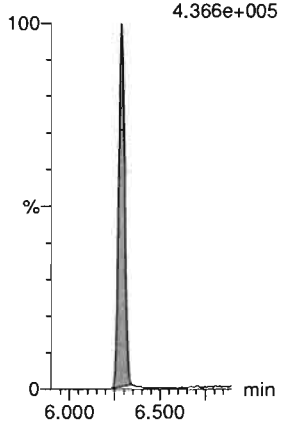
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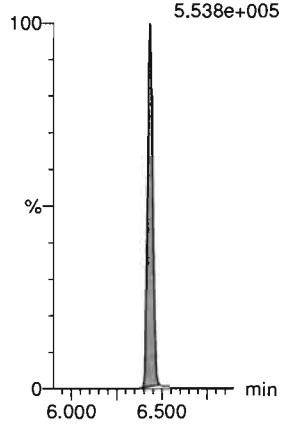
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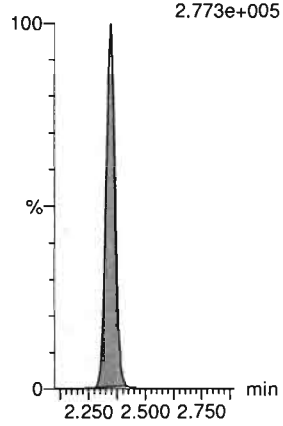
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d9-N-EtFOSE-EIS



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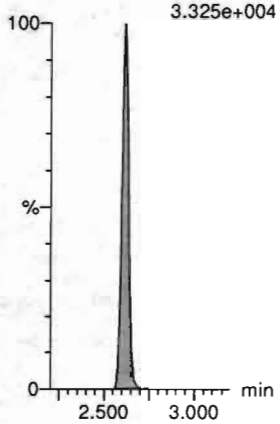


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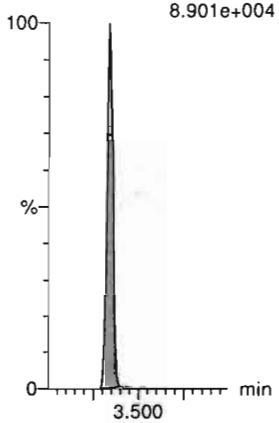
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Printed: Thursday, February 27, 2020 08:34:37 Pacific Standard Time

Name: 200226P1-4, Date: 26-Feb-2020, Time: 17:09:41, ID: ST200226P1-2 PFC CS-1 20B1103, Description: PFC CS-1 20B1103

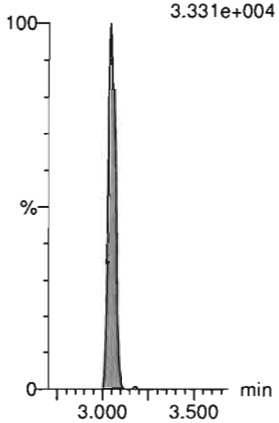
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.325e+004



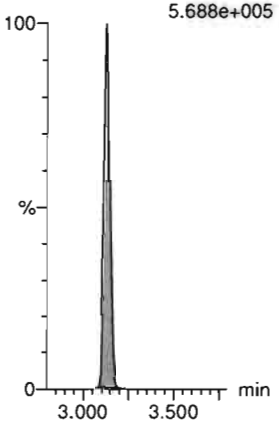
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.901e+004



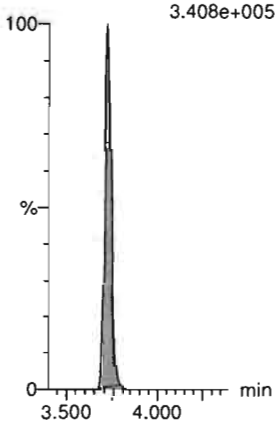
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.331e+004



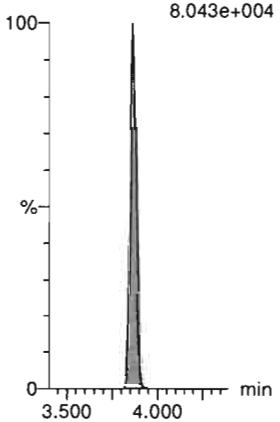
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.688e+005



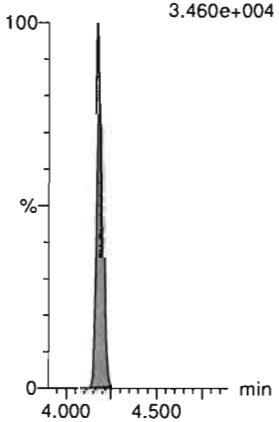
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.408e+005



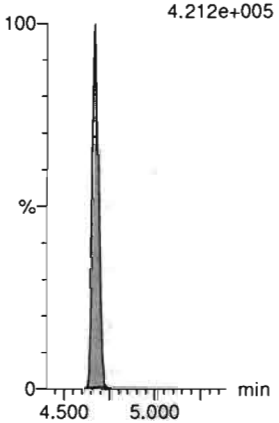
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.043e+004



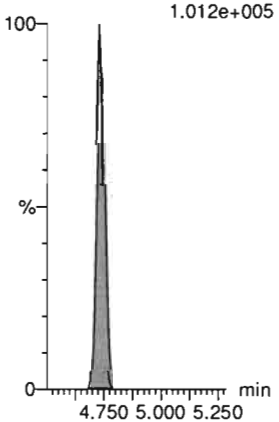
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.460e+004



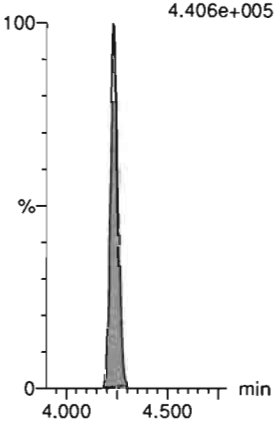
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.212e+005



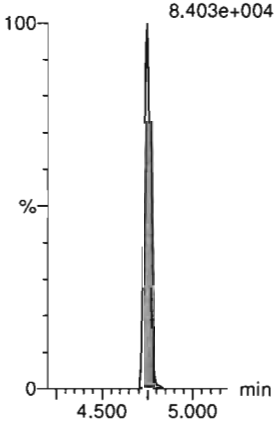
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.012e+005



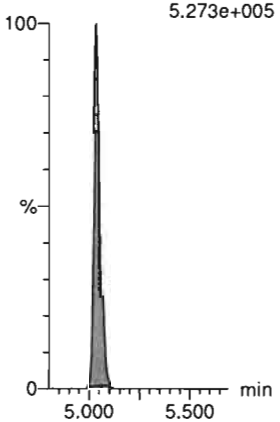
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.406e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.403e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.273e+005

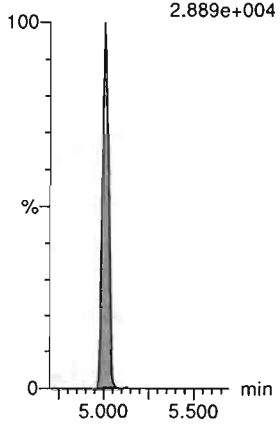


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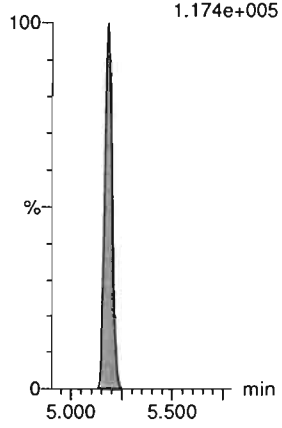
Last Altered: Thursday, February 27, 2020 08:34:02 Pacific Standard Time
Printed: Thursday, February 27, 2020 08:34:37 Pacific Standard Time

Name: 200226P1-4, Date: 26-Feb-2020, Time: 17:09:41, ID: ST200226P1-2 PFC CS-1 20B1103, Description: PFC CS-1 20B1103

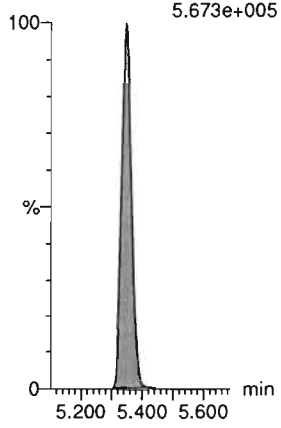
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.889e+004



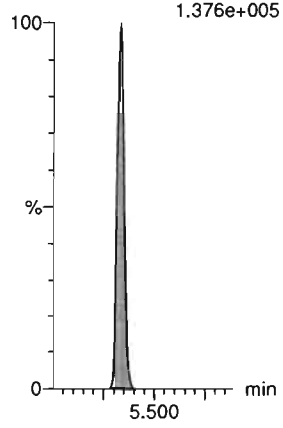
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.174e+005



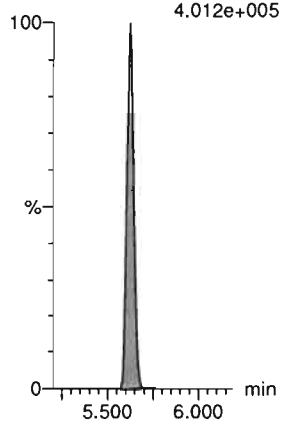
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.673e+005



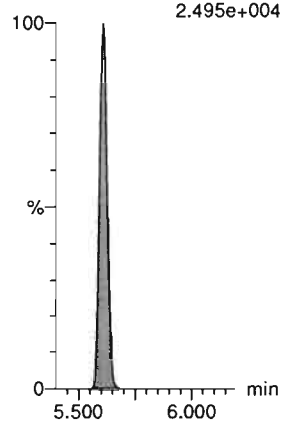
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.376e+005



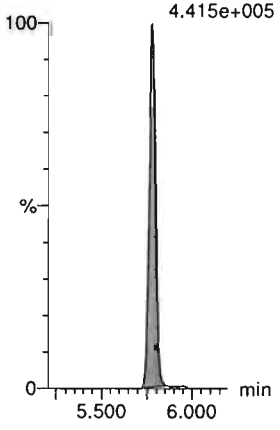
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.012e+005



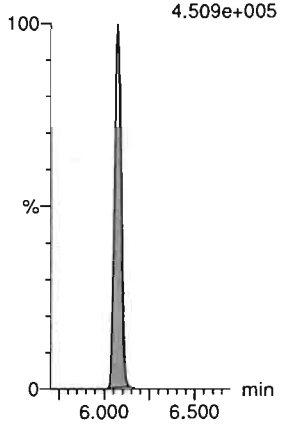
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.495e+004



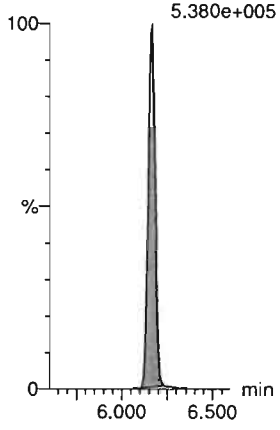
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.415e+005



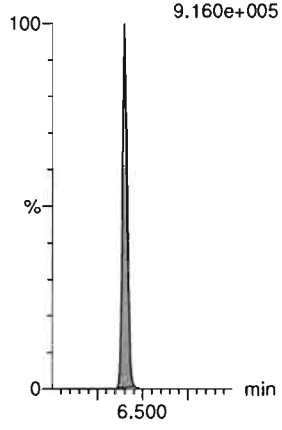
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.509e+005



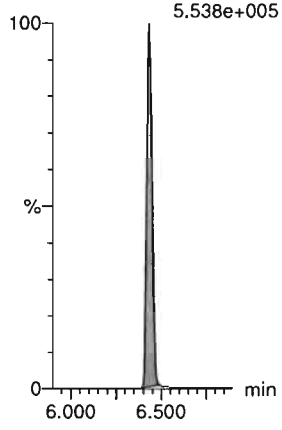
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.380e+005



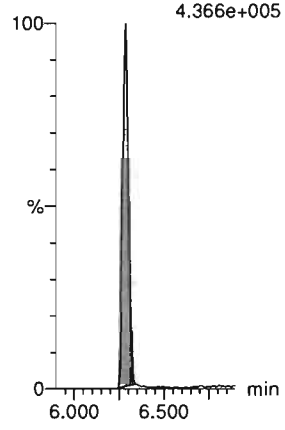
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.160e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.538e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.366e+005

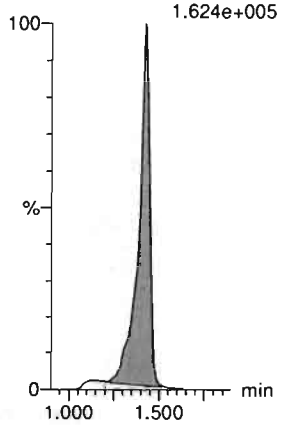


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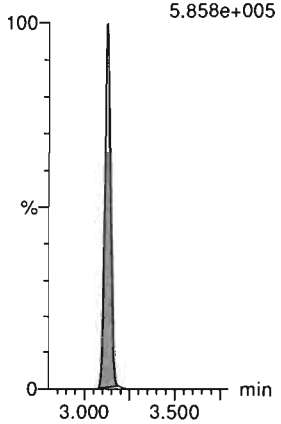
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Name: 200226P1-4, Date: 26-Feb-2020, Time: 17:09:41, ID: ST200226P1-2 PFC CS-1 20B1103, Description: PFC CS-1 20B1103

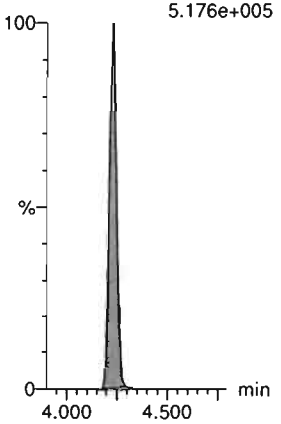
13C4-PFBA



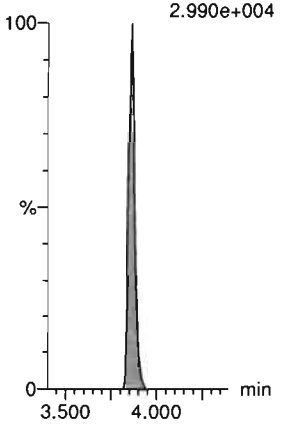
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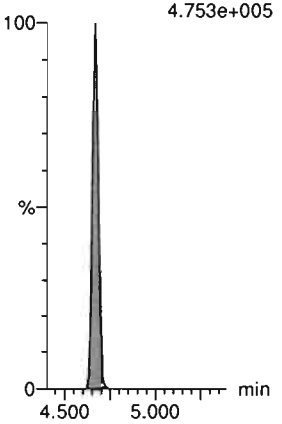
13C8-PFOA



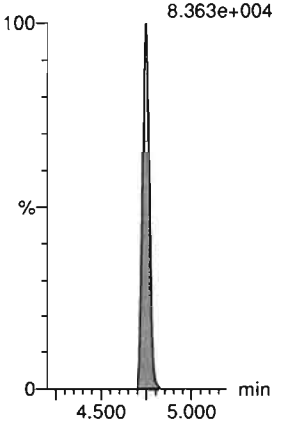
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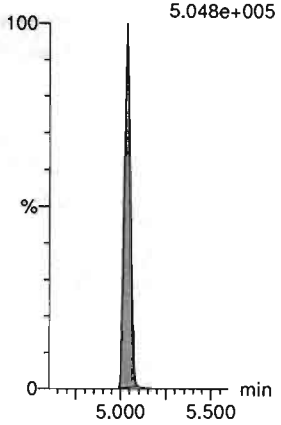
13C9-PFNA



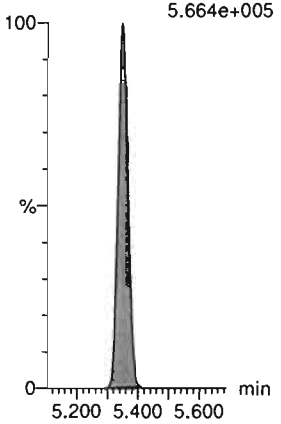
13C4-PFOS



13C6-PFDA



13C7-PFUdA

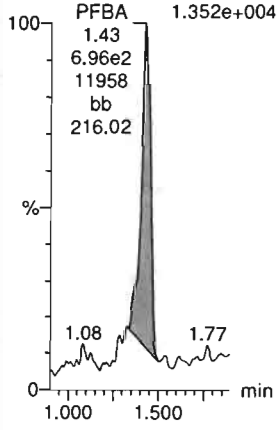


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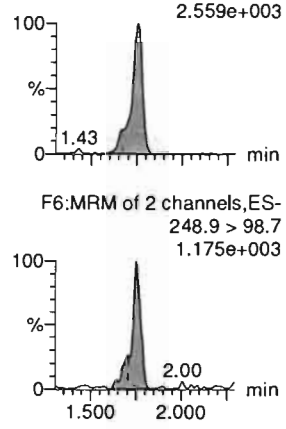
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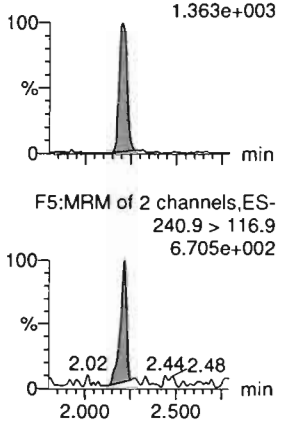
PFBA



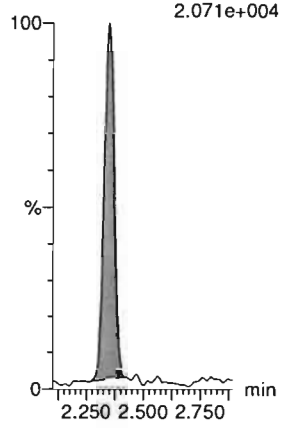
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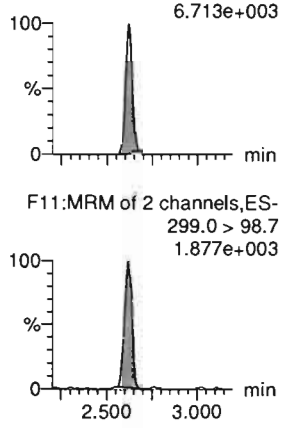
3:3 FTCA



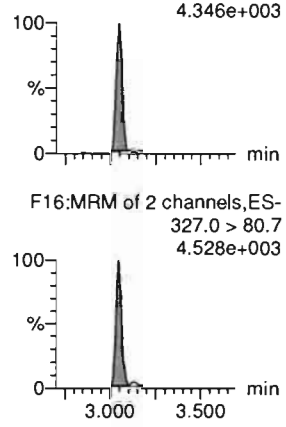
PFPeA



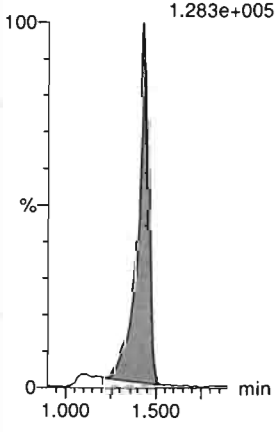
PFBS



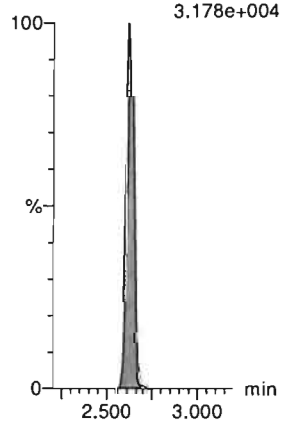
4:2 FTS



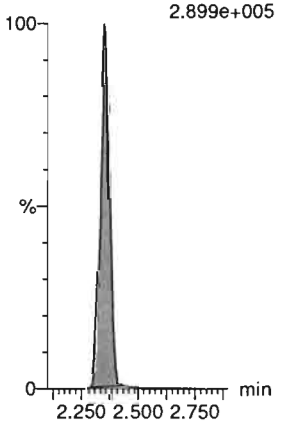
13C3-PFBA-EIS



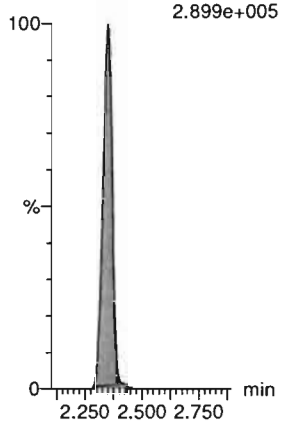
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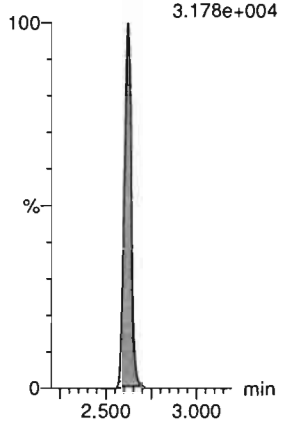
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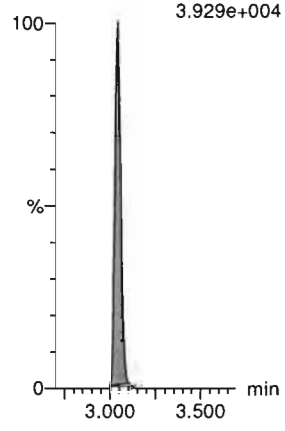
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

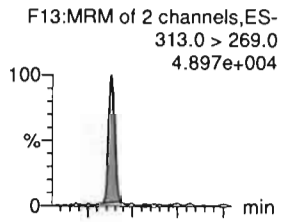


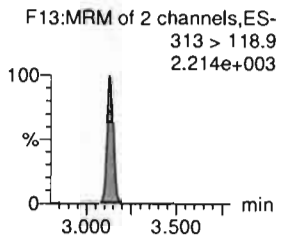
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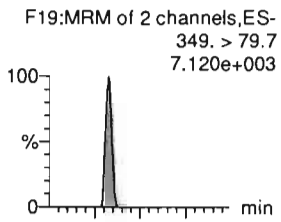
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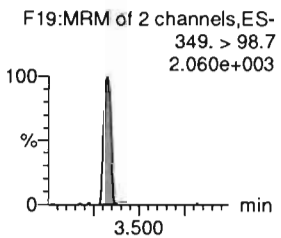
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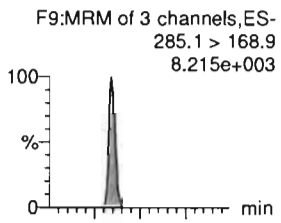


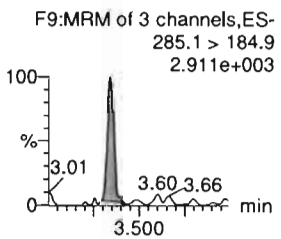
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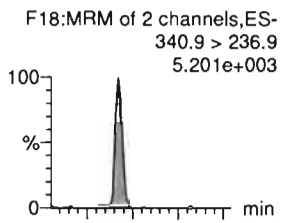


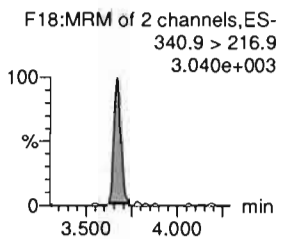
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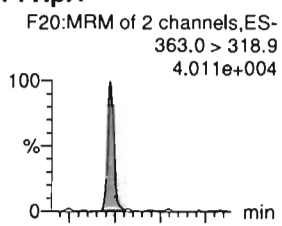


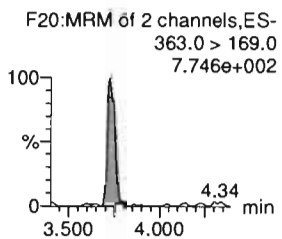
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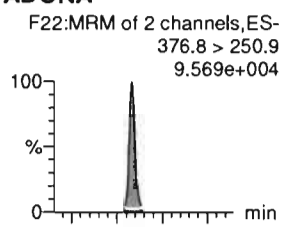


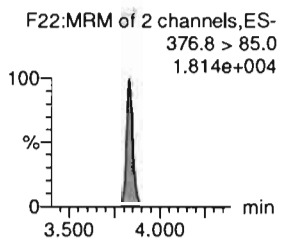
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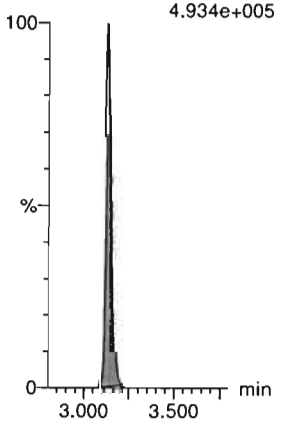


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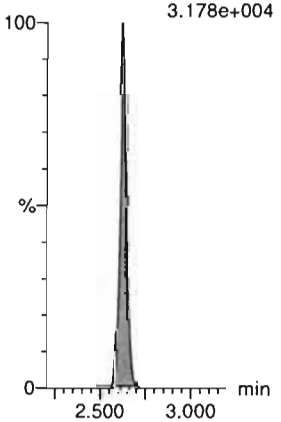




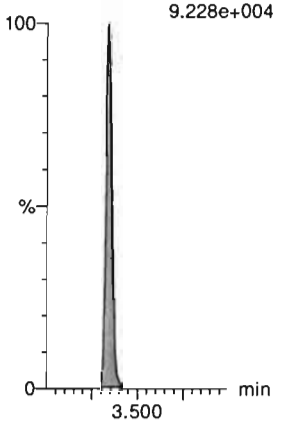
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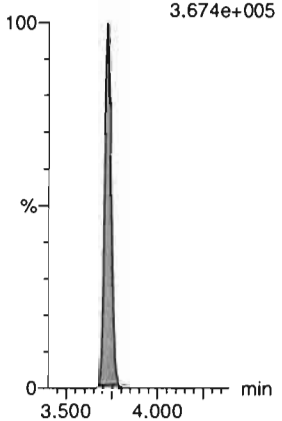
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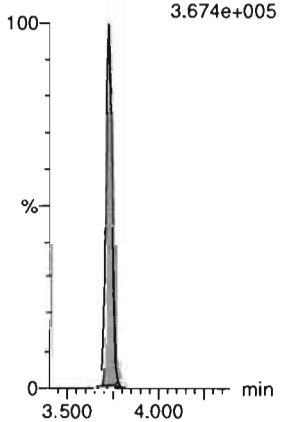
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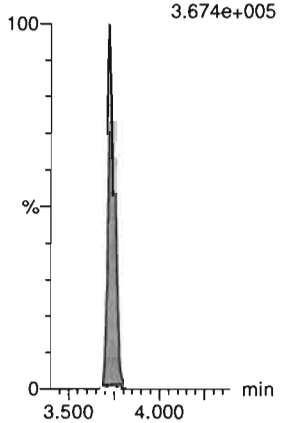
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

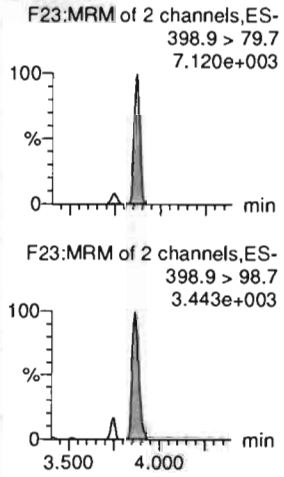


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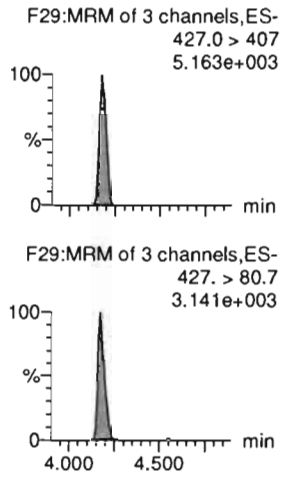
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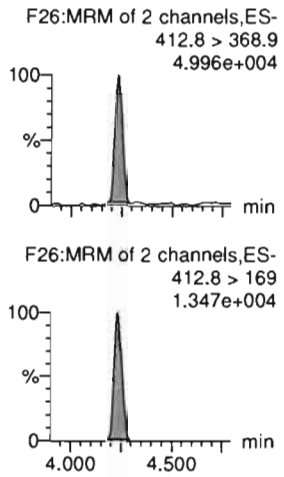
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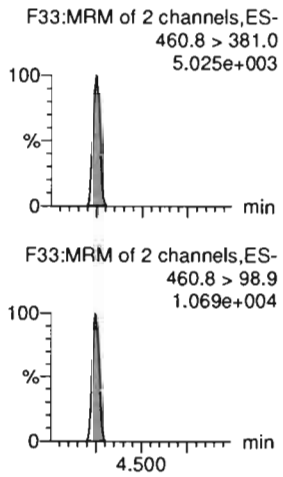
6:2 FTS



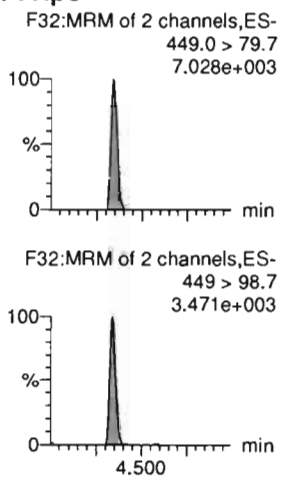
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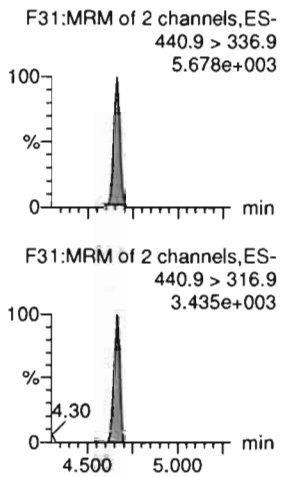
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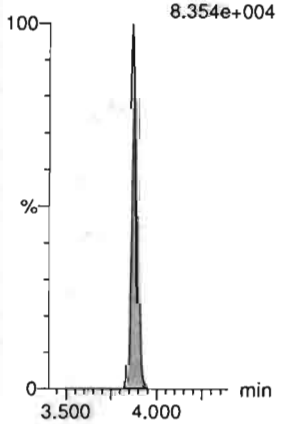
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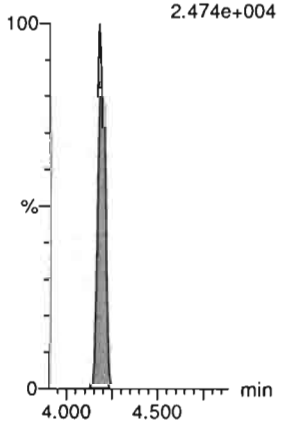
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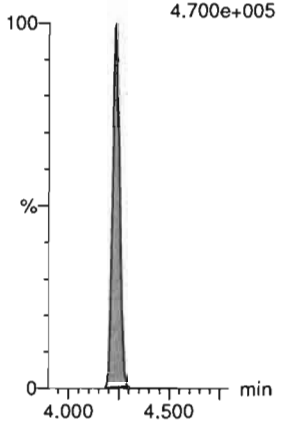
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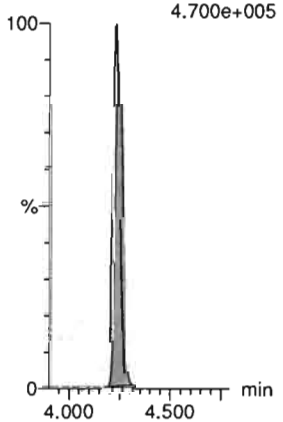
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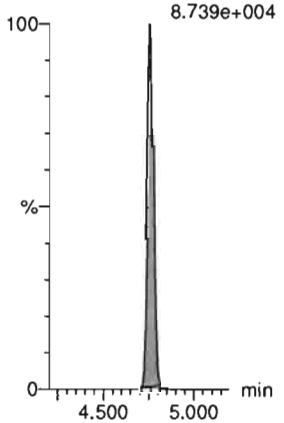
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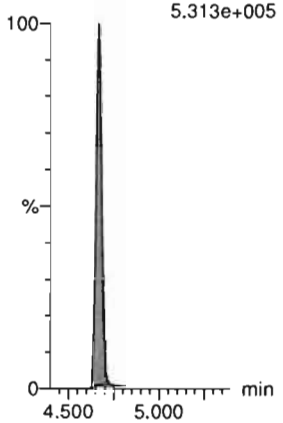
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

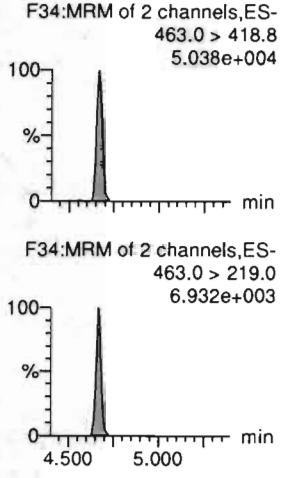


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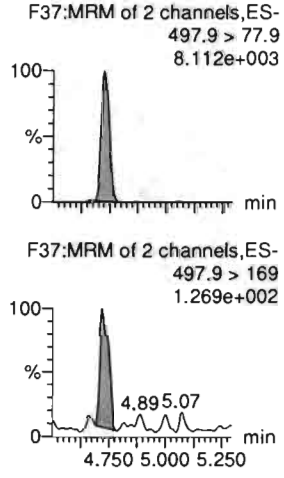
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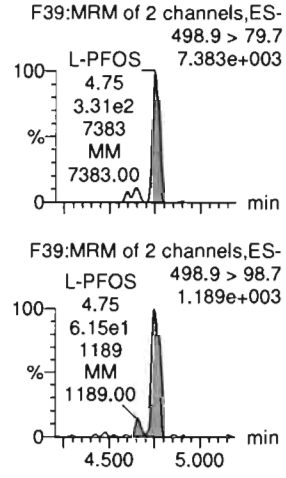
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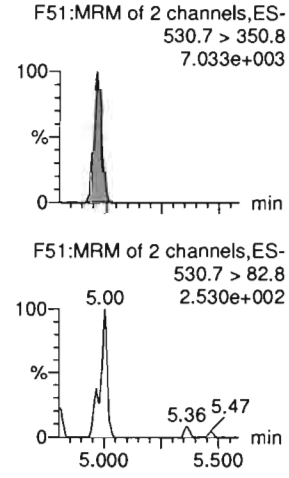
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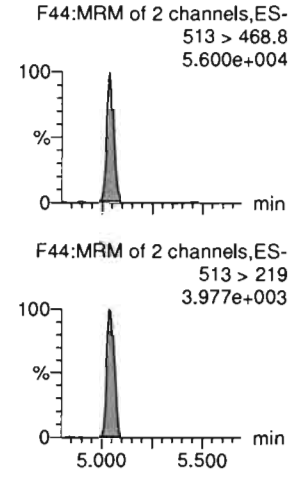
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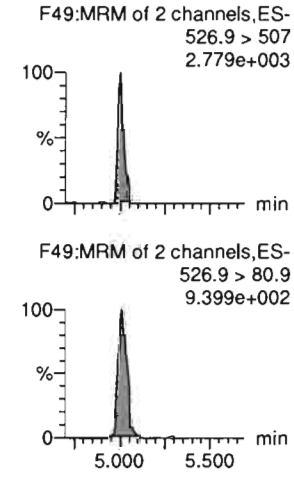
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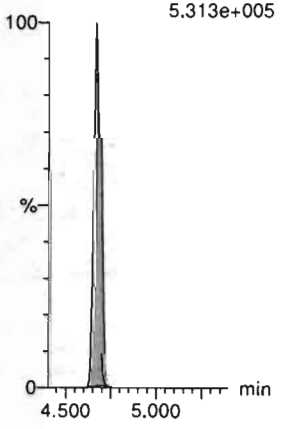
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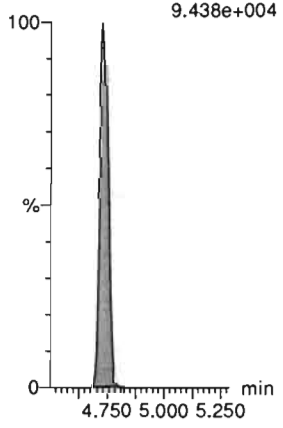
8:2 FTS



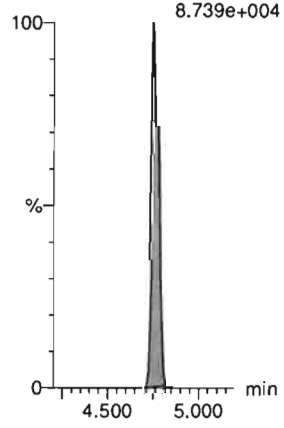
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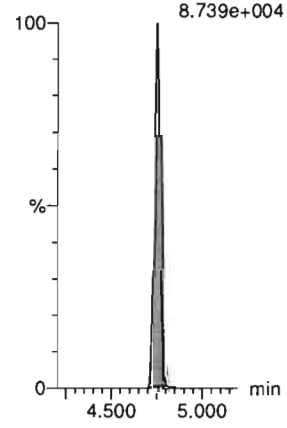
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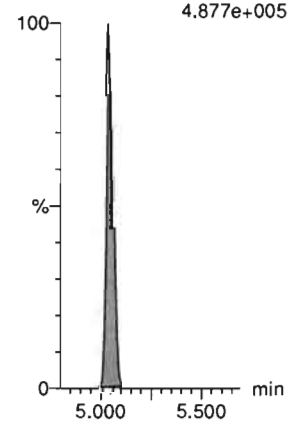
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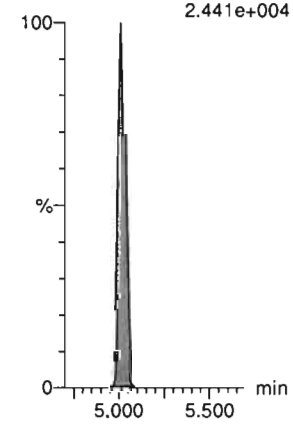
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13C2-PFDA-EIS



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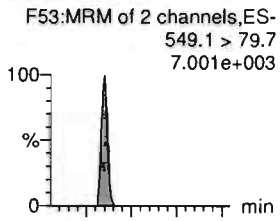


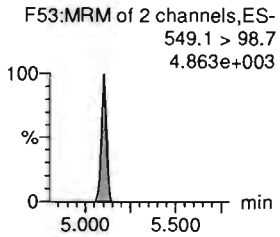
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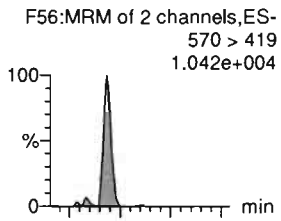
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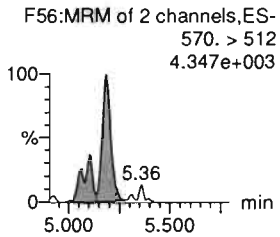
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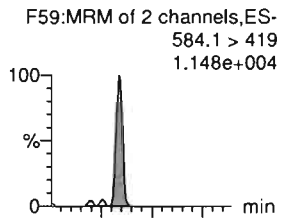


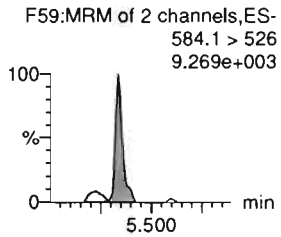
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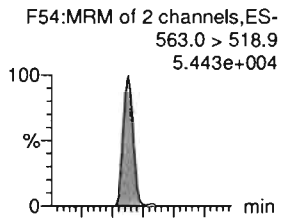


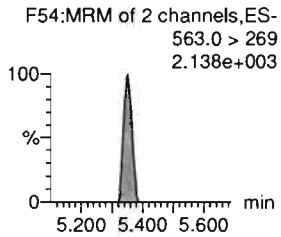
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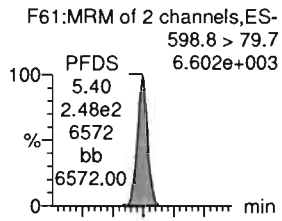


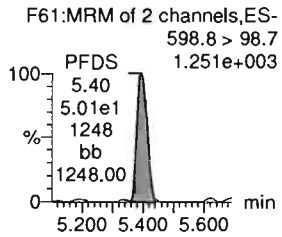
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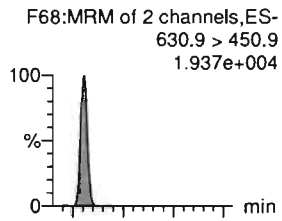


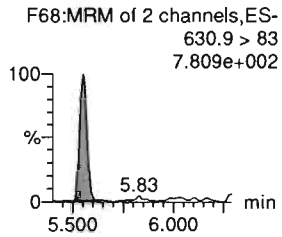
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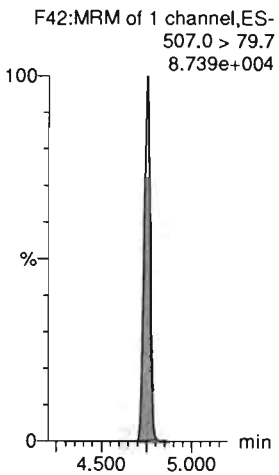


11Cl-PF30UdS

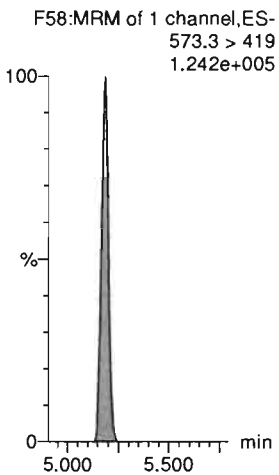




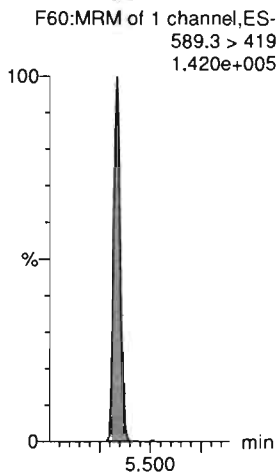
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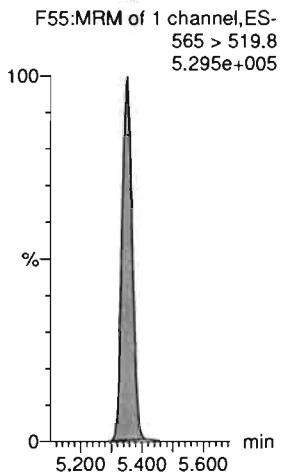
d3-N-MeFOSAA-EIS



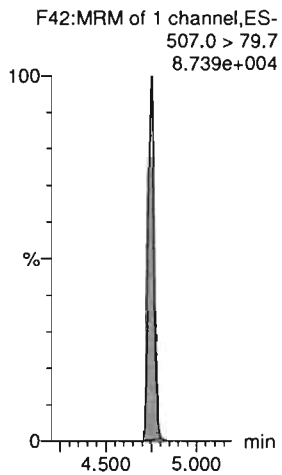
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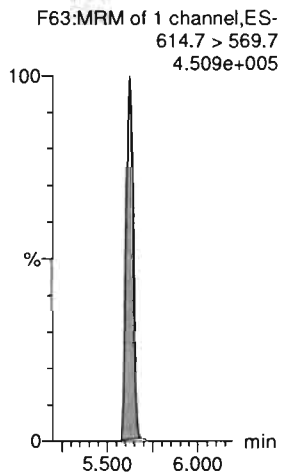
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13C8-PFOS-EIS



13C2-PFDoA-EIS

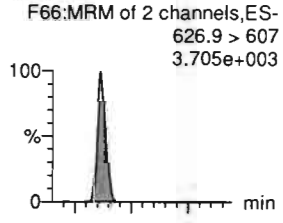


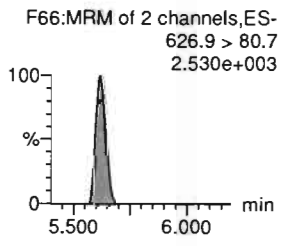
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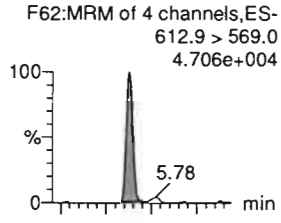
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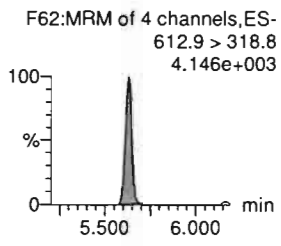
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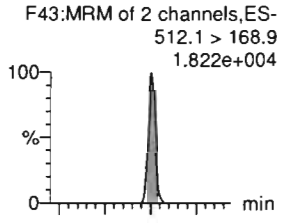


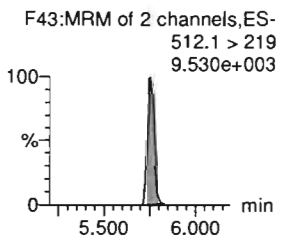
PFDoA



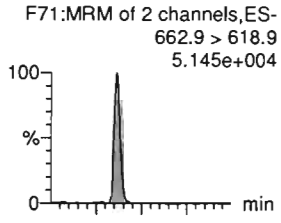


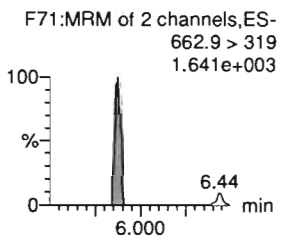
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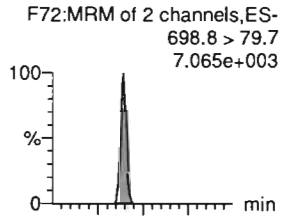


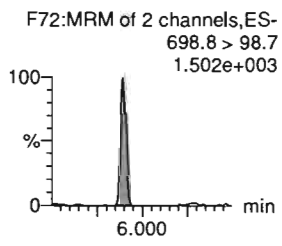
PFTrDA



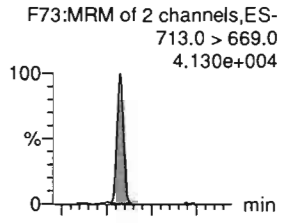


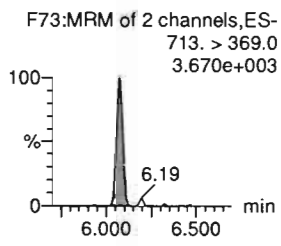
PFDoS



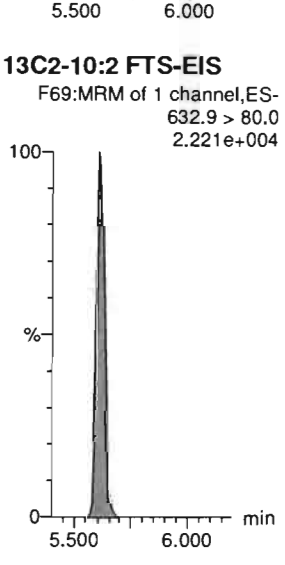


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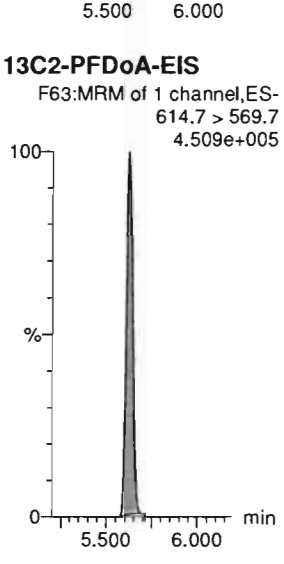




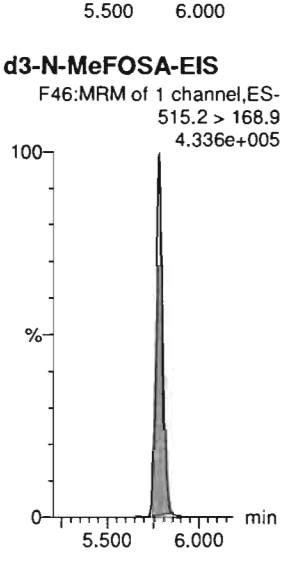
13C2-10:2 FTS-EIS



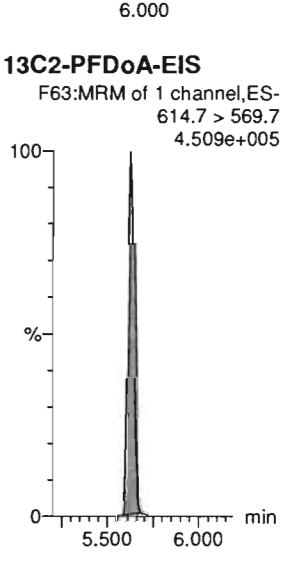
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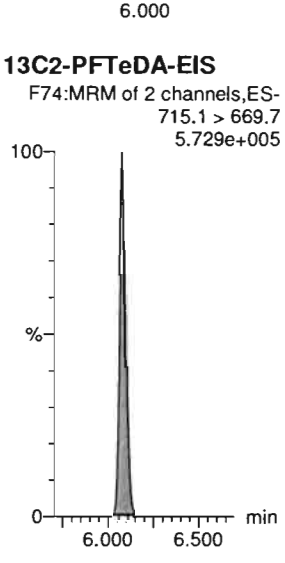
d3-N-MeFOSA-EIS



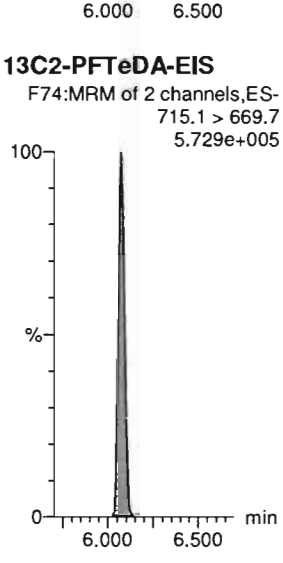
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

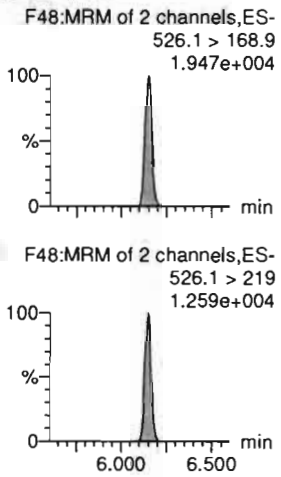


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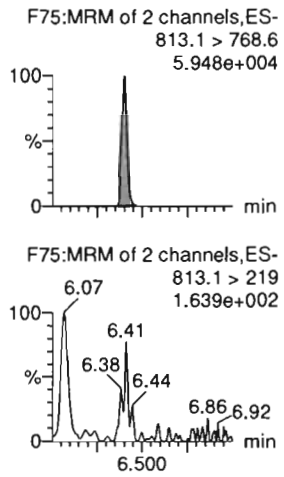
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Name: 200226P1-5, Date: 26-Feb-2020, Time: 17:20:09, ID: ST200226P1-3 PFC CS0 20B1104, Description: PFC CS0 20B1104

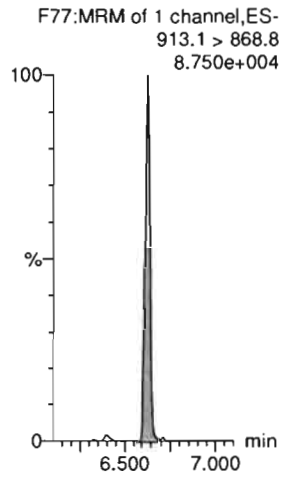
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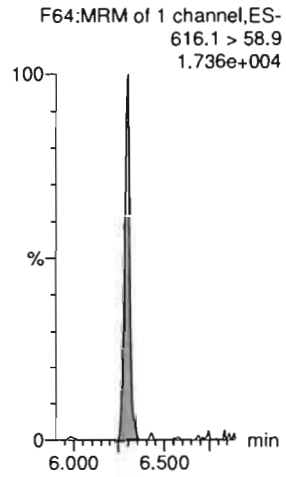
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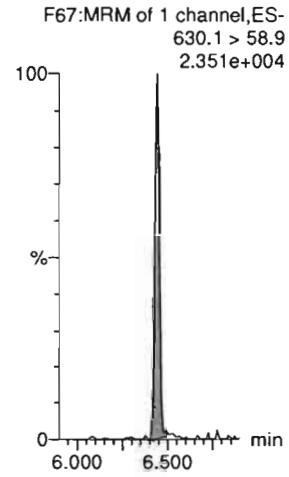
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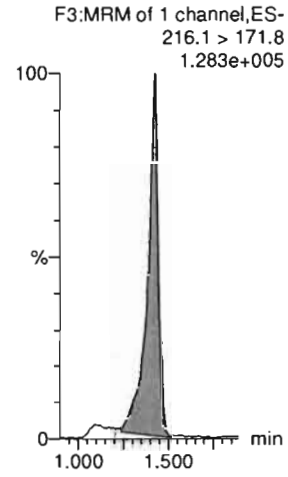
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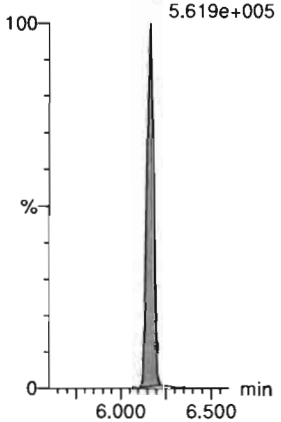
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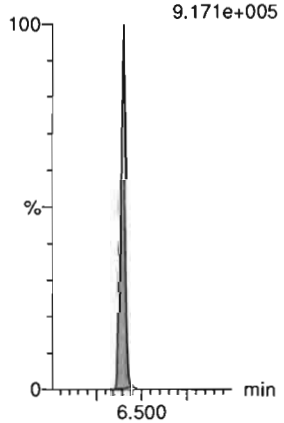
13C3-PFBA-RSD



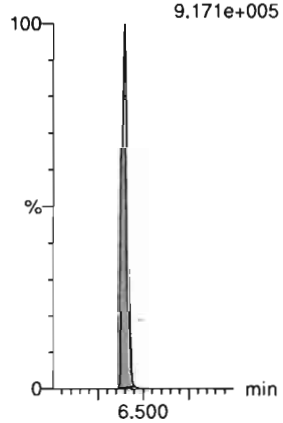
d5-N-ETFOSA-EIS



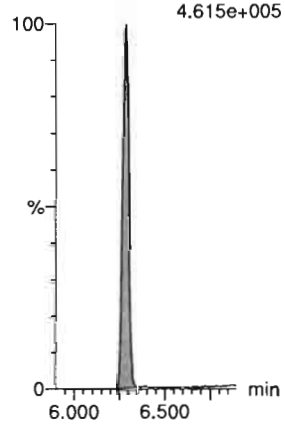
13C2-PFHxDA-EIS



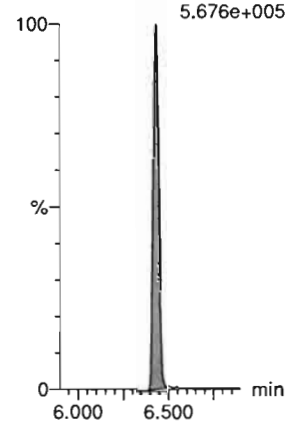
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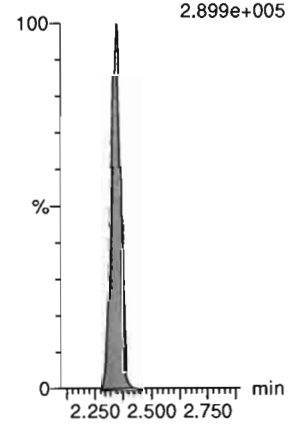
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



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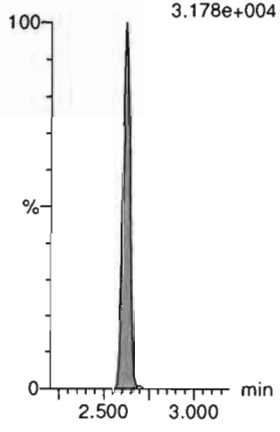


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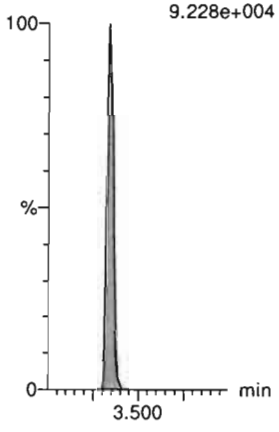
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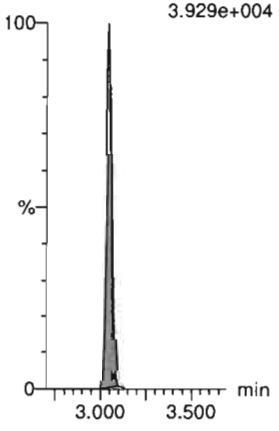
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.178e+004



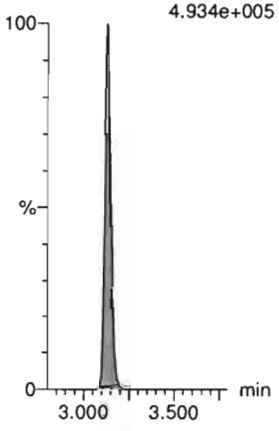
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.228e+004



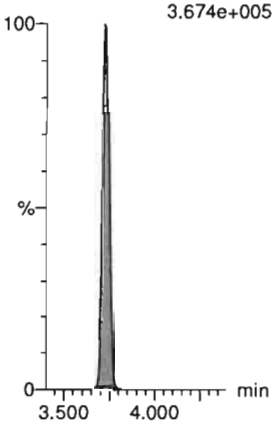
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.929e+004



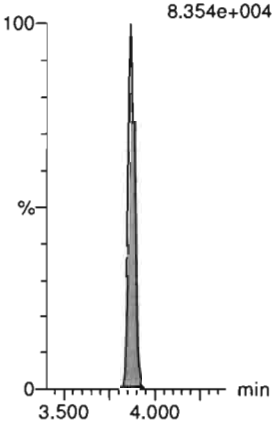
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F14:MRM of 1 channel,ES-
315.0 > 270.0
4.934e+005



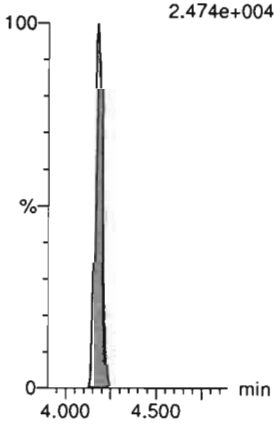
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.674e+005



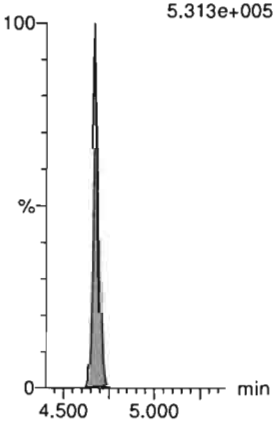
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.354e+004



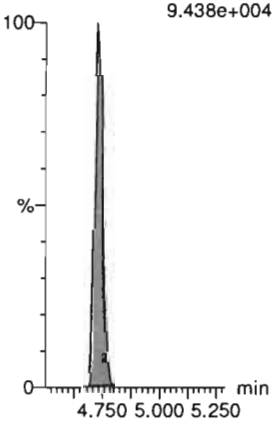
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.474e+004



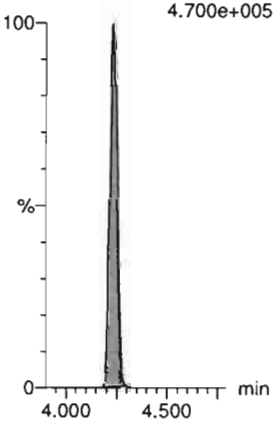
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
5.313e+005



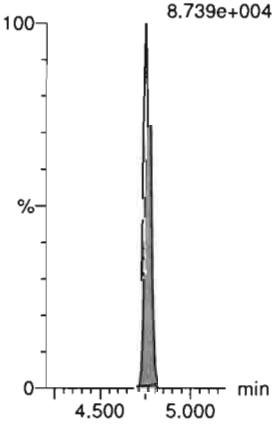
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.438e+004



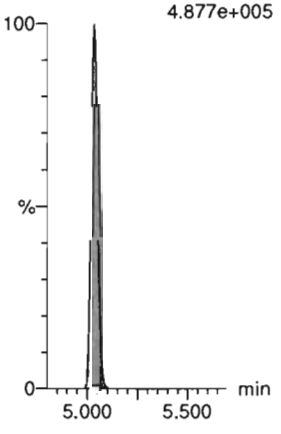
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.700e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.739e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.877e+005

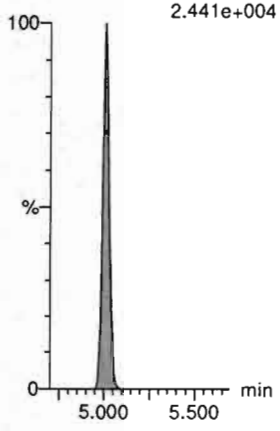


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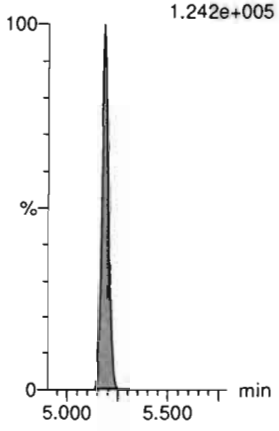
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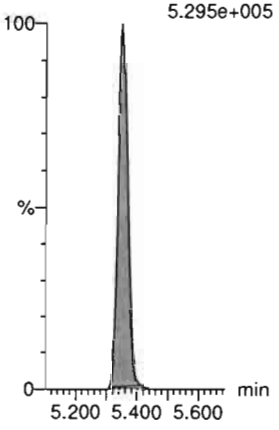
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.441e+004



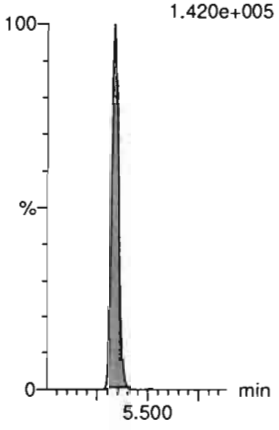
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.242e+005



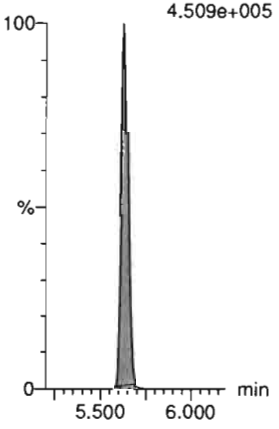
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F55:MRM of 1 channel,ES-
565 > 519.8
5.295e+005



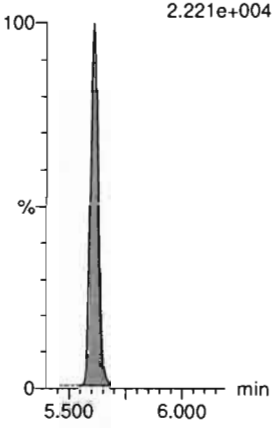
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.420e+005



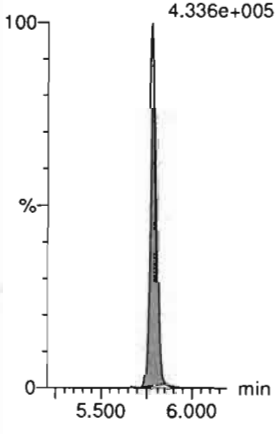
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.509e+005



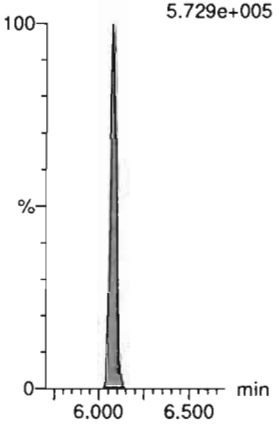
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.221e+004



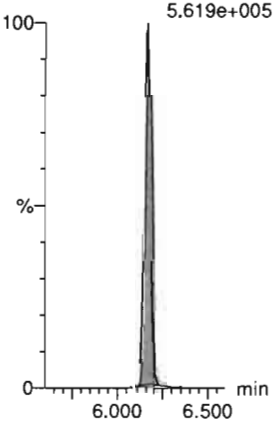
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F46:MRM of 1 channel,ES-
515.2 > 168.9
4.336e+005



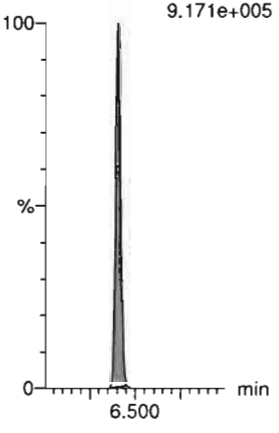
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.729e+005



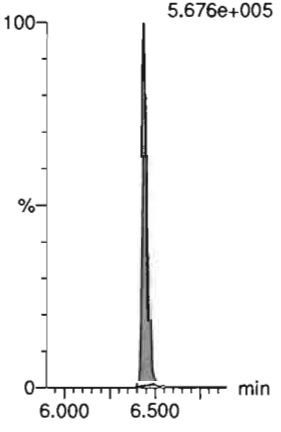
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.619e+005



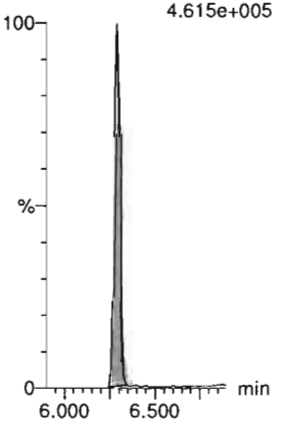
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.171e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.676e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.615e+005

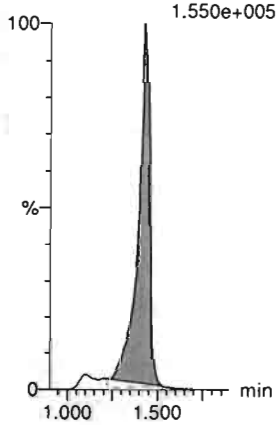


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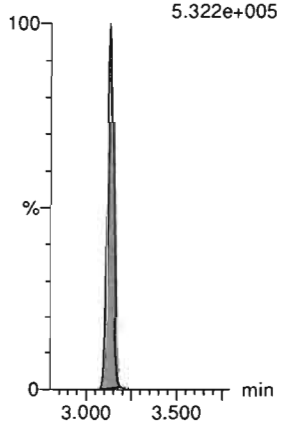
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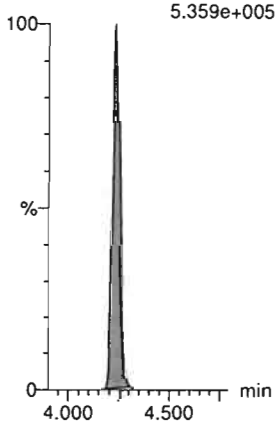
13C4-PFBA



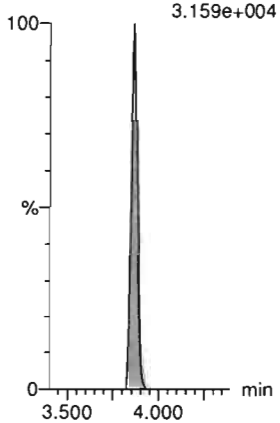
13C5-PFHxA



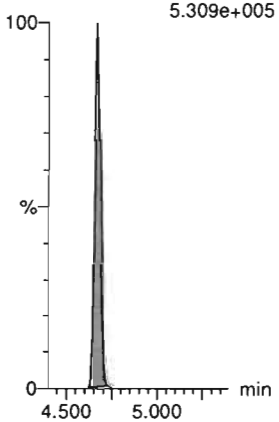
13C8-PFOA



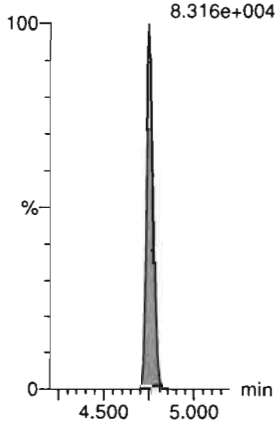
18O2-PFHxS



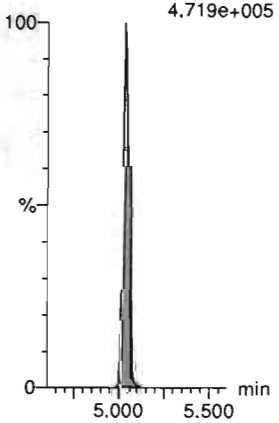
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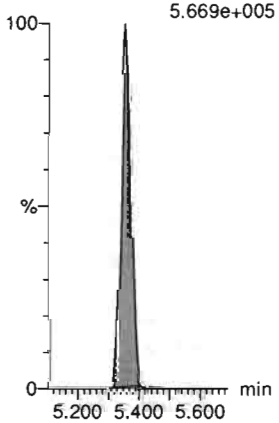
13C4-PFOS



13C6-PFDA



13C7-PFUdA

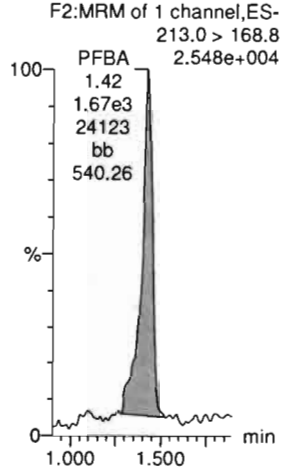


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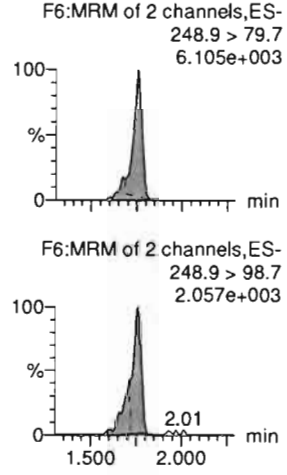
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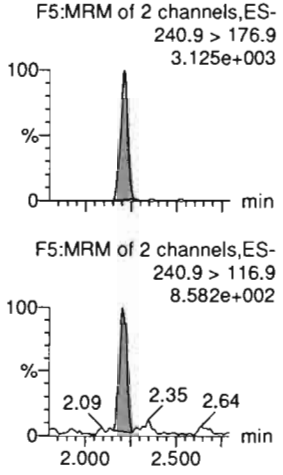
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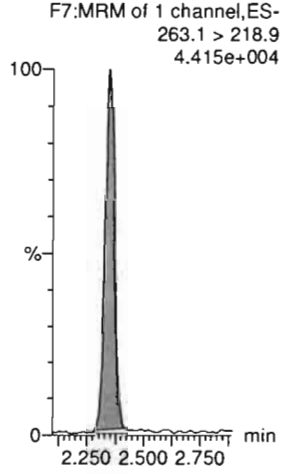
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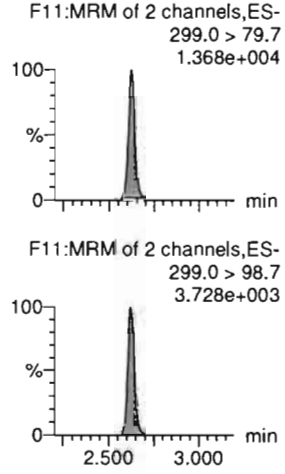
3:3 FTCA



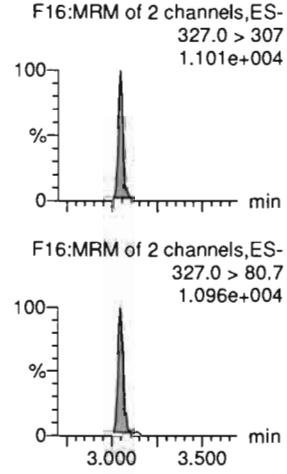
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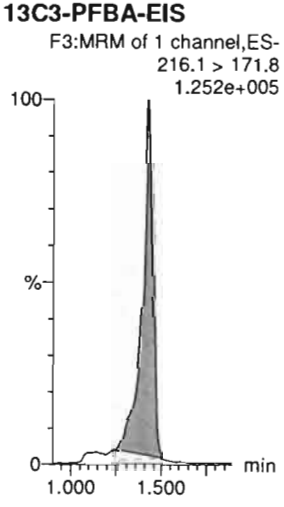
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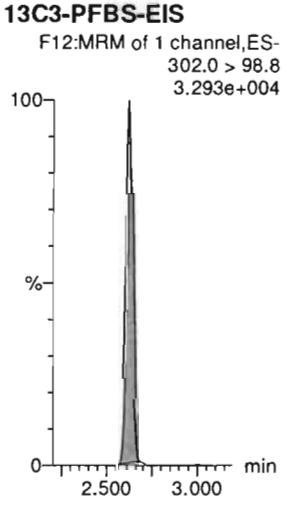
4:2 FTS



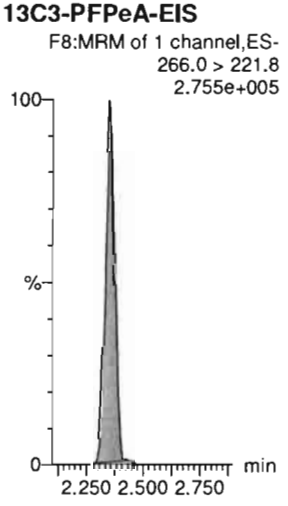
13C3-PFBA-EIS



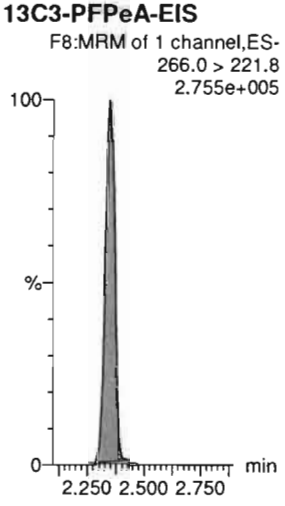
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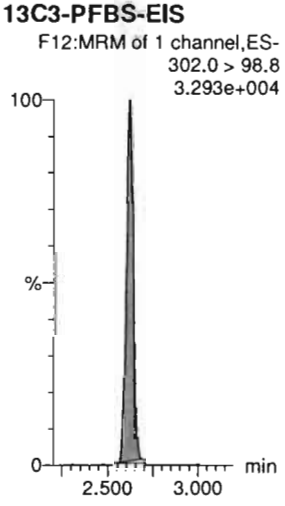
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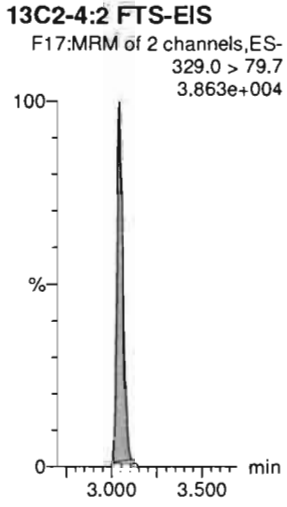
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

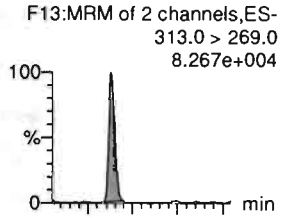


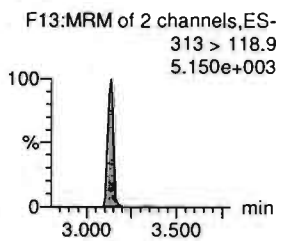
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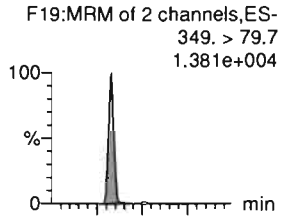
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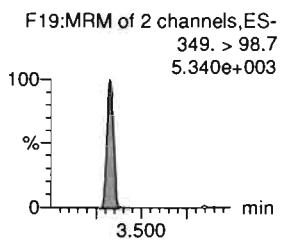
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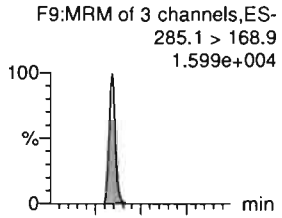


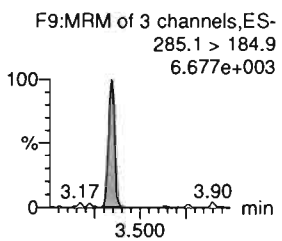
PFPeS



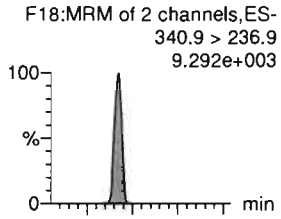


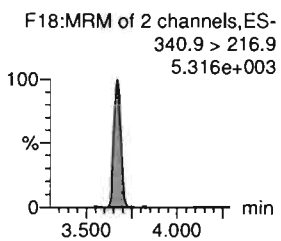
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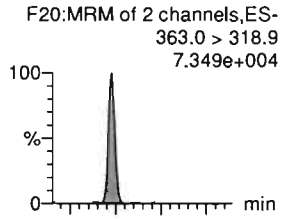


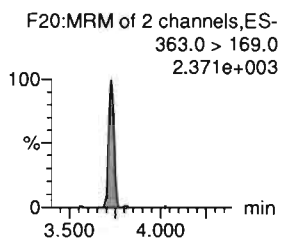
5:3 FTCA



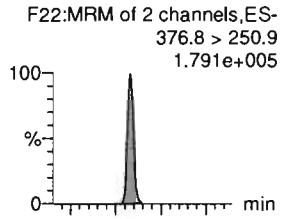


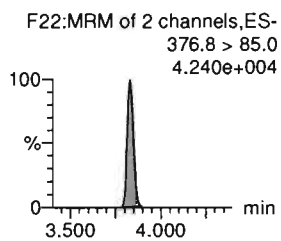
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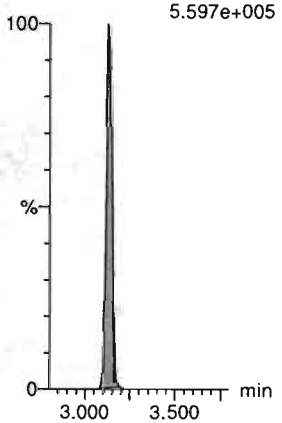


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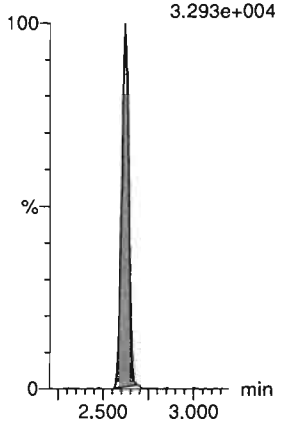




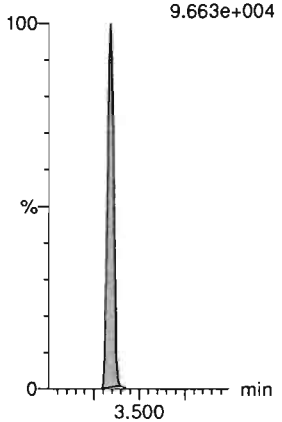
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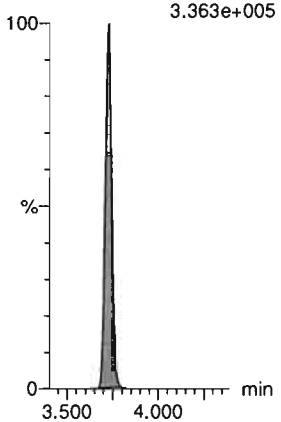
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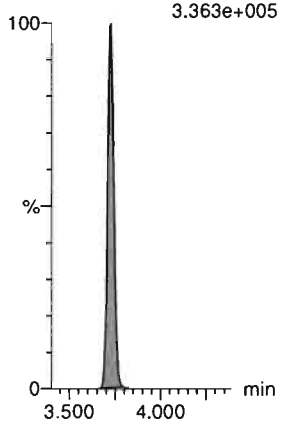
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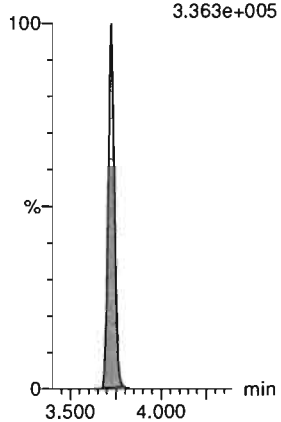
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

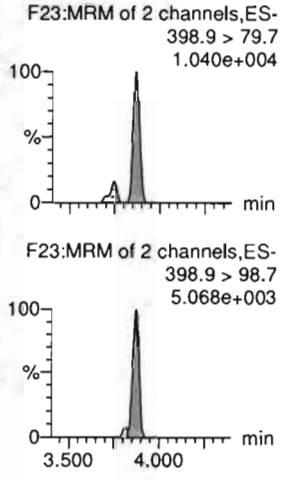


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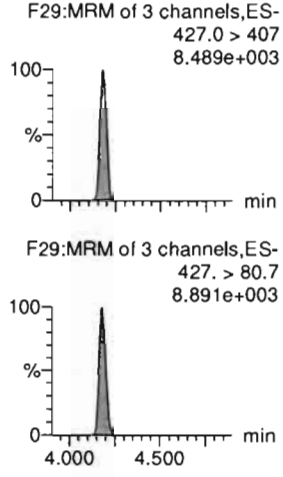
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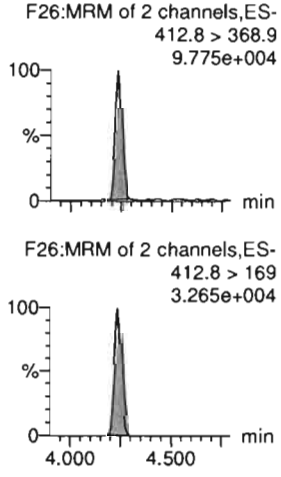
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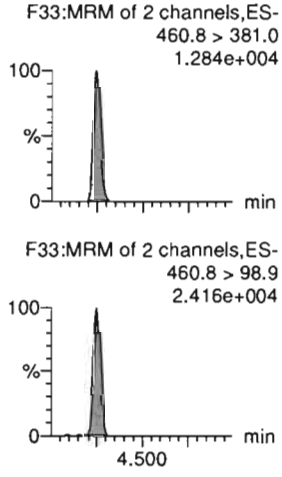
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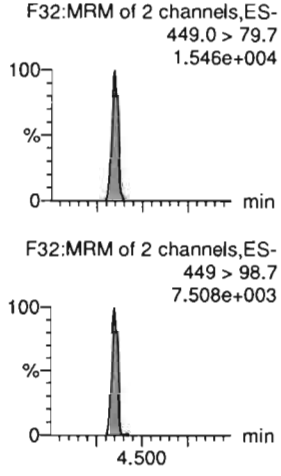
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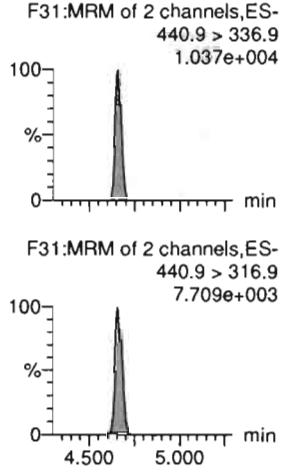
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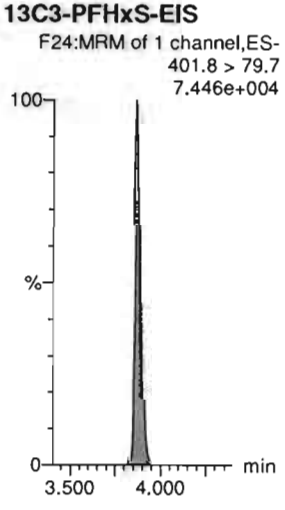
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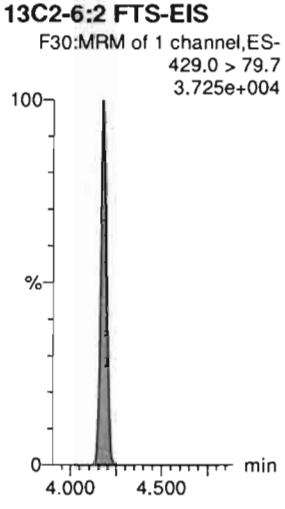
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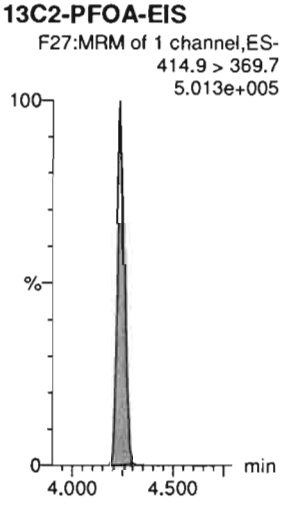
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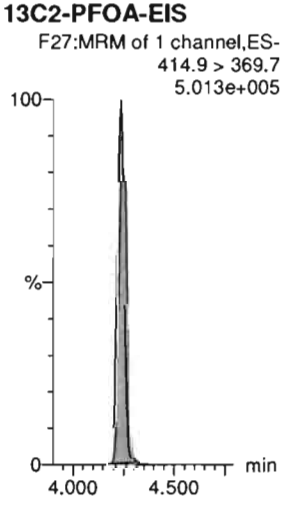
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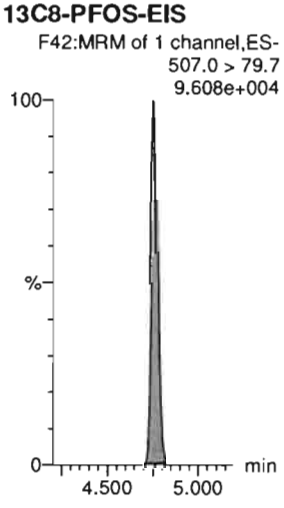
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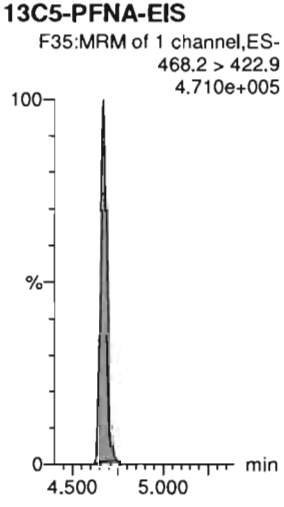
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13C8-PFOS-EIS



13C5-PFNA-EIS

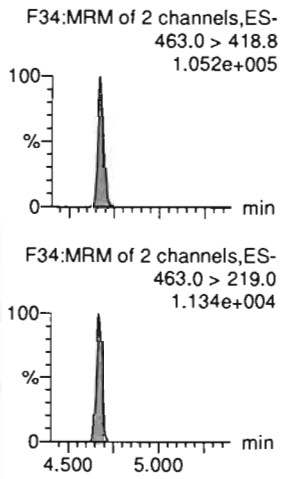


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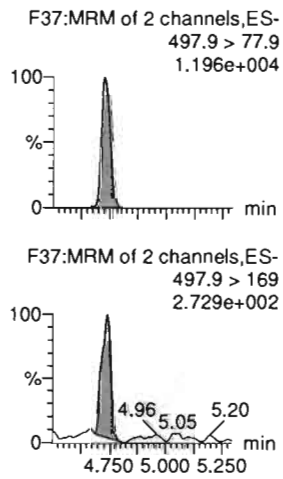
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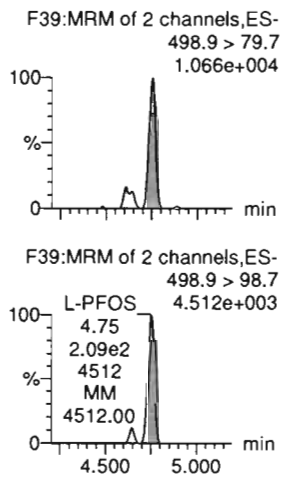
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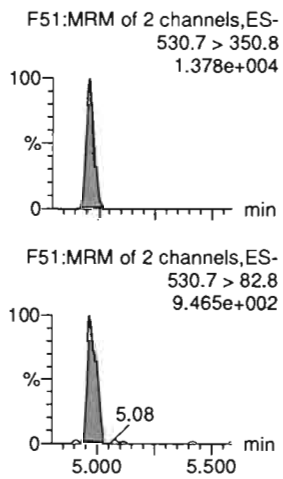
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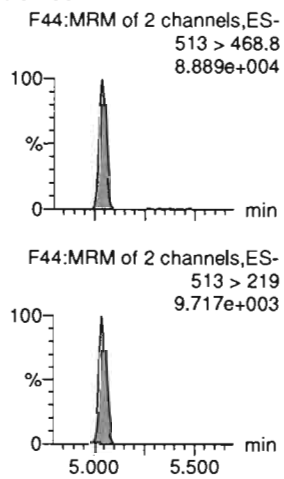
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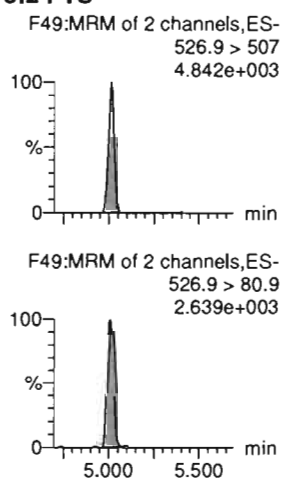
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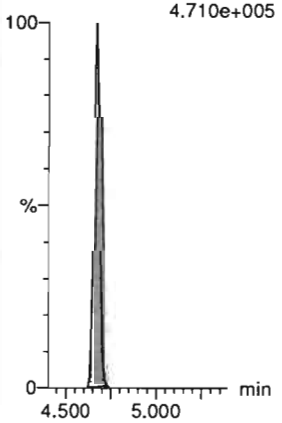
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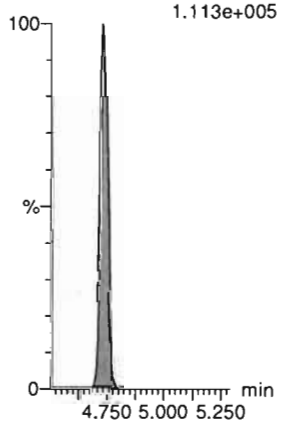
8:2 FTS



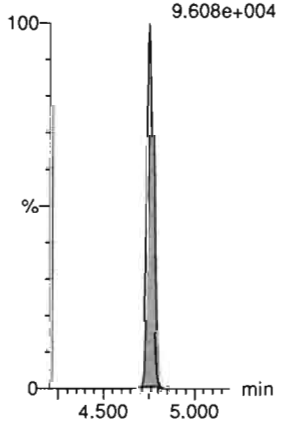
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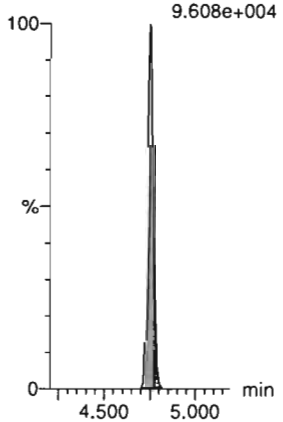
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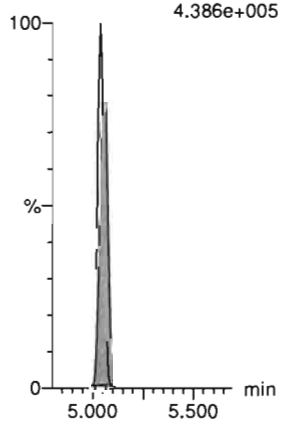
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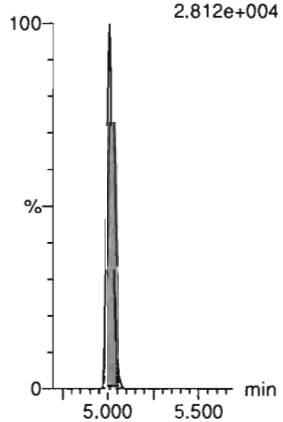
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

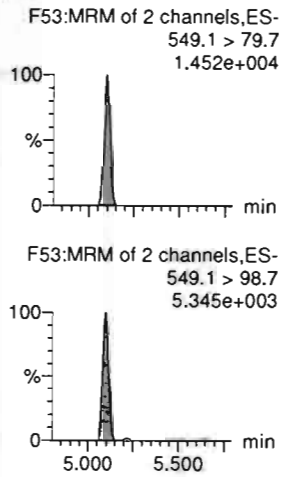


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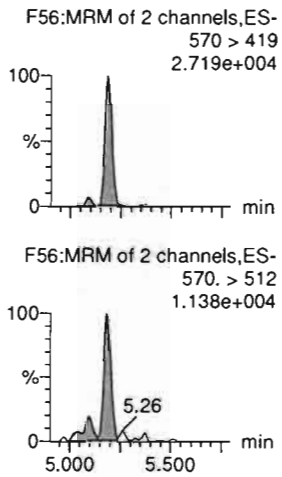
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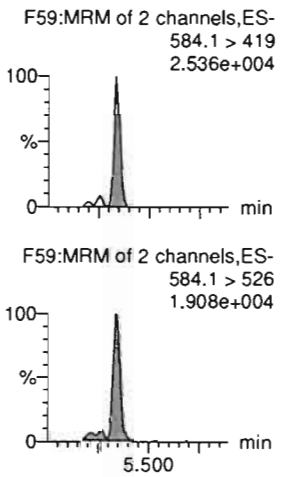
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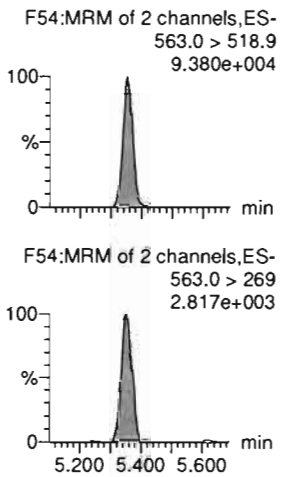
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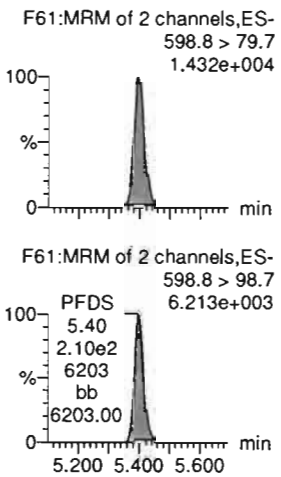
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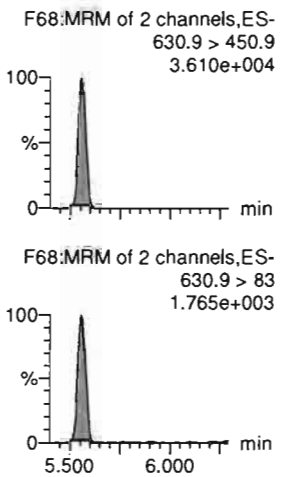
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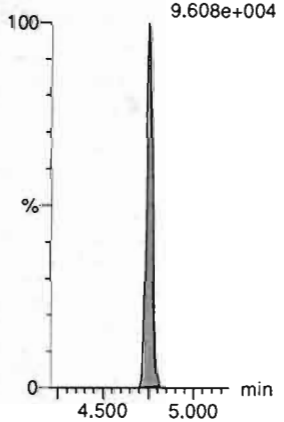
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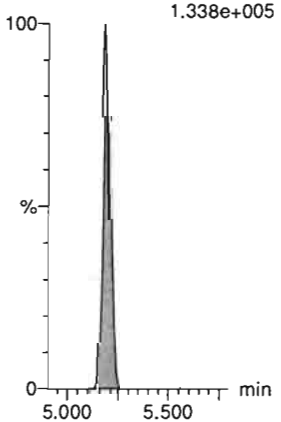
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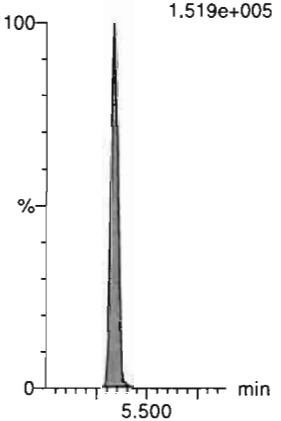
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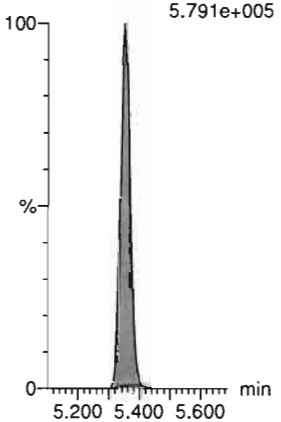
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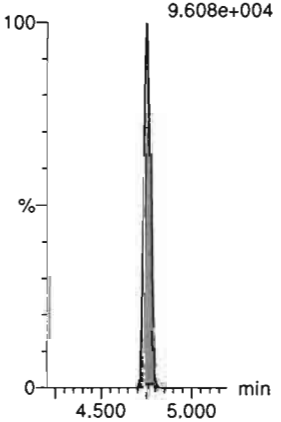
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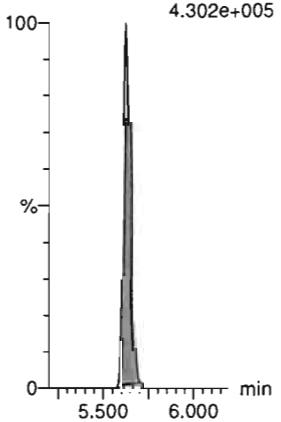
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13C8-PFOS-EIS



13C2-PFDoA-EIS

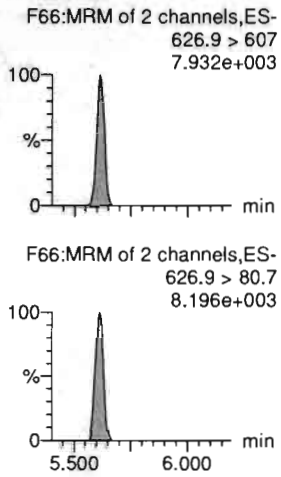


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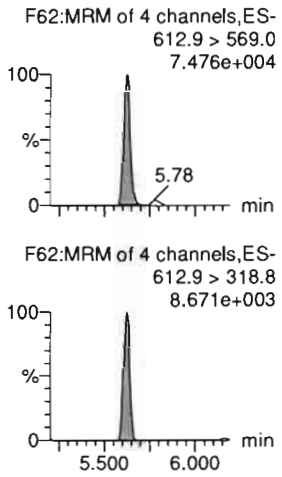
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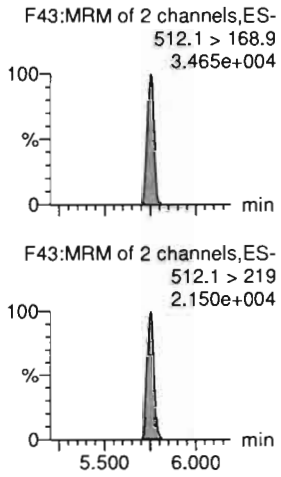
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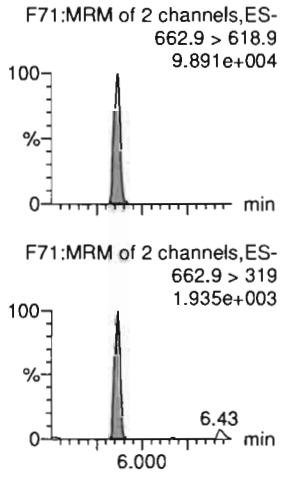
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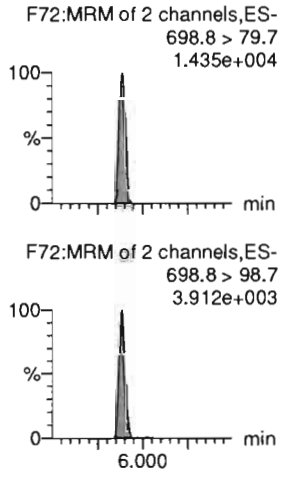
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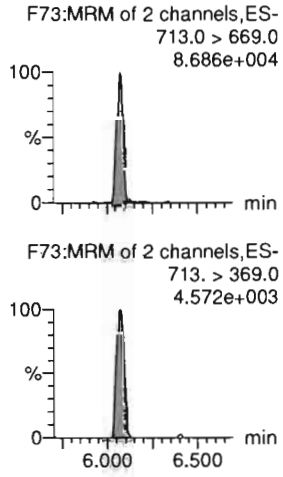
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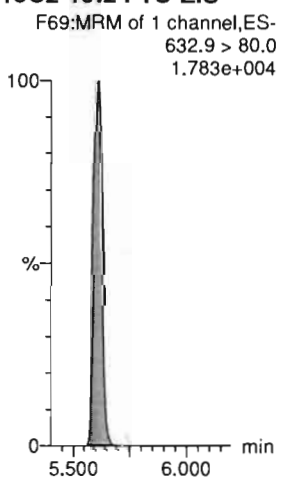
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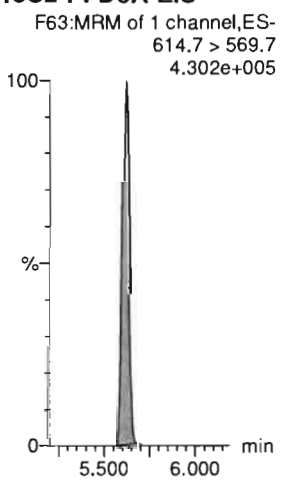
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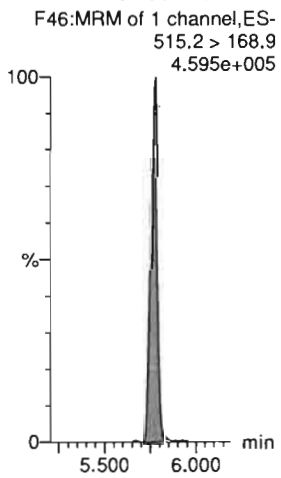
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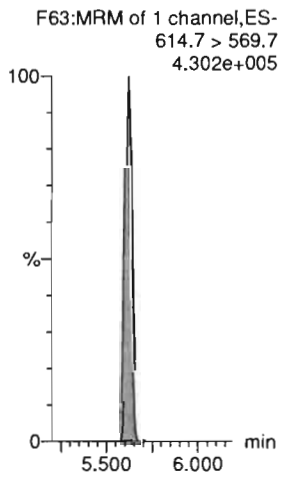
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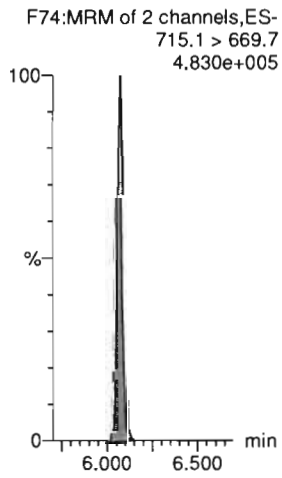
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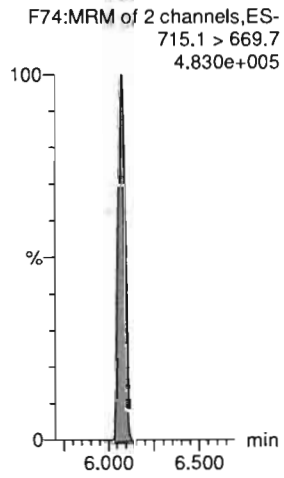
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13C2-PFTeDA-EIS



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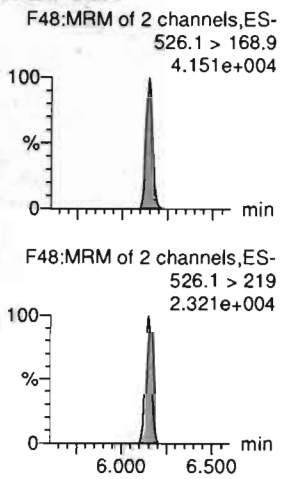


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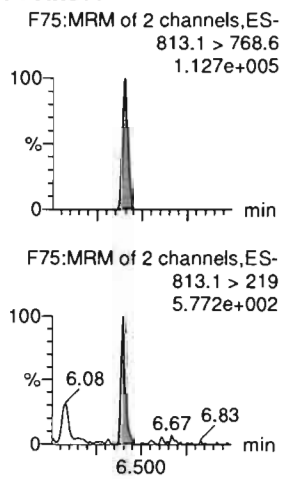
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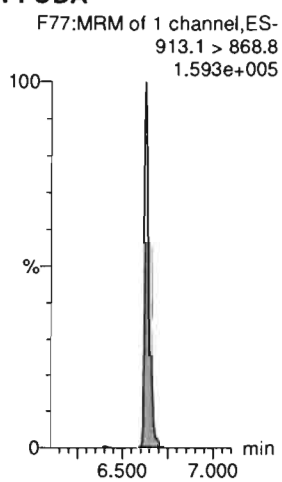
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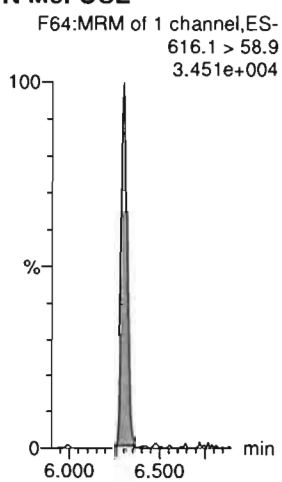
PFHxDA



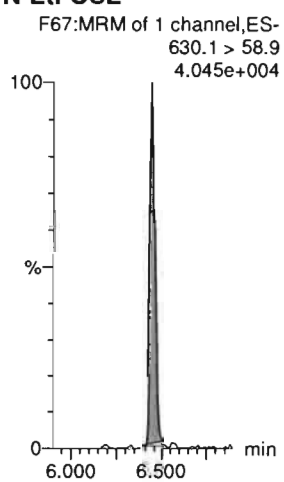
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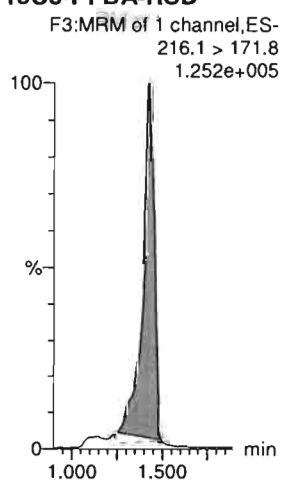
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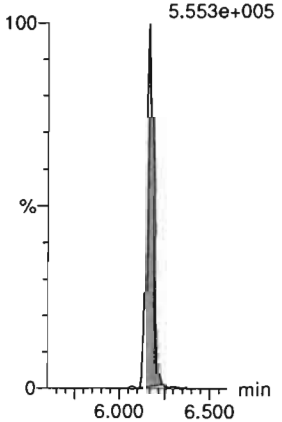
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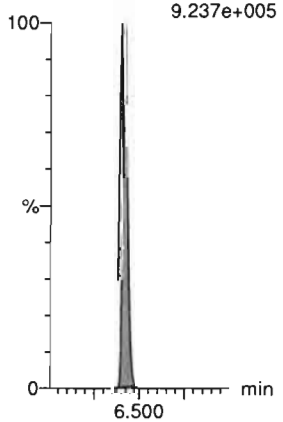
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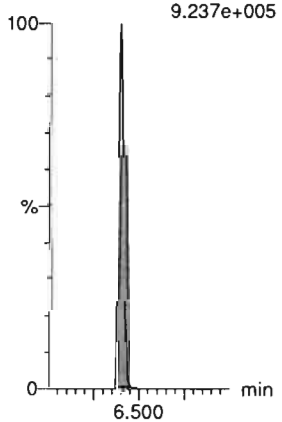
d5-N-ETFOSA-EIS



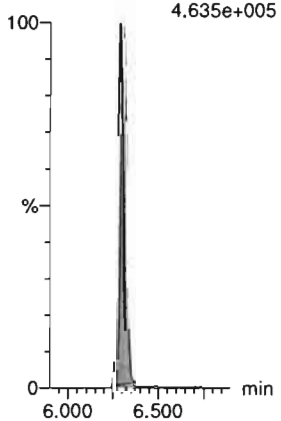
13C2-PFHxDA-EIS



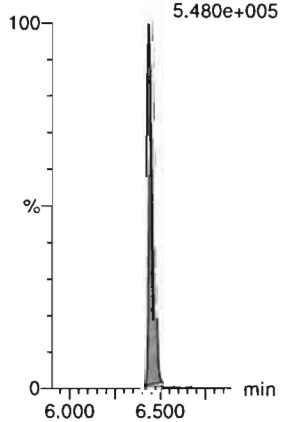
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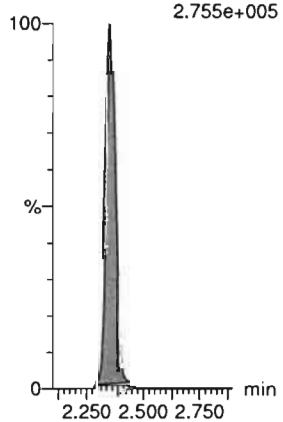
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

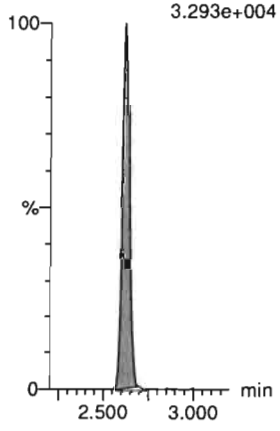


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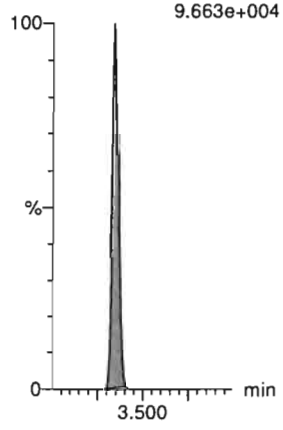
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Name: 200226P1-6, Date: 26-Feb-2020, Time: 17:30:39, ID: ST200226P1-4 PFC CS1 20B1105, Description: PFC CS1 20B1105

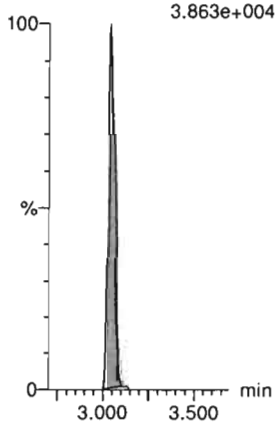
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.293e+004



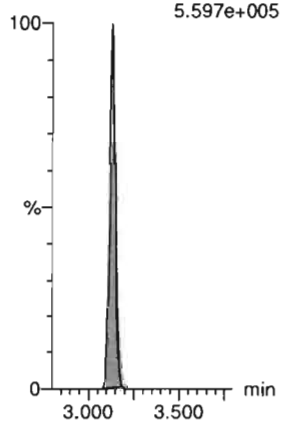
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.663e+004



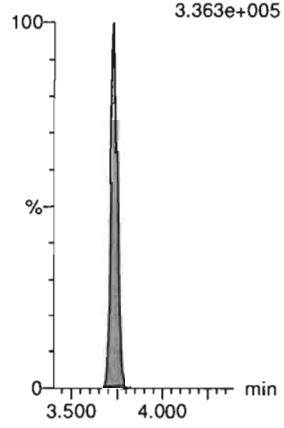
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.863e+004



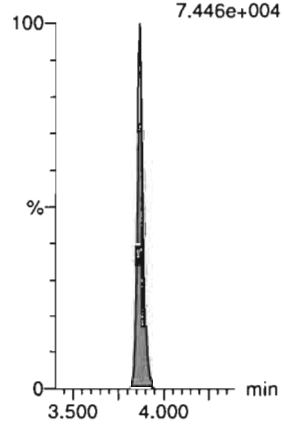
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.597e+005



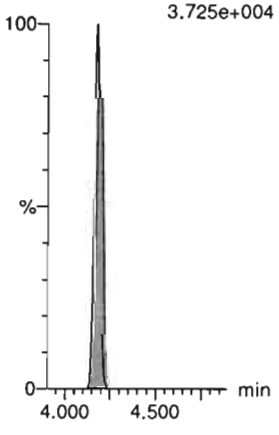
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.363e+005



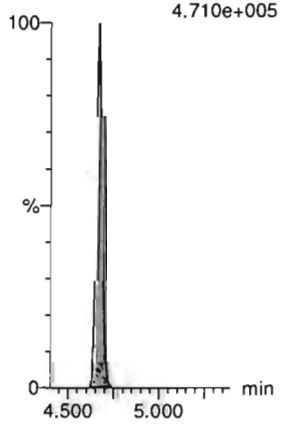
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
7.446e+004



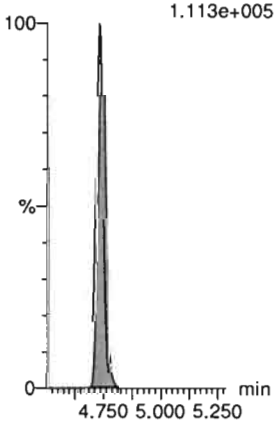
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.725e+004



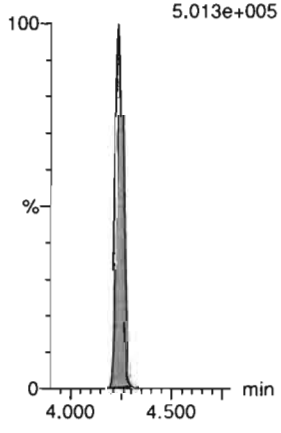
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.710e+005



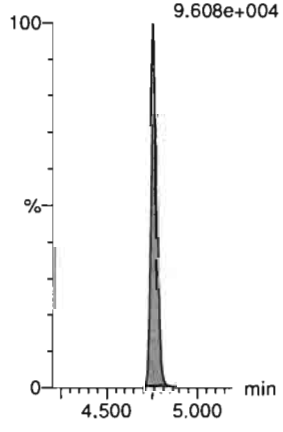
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.113e+005



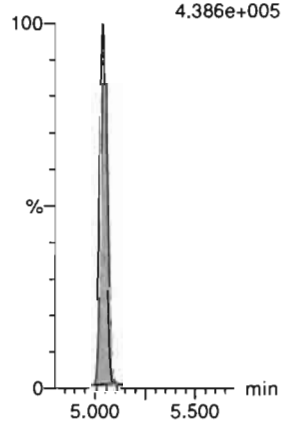
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
5.013e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.608e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.386e+005

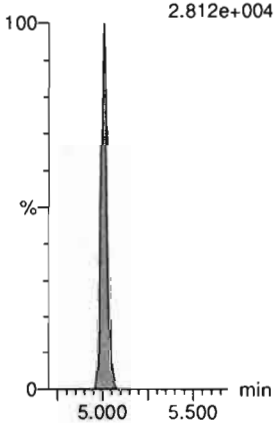


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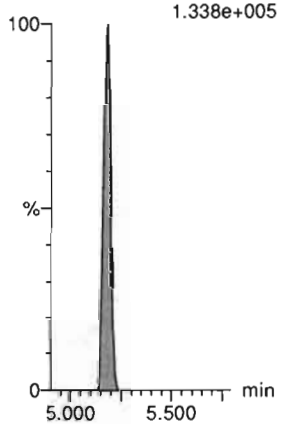
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Printed: Thursday, February 27, 2020 08:34:37 Pacific Standard Time

Name: 200226P1-6, Date: 26-Feb-2020, Time: 17:30:39, ID: ST200226P1-4 PFC CS1 20B1105, Description: PFC CS1 20B1105

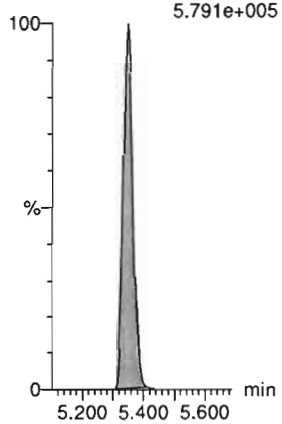
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.812e+004



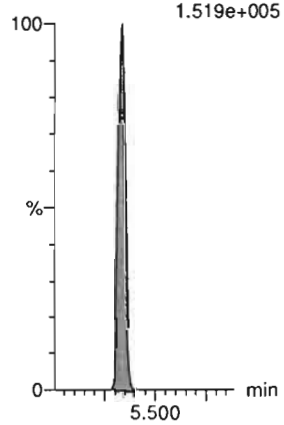
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.338e+005



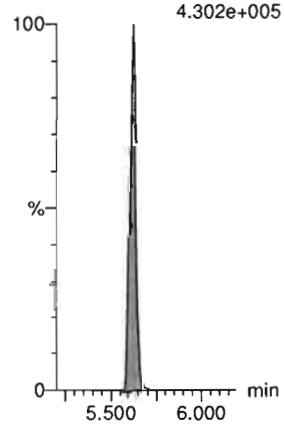
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.791e+005



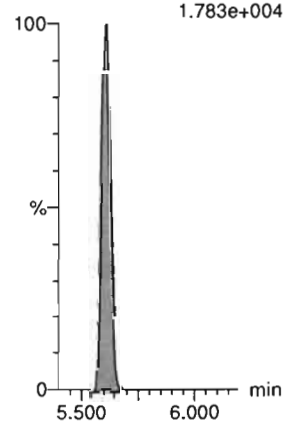
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.519e+005



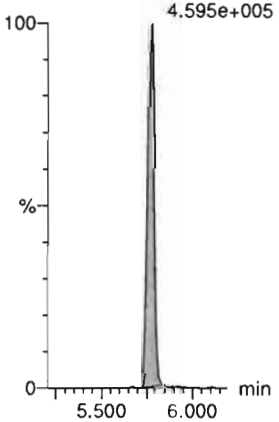
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.302e+005



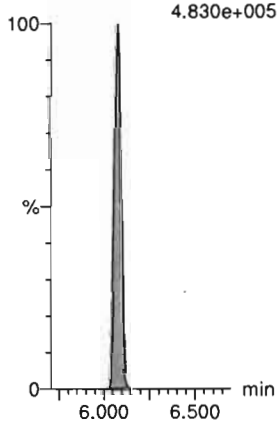
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.783e+004



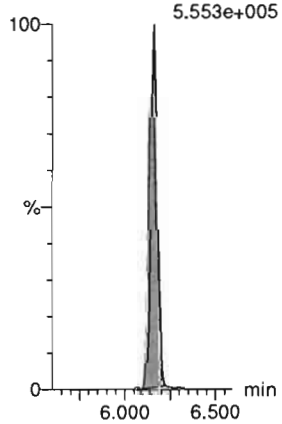
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.595e+005



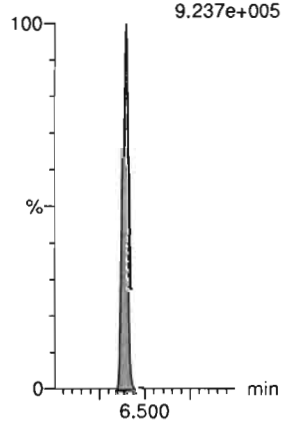
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.830e+005



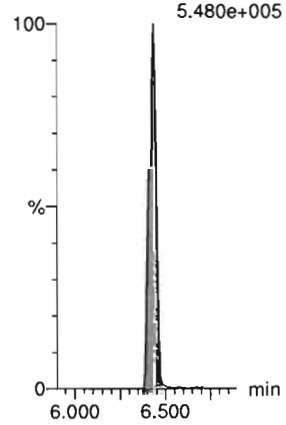
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.553e+005



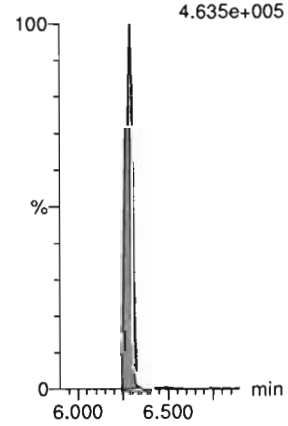
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.237e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.480e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.635e+005

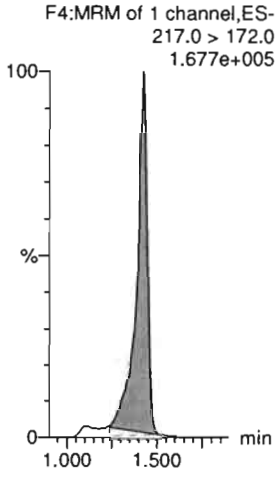


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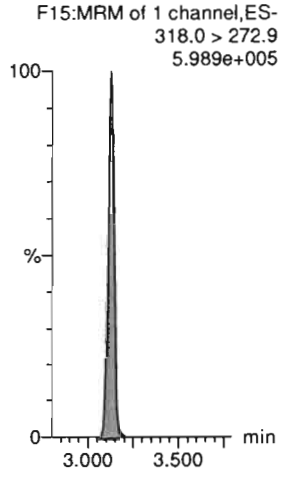
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Name: 200226P1-6, Date: 26-Feb-2020, Time: 17:30:39, ID: ST200226P1-4 PFC CS1 20B1105, Description: PFC CS1 20B1105

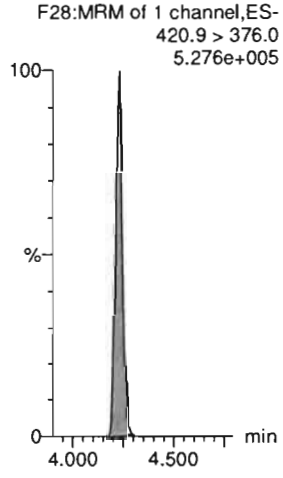
13C4-PFBA



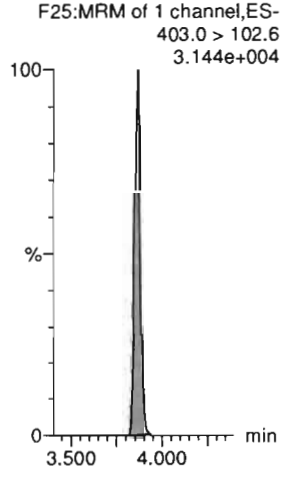
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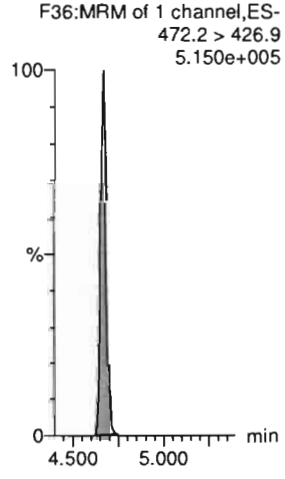
13C8-PFOA



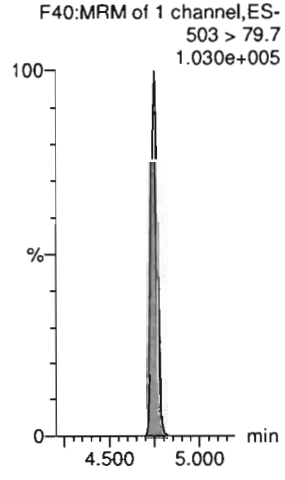
18O2-PFHxS



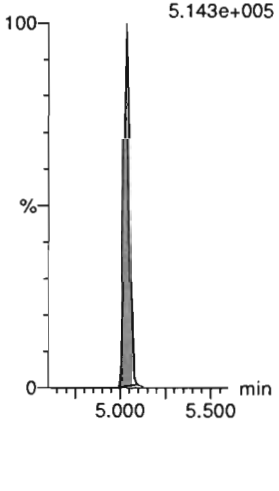
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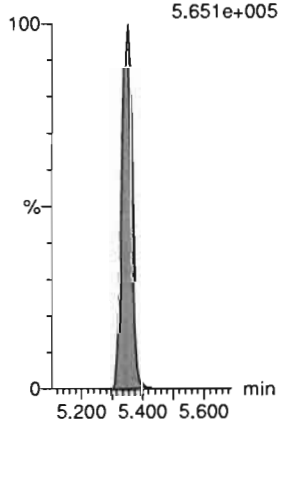
13C4-PFOS



13C6-PFDA



13C7-PFUdA

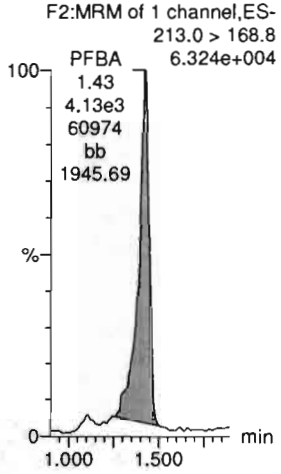


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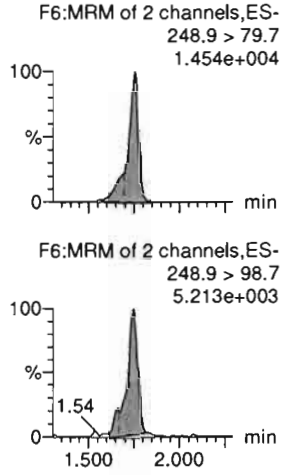
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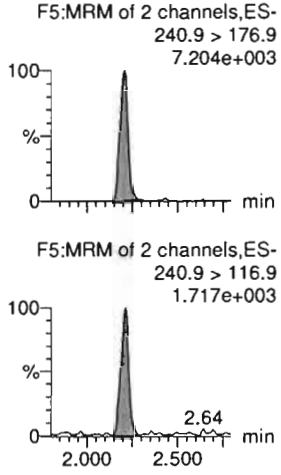
PFBA



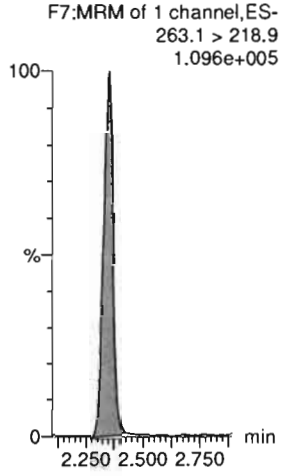
PFPrS



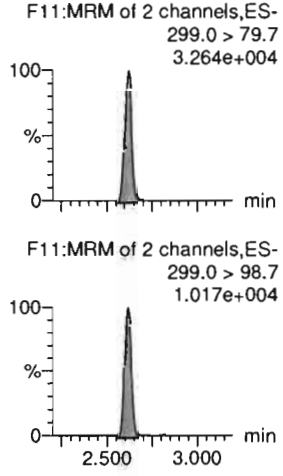
3:3 FTCA



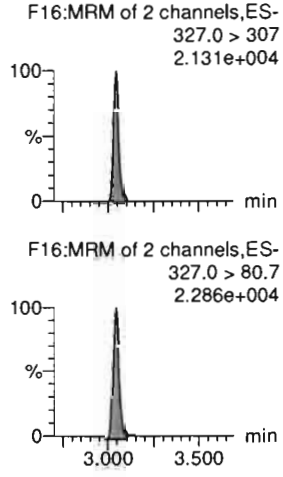
PFPeA



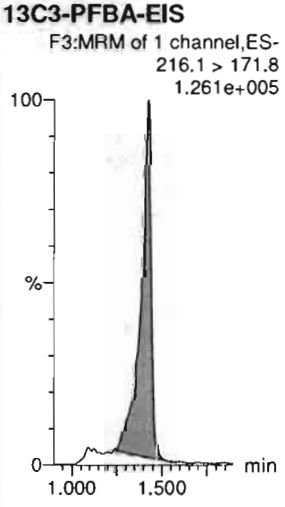
PFBS



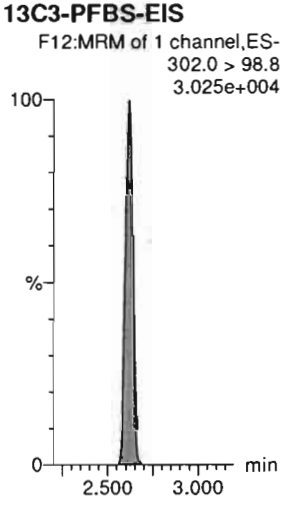
4:2 FTS



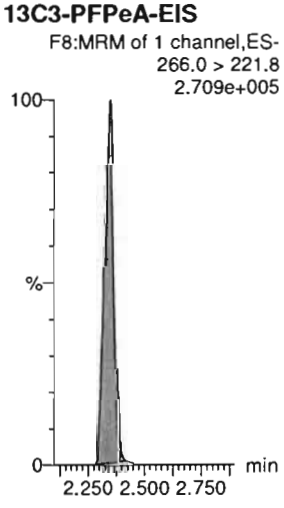
13C3-PFBA-EIS



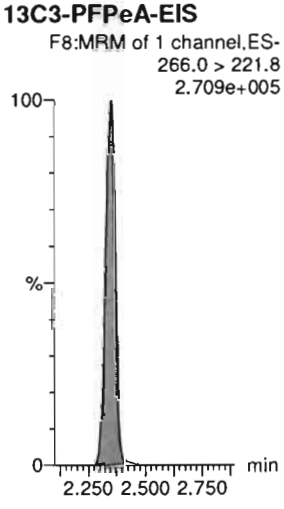
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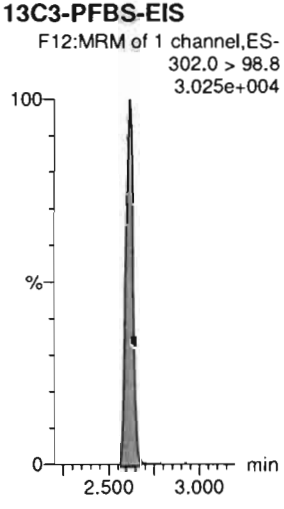
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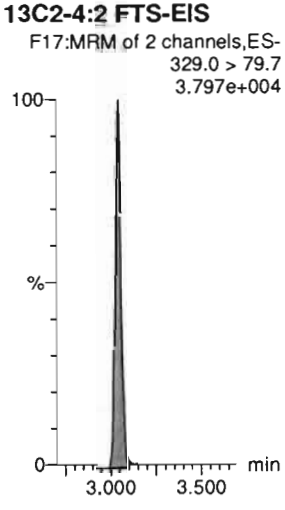
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13C2-4:2 FTS-EIS

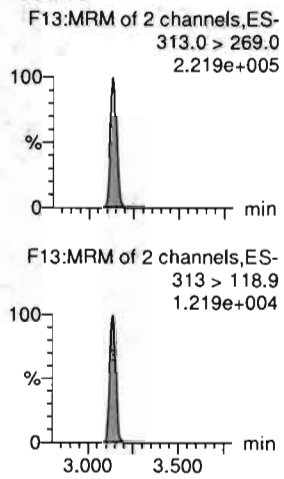


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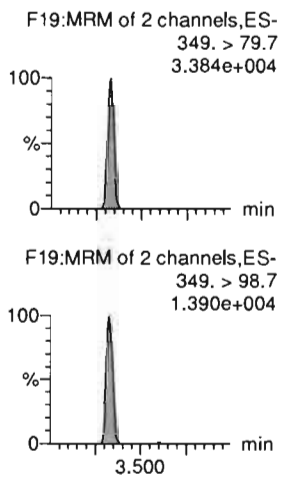
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Name: 200226P1-7, Date: 26-Feb-2020, Time: 17:41:11, ID: ST200226P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

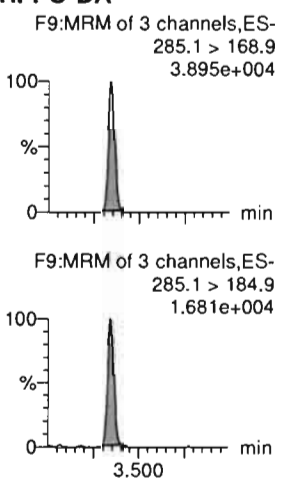
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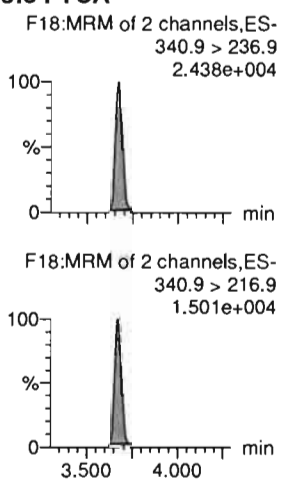
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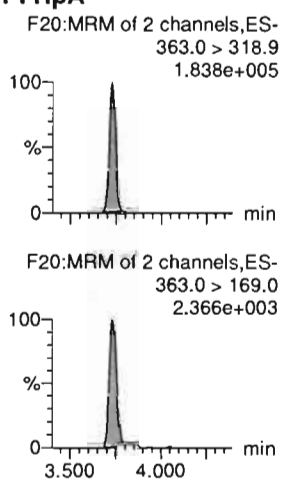
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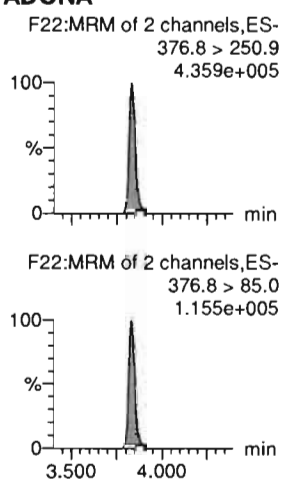
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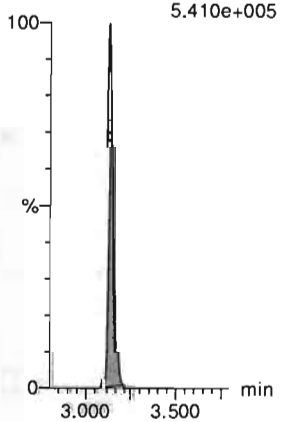
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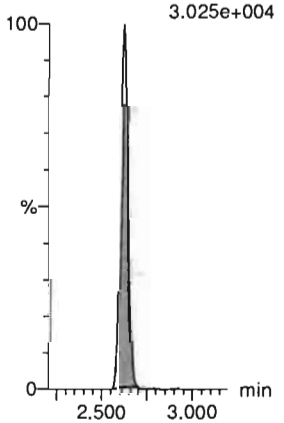
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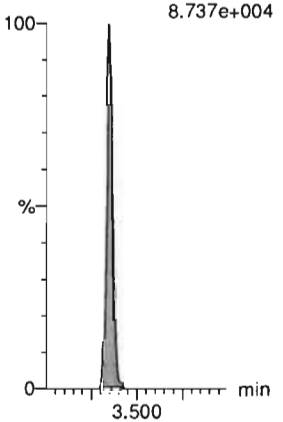
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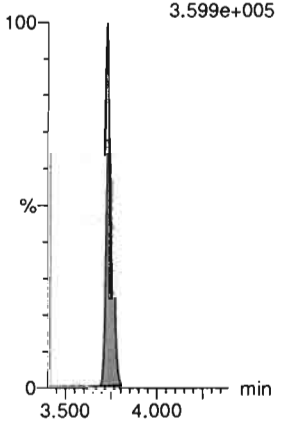
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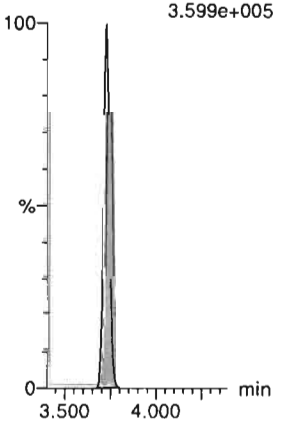
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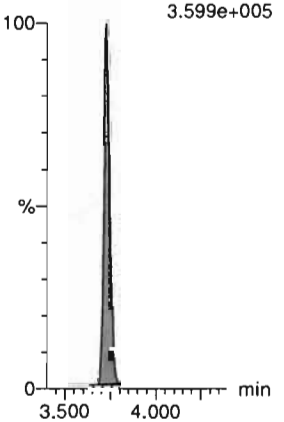
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

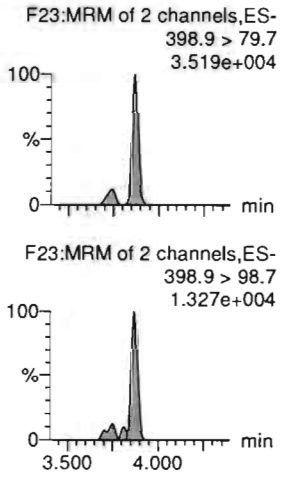


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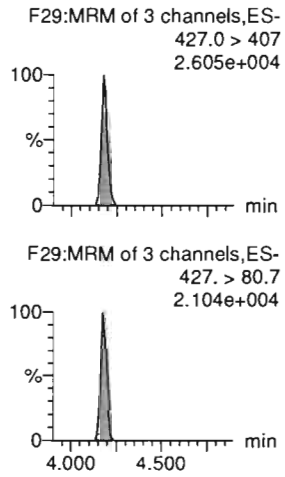
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Name: 200226P1-7, Date: 26-Feb-2020, Time: 17:41:11, ID: ST200226P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

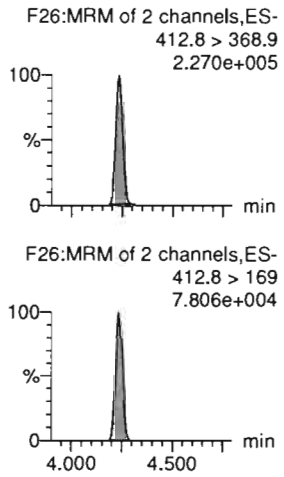
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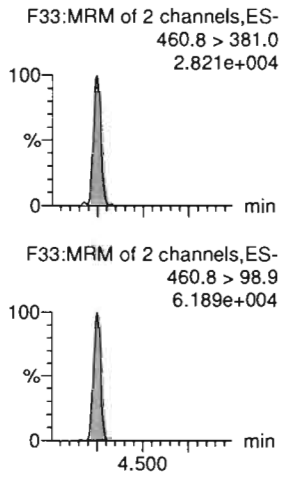
6:2 FTS



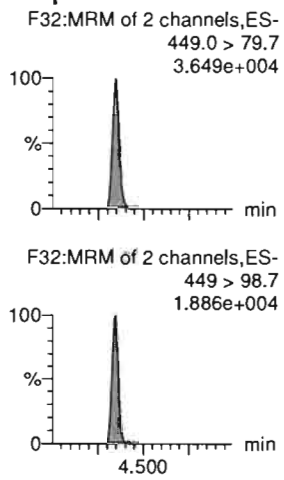
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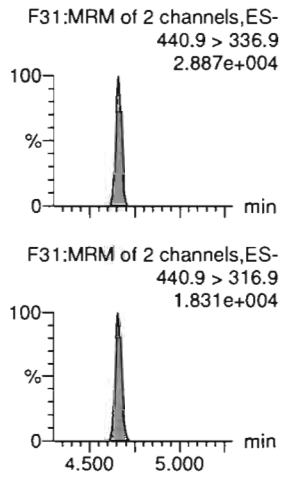
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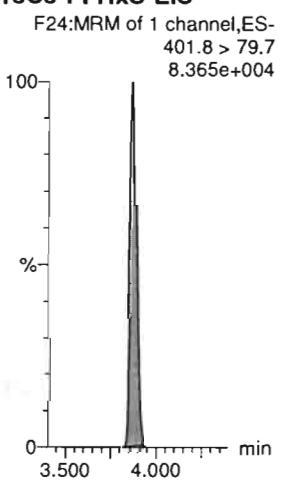
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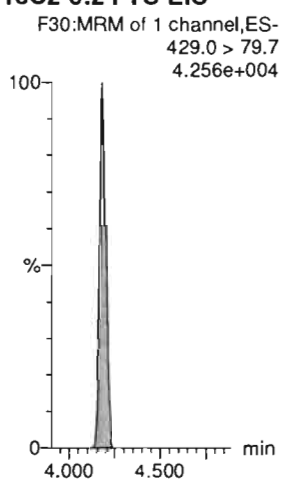
7:3 FTCA



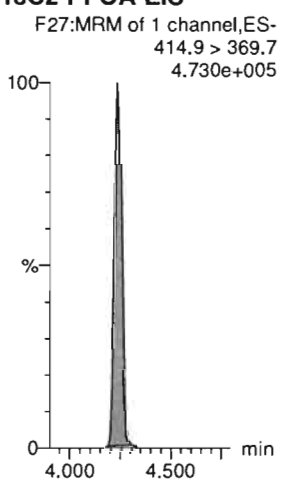
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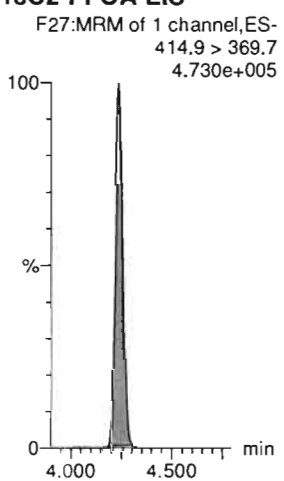
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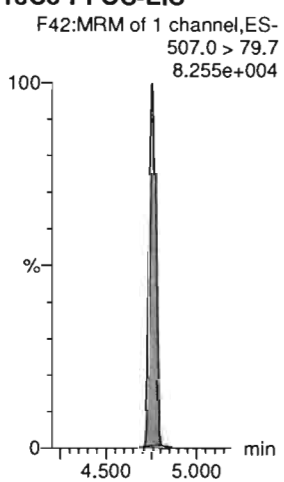
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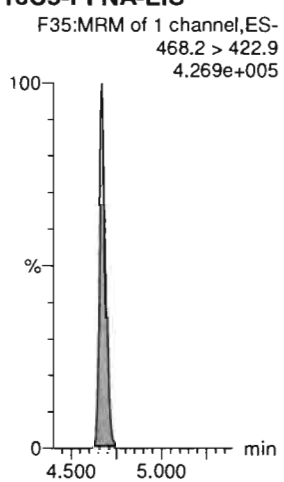
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

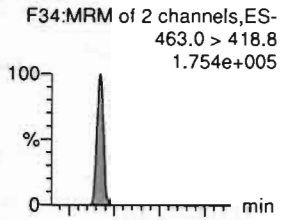


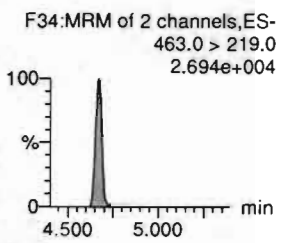
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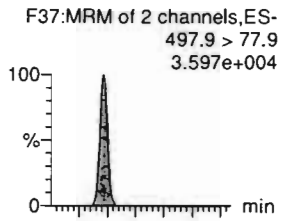
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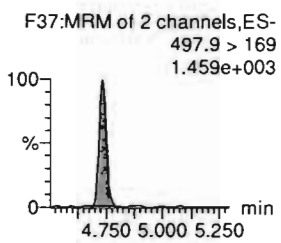
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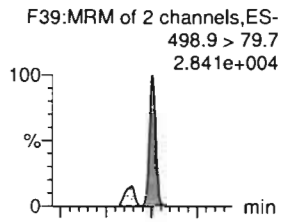


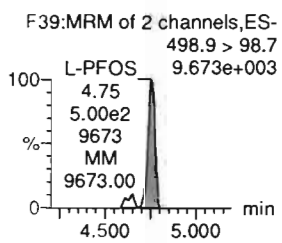
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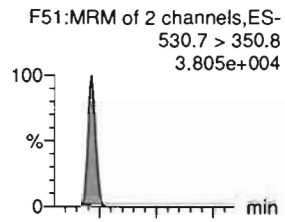


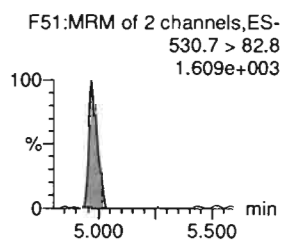
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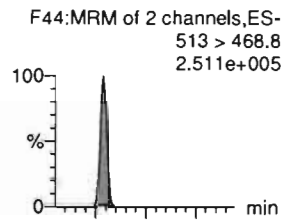


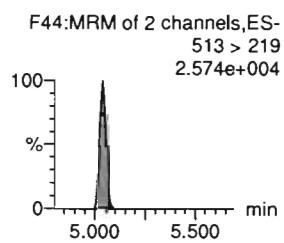
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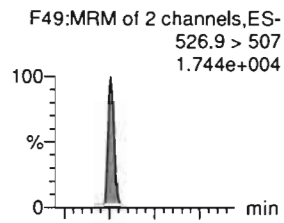


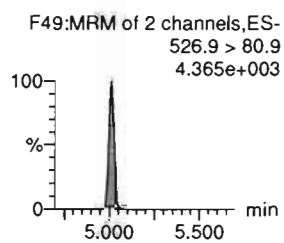
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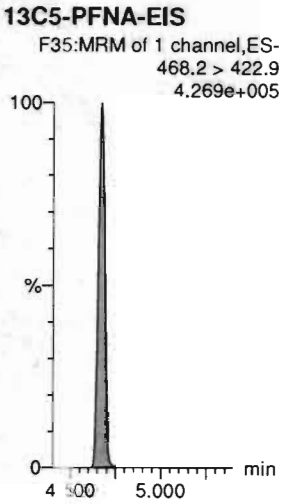


8:2 FTS

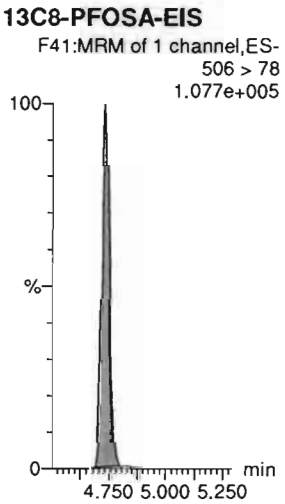




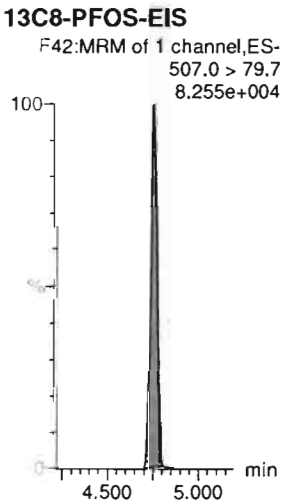
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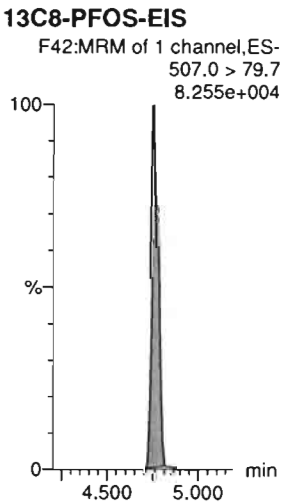
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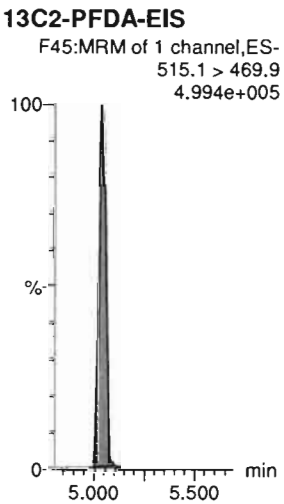
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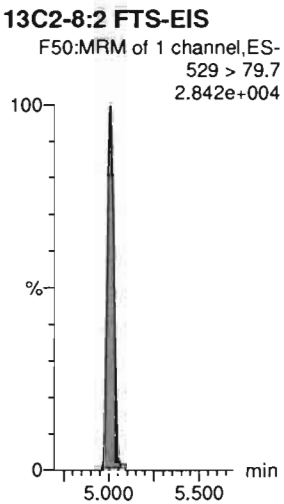
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

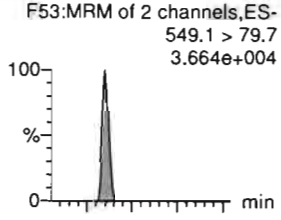


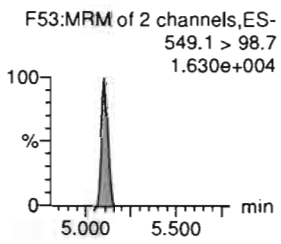
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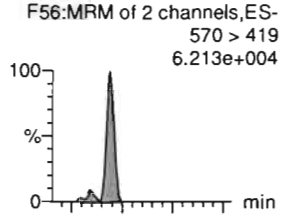
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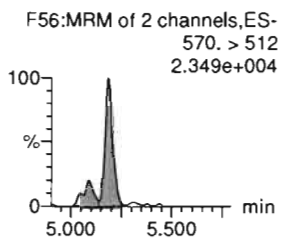
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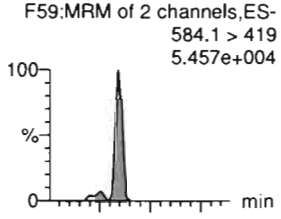


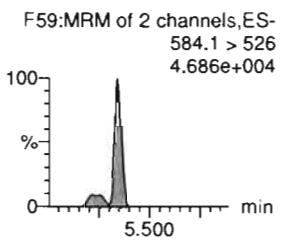
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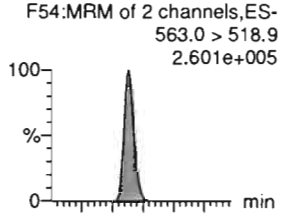


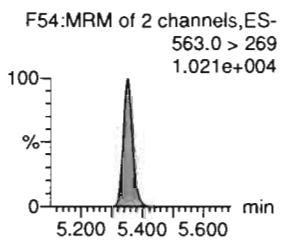
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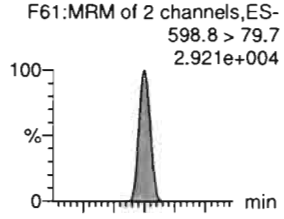


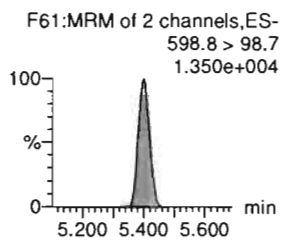
PFUdA



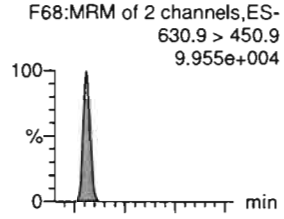


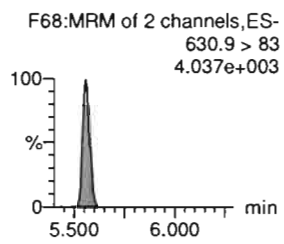
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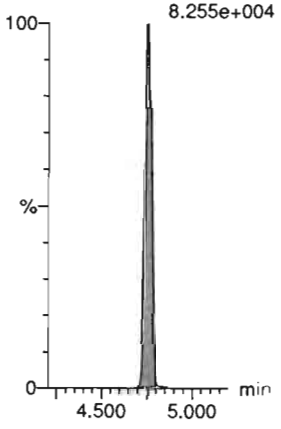


11Cl-PF30UdS

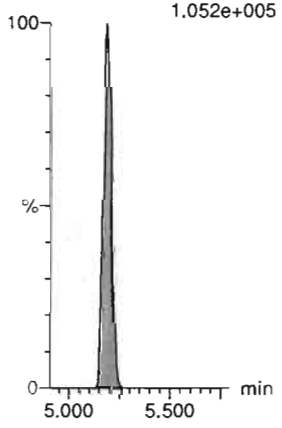




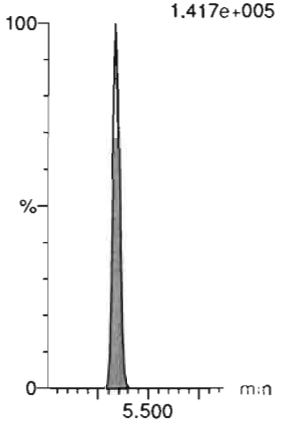
13C8-PFOS-EIS



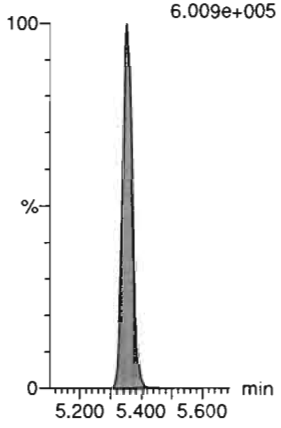
d3-N-MeFOSAA-EIS



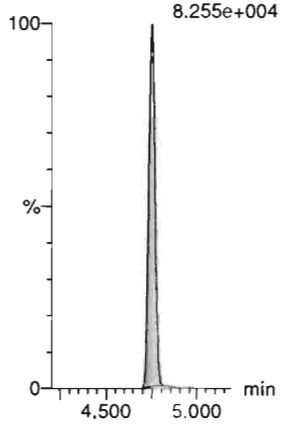
d5-N-EtFOSAA-EIS



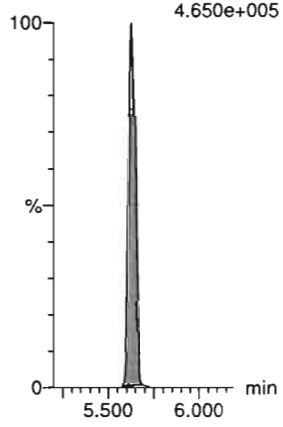
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

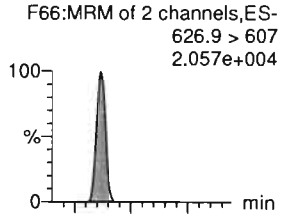


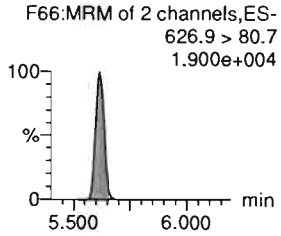
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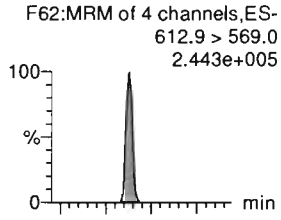
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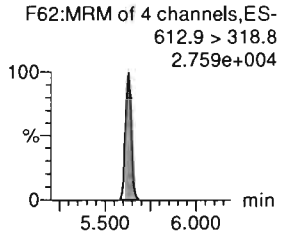
10:2 FTS



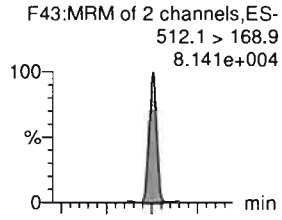


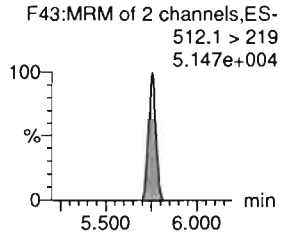
PFDoA



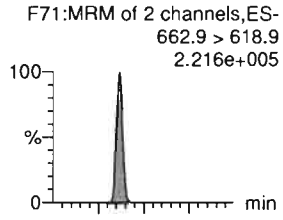


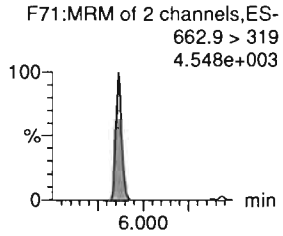
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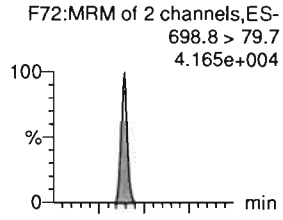


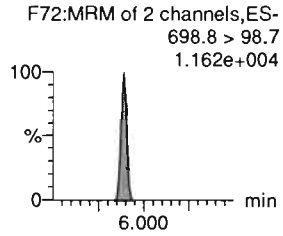
PFTrDA



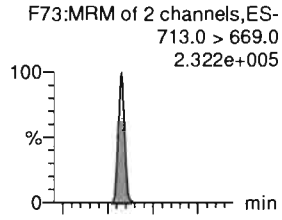


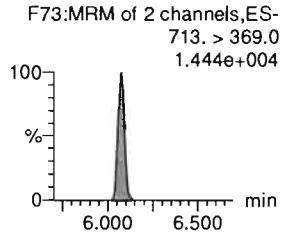
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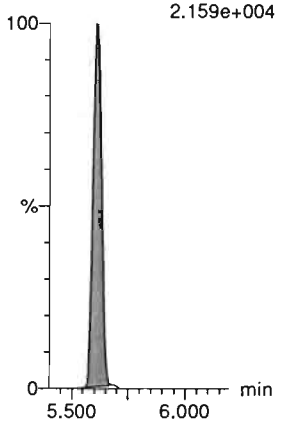


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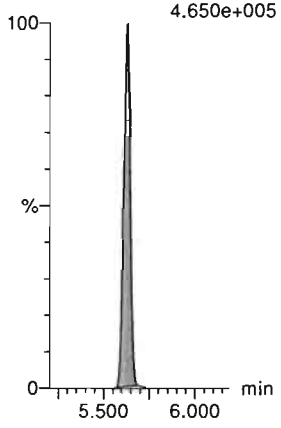




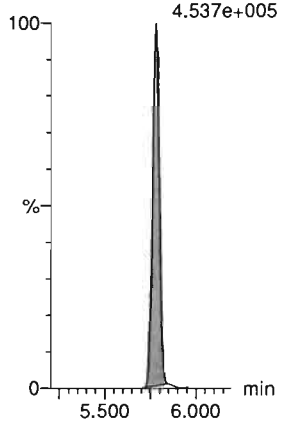
13C2-10:2 FTS-EIS



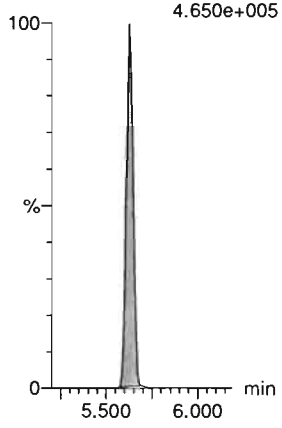
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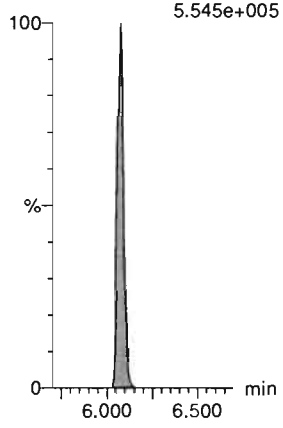
d3-N-MeFOSA-EIS



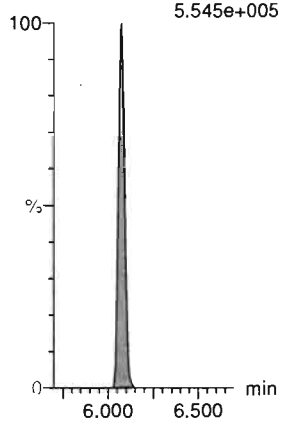
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

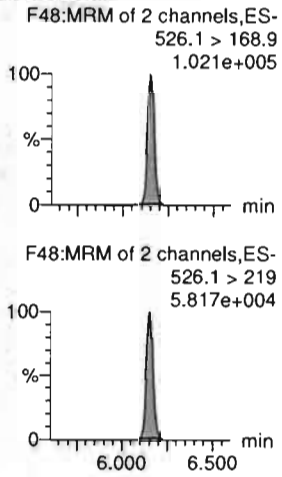


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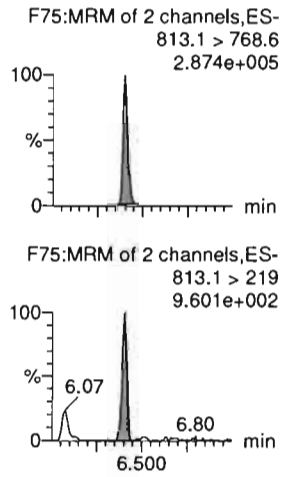
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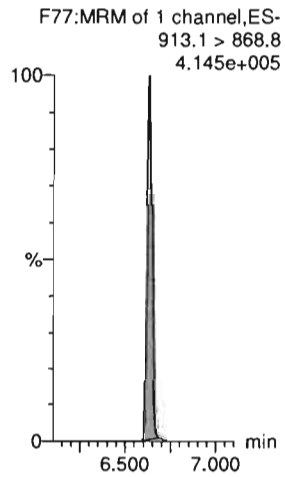
N-EtFOSA



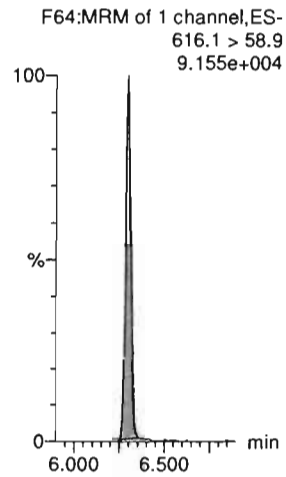
PFHxDA



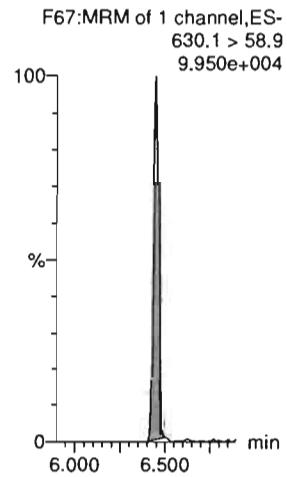
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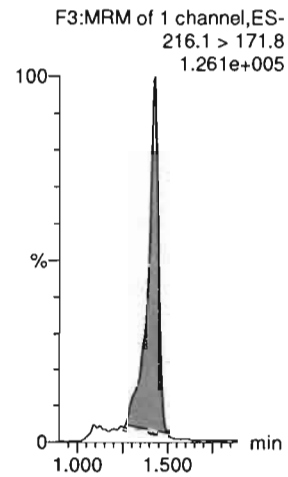
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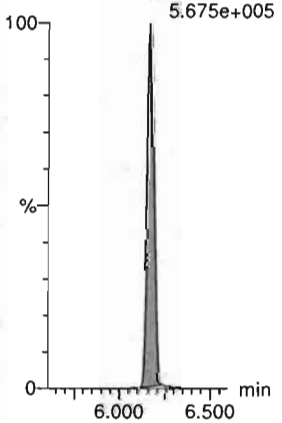
N-EtFOSE



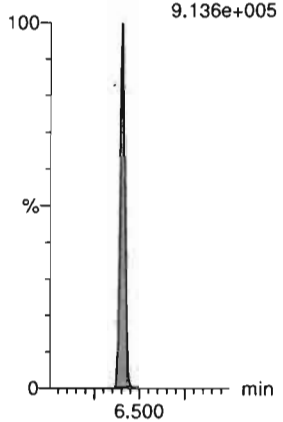
13C3-PFBA-RSD



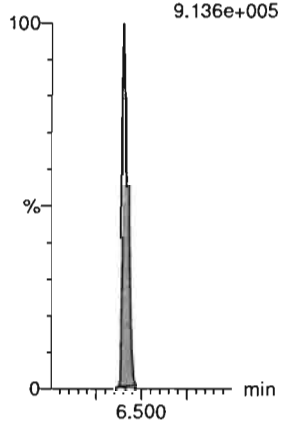
d5-N-ETFOSA-EIS



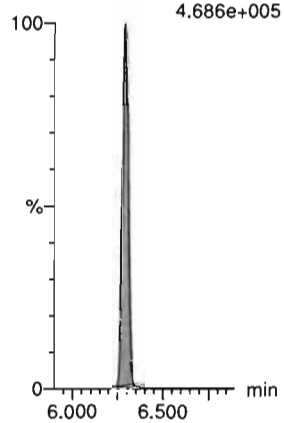
13C2-PFHxDA-EIS



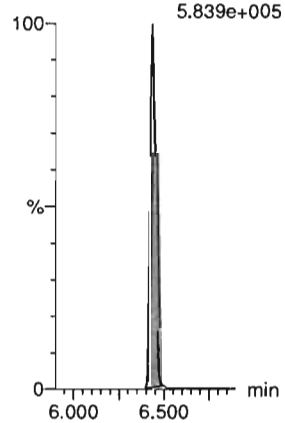
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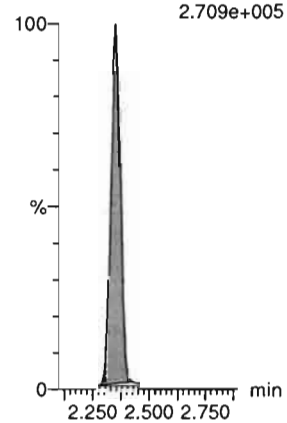
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d9-N-EtFOSE-EIS



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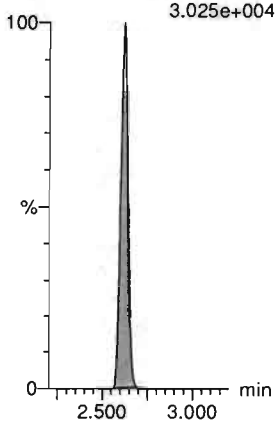


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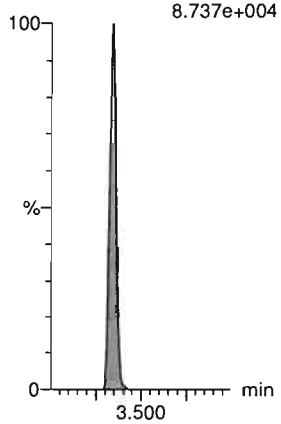
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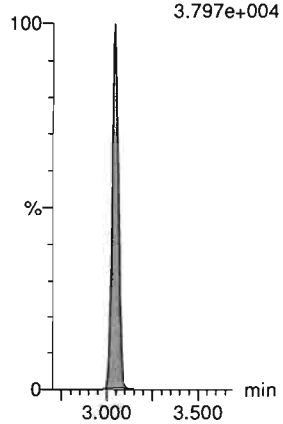
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.025e+004



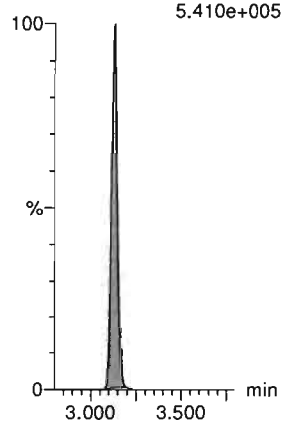
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F10:MRM of 2 channels,ES-
287.0 > 168.9
8.737e+004



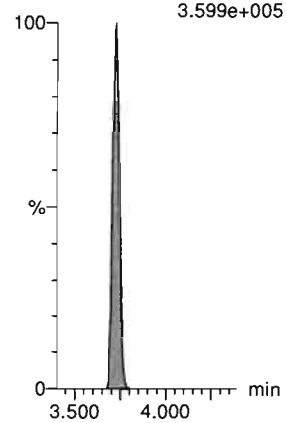
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.797e+004



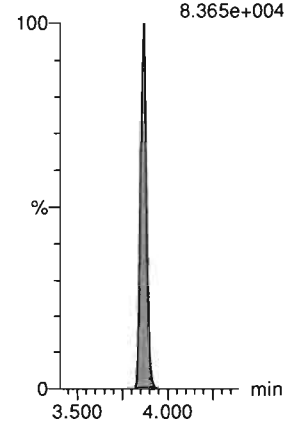
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F14:MRM of 1 channel,ES-
315.0 > 270.0
5.410e+005



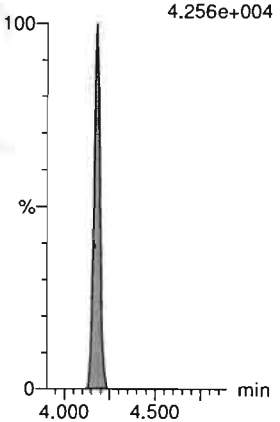
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.599e+005



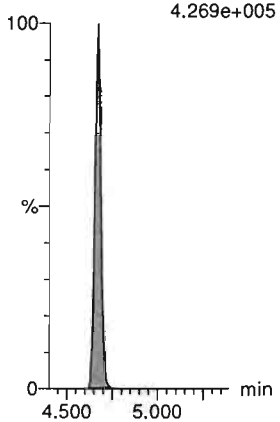
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.365e+004



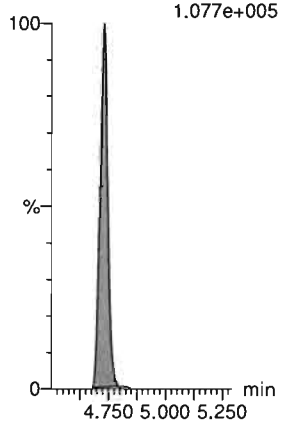
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
4.256e+004



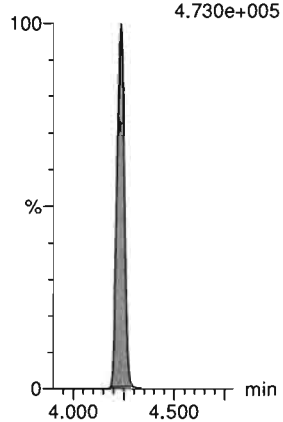
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.269e+005



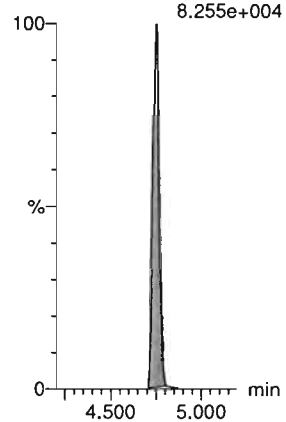
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.077e+005



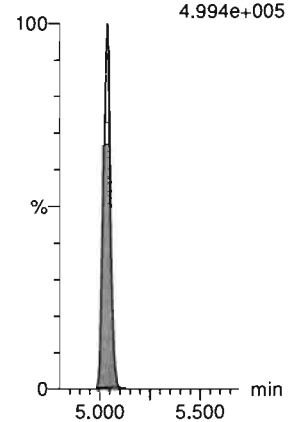
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.730e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.255e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.994e+005

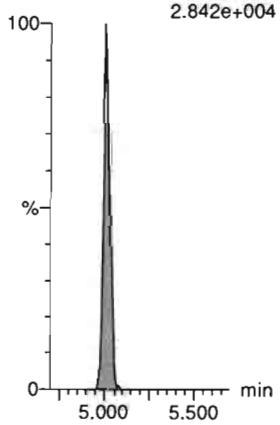


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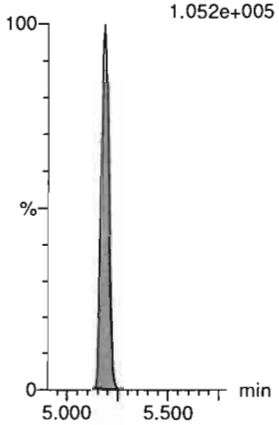
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Printed: Thursday, February 27, 2020 08:34:37 Pacific Standard Time

Name: 200226P1-7, Date: 26-Feb-2020, Time: 17:41:11, ID: ST200226P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

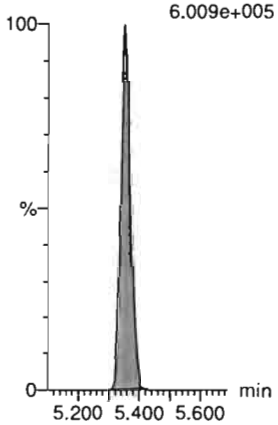
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.842e+004



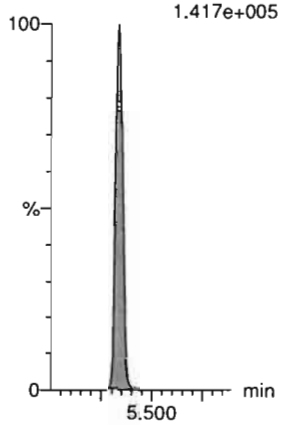
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.052e+005



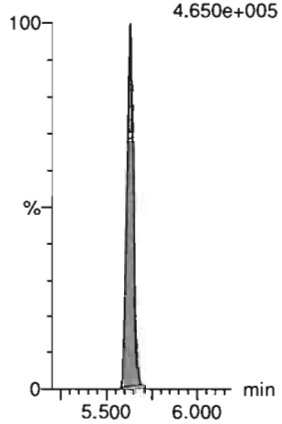
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
6.009e+005



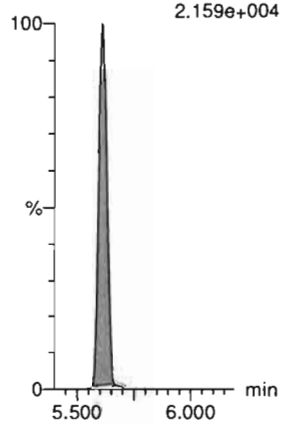
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F60:MRM of 1 channel,ES-
589.3 > 419
1.417e+005



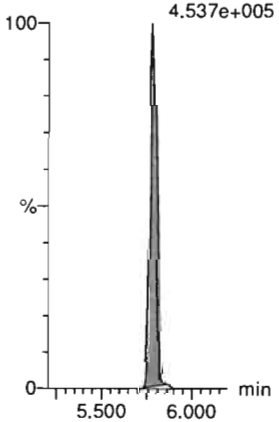
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.650e+005



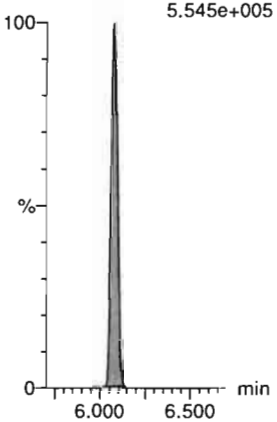
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.159e+004



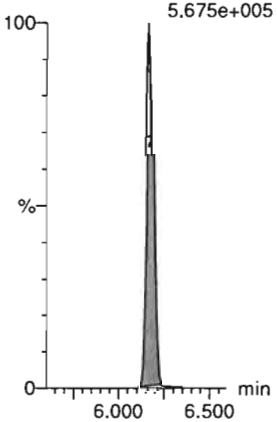
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.537e+005



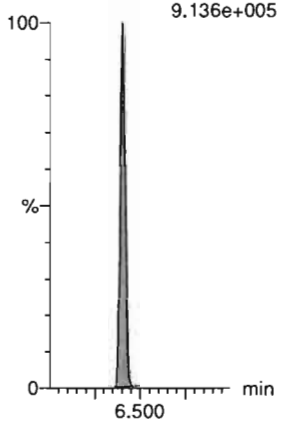
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.545e+005



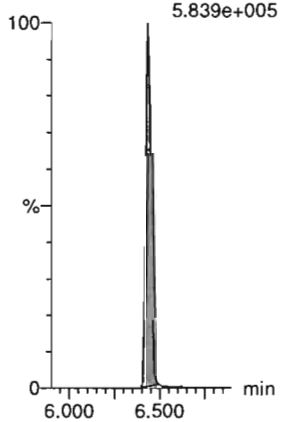
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.675e+005



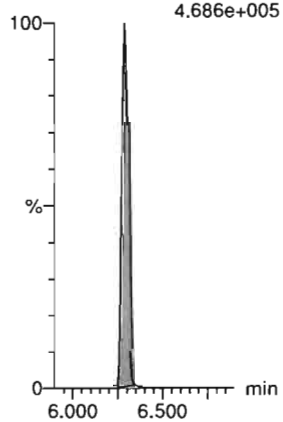
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.136e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.839e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.686e+005

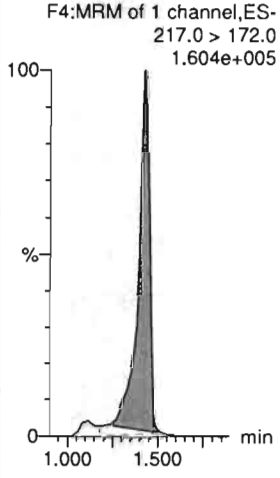


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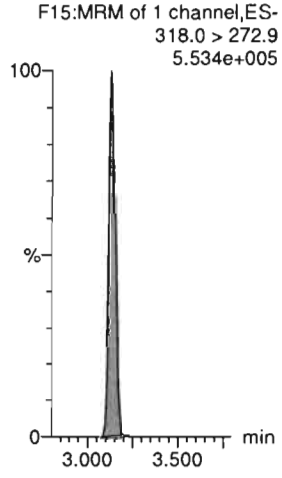
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Name: 200226P1-7, Date: 26-Feb-2020, Time: 17:41:11, ID: ST200226P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

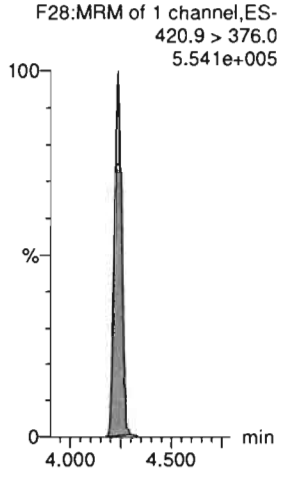
13C4-PFBA



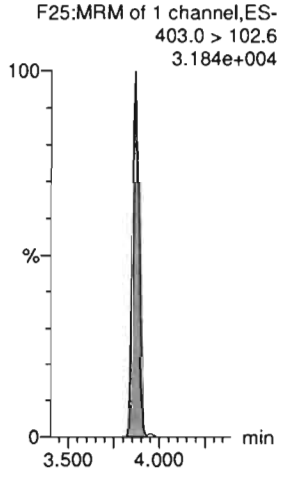
13C5-PFHxA



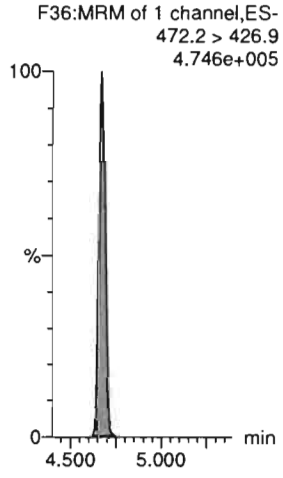
13C8-PFOA



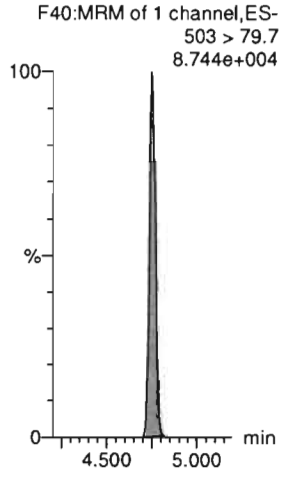
18O2-PFHxS



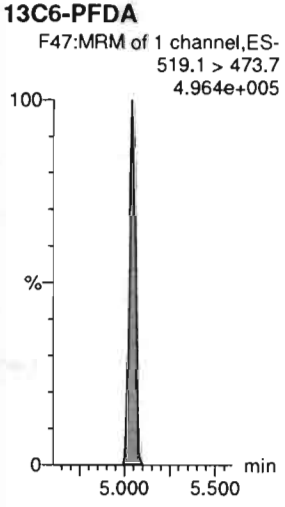
13C9-PFNA



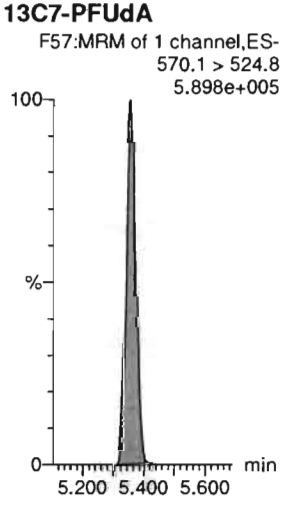
13C4-PFOS



13C6-PFDA



13C7-PFUdA

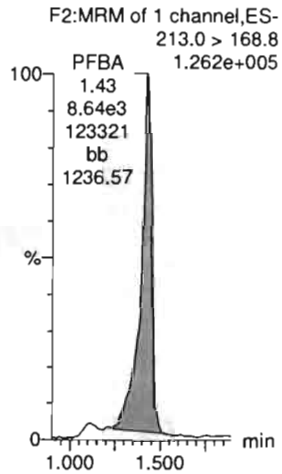


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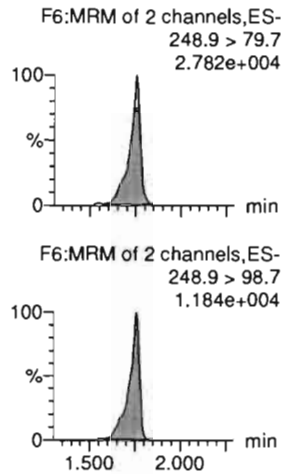
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Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

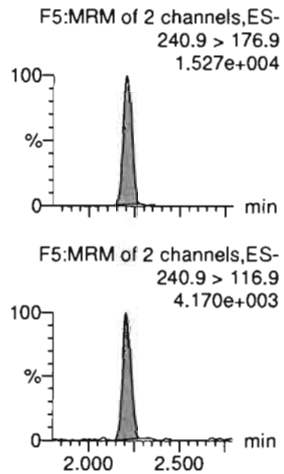
PFBA



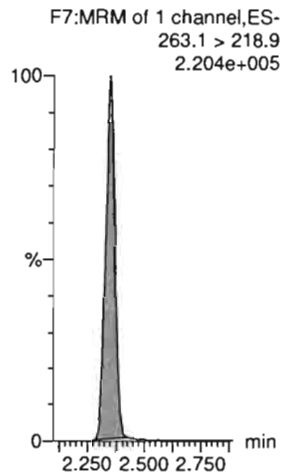
PFPrS



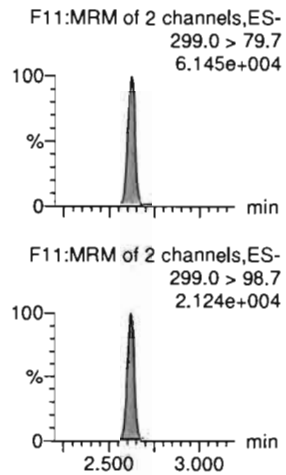
3:3 FTCA



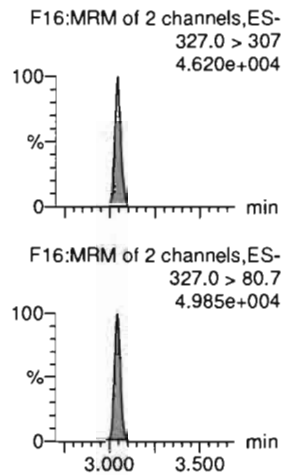
PFPeA



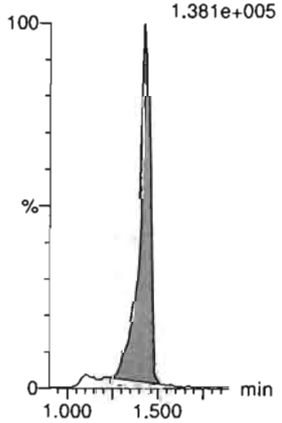
PFBS



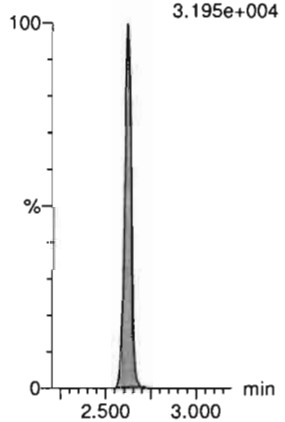
4:2 FTS



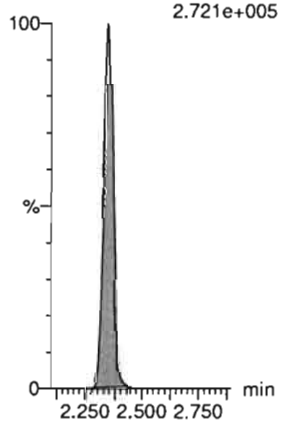
13C3-PFBA-EIS



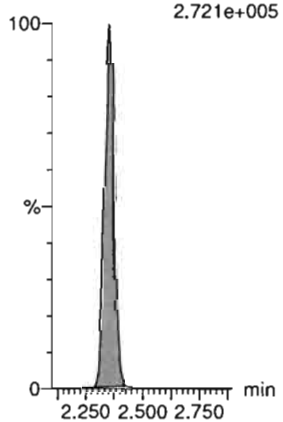
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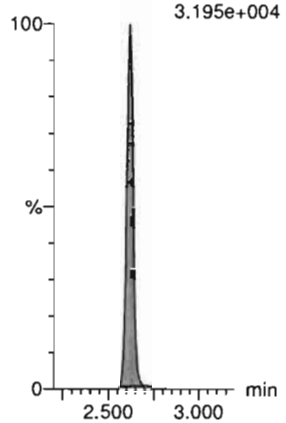
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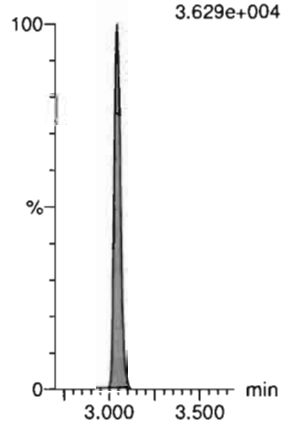
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

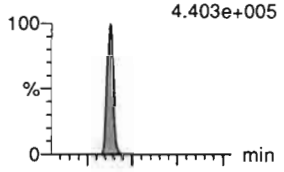


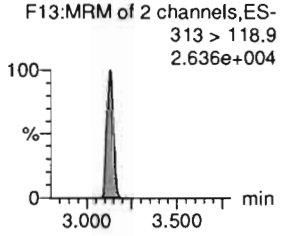
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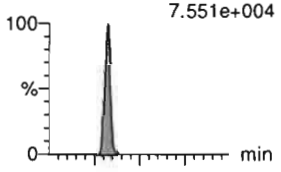
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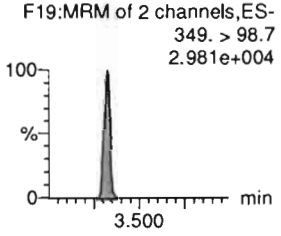
PFHxA



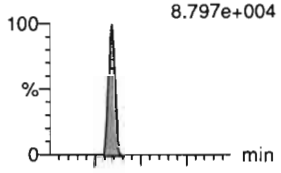


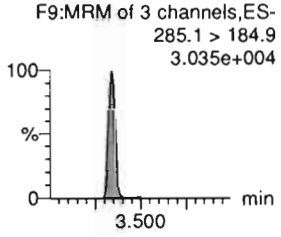
PFPeS



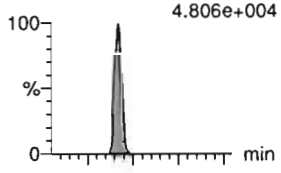


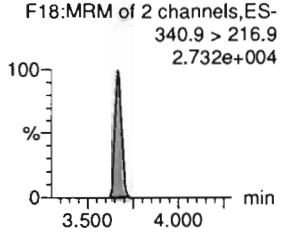
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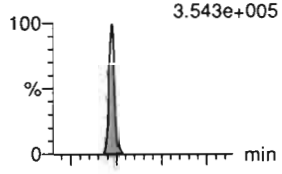


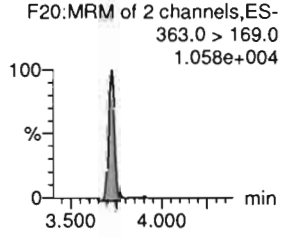
5:3 FTCA



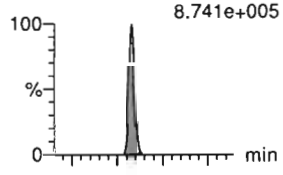


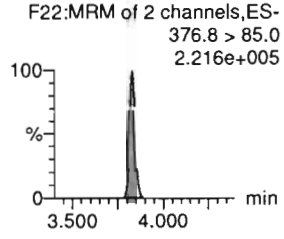
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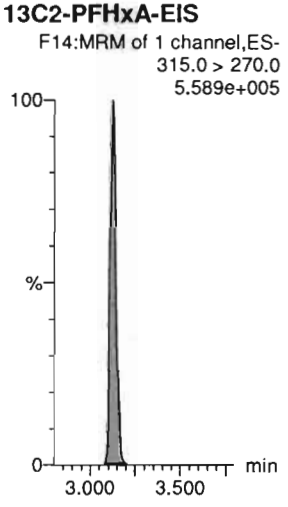


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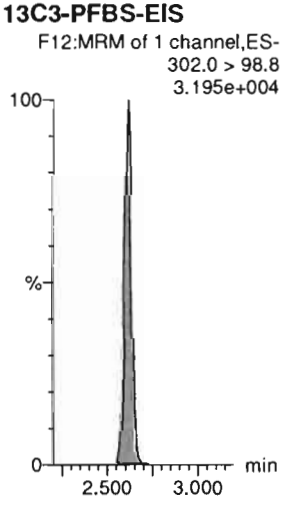




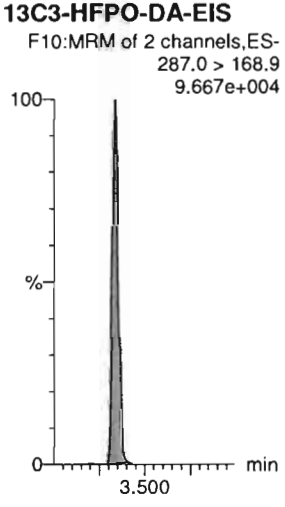
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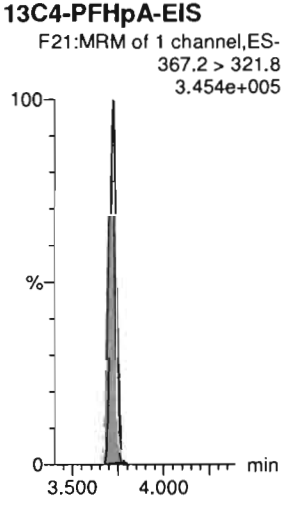
13C3-PFBS-EIS



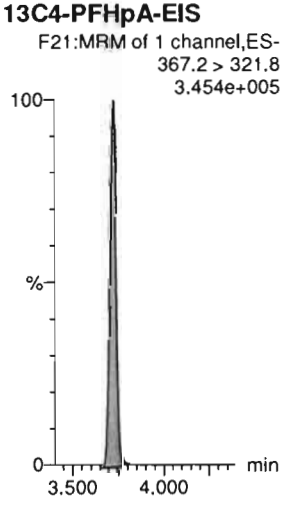
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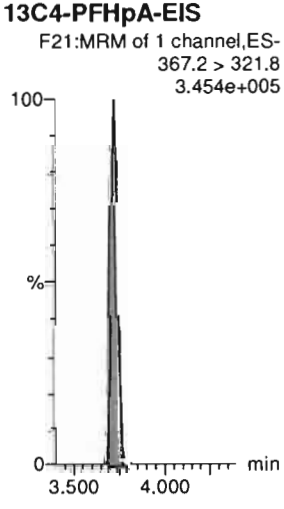
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

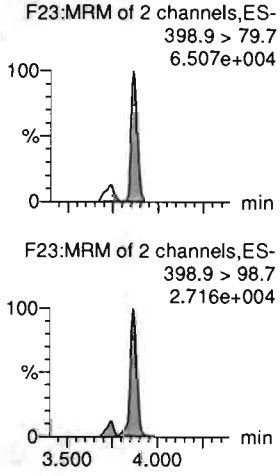


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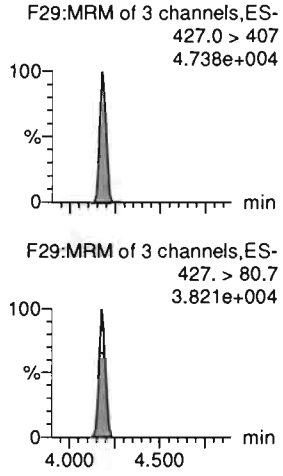
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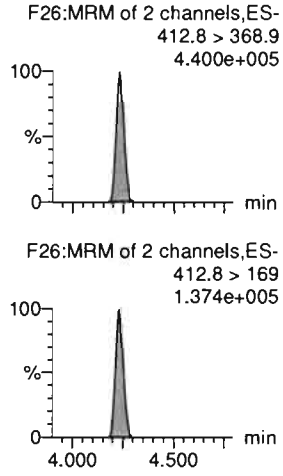
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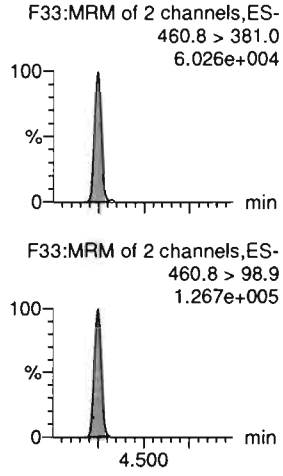
6:2 FTS



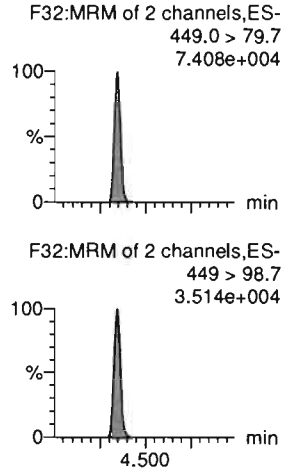
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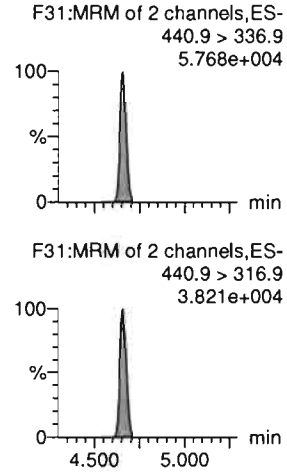
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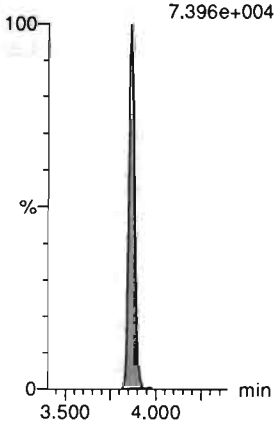
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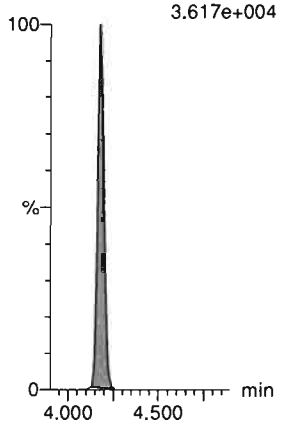
7:3 FTCA



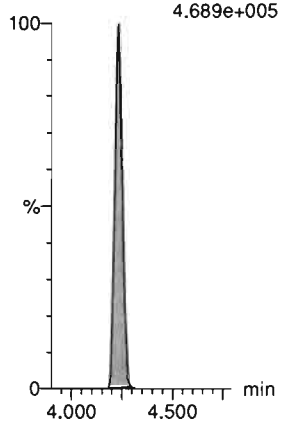
13C3-PFHxS-EIS



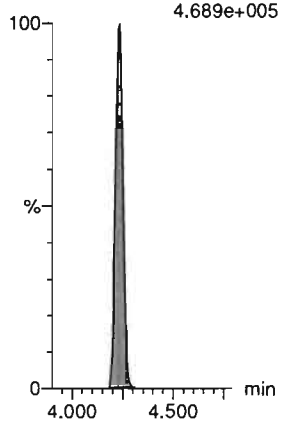
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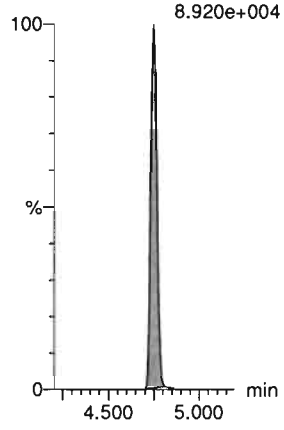
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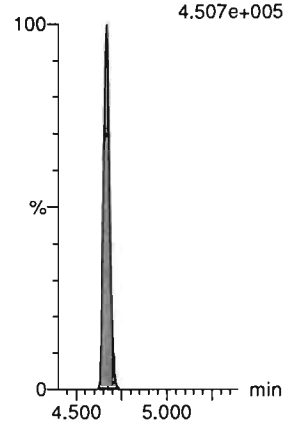
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

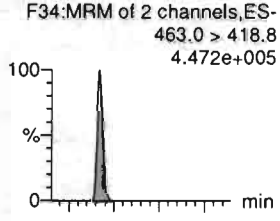


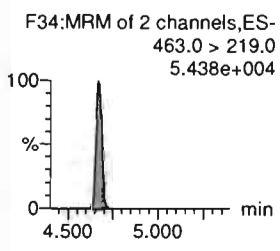
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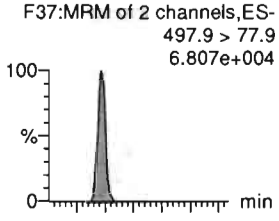
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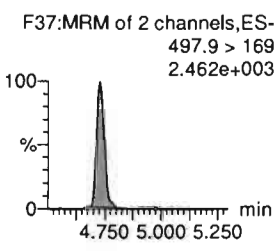
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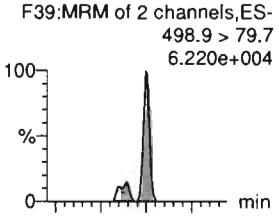


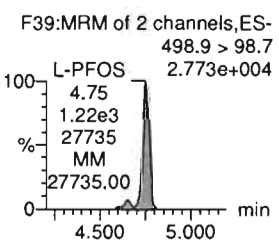
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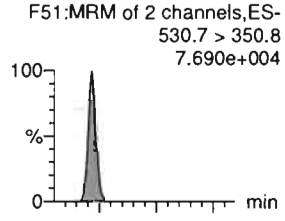


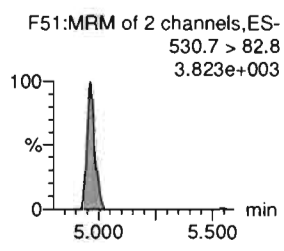
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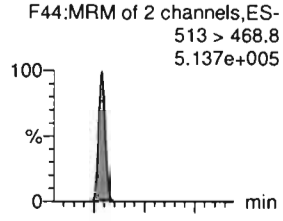


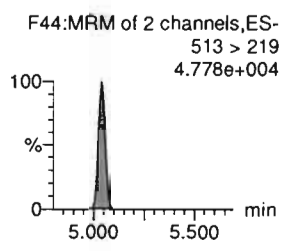
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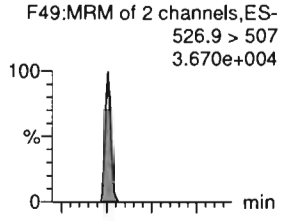


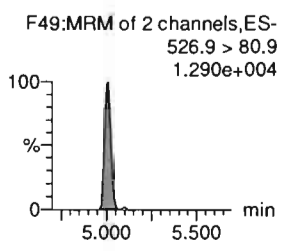
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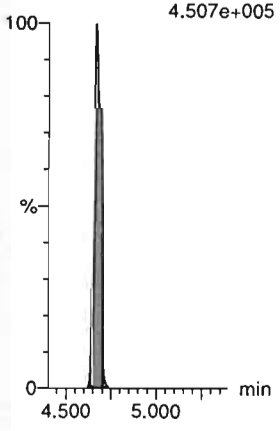


8:2 FTS

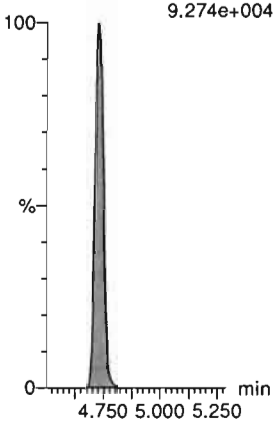




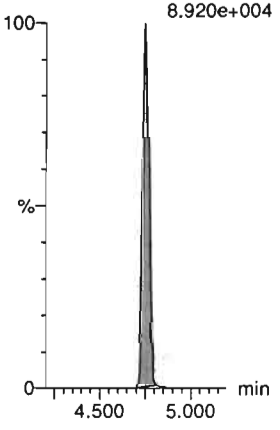
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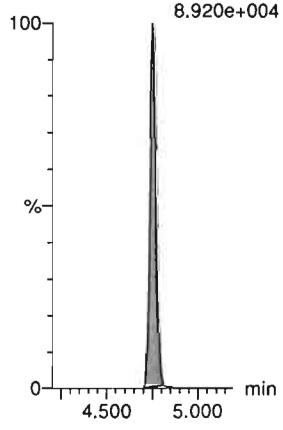
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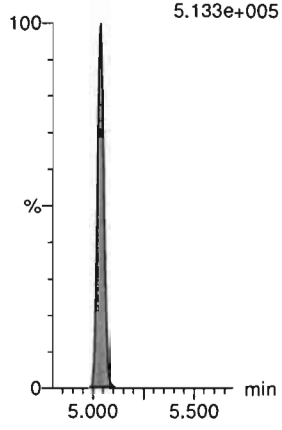
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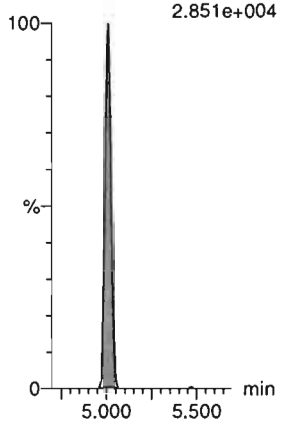
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

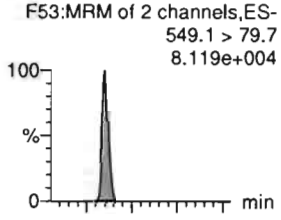


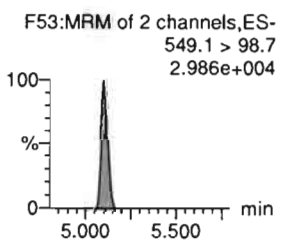
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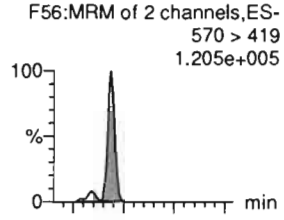
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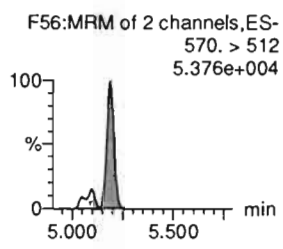
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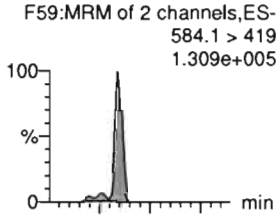


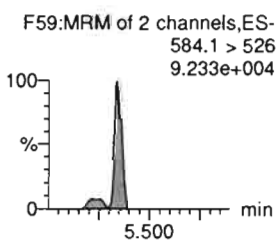
L-MeFOSAA



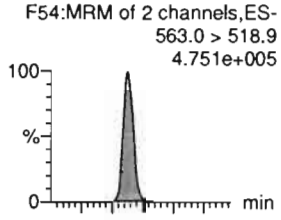


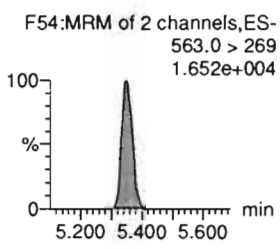
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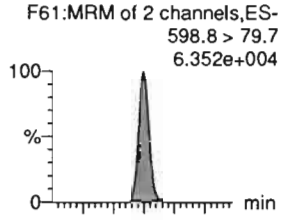


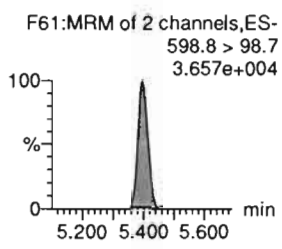
PFUdA



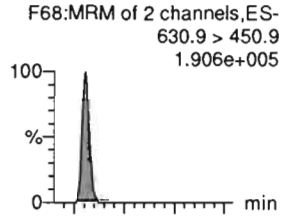


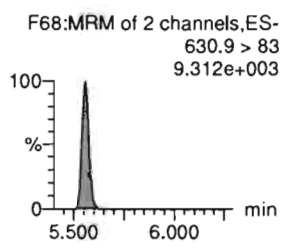
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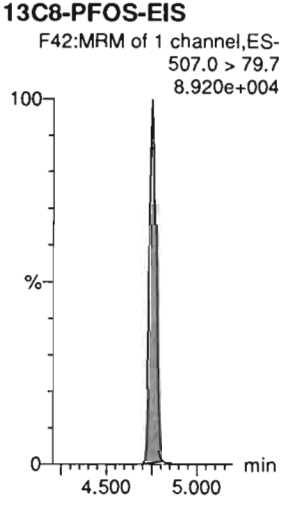


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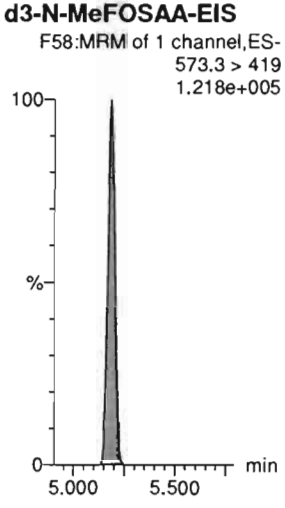




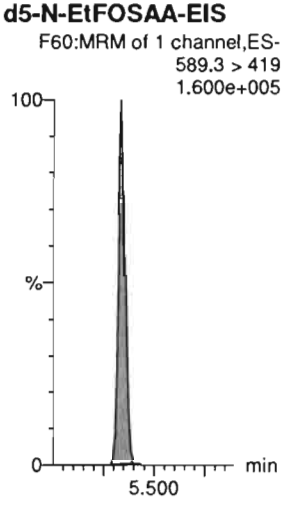
13C8-PFOS-EIS



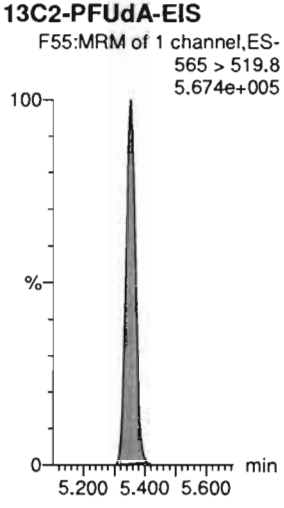
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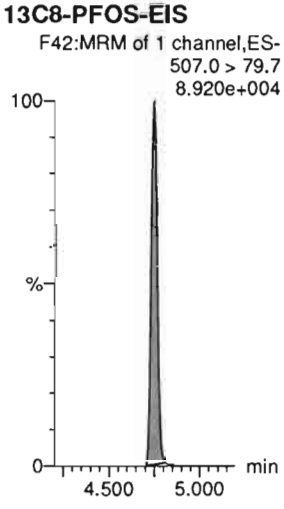
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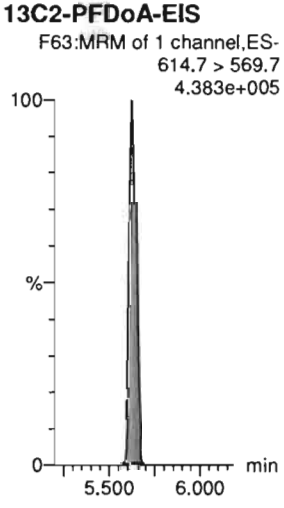
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13C8-PFOS-EIS



13C2-PFDoA-EIS

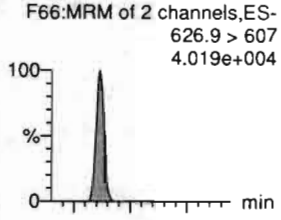


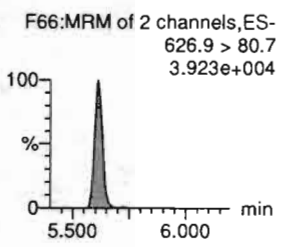
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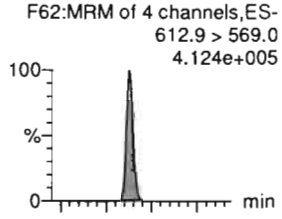
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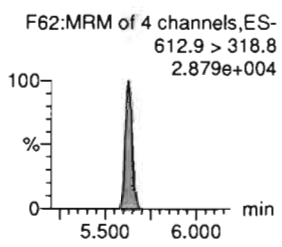
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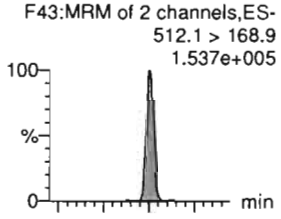


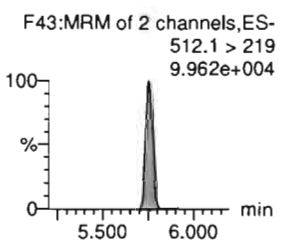
PFDoA



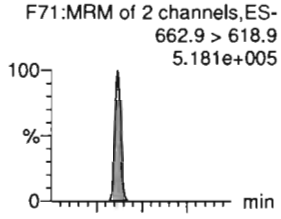


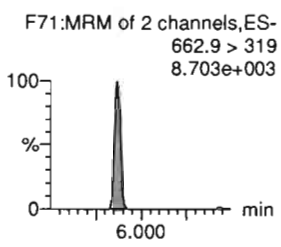
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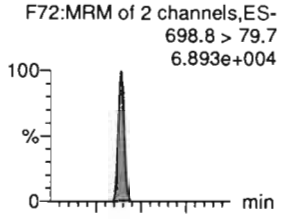


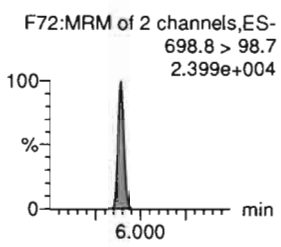
PFTrDA



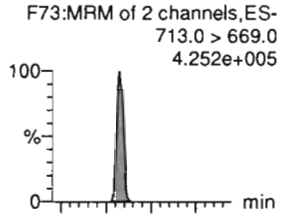


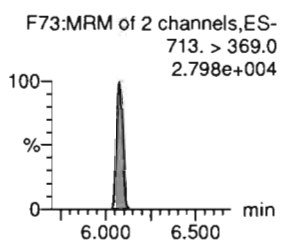
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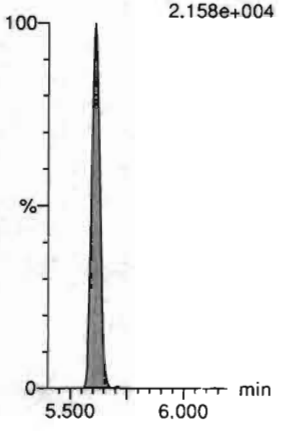


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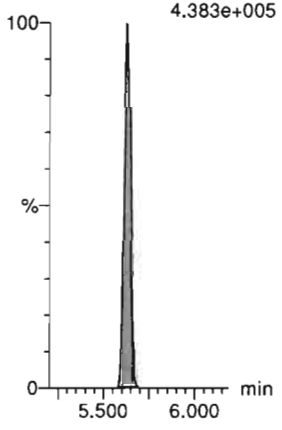




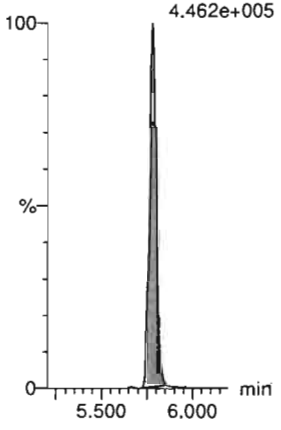
13C2-10:2 FTS-EIS



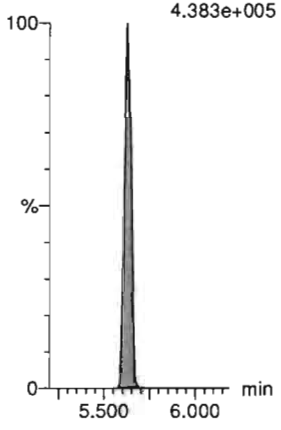
13C2-PFDoA-EIS



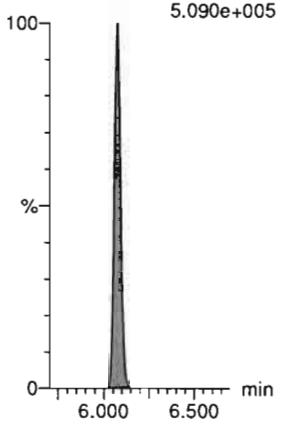
d3-N-MeFOSA-EIS



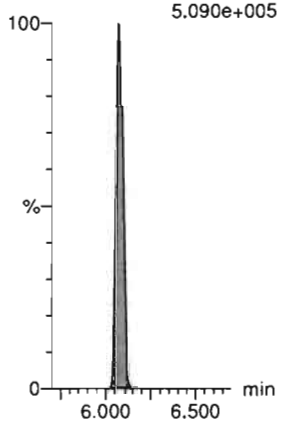
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

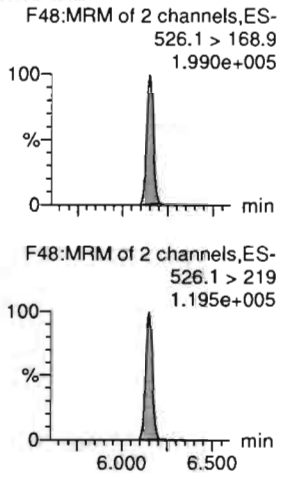


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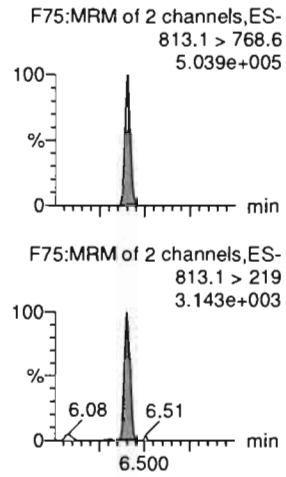
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Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

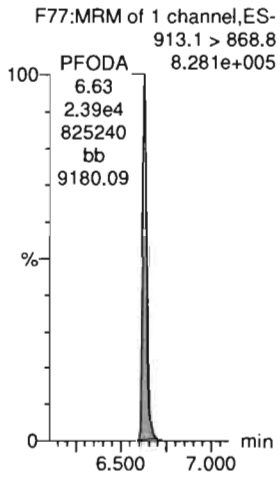
N-EtFOSA



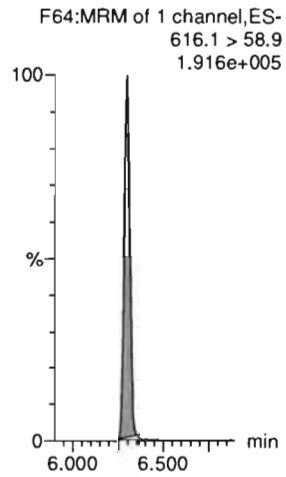
PFHxDA



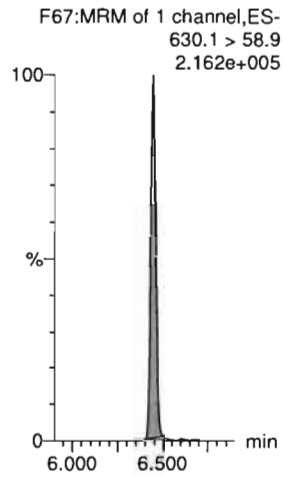
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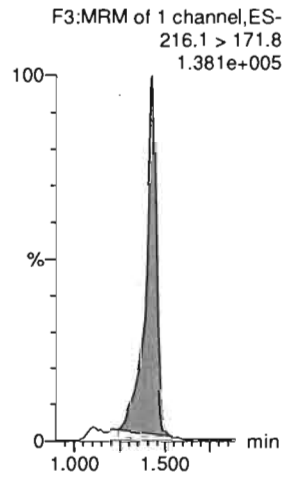
N-MeFOSE



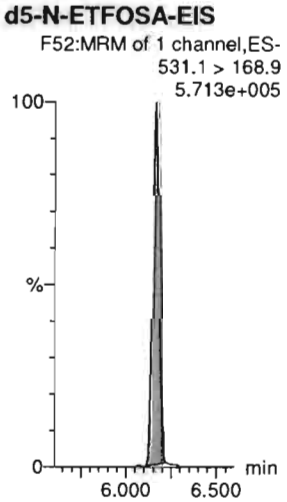
N-EtFOSE



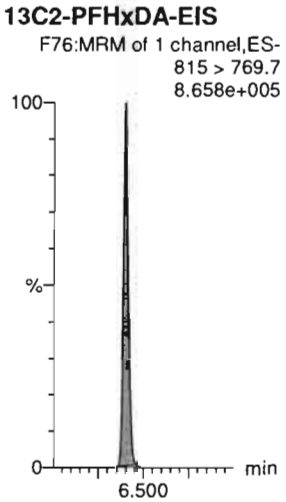
13C3-PFBA-RSD



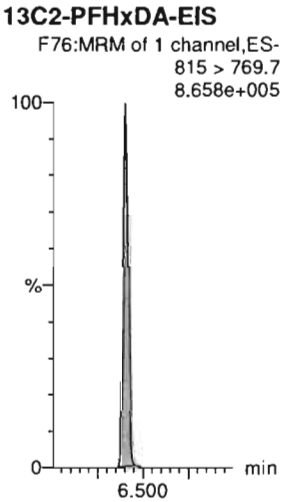
d5-N-ETFOSA-EIS



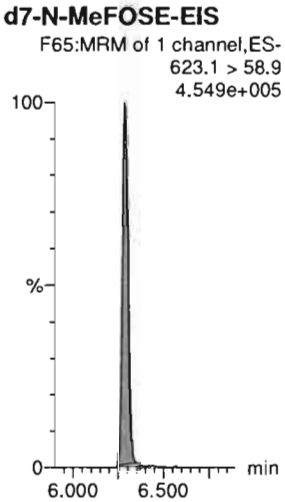
13C2-PFHxDA-EIS



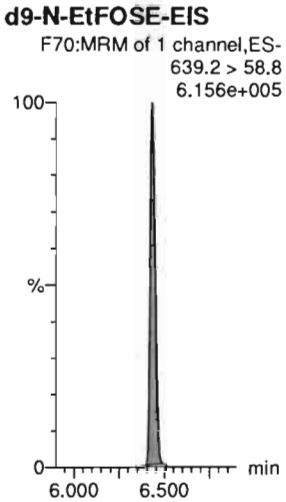
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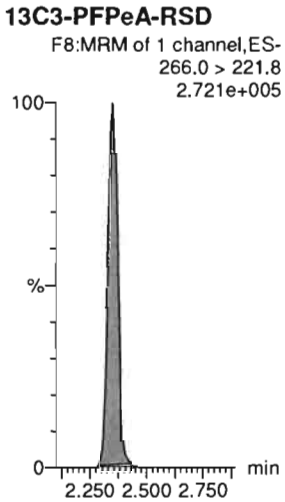
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

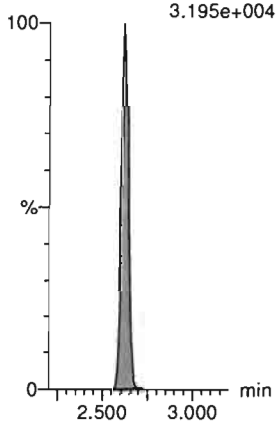


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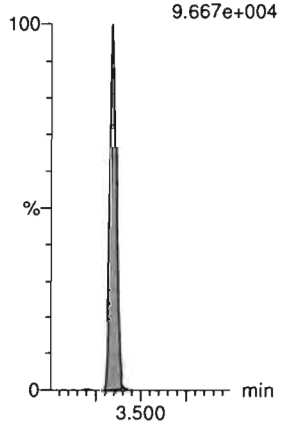
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Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

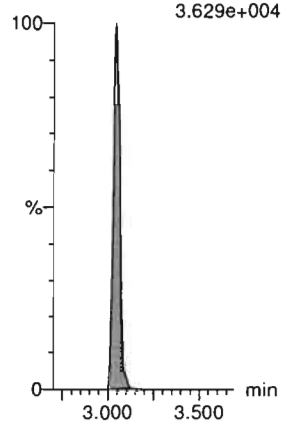
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.195e+004



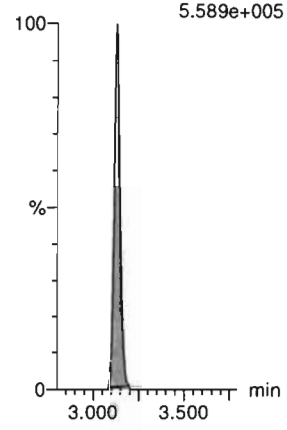
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.667e+004



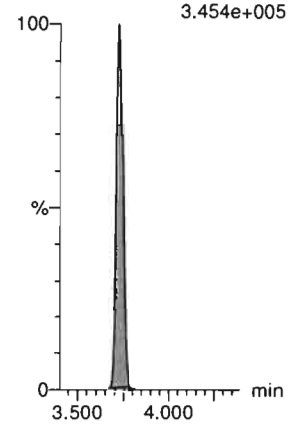
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.629e+004



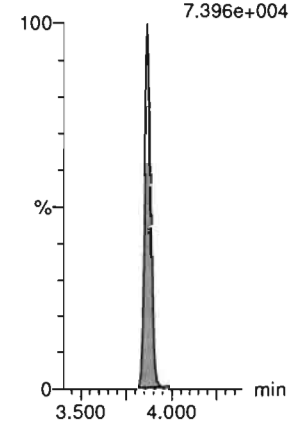
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.589e+005



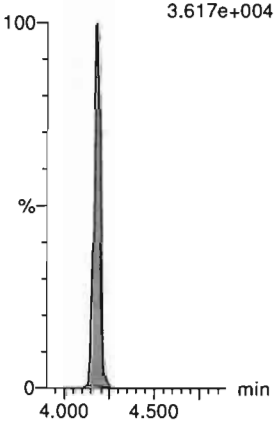
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.454e+005



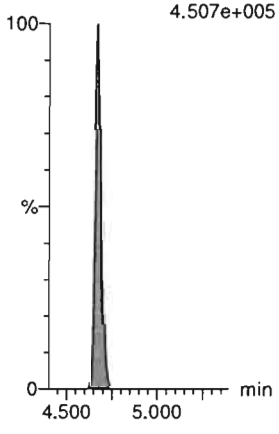
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
7.396e+004



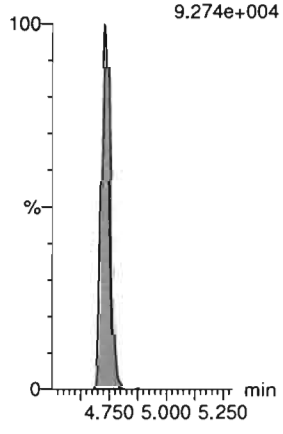
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.617e+004



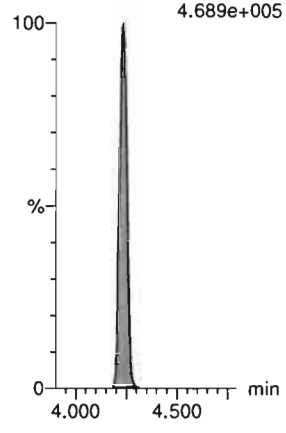
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.507e+005



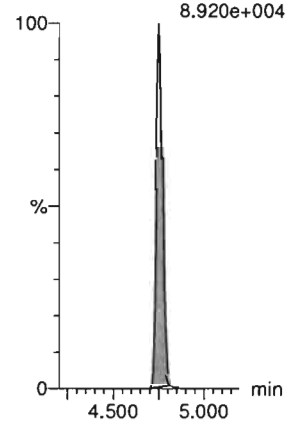
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.274e+004



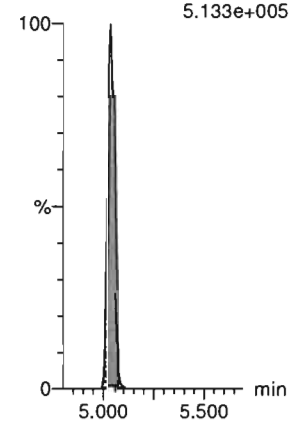
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.689e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.920e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.133e+005

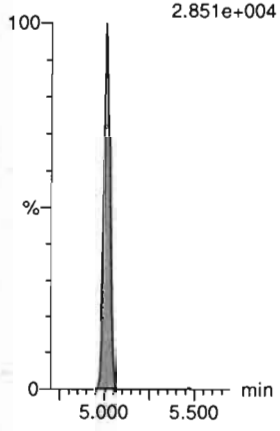


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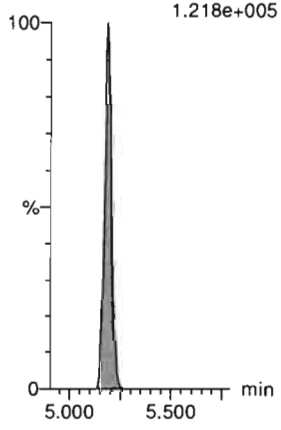
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Name: 200226P1-8, Date: 26-Feb-2020, Time: 17:51:42, ID: ST200226P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

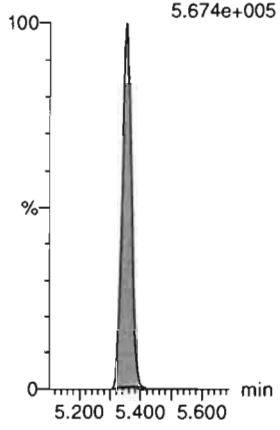
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.851e+004



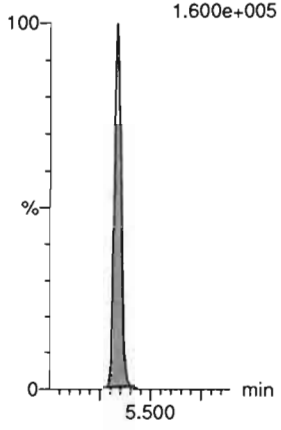
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.218e+005



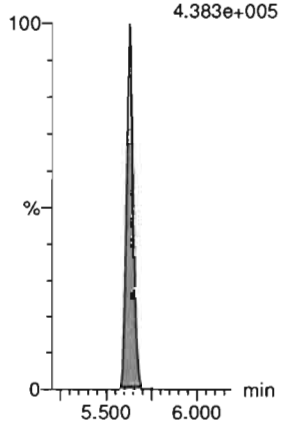
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.674e+005



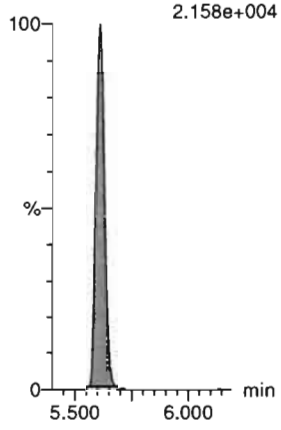
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.600e+005



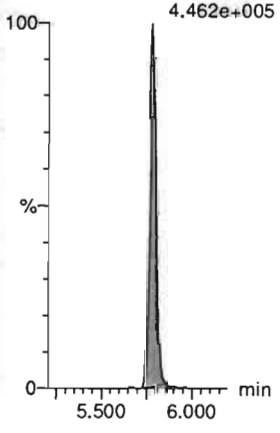
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.383e+005



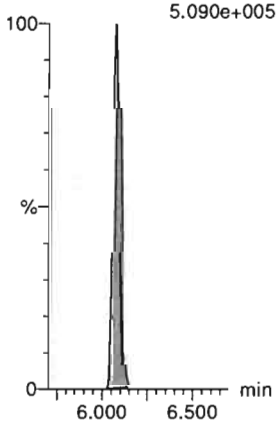
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.158e+004



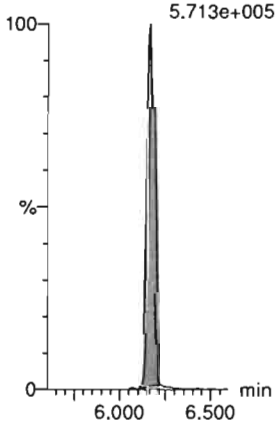
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.462e+005



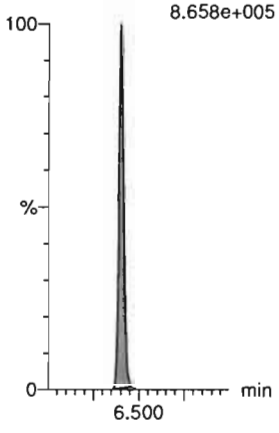
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.090e+005



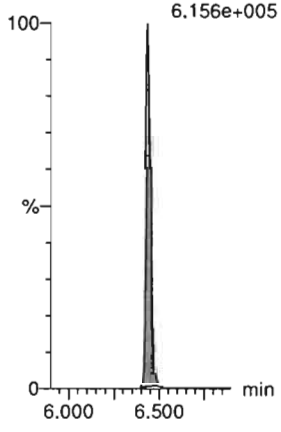
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
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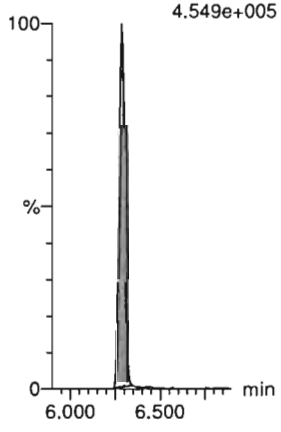
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
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8.658e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.156e+005



d7-N-MeFOSE-RSD
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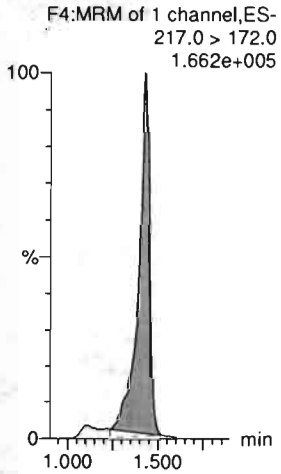


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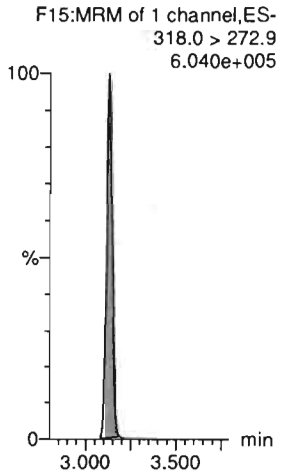
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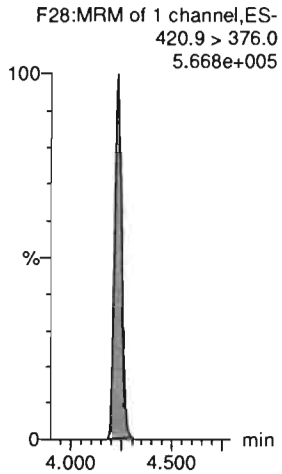
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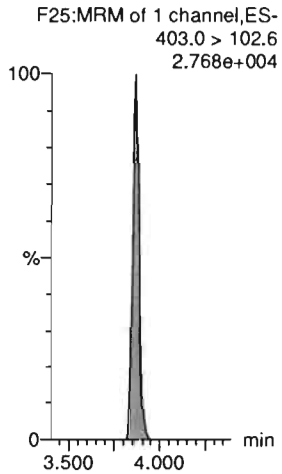
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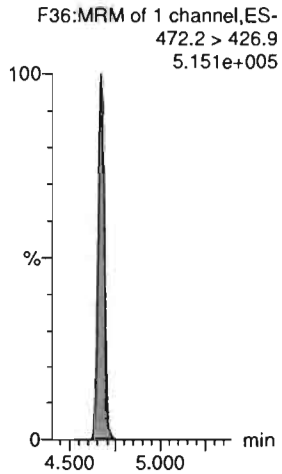
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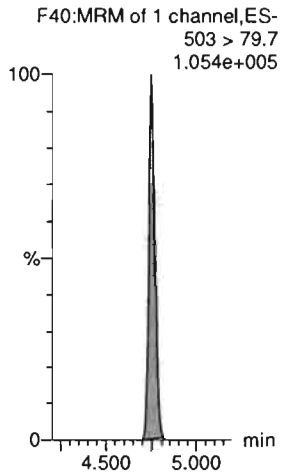
18O2-PFHxS



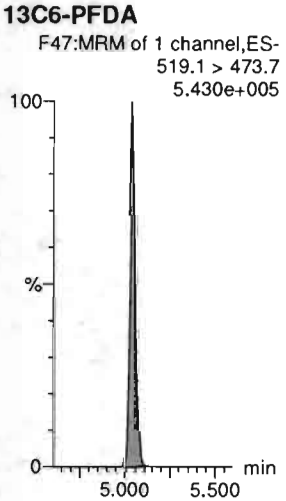
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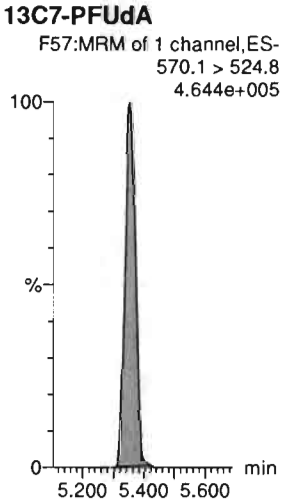
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13C6-PFDA



13C7-PFUdA

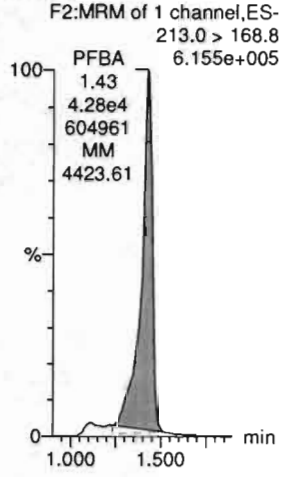


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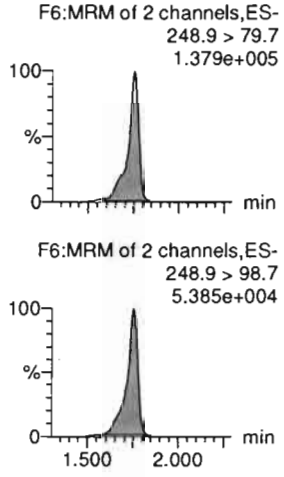
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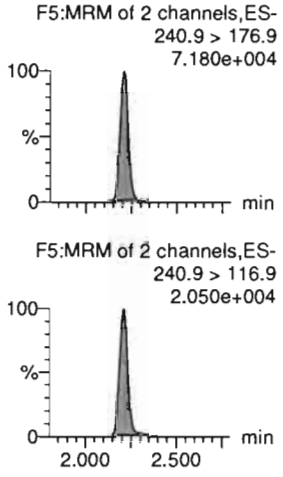
PFBA



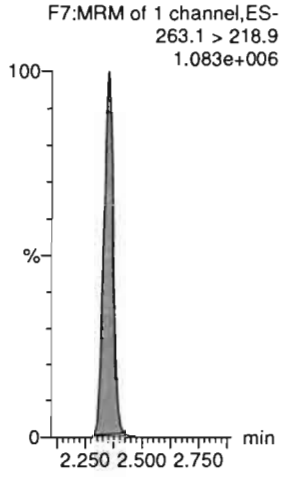
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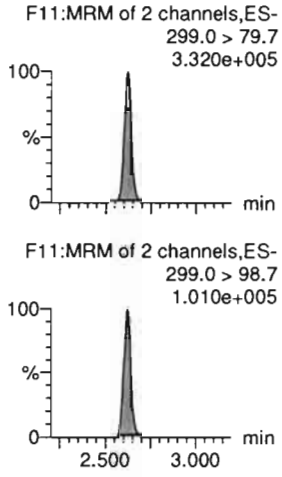
3:3 FTCA



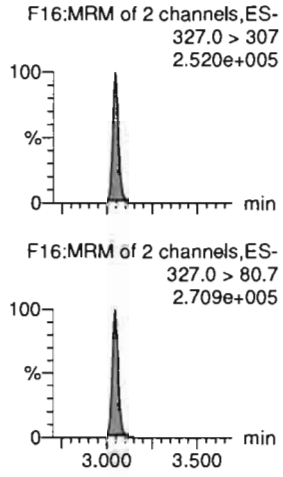
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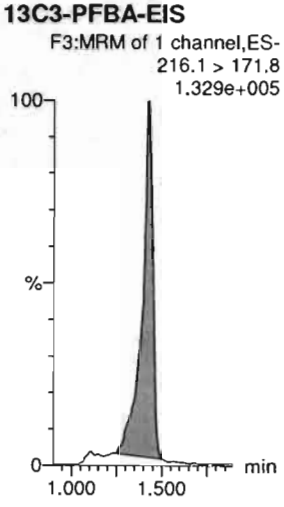
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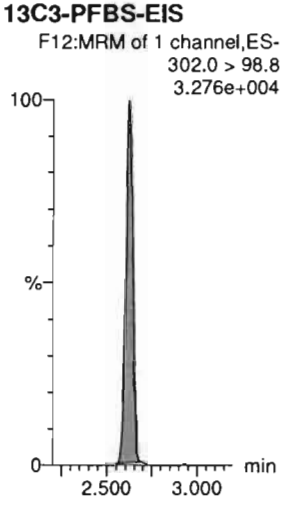
4:2 FTS



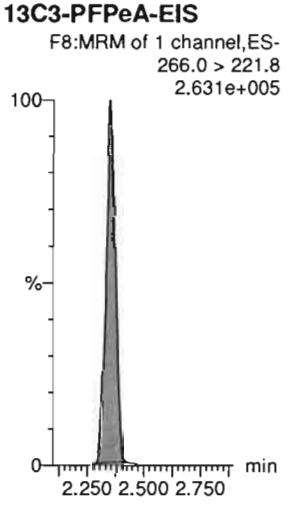
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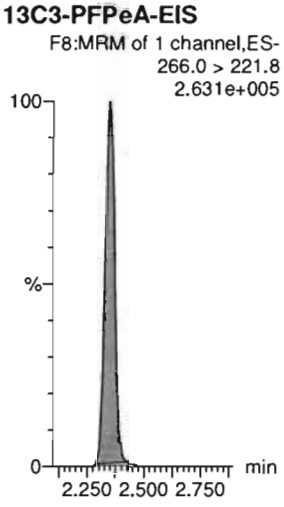
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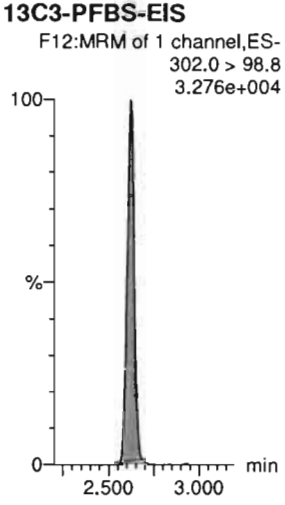
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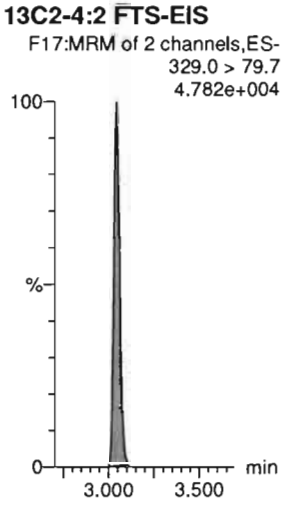
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

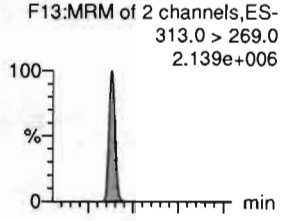


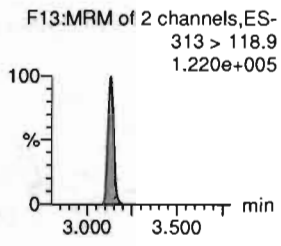
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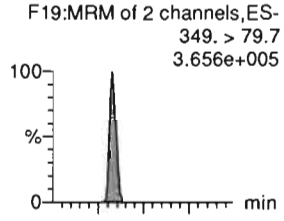
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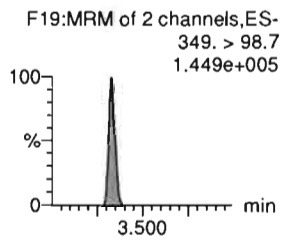
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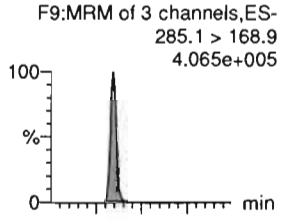


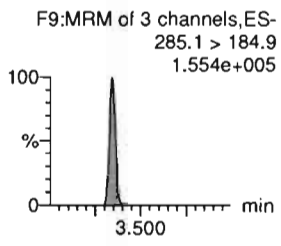
PFPeS



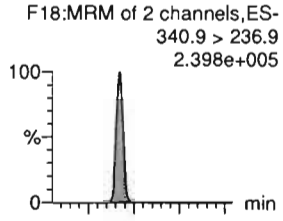


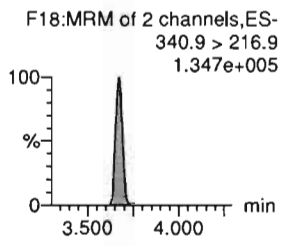
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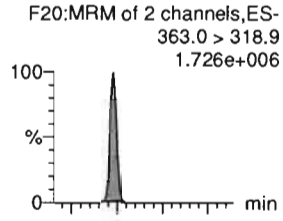


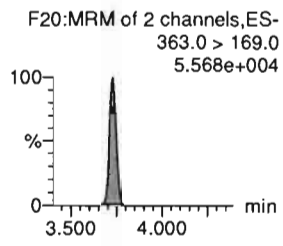
5:3 FTCA



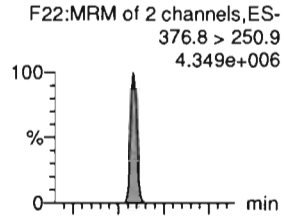


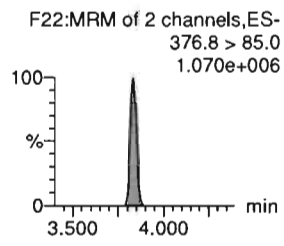
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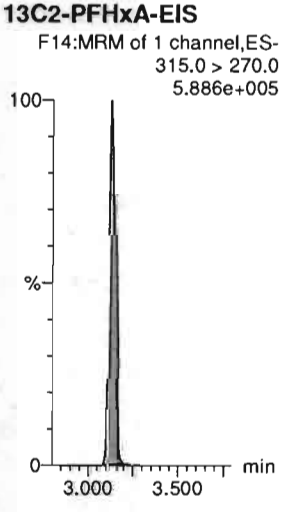


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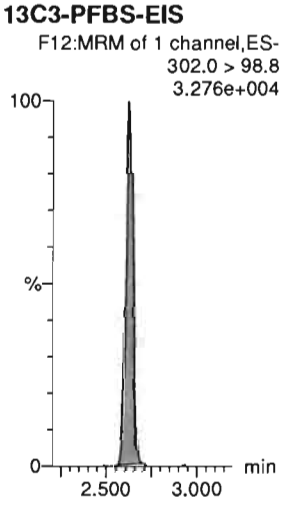




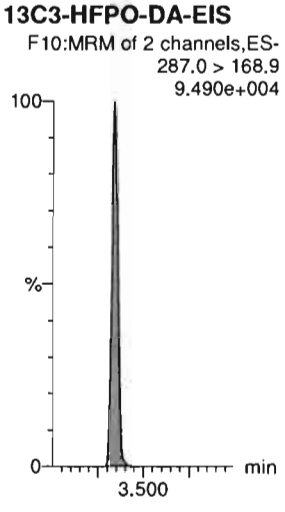
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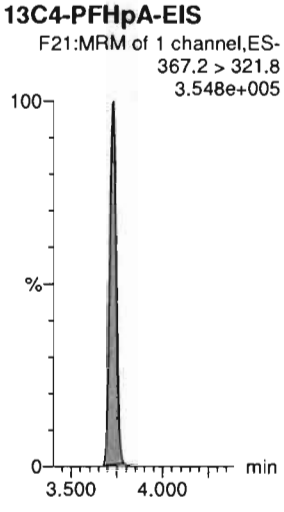
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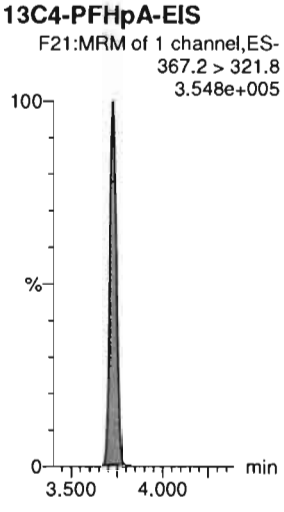
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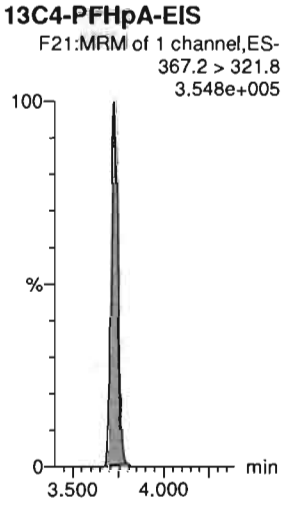
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

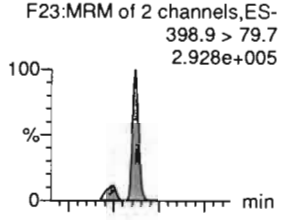


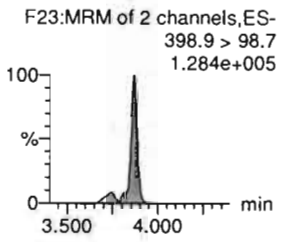
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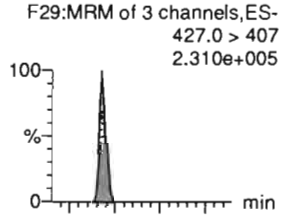
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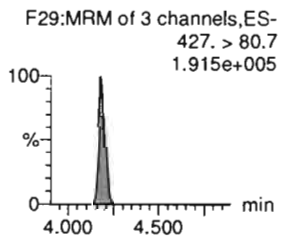
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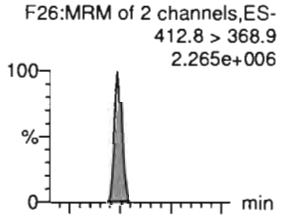


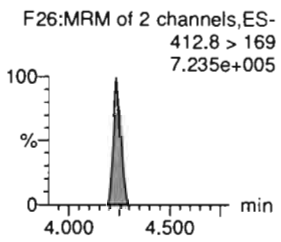
6:2 FTS



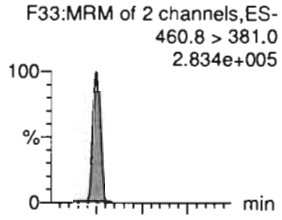


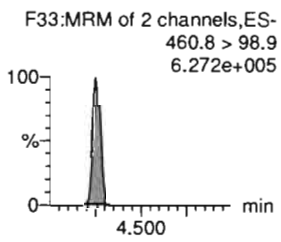
L-PFOA



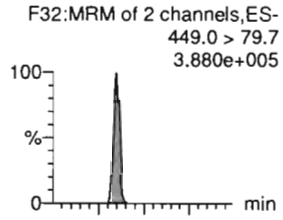


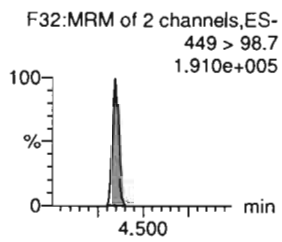
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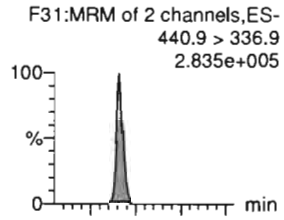


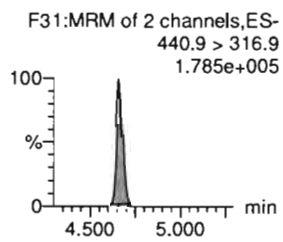
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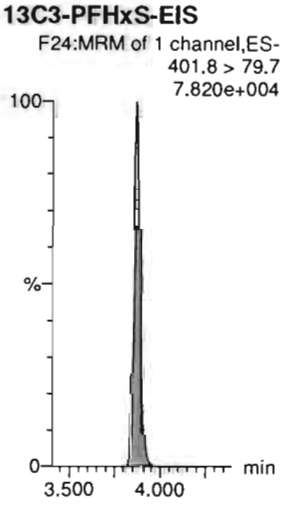


7:3 FTCA

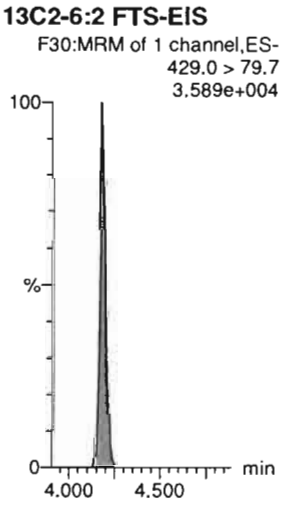




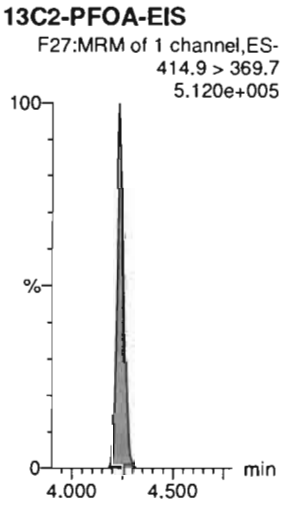
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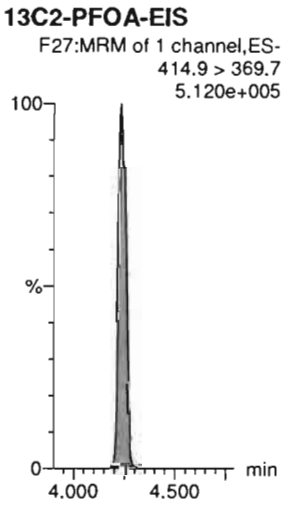
13C2-6:2 FTS-EIS



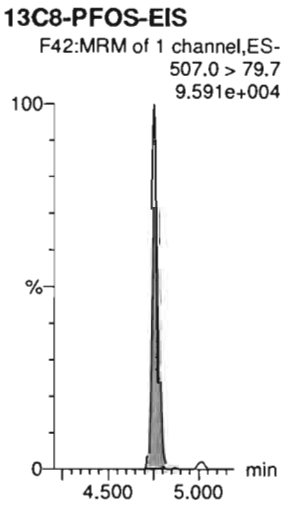
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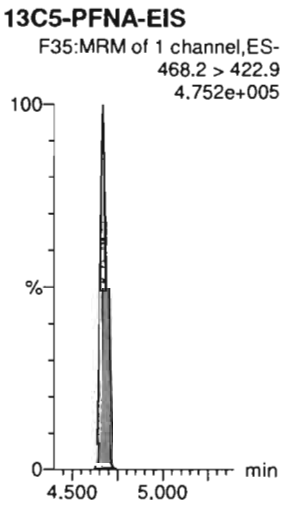
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

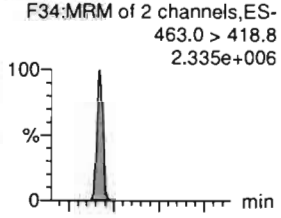


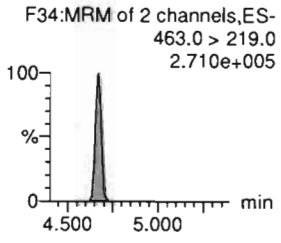
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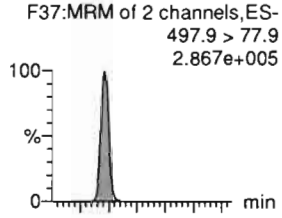
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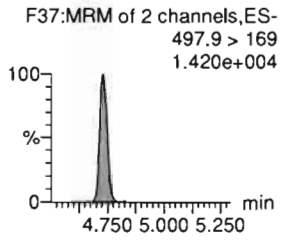
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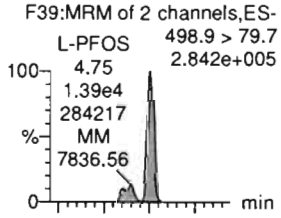


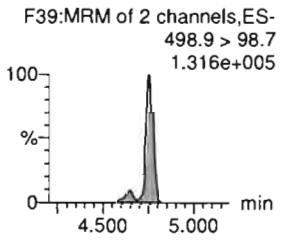
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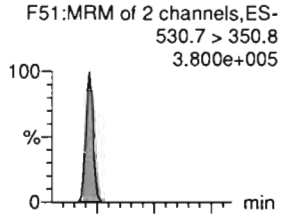


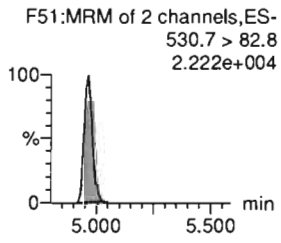
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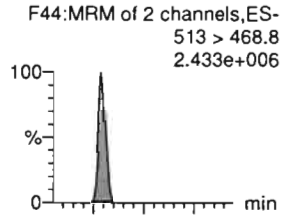


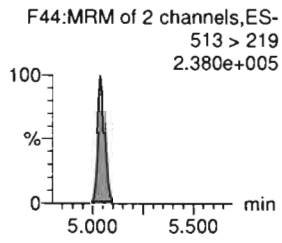
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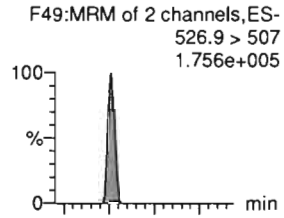


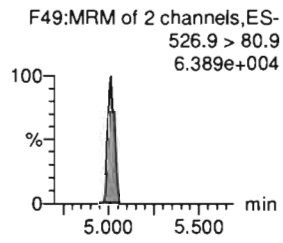
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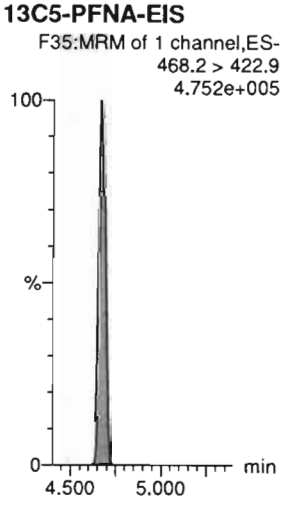


8:2 FTS

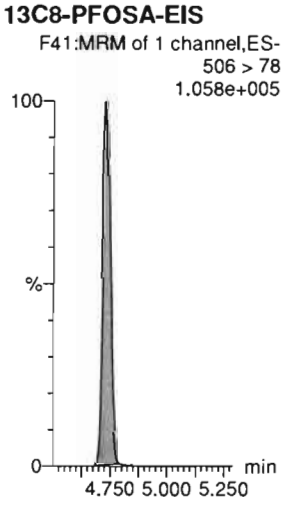




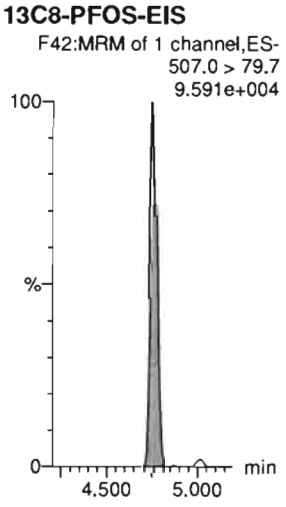
13C5-PFNA-EIS



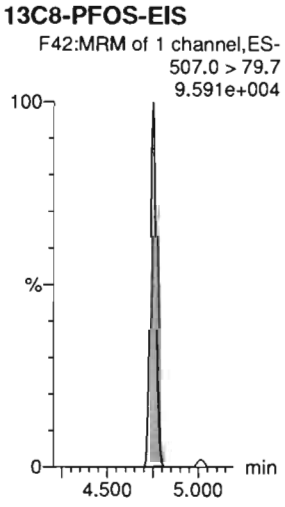
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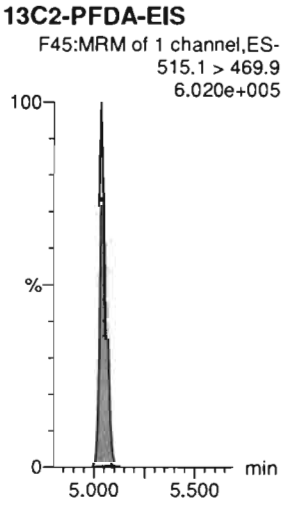
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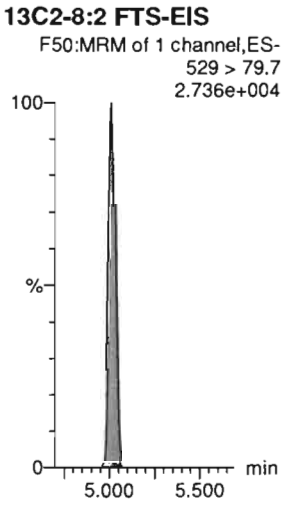
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

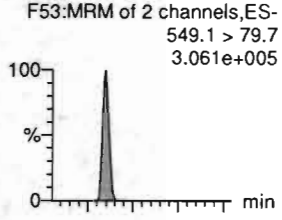


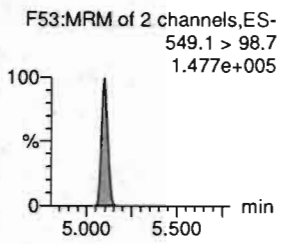
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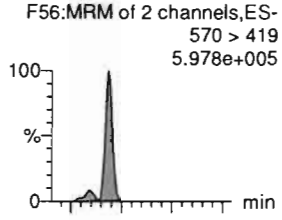
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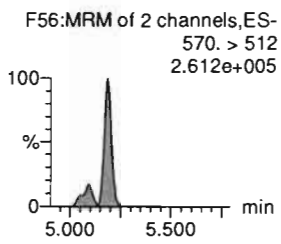
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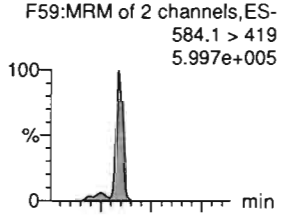


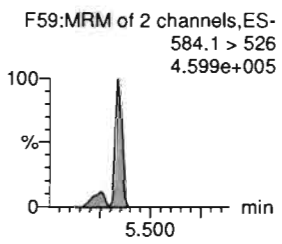
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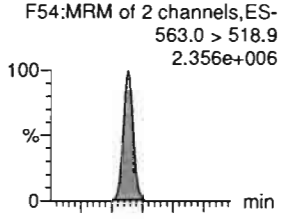


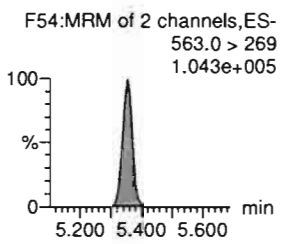
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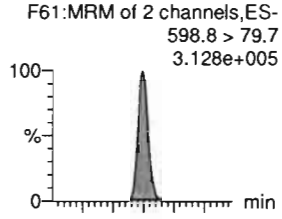


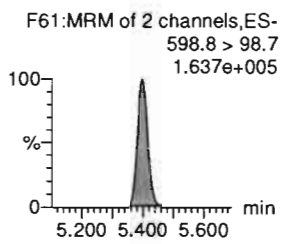
PFUdA



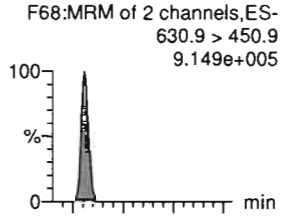


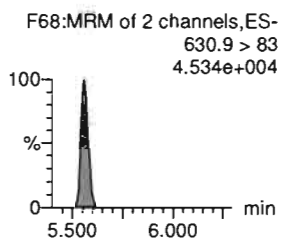
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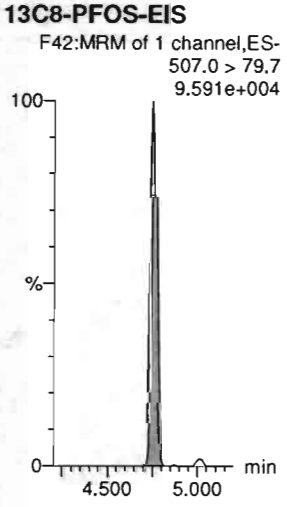


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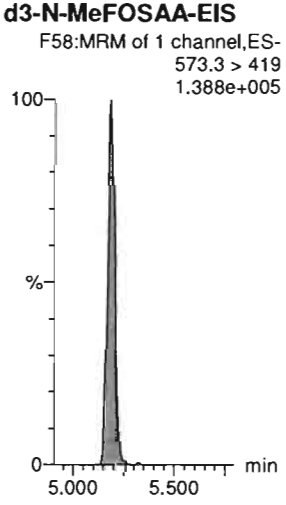




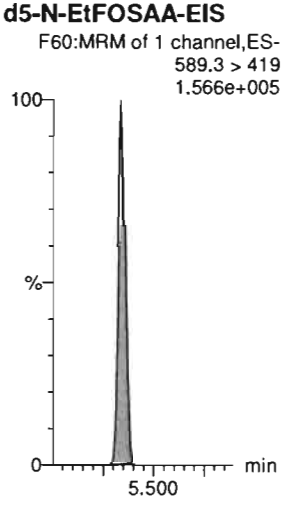
13C8-PFOS-EIS



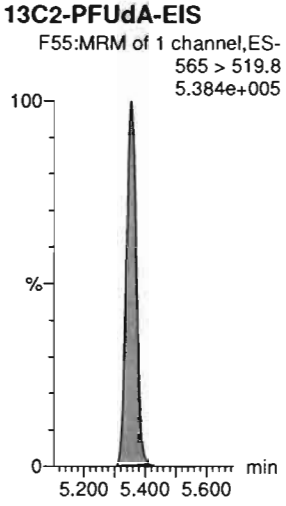
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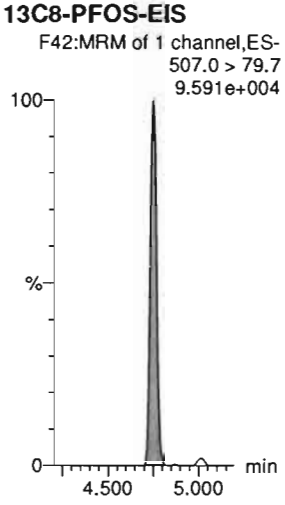
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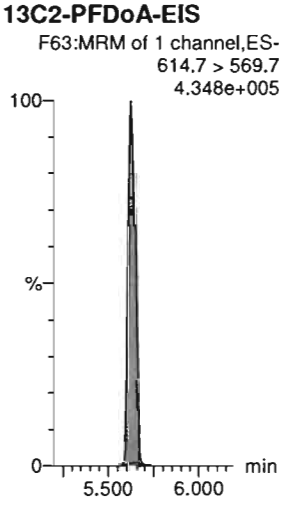
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

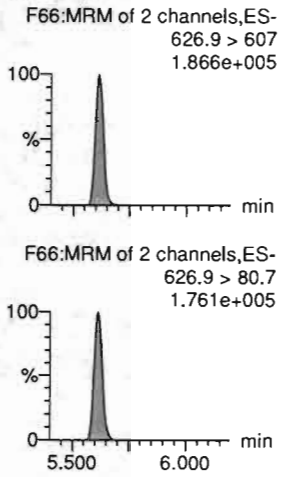


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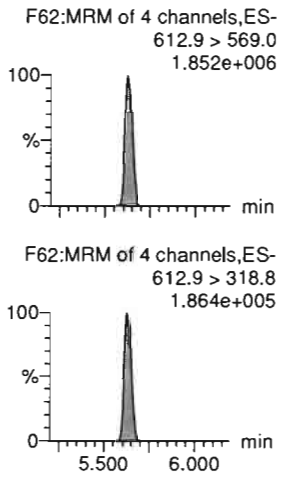
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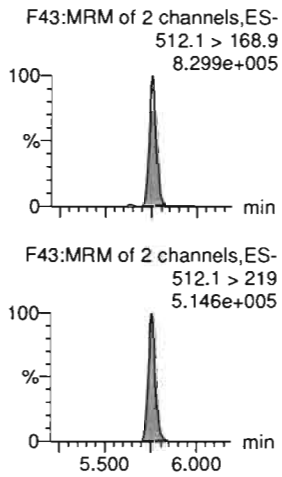
10:2 FTS



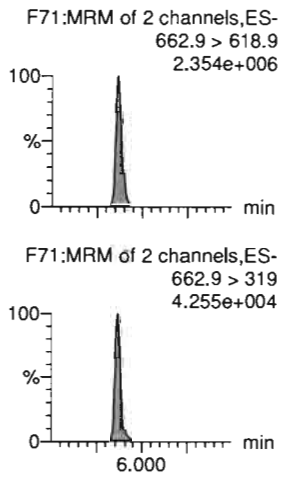
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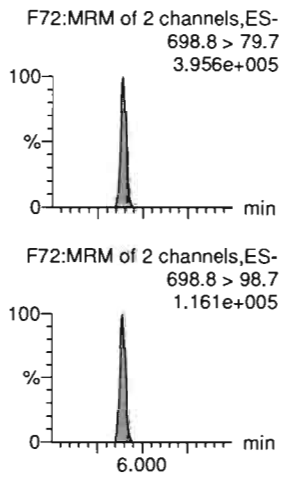
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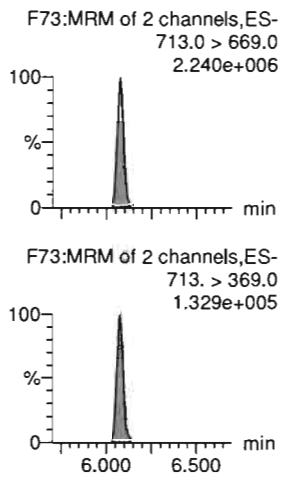
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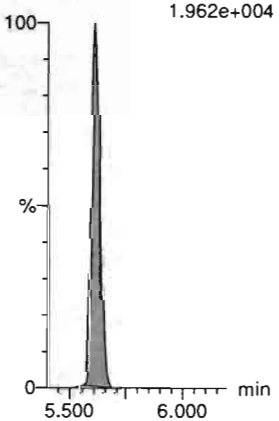
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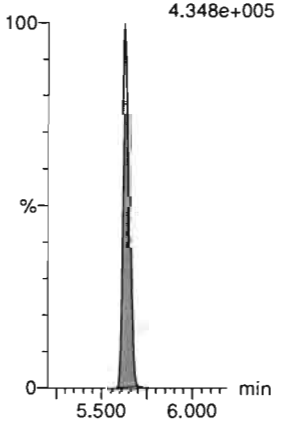
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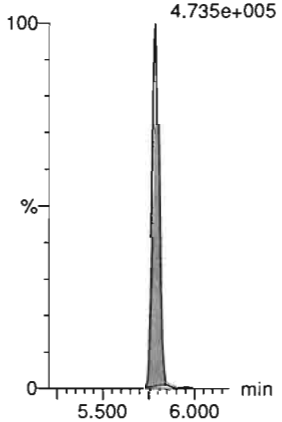
13C2-10:2 FTS-EIS



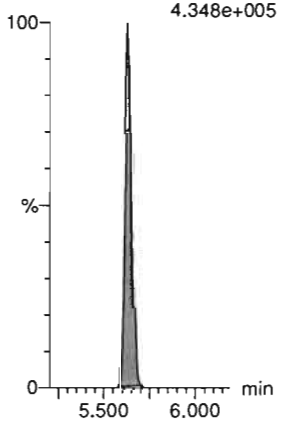
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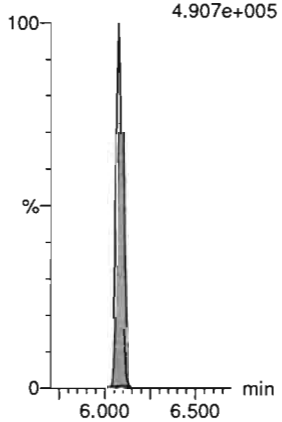
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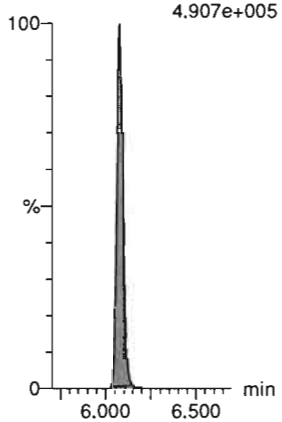
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

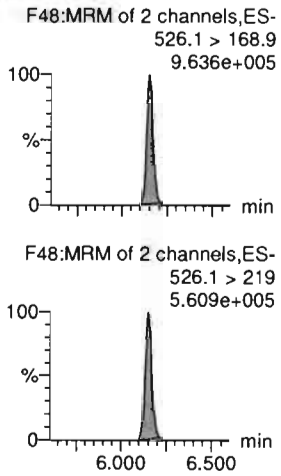


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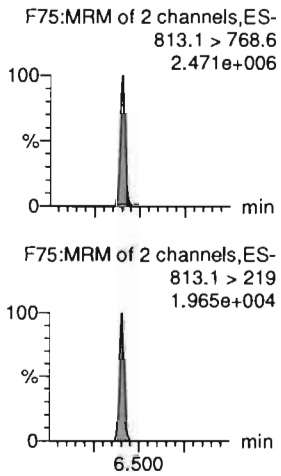
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Name: 200226P1-9, Date: 26-Feb-2020, Time: 18:02:12, ID: ST200226P1-7 PFC CS4 20B1108, Description: PFC CS4 20B1108

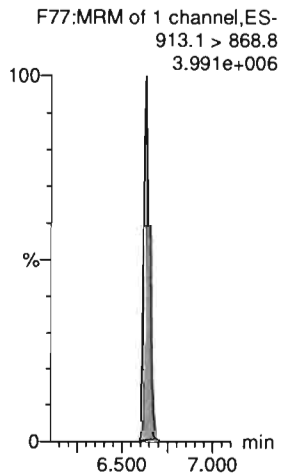
N-EtFOSA



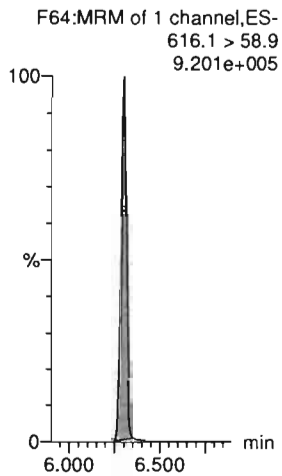
PFHxDA



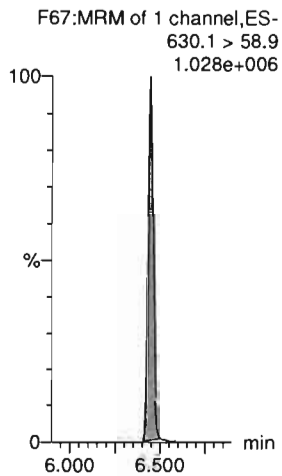
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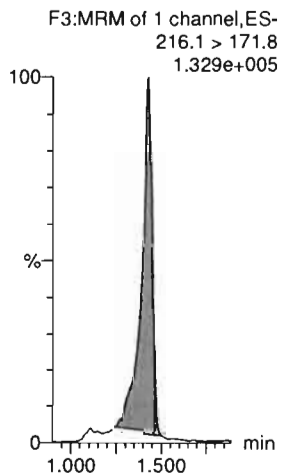
N-MeFOSE



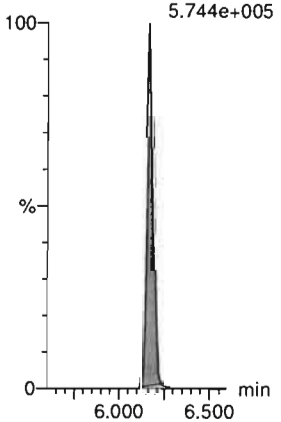
N-EtFOSE



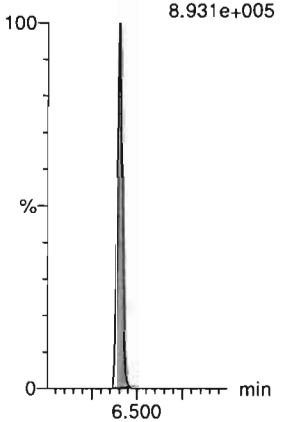
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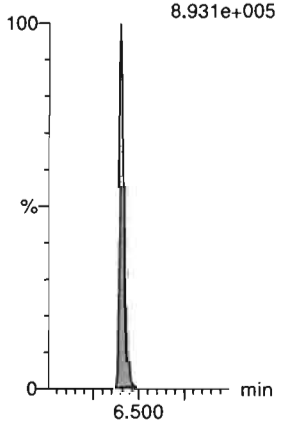
d5-N-ETFOSA-EIS



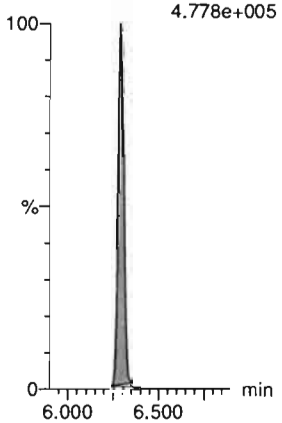
13C2-PFHxDA-EIS



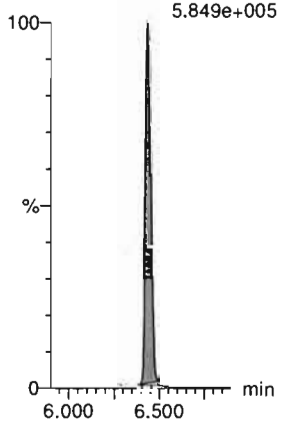
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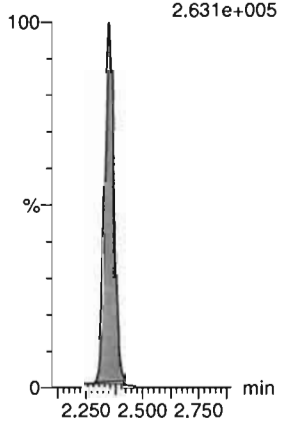
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

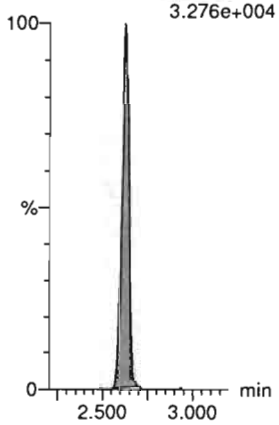


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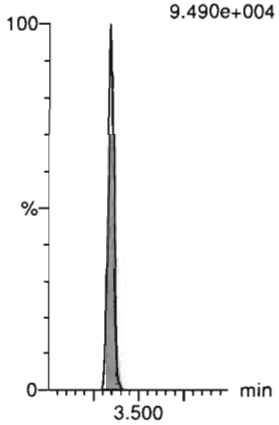
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Name: 200226P1-9, Date: 26-Feb-2020, Time: 18:02:12, ID: ST200226P1-7 PFC CS4 20B1108, Description: PFC CS4 20B1108

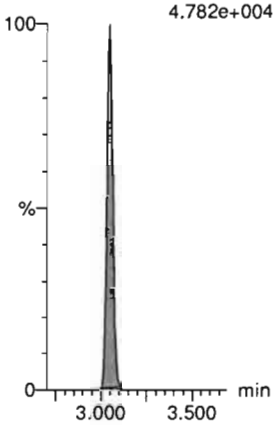
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.276e+004



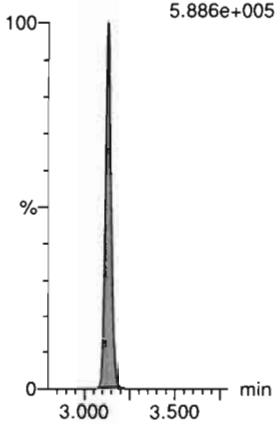
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.490e+004



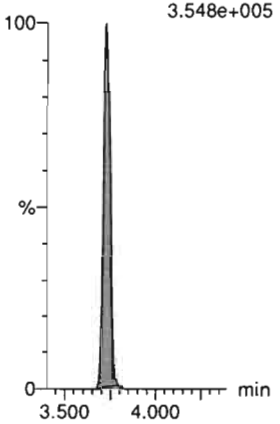
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.782e+004



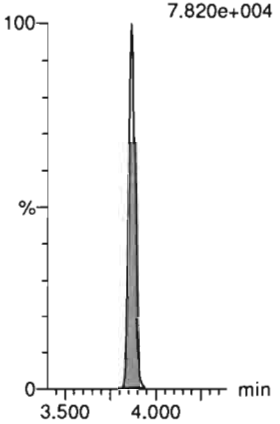
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.886e+005



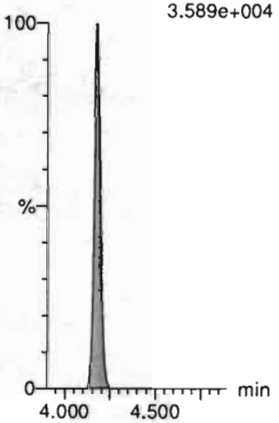
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.548e+005



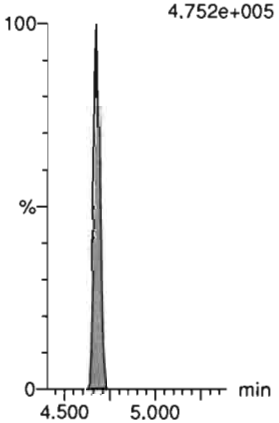
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
7.820e+004



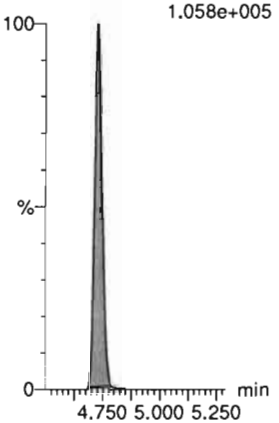
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.589e+004



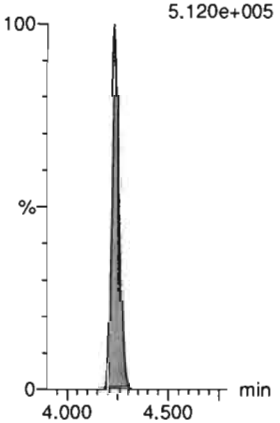
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.752e+005



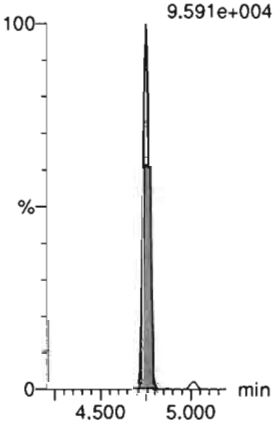
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.058e+005



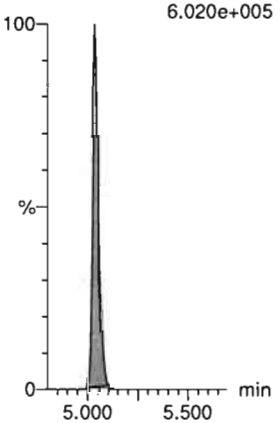
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
5.120e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.591e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
6.020e+005

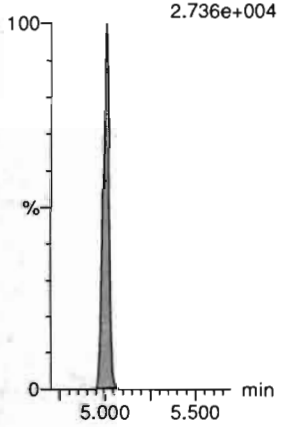


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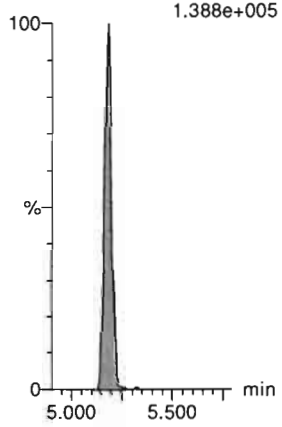
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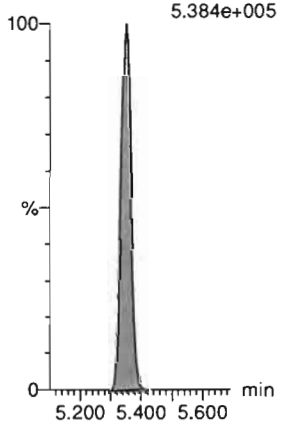
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F50:MRM of 1 channel,ES-
529 > 79.7
2.736e+004



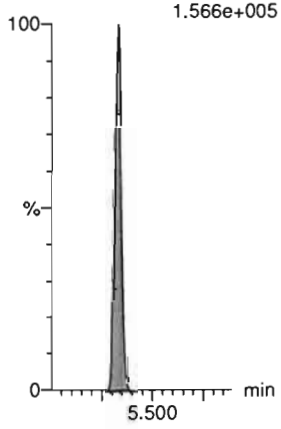
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.388e+005



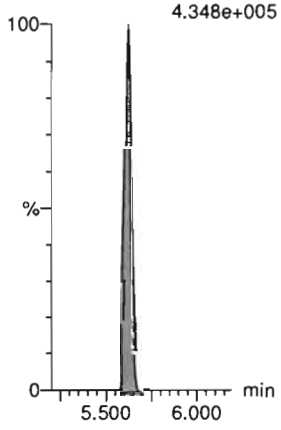
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.384e+005



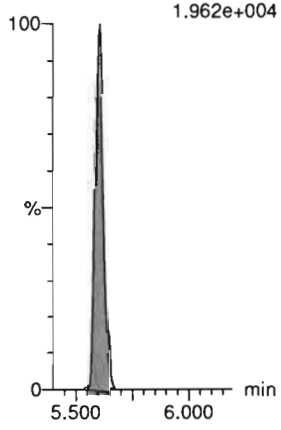
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F60:MRM of 1 channel,ES-
589.3 > 419
1.566e+005



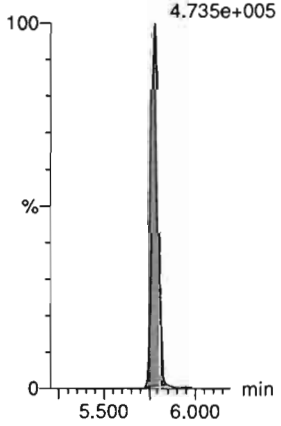
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F63:MRM of 1 channel,ES-
614.7 > 569.7
4.348e+005



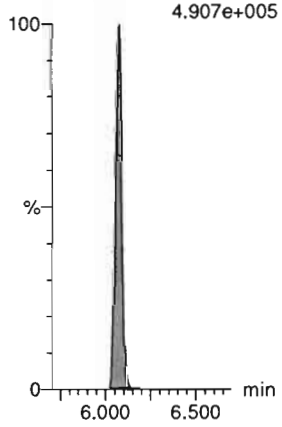
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.962e+004



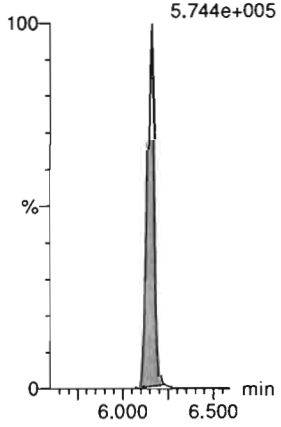
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.735e+005



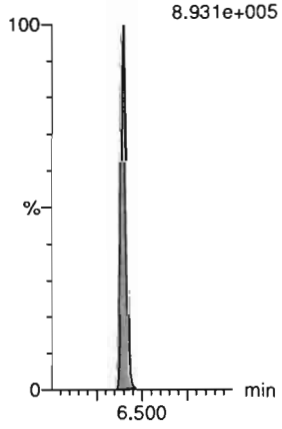
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.907e+005



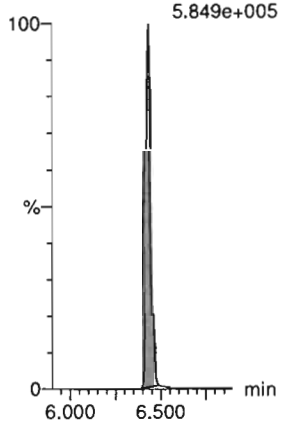
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.744e+005



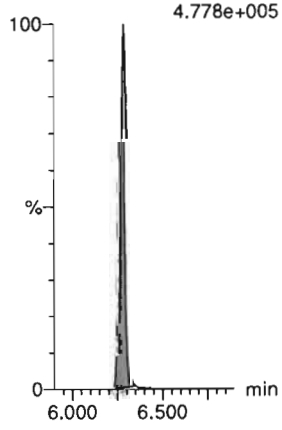
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.931e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.849e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.778e+005

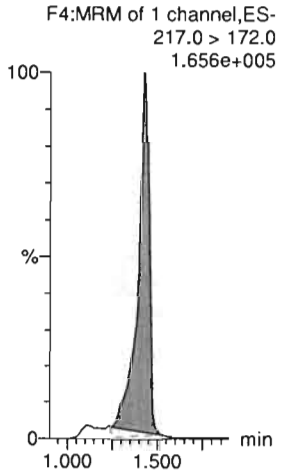


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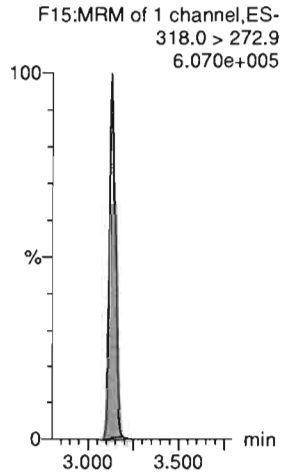
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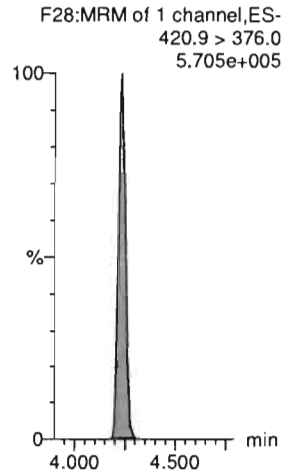
13C4-PFBA



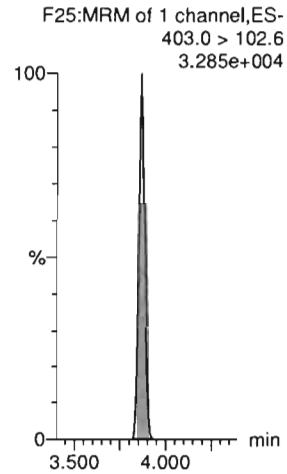
13C5-PFHxA



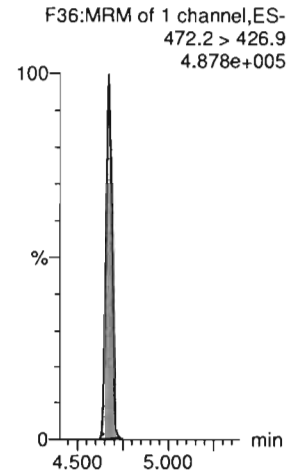
13C8-PFOA



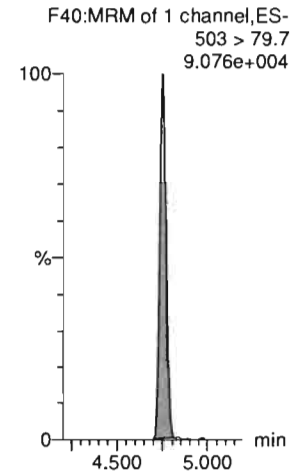
18O2-PFHxS



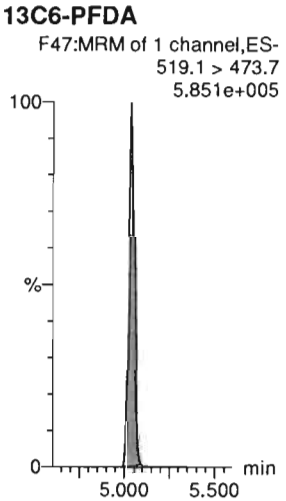
13C9-PFNA



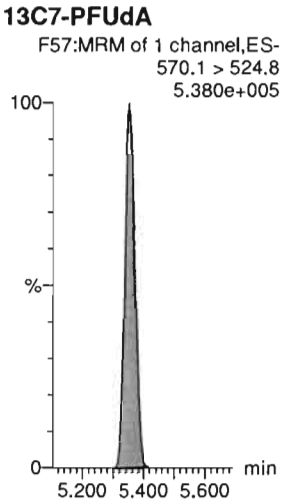
13C4-PFOS



13C6-PFDA



13C7-PFUdA

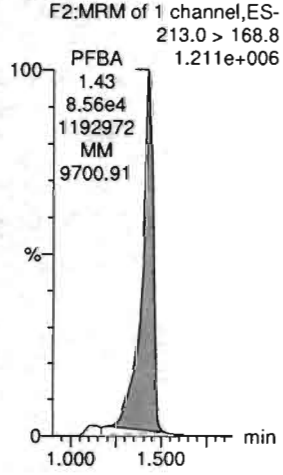


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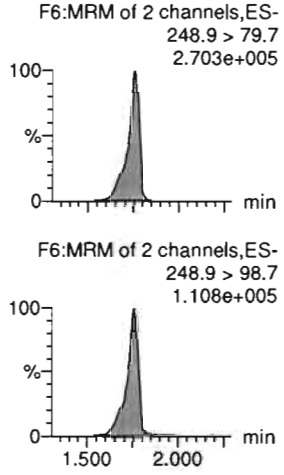
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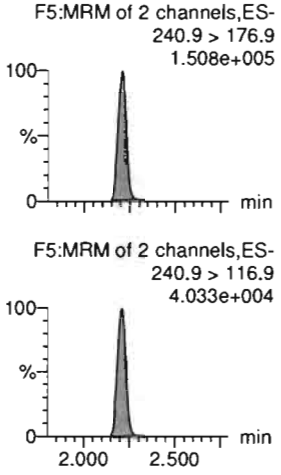
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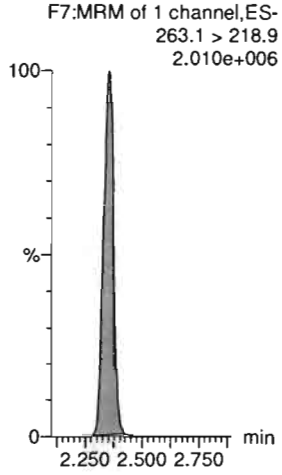
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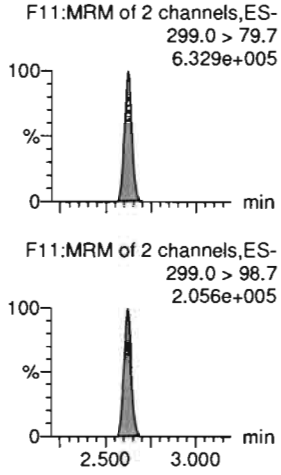
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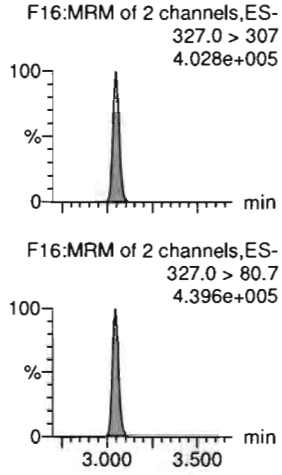
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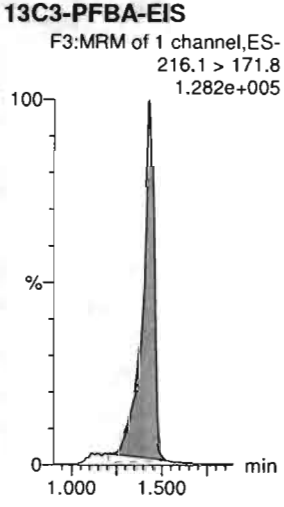
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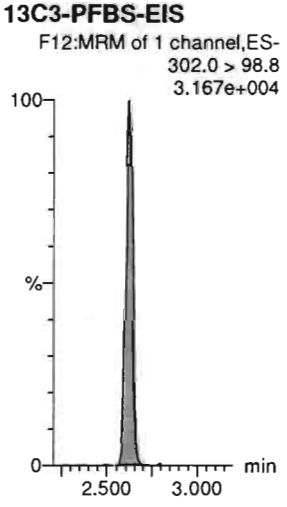
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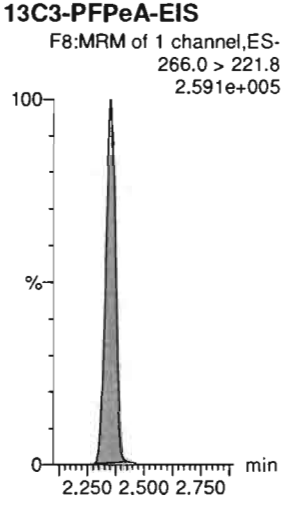
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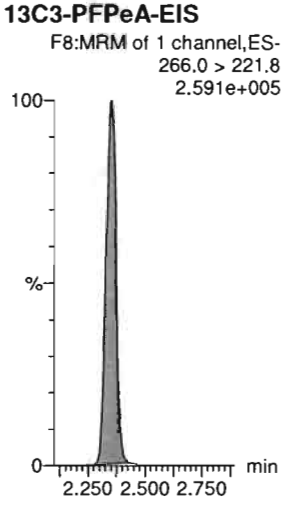
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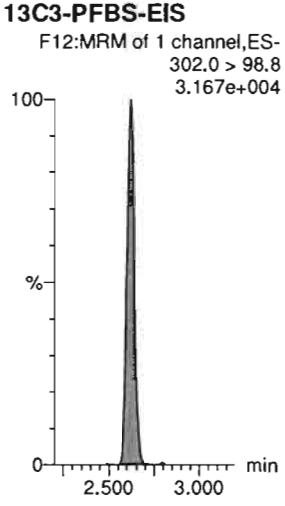
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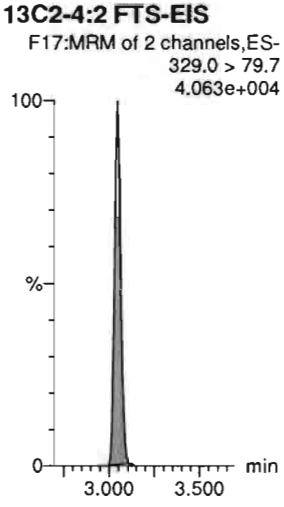
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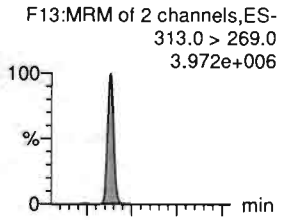


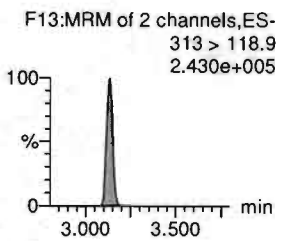
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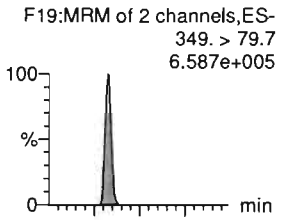
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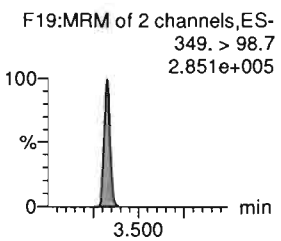
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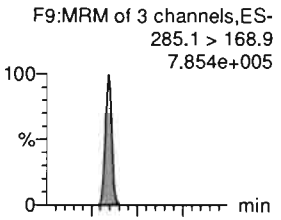


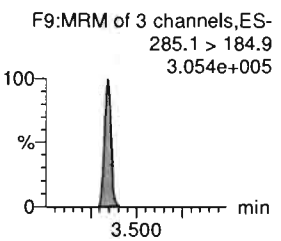
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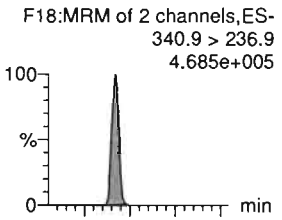


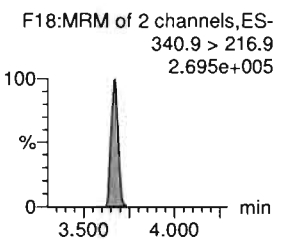
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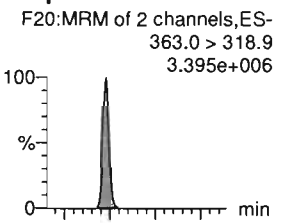


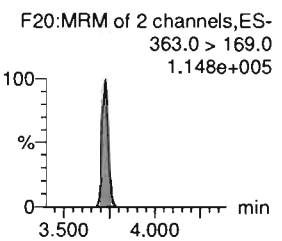
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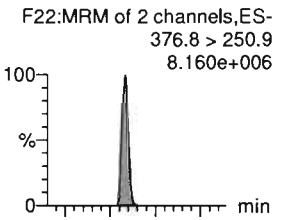


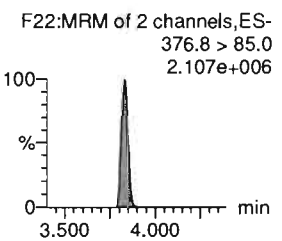
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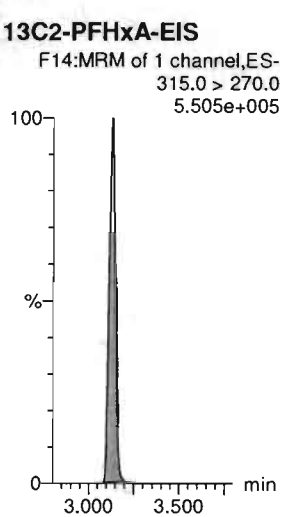


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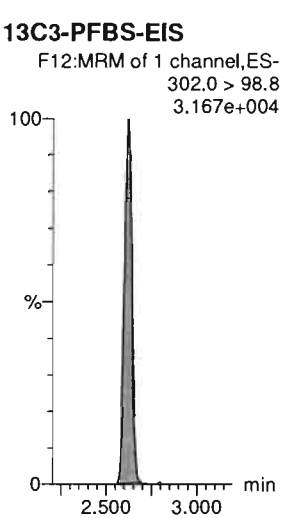




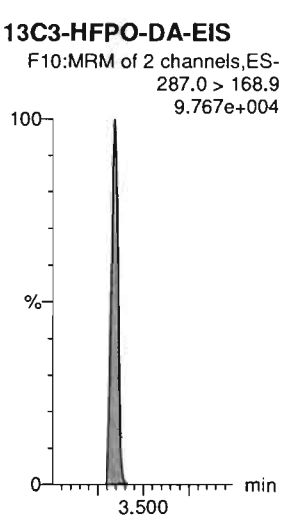
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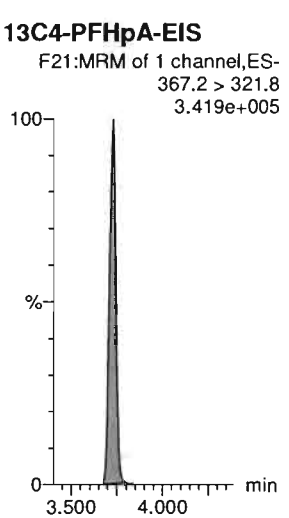
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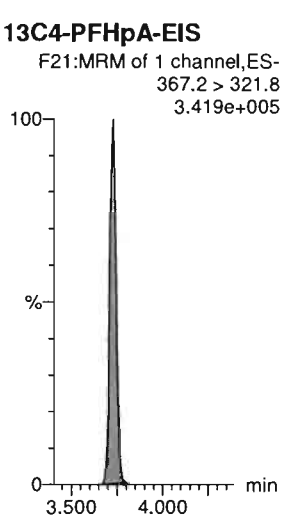
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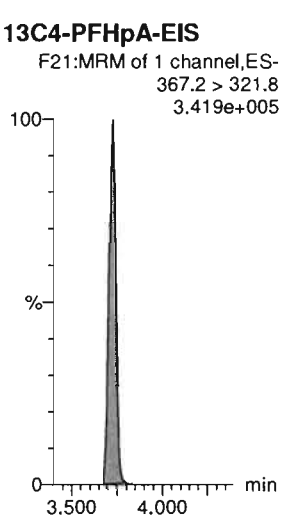
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13C4-PFHpA-EIS



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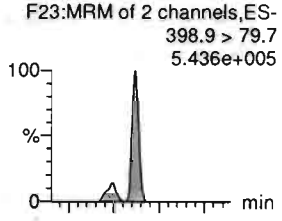


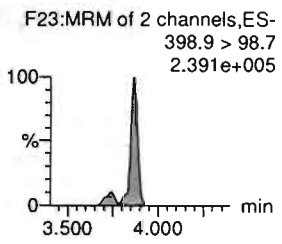
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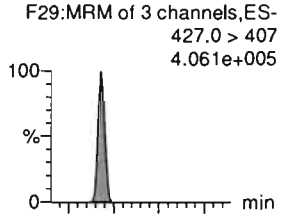
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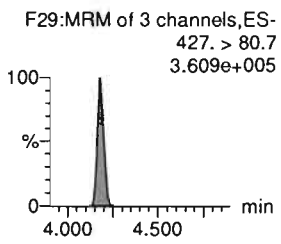
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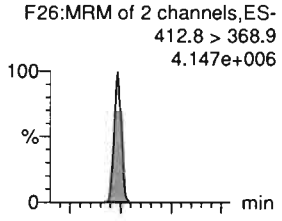


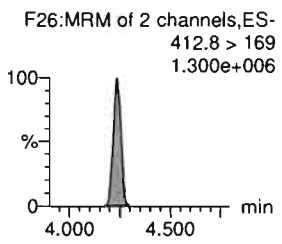
6:2 FTS



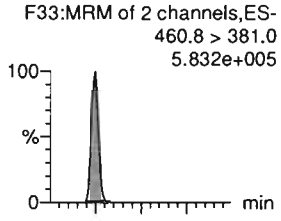


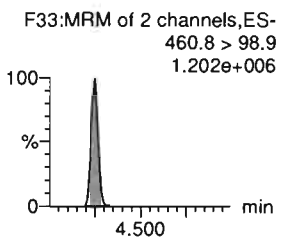
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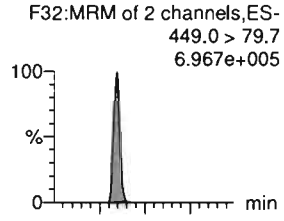


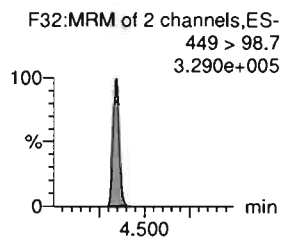
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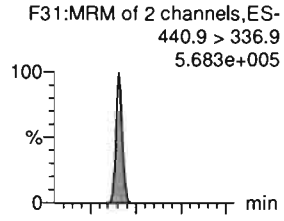


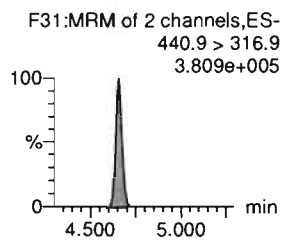
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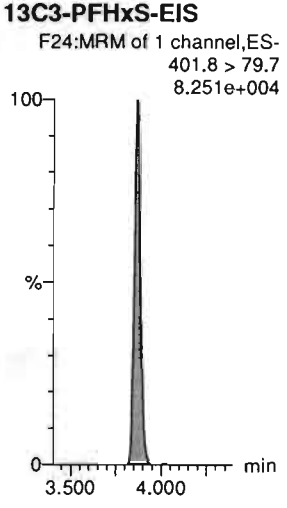


7:3 FTCA

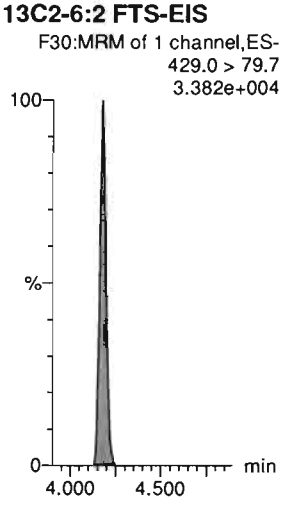




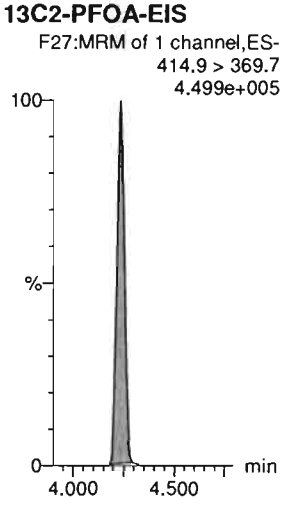
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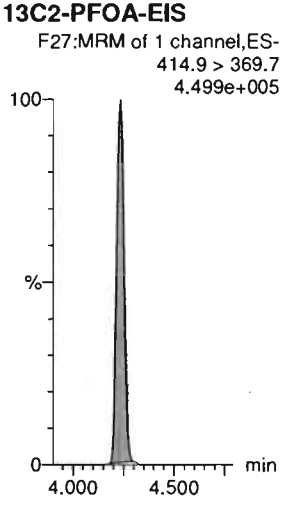
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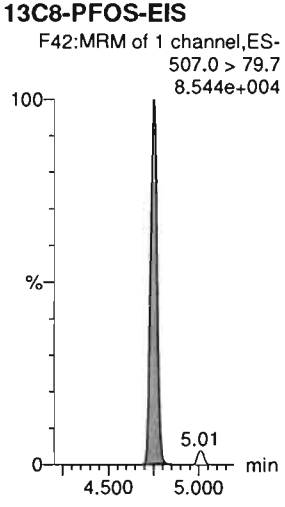
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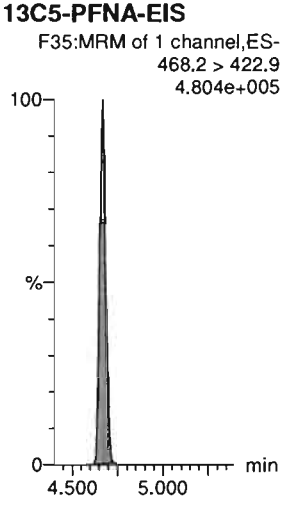
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13C8-PFOS-EIS



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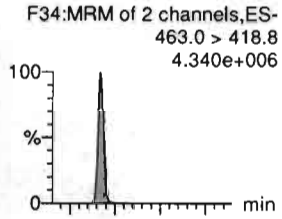


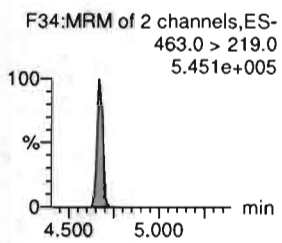
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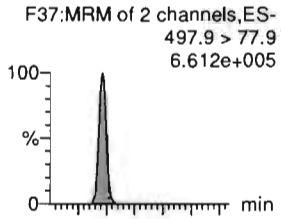
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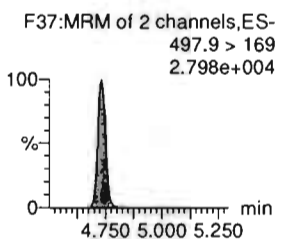
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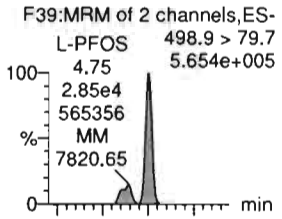


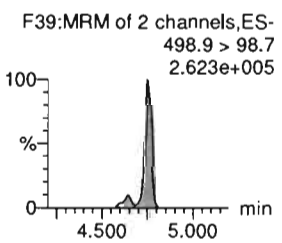
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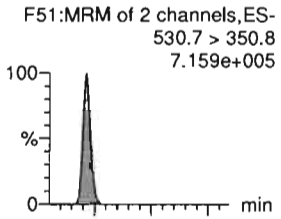


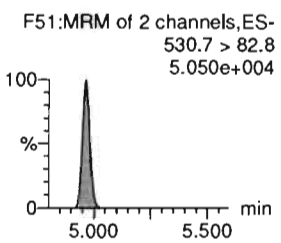
L-PFOS



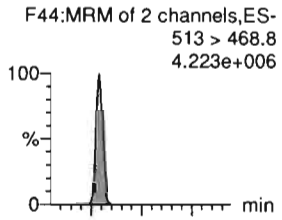


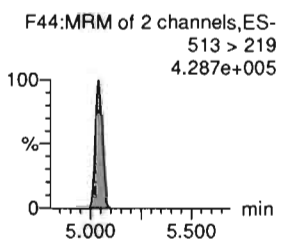
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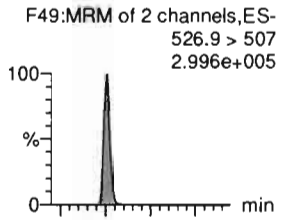


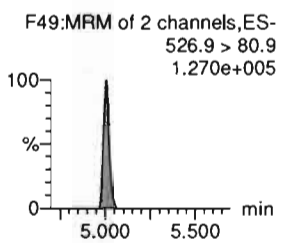
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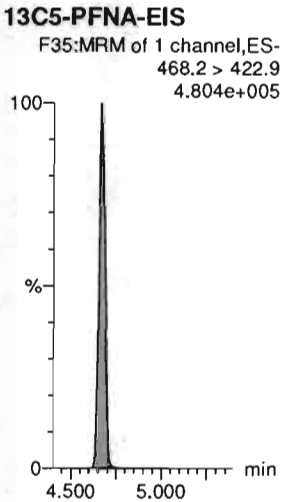


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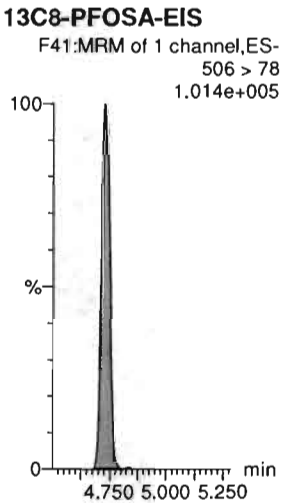




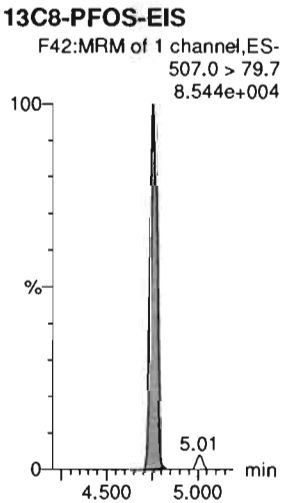
13C5-PFNA-EIS



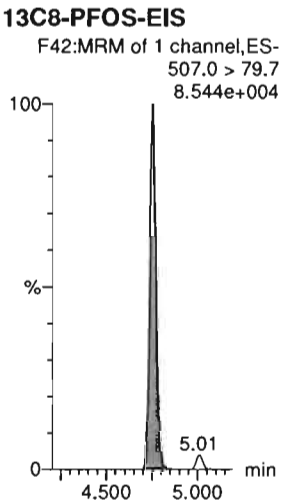
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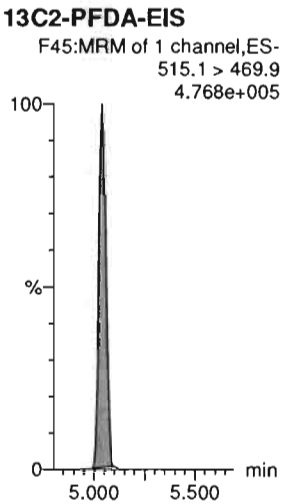
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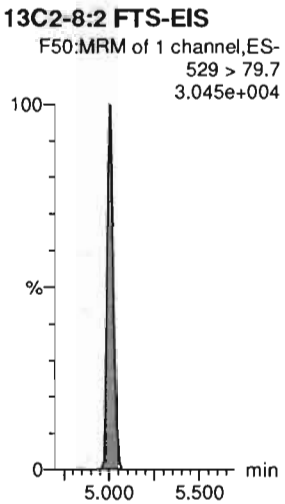
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

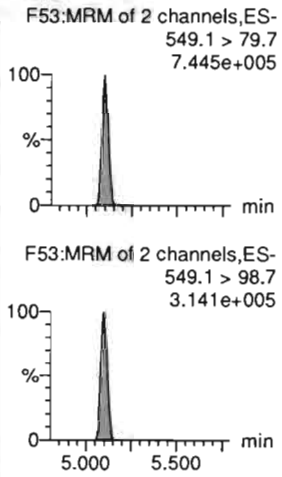


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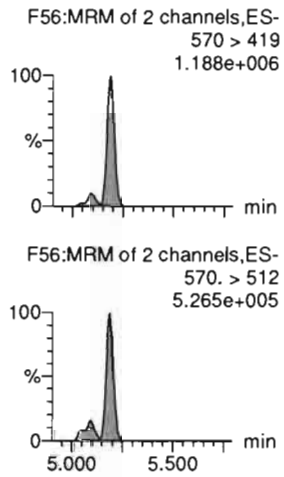
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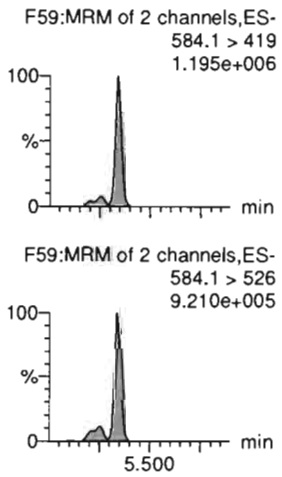
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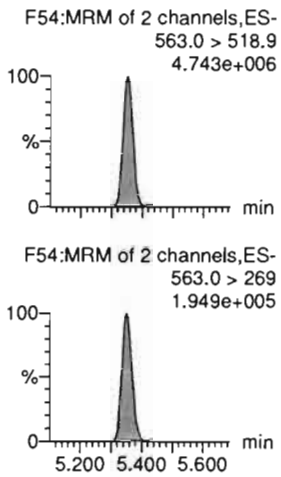
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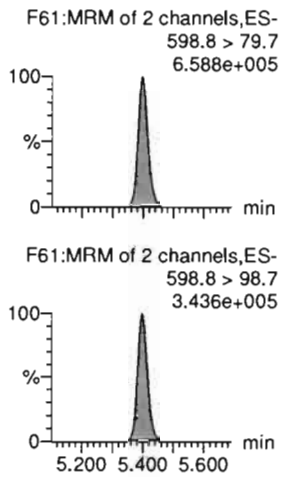
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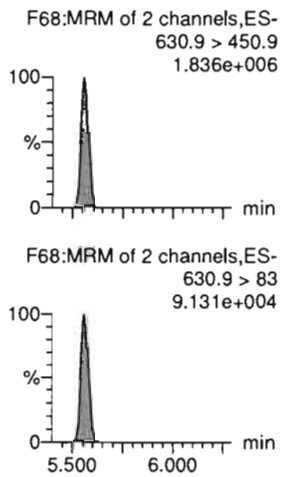
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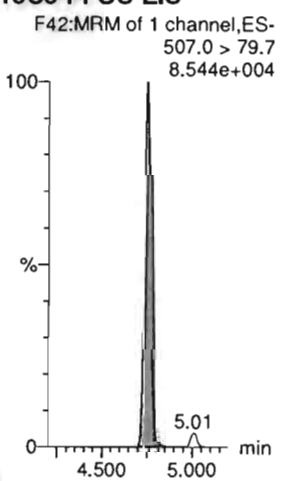
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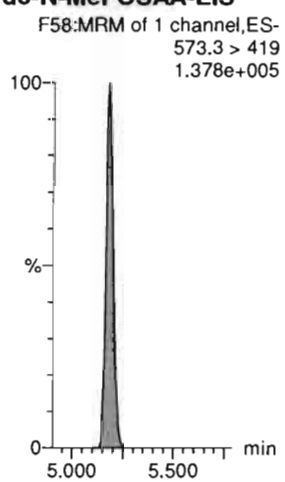
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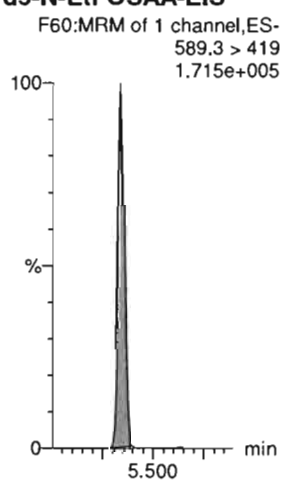
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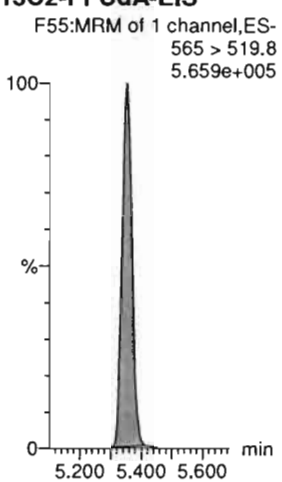
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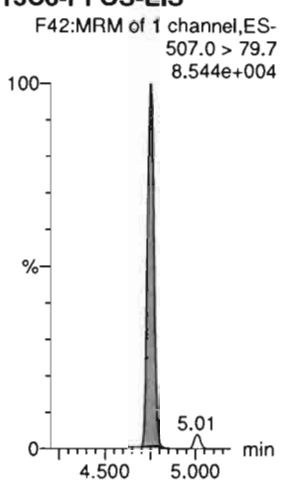
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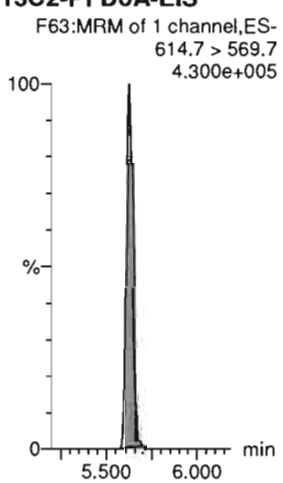
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

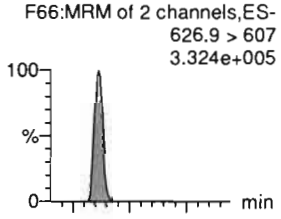


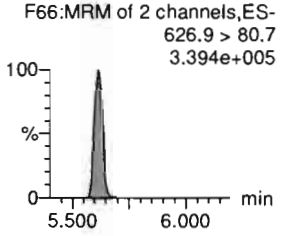
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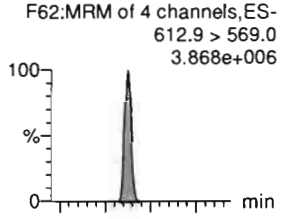
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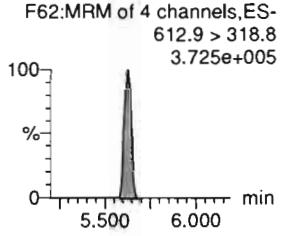
10:2 FTS



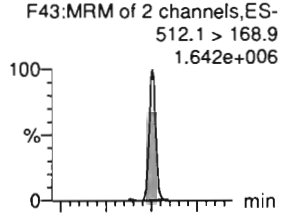


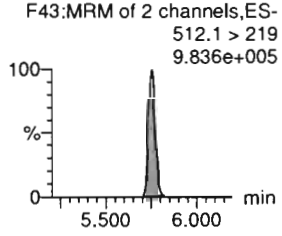
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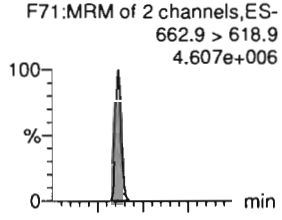


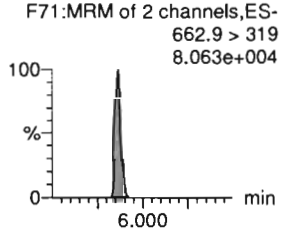
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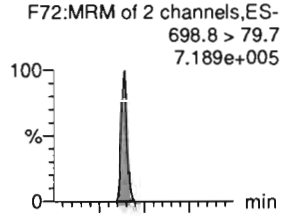


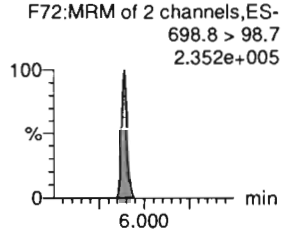
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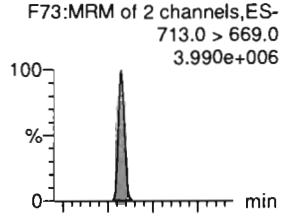


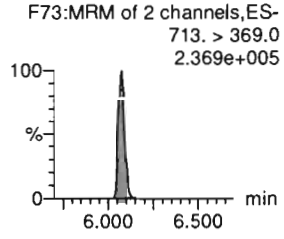
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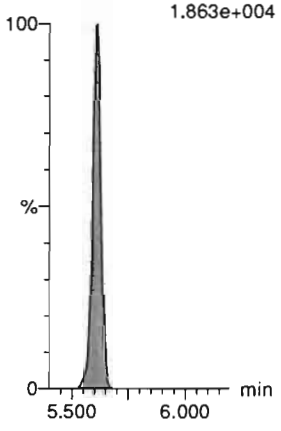


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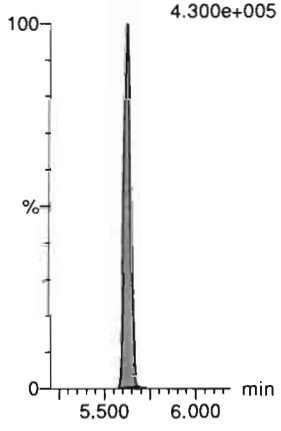




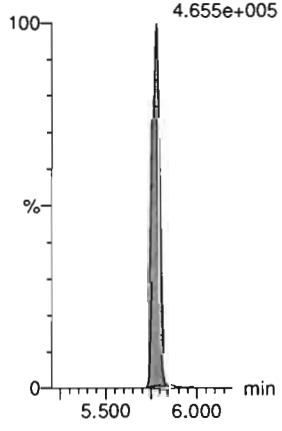
13C2-10:2 FTS-EIS



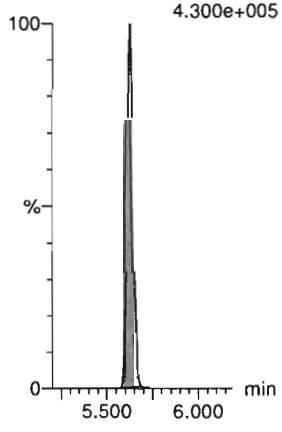
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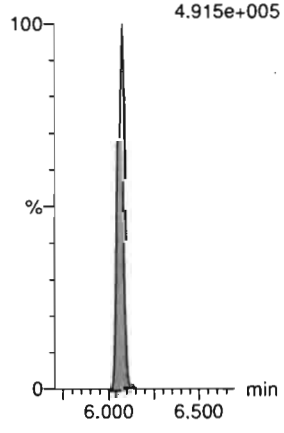
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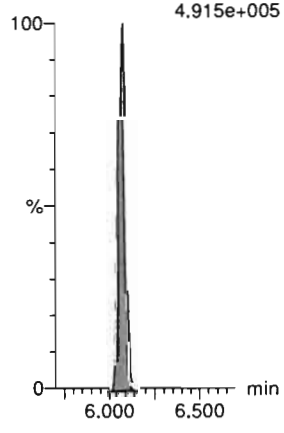
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

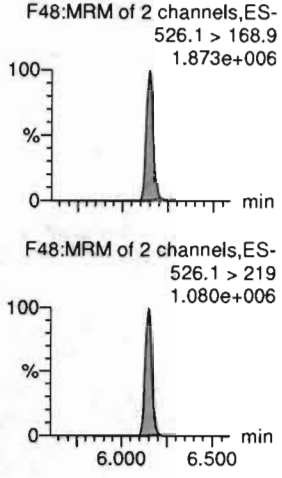


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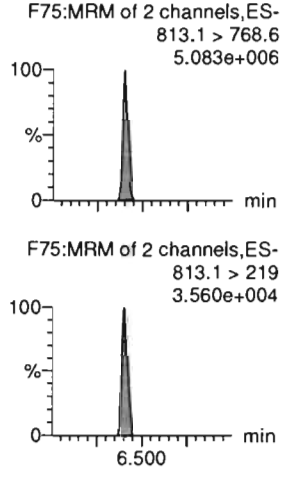
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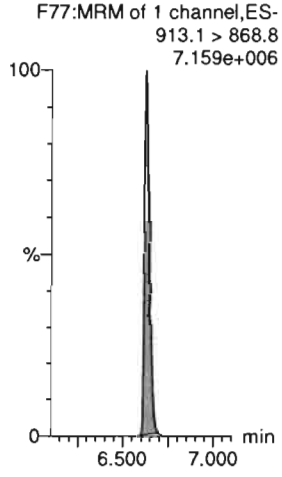
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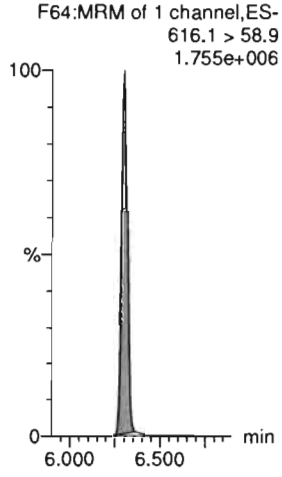
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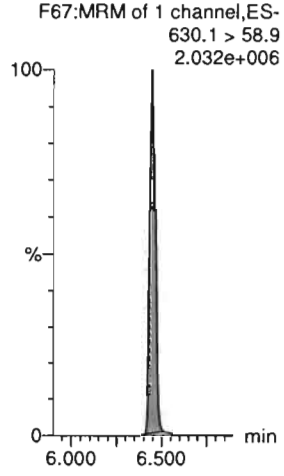
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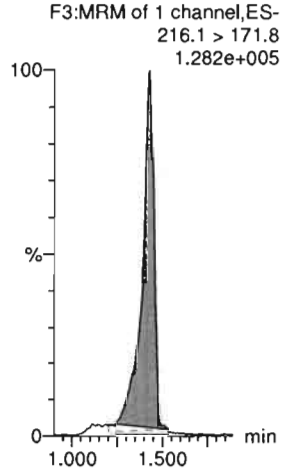
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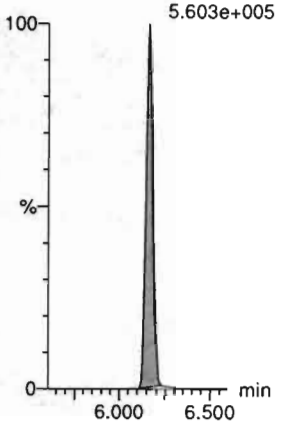
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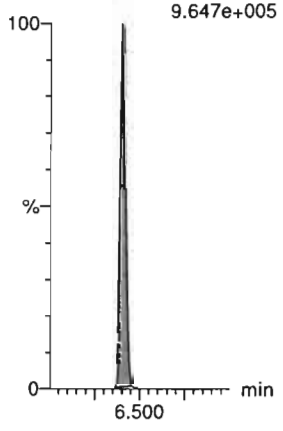
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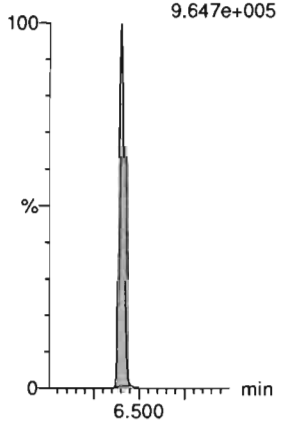
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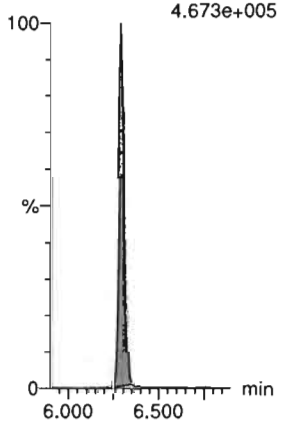
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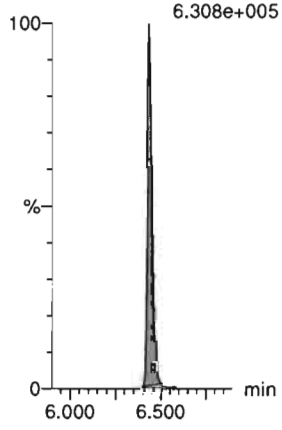
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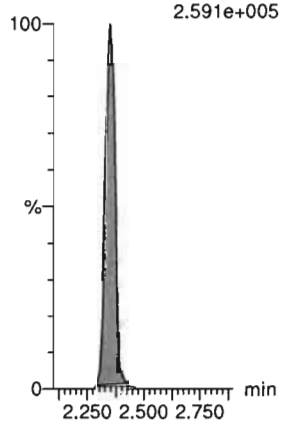
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d9-N-EtFOSE-EIS



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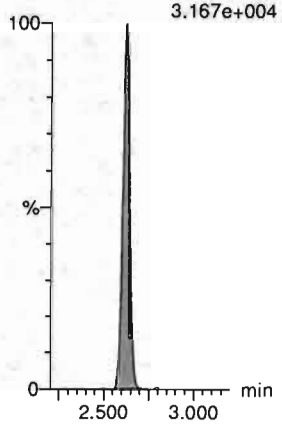


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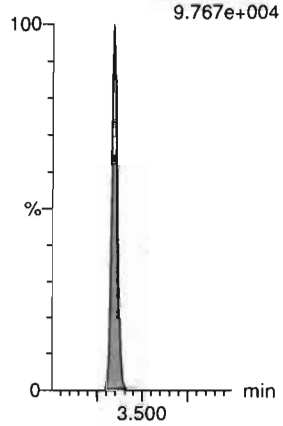
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Name: 200226P1-10, Date: 26-Feb-2020, Time: 18:12:43, ID: ST200226P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

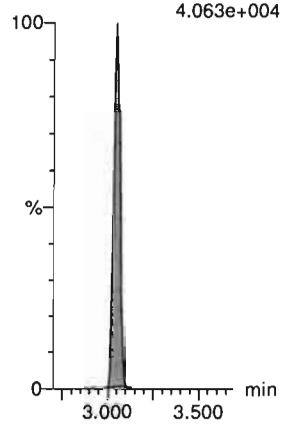
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.167e+004



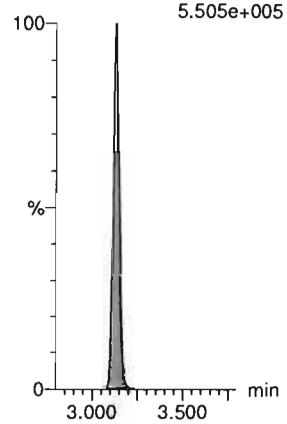
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.767e+004



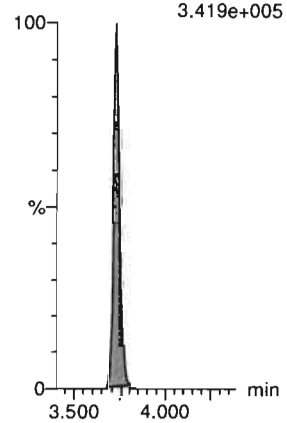
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
4.063e+004



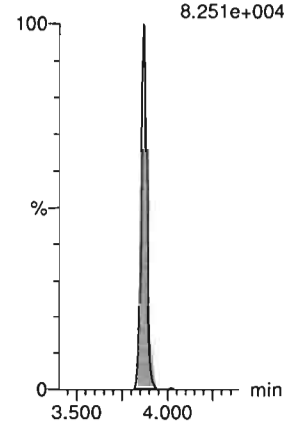
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.505e+005



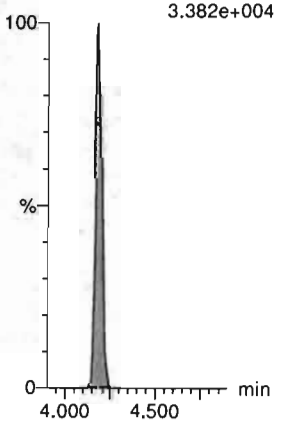
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.419e+005



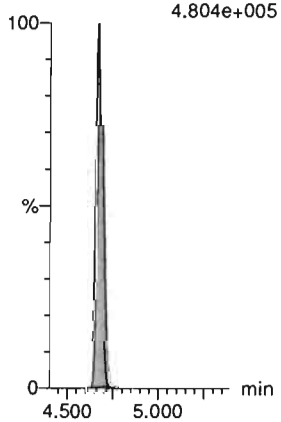
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.251e+004



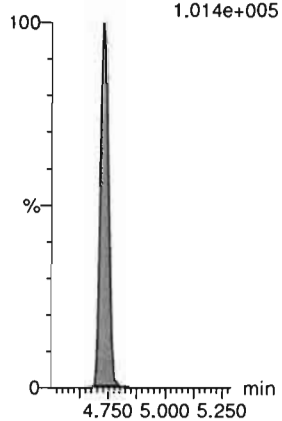
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.382e+004



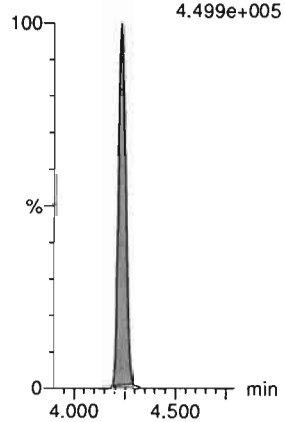
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.804e+005



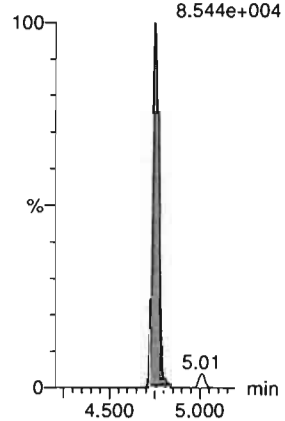
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.014e+005



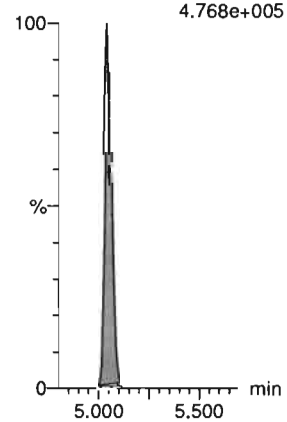
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.499e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.544e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.768e+005

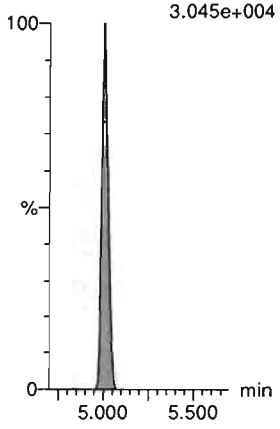


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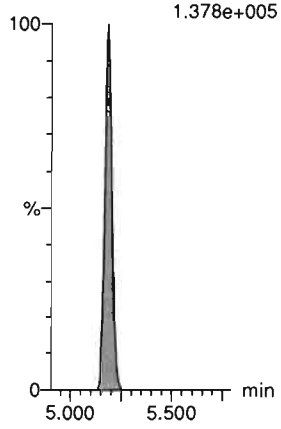
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Printed: Thursday, February 27, 2020 08:34:37 Pacific Standard Time

Name: 200226P1-10, Date: 26-Feb-2020, Time: 18:12:43, ID: ST200226P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

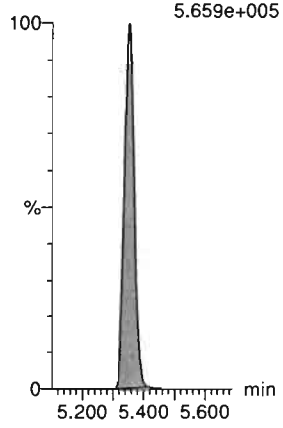
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F50:MRM of 1 channel,ES-
529 > 79.7
3.045e+004



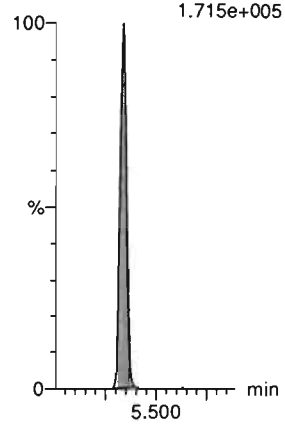
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.378e+005



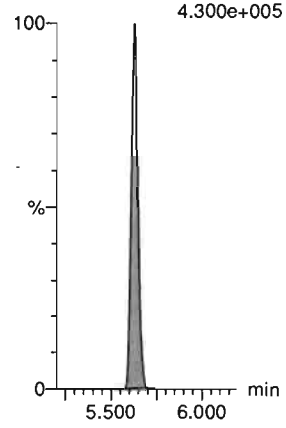
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.659e+005



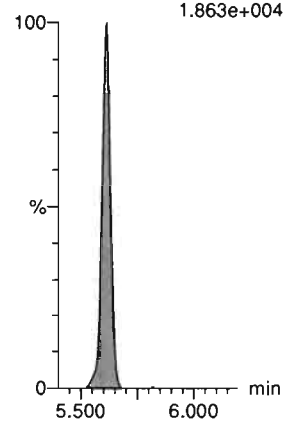
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.715e+005



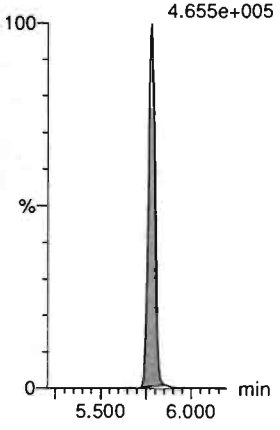
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.300e+005



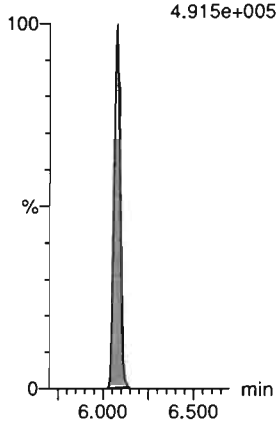
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.863e+004



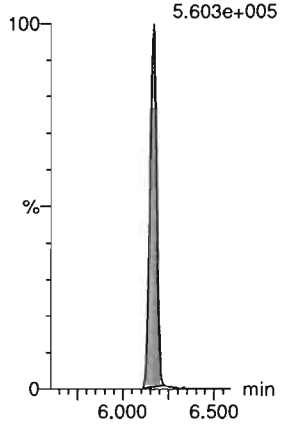
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.655e+005



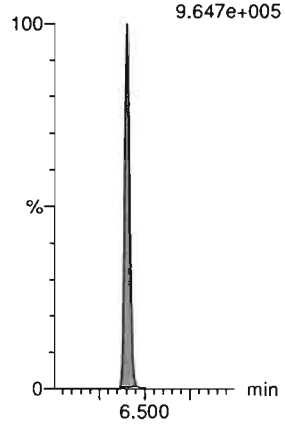
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.915e+005



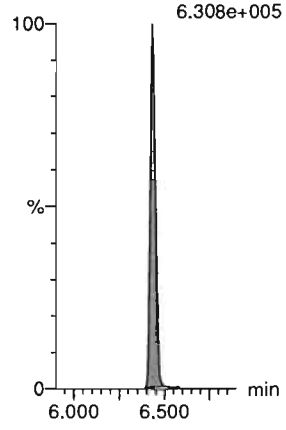
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.603e+005



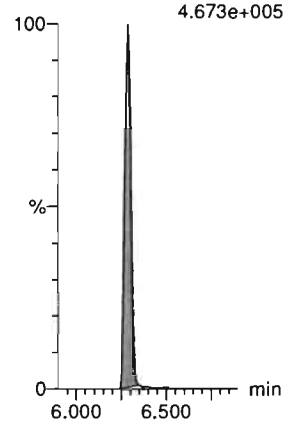
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.647e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.308e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.673e+005

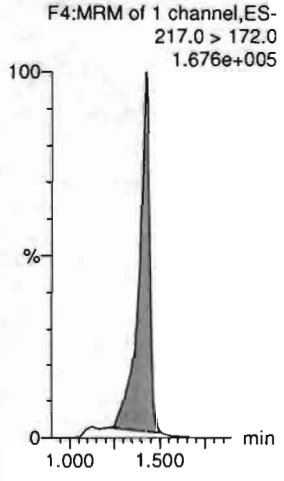


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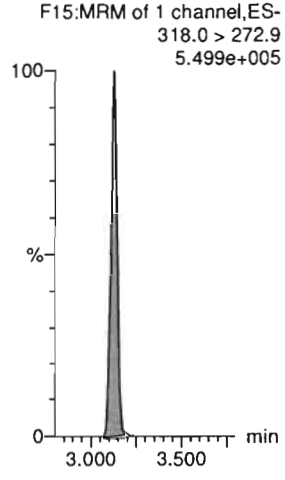
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Name: 200226P1-10, Date: 26-Feb-2020, Time: 18:12:43, ID: ST200226P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

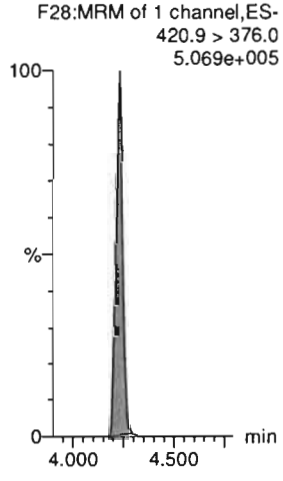
13C4-PFBA



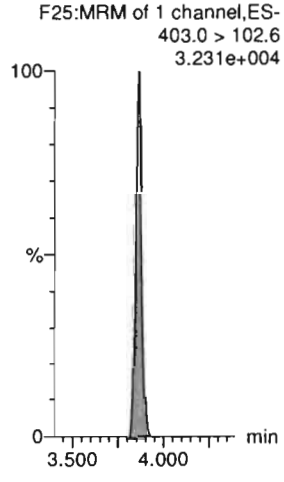
13C5-PFHxA



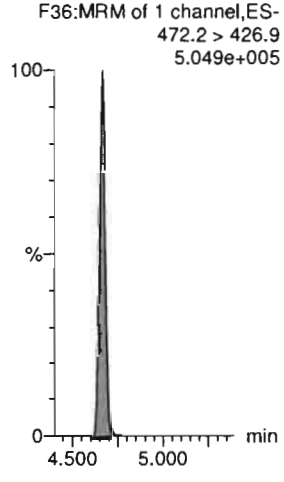
13C8-PFOA



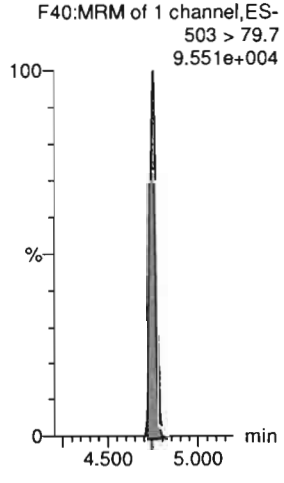
18O2-PFHxS



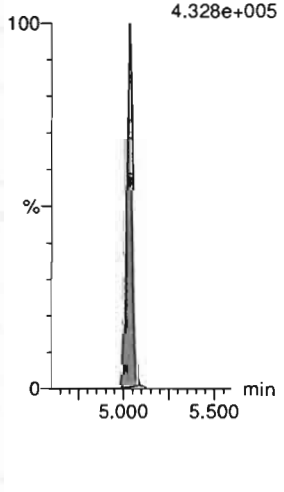
13C9-PFNA



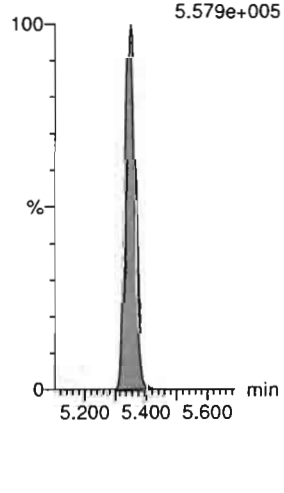
13C4-PFOS



13C6-PFDA



13C7-PFUdA

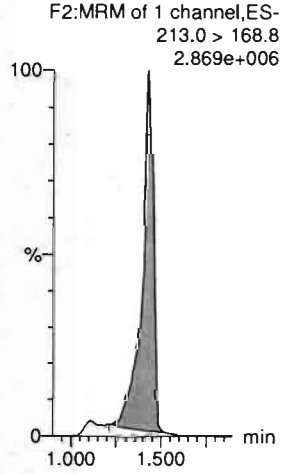


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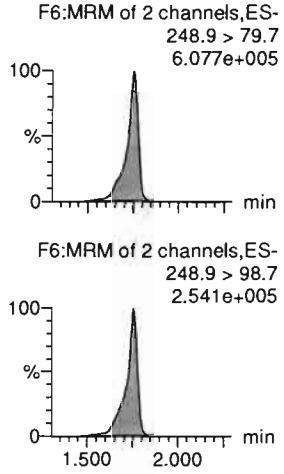
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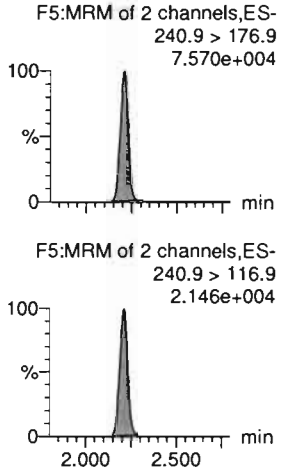
PFBA



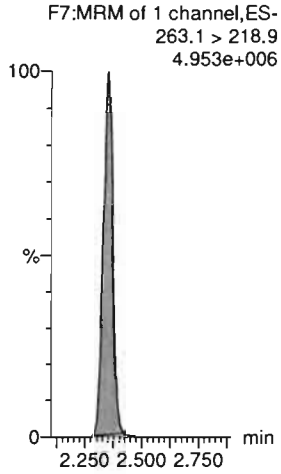
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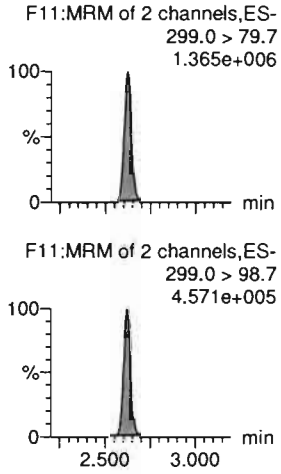
3:3 FTCA



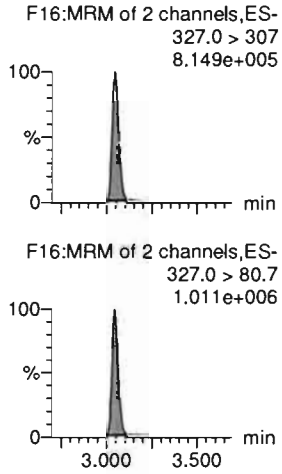
PFPeA



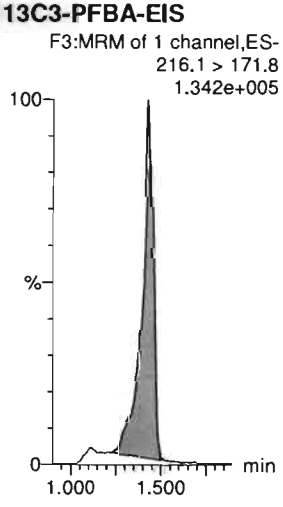
PFBS



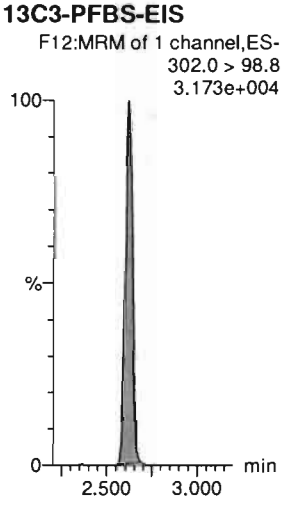
4:2 FTS



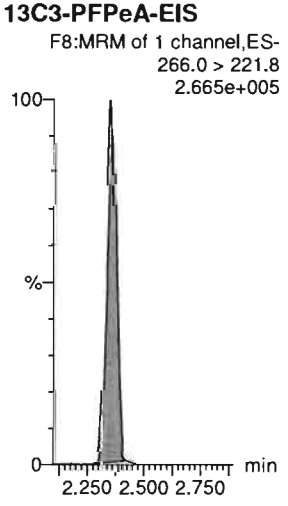
13C3-PFBA-EIS



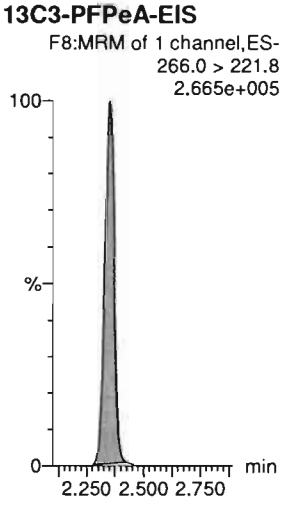
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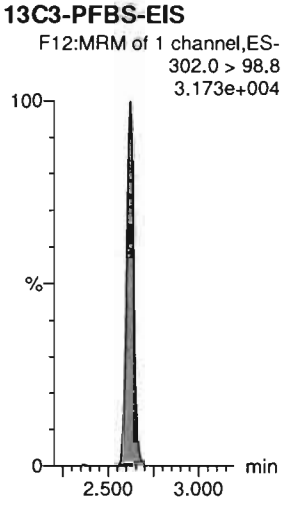
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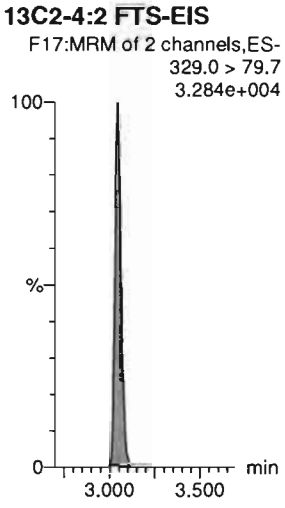
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

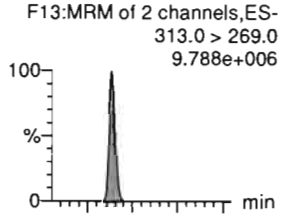


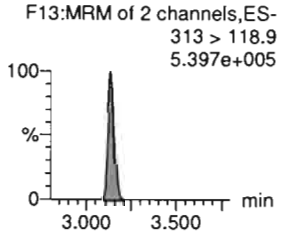
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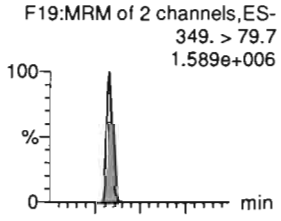
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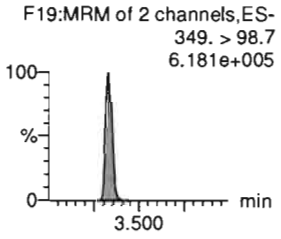
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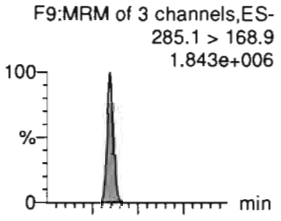


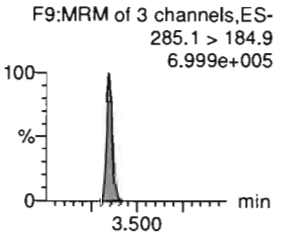
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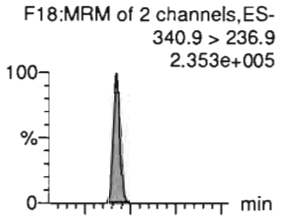


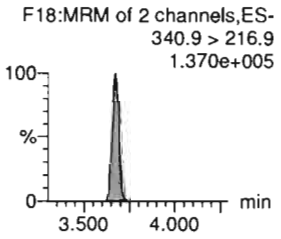
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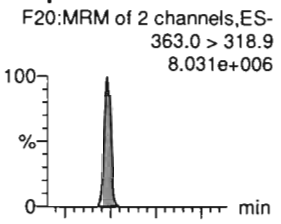


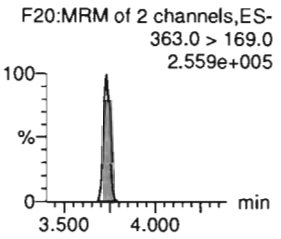
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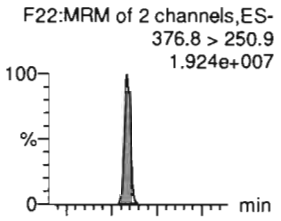


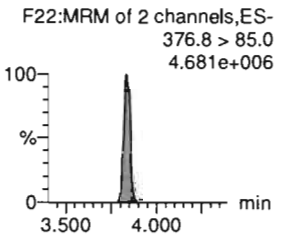
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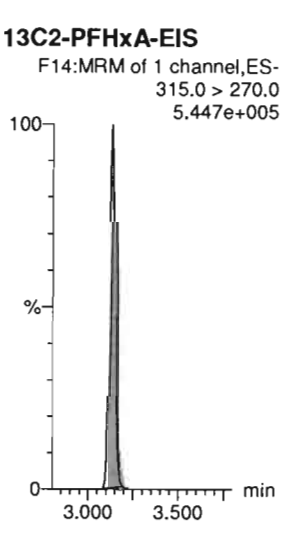


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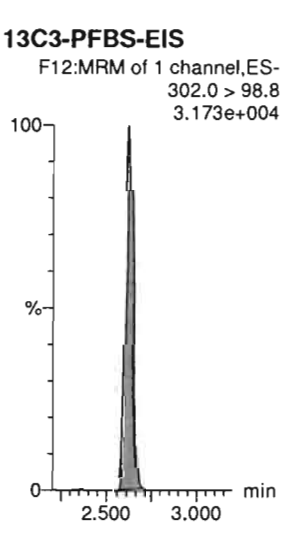




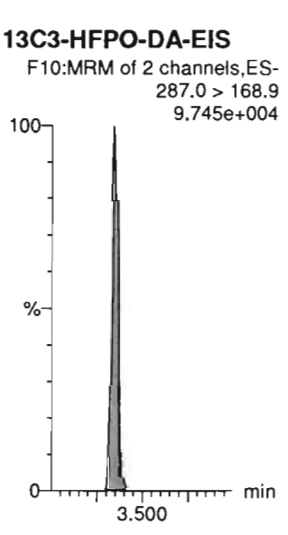
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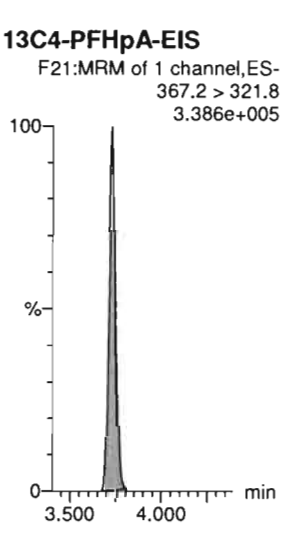
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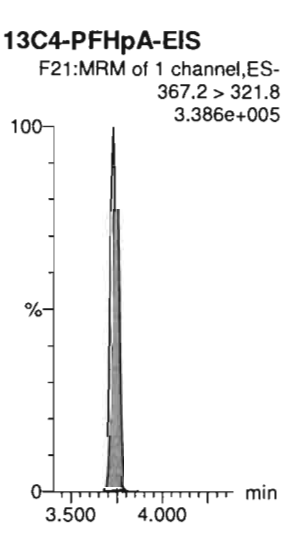
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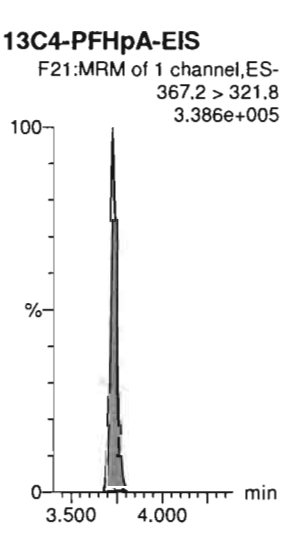
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

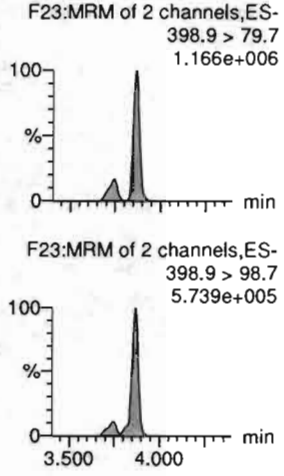


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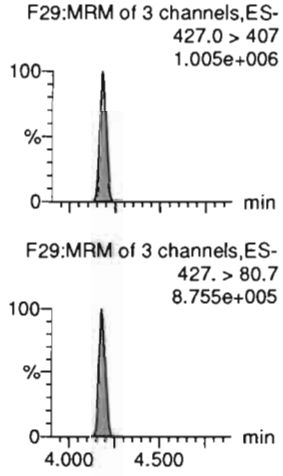
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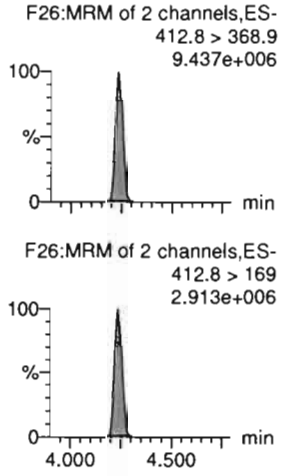
L-PFHxS



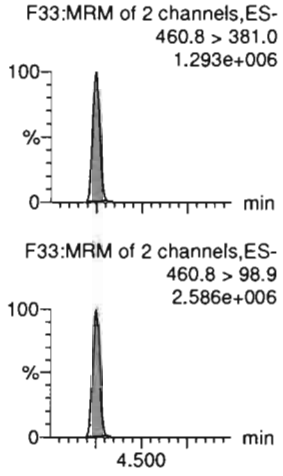
6:2 FTS



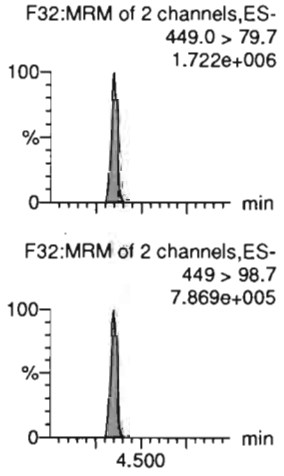
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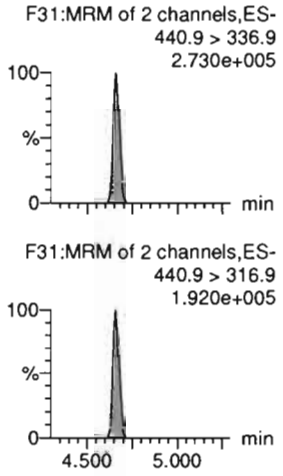
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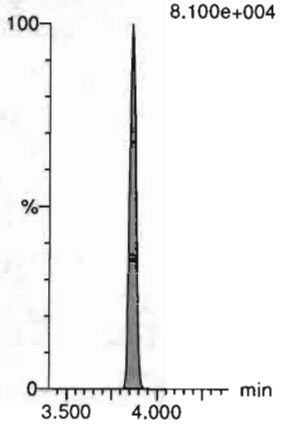
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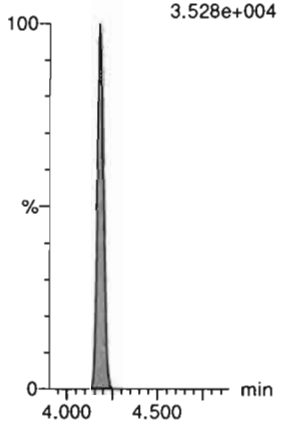
7:3 FTCA



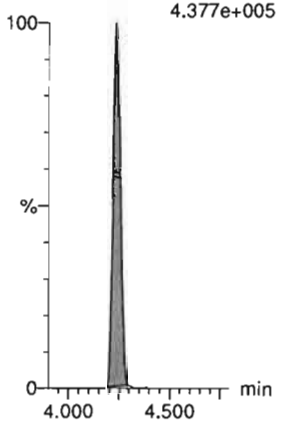
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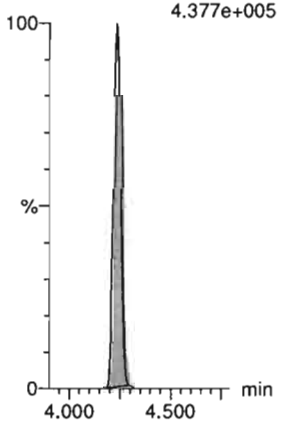
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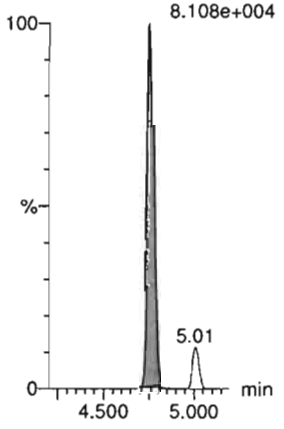
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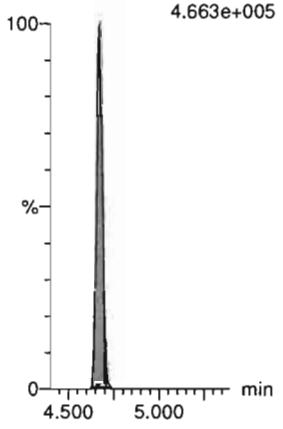
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

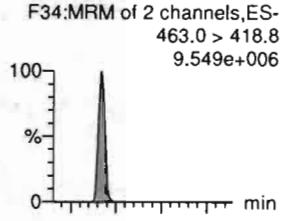


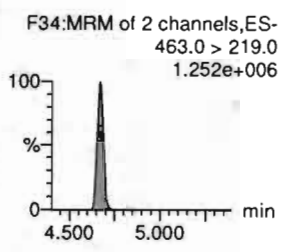
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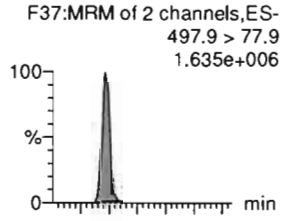
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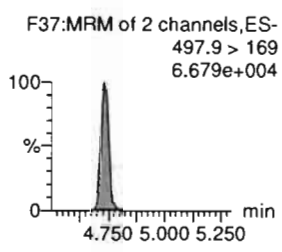
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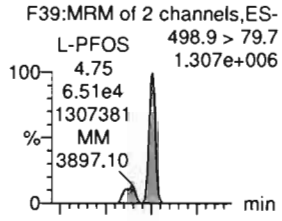


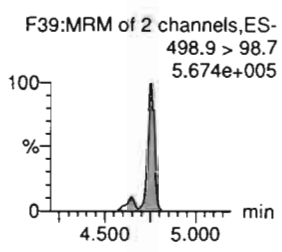
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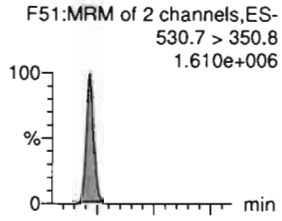


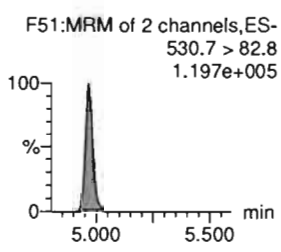
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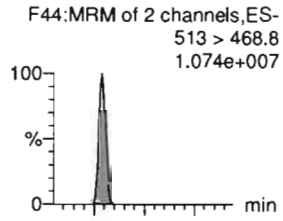


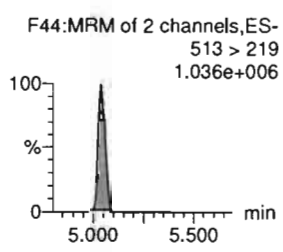
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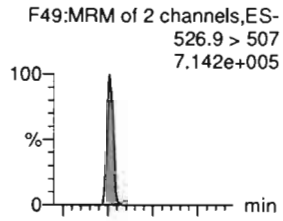


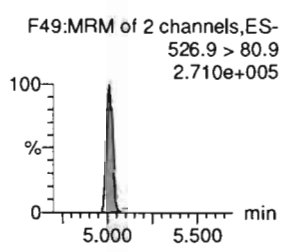
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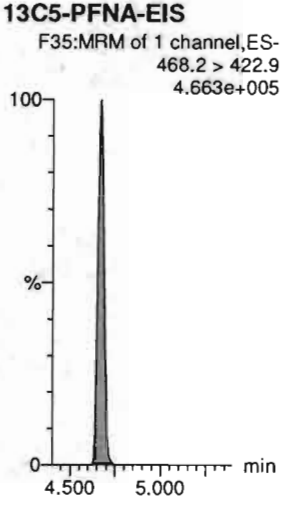


8:2 FTS

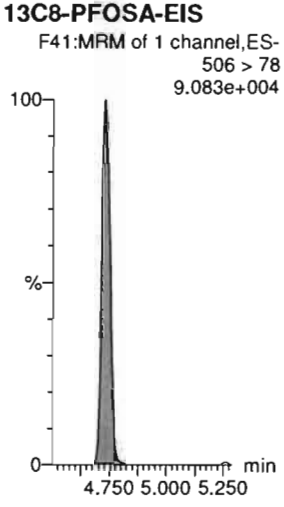




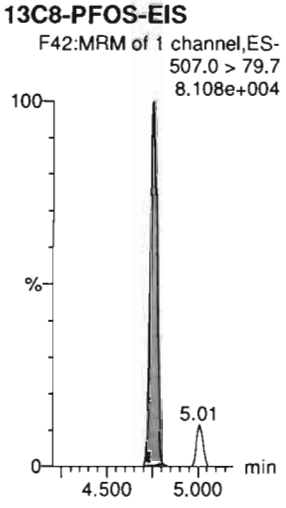
13C5-PFNA-EIS



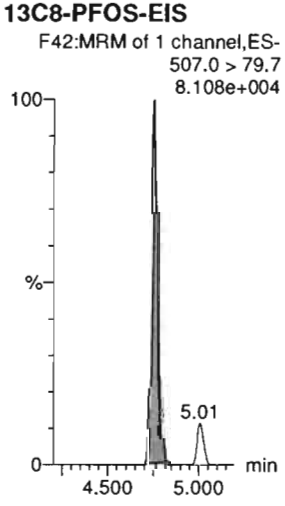
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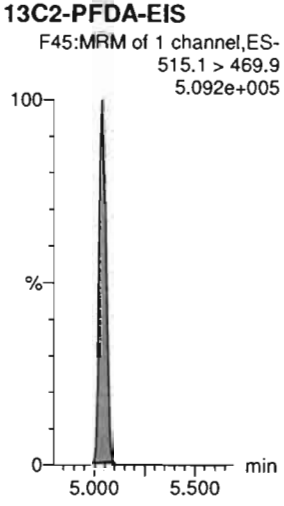
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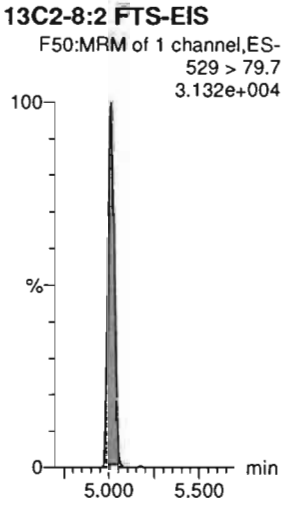
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

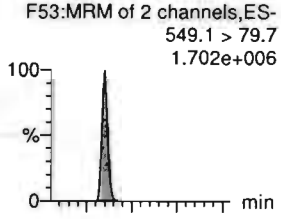


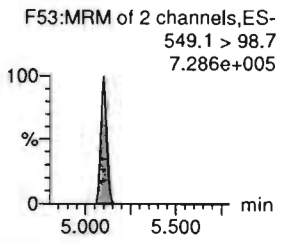
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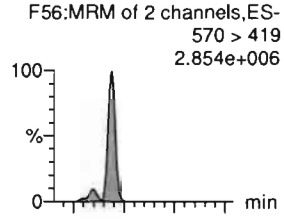
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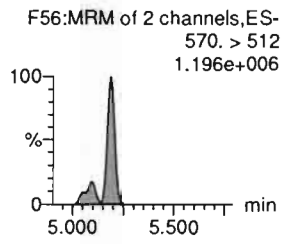
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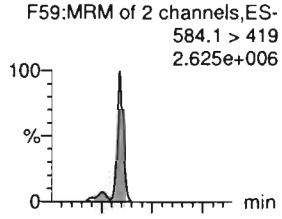


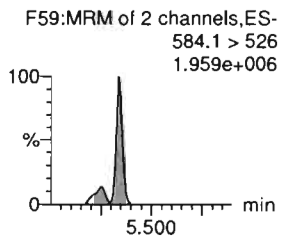
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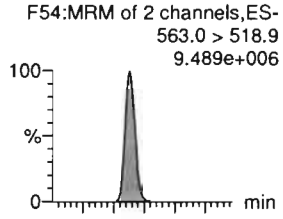


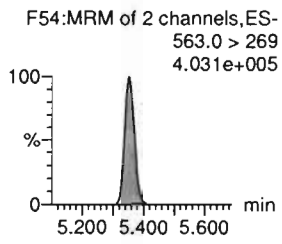
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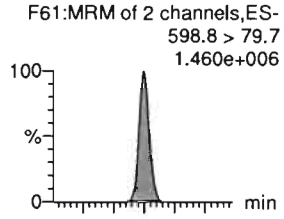


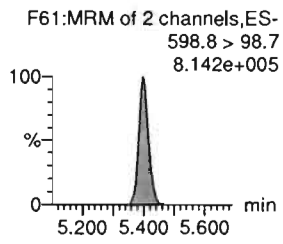
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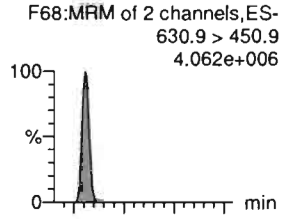


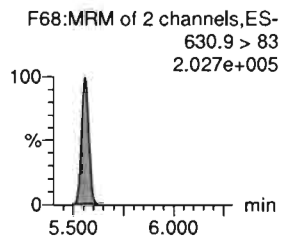
PFDS



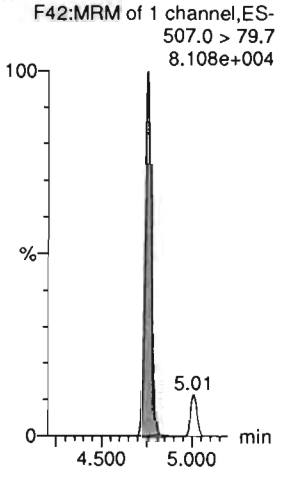


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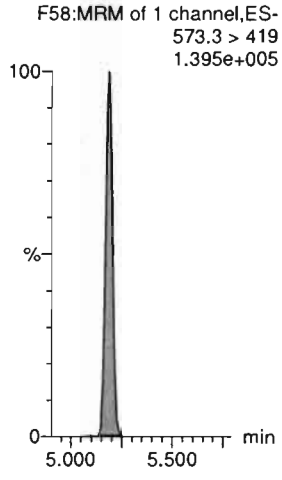




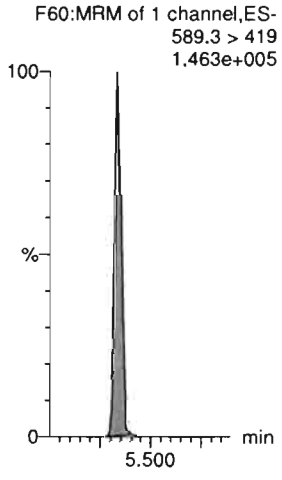
13C8-PFOS-EIS



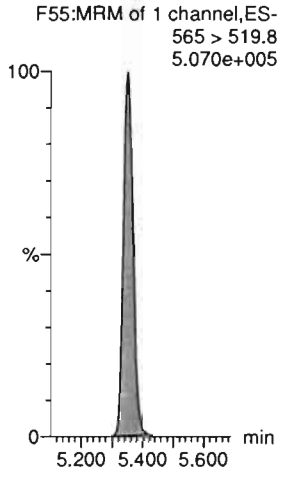
d3-N-MeFOSAA-EIS



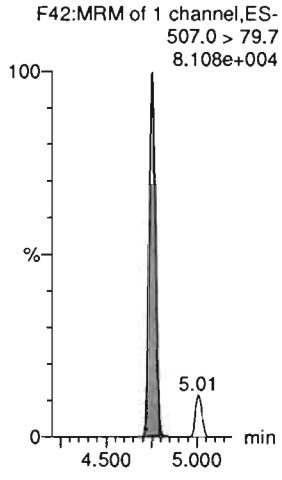
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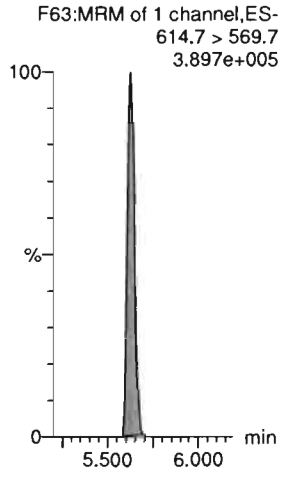
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

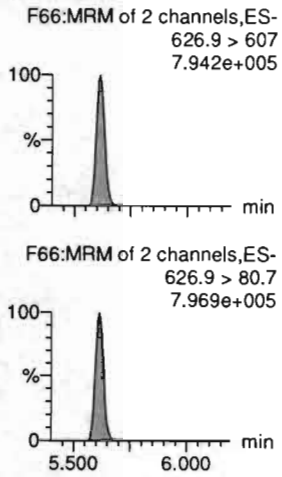


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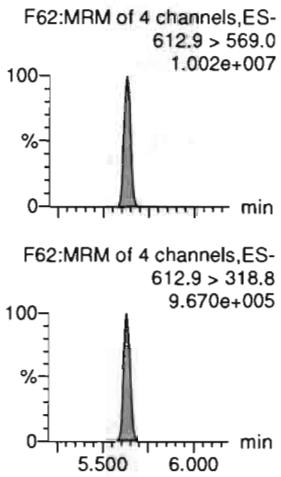
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Name: 200226P1-11, Date: 26-Feb-2020, Time: 18:23:12, ID: ST200226P1-9 PFC CS6 20B1110, Description: PFC CS6 20B1110

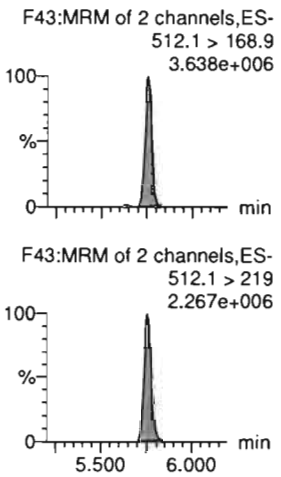
10:2 FTS



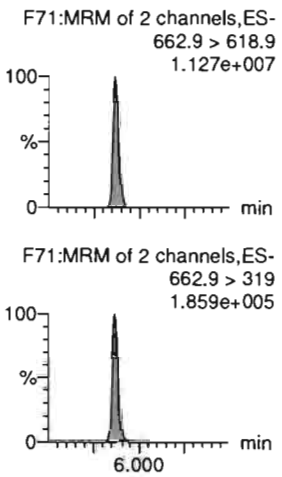
PFDoA



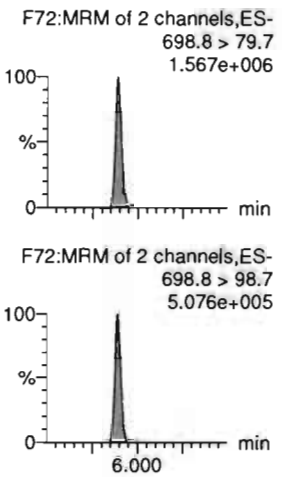
N-MeFOSA



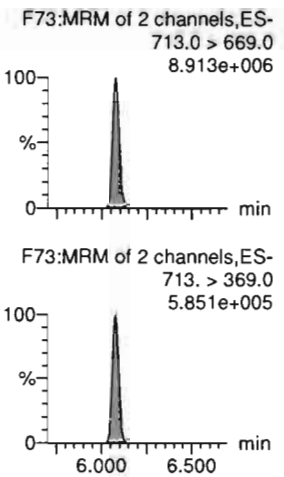
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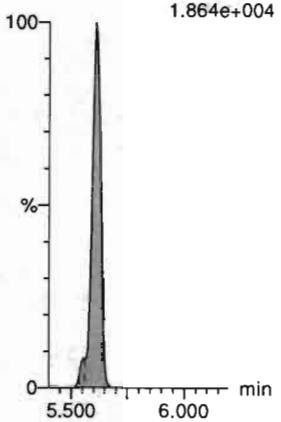
PFDoS



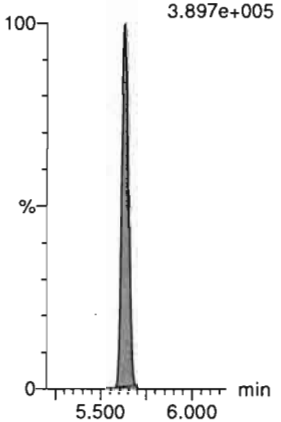
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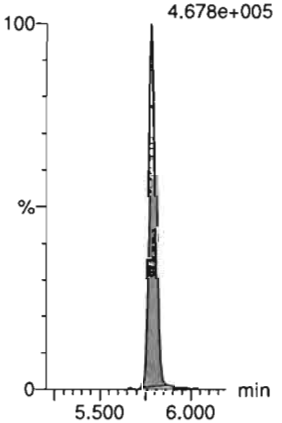
13C2-10:2 FTS-EIS



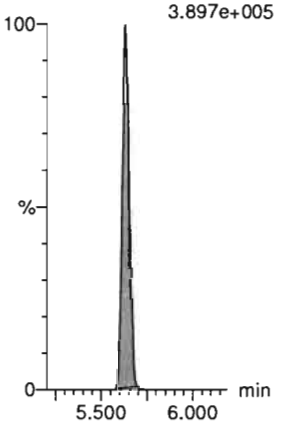
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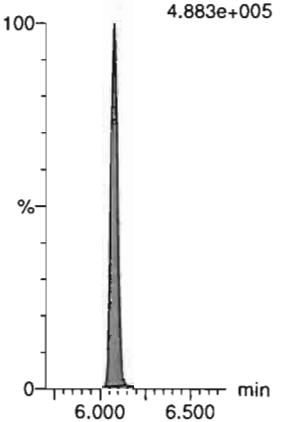
d3-N-MeFOSA-EIS



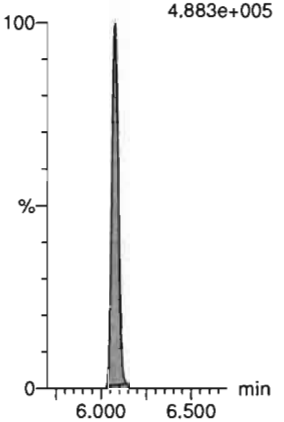
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

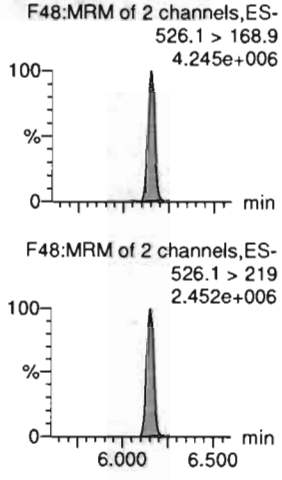


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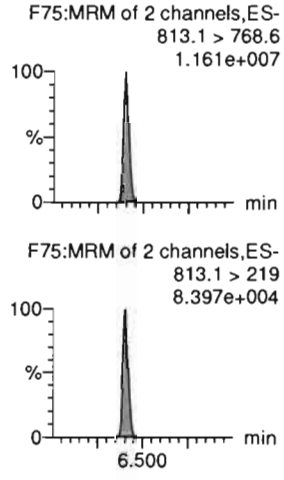
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Name: 200226P1-11, Date: 26-Feb-2020, Time: 18:23:12, ID: ST200226P1-9 PFC CS6 20B1110, Description: PFC CS6 20B1110

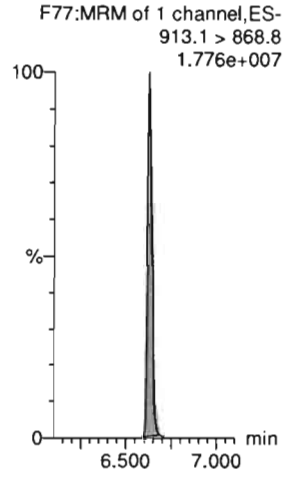
N-EtFOSA



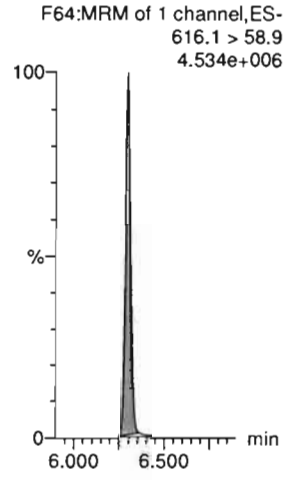
PFHxDA



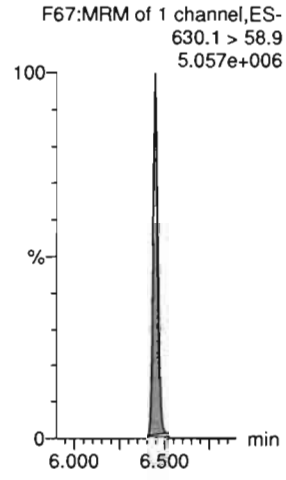
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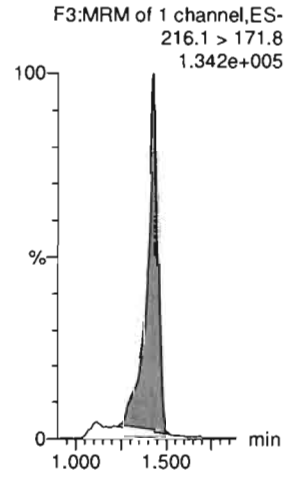
N-MeFOSE



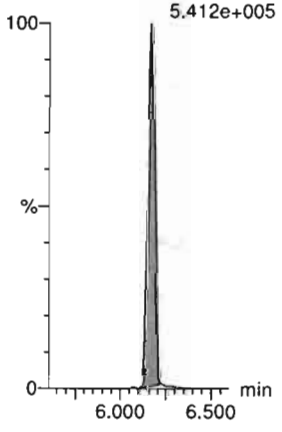
N-EtFOSE



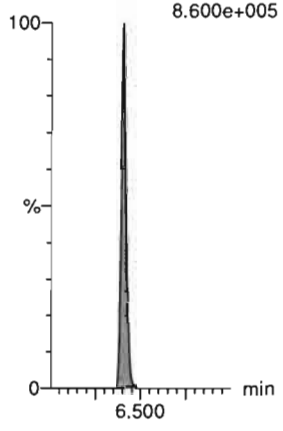
13C3-PFBA-RSD



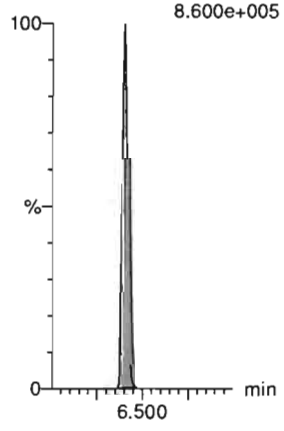
d5-N-ETFOSA-EIS



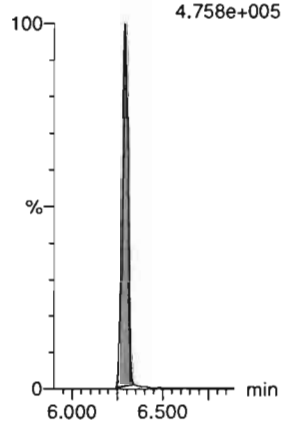
13C2-PFHxDA-EIS



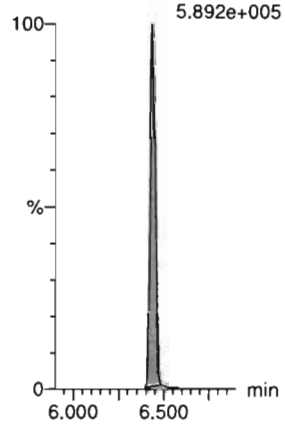
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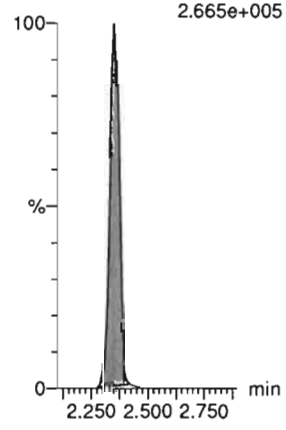
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

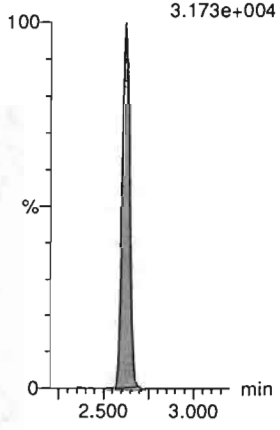


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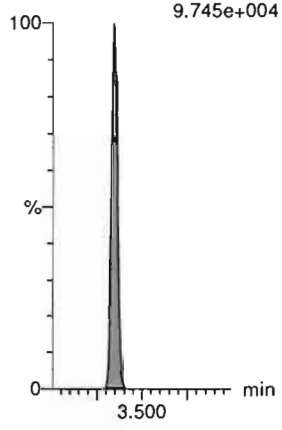
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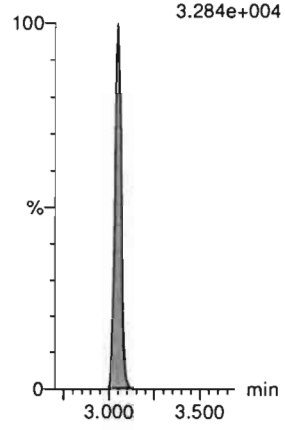
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F12:MRM of 1 channel,ES-
302.0 > 98.8
3.173e+004



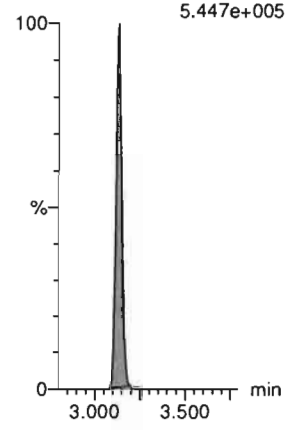
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.745e+004



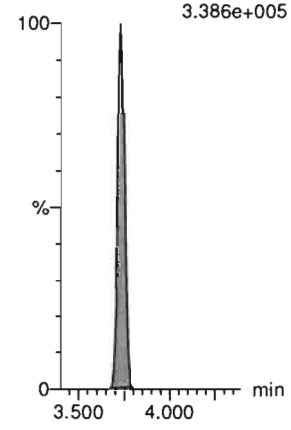
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.284e+004



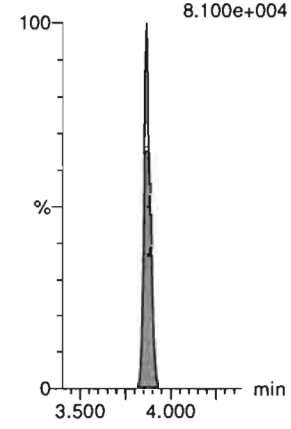
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.447e+005



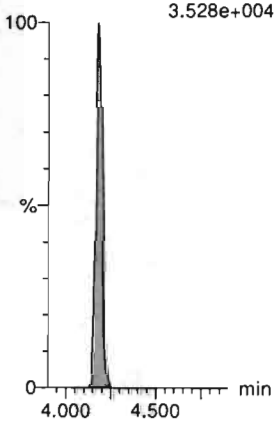
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.386e+005



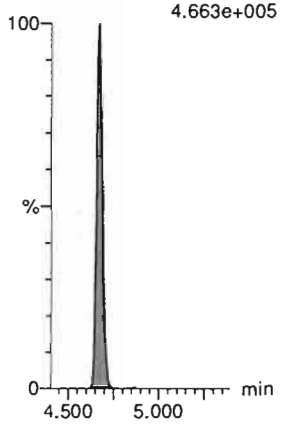
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.100e+004



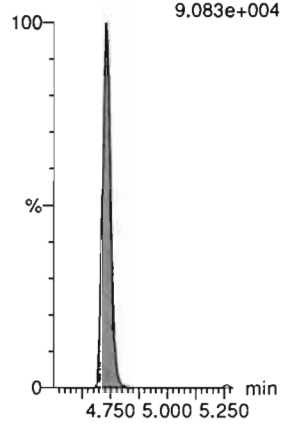
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.528e+004



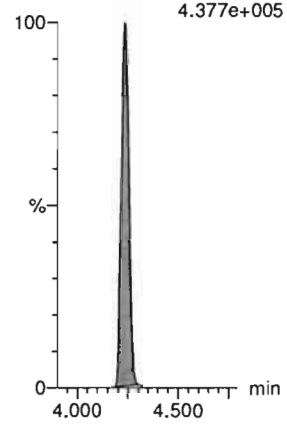
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.663e+005



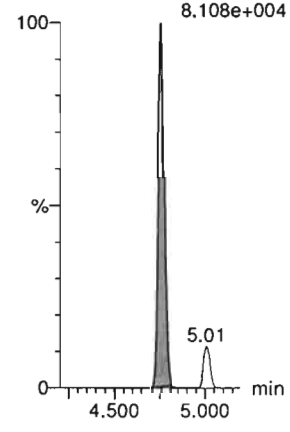
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.083e+004



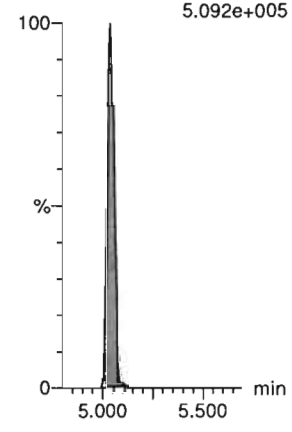
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.377e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.108e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.092e+005

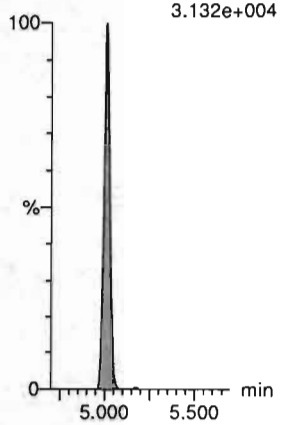


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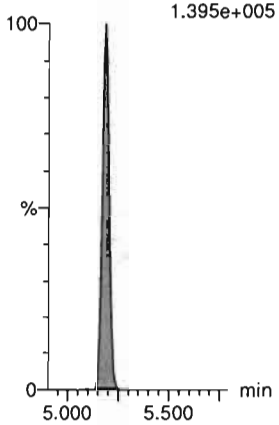
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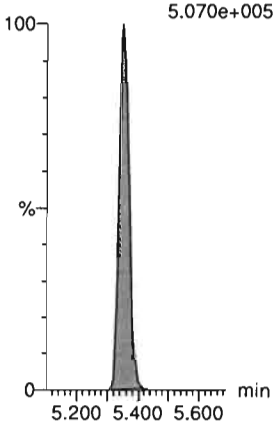
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.132e+004



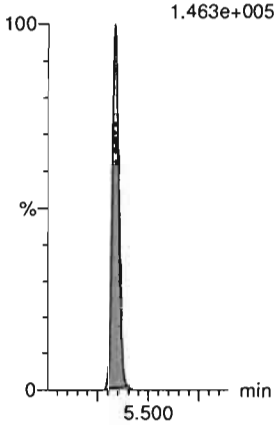
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.395e+005



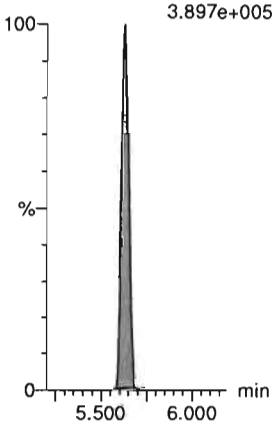
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.070e+005



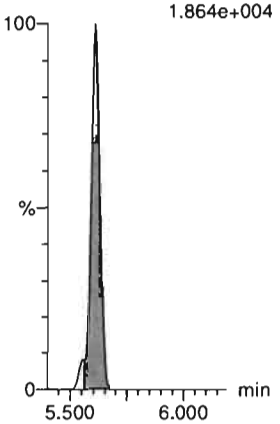
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F60:MRM of 1 channel,ES-
589.3 > 419
1.463e+005



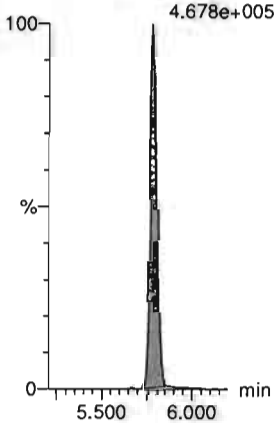
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F63:MRM of 1 channel,ES-
614.7 > 569.7
3.897e+005



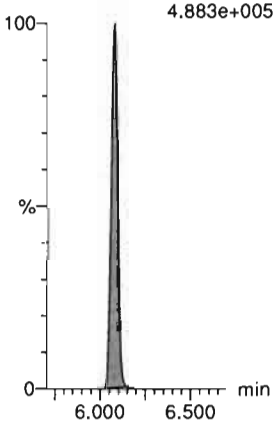
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.864e+004



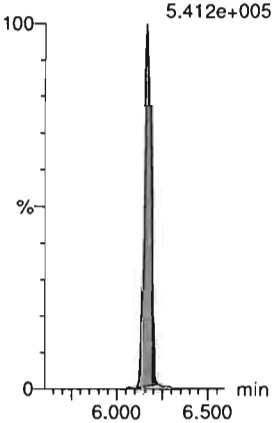
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.678e+005



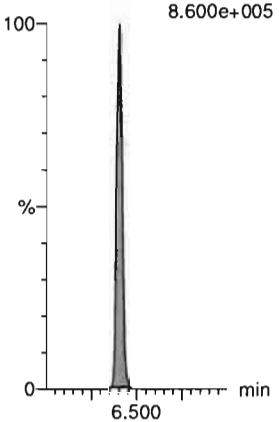
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F74:MRM of 2 channels,ES-
715.1 > 669.7
4.883e+005



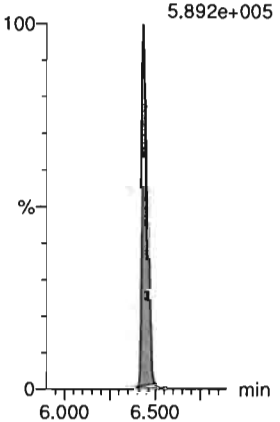
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F52:MRM of 1 channel,ES-
531.1 > 168.9
5.412e+005



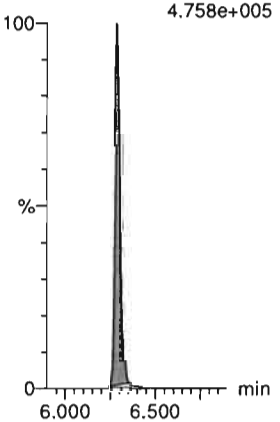
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.600e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.892e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.758e+005

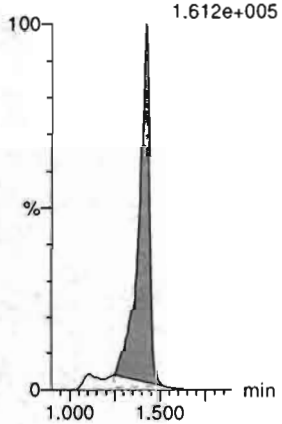


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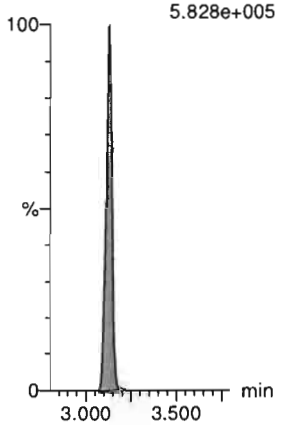
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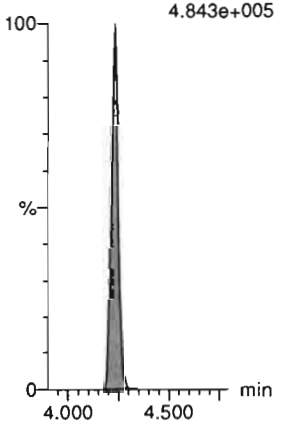
13C4-PFBA



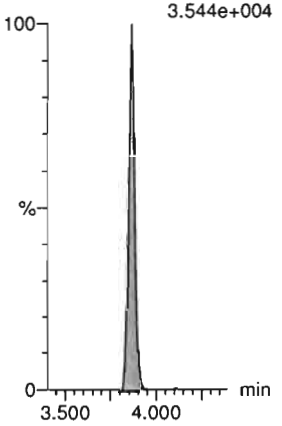
13C5-PFHxA



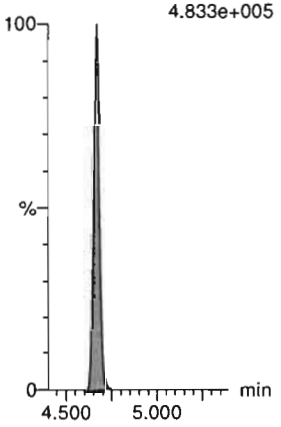
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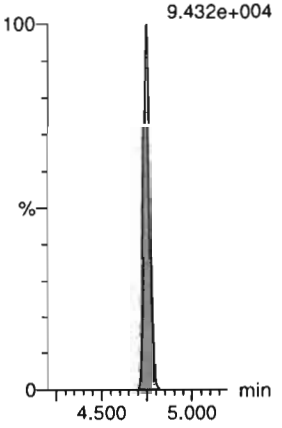
18O2-PFHxS



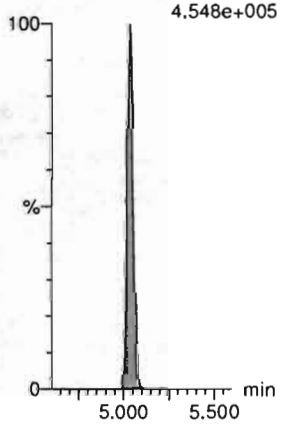
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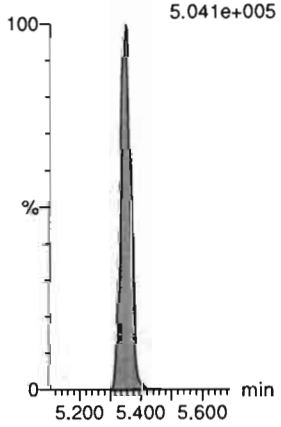
13C4-PFOS



13C6-PFDA



13C7-PFUdA

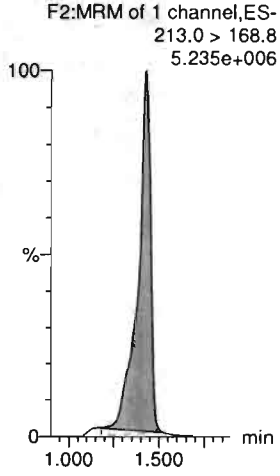


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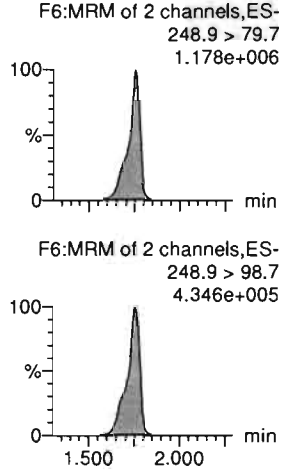
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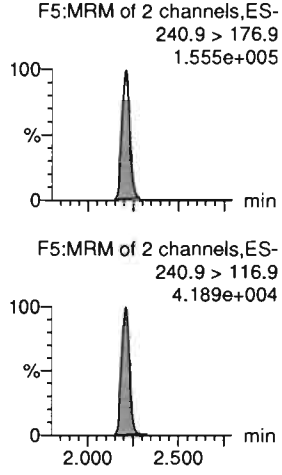
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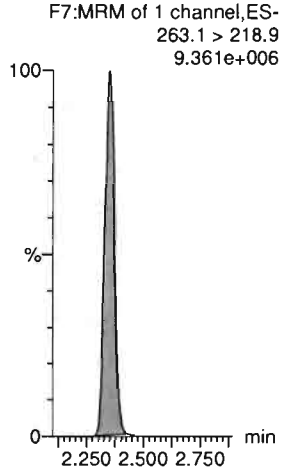
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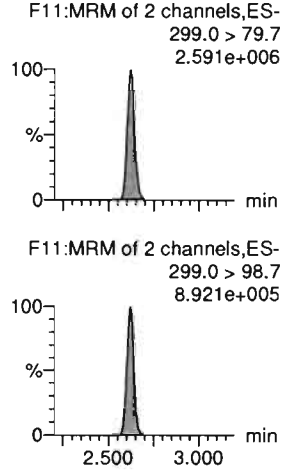
3:3 FTCA



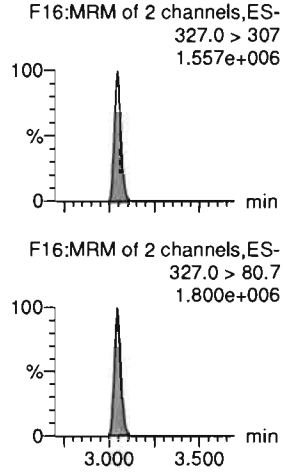
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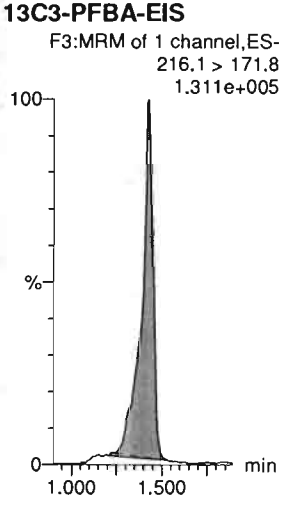
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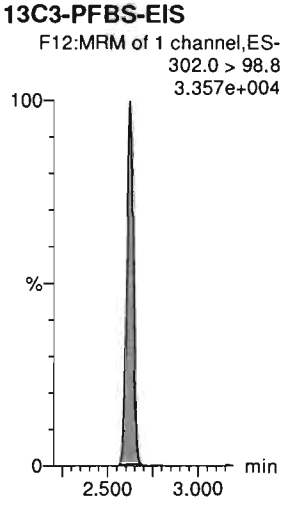
4:2 FTS



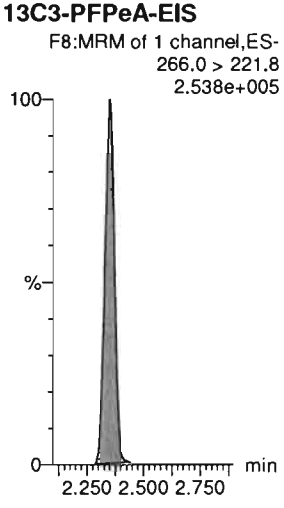
13C3-PFBA-EIS



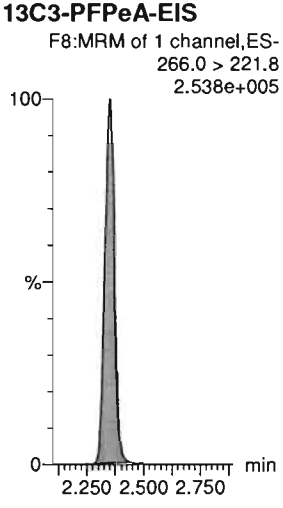
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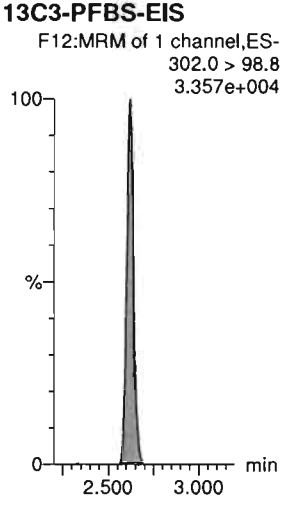
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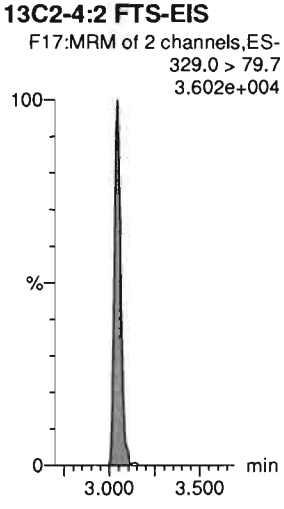
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

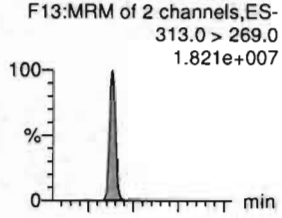


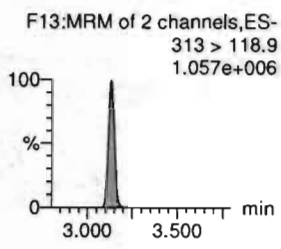
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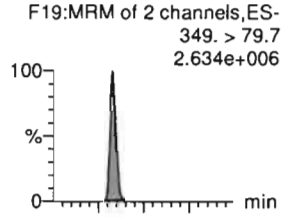
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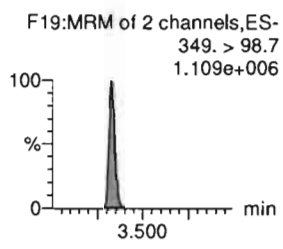
PFHxA



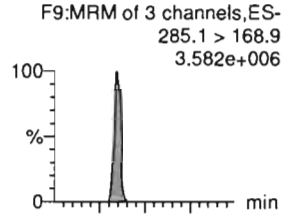


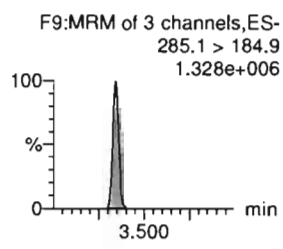
PFPeS



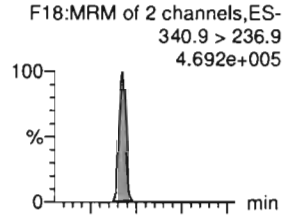


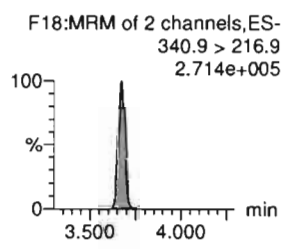
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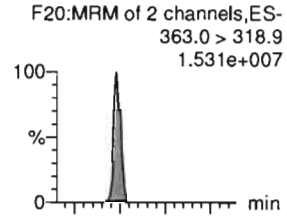


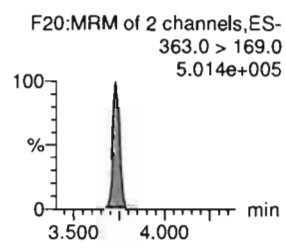
5:3 FTCA



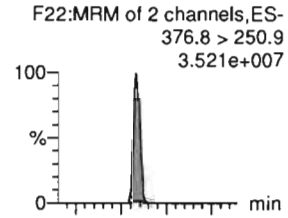


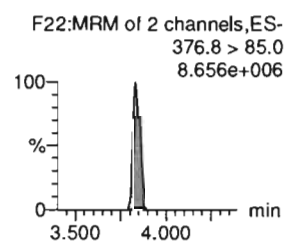
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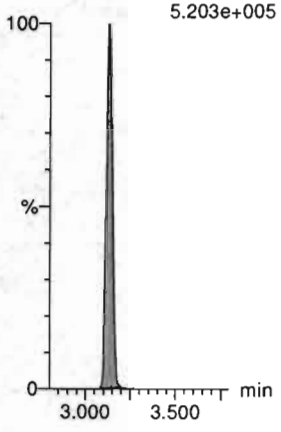


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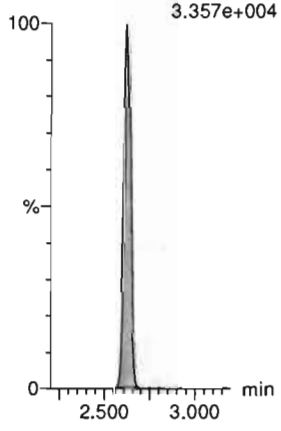




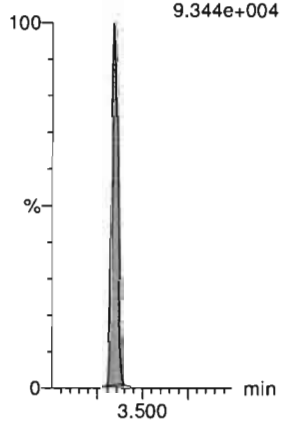
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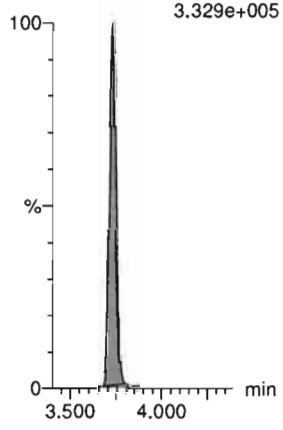
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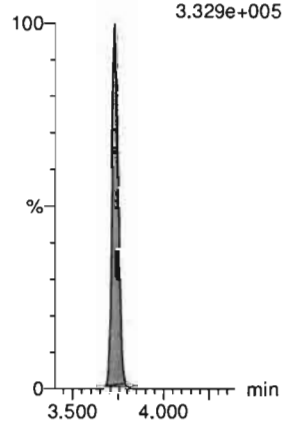
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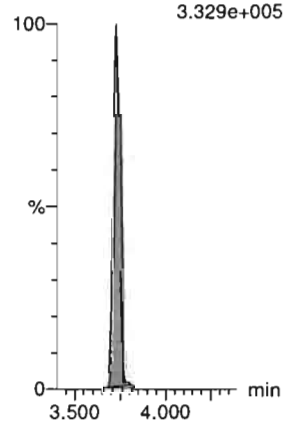
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

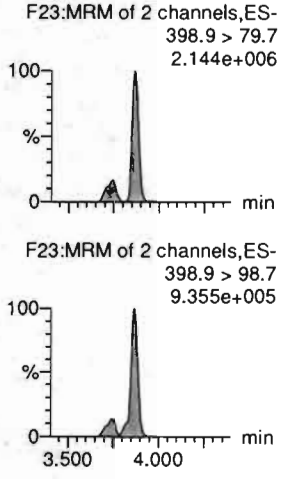


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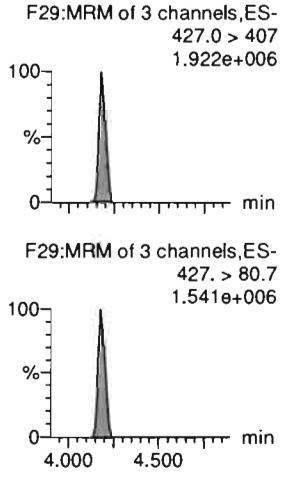
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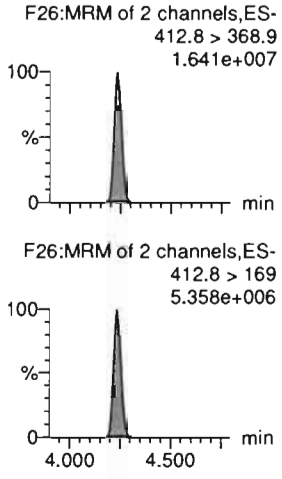
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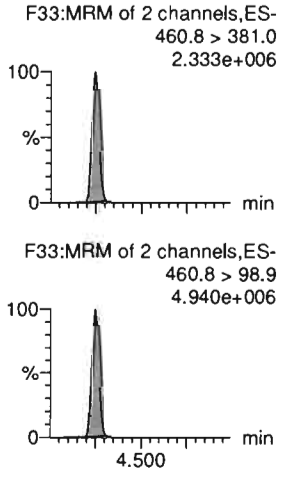
6:2 FTS



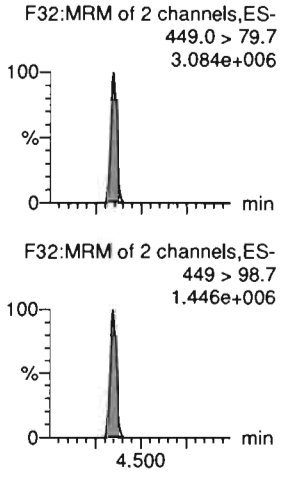
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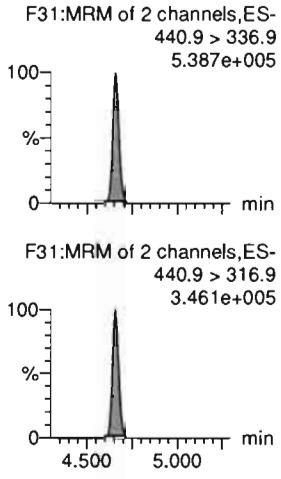
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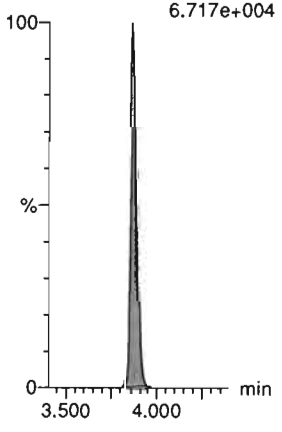
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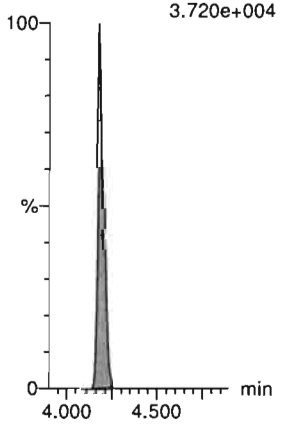
7:3 FTCA



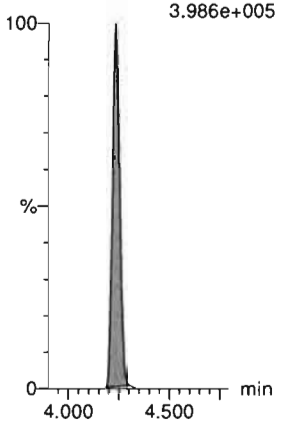
13C3-PFHxS-EIS



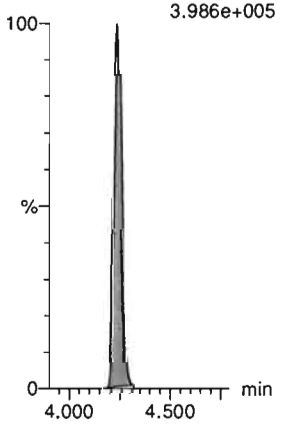
13C2-6:2 FTS-EIS



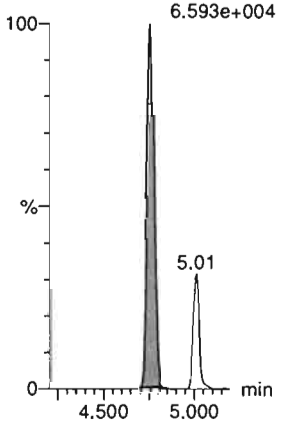
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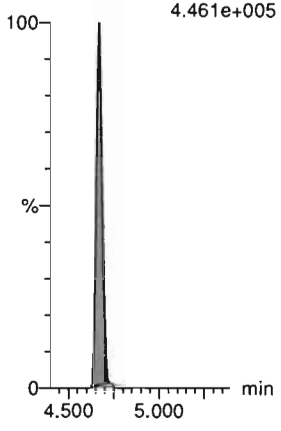
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

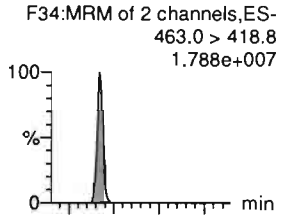


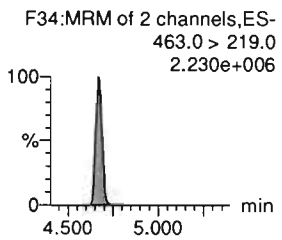
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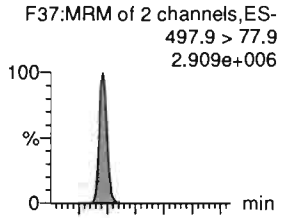
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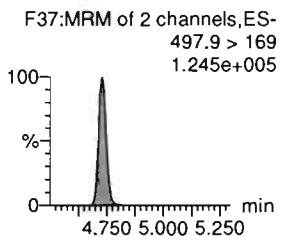
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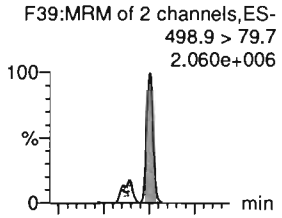


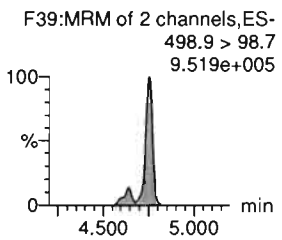
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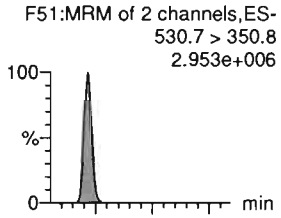


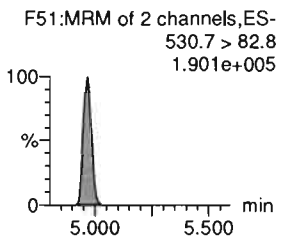
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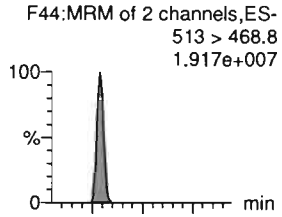


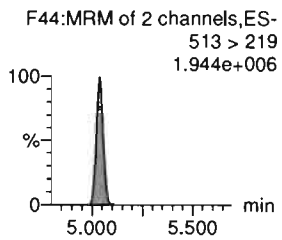
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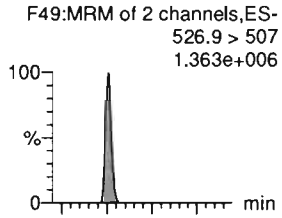


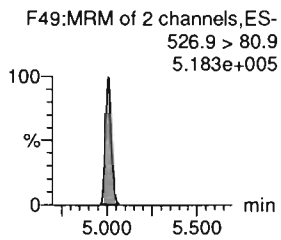
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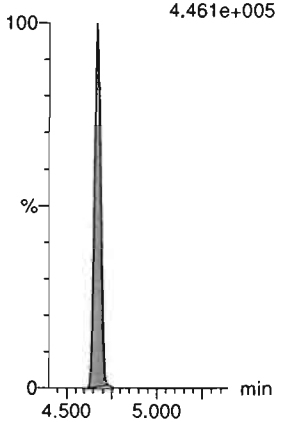


8:2 FTS

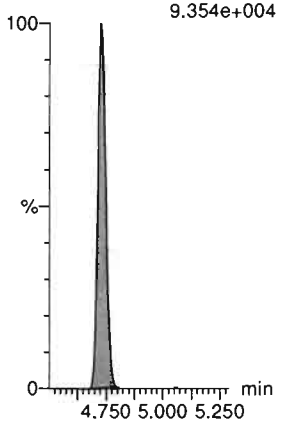




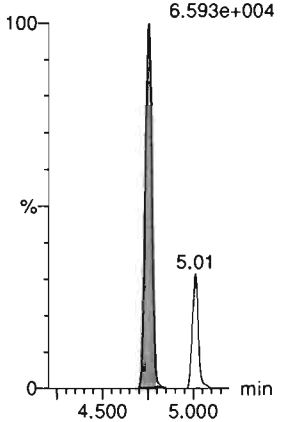
13C5-PFNA-EIS



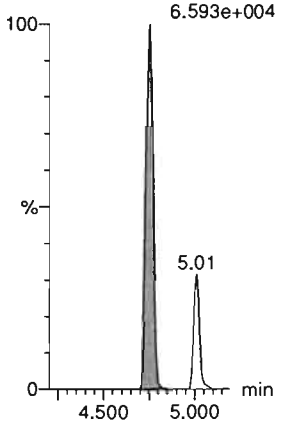
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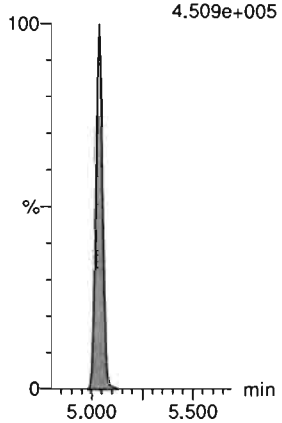
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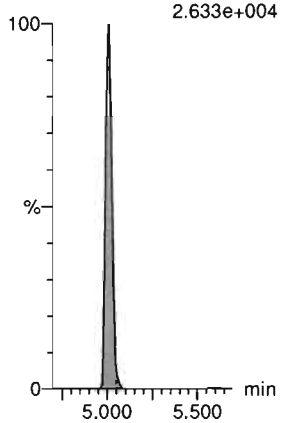
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

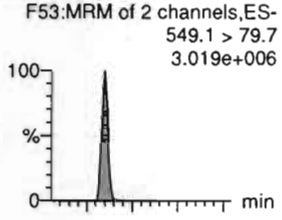


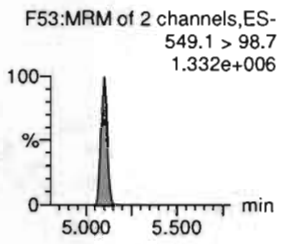
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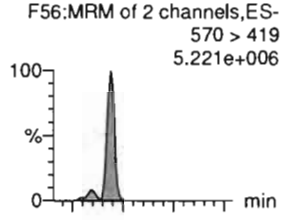
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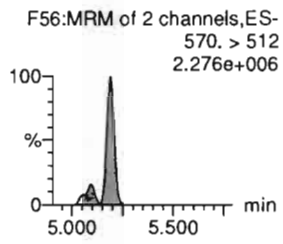
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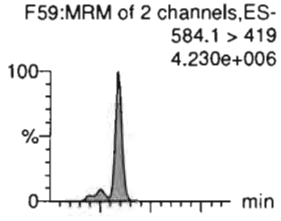


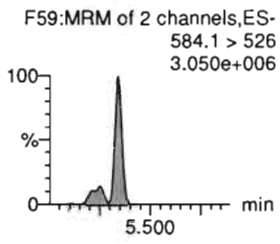
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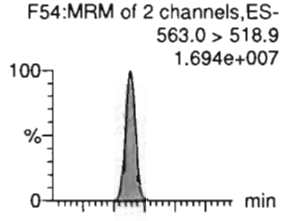


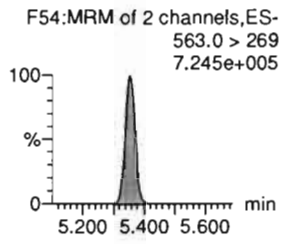
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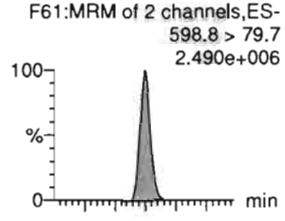


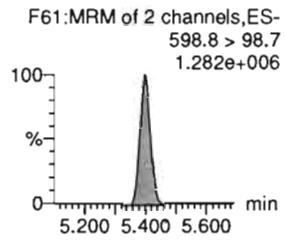
PFUdA



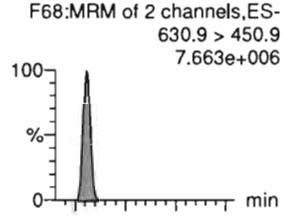


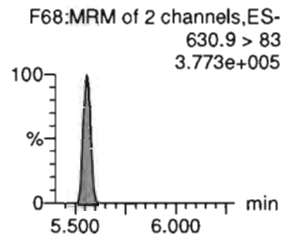
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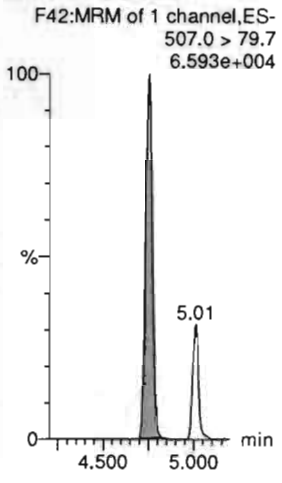


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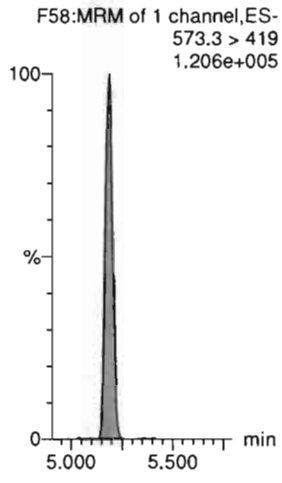




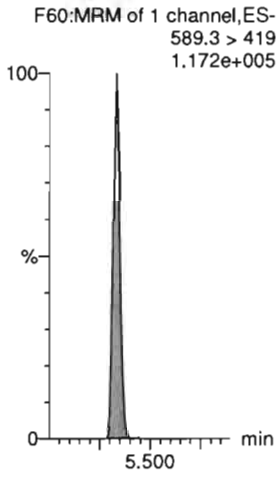
13C8-PFOS-EIS



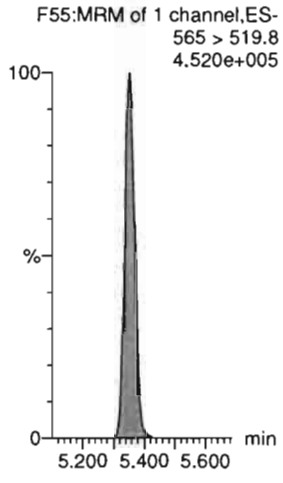
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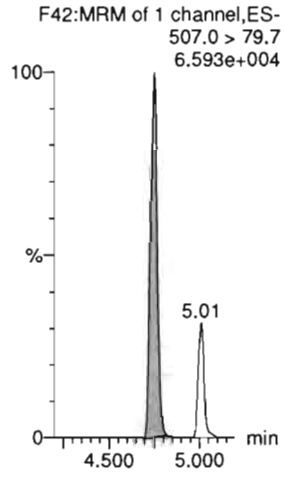
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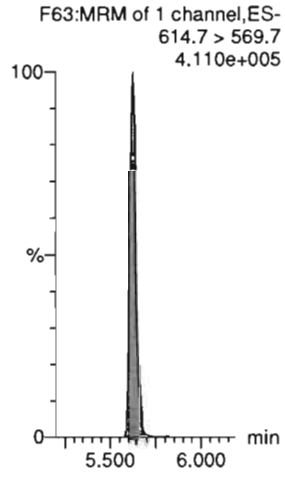
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

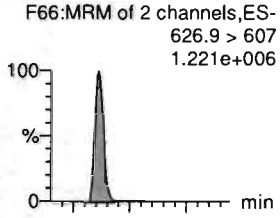


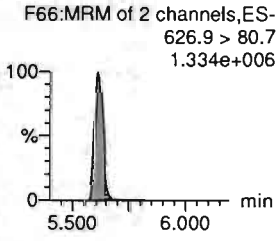
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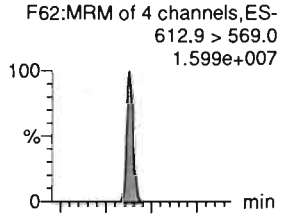
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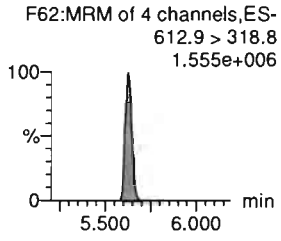
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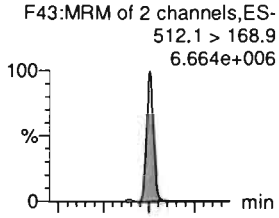


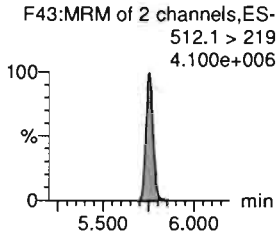
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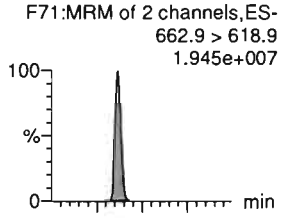


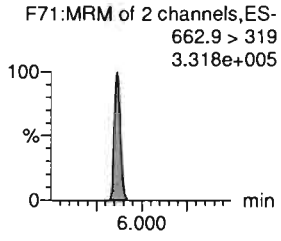
N-MeFOSA



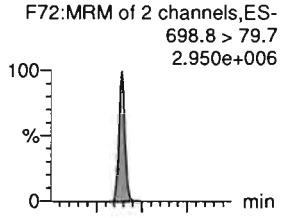


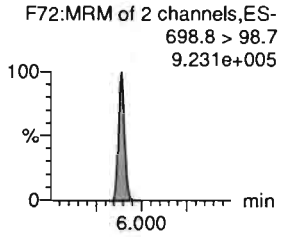
PFTrDA



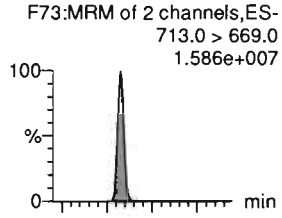


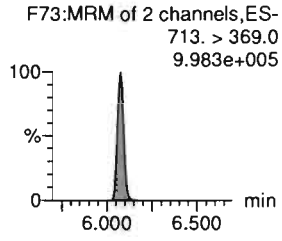
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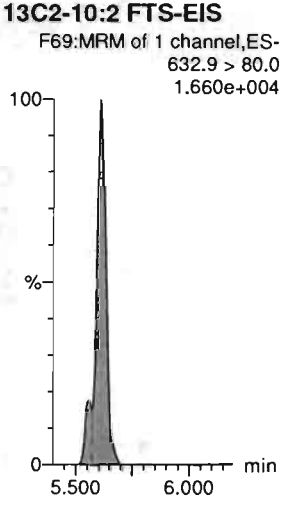


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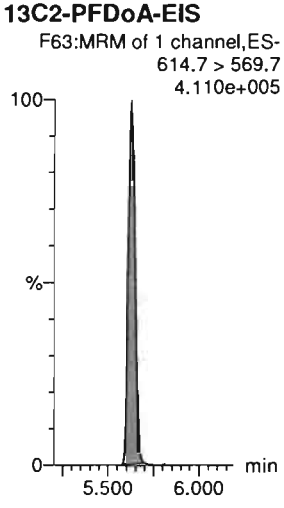




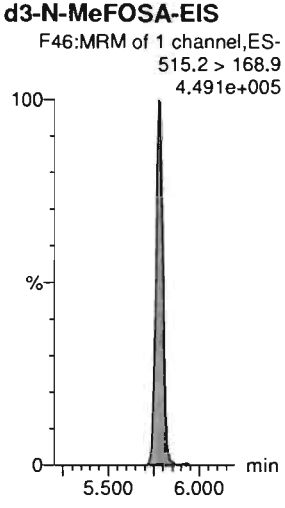
13C2-10:2 FTS-EIS



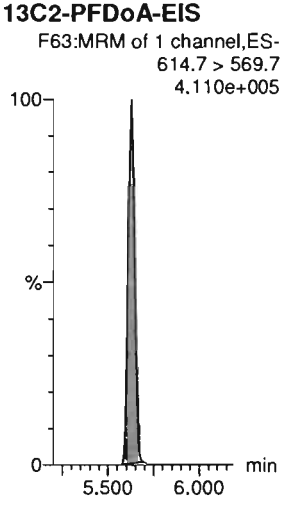
13C2-PFDoA-EIS



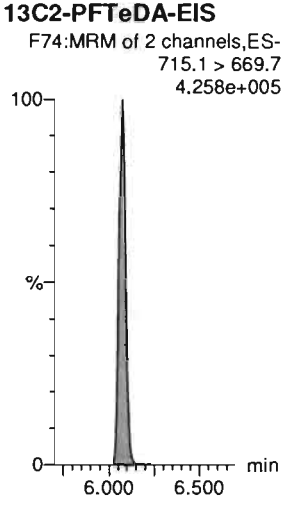
d3-N-MeFOSA-EIS



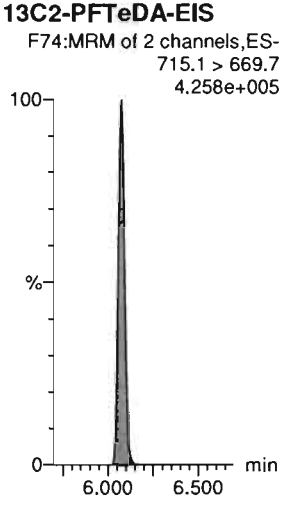
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

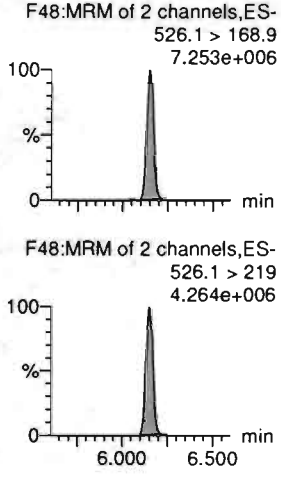


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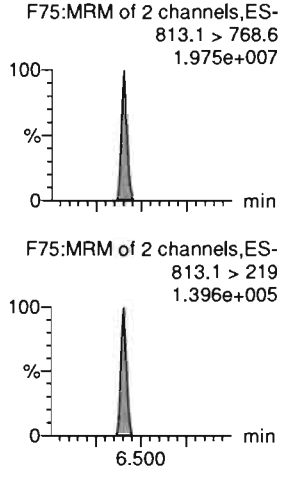
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Name: 200226P1-12, Date: 26-Feb-2020, Time: 18:33:43, ID: ST200226P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

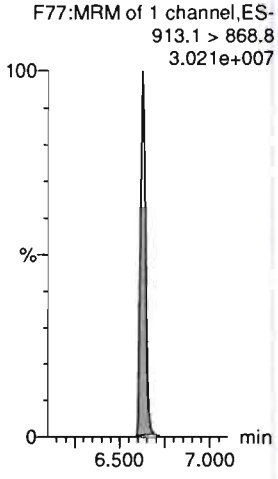
N-EtFOSA



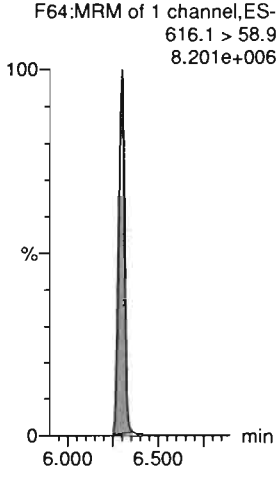
PFHxDA



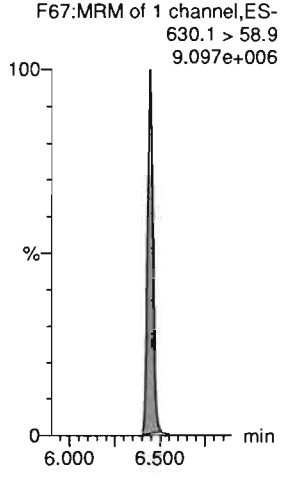
PFODA



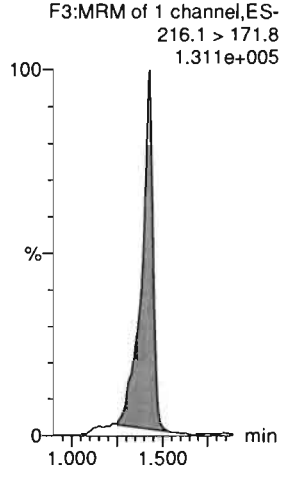
N-MeFOSE



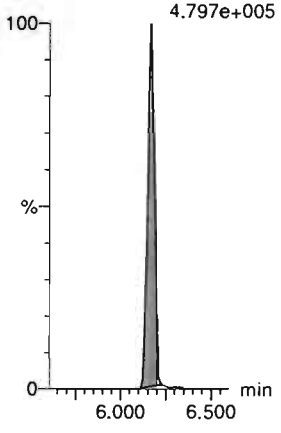
N-EtFOSE



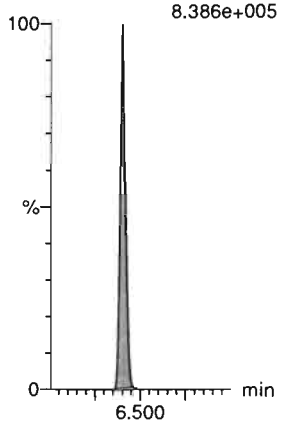
13C3-PFBA-RSD



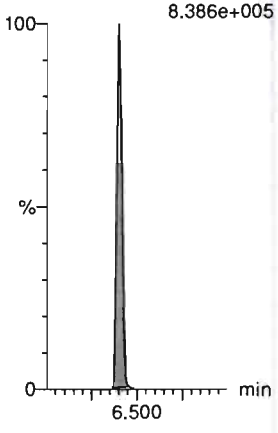
d5-N-ETFOSA-EIS



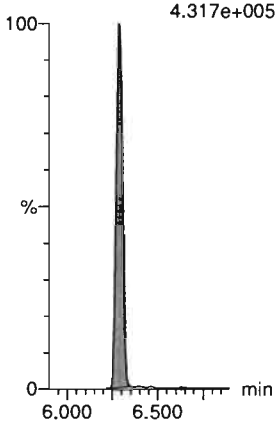
13C2-PFHxDA-EIS



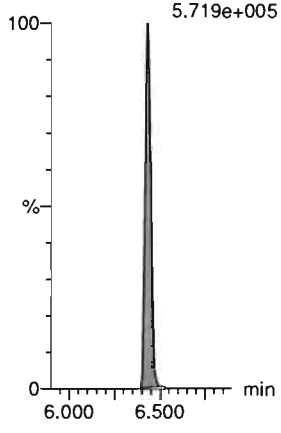
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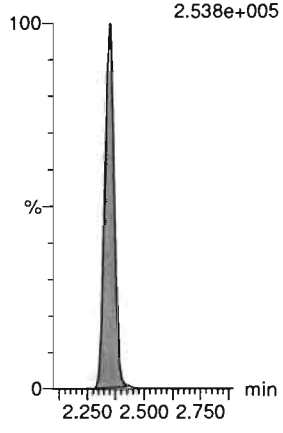
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



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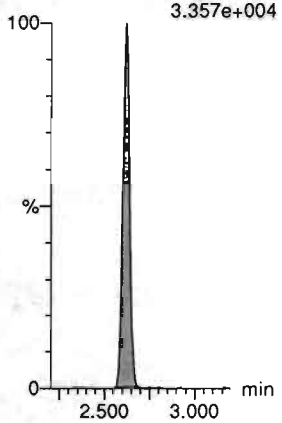


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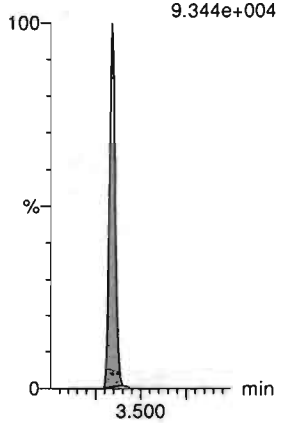
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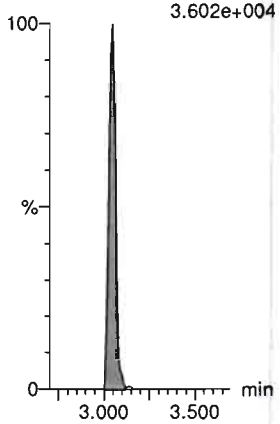
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.357e+004



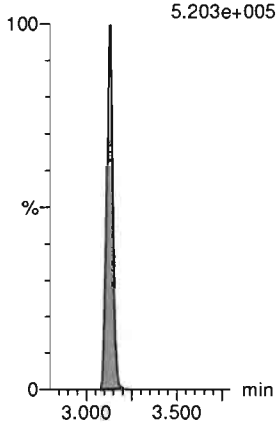
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.344e+004



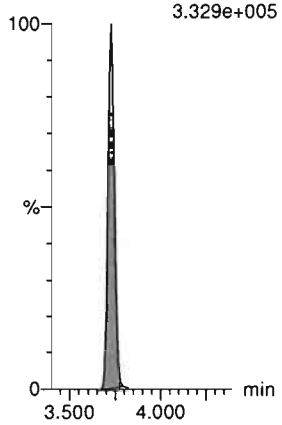
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.602e+004



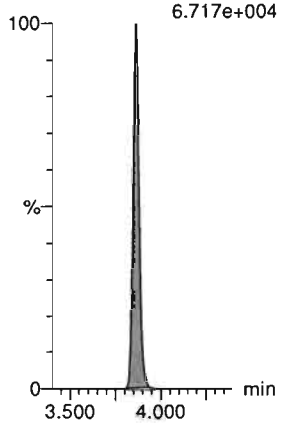
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.203e+005



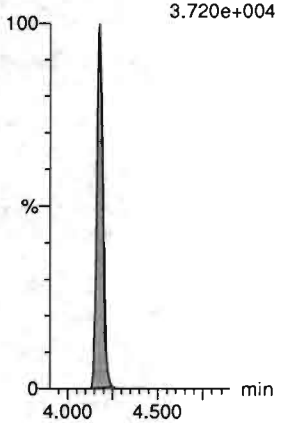
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.329e+005



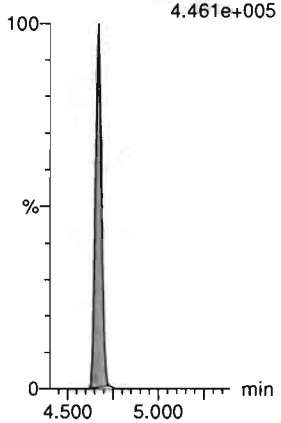
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
6.717e+004



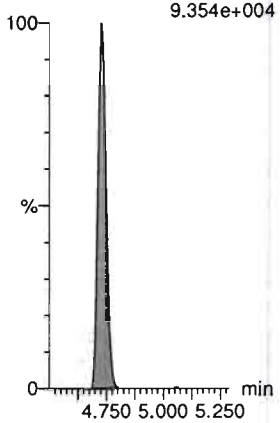
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.720e+004



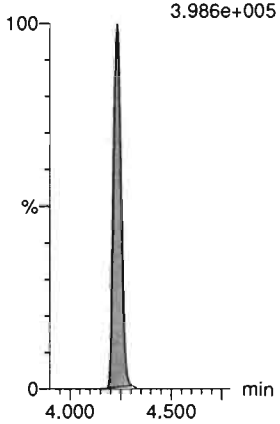
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.461e+005



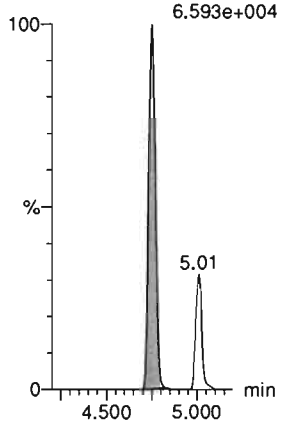
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.354e+004



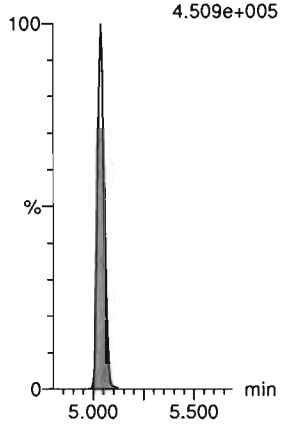
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
3.986e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.593e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
4.509e+005

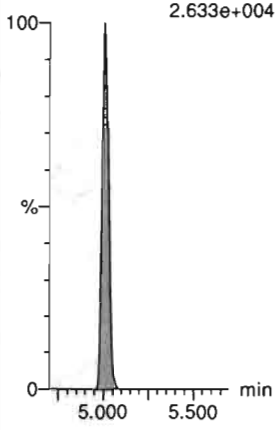


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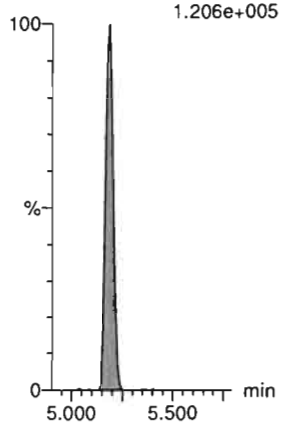
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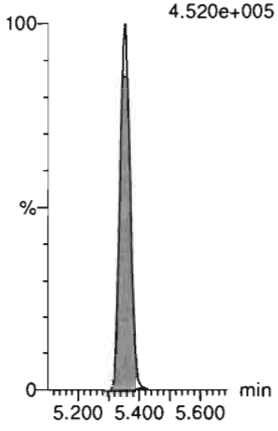
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.633e+004



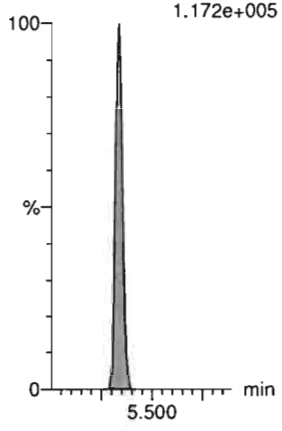
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.206e+005



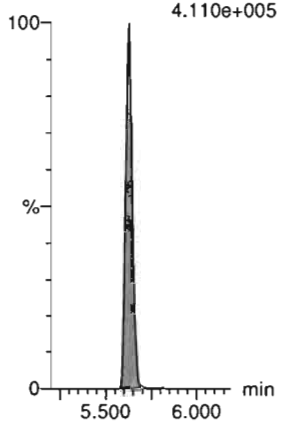
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.520e+005



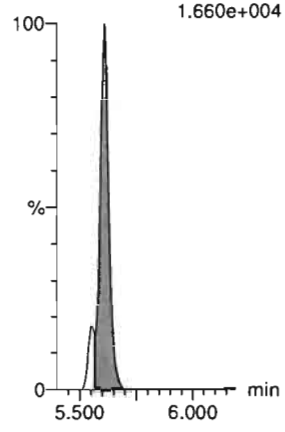
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.172e+005



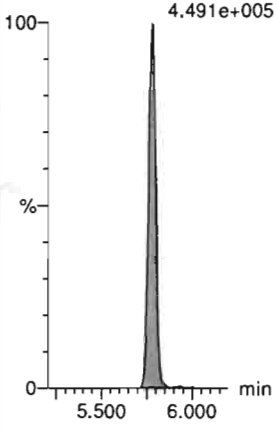
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.110e+005



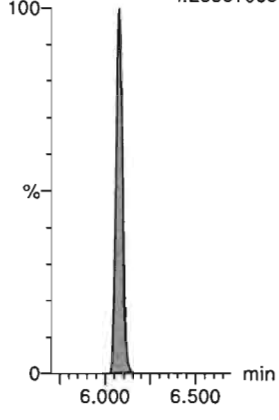
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.660e+004



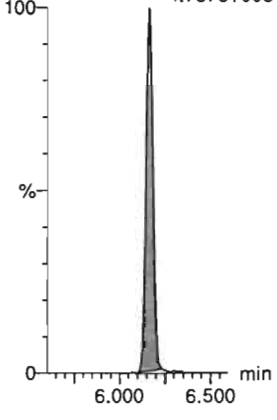
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.491e+005



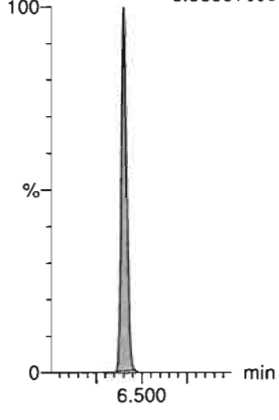
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.258e+005



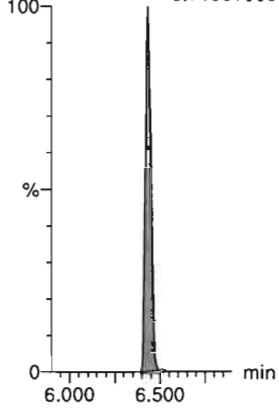
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.797e+005



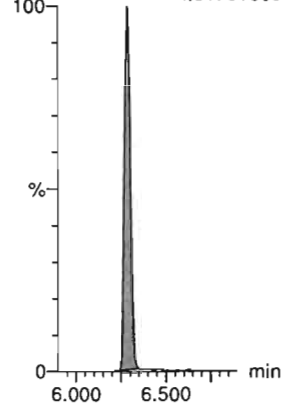
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.386e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.719e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.317e+005

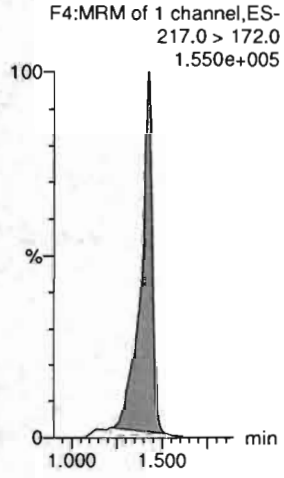


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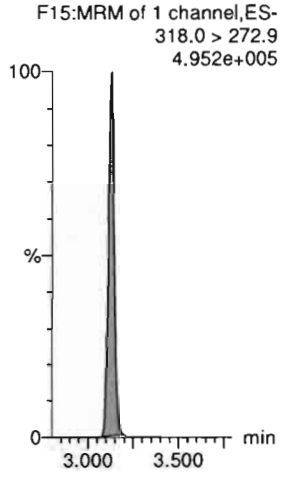
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Name: 200226P1-12, Date: 26-Feb-2020, Time: 18:33:43, ID: ST200226P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

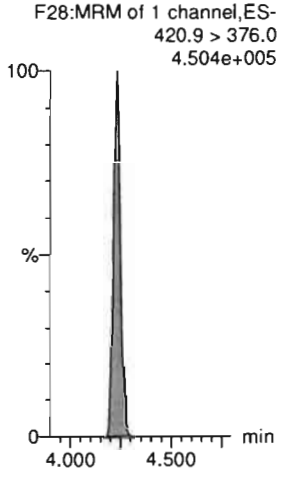
13C4-PFBA



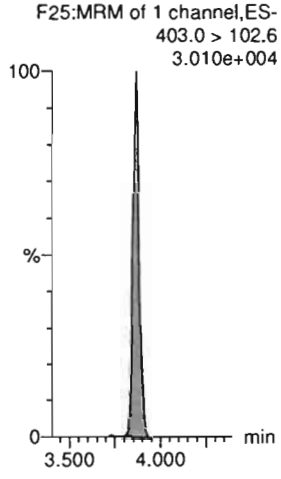
13C5-PFHxA



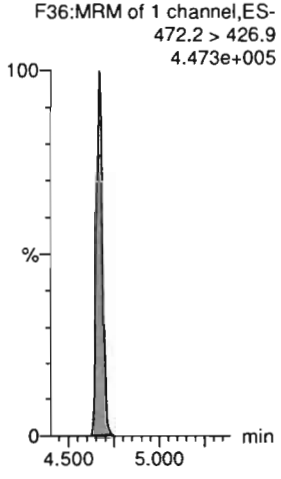
13C8-PFOA



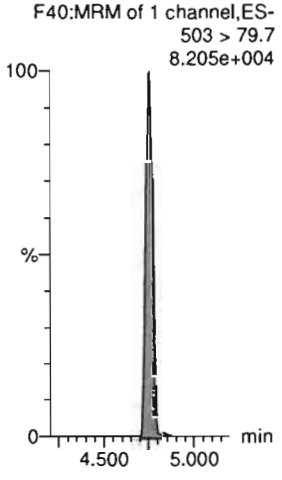
18O2-PFHxS



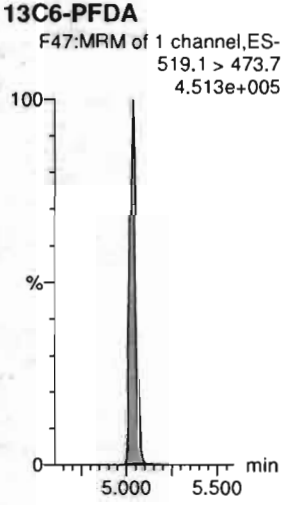
13C9-PFNA



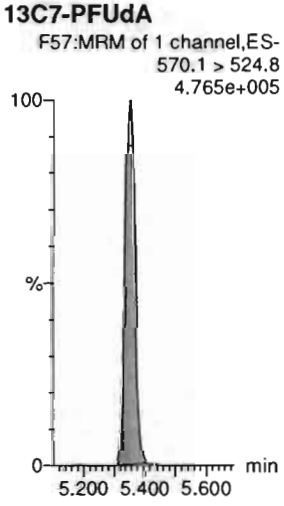
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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(A) not in ICV

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Name: 200226P1-14, Date: 26-Feb-2020, Time: 18:54:43, ID: ICV200226P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	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	8689.670	9046.800	1.00	1.43	12.007	10.000	11.0	110.4	NO		
2	2	PFPrS	248.9 > 79.7		1480.579	1.00			10.000		(A)	NO		YES
3	3	3:3 FTCA	240.9 > 176.9		12594.962	1.00			10.000		↓	NO		YES
4	4	PFPeA	263.1 > 218.9	10400.827	12594.962	1.00	2.35	10.322	10.000	10.6	105.8	NO		
5	5	PFBS	299.0 > 79.7	2755.076	1480.579	1.00	2.62	23.260	8.840	9.29	105.1	NO	3.200	NO
6	6	4:2 FTS	327.0 > 307	1816.727	1538.748	1.00	3.05	14.758	9.360	10.9	116.3	NO	1.040	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	9046.800		1.00	1.43	9046.800	12.500	12.1	96.9	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1480.579		1.00	2.62	1480.579	12.500	13.5	108.3	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	12594.962		1.00	2.35	12594.962	12.500	11.9	95.3	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	12594.962		1.00	2.35	12594.962	12.500	11.9	95.3	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1480.579		1.00	2.62	1480.579	12.500	13.5	108.3	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1538.748		1.00	3.04	1538.748	12.500	12.6	100.8	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	17503.834	21815.350	1.00	3.13	10.030	10.000	10.8	107.8	NO	18.073	NO
15	8	PFPeS	349.>79.7	2573.023	1480.579	1.00	3.32	21.723	9.360	8.86	94.7	NO	2.266	NO
16	9	HFPO-DA	285.1 > 168.9	3121.833	3690.169	1.00	3.34	10.575	10.000	10.4	103.9	NO	2.596	NO
17	10	5:3 FTCA	340.9 > 236.9		14941.261	1.00			10.000		(A)	NO		YES
18	11	PFHpA	363.0 > 318.9	15135.909	14941.261	1.00	3.73	12.663	10.000	10.1	101.4	NO	31.710	NO
19	12	ADONA	376.8 > 250.9	31793.018	14941.261	1.00	3.83	26.598	10.000	9.09	90.9	NO	3.811	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	21815.350		1.00	3.13	21815.350	12.500	12.5	100.2	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1480.579		1.00	2.62	1480.579	12.500	13.5	108.3	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3690.169		1.00	3.34	3690.169	12.500	12.0	96.2	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	14941.261		1.00	3.73	14941.261	12.500	13.1	104.4	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	14941.261		1.00	3.73	14941.261	12.500	13.1	104.4	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	14941.261		1.00	3.73	14941.261	12.500	13.1	104.4	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	2703.773	3221.855	1.00	3.86	10.490	9.120	9.27	101.6	NO	2.226	NO
28	15	6:2 FTS	427.0 > 407	1932.240	1484.261	1.00	4.18	16.273	9.480	10.0	105.9	NO	1.177	NO
29	16	L-PFOA	412.8 > 368.9	18857.156	18423.537	1.00	4.23	12.794	10.000	11.1	110.8	NO	2.930	NO
30	18	PFecHS	460.8 > 381.0		18423.537	1.00			10.000		(A)	NO		YES
31	19	PFHpS	449.0 > 79.7	2916.792	3622.922	1.00	4.34	10.064	9.480	10.3	108.2	NO	1.976	NO
32	20	7:3 FTCA	440.9 > 336.9		18952.545	1.00			10.000		(A)	NO		YES
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3221.855		1.00	3.86	3221.855	12.500	13.9	111.0	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1484.261		1.00	4.18	1484.261	12.500	12.6	100.6	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	18423.537		1.00	4.23	18423.537	12.500	11.7	94.0	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	18423.537		1.00	4.23	18423.537	12.500	11.7	94.0	NO		

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Name: 200226P1-14, Date: 26-Feb-2020, Time: 18:54:43, ID: ICV200226P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	3622.922		1.00	4.75	3622.922	12.500	12.9	103.5	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	18952.545		1.00	4.67	18952.545	12.500	13.0	104.1	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	17155.455	18952.545	1.00	4.67	11.315	10.000	10.7	106.5	NO	7.265	NO
41	22	PFOSA	497.9 > 77.9	2875.094	4274.930	1.00	4.73	8.407	10.000	10.2	101.9	NO	25.367	NO
42	23	L-PFOS	498.9 > 79.7	2702.909	3622.922	1.00	4.75	9.326	9.280	9.27	99.9	NO	2.412	NO
43	25	9Cl-PF30NS	530.7 > 350.8	2642.992	3622.922	1.00	4.96	9.119	9.280	9.33	100.6	NO	15.096	NO
44	26	PFDA	513 > 468.8	18421.166	19863.580	1.00	5.04	11.592	10.000	10.5	105.3	NO	9.492	NO
45	27	8:2 FTS	526.9 > 507	1415.163	1166.321	1.00	5.01	15.167	9.600	12.1	125.6	NO	2.884	YES
46	65	13C5-PFNA-EIS	468.2 > 422.9	18952.545		1.00	4.67	18952.545	12.500	13.0	104.1	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4274.930		1.00	4.73	4274.930	12.500	13.2	105.5	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3622.922		1.00	4.75	3622.922	12.500	12.9	103.5	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3622.922		1.00	4.75	3622.922	12.500	12.9	103.5	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	19863.580		1.00	5.04	19863.580	12.500	12.4	99.6	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1166.321		1.00	5.01	1166.321	12.500	12.7	101.7	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	2713.045	3622.922	1.00	5.10	9.361	9.600	9.57	99.6	NO	2.225	NO
54	29	L-MeFOSAA	570 > 419	6258.100	5558.173	1.00	5.19	14.074	10.000	11.3	113.2	NO	2.100	NO
55	31	L-EtFOSAA	584.1 > 419	4606.152	5751.311	1.00	5.34	10.011	10.000	9.68	96.8	NO	1.082	NO
56	33	PFUdA	563.0 > 518.9	16277.907	19261.652	1.00	5.35	10.564	10.000	10.0	100.2	NO	24.437	NO
57	34	PFDS	598.8 > 79.7	2354.467	3622.922	1.00	5.40	8.124	9.600	9.57	99.7	NO	2.084	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	6806.400	16453.236	1.00	5.56	5.171	9.440	9.91	105.0	NO	19.569	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	3622.922		1.00	4.75	3622.922	12.500	12.9	103.5	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	5558.173		1.00	5.18	5558.173	12.500	14.0	111.8	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5751.311		1.00	5.33	5751.311	12.500	11.8	94.2	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	19261.652		1.00	5.35	19261.652	12.500	11.8	94.8	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3622.922		1.00	4.75	3622.922	12.500	12.9	103.5	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	16453.236		1.00	5.62	16453.236	12.500	11.3	90.4	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607		907.615	1.00			10.000		(N)	NO		YES
67	37	PFDoA	612.9 > 569.0	16794.475	16453.236	1.00	5.62	12.759	10.000	10.4	104.2	NO	11.548	NO
68	38	N-MeFOSA	512.1 > 168.9		19476.811	1.00			9.600		(N)	NO		YES
69	39	PFTrDA	662.9 > 618.9	19305.182	16453.236	1.00	5.87	14.667	10.000	11.6	116.5	NO	57.446	NO
70	40	PFDoS	698.8 > 79.7		20336.908	1.00			10.000		(N)	NO		YES
71	41	PFTeDA	713.0 > 669.0	18648.707	20336.908	1.00	6.08	11.462	10.000	11.9	119.3	NO	16.749	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	907.615		1.00	5.61	907.615	10.000	12.3	122.7	NO		

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Name: 200226P1-14, Date: 26-Feb-2020, Time: 18:54:43, ID: ICV200226P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	16453.236		1.00	5.62	16453.236	12.500	11.3	90.4	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	19476.811		1.00	5.78	19476.811	149.200	150	100.4	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	16453.236		1.00	5.62	16453.236	12.500	11.3	90.4	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	20336.908		1.00	6.08	20336.908	12.500	12.0	95.8	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	20336.908		1.00	6.08	20336.908	12.500	12.0	95.8	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9		24399.775	1.00			9.600			NO		YES
80	43	PFHxDA	813.1 > 768.6		30127.684	1.00			10.000			NO		YES
81	44	PFODA	913.1 > 868.8		30127.684	1.00			10.000			NO		
82	45	N-MeFOSE	616.1 > 58.9		17893.631	1.00			9.600			NO		
83	46	N-EtFOSE	630.1 > 58.9		20459.400	1.00			9.600			NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	24399.775		1.00	6.16	24399.775	149.200	150	100.3	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	30127.684		1.00	6.40	30127.684	12.500	13.1	104.9	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	30127.684		1.00	6.40	30127.684	12.500	13.1	104.9	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	17893.631		1.00	6.29	17893.631	149.200	159	106.2	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	20459.400		1.00	6.43	20459.400	149.200	148	99.4	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3622.922		1.00	4.75	3622.922	12.500	12.9	103.5	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	9046.800	11337.804	1.00	1.43	9.974	12.500	12.4	99.5	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	12623.807	23273.961	1.00	2.35	6.780	12.500	11.6	92.6	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1480.579	1212.257	1.00	2.62	15.267	12.500	13.5	107.7	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	3690.169	23273.961	1.00	3.34	1.982	12.500	11.9	95.4	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1538.748	1212.257	1.00	3.04	15.867	12.500	13.2	105.6	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	21815.350	23273.961	1.00	3.13	11.717	12.500	12.2	97.9	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	14941.261	23273.961	1.00	3.73	8.025	12.500	12.4	99.5	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3221.855	1212.257	1.00	3.86	33.222	12.500	13.6	109.1	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1484.261	4038.339	1.00	4.18	4.594	12.500	12.0	96.0	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	18952.545	19623.250	1.00	4.67	12.073	12.500	12.9	102.9	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4274.930	20316.197	1.00	4.73	2.630	12.500	13.1	105.2	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	18423.537	22212.830	1.00	4.23	10.368	12.500	11.5	91.9	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3547.675	4038.339	1.00	4.75	10.981	12.500	11.9	95.4	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	19863.580	21083.281	1.00	5.04	11.777	12.500	11.7	93.3	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1166.321	4038.339	1.00	5.01	3.610	12.500	11.5	92.2	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	5558.173	20316.197	1.00	5.18	3.420	12.500	13.2	105.3	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	19261.652	20316.197	1.00	5.35	11.851	12.500	11.8	94.5	NO		

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Name: 200226P1-14, Date: 26-Feb-2020, Time: 18:54:43, ID: ICV200226P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	5751.311	20316.197	1.00	5.33	3.539	12.500	12.4	99.0	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	16453.236	21083.281	1.00	5.62	9.755	12.500	10.3	82.5	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	907.615	4038.339	1.00	5.61	2.809	10.000	11.9	119.3	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	19476.811	20316.197	1.00	5.78	11.984	149.200	149	99.8	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	20336.908	20316.197	1.00	6.08	12.513	12.500	12.2	97.7	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	24399.775	20316.197	1.00	6.16	15.013	149.200	153	102.4	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	30127.684	20316.197	1.00	6.40	18.537	12.500	12.3	98.6	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	17893.631	20316.197	1.00	6.29	11.009	149.200	155	103.6	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	20459.400	20316.197	1.00	6.43	12.588	149.200	150	100.6	NO		
119	99	13C4-PFBA	217.0 > 172.0	11337.804	11337.804	1.00	1.43	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	23273.961	23273.961	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	22212.830	22212.830	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1212.257	1212.257	1.00	3.87	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	19623.250	19623.250	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	4038.339	4038.339	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	21083.281	21083.281	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	20316.197	20316.197	1.00	5.35	12.500	12.500	12.5	100.0	NO		

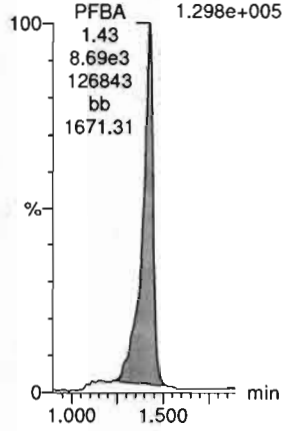
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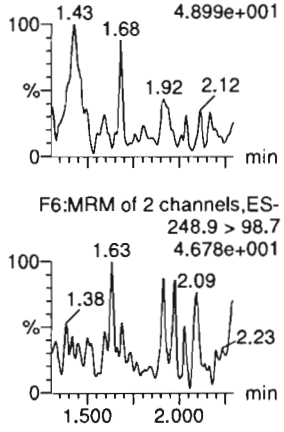
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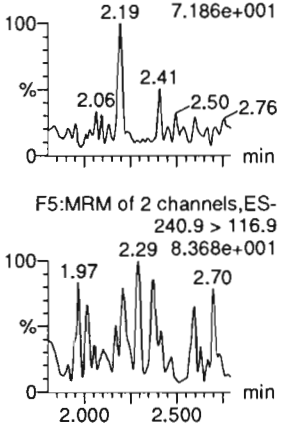
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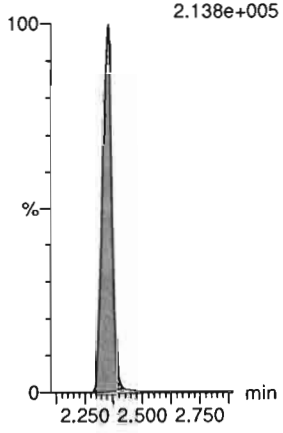
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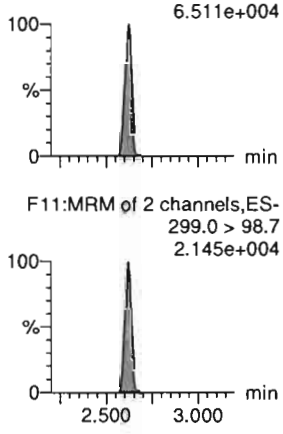
3:3 FTCA



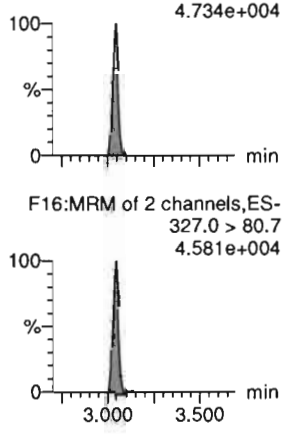
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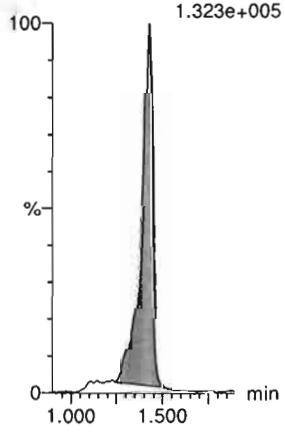
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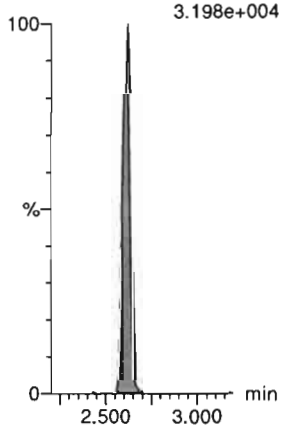
4:2 FTS



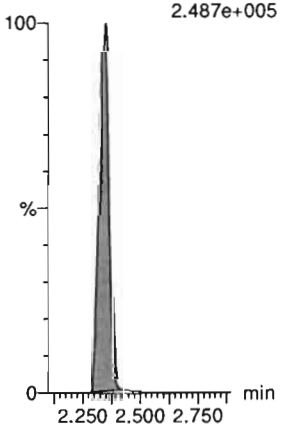
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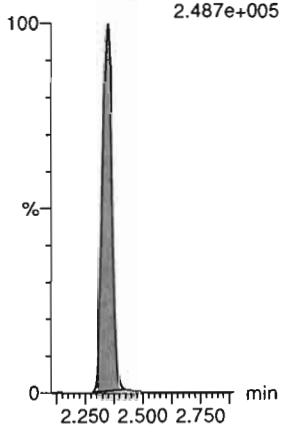
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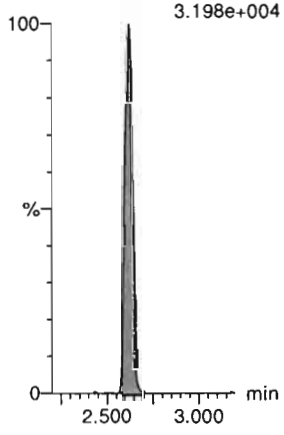
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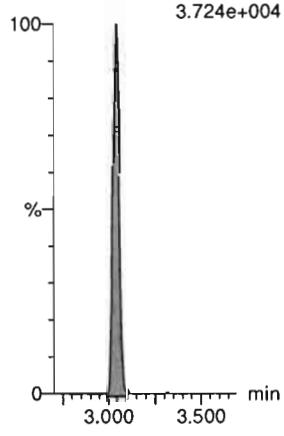
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

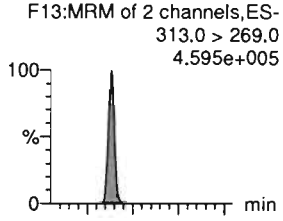


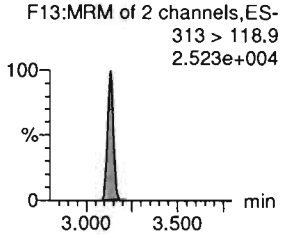
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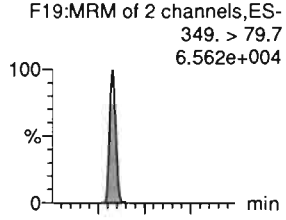
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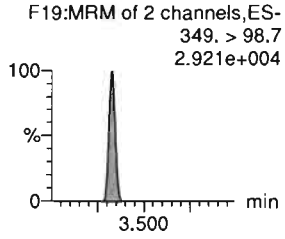
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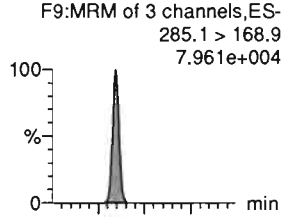


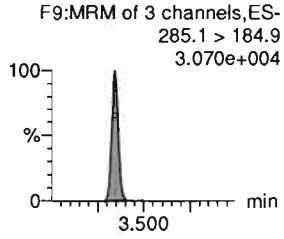
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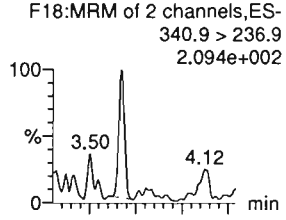


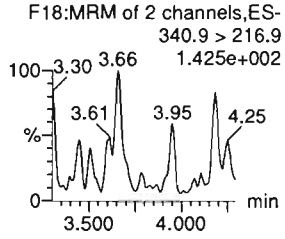
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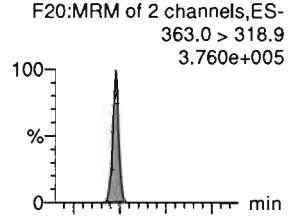


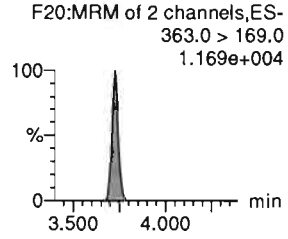
5:3 FTCA



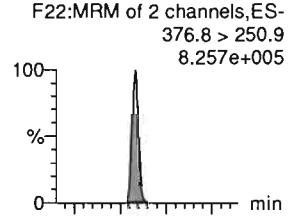


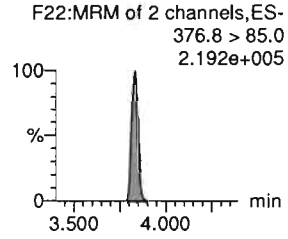
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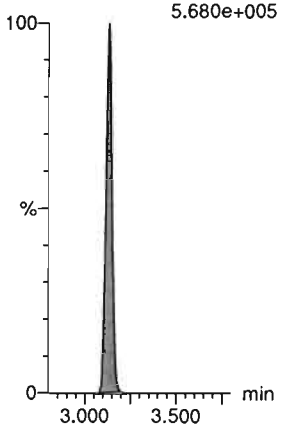


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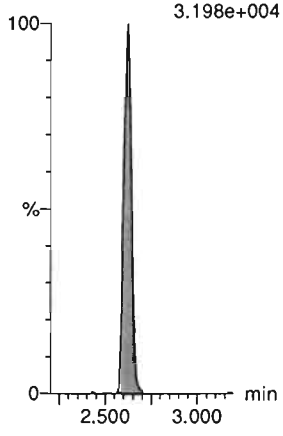




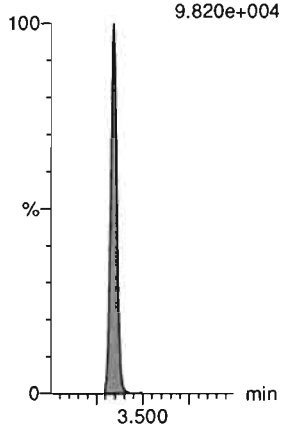
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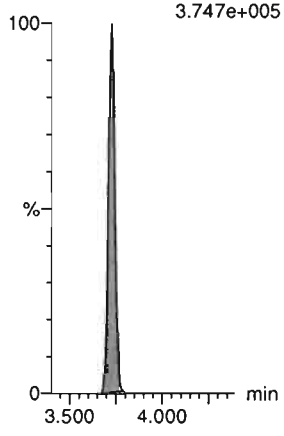
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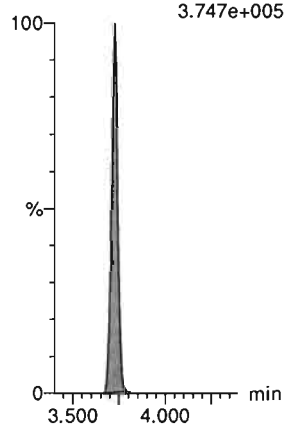
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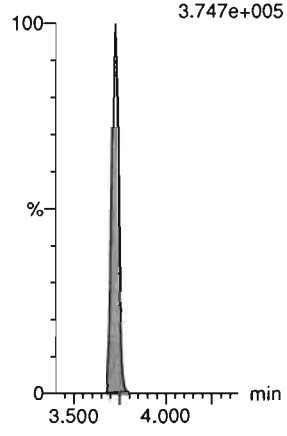
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

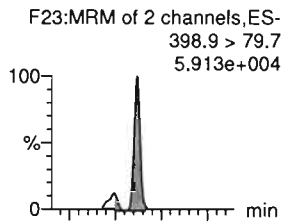


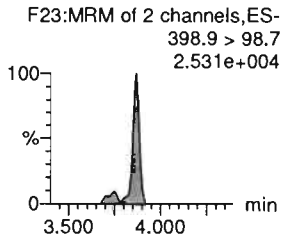
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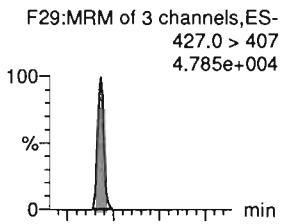
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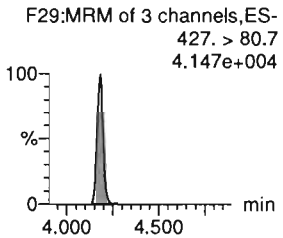
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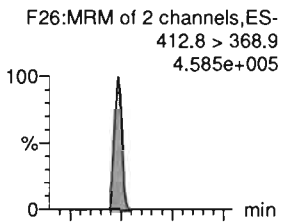


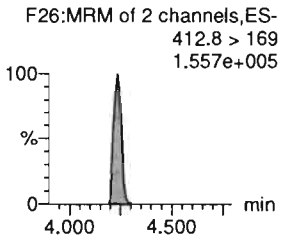
6:2 FTS



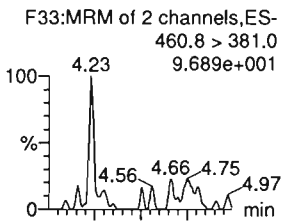


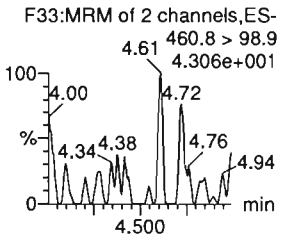
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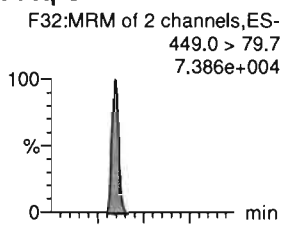


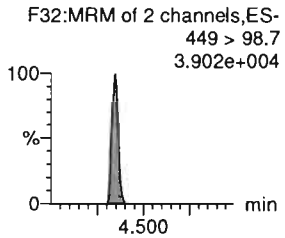
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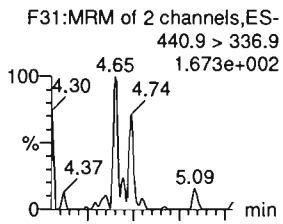


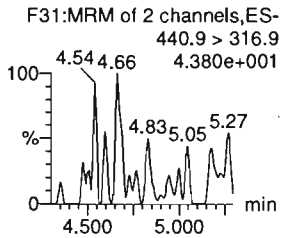
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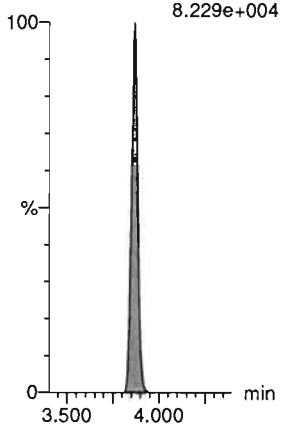


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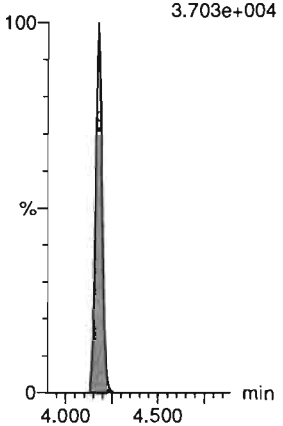




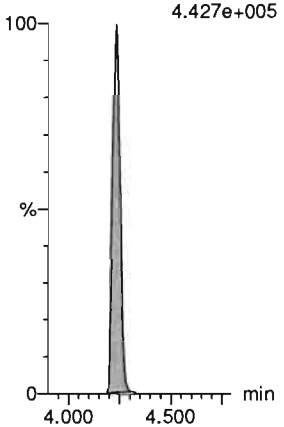
13C3-PFHxS-EIS



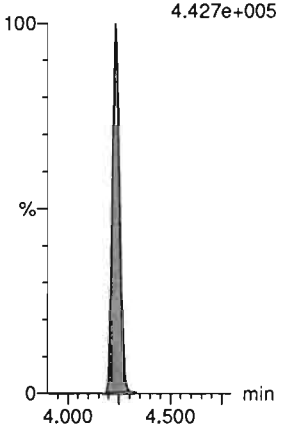
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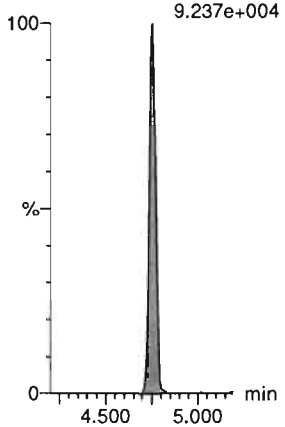
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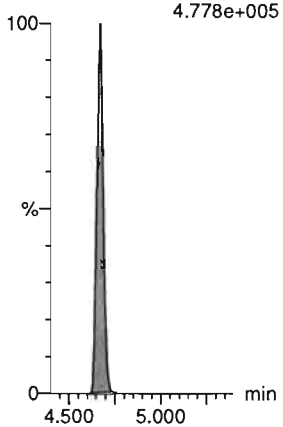
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

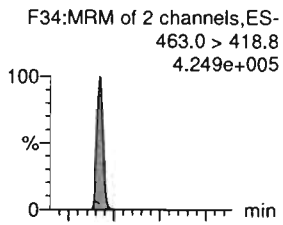


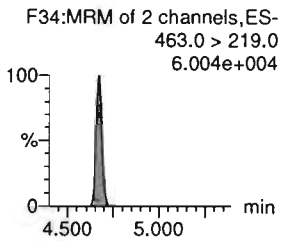
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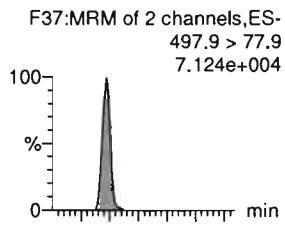
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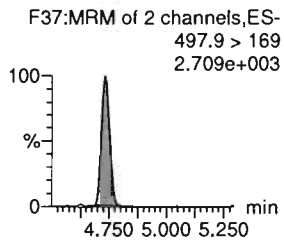
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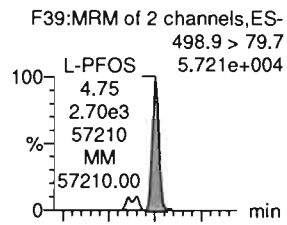


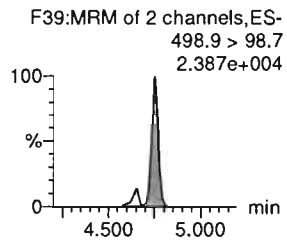
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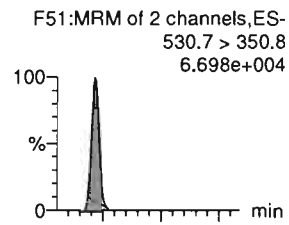


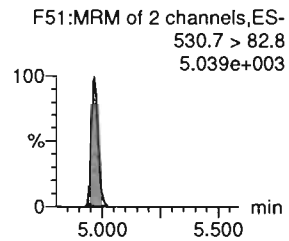
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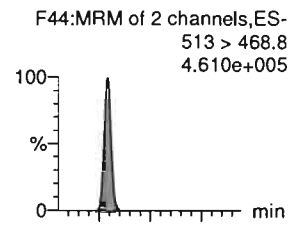


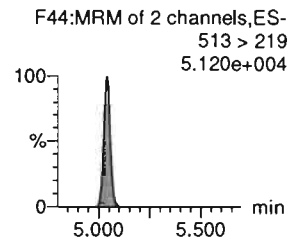
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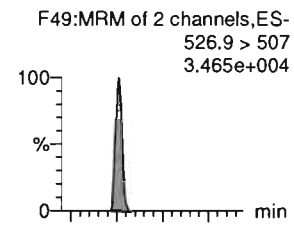


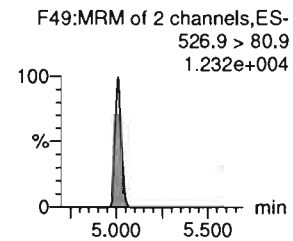
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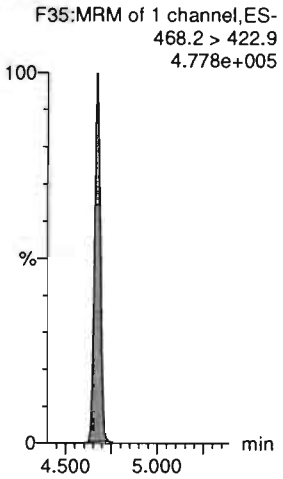


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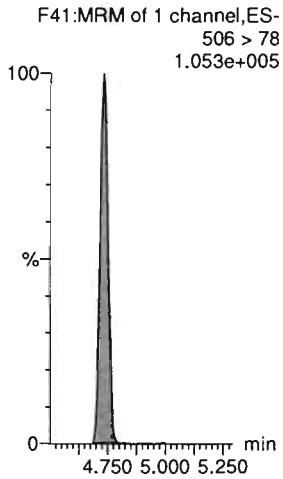




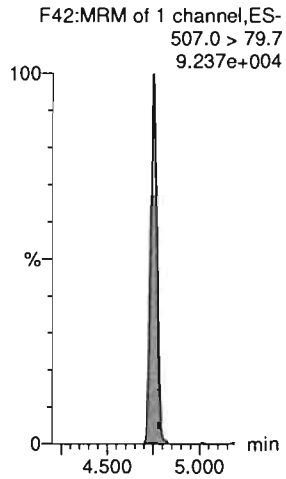
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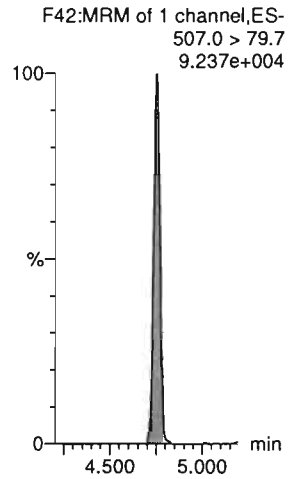
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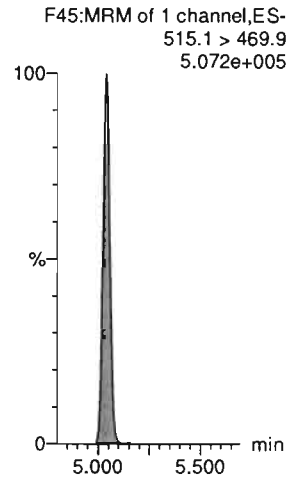
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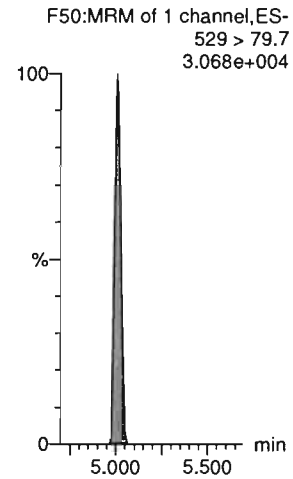
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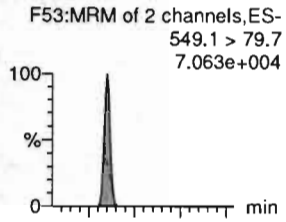


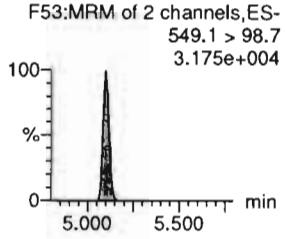
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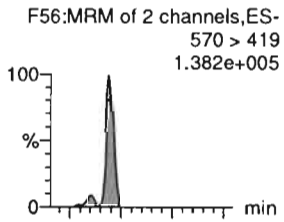
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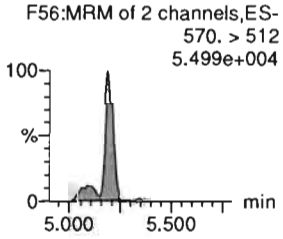
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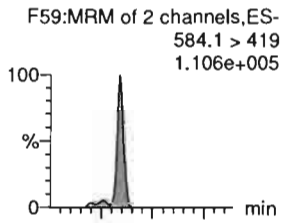


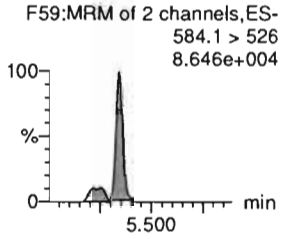
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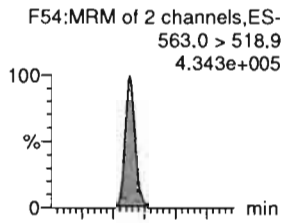


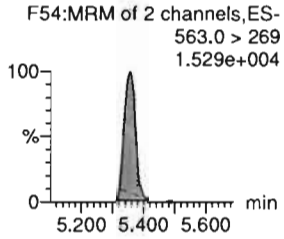
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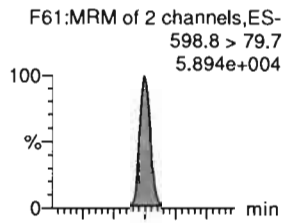


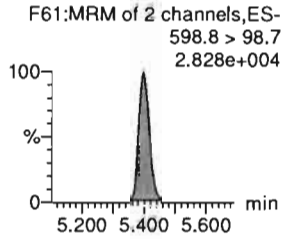
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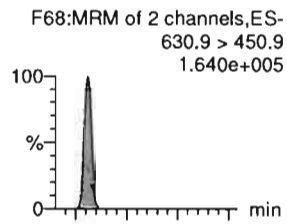


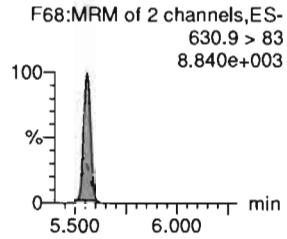
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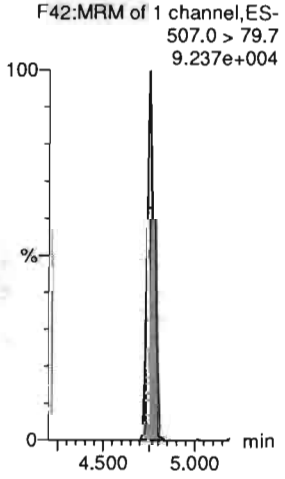


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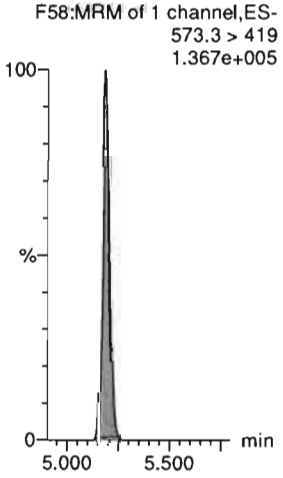




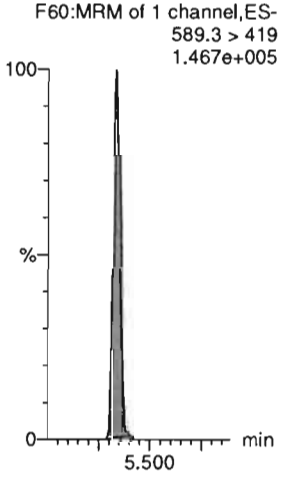
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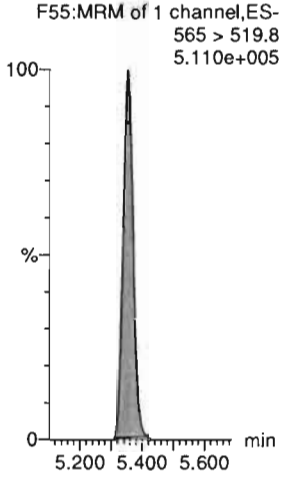
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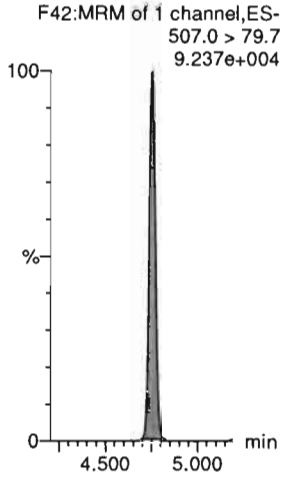
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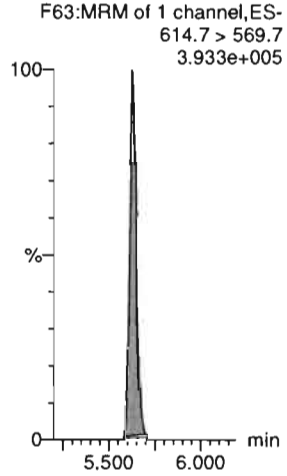
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13C8-PFOS-EIS



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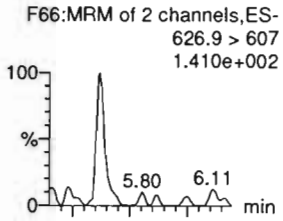


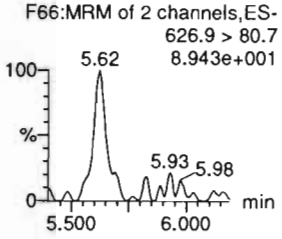
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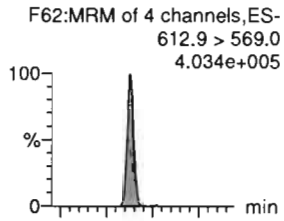
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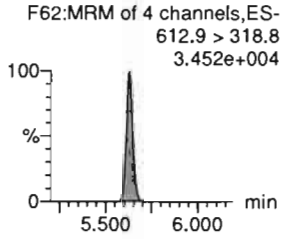
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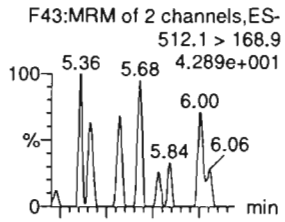


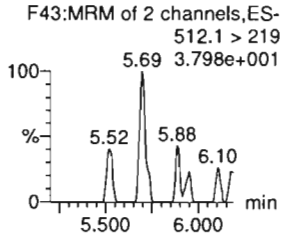
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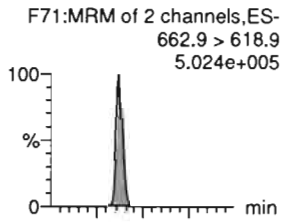


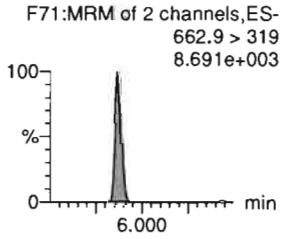
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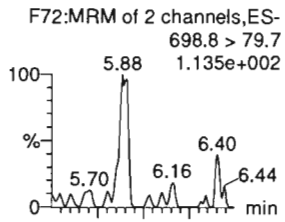


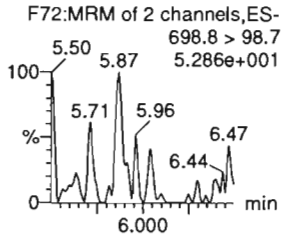
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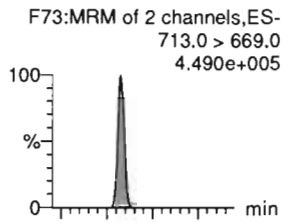


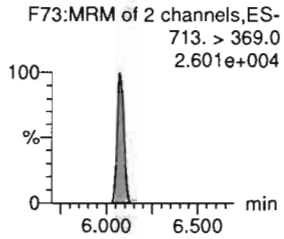
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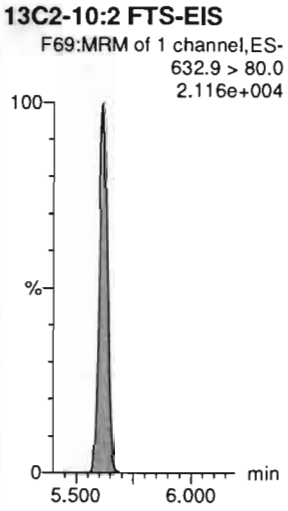


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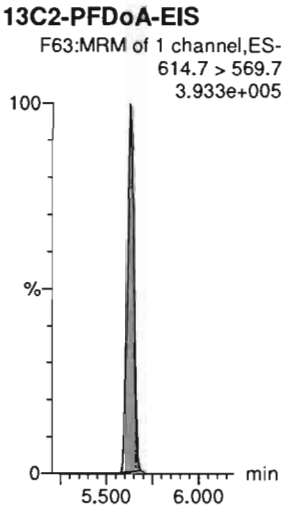




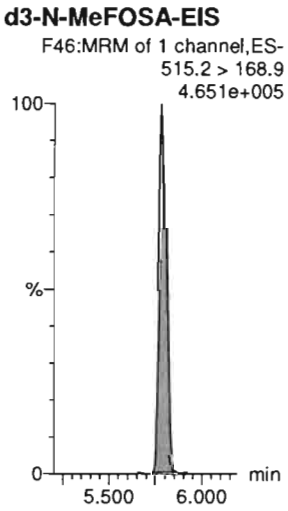
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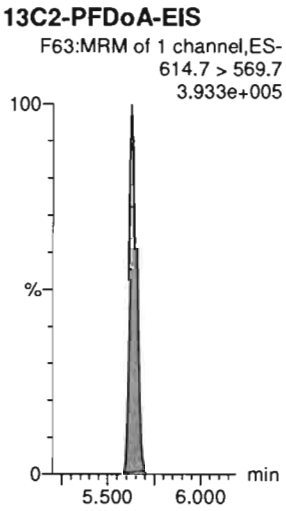
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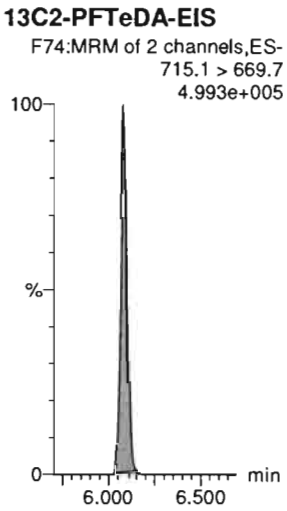
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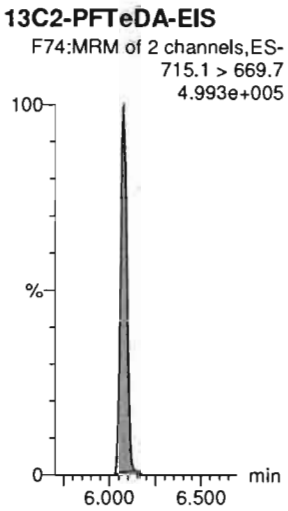
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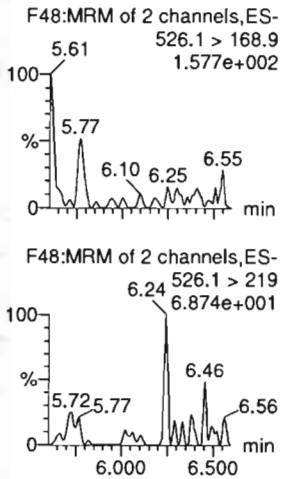


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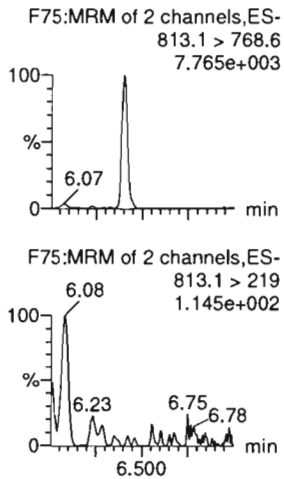
Last Altered: Thursday, February 27, 2020 10:15:03 Pacific Standard Time
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Name: 200226P1-14, Date: 26-Feb-2020, Time: 18:54:43, ID: ICV200226P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

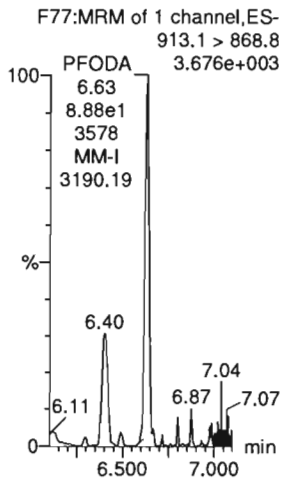
N-EtFOSA



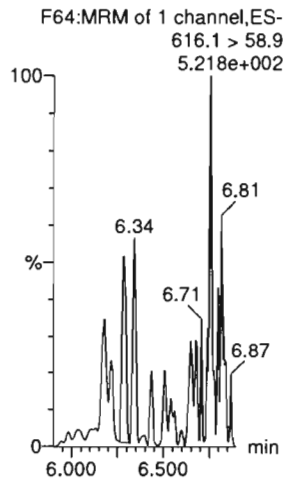
PFHxDA



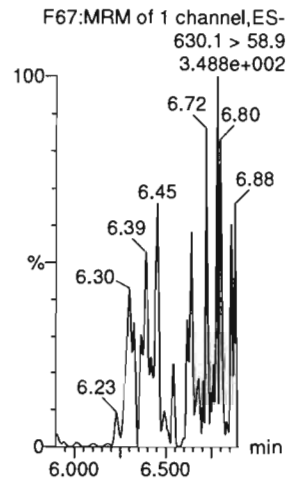
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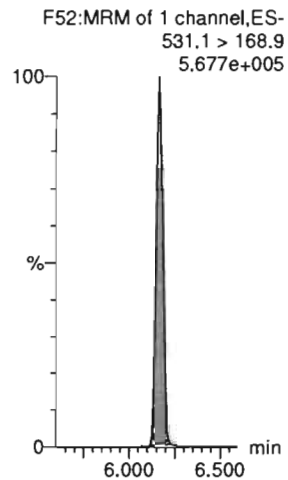
N-MeFOSE



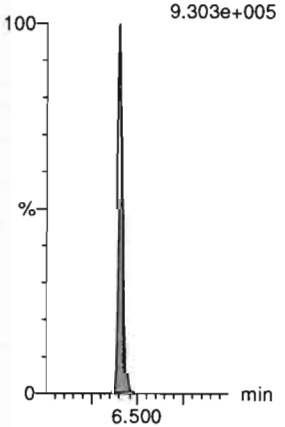
N-EtFOSE



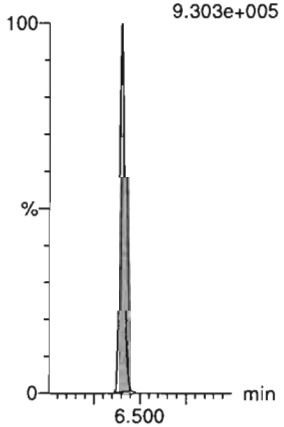
d5-N-ETFOSA-EIS



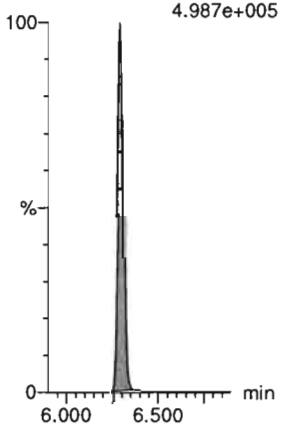
13C2-PFHxDA-EIS



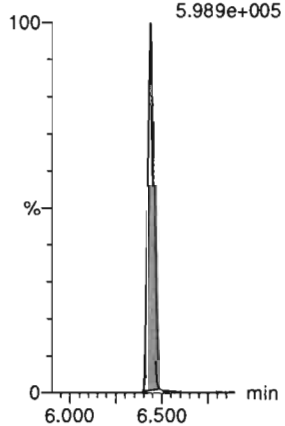
13C2-PFHxDA-EIS



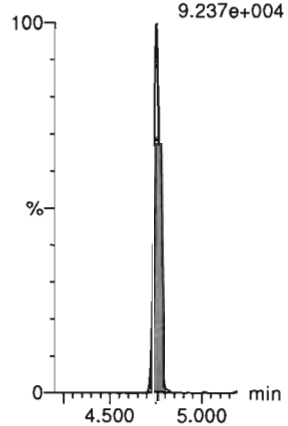
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C8-PFOS-EIS

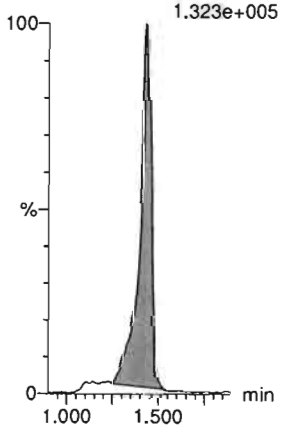


Dataset: D:\PFAS5.PRO\RESULTS\200226P1\200226P1-ICV.qld

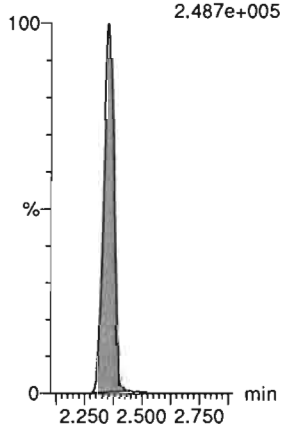
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Name: 200226P1-14, Date: 26-Feb-2020, Time: 18:54:43, ID: ICV200226P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

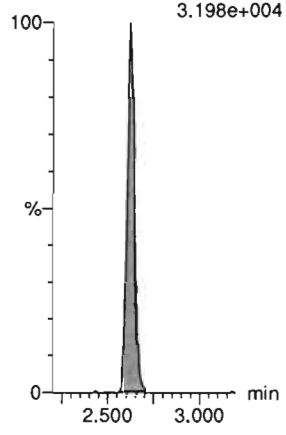
13C3-PFBA-RSD
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.323e+005



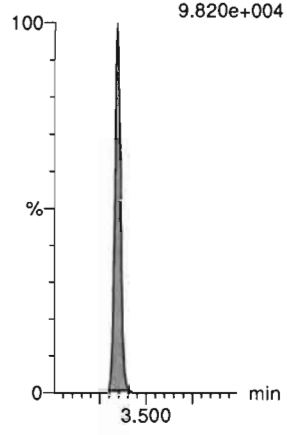
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.487e+005



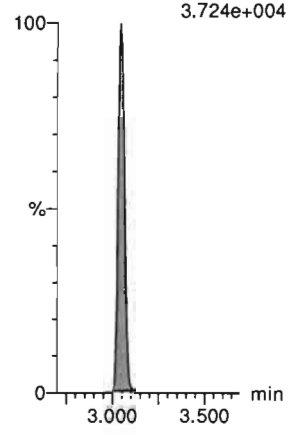
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.198e+004



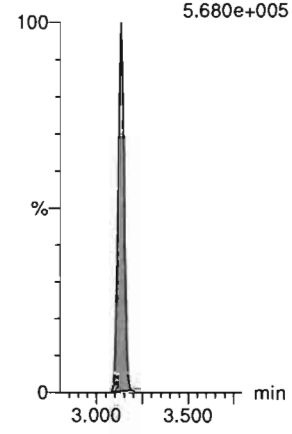
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.820e+004



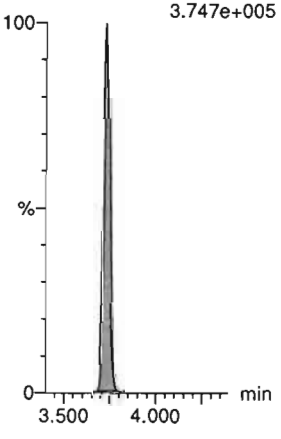
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.724e+004



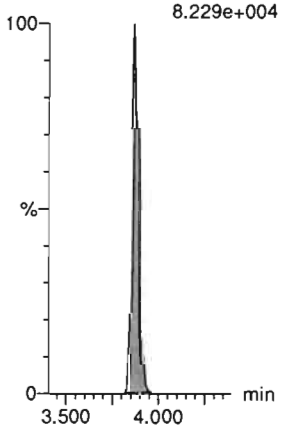
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
5.680e+005



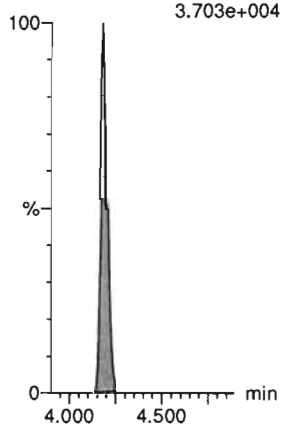
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.747e+005



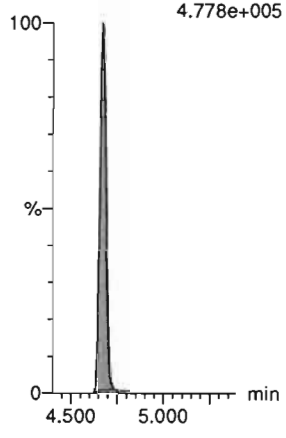
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
8.229e+004



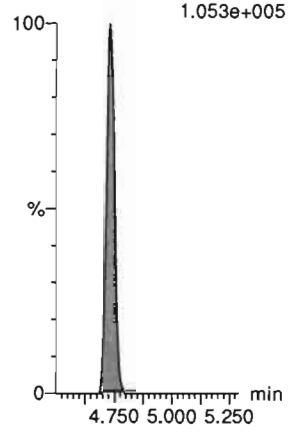
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.703e+004



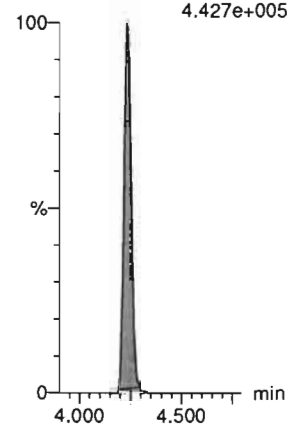
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
4.778e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
1.053e+005



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
4.427e+005

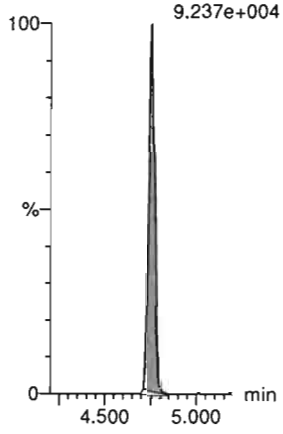


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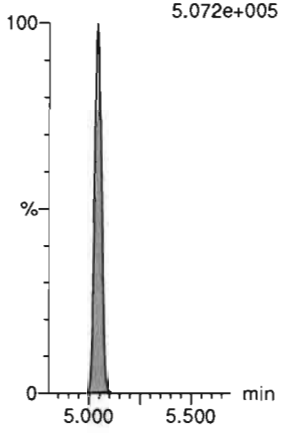
Last Altered: Thursday, February 27, 2020 10:15:03 Pacific Standard Time
Printed: Thursday, February 27, 2020 10:15:08 Pacific Standard Time

Name: 200226P1-14, Date: 26-Feb-2020, Time: 18:54:43, ID: ICV200226P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

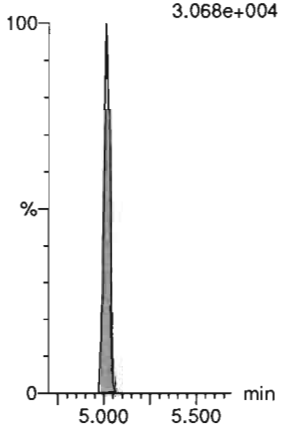
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.237e+004



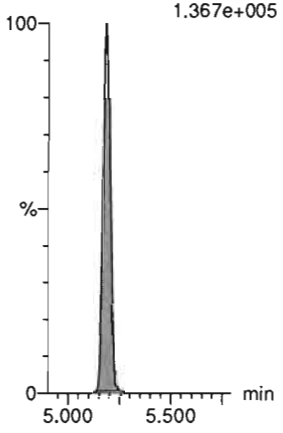
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.072e+005



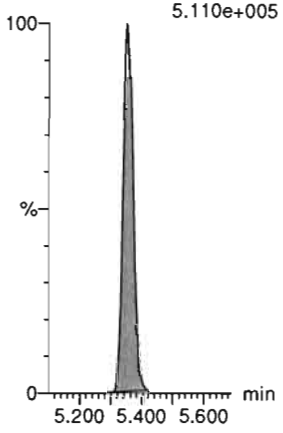
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
3.068e+004



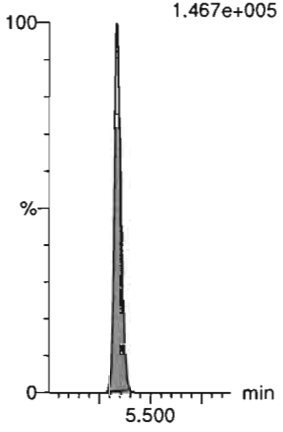
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.367e+005



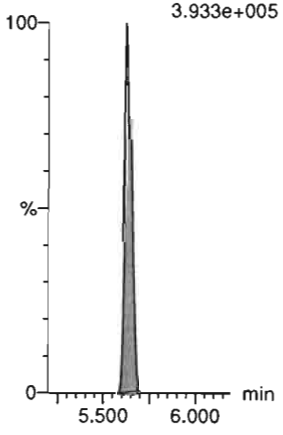
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F55:MRM of 1 channel,ES-
565 > 519.8
5.110e+005



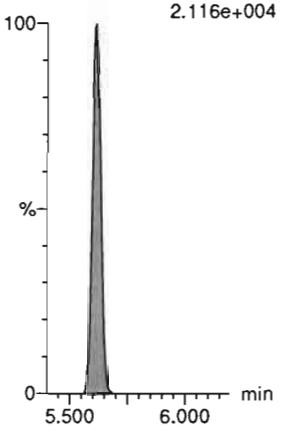
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.467e+005



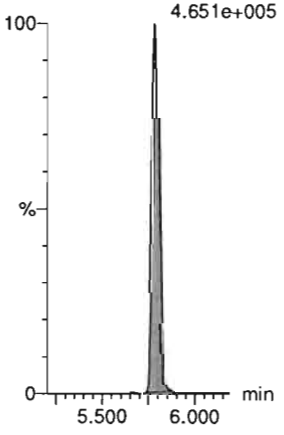
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
3.933e+005



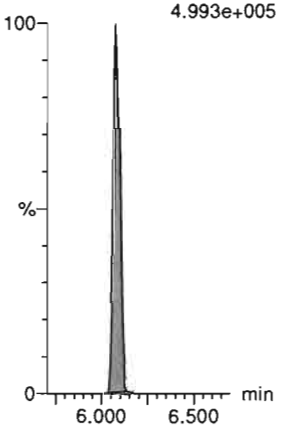
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.116e+004



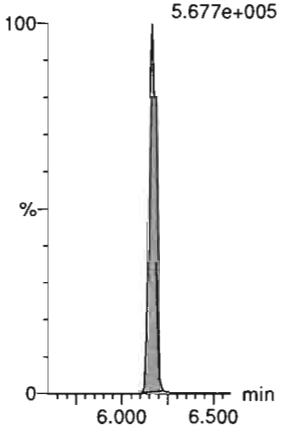
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.651e+005



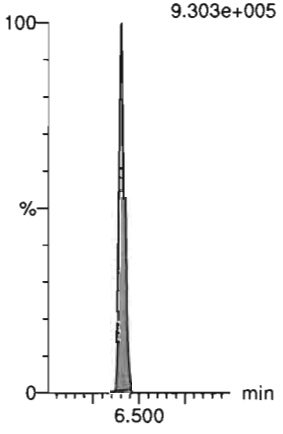
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
4.993e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.677e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
9.303e+005

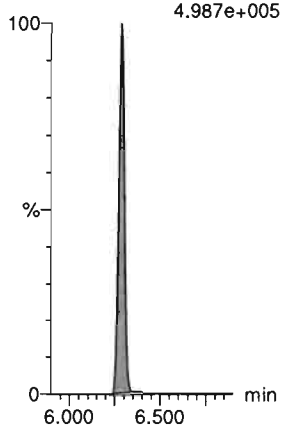


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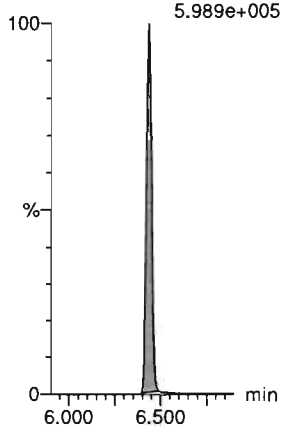
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Name: 200226P1-14, Date: 26-Feb-2020, Time: 18:54:43, ID: ICV200226P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

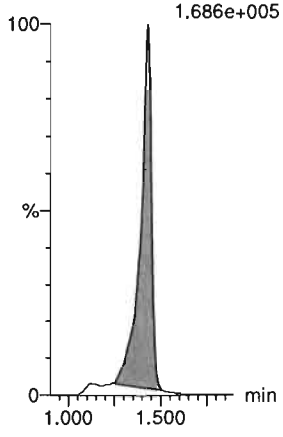
d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.987e+005



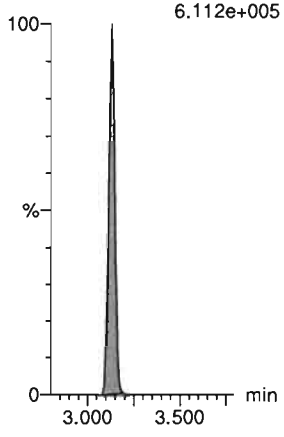
d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.989e+005



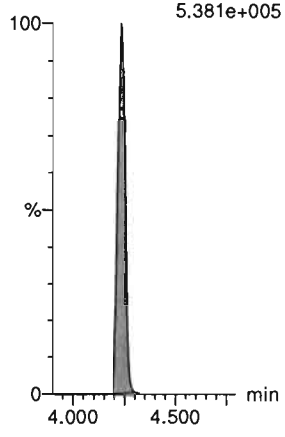
13C4-PFBA
F4:MRM of 1 channel,ES-
217.0 > 172.0
1.686e+005



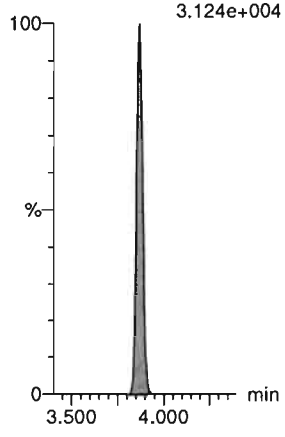
13C5-PFHxA
F15:MRM of 1 channel,ES-
318.0 > 272.9
6.112e+005



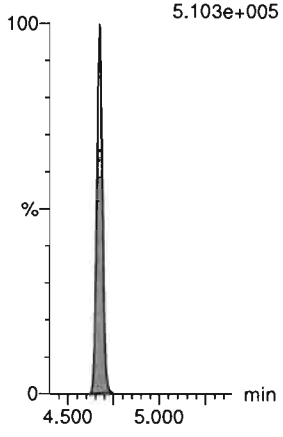
13C8-PFOA
F28:MRM of 1 channel,ES-
420.9 > 376.0
5.381e+005



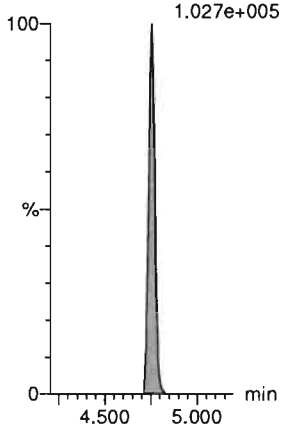
18O2-PFHxS
F25:MRM of 1 channel,ES-
403.0 > 102.6
3.124e+004



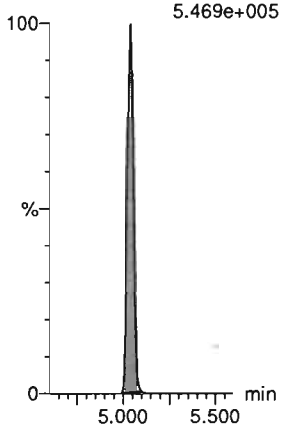
13C9-PFNA
F36:MRM of 1 channel,ES-
472.2 > 426.9
5.103e+005



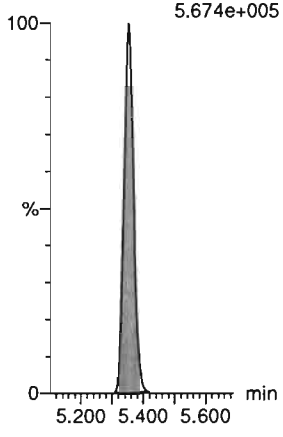
13C4-PFOS
F40:MRM of 1 channel,ES-
503 > 79.7
1.027e+005



13C6-PFDA
F47:MRM of 1 channel,ES-
519.1 > 473.7
5.469e+005



13C7-PFUdA
F57:MRM of 1 channel,ES-
570.1 > 524.8
5.674e+005



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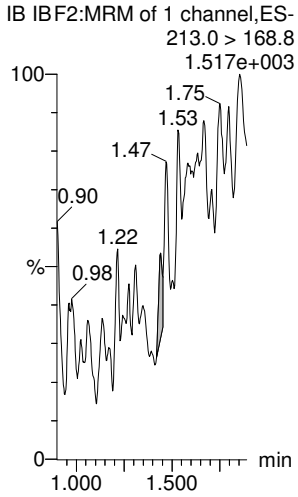
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Last Altered: Thursday, February 27, 2020 10:18:39 Pacific Standard Time
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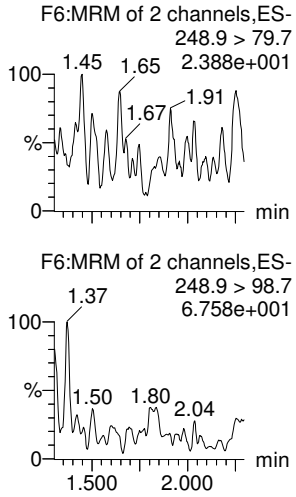
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Name: 200226P1-13, Date: 26-Feb-2020, Time: 18:44:12, ID: IB, Description: IB

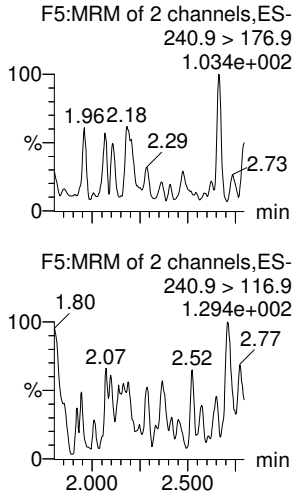
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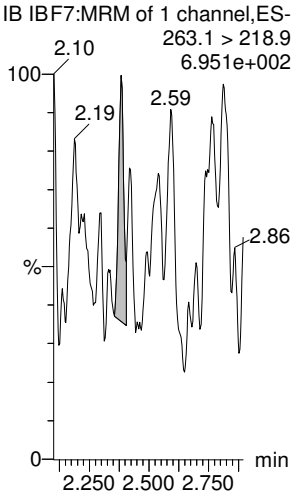
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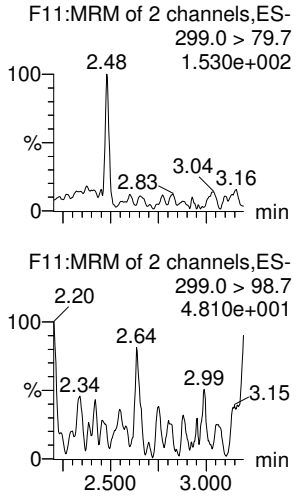
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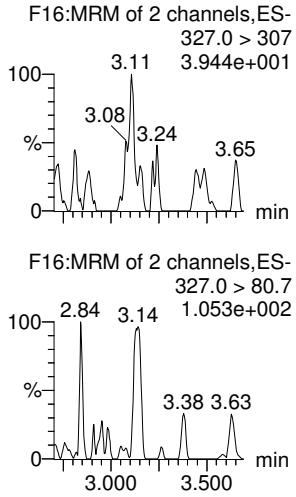
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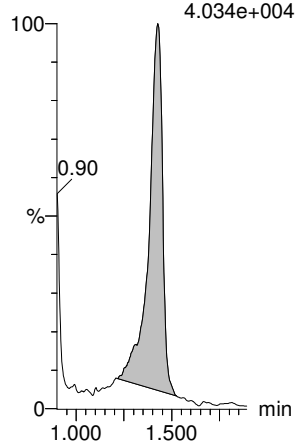
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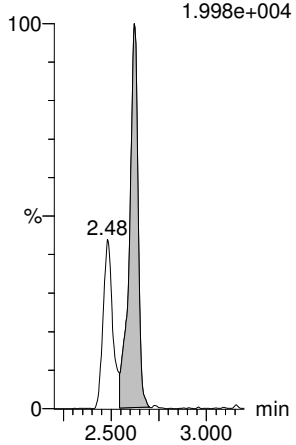
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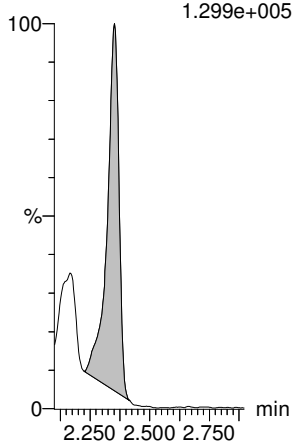
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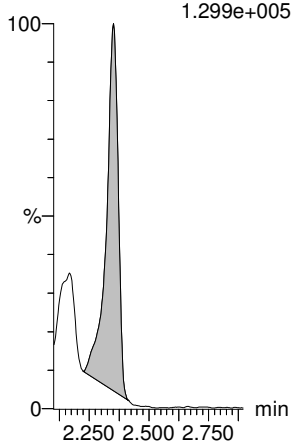
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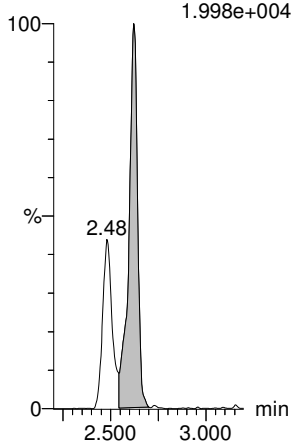
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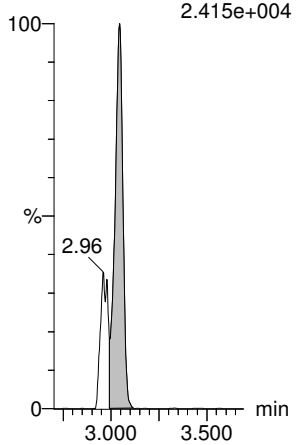
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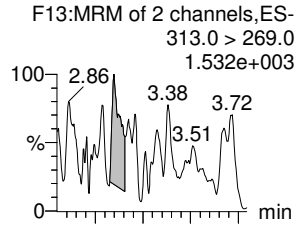


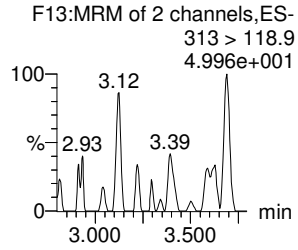
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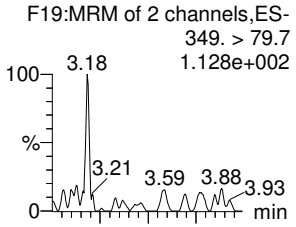
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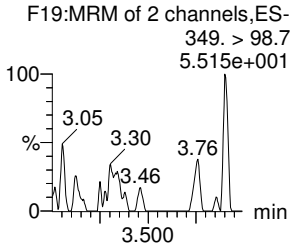
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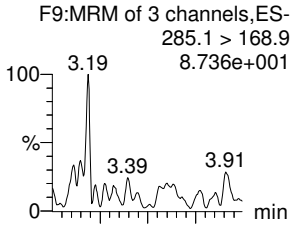


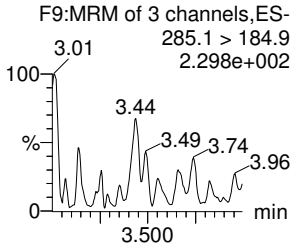
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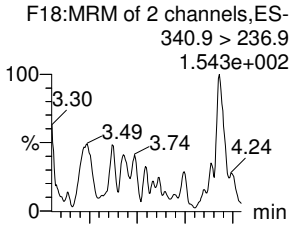


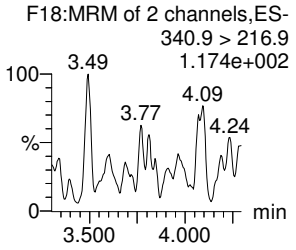
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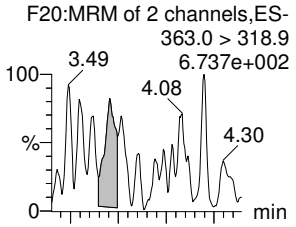


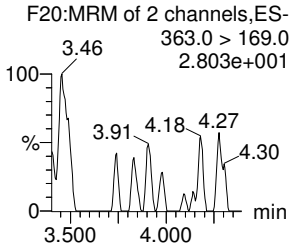
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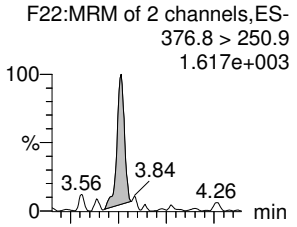


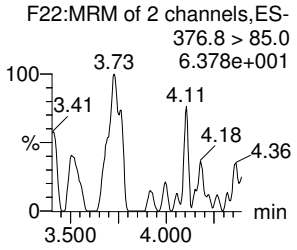
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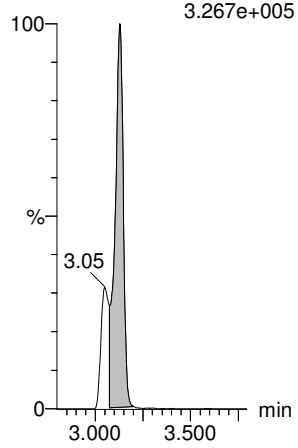


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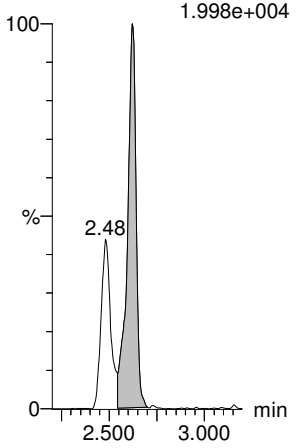




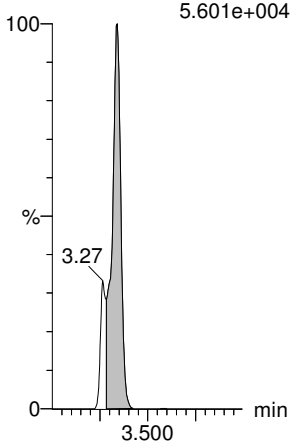
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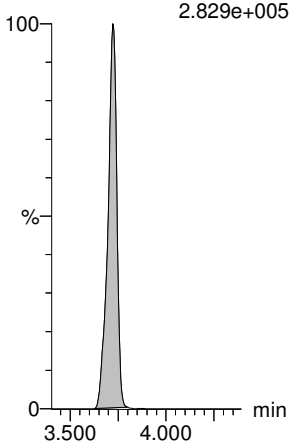
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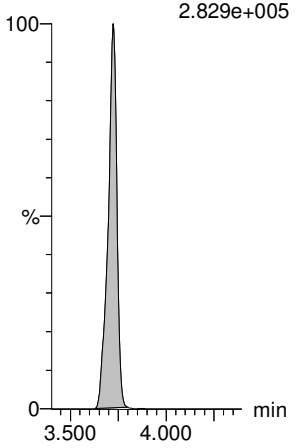
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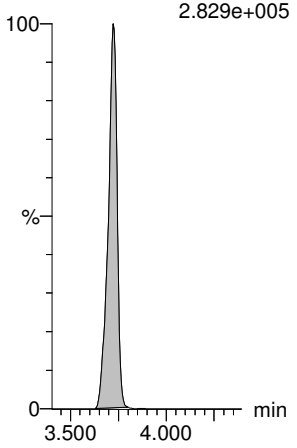
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13C4-PFHpA-EIS



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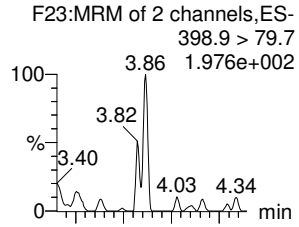


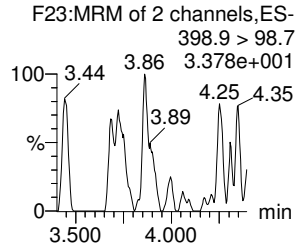
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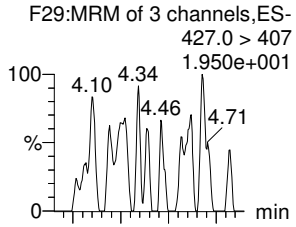
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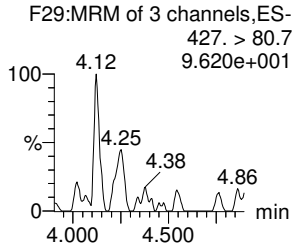
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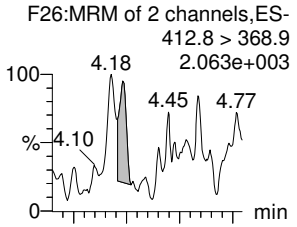


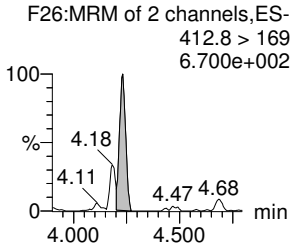
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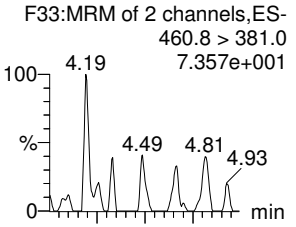


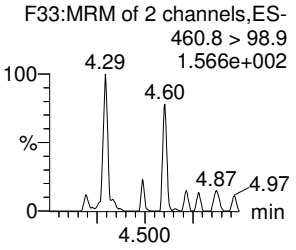
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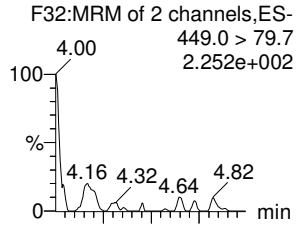


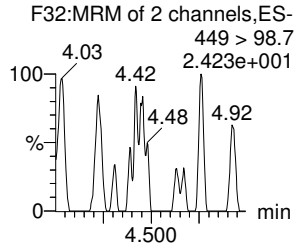
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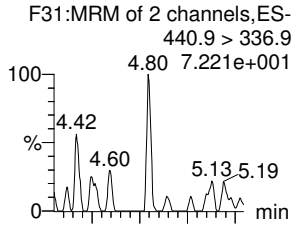


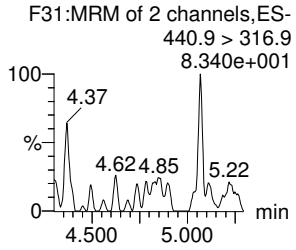
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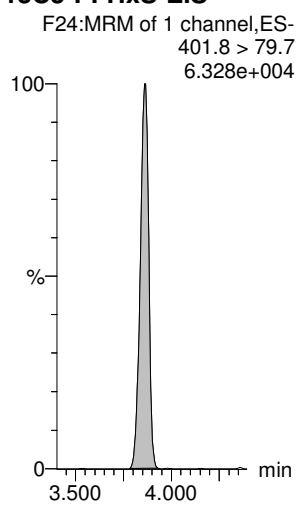


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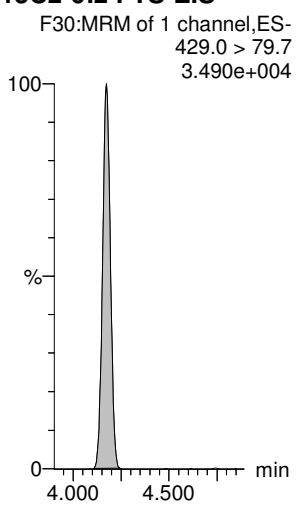




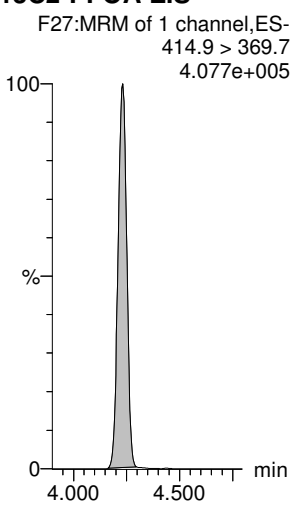
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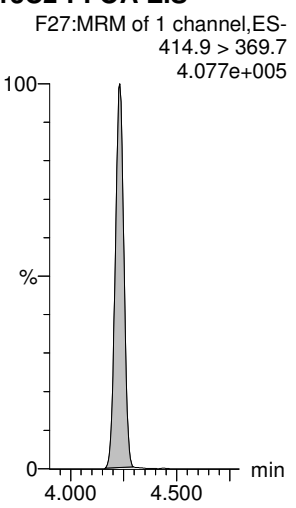
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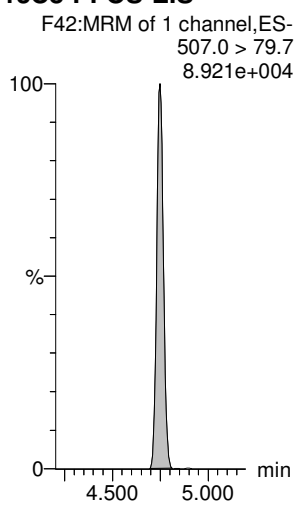
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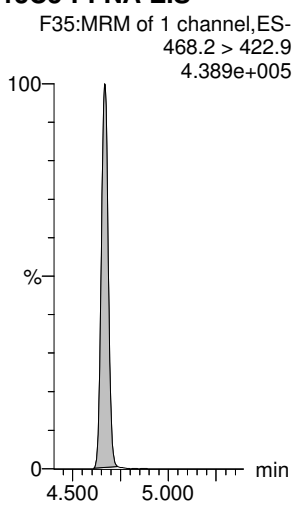
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13C8-PFOS-EIS



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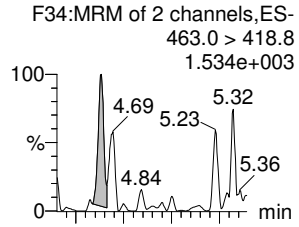


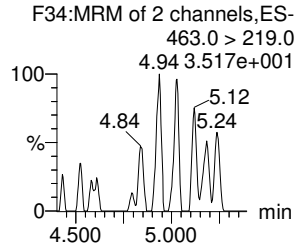
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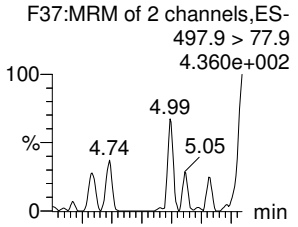
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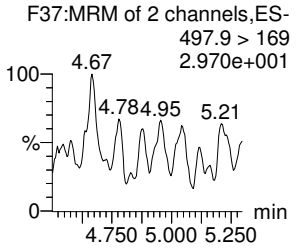
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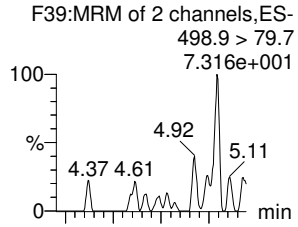


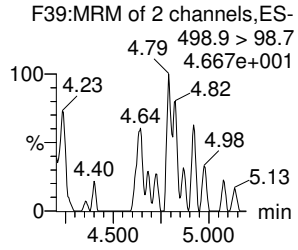
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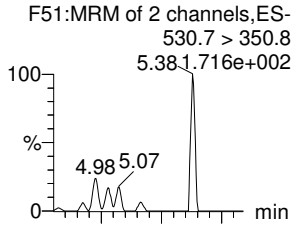


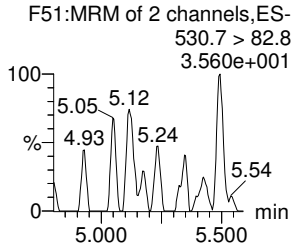
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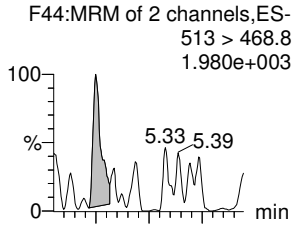


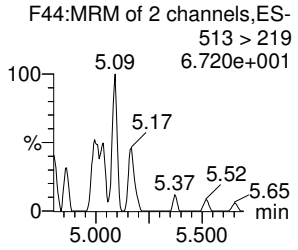
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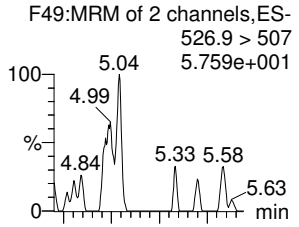


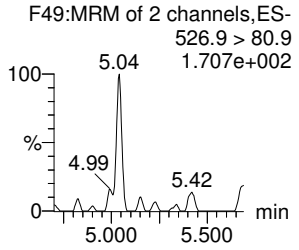
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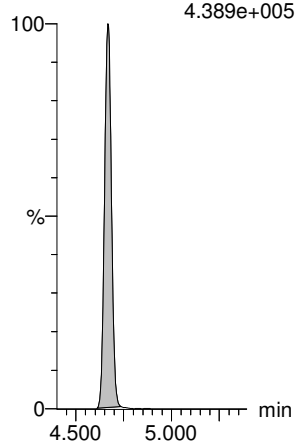


8:2 FTS

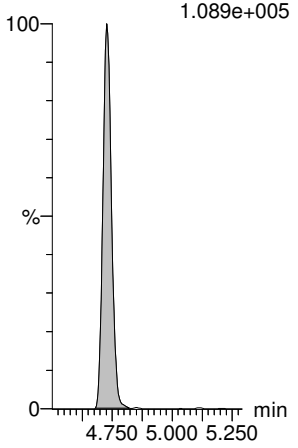




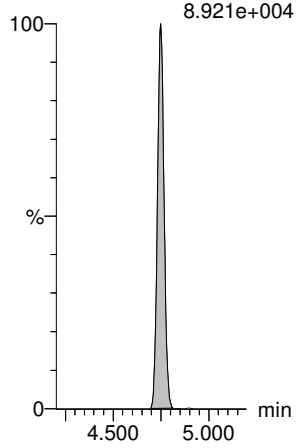
13C5-PFNA-EIS



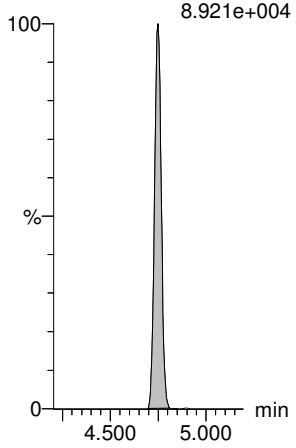
13C8-PFOSA-EIS



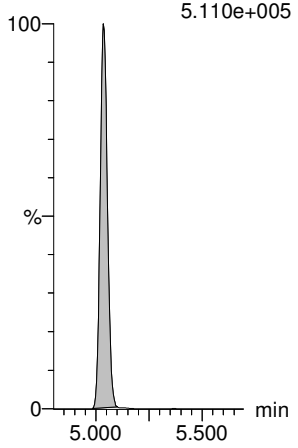
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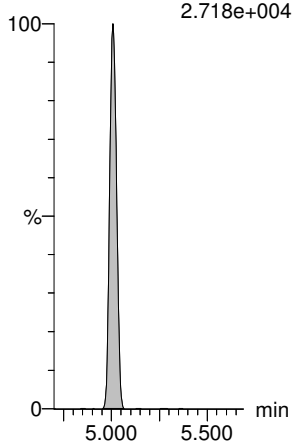
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

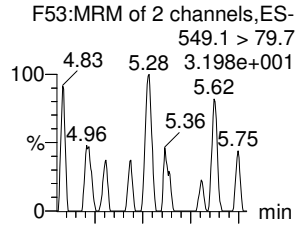


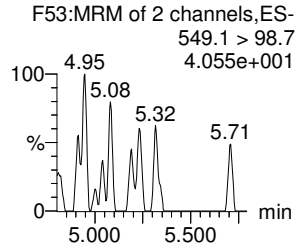
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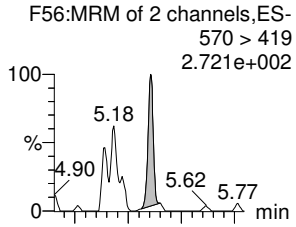
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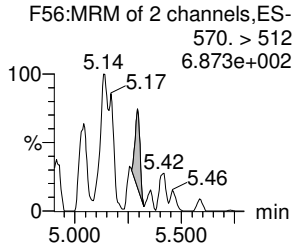
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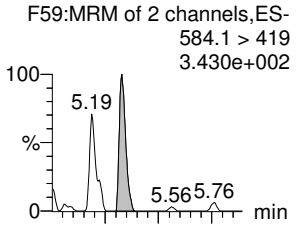


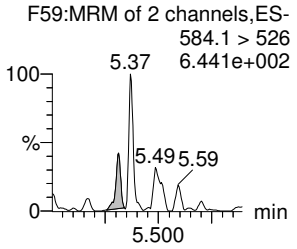
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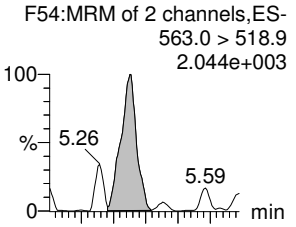


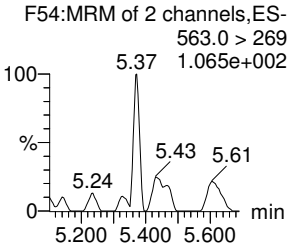
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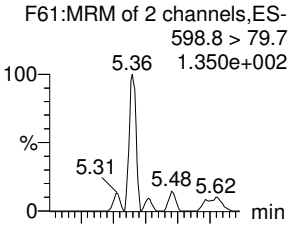


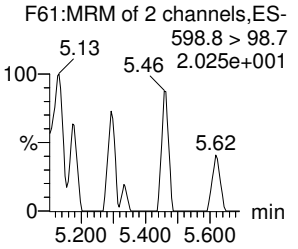
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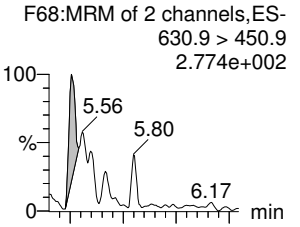


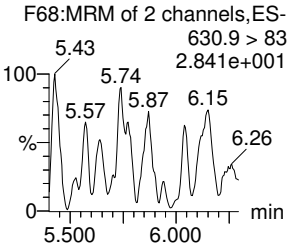
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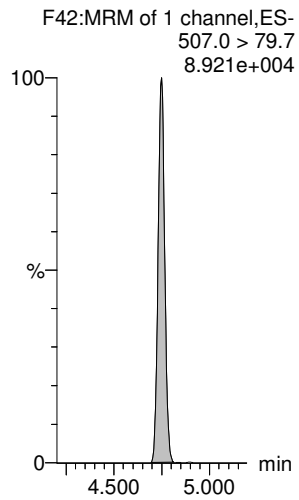


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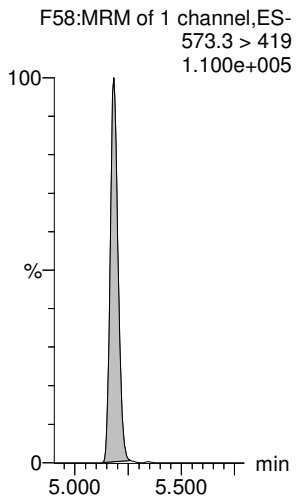




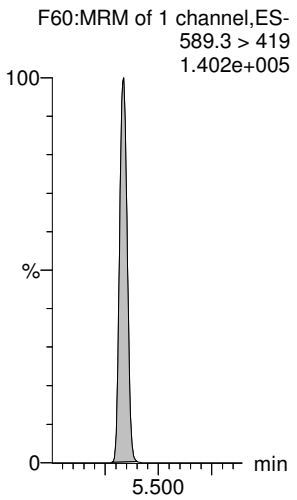
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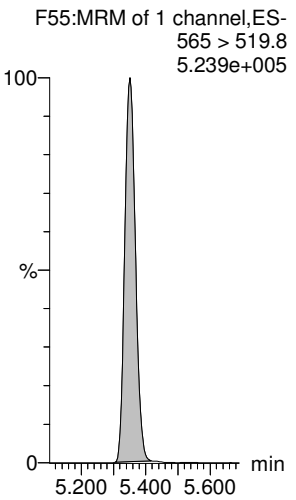
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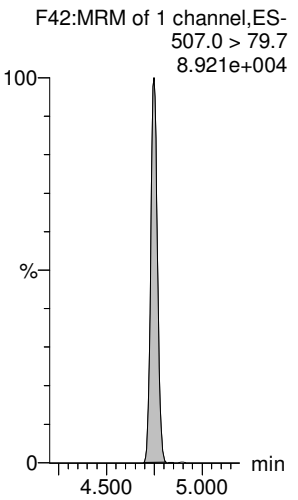
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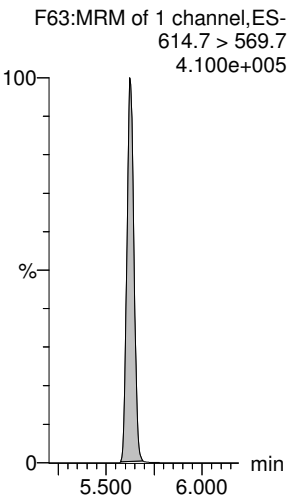
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

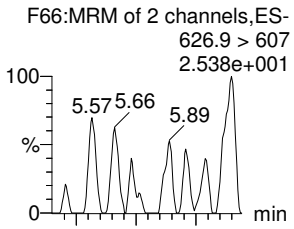


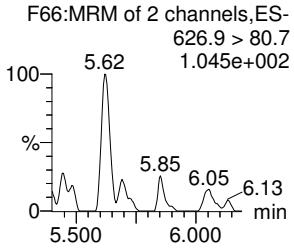
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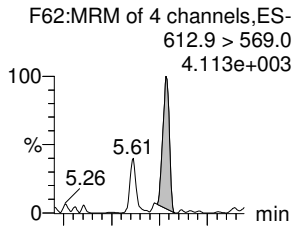
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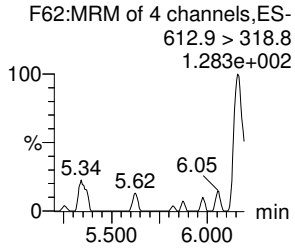
10:2 FTS



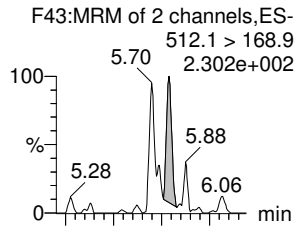


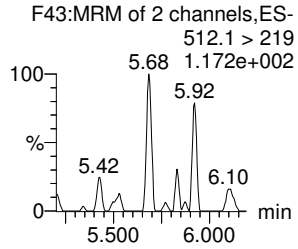
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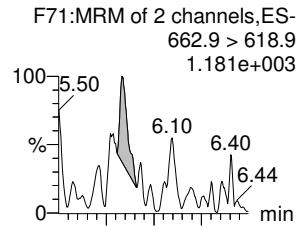


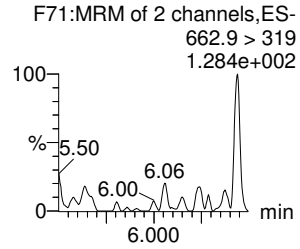
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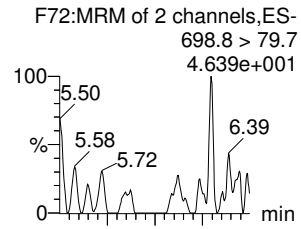


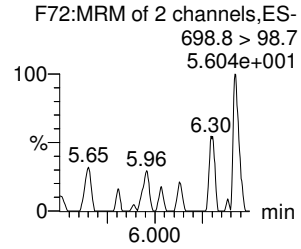
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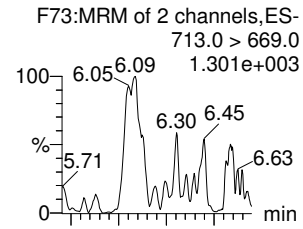


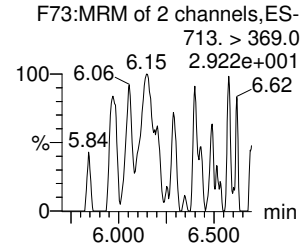
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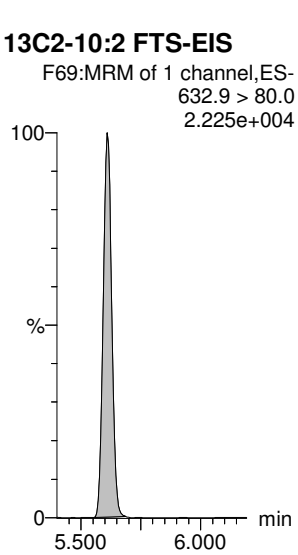


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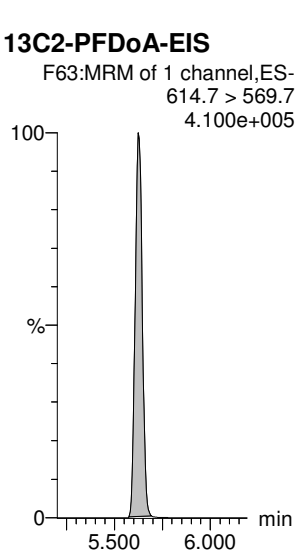




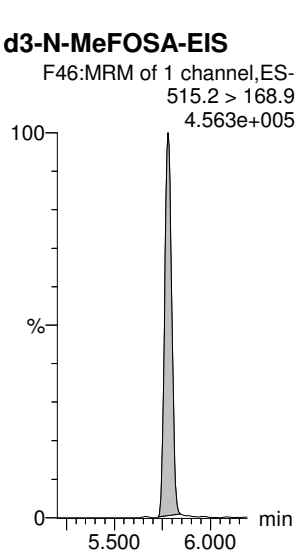
13C2-10:2 FTS-EIS



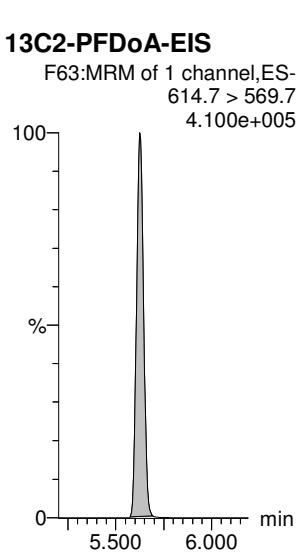
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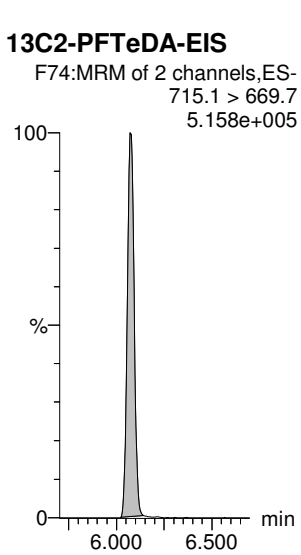
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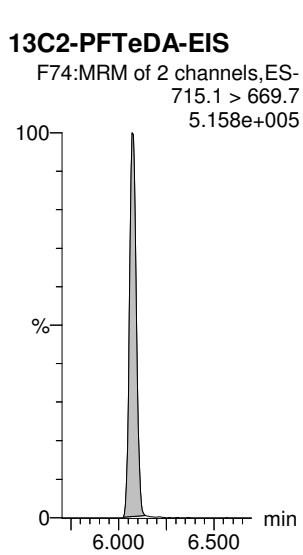
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

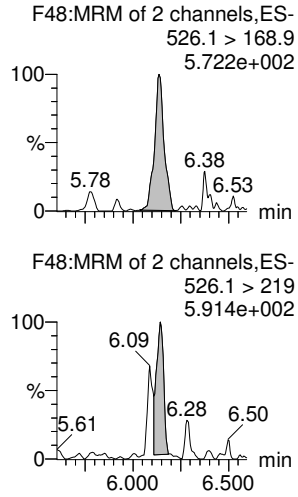


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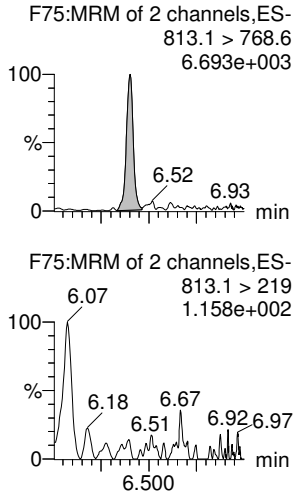
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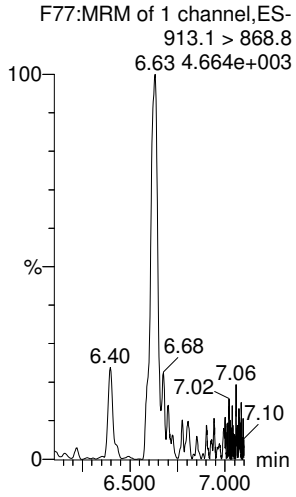
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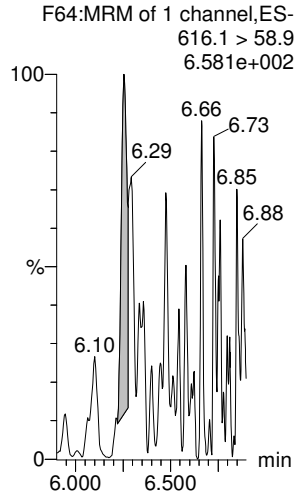
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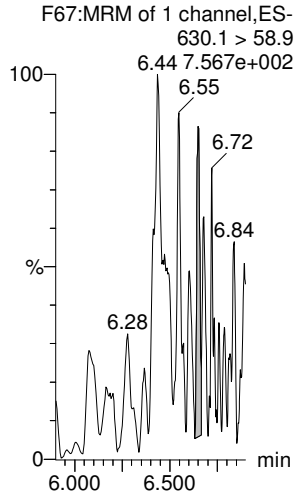
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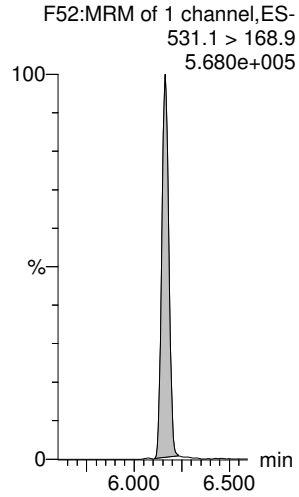
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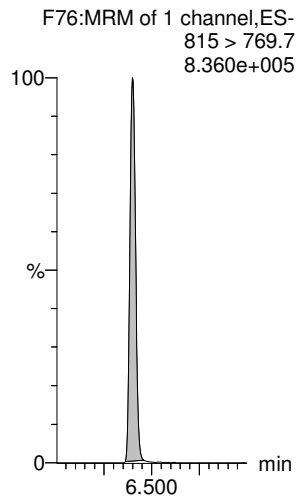
N-EtFOSE



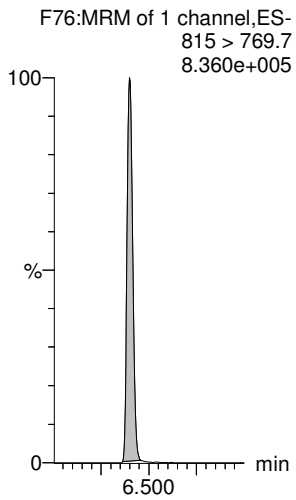
d5-N-ETFOSA-EIS



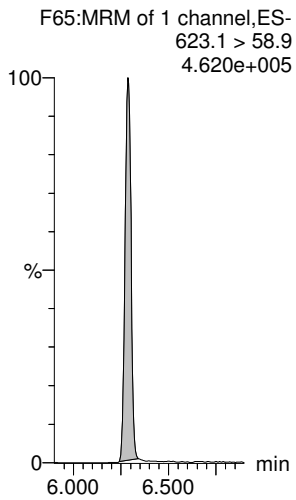
13C2-PFHxDA-EIS



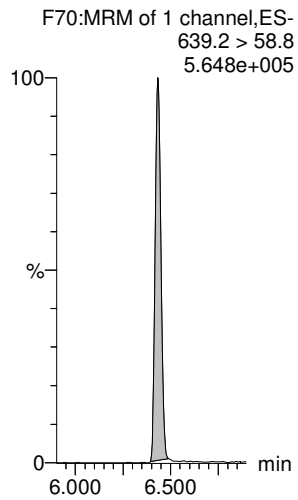
13C2-PFHxDA-EIS



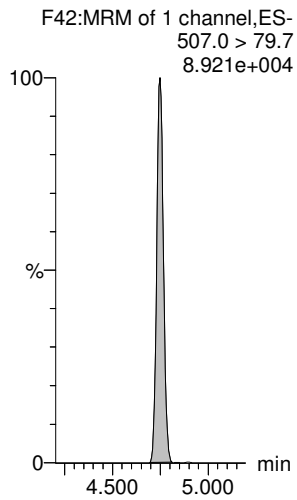
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C8-PFOS-EIS

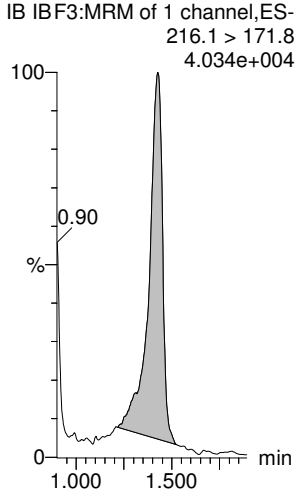


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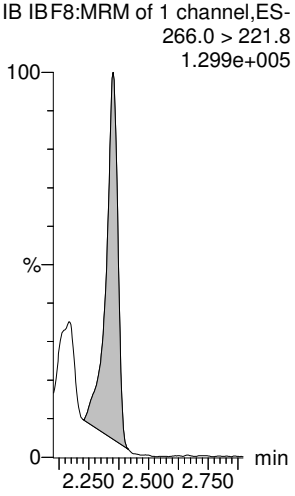
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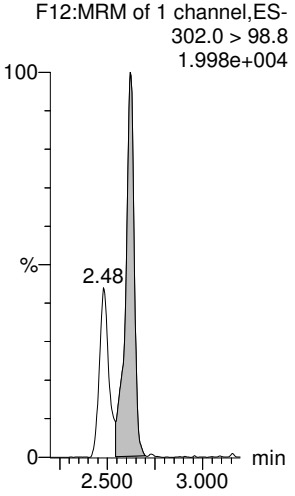
13C3-PFBA-RSD



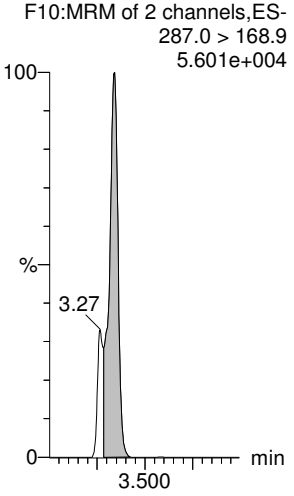
13C3-PFPeA-RSD



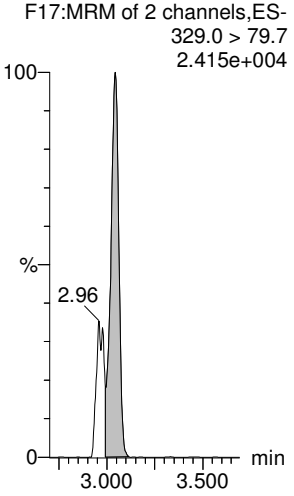
13C3-PFBS-RSD



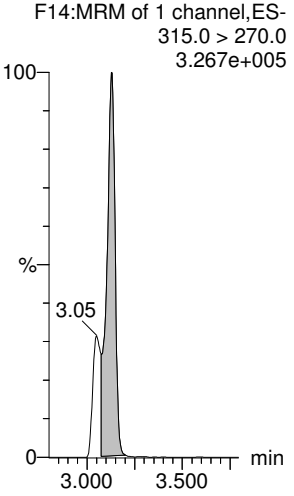
13C3-HFPO-DA-RSD



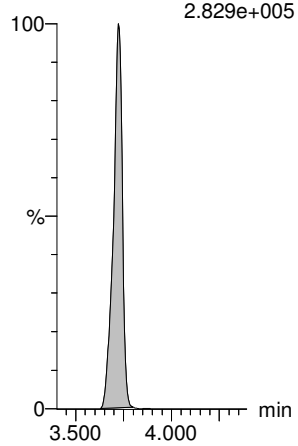
13C2-4:2 FTS-RSD



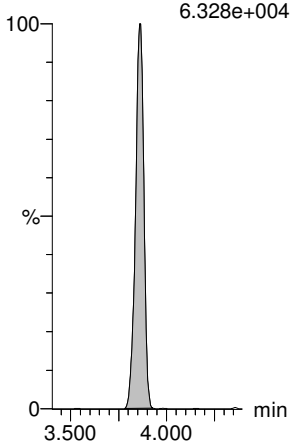
13C2-PFHxA-RSD



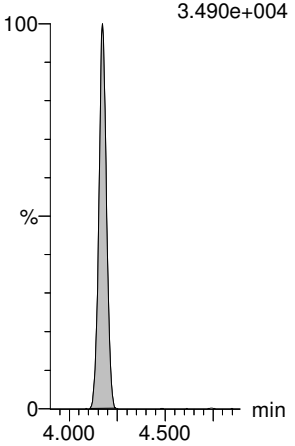
13C4-PFHpA-RSD



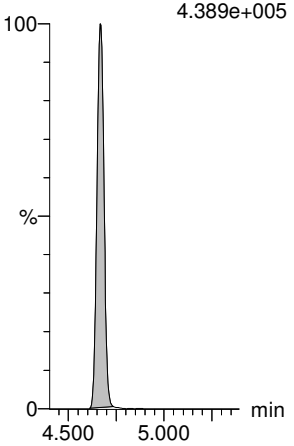
13C3-PFHxS-RSD



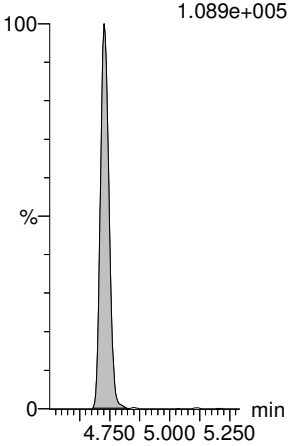
13C2-6:2 FTS-RSD



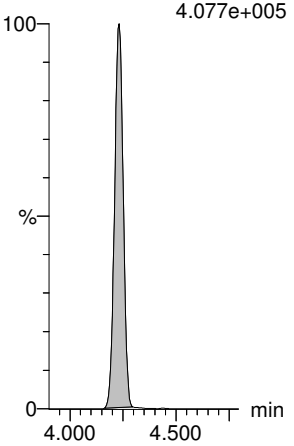
13C5-PFNA-RSD



13C8-PFOSA-RSD



13C2-PFOA-RSD

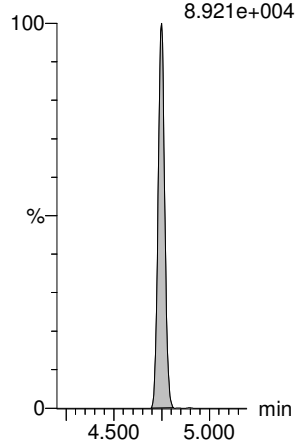


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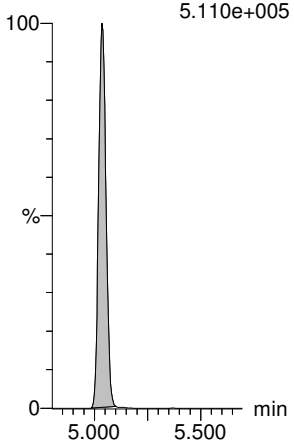
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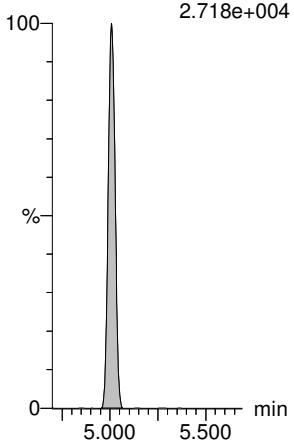
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
8.921e+004



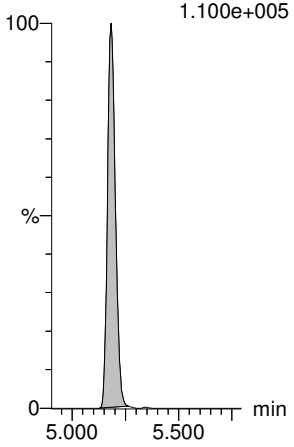
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
5.110e+005



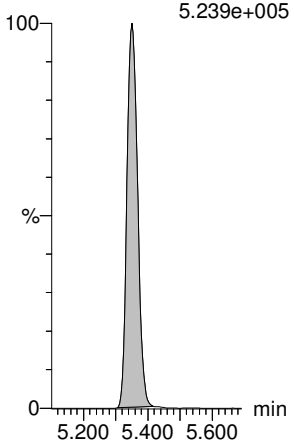
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.718e+004



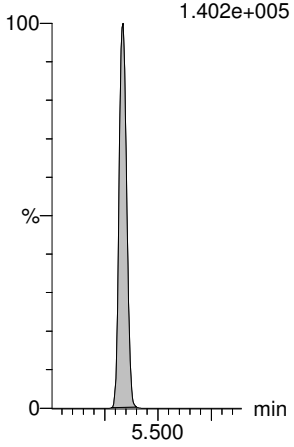
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
1.100e+005



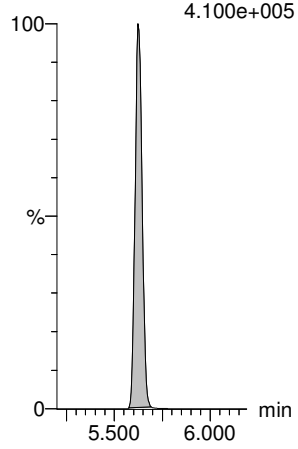
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
5.239e+005



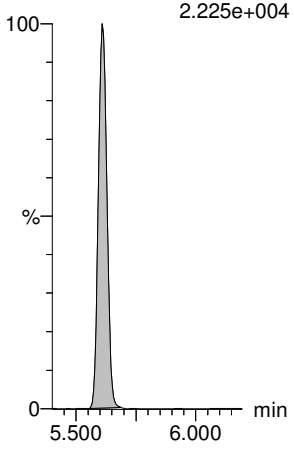
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.402e+005



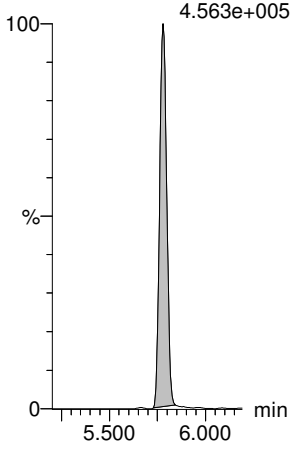
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.100e+005



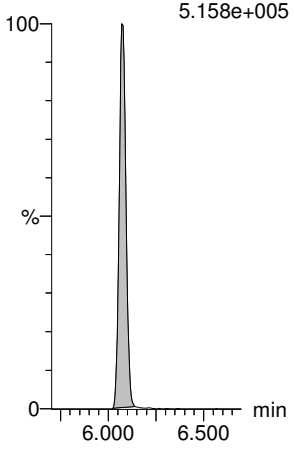
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.225e+004



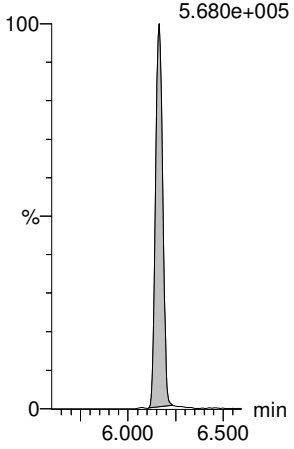
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.563e+005



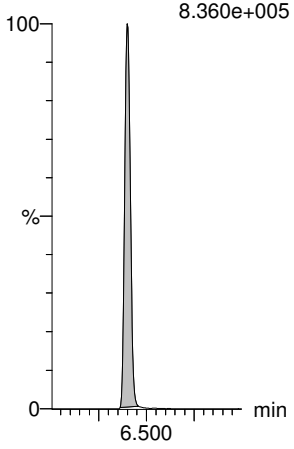
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
5.158e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.680e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
8.360e+005

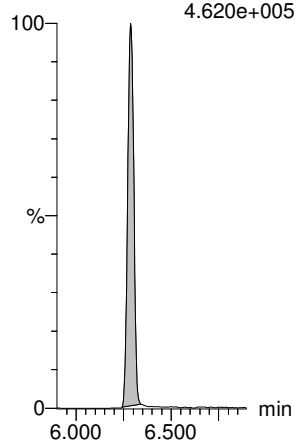


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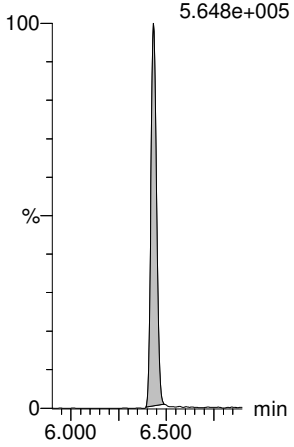
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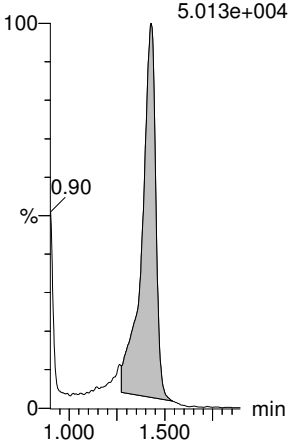
d7-N-MeFOSE-RSD



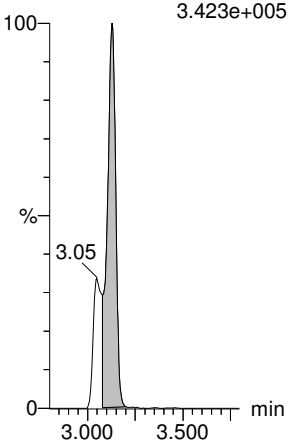
d9-N-EtFOSE-RSD



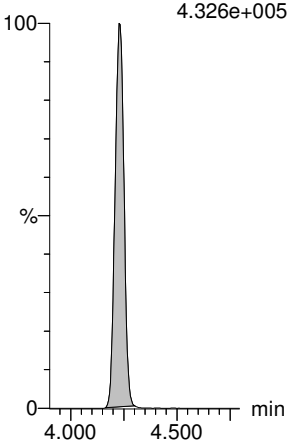
13C4-PFBA



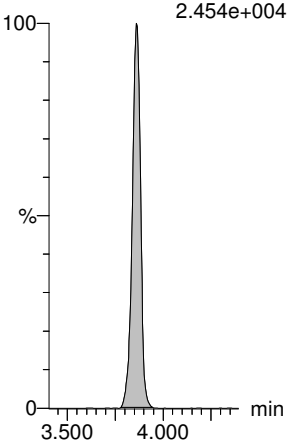
13C5-PFHxA



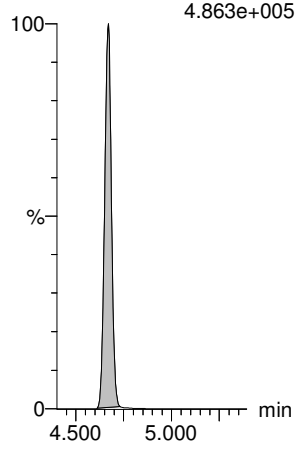
13C8-PFOA



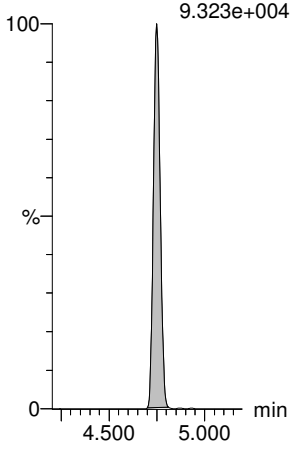
18O2-PFHxS



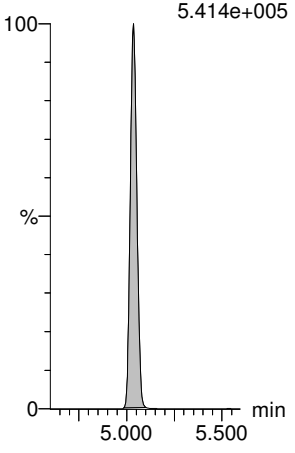
13C9-PFNA



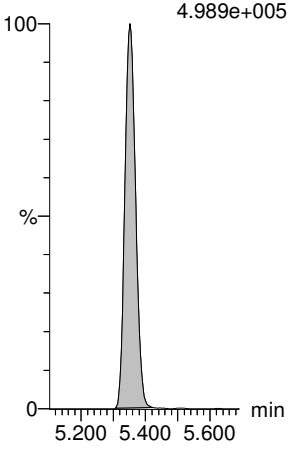
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Name: 200226P1-13, Date: 26-Feb-2020, Time: 18:44:12, 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	6.911	3143.130	1.00	1.44	0.027		0.0250		NO		
2	2	PFPrS	248.9 > 79.7		1028.801	1.00						NO		YES
3	3	3:3 FTCA	240.9 > 176.9		7091.274	1.00						NO		YES
4	4	PFPeA	263.1 > 218.9	11.208	7091.274	1.00	2.38	0.020		0.00417		NO		
5	5	PFBS	299.0 > 79.7		1028.801	1.00						NO		YES
6	6	4:2 FTS	327.0 > 307		1162.245	1.00						NO		YES
7	47	13C3-PFBA-EIS	216.1 > 171.8	3143.130		1.00	1.43	3143.130	12.500	4.21	33.7	YES		
8	51	13C3-PFBS-EIS	302.0 > 98.8	1028.801		1.00	2.62	1028.801	12.500	9.41	75.3	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	7091.274		1.00	2.35	7091.274	12.500	6.71	53.6	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	7091.274		1.00	2.35	7091.274	12.500	6.71	53.6	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	1028.801		1.00	2.62	1028.801	12.500	9.41	75.3	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1162.245		1.00	3.04	1162.245	12.500	9.52	76.1	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	61.416	16335.066	1.00	3.10	0.047				NO		YES
15	8	PFPeS	349.>79.7		1028.801	1.00						NO		YES
16	9	HFPO-DA	285.1 > 168.9		2927.639	1.00						NO		YES
17	10	5:3 FTCA	340.9 > 236.9		14896.810	1.00						NO		YES
18	11	PFHpA	363.0 > 318.9	34.987	14896.810	1.00	3.70	0.029				NO		YES
19	12	ADONA	376.8 > 250.9	69.181	14896.810	1.00	3.76	0.058				NO		YES
20	57	13C2-PFHxA-EIS	315.0 > 270.0	16335.066		1.00	3.13	16335.066	12.500	9.38	75.0	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	1028.801		1.00	2.62	1028.801	12.500	9.41	75.3	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2927.639		1.00	3.34	2927.639	12.500	9.54	76.4	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	14896.810		1.00	3.72	14896.810	12.500	13.0	104.1	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	14896.810		1.00	3.72	14896.810	12.500	13.0	104.1	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	14896.810		1.00	3.72	14896.810	12.500	13.0	104.1	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7		3172.878	1.00						NO		YES
28	15	6:2 FTS	427.0 > 407		1583.183	1.00						NO		YES
29	16	L-PFOA	412.8 > 368.9	57.815	18932.484	1.00	4.23	0.038				NO	2.671	NO
30	18	PFecHS	460.8 > 381.0		18932.484	1.00						NO		YES
31	19	PFHpS	449.0 > 79.7		3559.960	1.00						NO		YES
32	20	7:3 FTCA	440.9 > 336.9		18295.316	1.00						NO		YES
33	61	13C3-PFHxS-EIS	401.8 > 79.7	3172.878		1.00	3.86	3172.878	12.500	13.7	109.3	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1583.183		1.00	4.17	1583.183	12.500	13.4	107.3	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	18932.484		1.00	4.23	18932.484	12.500	12.1	96.6	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	18932.484		1.00	4.23	18932.484	12.500	12.1	96.6	NO		

Dataset: Untitled

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Name: 200226P1-13, Date: 26-Feb-2020, Time: 18:44:12, 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	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	18295.316		1.00	4.67	18295.316	12.500	12.6	100.5	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	49.439	18295.316	1.00	4.63	0.034				NO		YES
41	22	PFOSA	497.9 > 77.9		4409.656	1.00						NO		YES
42	23	L-PFOS	498.9 > 79.7		3559.960	1.00						NO		YES
43	25	9Cl-PF30NS	530.7 > 350.8		3559.960	1.00						NO		YES
44	26	PFDA	513 > 468.8	82.174	20117.283	1.00	5.00	0.051				NO		YES
45	27	8:2 FTS	526.9 > 507		1107.433	1.00						NO		YES
46	65	13C5-PFNA-EIS	468.2 > 422.9	18295.316		1.00	4.67	18295.316	12.500	12.6	100.5	NO		
47	67	13C8-PFOSA-EIS	506 > 78	4409.656		1.00	4.73	4409.656	12.500	13.6	108.8	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	20117.283		1.00	5.04	20117.283	12.500	12.6	100.8	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1107.433		1.00	5.01	1107.433	12.500	12.1	96.6	NO		
52	-1													
53	28	PFNS	549.1 > 79.7		3559.960	1.00						NO		YES
54	29	L-MeFOSAA	570 > 419	7.412	4645.052	1.00	5.35	0.020				NO	0.709	YES
55	31	L-EtFOSAA	584.1 > 419	11.511	5640.693	1.00	5.33	0.026				NO	1.692	YES
56	33	PFUdA	563.0 > 518.9	114.832	19858.586	1.00	5.35	0.072		0.0497		NO		YES
57	34	PFDS	598.8 > 79.7		3559.960	1.00						NO		YES
58	35	11Cl-PF30UdS	630.9 > 450.9	6.595	17366.926	1.00	5.51	0.005		0.0133		NO		YES
59	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	4645.052		1.00	5.18	4645.052	12.500	11.7	93.4	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	5640.693		1.00	5.34	5640.693	12.500	11.6	92.4	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	19858.586		1.00	5.35	19858.586	12.500	12.2	97.7	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	17366.926		1.00	5.62	17366.926	12.500	11.9	95.4	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607		910.303	1.00						NO		YES
67	37	PFDoA	612.9 > 569.0	157.702	17366.926	1.00	5.78	0.114		0.107		NO		YES
68	38	N-MeFOSA	512.1 > 168.9	6.500	18836.236	1.00	5.79	0.051				NO		YES
69	39	PFTrDA	662.9 > 618.9	34.051	17366.926	1.00	5.83	0.025				NO		YES
70	40	PFDoS	698.8 > 79.7		20927.043	1.00						NO		YES
71	41	PFTeDA	713.0 > 669.0		20927.043	1.00						NO		YES
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	910.303		1.00	5.61	910.303	12.500	12.3	98.5	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	614.7 > 569.7	17366.926		1.00	5.62	17366.926	12.500	11.9	95.4	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	18836.236		1.00	5.78	18836.236	149.200	145	97.1	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	17366.926		1.00	5.62	17366.926	12.500	11.9	95.4	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	20927.043		1.00	6.07	20927.043	12.500	12.3	98.6	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	20927.043		1.00	6.07	20927.043	12.500	12.3	98.6	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	32.565	24080.246	1.00	6.14	0.202				NO	1.310	NO
80	43	PFHxDA	813.1 > 768.6	274.137	28108.848	1.00	6.40	0.122		0.0167		NO		YES
81	44	PFODA	913.1 > 868.8		28108.848	1.00						NO		
82	45	N-MeFOSE	616.1 > 58.9	19.937	16542.414	1.00	6.25	0.180				NO		
83	46	N-EtFOSE	630.1 > 58.9	11.327	19085.064	1.00	6.65	0.089				NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	24080.246		1.00	6.16	24080.246	149.200	148	98.9	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	28108.848		1.00	6.40	28108.848	12.500	12.2	97.9	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	28108.848		1.00	6.40	28108.848	12.500	12.2	97.9	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	16542.414		1.00	6.29	16542.414	149.200	147	98.2	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	19085.064		1.00	6.43	19085.064	149.200	138	92.7	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	3559.960		1.00	4.75	3559.960	12.500	12.7	101.7	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	3143.130	4060.526	1.00	1.43	9.676	12.500	12.1	96.5	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	7091.274	17278.338	1.00	2.35	5.130	12.500	8.76	70.1	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	1028.801	1204.354	1.00	2.62	10.678	12.500	9.42	75.3	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	2927.639	17278.338	1.00	3.34	2.118	12.500	12.7	101.9	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1162.245	1204.354	1.00	3.04	12.063	12.500	10.0	80.3	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	16335.066	17278.338	1.00	3.13	11.818	12.500	12.3	98.8	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	14896.810	17278.338	1.00	3.72	10.777	12.500	16.7	133.6	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	3172.878	1204.354	1.00	3.86	32.931	12.500	13.5	108.2	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1583.183	3692.422	1.00	4.17	5.360	12.500	14.0	112.0	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	18295.316	19788.295	1.00	4.67	11.557	12.500	12.3	98.5	NO		
101	68	13C8-PFOSA-RSD	506 > 78	4409.656	19006.791	1.00	4.73	2.900	12.500	14.5	115.9	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	18932.484	20629.463	1.00	4.23	11.472	12.500	12.7	101.7	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	3559.960	3692.422	1.00	4.75	12.052	12.500	13.1	104.7	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	20117.283	20965.924	1.00	5.04	11.994	12.500	11.9	95.1	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1107.433	3692.422	1.00	5.01	3.749	12.500	12.0	95.8	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	4645.052	19006.791	1.00	5.18	3.055	12.500	11.8	94.0	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	19858.586	19006.791	1.00	5.35	13.060	12.500	13.0	104.2	NO		

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	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	5640.693	19006.791	1.00	5.34	3.710	12.500	13.0	103.8	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	17366.926	20965.924	1.00	5.62	10.354	12.500	10.9	87.6	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	910.303	3692.422	1.00	5.61	3.082	12.500	13.1	104.7	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	18836.236	19006.791	1.00	5.78	12.388	149.200	154	103.2	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	20927.043	19006.791	1.00	6.07	13.763	12.500	13.4	107.4	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	24080.246	19006.791	1.00	6.16	15.837	149.200	161	108.1	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	28108.848	19006.791	1.00	6.40	18.486	12.500	12.3	98.3	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	16542.414	19006.791	1.00	6.29	10.879	149.200	153	102.4	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	19085.064	19006.791	1.00	6.43	12.551	149.200	150	100.3	NO		
119	99	13C4-PFBA	217.0 > 172.0	4060.526	4060.526	1.00	1.43	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	17278.338	17278.338	1.00	3.13	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	20629.463	20629.463	1.00	4.23	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	1204.354	1204.354	1.00	3.86	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	19788.295	19788.295	1.00	4.67	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	3692.422	3692.422	1.00	4.75	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	20965.924	20965.924	1.00	5.04	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	19006.791	19006.791	1.00	5.35	12.500	12.500	12.5	100.0	NO		

Quantify Compound Summary Report **MassLynx V4.2 SCN977**
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Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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low point
PFPeS : 0.5
L-PFOA : 0.5
PFecHs : 1.0
8:2 FTS : 0.5
L-EtFOSAA : 0.5

high point
3:3 FTCA : 100
PFBS : 250
PFPeS : 250
5:3 FTCA : 100
6:2 FTS : 250
7:3 FTCA : 100
L-PFOS : 250
9Cl : 250
PFNS : 250
PFUdA : 100
PFDS : 250

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022820.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:27:54

Compound name: PFBA
Coefficient of Determination: R^2 = 0.999014
Calibration curve: -7.26e-005 * x^2 + 1.20883 * x + 0.0539221
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200229P1-3	Standard	0.250	1.37	94.646	4139.773	0.286	0.2	-23.3	NO	0.999	NO	MM
2	2 200229P1-4	Standard	0.500	1.31	211.752	4309.036	0.614	0.5	-7.3	NO	0.999	NO	MM
3	3 200229P1-5	Standard	1.000	1.30	403.837	4180.249	1.208	1.0	-4.6	NO	0.999	NO	MM
4	4 200229P1-6	Standard	2.000	1.30	879.501	4088.781	2.689	2.2	9.0	NO	0.999	NO	bb
5	5 200229P1-7	Standard	5.000	1.30	2277.379	4116.687	6.915	5.7	13.6	NO	0.999	NO	bb
6	6 200229P1-8	Standard	10.000	1.30	4755.645	4436.269	13.400	11.0	10.5	NO	0.999	NO	bb
7	7 200229P1-9	Standard	50.000	1.30	23443.797	4751.110	61.680	51.1	2.3	NO	0.999	NO	bb
8	8 200229P1-10	Standard	100.000	1.30	42556.625	4287.231	124.080	103.2	3.2	NO	0.999	NO	bb
9	9 200229P1-11	Standard	250.000	1.30	106507.367	4673.336	284.880	239.1	-4.4	NO	0.999	NO	MM
10	10 200229P1-12	Standard	500.000	1.30	214322.000	4526.938	591.796	504.8	1.0	NO	0.999	NO	MM

Compound name: PFPrS
Coefficient of Determination: R^2 = 0.998898
Calibration curve: 0.000254058 * x^2 + 1.32918 * x + -0.0292731
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 200229P1-3	Standard	0.250	1.70	19.588	820.961	0.298	0.2	-1.4	NO	0.999	NO	MM
2	2 200229P1-4	Standard	0.500	1.64	44.455	845.774	0.657	0.5	3.3	NO	0.999	NO	MM
3	3 200229P1-5	Standard	1.000	1.63	64.387	872.793	0.922	0.7	-28.4	NO	0.999	NO	bb
4	4 200229P1-6	Standard	2.000	1.63	204.337	902.117	2.831	2.2	7.6	NO	0.999	NO	MM
5	5 200229P1-7	Standard	5.000	1.63	514.220	906.262	7.093	5.4	7.1	NO	0.999	NO	MM
6	6 200229P1-8	Standard	10.000	1.63	1066.701	933.362	14.286	10.7	7.5	NO	0.999	NO	MM
7	7 200229P1-9	Standard	50.000	1.63	5386.904	964.595	69.808	52.0	4.0	NO	0.999	NO	MM
8	8 200229P1-10	Standard	100.000	1.63	9743.902	862.402	141.232	104.2	4.2	NO	0.999	NO	db
9	9 200229P1-11	Standard	250.000	1.62	24163.613	911.534	331.359	238.4	-4.6	NO	0.999	NO	bb
10	10 200229P1-12	Standard	500.000	1.63	48351.422	822.291	735.011	504.4	0.9	NO	0.999	NO	bb

VY 03/02/20 VY 03/02/20

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Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.999514
Calibration curve: 5.29325e-005 * x^2 + 0.133561 * x + -0.00607305
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 200229P1-3	Standard	0.250	2.15	11.433	6932.076	0.021	0.2	-20.1	NO	1.000	NO	bb
2	2 200229P1-4	Standard	0.500	2.10	35.837	7600.224	0.059	0.5	-2.7	NO	1.000	NO	MM
3	3 200229P1-5	Standard	1.000	2.09	74.357	7425.095	0.125	1.0	-1.8	NO	1.000	NO	bb
4	4 200229P1-6	Standard	2.000	2.09	147.792	7302.792	0.253	1.9	-3.1	NO	1.000	NO	bb
5	5 200229P1-7	Standard	5.000	2.09	421.786	7351.109	0.717	5.4	8.1	NO	1.000	NO	bb
6	6 200229P1-8	Standard	10.000	2.09	884.177	8048.850	1.373	10.3	2.8	NO	1.000	NO	bd
7	7 200229P1-9	Standard	50.000	2.09	4424.747	8291.952	6.670	49.0	-1.9	NO	1.000	NO	bb
8	8 200229P1-10	Standard	100.000	2.09	8259.924	7406.676	13.940	100.4	0.4	NO	1.000	NO	bb
9	9 200229P1-11	Standard	250.000	2.09	4410.753	7815.998	7.054	51.8	-79.3	YES	1.000	NO	bbX
10	10 200229P1-12	Standard	500.000	2.09	8516.847	7376.919	14.432	103.8	-79.2	YES	1.000	NO	bbX

Compound name: PFPeA
Coefficient of Determination: R^2 = 0.999206
Calibration curve: -0.000124021 * x^2 + 0.964733 * x + 0.0392424
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 200229P1-3	Standard	0.250	2.30	142.939	6932.076	0.258	0.2	-9.4	NO	0.999	NO	bb
2	2 200229P1-4	Standard	0.500	2.24	302.978	7600.224	0.498	0.5	-4.8	NO	0.999	NO	bb
3	3 200229P1-5	Standard	1.000	2.23	691.985	7425.095	1.165	1.2	16.7	NO	0.999	NO	bb
4	4 200229P1-6	Standard	2.000	2.23	1219.628	7302.792	2.088	2.1	6.2	NO	0.999	NO	bb
5	5 200229P1-7	Standard	5.000	2.23	3070.264	7351.109	5.221	5.4	7.5	NO	0.999	NO	bb
6	6 200229P1-8	Standard	10.000	2.23	6051.646	8048.850	9.398	9.7	-2.9	NO	0.999	NO	bb
7	7 200229P1-9	Standard	50.000	2.23	32268.311	8291.952	48.644	50.7	1.4	NO	0.999	NO	bb
8	8 200229P1-10	Standard	100.000	2.23	59039.234	7406.676	99.639	104.6	4.6	NO	0.999	NO	bb
9	9 200229P1-11	Standard	250.000	2.23	140452.219	7815.998	224.623	240.2	-3.9	NO	0.999	NO	bb
10	10 200229P1-12	Standard	500.000	2.23	268451.750	7376.919	454.885	504.1	0.8	NO	0.999	NO	bb

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Compound name: PFBS
Coefficient of Determination: R^2 = 0.999497
Calibration curve: -0.00173094 * x^2 + 2.6513 * x + -0.251741
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 200229P1-3	Standard	0.250	2.56	21.934	820.961	0.334	0.2	-11.6	NO	0.999	NO	bb
2	2 200229P1-4	Standard	0.500	2.51	85.936	845.774	1.270	0.6	14.8	NO	0.999	NO	bb
3	3 200229P1-5	Standard	1.000	2.51	198.707	872.793	2.846	1.2	16.9	NO	0.999	NO	bb
4	4 200229P1-6	Standard	2.000	2.51	295.240	902.117	4.091	1.6	-18.0	NO	0.999	NO	bb
5	5 200229P1-7	Standard	5.000	2.51	907.905	906.262	12.523	4.8	-3.3	NO	0.999	NO	bb
6	6 200229P1-8	Standard	10.000	2.51	1983.074	933.362	26.558	10.2	1.8	NO	0.999	NO	bb
7	7 200229P1-9	Standard	50.000	2.51	9674.182	964.595	125.366	48.9	-2.1	NO	0.999	NO	bb
8	8 200229P1-10	Standard	100.000	2.51	17362.521	862.402	251.659	101.8	1.8	NO	0.999	NO	bb
9	9 200229P1-11	Standard	250.000	2.51	40346.090	911.534	553.272	249.4	-0.3	NO	0.999	NO	bb
10	10 200229P1-12	Standard	500.000	2.51	76220.852	822.291	1158.666			NO	0.999	NO	bbXI

Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.997493
Calibration curve: -0.000644207 * x^2 + 1.56988 * x + -0.0868661
Response type: Internal Std (Ref 55), 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 200229P1-3	Standard	0.250	2.99	30.327	1187.177	0.319	0.3	3.5	NO	0.997	NO	bb
2	2 200229P1-4	Standard	0.500	2.94	70.900	1295.567	0.684	0.5	-1.8	NO	0.997	NO	MM
3	3 200229P1-5	Standard	1.000	2.95	163.215	1334.430	1.529	1.0	3.0	NO	0.997	NO	bb
4	4 200229P1-6	Standard	2.000	2.95	313.085	1328.309	2.946	1.9	-3.3	NO	0.997	NO	bb
5	5 200229P1-7	Standard	5.000	2.95	878.025	1381.076	7.947	5.1	2.6	NO	0.997	NO	bb
6	6 200229P1-8	Standard	10.000	2.95	1695.004	1457.295	14.539	9.4	-6.5	NO	0.997	NO	bb
7	7 200229P1-9	Standard	50.000	2.95	8339.776	1409.845	73.942	48.1	-3.8	NO	0.997	NO	bb
8	8 200229P1-10	Standard	100.000	2.95	14579.963	1097.437	166.068	110.9	10.9	NO	0.997	NO	bb
9	9 200229P1-11	Standard	250.000	2.95	32704.459	1224.052	333.977	235.6	-5.8	NO	0.997	NO	bb
10	10 200229P1-12	Standard	500.000	2.95	57802.836	1146.782	630.055	506.8	1.4	NO	0.997	NO	bb

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Compound name: PFHxA
Correlation coefficient: r = 0.999611, r^2 = 0.999222
Calibration curve: 0.838943 * x + 0.10463
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	200229P1-3	Standard	0.250	3.08	349.415	12969.711	0.337	0.3	10.7	NO	0.999	NO	bd
2	2	200229P1-4	Standard	0.500	3.04	582.056	13837.118	0.526	0.5	0.4	NO	0.999	NO	bb
3	3	200229P1-5	Standard	1.000	3.03	1146.886	13536.680	1.059	1.1	13.8	NO	0.999	NO	db
4	4	200229P1-6	Standard	2.000	3.03	1978.944	13822.810	1.790	2.0	0.4	NO	0.999	NO	MM
5	5	200229P1-7	Standard	5.000	3.03	5096.759	14053.604	4.533	5.3	5.6	NO	0.999	NO	bb
6	6	200229P1-8	Standard	10.000	3.03	10900.467	14277.139	9.544	11.3	12.5	NO	0.999	NO	bb
7	7	200229P1-9	Standard	50.000	3.03	51793.414	14906.268	43.433	51.6	3.3	NO	0.999	NO	bb
8	8	200229P1-10	Standard	100.000	3.03	100280.344	14298.241	87.668	104.4	4.4	NO	0.999	NO	bb
9	9	200229P1-11	Standard	250.000	3.03	241584.609	14275.010	211.545	252.0	0.8	NO	0.999	NO	bb
10	10	200229P1-12	Standard	500.000	3.03	440424.688	13382.184	411.391	490.2	-2.0	NO	0.999	NO	bb

Compound name: PFPeS
Coefficient of Determination: R^2 = 0.999637
Calibration curve: -0.0030014 * x^2 + 2.79602 * x + -0.53413
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	200229P1-3	Standard	0.250	3.28	49.070	820.961	0.747	0.5	83.4	YES	1.000	NO	bbX
2	2	200229P1-4	Standard	0.500	3.23	47.983	845.774	0.709	0.4	-11.0	NO	1.000	NO	bb
3	3	200229P1-5	Standard	1.000	3.24	173.344	872.793	2.483	1.1	8.0	NO	1.000	NO	bb
4	4	200229P1-6	Standard	2.000	3.24	384.986	902.117	5.334	2.1	5.2	NO	1.000	NO	bb
5	5	200229P1-7	Standard	5.000	3.24	976.099	906.262	13.463	5.0	0.7	NO	1.000	NO	bb
6	6	200229P1-8	Standard	10.000	3.24	1989.886	933.362	26.649	9.8	-1.7	NO	1.000	NO	bb
7	7	200229P1-9	Standard	50.000	3.24	9867.755	964.595	127.874	48.4	-3.1	NO	1.000	NO	bb
8	8	200229P1-10	Standard	100.000	3.24	17541.797	862.402	254.258	102.4	2.4	NO	1.000	NO	bb
9	9	200229P1-11	Standard	250.000	3.24	37160.918	911.534	509.593	249.0	-0.4	NO	1.000	NO	bb
10	10	200229P1-12	Standard	500.000	3.24	64070.262	822.291	973.960			NO	1.000	NO	bbXl

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Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.998793
Calibration curve: -0.000153928 * x^2 + 1.05532 * x + 0.0533749
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 200229P1-3	Standard	0.250	3.30	61.112	2938.399	0.260	0.2	-21.7	NO	0.999	NO	bb
2	2 200229P1-4	Standard	0.500	3.25	152.516	3165.362	0.602	0.5	4.0	NO	0.999	NO	bb
3	3 200229P1-5	Standard	1.000	3.25	308.286	3256.216	1.183	1.1	7.1	NO	0.999	NO	bb
4	4 200229P1-6	Standard	2.000	3.25	604.389	3195.763	2.364	2.2	9.5	NO	0.999	NO	bb
5	5 200229P1-7	Standard	5.000	3.25	1531.231	3199.245	5.983	5.6	12.5	NO	0.999	NO	bb
6	6 200229P1-8	Standard	10.000	3.25	3186.829	3569.769	11.159	10.5	5.4	NO	0.999	NO	bb
7	7 200229P1-9	Standard	50.000	3.25	16035.869	3698.668	54.195	51.7	3.4	NO	0.999	NO	bb
8	8 200229P1-10	Standard	100.000	3.25	29324.770	3388.342	108.183	104.0	4.0	NO	0.999	NO	bb
9	9 200229P1-11	Standard	250.000	3.25	69593.047	3600.825	241.587	237.1	-5.2	NO	0.999	NO	bb
10	10 200229P1-12	Standard	500.000	3.25	126039.156	3185.709	494.549	505.9	1.2	NO	0.999	NO	bb

Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999659
Calibration curve: -0.000139609 * x^2 + 0.346434 * x + -0.000467738
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 200229P1-3	Standard	0.250	3.63	40.649	7163.202	0.071	0.2	-17.6	NO	1.000	NO	bb
2	2 200229P1-4	Standard	0.500	3.58	123.961	8080.123	0.192	0.6	11.0	NO	1.000	NO	bb
3	3 200229P1-5	Standard	1.000	3.58	217.673	8198.353	0.332	1.0	-4.0	NO	1.000	NO	bb
4	4 200229P1-6	Standard	2.000	3.58	460.727	7707.320	0.747	2.2	8.0	NO	1.000	NO	bb
5	5 200229P1-7	Standard	5.000	3.58	1041.328	7435.883	1.751	5.1	1.3	NO	1.000	NO	bb
6	6 200229P1-8	Standard	10.000	3.58	2301.112	8126.255	3.540	10.3	2.6	NO	1.000	NO	bb
7	7 200229P1-9	Standard	50.000	3.58	11186.093	8382.969	16.680	49.1	-1.8	NO	1.000	NO	bb
8	8 200229P1-10	Standard	100.000	3.58	21153.363	7920.969	33.382	100.4	0.4	NO	1.000	NO	bb
9	9 200229P1-11	Standard	250.000	3.58	11218.321	8410.690	16.673	49.1	-80.4	YES	1.000	NO	bbX
10	10 200229P1-12	Standard	500.000	3.58	21343.998	6866.574	38.855	117.7	-76.5	YES	1.000	NO	bbX

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Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998543
Calibration curve: -2.80604e-005 * x^2 + 1.20464 * x + 0.137234
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 200229P1-3	Standard	0.250	3.69	208.212	7163.202	0.363	0.2	-24.9	NO	0.999	NO	db
2	2 200229P1-4	Standard	0.500	3.64	405.564	8080.123	0.627	0.4	-18.6	NO	0.999	NO	bd
3	3 200229P1-5	Standard	1.000	3.64	885.299	8198.353	1.350	1.0	0.7	NO	0.999	NO	bb
4	4 200229P1-6	Standard	2.000	3.64	1699.861	7707.320	2.757	2.2	8.7	NO	0.999	NO	bb
5	5 200229P1-7	Standard	5.000	3.64	4216.457	7435.883	7.088	5.8	15.4	NO	0.999	NO	bb
6	6 200229P1-8	Standard	10.000	3.64	9129.807	8126.255	14.044	11.5	15.5	NO	0.999	NO	bb
7	7 200229P1-9	Standard	50.000	3.64	42412.613	8382.969	63.242	52.4	4.9	NO	0.999	NO	bb
8	8 200229P1-10	Standard	100.000	3.64	78051.211	7920.969	123.172	102.4	2.4	NO	0.999	NO	bb
9	9 200229P1-11	Standard	250.000	3.64	191179.797	8410.690	284.132	237.1	-5.2	NO	0.999	NO	bb
10	10 200229P1-12	Standard	500.000	3.64	330822.906	6866.574	602.234	505.8	1.2	NO	0.999	NO	bb

Compound name: ADONA
Coefficient of Determination: R^2 = 0.994634
Calibration curve: 0.000465383 * x^2 + 3.05822 * x + 0.398385
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 200229P1-3	Standard	0.250	3.79	604.380	7163.202	1.055	0.2	-14.2	NO	0.995	NO	bb
2	2 200229P1-4	Standard	0.500	3.75	1282.813	8080.123	1.985	0.5	3.7	NO	0.995	NO	bb
3	3 200229P1-5	Standard	1.000	3.75	2142.690	8198.353	3.267	0.9	-6.2	NO	0.995	NO	bb
4	4 200229P1-6	Standard	2.000	3.75	4557.876	7707.320	7.392	2.3	14.3	NO	0.995	NO	bb
5	5 200229P1-7	Standard	5.000	3.75	11549.985	7435.883	19.416	6.2	24.3	NO	0.995	NO	bb
6	6 200229P1-8	Standard	10.000	3.75	24037.303	8126.255	36.975	11.9	19.4	NO	0.995	NO	bb
7	7 200229P1-9	Standard	50.000	3.75	118068.039	8382.969	176.053	56.9	13.9	NO	0.995	NO	bb
8	8 200229P1-10	Standard	100.000	3.75	207290.500	7920.969	327.123	105.2	5.2	NO	0.995	NO	bb
9	9 200229P1-11	Standard	250.000	3.75	477001.469	8410.690	708.921	224.0	-10.4	NO	0.995	NO	bb
10	10 200229P1-12	Standard	500.000	3.75	924430.438	6866.574	1682.845	510.5	2.1	NO	0.995	NO	bb

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Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.998679
Calibration curve: -0.000251852 * x^2 + 1.09858 * x + -0.145925
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 200229P1-3	Standard	0.250	3.81	15.441	2137.160	0.090	0.2	-14.0	NO	0.999	NO	MM
2	2 200229P1-4	Standard	0.500	3.78	94.435	2128.375	0.555	0.6	27.6	NO	0.999	NO	bb
3	3 200229P1-5	Standard	1.000	3.78	151.786	2158.272	0.879	0.9	-6.7	NO	0.999	NO	MM
4	4 200229P1-6	Standard	2.000	3.78	327.413	2173.002	1.883	1.8	-7.6	NO	0.999	NO	MM
5	5 200229P1-7	Standard	5.000	3.78	907.067	2162.301	5.244	4.9	-1.8	NO	0.999	NO	MM
6	6 200229P1-8	Standard	10.000	3.78	2010.526	2119.048	11.860	11.0	9.6	NO	0.999	NO	MM
7	7 200229P1-9	Standard	50.000	3.78	9312.389	2303.492	50.534	46.6	-6.7	NO	0.999	NO	MM
8	8 200229P1-10	Standard	100.000	3.78	17531.781	2129.199	102.925	95.9	-4.1	NO	0.999	NO	MM
9	9 200229P1-11	Standard	250.000	3.78	40465.563	1869.943	270.500	262.1	4.8	NO	0.999	NO	MM
10	10 200229P1-12	Standard	500.000	3.78	74020.875	1921.595	481.507	494.5	-1.1	NO	0.999	NO	MM

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.999738
Calibration curve: -0.00207235 * x^2 + 2.19851 * x + -0.0932146
Response type: Internal Std (Ref 63), 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 200229P1-3	Standard	0.250	4.13	48.051	1091.834	0.550	0.3	17.1	NO	1.000	NO	bb
2	2 200229P1-4	Standard	0.500	4.10	64.253	1144.814	0.702	0.4	-27.7	NO	1.000	NO	bb
3	3 200229P1-5	Standard	1.000	4.10	190.548	1134.689	2.099	1.0	-0.2	NO	1.000	NO	bb
4	4 200229P1-6	Standard	2.000	4.10	417.770	1100.729	4.744	2.2	10.2	NO	1.000	NO	bb
5	5 200229P1-7	Standard	5.000	4.10	1138.620	1302.586	10.927	5.0	0.7	NO	1.000	NO	bb
6	6 200229P1-8	Standard	10.000	4.10	2024.160	1160.524	21.802	10.1	0.5	NO	1.000	NO	bb
7	7 200229P1-9	Standard	50.000	4.10	10165.970	1227.868	103.492	49.4	-1.2	NO	1.000	NO	bb
8	8 200229P1-10	Standard	100.000	4.10	18183.869	1137.185	199.878	100.5	0.5	NO	1.000	NO	bb
9	9 200229P1-11	Standard	250.000	4.10	40211.867	1197.070	419.899	249.9	-0.0	NO	1.000	NO	bb
10	10 200229P1-12	Standard	500.000	4.10	70208.258	1095.448	801.136			NO	1.000	NO	bbXI

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Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999566
Calibration curve: -0.000173152 * x^2 + 1.19871 * x + 0.255567
Response type: Internal Std (Ref 69), 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 200229P1-3	Standard	0.250	4.19	308.776	11289.896	0.342	0.1	-71.2	YES	1.000	NO	bbX
2	2 200229P1-4	Standard	0.500	4.15	790.308	11847.828	0.834	0.5	-3.5	NO	1.000	NO	MM
3	3 200229P1-5	Standard	1.000	4.15	1268.657	12103.008	1.310	0.9	-12.0	NO	1.000	NO	dd
4	4 200229P1-6	Standard	2.000	4.15	2277.503	11279.954	2.524	1.9	-5.4	NO	1.000	NO	bb
5	5 200229P1-7	Standard	5.000	4.15	6581.798	11810.525	6.966	5.6	12.1	NO	1.000	NO	bb
6	6 200229P1-8	Standard	10.000	4.15	13282.319	12752.723	13.019	10.7	6.6	NO	1.000	NO	bb
7	7 200229P1-9	Standard	50.000	4.15	65298.836	13027.886	62.653	52.5	4.9	NO	1.000	NO	bb
8	8 200229P1-10	Standard	100.000	4.15	113462.055	12148.066	116.749	98.6	-1.4	NO	1.000	NO	bb
9	9 200229P1-11	Standard	250.000	4.15	259731.891	11426.523	284.133	245.5	-1.8	NO	1.000	NO	bb
10	10 200229P1-12	Standard	500.000	4.15	473524.969	10591.959	558.826	502.4	0.5	NO	1.000	NO	bb

Compound name: PFecHS
Coefficient of Determination: R^2 = 0.999692
Calibration curve: -2.49656e-005 * x^2 + 0.189183 * x + -0.0174813
Response type: Internal Std (Ref 69), 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 200229P1-3	Standard	0.250	4.21	26.235	11289.896	0.029	0.2	-1.6	NO	1.000	NO	bbX
2	2 200229P1-4	Standard	0.500	4.16	108.982	11847.828	0.115	0.7	40.0	YES	1.000	NO	bbX
3	3 200229P1-5	Standard	1.000	4.18	116.150	12103.008	0.120	0.7	-27.3	NO	1.000	NO	bb
4	4 200229P1-6	Standard	2.000	4.17	360.462	11279.954	0.399	2.2	10.2	NO	1.000	NO	bb
5	5 200229P1-7	Standard	5.000	4.16	1024.069	11810.525	1.084	5.8	16.5	NO	1.000	NO	bb
6	6 200229P1-8	Standard	10.000	4.17	1939.337	12752.723	1.901	10.2	1.5	NO	1.000	NO	bb
7	7 200229P1-9	Standard	50.000	4.17	9795.409	13027.886	9.399	50.1	0.2	NO	1.000	NO	dd
8	8 200229P1-10	Standard	100.000	4.17	17927.109	12148.066	18.446	98.9	-1.1	NO	1.000	NO	bb
9	9 200229P1-11	Standard	250.000	4.17	41748.992	11426.523	45.671	249.7	-0.1	NO	1.000	NO	bb
10	10 200229P1-12	Standard	500.000	4.17	74900.320	10591.959	88.393	500.4	0.1	NO	1.000	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.992382
Calibration curve: -0.00118396 * x^2 + 1.15176 * x + -0.0858055
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 200229P1-3	Standard	0.250	4.30	46.991	2261.978	0.260	0.3	20.0	NO	0.992	NO	bb
2	2 200229P1-4	Standard	0.500	4.27	73.476	2325.863	0.395	0.4	-16.5	NO	0.992	NO	bb
3	3 200229P1-5	Standard	1.000	4.27	189.268	2477.304	0.955	0.9	-9.5	NO	0.992	NO	bb
4	4 200229P1-6	Standard	2.000	4.27	417.420	2306.226	2.262	2.0	2.2	NO	0.992	NO	bb
5	5 200229P1-7	Standard	5.000	4.27	977.092	2402.780	5.083	4.5	-9.8	NO	0.992	NO	bb
6	6 200229P1-8	Standard	10.000	4.27	2060.569	2452.425	10.503	9.3	-7.2	NO	0.992	NO	bb
7	7 200229P1-9	Standard	50.000	4.27	10730.175	2732.857	49.079	44.7	-10.5	NO	0.992	NO	bb
8	8 200229P1-10	Standard	100.000	4.27	18228.328	2378.871	95.782	91.9	-8.1	NO	0.992	NO	bb
9	9 200229P1-11	Standard	250.000	4.27	42689.574	2237.110	238.531	299.2	19.7	NO	0.992	NO	bb
10	10 200229P1-12	Standard	500.000	4.27	79251.961	3675.494	269.528	392.3	-21.5	NO	0.992	NO	MM

Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.997113
Calibration curve: -6.34032e-005 * x^2 + 0.250677 * x + -0.0155274
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 200229P1-3	Standard	0.250	4.61	24.957	10161.933	0.031	0.2	-26.2	NO	0.997	NO	bb
2	2 200229P1-4	Standard	0.500	4.59	126.088	11226.779	0.140	0.6	24.4	NO	0.997	NO	MM
3	3 200229P1-5	Standard	1.000	4.59	160.561	11836.420	0.170	0.7	-26.2	NO	0.997	NO	bb
4	4 200229P1-6	Standard	2.000	4.59	471.500	11022.959	0.535	2.2	9.8	NO	0.997	NO	bb
5	5 200229P1-7	Standard	5.000	4.59	1248.681	10822.433	1.442	5.8	16.5	NO	0.997	NO	bb
6	6 200229P1-8	Standard	10.000	4.59	2439.564	11607.460	2.627	10.6	5.7	NO	0.997	NO	bb
7	7 200229P1-9	Standard	50.000	4.59	11810.681	12599.075	11.718	47.4	-5.3	NO	0.997	NO	bb
8	8 200229P1-10	Standard	100.000	4.59	21920.537	11087.045	24.714	101.2	1.2	NO	0.997	NO	bb
9	9 200229P1-11	Standard	250.000	4.59	11221.673	10811.774	12.974	52.5	-79.0	YES	0.997	NO	bbX
10	10 200229P1-12	Standard	500.000	4.59	21694.736	10452.676	25.944	106.4	-78.7	YES	0.997	NO	bbX

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Compound name: PFNA
Correlation coefficient: r = 0.999204, r^2 = 0.998408
Calibration curve: 1.1206 * x + 0.0471681
Response type: Internal Std (Ref 65), 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 200229P1-3	Standard	0.250	4.63	223.909	10161.933	0.275	0.2	-18.5	NO	0.998	NO	bb
2	2 200229P1-4	Standard	0.500	4.60	537.710	11226.779	0.599	0.5	-1.6	NO	0.998	NO	bb
3	3 200229P1-5	Standard	1.000	4.60	1005.383	11836.420	1.062	0.9	-9.5	NO	0.998	NO	bb
4	4 200229P1-6	Standard	2.000	4.60	2199.030	11022.959	2.494	2.2	9.2	NO	0.998	NO	bd
5	5 200229P1-7	Standard	5.000	4.60	5876.302	10822.433	6.787	6.0	20.3	NO	0.998	NO	bb
6	6 200229P1-8	Standard	10.000	4.60	11555.718	11607.460	12.444	11.1	10.6	NO	0.998	NO	bb
7	7 200229P1-9	Standard	50.000	4.60	56232.000	12599.075	55.790	49.7	-0.5	NO	0.998	NO	bb
8	8 200229P1-10	Standard	100.000	4.60	107337.531	11087.045	121.017	108.0	8.0	NO	0.998	NO	bb
9	9 200229P1-11	Standard	250.000	4.60	246363.016	10811.774	284.832	254.1	1.7	NO	0.998	NO	bb
10	10 200229P1-12	Standard	500.000	4.60	455505.594	10452.676	544.724	486.1	-2.8	NO	0.998	NO	bb

Compound name: PFOSA
Coefficient of Determination: R^2 = 0.998244
Calibration curve: -0.000135417 * x^2 + 0.853196 * x + 0.0420568
Response type: Internal Std (Ref 67), 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 200229P1-3	Standard	0.250	4.70	43.616	2845.449	0.192	0.2	-29.9	NO	0.998	NO	bb
2	2 200229P1-4	Standard	0.500	4.65	100.354	3236.567	0.388	0.4	-19.0	NO	0.998	NO	bb
3	3 200229P1-5	Standard	1.000	4.65	246.582	3403.331	0.906	1.0	1.2	NO	0.998	NO	bb
4	4 200229P1-6	Standard	2.000	4.65	474.219	2969.843	1.996	2.3	14.5	NO	0.998	NO	bb
5	5 200229P1-7	Standard	5.000	4.65	1304.079	3111.854	5.238	6.1	21.9	NO	0.998	NO	bb
6	6 200229P1-8	Standard	10.000	4.66	2703.150	3688.936	9.160	10.7	7.0	NO	0.998	NO	bb
7	7 200229P1-9	Standard	50.000	4.66	12525.685	3506.720	44.649	52.7	5.4	NO	0.998	NO	bb
8	8 200229P1-10	Standard	100.000	4.66	23667.334	3414.109	86.653	103.2	3.2	NO	0.998	NO	bb
9	9 200229P1-11	Standard	250.000	4.65	54551.492	3527.968	193.282	235.3	-5.9	NO	0.998	NO	bb
10	10 200229P1-12	Standard	500.000	4.66	101267.469	3182.081	397.804	507.0	1.4	NO	0.998	NO	bb

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Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999770
Calibration curve: -5.78438e-005 * x^2 + 0.977835 * x + -0.0758606
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	200229P1-3	Standard	0.250	4.72	23.166	2261.978	0.128	0.2	-16.6	NO	1.000	NO	MM
2	2	200229P1-4	Standard	0.500	4.68	101.448	2325.863	0.545	0.6	27.0	NO	1.000	NO	MM
3	3	200229P1-5	Standard	1.000	4.68	162.744	2477.304	0.821	0.9	-8.3	NO	1.000	NO	MM
4	4	200229P1-6	Standard	2.000	4.68	328.852	2306.226	1.782	1.9	-5.0	NO	1.000	NO	MM
5	5	200229P1-7	Standard	5.000	4.68	985.342	2402.780	5.126	5.3	6.4	NO	1.000	NO	MM
6	6	200229P1-8	Standard	10.000	4.69	1831.966	2452.425	9.338	9.6	-3.7	NO	1.000	NO	MM
7	7	200229P1-9	Standard	50.000	4.69	10602.898	2732.857	48.497	49.8	-0.4	NO	1.000	NO	MM
8	8	200229P1-10	Standard	100.000	4.69	18567.559	2378.871	97.565	100.5	0.5	NO	1.000	NO	MM
9	9	200229P1-11	Standard	250.000	4.69	43066.508	2237.110	240.637	249.9	-0.1	NO	1.000	NO	MM
10	10	200229P1-12	Standard	500.000	4.69	80293.016	3675.494	273.069	284.1	-43.2	YES	1.000	NO	MMX

Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.996808
Calibration curve: 4.27072e-005 * x^2 + 1.54969 * x + -0.000241627
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	200229P1-3	Standard	0.250	4.93	55.994	2261.978	0.309	0.2	-20.1	NO	0.997	NO	bb
2	2	200229P1-4	Standard	0.500	4.92	109.825	2325.863	0.590	0.4	-23.8	NO	0.997	NO	bb
3	3	200229P1-5	Standard	1.000	4.91	306.936	2477.304	1.549	1.0	-0.0	NO	0.997	NO	bb
4	4	200229P1-6	Standard	2.000	4.91	731.539	2306.226	3.965	2.6	27.9	NO	0.997	NO	bb
5	5	200229P1-7	Standard	5.000	4.91	1623.493	2402.780	8.446	5.4	9.0	NO	0.997	NO	bb
6	6	200229P1-8	Standard	10.000	4.91	3493.994	2452.425	17.809	11.5	14.9	NO	0.997	NO	bb
7	7	200229P1-9	Standard	50.000	4.91	14966.275	2732.857	68.455	44.1	-11.8	NO	0.997	NO	bb
8	8	200229P1-10	Standard	100.000	4.91	30783.041	2378.871	161.752	104.1	4.1	NO	0.997	NO	bb
9	9	200229P1-11	Standard	250.000	4.91	69665.977	2237.110	389.263	249.5	-0.2	NO	0.997	NO	bb
10	10	200229P1-12	Standard	500.000	4.91	132408.359	3675.494	450.308	288.3	-42.3	YES	0.997	NO	MMX

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.997454
Calibration curve: -1.7216e-005 * x^2 + 1.30956 * x + 0.0697503
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 200229P1-3	Standard	0.250	5.01	277.529	11459.666	0.303	0.2	-28.8	NO	0.997	NO	bb
2	2 200229P1-4	Standard	0.500	4.98	785.704	12428.431	0.790	0.6	10.0	NO	0.997	NO	bb
3	3 200229P1-5	Standard	1.000	4.98	1471.115	12512.931	1.470	1.1	6.9	NO	0.997	NO	bb
4	4 200229P1-6	Standard	2.000	4.98	2732.304	12248.468	2.788	2.1	3.8	NO	0.997	NO	bb
5	5 200229P1-7	Standard	5.000	4.98	7398.540	12133.270	7.622	5.8	15.4	NO	0.997	NO	bb
6	6 200229P1-8	Standard	10.000	4.98	13890.864	12376.774	14.029	10.7	6.6	NO	0.997	NO	bb
7	7 200229P1-9	Standard	50.000	4.98	73337.297	12924.905	70.926	54.1	8.3	NO	0.997	NO	bb
8	8 200229P1-10	Standard	100.000	4.98	137101.266	12469.418	137.438	105.0	5.0	NO	0.997	NO	bb
9	9 200229P1-11	Standard	250.000	4.98	291324.750	12054.813	302.083	231.3	-7.5	NO	0.997	NO	bb
10	10 200229P1-12	Standard	500.000	4.98	559387.750	10581.484	660.810	507.9	1.6	NO	0.997	NO	bb

Compound name: 8:2 FTS
Correlation coefficient: r = 0.997040, r^2 = 0.994088
Calibration curve: 1.86851 * x + -0.58767
Response type: Internal Std (Ref 75), 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 200229P1-3	Standard	0.250	4.97	24.056	895.027	0.336	0.5	97.7	YES	0.994	NO	bbX
2	2 200229P1-4	Standard	0.500	4.96	36.601	936.199	0.489	0.6	15.2	NO	0.994	NO	bb
3	3 200229P1-5	Standard	1.000	4.96	84.153	1001.024	1.051	0.9	-12.3	NO	0.994	NO	bb
4	4 200229P1-6	Standard	2.000	4.95	252.987	968.505	3.265	2.1	3.1	NO	0.994	NO	bb
5	5 200229P1-7	Standard	5.000	4.95	597.873	908.851	8.223	4.7	-5.7	NO	0.994	NO	bb
6	6 200229P1-8	Standard	10.000	4.95	1277.799	1055.189	15.137	8.4	-15.8	NO	0.994	NO	bb
7	7 200229P1-9	Standard	50.000	4.95	7651.411	861.114	111.068	59.8	19.5	NO	0.994	NO	bb
8	8 200229P1-10	Standard	100.000	4.95	12949.323	881.059	183.718	98.6	-1.4	NO	0.994	NO	bb
9	9 200229P1-11	Standard	250.000	4.95	27555.625	758.161	454.317	243.5	-2.6	NO	0.994	NO	bb
10	10 200229P1-12	Standard	500.000	4.95	45034.965	861.122	653.725	350.2	-30.0	NO	0.994	NO	bbX

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Compound name: PFNS
Coefficient of Determination: R^2 = 0.999120
Calibration curve: -7.6989e-005 * x^2 + 0.946618 * x + -0.154527
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 200229P1-3	Standard	0.250	5.07	10.855	2261.978	0.060	0.2	-9.4	NO	0.999	NO	bd
2	2 200229P1-4	Standard	0.500	5.05	37.690	2325.863	0.203	0.4	-24.6	NO	0.999	NO	bb
3	3 200229P1-5	Standard	1.000	5.04	167.546	2477.304	0.845	1.1	5.6	NO	0.999	NO	bb
4	4 200229P1-6	Standard	2.000	5.05	346.778	2306.226	1.880	2.1	7.5	NO	0.999	NO	bb
5	5 200229P1-7	Standard	5.000	5.04	975.530	2402.780	5.075	5.5	10.5	NO	0.999	NO	bb
6	6 200229P1-8	Standard	10.000	5.04	2081.971	2452.425	10.612	11.4	13.8	NO	0.999	NO	bb
7	7 200229P1-9	Standard	50.000	5.05	10052.249	2732.857	45.979	48.9	-2.1	NO	0.999	NO	bb
8	8 200229P1-10	Standard	100.000	5.05	17523.584	2378.871	92.079	98.2	-1.8	NO	0.999	NO	bb
9	9 200229P1-11	Standard	250.000	5.04	41608.305	2237.110	232.489	250.9	0.4	NO	0.999	NO	bb
10	10 200229P1-12	Standard	500.000	5.04	71504.047	3675.494	243.178	262.7	-47.5	YES	0.999	NO	MMX

Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.998610
Calibration curve: -0.000634818 * x^2 + 1.62895 * x + -0.0773097
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 200229P1-3	Standard	0.250	5.16	111.419	3168.347	0.440	0.3	26.9	NO	0.999	NO	MM
2	2 200229P1-4	Standard	0.500	5.13	208.371	3570.328	0.730	0.5	-0.9	NO	0.999	NO	MM
3	3 200229P1-5	Standard	1.000	5.14	365.844	3577.611	1.278	0.8	-16.8	NO	0.999	NO	MM
4	4 200229P1-6	Standard	2.000	5.13	840.374	3852.686	2.727	1.7	-13.9	NO	0.999	NO	MM
5	5 200229P1-7	Standard	5.000	5.13	1951.194	3518.992	6.931	4.3	-13.8	NO	0.999	NO	MM
6	6 200229P1-8	Standard	10.000	5.13	4554.669	3573.122	15.934	9.9	-1.3	NO	0.999	NO	MM
7	7 200229P1-9	Standard	50.000	5.14	22312.563	3680.932	75.771	47.4	-5.1	NO	0.999	NO	MM
8	8 200229P1-10	Standard	100.000	5.13	43021.992	3193.711	168.386	108.0	8.0	NO	0.999	NO	MM
9	9 200229P1-11	Standard	250.000	5.13	97589.406	3393.035	359.521	243.9	-2.4	NO	0.999	NO	MM
10	10 200229P1-12	Standard	500.000	5.13	178359.297	3389.770	657.712	502.0	0.4	NO	0.999	NO	MM

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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022820.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:27:54

Compound name: L-EtFOSAA
Coefficient of Determination: R^2 = 0.996768
Calibration curve: -9.38021e-005 * x^2 + 1.07916 * x + -0.0261113
Response type: Internal Std (Ref 81), 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	200229P1-3	Standard	0.250	5.31	128.793	4145.440	0.388	0.4	53.6	YES	0.997	NO	bbX
2	2	200229P1-4	Standard	0.500	5.29	142.696	4293.098	0.415	0.4	-18.2	NO	0.997	NO	MM
3	3	200229P1-5	Standard	1.000	5.29	381.581	4520.519	1.055	1.0	0.2	NO	0.997	NO	MM
4	4	200229P1-6	Standard	2.000	5.29	719.047	4202.519	2.139	2.0	0.3	NO	0.997	NO	MM
5	5	200229P1-7	Standard	5.000	5.29	1901.267	4423.989	5.372	5.0	0.1	NO	0.997	NO	MM
6	6	200229P1-8	Standard	10.000	5.29	4132.181	4707.402	10.973	10.2	2.0	NO	0.997	NO	MM
7	7	200229P1-9	Standard	50.000	5.29	20826.189	4377.257	59.473	55.4	10.8	NO	0.997	NO	MM
8	8	200229P1-10	Standard	100.000	5.29	36452.984	4002.260	113.851	106.5	6.5	NO	0.997	NO	MM
9	9	200229P1-11	Standard	250.000	5.29	83074.375	4287.272	242.212	229.0	-8.4	NO	0.997	NO	MM
10	10	200229P1-12	Standard	500.000	5.29	142031.844	3381.788	524.988	509.0	1.8	NO	0.997	NO	MM

Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999416
Calibration curve: -0.00155432 * x^2 + 1.06125 * x + -0.0557055
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	200229P1-3	Standard	0.250	5.33	195.031	15143.614	0.161	0.2	-18.3	NO	0.999	NO	bb
2	2	200229P1-4	Standard	0.500	5.31	767.553	15612.996	0.615	0.6	26.4	NO	0.999	NO	bb
3	3	200229P1-5	Standard	1.000	5.31	1317.222	16250.042	1.013	1.0	0.9	NO	0.999	NO	bb
4	4	200229P1-6	Standard	2.000	5.31	2333.510	15155.739	1.925	1.9	-6.4	NO	0.999	NO	bb
5	5	200229P1-7	Standard	5.000	5.31	6479.982	15577.516	5.200	5.0	-0.2	NO	0.999	NO	bb
6	6	200229P1-8	Standard	10.000	5.30	12532.446	15605.015	10.039	9.6	-3.5	NO	0.999	NO	bb
7	7	200229P1-9	Standard	50.000	5.31	63546.410	15930.297	49.863	50.8	1.6	NO	0.999	NO	bb
8	8	200229P1-10	Standard	100.000	5.31	119669.289	16584.908	90.194	99.6	-0.4	NO	0.999	NO	bb
9	9	200229P1-11	Standard	250.000	5.31	269492.781	15402.601	218.707			NO	0.999	NO	bbXI
10	10	200229P1-12	Standard	500.000	5.31	476195.688	14392.195	413.588			NO	0.999	NO	bbXI

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Compound name: PFDS
Coefficient of Determination: R^2 = 0.997825
Calibration curve: 7.28117e-005 * x^2 + 0.883279 * x + -0.0867867
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	200229P1-3	Standard	0.250	5.38	27.263	2261.978	0.151	0.3	7.5	NO	0.998	NO	MM
2	2	200229P1-4	Standard	0.500	5.36	55.813	2325.863	0.300	0.4	-12.4	NO	0.998	NO	bb
3	3	200229P1-5	Standard	1.000	5.36	120.383	2477.304	0.607	0.8	-21.4	NO	0.998	NO	bb
4	4	200229P1-6	Standard	2.000	5.35	307.243	2306.226	1.665	2.0	-0.8	NO	0.998	NO	bb
5	5	200229P1-7	Standard	5.000	5.35	923.723	2402.780	4.805	5.5	10.7	NO	0.998	NO	bb
6	6	200229P1-8	Standard	10.000	5.35	2113.333	2452.425	10.772	12.3	22.8	NO	0.998	NO	bb
7	7	200229P1-9	Standard	50.000	5.35	8960.991	2732.857	40.987	46.3	-7.4	NO	0.998	NO	bb
8	8	200229P1-10	Standard	100.000	5.35	17076.529	2378.871	89.730	100.8	0.8	NO	0.998	NO	bb
9	9	200229P1-11	Standard	250.000	5.35	40365.438	2237.110	225.545	250.3	0.1	NO	0.998	NO	bb
10	10	200229P1-12	Standard	500.000	5.35	70369.820	3675.494	239.321	265.2	-47.0	YES	0.998	NO	MMX

Compound name: 11Cl-PF30UdS
Coefficient of Determination: R^2 = 0.999727
Calibration curve: -0.000120038 * x^2 + 0.417922 * x + 0.0152764
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	200229P1-3	Standard	0.250	5.53	128.681	15810.315	0.102	0.2	-17.2	NO	1.000	NO	bb
2	2	200229P1-4	Standard	0.500	5.52	295.750	18056.061	0.205	0.5	-9.3	NO	1.000	NO	bb
3	3	200229P1-5	Standard	1.000	5.52	612.062	16516.145	0.463	1.1	7.2	NO	1.000	NO	bb
4	4	200229P1-6	Standard	2.000	5.51	1132.650	16635.623	0.851	2.0	0.1	NO	1.000	NO	bb
5	5	200229P1-7	Standard	5.000	5.52	2982.705	15677.705	2.378	5.7	13.3	NO	1.000	NO	bb
6	6	200229P1-8	Standard	10.000	5.52	6231.536	17525.113	4.445	10.6	6.3	NO	1.000	NO	bb
7	7	200229P1-9	Standard	50.000	5.52	30787.193	18324.189	21.002	51.0	1.9	NO	1.000	NO	bb
8	8	200229P1-10	Standard	100.000	5.52	55729.688	17453.809	39.912	98.2	-1.8	NO	1.000	NO	bb
9	9	200229P1-11	Standard	250.000	5.52	129477.945	16796.951	96.355	248.2	-0.7	NO	1.000	NO	bb
10	10	200229P1-12	Standard	500.000	5.52	230575.813	16067.748	179.378	501.4	0.3	NO	1.000	NO	bb

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Compound name: 10:2 FTS
Coefficient of Determination: R^2 = 0.999120
Calibration curve: -0.00116944 * x^2 + 2.16156 * x + -0.11312
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	200229P1-3	Standard	0.250	5.60	29.078	863.125	0.421	0.2	-1.1	NO	0.999	NO	bb
2	2	200229P1-4	Standard	0.500	5.58	74.402	972.349	0.956	0.5	-1.0	NO	0.999	NO	bb
3	3	200229P1-5	Standard	1.000	5.58	99.931	843.444	1.481	0.7	-26.2	NO	0.999	NO	bb
4	4	200229P1-6	Standard	2.000	5.57	245.490	777.134	3.949	1.9	-5.9	NO	0.999	NO	bb
5	5	200229P1-7	Standard	5.000	5.57	781.553	906.122	10.782	5.1	1.1	NO	0.999	NO	bb
6	6	200229P1-8	Standard	10.000	5.57	1524.076	813.752	23.411	10.9	9.5	NO	0.999	NO	bb
7	7	200229P1-9	Standard	50.000	5.57	7543.444	839.592	112.308	53.6	7.1	NO	0.999	NO	bb
8	8	200229P1-10	Standard	100.000	5.57	13381.120	848.368	197.160	96.3	-3.7	NO	0.999	NO	bb
9	9	200229P1-11	Standard	250.000	5.57	27319.068	737.420	463.085	247.4	-1.0	NO	0.999	NO	bb
10	10	200229P1-12	Standard	500.000	5.57	44535.805	703.762	791.031	502.8	0.6	NO	0.999	NO	bb

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999647
Calibration curve: -0.000311507 * x^2 + 0.972615 * x + 0.0366162
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	200229P1-3	Standard	0.250	5.60	263.102	15810.315	0.208	0.2	-29.5	NO	1.000	NO	bb
2	2	200229P1-4	Standard	0.500	5.59	882.931	18056.061	0.611	0.6	18.2	NO	1.000	NO	bb
3	3	200229P1-5	Standard	1.000	5.58	1439.130	16516.145	1.089	1.1	8.3	NO	1.000	NO	MM
4	4	200229P1-6	Standard	2.000	5.59	2615.676	16635.623	1.965	2.0	-0.8	NO	1.000	NO	MM
5	5	200229P1-7	Standard	5.000	5.59	6752.400	15677.705	5.384	5.5	10.1	NO	1.000	NO	bb
6	6	200229P1-8	Standard	10.000	5.58	14821.743	17525.113	10.572	10.9	8.7	NO	1.000	NO	bb
7	7	200229P1-9	Standard	50.000	5.59	71499.641	18324.189	48.774	50.9	1.9	NO	1.000	NO	bb
8	8	200229P1-10	Standard	100.000	5.59	130691.859	17453.809	93.598	99.4	-0.6	NO	1.000	NO	bb
9	9	200229P1-11	Standard	250.000	5.59	296000.875	16796.951	220.279	245.8	-1.7	NO	1.000	NO	bb
10	10	200229P1-12	Standard	500.000	5.59	527272.438	16067.748	410.195	502.6	0.5	NO	1.000	NO	bb

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Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.998963
Calibration curve: -6.26912e-005 * x^2 + 1.04758 * x + 0.13891
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 200229P1-3	Standard	1.250	5.71	83.003	10935.630	1.132	0.9	-24.1	NO	0.999	NO	bb
2	2 200229P1-4	Standard	2.500	5.66	250.938	13527.701	2.768	2.5	0.4	NO	0.999	NO	bb
3	3 200229P1-5	Standard	5.000	5.66	480.080	12956.387	5.528	5.1	2.9	NO	0.999	NO	bb
4	4 200229P1-6	Standard	10.000	5.66	1056.276	12918.987	12.199	11.5	15.2	NO	0.999	NO	bb
5	5 200229P1-7	Standard	25.000	5.66	2305.925	12942.512	26.582	25.3	1.1	NO	0.999	NO	bb
6	6 200229P1-8	Standard	50.000	5.66	5326.114	13498.043	58.872	56.3	12.5	NO	0.999	NO	bb
7	7 200229P1-9	Standard	250.000	5.66	25785.885	14390.063	267.355	259.1	3.6	NO	0.999	NO	bb
8	8 200229P1-10	Standard	500.000	5.66	46302.430	13285.713	519.981	511.9	2.4	NO	0.999	NO	bb
9	9 200229P1-11	Standard	1250.000	5.66	108183.445	13913.983	1160.054	1192.3	-4.6	NO	0.999	NO	bb
10	10 200229P1-12	Standard	2500.000	5.66	196935.141	13061.014	2249.651	2530.6	1.2	NO	0.999	NO	bb

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999653
Calibration curve: -0.000483457 * x^2 + 1.06119 * x + 0.0940389
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 200229P1-3	Standard	0.250	5.84	389.417	15810.315	0.308	0.2	-19.4	NO	1.000	NO	bb
2	2 200229P1-4	Standard	0.500	5.83	882.476	18056.061	0.611	0.5	-2.6	NO	1.000	NO	bb
3	3 200229P1-5	Standard	1.000	5.83	1654.498	16516.145	1.252	1.1	9.2	NO	1.000	NO	bb
4	4 200229P1-6	Standard	2.000	5.83	2834.564	16635.623	2.130	1.9	-4.0	NO	1.000	NO	bb
5	5 200229P1-7	Standard	5.000	5.83	7624.210	15677.705	6.079	5.7	13.1	NO	1.000	NO	bb
6	6 200229P1-8	Standard	10.000	5.83	15324.119	17525.113	10.930	10.3	2.6	NO	1.000	NO	bb
7	7 200229P1-9	Standard	50.000	5.83	77595.656	18324.189	52.933	51.0	2.0	NO	1.000	NO	bb
8	8 200229P1-10	Standard	100.000	5.83	142566.938	17453.809	102.103	100.8	0.8	NO	1.000	NO	bb
9	9 200229P1-11	Standard	250.000	5.83	309655.125	16796.951	230.440	244.2	-2.3	NO	1.000	NO	bb
10	10 200229P1-12	Standard	500.000	5.83	529511.375	16067.748	411.937	503.7	0.7	NO	1.000	NO	bb

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Compound name: PFDoS
Coefficient of Determination: R^2 = 0.999248
Calibration curve: -6.72059e-005 * x^2 + 0.166876 * x + -0.0249515
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 200229P1-3	Standard	0.250	5.86	58.001	13363.974	0.054	0.5	89.9	YES	0.999	NO	bbX
2	2 200229P1-4	Standard	0.500	5.86	61.198	15848.644	0.048	0.4	-12.2	NO	0.999	NO	bb
3	3 200229P1-5	Standard	1.000	5.86	158.552	15068.212	0.132	0.9	-6.2	NO	0.999	NO	bb
4	4 200229P1-6	Standard	2.000	5.86	357.611	14366.785	0.311	2.0	0.8	NO	0.999	NO	bb
5	5 200229P1-7	Standard	5.000	5.86	1047.835	13608.132	0.963	5.9	18.6	NO	0.999	NO	bb
6	6 200229P1-8	Standard	10.000	5.86	2081.151	15897.249	1.636	10.0	-0.0	NO	0.999	NO	bb
7	7 200229P1-9	Standard	50.000	5.86	10015.454	15872.385	7.887	48.4	-3.3	NO	0.999	NO	bb
8	8 200229P1-10	Standard	100.000	5.86	18107.162	13597.658	16.645	104.3	4.3	NO	0.999	NO	bb
9	9 200229P1-11	Standard	250.000	5.86	41577.363	14180.411	36.650	243.7	-2.5	NO	0.999	NO	bb
10	10 200229P1-12	Standard	500.000	5.86	71111.547	13281.593	66.927	503.2	0.6	NO	0.999	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999578
Calibration curve: -0.000551541 * x^2 + 1.33737 * x + 0.00164932
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 200229P1-3	Standard	0.250	6.06	308.475	13363.974	0.289	0.2	-14.2	NO	1.000	NO	bb
2	2 200229P1-4	Standard	0.500	6.05	866.944	15848.644	0.684	0.5	2.0	NO	1.000	NO	bb
3	3 200229P1-5	Standard	1.000	6.05	1698.647	15068.212	1.409	1.1	5.3	NO	1.000	NO	bb
4	4 200229P1-6	Standard	2.000	6.05	3197.638	14366.785	2.782	2.1	4.0	NO	1.000	NO	bb
5	5 200229P1-7	Standard	5.000	6.05	7853.258	13608.132	7.214	5.4	8.1	NO	1.000	NO	bb
6	6 200229P1-8	Standard	10.000	6.05	16438.895	15897.249	12.926	9.7	-3.0	NO	1.000	NO	bb
7	7 200229P1-9	Standard	50.000	6.05	78868.930	15872.385	62.112	47.4	-5.3	NO	1.000	NO	bb
8	8 200229P1-10	Standard	100.000	6.05	144004.594	13597.658	132.380	103.4	3.4	NO	1.000	NO	bb
9	9 200229P1-11	Standard	250.000	6.05	338881.156	14180.411	298.723	248.9	-0.4	NO	1.000	NO	db
10	10 200229P1-12	Standard	500.000	6.05	564080.438	13281.593	530.886	500.1	0.0	NO	1.000	NO	db

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999219
Calibration curve: -5.04959e-005 * x^2 + 0.921576 * x + 0.268488
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 200229P1-3	Standard	1.250	6.12	146.961	18122.236	1.210	1.0	-18.3	NO	0.999	NO	bb
2	2 200229P1-4	Standard	2.500	6.10	401.952	20611.051	2.910	2.9	14.7	NO	0.999	NO	bb
3	3 200229P1-5	Standard	5.000	6.10	644.196	20920.973	4.594	4.7	-6.1	NO	0.999	NO	bd
4	4 200229P1-6	Standard	10.000	6.10	1244.641	20314.105	9.141	9.6	-3.7	NO	0.999	NO	bb
5	5 200229P1-7	Standard	25.000	6.10	3339.280	20693.260	24.076	25.9	3.5	NO	0.999	NO	bb
6	6 200229P1-8	Standard	50.000	6.10	7272.022	22062.475	49.178	53.2	6.5	NO	0.999	NO	bb
7	7 200229P1-9	Standard	250.000	6.10	34104.781	21593.529	235.646	259.1	3.6	NO	0.999	NO	bb
8	8 200229P1-10	Standard	500.000	6.10	61044.328	19733.254	461.546	515.1	3.0	NO	0.999	NO	bb
9	9 200229P1-11	Standard	1250.000	6.10	139646.469	20202.795	1031.305	1197.3	-4.2	NO	0.999	NO	bb
10	10 200229P1-12	Standard	2500.000	6.10	241967.781	17995.693	2006.124	2526.2	1.0	NO	0.999	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998523
Calibration curve: -0.000133679 * x^2 + 0.663349 * x + 0.143374
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 200229P1-3	Standard	0.250	6.39	496.590	22948.350	0.270	0.2	-23.3	NO	0.999	NO	bb
2	2 200229P1-4	Standard	0.500	6.39	858.898	24522.900	0.438	0.4	-11.2	NO	0.999	NO	bb
3	3 200229P1-5	Standard	1.000	6.39	1626.681	24480.826	0.831	1.0	3.6	NO	0.999	NO	bb
4	4 200229P1-6	Standard	2.000	6.39	2864.156	22875.904	1.565	2.1	7.2	NO	0.999	NO	bb
5	5 200229P1-7	Standard	5.000	6.39	7048.647	22963.584	3.837	5.6	11.5	NO	0.999	NO	bb
6	6 200229P1-8	Standard	10.000	6.39	14259.608	24367.902	7.315	10.8	8.3	NO	0.999	NO	bb
7	7 200229P1-9	Standard	50.000	6.39	71556.797	26075.000	34.303	52.0	4.1	NO	0.999	NO	bb
8	8 200229P1-10	Standard	100.000	6.39	127567.289	23498.615	67.859	104.3	4.3	NO	0.999	NO	bb
9	9 200229P1-11	Standard	250.000	6.39	287948.188	24161.551	148.970	235.5	-5.8	NO	0.999	NO	bb
10	10 200229P1-12	Standard	500.000	6.39	503604.094	20842.158	302.035	506.9	1.4	NO	0.999	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.998419
Calibration curve: -0.000117862 * x^2 + 0.914837 * x + 0.0554344
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 200229P1-3	Standard	0.250	6.62	452.201	22948.350	0.246	0.2	-16.5	NO	0.998	NO	bb
2	2 200229P1-4	Standard	0.500	6.62	997.348	24522.900	0.508	0.5	-1.0	NO	0.998	NO	bb
3	3 200229P1-5	Standard	1.000	6.62	2027.311	24480.826	1.035	1.1	7.1	NO	0.998	NO	bb
4	4 200229P1-6	Standard	2.000	6.62	3789.471	22875.904	2.071	2.2	10.2	NO	0.998	NO	bb
5	5 200229P1-7	Standard	5.000	6.62	9543.678	22963.584	5.195	5.6	12.4	NO	0.998	NO	bd
6	6 200229P1-8	Standard	10.000	6.62	19417.385	24367.902	9.961	10.8	8.4	NO	0.998	NO	bb
7	7 200229P1-9	Standard	50.000	6.62	98073.445	26075.000	47.015	51.7	3.4	NO	0.998	NO	bb
8	8 200229P1-10	Standard	100.000	6.62	178012.406	23498.615	94.693	104.9	4.9	NO	0.998	NO	bb
9	9 200229P1-11	Standard	250.000	6.62	403394.813	24161.551	208.697	235.2	-5.9	NO	0.998	NO	bb
10	10 200229P1-12	Standard	500.000	6.62	722505.750	20842.158	433.320	506.7	1.3	NO	0.998	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.998734, r^2 = 0.997470
Calibration curve: 1.03547 * x + 0.325816
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 200229P1-3	Standard	1.250	6.31	145.566	15613.309	1.391	1.0	-17.7	NO	0.997	NO	bb
2	2 200229P1-4	Standard	2.500	6.31	298.720	17470.814	2.551	2.1	-14.0	NO	0.997	NO	bb
3	3 200229P1-5	Standard	5.000	6.31	632.620	17413.082	5.420	4.9	-1.6	NO	0.997	NO	bb
4	4 200229P1-6	Standard	10.000	6.31	1323.382	17389.162	11.355	10.7	6.5	NO	0.997	NO	bb
5	5 200229P1-7	Standard	25.000	6.30	3379.436	17452.363	28.891	27.6	10.3	NO	0.997	NO	bb
6	6 200229P1-8	Standard	50.000	6.30	7110.518	18603.994	57.025	54.8	9.5	NO	0.997	NO	bb
7	7 200229P1-9	Standard	250.000	6.30	34559.508	18812.133	274.093	264.4	5.8	NO	0.997	NO	bb
8	8 200229P1-10	Standard	500.000	6.30	62583.934	16814.250	555.334	536.0	7.2	NO	0.997	NO	bb
9	9 200229P1-11	Standard	1250.000	6.30	154855.141	19260.871	1199.550	1158.1	-7.3	NO	0.997	NO	bb
10	10 200229P1-12	Standard	2500.000	6.30	291308.719	16561.521	2624.352	2534.1	1.4	NO	0.997	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999189, r^2 = 0.998378
Calibration curve: 0.996847 * x + 0.706727
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 200229P1-3	Standard	1.250	6.45	193.220	16255.980	1.773	1.1	-14.4	NO	0.998	NO	bb
2	2 200229P1-4	Standard	2.500	6.45	405.547	19541.107	3.096	2.4	-4.1	NO	0.998	NO	bb
3	3 200229P1-5	Standard	5.000	6.45	758.830	19959.885	5.672	5.0	-0.4	NO	0.998	NO	db
4	4 200229P1-6	Standard	10.000	6.45	1420.467	19709.787	10.753	10.1	0.8	NO	0.998	NO	bb
5	5 200229P1-7	Standard	25.000	6.45	3980.488	20249.461	29.329	28.7	14.8	NO	0.998	NO	bb
6	6 200229P1-8	Standard	50.000	6.45	7663.915	21930.020	52.141	51.6	3.2	NO	0.998	NO	bb
7	7 200229P1-9	Standard	250.000	6.45	38984.750	22480.229	258.740	258.8	3.5	NO	0.998	NO	bb
8	8 200229P1-10	Standard	500.000	6.45	70977.750	21166.922	500.303	501.2	0.2	NO	0.998	NO	bb
9	9 200229P1-11	Standard	1250.000	6.45	168819.328	21542.221	1169.232	1172.2	-6.2	NO	0.998	NO	bb
10	10 200229P1-12	Standard	2500.000	6.45	333421.625	19468.021	2555.293	2562.7	2.5	NO	0.998	NO	bb

Compound name: 13C3-PFBA-EIS
Response Factor: 348.075
RRF SD: 18.9591, Relative SD: 5.44685
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 200229P1-3	Standard	12.500	1.38	4139.773		4139.773	11.9	-4.9	NO		NO	bb
2	2 200229P1-4	Standard	12.500	1.31	4309.036		4309.036	12.4	-1.0	NO		NO	bb
3	3 200229P1-5	Standard	12.500	1.30	4180.249		4180.249	12.0	-3.9	NO		NO	MM
4	4 200229P1-6	Standard	12.500	1.30	4088.781		4088.781	11.7	-6.0	NO		NO	bb
5	5 200229P1-7	Standard	12.500	1.30	4116.687		4116.687	11.8	-5.4	NO		NO	bb
6	6 200229P1-8	Standard	12.500	1.30	4436.269		4436.269	12.7	2.0	NO		NO	MM
7	7 200229P1-9	Standard	12.500	1.30	4751.110		4751.110	13.6	9.2	NO		NO	bb
8	8 200229P1-10	Standard	12.500	1.29	4287.231		4287.231	12.3	-1.5	NO		NO	bb
9	9 200229P1-11	Standard	12.500	1.29	4673.336		4673.336	13.4	7.4	NO		NO	MM
10	10 200229P1-12	Standard	12.500	1.30	4526.938		4526.938	13.0	4.0	NO		NO	MM

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Compound name: 13C3-PFBA-RSD
Response Factor: 0.748063
RRF SD: 0.0132564, Relative SD: 1.7721
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	200229P1-3	Standard	12.500	1.38	4290.845	5835.744	9.191	12.3	-1.7	NO		NO	MM
2	2	200229P1-4	Standard	12.500	1.31	4309.036	5669.284	9.501	12.7	1.6	NO		NO	bb
3	3	200229P1-5	Standard	12.500	1.30	4198.886	5537.038	9.479	12.7	1.4	NO		NO	MM
4	4	200229P1-6	Standard	12.500	1.30	4088.781	5559.221	9.194	12.3	-1.7	NO		NO	bb
5	5	200229P1-7	Standard	12.500	1.30	4116.687	5626.135	9.146	12.2	-2.2	NO		NO	bb
6	6	200229P1-8	Standard	12.500	1.30	4743.942	6231.405	9.516	12.7	1.8	NO		NO	MM
7	7	200229P1-9	Standard	12.500	1.30	4751.110	6272.565	9.468	12.7	1.3	NO		NO	bb
8	8	200229P1-10	Standard	12.500	1.29	4287.231	5837.685	9.180	12.3	-1.8	NO		NO	bb
9	9	200229P1-11	Standard	12.500	1.29	4665.463	6104.808	9.553	12.8	2.2	NO		NO	MM
10	10	200229P1-12	Standard	12.500	1.30	4384.869	5906.391	9.280	12.4	-0.8	NO		NO	MM

Compound name: 13C3-PFPeA-EIS
Response Factor: 643.908
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	200229P1-3	Standard	12.500	2.30	6932.076		6932.076	10.8	-13.9	NO		NO	bbX
2	2	200229P1-4	Standard	12.500	2.24	7600.224		7600.224	11.8	-5.6	NO		NO	bbX
3	3	200229P1-5	Standard	12.500	2.23	7425.095		7425.095	11.5	-7.7	NO		NO	bbX
4	4	200229P1-6	Standard	12.500	2.23	7302.792		7302.792	11.3	-9.3	NO		NO	bbX
5	5	200229P1-7	Standard	12.500	2.23	7351.109		7351.109	11.4	-8.7	NO		NO	bbX
6	6	200229P1-8	Standard	12.500	2.23	8048.850		8048.850	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	2.23	8291.952		8291.952	12.9	3.0	NO		NO	bbX
8	8	200229P1-10	Standard	12.500	2.23	7406.676		7406.676	11.5	-8.0	NO		NO	bbX
9	9	200229P1-11	Standard	12.500	2.23	7815.998		7815.998	12.1	-2.9	NO		NO	bbX
10	10	200229P1-12	Standard	12.500	2.23	7376.919		7376.919	11.5	-8.3	NO		NO	bbX

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Compound name: 13C3-PFPeA-RSD
Response Factor: 0.547585
RRF SD: 0.0176362, Relative SD: 3.22073
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200229P1-3	Standard	12.500	2.30	6932.076	12669.063	6.840	12.5	-0.1	NO		NO	bb
2	2 200229P1-4	Standard	12.500	2.24	7600.224	13823.993	6.872	12.6	0.4	NO		NO	bb
3	3 200229P1-5	Standard	12.500	2.23	7388.164	13588.657	6.796	12.4	-0.7	NO		NO	bb
4	4 200229P1-6	Standard	12.500	2.23	7302.792	13872.069	6.580	12.0	-3.9	NO		NO	bb
5	5 200229P1-7	Standard	12.500	2.23	7351.109	13960.303	6.582	12.0	-3.8	NO		NO	bb
6	6 200229P1-8	Standard	12.500	2.23	8048.850	14521.299	6.928	12.7	1.2	NO		NO	bb
7	7 200229P1-9	Standard	12.500	2.23	8291.952	15497.363	6.688	12.2	-2.3	NO		NO	bb
8	8 200229P1-10	Standard	12.500	2.23	7406.676	13645.467	6.785	12.4	-0.9	NO		NO	bb
9	9 200229P1-11	Standard	12.500	2.23	7815.998	13806.657	7.076	12.9	3.4	NO		NO	bb
10	10 200229P1-12	Standard	12.500	2.23	7376.919	12632.668	7.299	13.3	6.6	NO		NO	bb

Compound name: 13C3-PFBS-EIS
Response Factor: 74.669
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 200229P1-3	Standard	12.500	2.57	820.961		820.961	11.0	-12.0	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	2.52	845.774		845.774	11.3	-9.4	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	2.51	872.793		872.793	11.7	-6.5	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	2.51	902.117		902.117	12.1	-3.3	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	2.51	906.262		906.262	12.1	-2.9	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	2.51	933.362		933.362	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	2.51	964.595		964.595	12.9	3.3	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	2.51	862.402		862.402	11.5	-7.6	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	2.51	911.534		911.534	12.2	-2.3	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	2.51	822.291		822.291	11.0	-11.9	NO		NO	bbX

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Compound name: 13C3-PFBS-RSD
Response Factor: 0.995979
RRF SD: 0.057282, Relative SD: 5.75133
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 200229P1-3	Standard	12.500	2.57	820.961	856.125	11.987	12.0	-3.7	NO		NO	bb
2	2 200229P1-4	Standard	12.500	2.52	845.774	861.102	12.277	12.3	-1.4	NO		NO	bb
3	3 200229P1-5	Standard	12.500	2.51	872.793	886.043	12.313	12.4	-1.1	NO		NO	bb
4	4 200229P1-6	Standard	12.500	2.51	902.117	906.847	12.435	12.5	-0.1	NO		NO	bb
5	5 200229P1-7	Standard	12.500	2.51	906.262	1007.768	11.241	11.3	-9.7	NO		NO	bb
6	6 200229P1-8	Standard	12.500	2.51	933.362	949.511	12.287	12.3	-1.3	NO		NO	bb
7	7 200229P1-9	Standard	12.500	2.51	964.595	926.409	13.015	13.1	4.5	NO		NO	bb
8	8 200229P1-10	Standard	12.500	2.51	862.402	777.999	13.856	13.9	11.3	NO		NO	bb
9	9 200229P1-11	Standard	12.500	2.51	911.534	872.006	13.067	13.1	5.0	NO		NO	bb
10	10 200229P1-12	Standard	12.500	2.51	822.291	855.193	12.019	12.1	-3.5	NO		NO	bb

Compound name: 13C3-HFPO-DA-EIS
Response Factor: 285.582
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 200229P1-3	Standard	12.500	3.30	2938.399		2938.399	10.3	-17.7	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	3.25	3165.362		3165.362	11.1	-11.3	NO		NO	bdX
3	3 200229P1-5	Standard	12.500	3.25	3256.216		3256.216	11.4	-8.8	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	3.25	3195.763		3195.763	11.2	-10.5	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	3.25	3199.245		3199.245	11.2	-10.4	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	3.25	3569.769		3569.769	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	3.25	3698.668		3698.668	13.0	3.6	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	3.25	3388.342		3388.342	11.9	-5.1	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	3.25	3600.825		3600.825	12.6	0.9	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	3.25	3185.709		3185.709	11.2	-10.8	NO		NO	bbX

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Compound name: 13C3-HFPO-DA-RSD
Response Factor: 0.240587
RRF SD: 0.0109509, Relative SD: 4.55172
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200229P1-3	Standard	12.500	3.30	2938.399	12669.063	2.899	12.1	-3.6	NO		NO	bb
2	2 200229P1-4	Standard	12.500	3.25	3165.362	13823.993	2.862	11.9	-4.8	NO		NO	bd
3	3 200229P1-5	Standard	12.500	3.25	3256.216	13588.657	2.995	12.5	-0.4	NO		NO	bb
4	4 200229P1-6	Standard	12.500	3.25	3195.763	13872.069	2.880	12.0	-4.2	NO		NO	bb
5	5 200229P1-7	Standard	12.500	3.25	3199.245	13960.303	2.865	11.9	-4.7	NO		NO	bb
6	6 200229P1-8	Standard	12.500	3.25	3569.769	14521.299	3.073	12.8	2.2	NO		NO	bb
7	7 200229P1-9	Standard	12.500	3.25	3698.668	15497.363	2.983	12.4	-0.8	NO		NO	bb
8	8 200229P1-10	Standard	12.500	3.25	3388.342	13645.467	3.104	12.9	3.2	NO		NO	bb
9	9 200229P1-11	Standard	12.500	3.25	3600.825	13806.657	3.260	13.6	8.4	NO		NO	bb
10	10 200229P1-12	Standard	12.500	3.25	3185.709	12632.668	3.152	13.1	4.8	NO		NO	bb

Compound name: 13C2-4:2 FTS-EIS
Response Factor: 116.584
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 200229P1-3	Standard	12.500	3.00	1187.177		1187.177	10.2	-18.5	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	2.95	1295.567		1295.567	11.1	-11.1	NO		NO	bdX
3	3 200229P1-5	Standard	12.500	2.94	1334.430		1334.430	11.4	-8.4	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	2.95	1328.309		1328.309	11.4	-8.9	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	2.95	1381.076		1381.076	11.8	-5.2	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	2.95	1457.295		1457.295	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	2.95	1409.845		1409.845	12.1	-3.3	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	2.95	1097.437		1097.437	9.4	-24.7	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	2.94	1224.052		1224.052	10.5	-16.0	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	2.95	1146.782		1146.782	9.8	-21.3	NO		NO	bbX

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Compound name: 13C2-4:2 FTS-RSD
Response Factor: 1.44444
RRF SD: 0.0701577, Relative SD: 4.8571
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 200229P1-3	Standard	12.500	3.00	1187.177	856.125	17.334	12.0	-4.0	NO		NO	bb
2	2 200229P1-4	Standard	12.500	2.95	1295.567	861.102	18.807	13.0	4.2	NO		NO	bd
3	3 200229P1-5	Standard	12.500	2.94	1334.430	886.043	18.826	13.0	4.3	NO		NO	bb
4	4 200229P1-6	Standard	12.500	2.95	1328.309	906.847	18.309	12.7	1.4	NO		NO	bb
5	5 200229P1-7	Standard	12.500	2.95	1381.076	1007.768	17.130	11.9	-5.1	NO		NO	bb
6	6 200229P1-8	Standard	12.500	2.95	1457.295	949.511	19.185	13.3	6.3	NO		NO	bb
7	7 200229P1-9	Standard	12.500	2.95	1409.845	926.409	19.023	13.2	5.4	NO		NO	bb
8	8 200229P1-10	Standard	12.500	2.95	1097.437	777.999	17.632	12.2	-2.3	NO		NO	bb
9	9 200229P1-11	Standard	12.500	2.94	1224.052	872.006	17.546	12.1	-2.8	NO		NO	bb
10	10 200229P1-12	Standard	12.500	2.95	1146.782	855.193	16.762	11.6	-7.2	NO		NO	bb

Compound name: 13C2-PFHxA-EIS
Response Factor: 1142.17
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 200229P1-3	Standard	12.500	3.08	12969.711		12969.711	11.4	-9.2	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	3.04	13837.118		13837.118	12.1	-3.1	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	3.03	13536.680		13536.680	11.9	-5.2	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	3.03	13822.810		13822.810	12.1	-3.2	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	3.03	14053.604		14053.604	12.3	-1.6	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	3.03	14277.139		14277.139	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	3.03	14906.268		14906.268	13.1	4.4	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	3.03	14298.241		14298.241	12.5	0.1	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	3.03	14275.010		14275.010	12.5	-0.0	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	3.03	13382.184		13382.184	11.7	-6.3	NO		NO	bbX

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Compound name: 13C2-PFHxA-RSD
Response Factor: 1.01101
RRF SD: 0.0300373, Relative SD: 2.97101
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200229P1-3	Standard	12.500	3.08	12969.711	12669.063	12.797	12.7	1.3	NO		NO	bb
2	2 200229P1-4	Standard	12.500	3.04	13837.118	13823.993	12.512	12.4	-1.0	NO		NO	bb
3	3 200229P1-5	Standard	12.500	3.03	13536.680	13588.657	12.452	12.3	-1.5	NO		NO	bb
4	4 200229P1-6	Standard	12.500	3.03	13822.810	13872.069	12.456	12.3	-1.4	NO		NO	bb
5	5 200229P1-7	Standard	12.500	3.03	14053.604	13960.303	12.584	12.4	-0.4	NO		NO	bb
6	6 200229P1-8	Standard	12.500	3.03	14277.139	14521.299	12.290	12.2	-2.8	NO		NO	bb
7	7 200229P1-9	Standard	12.500	3.03	14906.268	15497.363	12.023	11.9	-4.9	NO		NO	bb
8	8 200229P1-10	Standard	12.500	3.03	14298.241	13645.467	13.098	13.0	3.6	NO		NO	bb
9	9 200229P1-11	Standard	12.500	3.03	14275.010	13806.657	12.924	12.8	2.3	NO		NO	bb
10	10 200229P1-12	Standard	12.500	3.03	13382.184	12632.668	13.242	13.1	4.8	NO		NO	bb

Compound name: 13C4-PFHpA-EIS
Response Factor: 650.1
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 200229P1-3	Standard	12.500	3.68	7163.202		7163.202	11.0	-11.9	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	3.64	8080.123		8080.123	12.4	-0.6	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	3.64	8198.353		8198.353	12.6	0.9	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	3.64	7707.320		7707.320	11.9	-5.2	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	3.64	7435.883		7435.883	11.4	-8.5	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	3.64	8126.255		8126.255	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	3.64	8382.969		8382.969	12.9	3.2	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	3.64	7920.969		7920.969	12.2	-2.5	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	3.64	8410.690		8410.690	12.9	3.5	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	3.64	6866.574		6866.574	10.6	-15.5	NO		NO	bbX

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Compound name: 13C4-PFHpA-RSD
Response Factor: 0.567523
RRF SD: 0.0262048, Relative SD: 4.6174
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 200229P1-3	Standard	12.500	3.68	7163.202	12669.063	7.068	12.5	-0.4	NO		NO	bb
2	2 200229P1-4	Standard	12.500	3.64	8080.123	13823.993	7.306	12.9	3.0	NO		NO	bb
3	3 200229P1-5	Standard	12.500	3.64	8198.353	13588.657	7.542	13.3	6.3	NO		NO	bb
4	4 200229P1-6	Standard	12.500	3.64	7707.320	13872.069	6.945	12.2	-2.1	NO		NO	bb
5	5 200229P1-7	Standard	12.500	3.64	7435.883	13960.303	6.658	11.7	-6.1	NO		NO	bb
6	6 200229P1-8	Standard	12.500	3.64	8126.255	14521.299	6.995	12.3	-1.4	NO		NO	bb
7	7 200229P1-9	Standard	12.500	3.64	8382.969	15497.363	6.762	11.9	-4.7	NO		NO	bb
8	8 200229P1-10	Standard	12.500	3.64	7920.969	13645.467	7.256	12.8	2.3	NO		NO	bb
9	9 200229P1-11	Standard	12.500	3.64	8410.690	13806.657	7.615	13.4	7.3	NO		NO	bb
10	10 200229P1-12	Standard	12.500	3.64	6866.574	12632.668	6.794	12.0	-4.2	NO		NO	bb

Compound name: 13C3-PFHxS-EIS
Response Factor: 169.524
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 200229P1-3	Standard	12.500	3.82	2137.160		2137.160	12.6	0.9	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	3.78	2128.375		2128.375	12.6	0.4	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	3.78	2158.272		2158.272	12.7	1.9	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	3.78	2173.002		2173.002	12.8	2.5	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	3.78	2162.301		2162.301	12.8	2.0	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	3.78	2119.048		2119.048	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	3.78	2303.492		2303.492	13.6	8.7	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	3.78	2129.199		2129.199	12.6	0.5	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	3.78	1869.943		1869.943	11.0	-11.8	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	3.78	1921.595		1921.595	11.3	-9.3	NO		NO	bbX

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Compound name: 13C3-PFHxS-RSD
Response Factor: 2.37921
RRF SD: 0.186797, Relative SD: 7.85124
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	200229P1-3	Standard	12.500	3.82	2137.160	856.125	31.204	13.1	4.9	NO		NO	bb
2	2	200229P1-4	Standard	12.500	3.78	2128.375	861.102	30.896	13.0	3.9	NO		NO	bb
3	3	200229P1-5	Standard	12.500	3.78	2158.272	886.043	30.448	12.8	2.4	NO		NO	bb
4	4	200229P1-6	Standard	12.500	3.78	2173.002	906.847	29.953	12.6	0.7	NO		NO	bb
5	5	200229P1-7	Standard	12.500	3.78	2162.301	1007.768	26.820	11.3	-9.8	NO		NO	bb
6	6	200229P1-8	Standard	12.500	3.78	2119.048	949.511	27.897	11.7	-6.2	NO		NO	bb
7	7	200229P1-9	Standard	12.500	3.78	2303.492	926.409	31.081	13.1	4.5	NO		NO	bb
8	8	200229P1-10	Standard	12.500	3.78	2129.199	777.999	34.210	14.4	15.0	NO		NO	bb
9	9	200229P1-11	Standard	12.500	3.78	1869.943	872.006	26.805	11.3	-9.9	NO		NO	bb
10	10	200229P1-12	Standard	12.500	3.78	1921.595	855.193	28.087	11.8	-5.6	NO		NO	bb

Compound name: 13C2-6:2 FTS-EIS
Response Factor: 92.8419
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	200229P1-3	Standard	12.500	4.13	1091.834		1091.834	11.8	-5.9	NO		NO	bbX
2	2	200229P1-4	Standard	12.500	4.10	1144.814		1144.814	12.3	-1.4	NO		NO	bbX
3	3	200229P1-5	Standard	12.500	4.10	1134.689		1134.689	12.2	-2.2	NO		NO	bbX
4	4	200229P1-6	Standard	12.500	4.10	1100.729		1100.729	11.9	-5.2	NO		NO	bbX
5	5	200229P1-7	Standard	12.500	4.10	1302.586		1302.586	14.0	12.2	NO		NO	bbX
6	6	200229P1-8	Standard	12.500	4.10	1160.524		1160.524	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	4.10	1227.868		1227.868	13.2	5.8	NO		NO	bbX
8	8	200229P1-10	Standard	12.500	4.10	1137.185		1137.185	12.2	-2.0	NO		NO	bbX
9	9	200229P1-11	Standard	12.500	4.10	1197.070		1197.070	12.9	3.1	NO		NO	bbX
10	10	200229P1-12	Standard	12.500	4.10	1095.448		1095.448	11.8	-5.6	NO		NO	bbX

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Compound name: 13C2-6:2 FTS-RSD
Response Factor: 0.465709
RRF SD: 0.0448038, Relative SD: 9.62054
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	200229P1-3	Standard	12.500	4.13	1091.834	2272.423	6.006	12.9	3.2	NO		NO	bb
2	2	200229P1-4	Standard	12.500	4.10	1144.814	2622.329	5.457	11.7	-6.3	NO		NO	bb
3	3	200229P1-5	Standard	12.500	4.10	1134.689	2619.181	5.415	11.6	-7.0	NO		NO	bb
4	4	200229P1-6	Standard	12.500	4.10	1100.729	2446.402	5.624	12.1	-3.4	NO		NO	bb
5	5	200229P1-7	Standard	12.500	4.10	1302.586	2230.149	7.301	15.7	25.4	NO		NO	bb
6	6	200229P1-8	Standard	12.500	4.10	1160.524	2610.765	5.556	11.9	-4.6	NO		NO	bb
7	7	200229P1-9	Standard	12.500	4.10	1227.868	2795.483	5.490	11.8	-5.7	NO		NO	bb
8	8	200229P1-10	Standard	12.500	4.10	1137.185	2514.325	5.654	12.1	-2.9	NO		NO	bb
9	9	200229P1-11	Standard	12.500	4.10	1197.070	2628.682	5.692	12.2	-2.2	NO		NO	bb
10	10	200229P1-12	Standard	12.500	4.10	1095.448	2275.545	6.018	12.9	3.4	NO		NO	bb

Compound name: 13C5-PFNA-EIS
Response Factor: 928.597
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	200229P1-3	Standard	12.500	4.63	10161.933		10161.933	10.9	-12.5	NO		NO	bbX
2	2	200229P1-4	Standard	12.500	4.60	11226.779		11226.779	12.1	-3.3	NO		NO	bbX
3	3	200229P1-5	Standard	12.500	4.60	11836.420		11836.420	12.7	2.0	NO		NO	bbX
4	4	200229P1-6	Standard	12.500	4.60	11022.959		11022.959	11.9	-5.0	NO		NO	bbX
5	5	200229P1-7	Standard	12.500	4.60	10822.433		10822.433	11.7	-6.8	NO		NO	bbX
6	6	200229P1-8	Standard	12.500	4.60	11607.460		11607.460	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	4.60	12599.075		12599.075	13.6	8.5	NO		NO	bbX
8	8	200229P1-10	Standard	12.500	4.60	11087.045		11087.045	11.9	-4.5	NO		NO	bbX
9	9	200229P1-11	Standard	12.500	4.60	10811.774		10811.774	11.6	-6.9	NO		NO	bbX
10	10	200229P1-12	Standard	12.500	4.60	10452.676		10452.676	11.3	-9.9	NO		NO	bbX

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Compound name: 13C5-PFNA-RSD
Response Factor: 0.952007
RRF SD: 0.0377986, Relative SD: 3.97041
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 200229P1-3	Standard	12.500	4.63	10161.933	10628.747	11.951	12.6	0.4	NO		NO	bb
2	2 200229P1-4	Standard	12.500	4.60	11226.779	11974.754	11.719	12.3	-1.5	NO		NO	bb
3	3 200229P1-5	Standard	12.500	4.60	11836.420	11455.452	12.916	13.6	8.5	NO		NO	bb
4	4 200229P1-6	Standard	12.500	4.60	11022.959	11904.761	11.574	12.2	-2.7	NO		NO	bb
5	5 200229P1-7	Standard	12.500	4.60	10822.433	11187.718	12.092	12.7	1.6	NO		NO	bb
6	6 200229P1-8	Standard	12.500	4.60	11607.460	12967.569	11.189	11.8	-6.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.60	12599.075	13536.669	11.634	12.2	-2.2	NO		NO	bb
8	8 200229P1-10	Standard	12.500	4.60	11087.045	11939.165	11.608	12.2	-2.5	NO		NO	bb
9	9 200229P1-11	Standard	12.500	4.60	10811.774	11152.880	12.118	12.7	1.8	NO		NO	bb
10	10 200229P1-12	Standard	12.500	4.60	10452.676	10709.433	12.200	12.8	2.5	NO		NO	bb

Compound name: 13C8-PFOSA-EIS
Response Factor: 295.115
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 200229P1-3	Standard	12.500	4.69	2845.449		2845.449	9.6	-22.9	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	4.65	3236.567		3236.567	11.0	-12.3	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	4.65	3403.331		3403.331	11.5	-7.7	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	4.65	2969.843		2969.843	10.1	-19.5	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	4.65	3111.854		3111.854	10.5	-15.6	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	4.65	3688.936		3688.936	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.65	3506.720		3506.720	11.9	-4.9	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	4.65	3414.109		3414.109	11.6	-7.5	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	4.65	3527.968		3527.968	12.0	-4.4	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	4.65	3182.081		3182.081	10.8	-13.7	NO		NO	bbX

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Compound name: 13C8-PFOSA-RSD
Response Factor: 0.201795
RRF SD: 0.0190225, Relative SD: 9.42665
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 200229P1-3	Standard	12.500	4.69	2845.449	16310.590	2.181	10.8	-13.5	NO		NO	bb
2	2 200229P1-4	Standard	12.500	4.65	3236.567	15475.649	2.614	13.0	3.6	NO		NO	bb
3	3 200229P1-5	Standard	12.500	4.65	3403.331	17443.197	2.439	12.1	-3.3	NO		NO	bb
4	4 200229P1-6	Standard	12.500	4.65	2969.843	15913.268	2.333	11.6	-7.5	NO		NO	bb
5	5 200229P1-7	Standard	12.500	4.65	3111.854	17453.613	2.229	11.0	-11.6	NO		NO	bb
6	6 200229P1-8	Standard	12.500	4.65	3688.936	18273.922	2.523	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.65	3506.720	16250.412	2.697	13.4	6.9	NO		NO	bb
8	8 200229P1-10	Standard	12.500	4.65	3414.109	17097.771	2.496	12.4	-1.0	NO		NO	bb
9	9 200229P1-11	Standard	12.500	4.65	3527.968	15512.265	2.843	14.1	12.7	NO		NO	bb
10	10 200229P1-12	Standard	12.500	4.65	3182.081	13862.071	2.869	14.2	13.8	NO		NO	bb

Compound name: 13C2-PFOA-EIS
Response Factor: 1020.22
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 200229P1-3	Standard	12.500	4.19	11289.896		11289.896	11.1	-11.5	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	4.15	11847.828		11847.828	11.6	-7.1	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	4.15	12103.008		12103.008	11.9	-5.1	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	4.15	11279.954		11279.954	11.1	-11.5	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	4.15	11810.525		11810.525	11.6	-7.4	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	4.15	12752.723		12752.723	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.15	13027.886		13027.886	12.8	2.2	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	4.15	12148.066		12148.066	11.9	-4.7	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	4.15	11426.523		11426.523	11.2	-10.4	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	4.15	10591.959		10591.959	10.4	-16.9	NO		NO	bbX

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Compound name: 13C2-PFOA-RSD
Response Factor: 0.823807
RRF SD: 0.0191855, Relative SD: 2.32888
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 200229P1-3	Standard	12.500	4.19	11289.896	14173.799	9.957	12.1	-3.3	NO		NO	bb
2	2 200229P1-4	Standard	12.500	4.15	11847.828	14178.126	10.446	12.7	1.4	NO		NO	bb
3	3 200229P1-5	Standard	12.500	4.15	12103.008	14149.585	10.692	13.0	3.8	NO		NO	bb
4	4 200229P1-6	Standard	12.500	4.15	11279.954	13984.859	10.082	12.2	-2.1	NO		NO	bb
5	5 200229P1-7	Standard	12.500	4.15	11810.525	14429.136	10.231	12.4	-0.6	NO		NO	bb
6	6 200229P1-8	Standard	12.500	4.15	12752.723	15418.980	10.338	12.5	0.4	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.15	13027.886	16177.321	10.066	12.2	-2.2	NO		NO	bb
8	8 200229P1-10	Standard	12.500	4.15	12148.066	14387.090	10.555	12.8	2.5	NO		NO	bb
9	9 200229P1-11	Standard	12.500	4.15	11426.523	14081.781	10.143	12.3	-1.5	NO		NO	bb
10	10 200229P1-12	Standard	12.500	4.15	10591.959	12651.249	10.465	12.7	1.6	NO		NO	bb

Compound name: 13C8-PFOS-EIS
Response Factor: 196.194
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 200229P1-3	Standard	12.500	4.71	2261.978		2261.978	11.5	-7.8	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	4.69	2325.863		2325.863	11.9	-5.2	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	4.69	2477.304		2477.304	12.6	1.0	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	4.69	2306.226		2306.226	11.8	-6.0	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	4.69	2402.780		2402.780	12.2	-2.0	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	4.69	2452.425		2452.425	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.69	2732.857		2732.857	13.9	11.4	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	4.69	2378.871		2378.871	12.1	-3.0	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	4.69	2237.110		2237.110	11.4	-8.8	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	4.95	3675.494		3675.494	18.7	49.9	NO		NO	MMX

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Compound name: 13C8-PFOS-RSD
Response Factor: 0.959587
RRF SD: 0.0658882, Relative SD: 6.86631
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 200229P1-3	Standard	12.500	4.71	2261.978	2272.423	12.443	13.0	3.7	NO		NO	bb
2	2 200229P1-4	Standard	12.500	4.69	2325.863	2622.329	11.087	11.6	-7.6	NO		NO	bb
3	3 200229P1-5	Standard	12.500	4.69	2477.304	2619.181	11.823	12.3	-1.4	NO		NO	bb
4	4 200229P1-6	Standard	12.500	4.69	2306.226	2446.402	11.784	12.3	-1.8	NO		NO	bb
5	5 200229P1-7	Standard	12.500	4.69	2402.780	2230.149	13.468	14.0	12.3	NO		NO	bb
6	6 200229P1-8	Standard	12.500	4.69	2452.425	2610.765	11.742	12.2	-2.1	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.69	2732.857	2795.483	12.220	12.7	1.9	NO		NO	bb
8	8 200229P1-10	Standard	12.500	4.69	2378.871	2514.325	11.827	12.3	-1.4	NO		NO	bb
9	9 200229P1-11	Standard	12.500	4.69	2237.110	2628.682	10.638	11.1	-11.3	NO		NO	bb
10	10 200229P1-12	Standard	12.500	4.69	2351.694	2275.545	12.918	13.5	7.7	NO		NO	bb

Compound name: 13C2-PFDA-EIS
Response Factor: 990.142
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 200229P1-3	Standard	12.500	5.01	11459.666		11459.666	11.6	-7.4	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	4.98	12428.431		12428.431	12.6	0.4	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	4.98	12512.931		12512.931	12.6	1.1	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	4.98	12248.468		12248.468	12.4	-1.0	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	4.98	12133.270		12133.270	12.3	-2.0	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	4.98	12376.774		12376.774	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.98	12924.905		12924.905	13.1	4.4	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	4.98	12469.418		12469.418	12.6	0.7	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	4.98	12054.813		12054.813	12.2	-2.6	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	4.98	10581.484		10581.484	10.7	-14.5	NO		NO	bbX

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Compound name: 13C2-PFDA-RSD
Response Factor: 0.926811
RRF SD: 0.0466091, Relative SD: 5.02898
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 200229P1-3	Standard	12.500	5.01	11459.666	13206.572	10.847	11.7	-6.4	NO		NO	bb
2	2 200229P1-4	Standard	12.500	4.98	12428.431	12862.382	12.078	13.0	4.3	NO		NO	bb
3	3 200229P1-5	Standard	12.500	4.98	12512.931	14104.088	11.090	12.0	-4.3	NO		NO	bb
4	4 200229P1-6	Standard	12.500	4.98	12248.468	12585.971	12.165	13.1	5.0	NO		NO	bb
5	5 200229P1-7	Standard	12.500	4.98	12133.270	13691.760	11.077	12.0	-4.4	NO		NO	bb
6	6 200229P1-8	Standard	12.500	4.98	12376.774	14224.657	10.876	11.7	-6.1	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.98	12924.905	13694.373	11.798	12.7	1.8	NO		NO	bb
8	8 200229P1-10	Standard	12.500	4.98	12469.418	13248.680	11.765	12.7	1.6	NO		NO	bb
9	9 200229P1-11	Standard	12.500	4.98	12054.813	12052.096	12.503	13.5	7.9	NO		NO	bb
10	10 200229P1-12	Standard	12.500	4.98	10581.484	11350.231	11.653	12.6	0.6	NO		NO	bb

Compound name: 13C2-8:2 FTS-EIS
Response Factor: 84.4151
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 200229P1-3	Standard	12.500	4.97	895.027		895.027	10.6	-15.2	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	4.95	936.199		936.199	11.1	-11.3	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	4.95	1001.024		1001.024	11.9	-5.1	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	4.95	968.505		968.505	11.5	-8.2	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	4.95	908.851		908.851	10.8	-13.9	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	4.95	1055.189		1055.189	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.95	861.114		861.114	10.2	-18.4	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	4.95	881.059		881.059	10.4	-16.5	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	4.95	758.161		758.161	9.0	-28.1	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	4.95	861.122		861.122	10.2	-18.4	NO		NO	bbX

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Compound name: 13C2-8:2 FTS-RSD
Response Factor: 0.366595
RRF SD: 0.0407791, Relative SD: 11.1238
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	200229P1-3	Standard	12.500	4.97	895.027	2272.423	4.923	13.4	7.4	NO		NO	bb
2	2	200229P1-4	Standard	12.500	4.95	936.199	2622.329	4.463	12.2	-2.6	NO		NO	bb
3	3	200229P1-5	Standard	12.500	4.95	1001.024	2619.181	4.777	13.0	4.3	NO		NO	bb
4	4	200229P1-6	Standard	12.500	4.95	968.505	2446.402	4.949	13.5	8.0	NO		NO	bb
5	5	200229P1-7	Standard	12.500	4.95	908.851	2230.149	5.094	13.9	11.2	NO		NO	bb
6	6	200229P1-8	Standard	12.500	4.95	1055.189	2610.765	5.052	13.8	10.2	NO		NO	bb
7	7	200229P1-9	Standard	12.500	4.95	861.114	2795.483	3.850	10.5	-16.0	NO		NO	bb
8	8	200229P1-10	Standard	12.500	4.95	881.059	2514.325	4.380	11.9	-4.4	NO		NO	bb
9	9	200229P1-11	Standard	12.500	4.95	758.161	2628.682	3.605	9.8	-21.3	NO		NO	bb
10	10	200229P1-12	Standard	12.500	4.95	861.122	2275.545	4.730	12.9	3.2	NO		NO	bb

Compound name: d3-N-MeFOSAA-EIS
Response Factor: 285.85
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	200229P1-3	Standard	12.500	5.15	3168.347		3168.347	11.1	-11.3	NO		NO	bbX
2	2	200229P1-4	Standard	12.500	5.13	3570.328		3570.328	12.5	-0.1	NO		NO	bbX
3	3	200229P1-5	Standard	12.500	5.13	3577.611		3577.611	12.5	0.1	NO		NO	bbX
4	4	200229P1-6	Standard	12.500	5.13	3852.686		3852.686	13.5	7.8	NO		NO	bbX
5	5	200229P1-7	Standard	12.500	5.13	3518.992		3518.992	12.3	-1.5	NO		NO	bbX
6	6	200229P1-8	Standard	12.500	5.13	3573.122		3573.122	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	5.13	3680.932		3680.932	12.9	3.0	NO		NO	bbX
8	8	200229P1-10	Standard	12.500	5.13	3193.711		3193.711	11.2	-10.6	NO		NO	bbX
9	9	200229P1-11	Standard	12.500	5.13	3393.035		3393.035	11.9	-5.0	NO		NO	bbX
10	10	200229P1-12	Standard	12.500	5.13	3389.770		3389.770	11.9	-5.1	NO		NO	bbX

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Compound name: d3-N-MeFOSAA-RSD
Response Factor: 0.214589
RRF SD: 0.0207655, Relative SD: 9.67689
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 200229P1-3	Standard	12.500	5.15	3168.347	16310.590	2.428	11.3	-9.5	NO		NO	bb
2	2 200229P1-4	Standard	12.500	5.13	3570.328	15475.649	2.884	13.4	7.5	NO		NO	bb
3	3 200229P1-5	Standard	12.500	5.13	3577.611	17443.197	2.564	11.9	-4.4	NO		NO	bb
4	4 200229P1-6	Standard	12.500	5.13	3852.686	15913.268	3.026	14.1	12.8	NO		NO	bb
5	5 200229P1-7	Standard	12.500	5.13	3518.992	17453.613	2.520	11.7	-6.0	NO		NO	bb
6	6 200229P1-8	Standard	12.500	5.13	3573.122	18273.922	2.444	11.4	-8.9	NO		NO	bb
7	7 200229P1-9	Standard	12.500	5.13	3680.932	16250.412	2.831	13.2	5.6	NO		NO	bb
8	8 200229P1-10	Standard	12.500	5.13	3193.711	17097.771	2.335	10.9	-13.0	NO		NO	bb
9	9 200229P1-11	Standard	12.500	5.13	3393.035	15512.265	2.734	12.7	1.9	NO		NO	bb
10	10 200229P1-12	Standard	12.500	5.13	3389.770	13862.071	3.057	14.2	14.0	NO		NO	bb

Compound name: 13C2-PFUdA-EIS
Response Factor: 1248.4
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 200229P1-3	Standard	12.500	5.32	15143.614		15143.614	12.1	-3.0	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	5.31	15612.996		15612.996	12.5	0.1	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	5.31	16250.042		16250.042	13.0	4.1	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	5.31	15155.739		15155.739	12.1	-2.9	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	5.31	15577.516		15577.516	12.5	-0.2	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	5.30	15605.015		15605.015	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	5.31	15930.297		15930.297	12.8	2.1	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	5.31	16584.908		16584.908	13.3	6.3	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	5.31	15402.601		15402.601	12.3	-1.3	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	5.31	14392.195		14392.195	11.5	-7.8	NO		NO	bbX

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Compound name: 13C2-PFUdA-RSD
Response Factor: 0.954926
RRF SD: 0.0552883, Relative SD: 5.7898
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	200229P1-3	Standard	12.500	5.32	15143.614	16310.590	11.606	12.2	-2.8	NO		NO	bb
2	2	200229P1-4	Standard	12.500	5.31	15612.996	15475.649	12.611	13.2	5.6	NO		NO	bb
3	3	200229P1-5	Standard	12.500	5.31	16250.042	17443.197	11.645	12.2	-2.4	NO		NO	bb
4	4	200229P1-6	Standard	12.500	5.31	15155.739	15913.268	11.905	12.5	-0.3	NO		NO	bb
5	5	200229P1-7	Standard	12.500	5.31	15577.516	17453.613	11.156	11.7	-6.5	NO		NO	bb
6	6	200229P1-8	Standard	12.500	5.30	15605.015	18273.922	10.674	11.2	-10.6	NO		NO	bb
7	7	200229P1-9	Standard	12.500	5.31	15930.297	16250.412	12.254	12.8	2.7	NO		NO	bb
8	8	200229P1-10	Standard	12.500	5.31	16584.908	17097.771	12.125	12.7	1.6	NO		NO	bb
9	9	200229P1-11	Standard	12.500	5.31	15402.601	15512.265	12.412	13.0	4.0	NO		NO	bb
10	10	200229P1-12	Standard	12.500	5.31	14392.195	13862.071	12.978	13.6	8.7	NO		NO	bb

Compound name: d5-N-EtFOSAA-EIS
Response Factor: 376.592
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	200229P1-3	Standard	12.500	5.30	4145.440		4145.440	11.0	-11.9	NO		NO	bbX
2	2	200229P1-4	Standard	12.500	5.29	4293.098		4293.098	11.4	-8.8	NO		NO	bbX
3	3	200229P1-5	Standard	12.500	5.29	4520.519		4520.519	12.0	-4.0	NO		NO	bbX
4	4	200229P1-6	Standard	12.500	5.29	4202.519		4202.519	11.2	-10.7	NO		NO	bbX
5	5	200229P1-7	Standard	12.500	5.28	4423.989		4423.989	11.7	-6.0	NO		NO	bbX
6	6	200229P1-8	Standard	12.500	5.28	4707.402		4707.402	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	5.29	4377.257		4377.257	11.6	-7.0	NO		NO	bbX
8	8	200229P1-10	Standard	12.500	5.29	4002.260		4002.260	10.6	-15.0	NO		NO	bbX
9	9	200229P1-11	Standard	12.500	5.28	4287.272		4287.272	11.4	-8.9	NO		NO	bbX
10	10	200229P1-12	Standard	12.500	5.28	3381.788		3381.788	9.0	-28.2	NO		NO	bbX

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Compound name: d5-N-EtFOSAA-RSD
Response Factor: 0.258967
RRF SD: 0.0136521, Relative SD: 5.27177
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 200229P1-3	Standard	12.500	5.30	4145.440	16310.590	3.177	12.3	-1.9	NO		NO	bb
2	2 200229P1-4	Standard	12.500	5.29	4293.098	15475.649	3.468	13.4	7.1	NO		NO	bb
3	3 200229P1-5	Standard	12.500	5.29	4520.519	17443.197	3.239	12.5	0.1	NO		NO	bb
4	4 200229P1-6	Standard	12.500	5.29	4202.519	15913.268	3.301	12.7	2.0	NO		NO	bb
5	5 200229P1-7	Standard	12.500	5.28	4423.989	17453.613	3.168	12.2	-2.1	NO		NO	bb
6	6 200229P1-8	Standard	12.500	5.28	4707.402	18273.922	3.220	12.4	-0.5	NO		NO	bb
7	7 200229P1-9	Standard	12.500	5.29	4377.257	16250.412	3.367	13.0	4.0	NO		NO	bb
8	8 200229P1-10	Standard	12.500	5.29	4002.260	17097.771	2.926	11.3	-9.6	NO		NO	bb
9	9 200229P1-11	Standard	12.500	5.28	4287.272	15512.265	3.455	13.3	6.7	NO		NO	bb
10	10 200229P1-12	Standard	12.500	5.28	3381.788	13862.071	3.049	11.8	-5.8	NO		NO	bb

Compound name: 13C2-PFDoA-EIS
Response Factor: 1402.01
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 200229P1-3	Standard	12.500	5.60	15810.315		15810.315	11.3	-9.8	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	5.59	18056.061		18056.061	12.9	3.0	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	5.59	16516.145		16516.145	11.8	-5.8	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	5.59	16635.623		16635.623	11.9	-5.1	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	5.59	15677.705		15677.705	11.2	-10.5	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	5.58	17525.113		17525.113	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	5.59	18324.189		18324.189	13.1	4.6	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	5.59	17453.809		17453.809	12.4	-0.4	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	5.59	16796.951		16796.951	12.0	-4.2	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	5.59	16067.748		16067.748	11.5	-8.3	NO		NO	bbX

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Compound name: 13C2-PFDoA-RSD
Response Factor: 1.29356
RRF SD: 0.100321, Relative SD: 7.75538
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	200229P1-3	Standard	12.500	5.60	15810.315	13206.572	14.964	11.6	-7.5	NO		NO	bb
2	2	200229P1-4	Standard	12.500	5.59	18056.061	12862.382	17.547	13.6	8.5	NO		NO	bb
3	3	200229P1-5	Standard	12.500	5.59	16516.145	14104.088	14.638	11.3	-9.5	NO		NO	bb
4	4	200229P1-6	Standard	12.500	5.59	16635.623	12585.971	16.522	12.8	2.2	NO		NO	bb
5	5	200229P1-7	Standard	12.500	5.59	15677.705	13691.760	14.313	11.1	-11.5	NO		NO	bb
6	6	200229P1-8	Standard	12.500	5.58	17525.113	14224.657	15.400	11.9	-4.8	NO		NO	bb
7	7	200229P1-9	Standard	12.500	5.59	18324.189	13694.373	16.726	12.9	3.4	NO		NO	bb
8	8	200229P1-10	Standard	12.500	5.59	17453.809	13248.680	16.467	12.7	1.8	NO		NO	bb
9	9	200229P1-11	Standard	12.500	5.59	16796.951	12052.096	17.421	13.5	7.7	NO		NO	bb
10	10	200229P1-12	Standard	12.500	5.59	16067.748	11350.231	17.695	13.7	9.4	NO		NO	bb

Compound name: 13C2-10:2 FTS-EIS
Response Factor: 65.1002
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	200229P1-3	Standard	12.500	5.58	863.125		863.125	13.3	6.1	NO		NO	bbX
2	2	200229P1-4	Standard	12.500	5.57	972.349		972.349	14.9	19.5	NO		NO	bbX
3	3	200229P1-5	Standard	12.500	5.57	843.444		843.444	13.0	3.6	NO		NO	bbX
4	4	200229P1-6	Standard	12.500	5.57	777.134		777.134	11.9	-4.5	NO		NO	bbX
5	5	200229P1-7	Standard	12.500	5.57	906.122		906.122	13.9	11.4	NO		NO	bbX
6	6	200229P1-8	Standard	12.500	5.57	813.752		813.752	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	5.57	839.592		839.592	12.9	3.2	NO		NO	bbX
8	8	200229P1-10	Standard	12.500	5.57	848.368		848.368	13.0	4.3	NO		NO	MM!X
9	9	200229P1-11	Standard	12.500	5.57	737.420		737.420	11.3	-9.4	NO		NO	MMX
10	10	200229P1-12	Standard	12.500	5.57	703.762		703.762	10.8	-13.5	NO		NO	MMX

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Compound name: 13C2-10:2 FTS-RSD
Response Factor: 0.334499
RRF SD: 0.0384708, Relative SD: 11.501
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 200229P1-3	Standard	12.500	5.58	863.125	2272.423	4.748	14.2	13.6	NO		NO	bb
2	2 200229P1-4	Standard	12.500	5.57	972.349	2622.329	4.635	13.9	10.9	NO		NO	bb
3	3 200229P1-5	Standard	12.500	5.57	843.444	2619.181	4.025	12.0	-3.7	NO		NO	bb
4	4 200229P1-6	Standard	12.500	5.57	777.134	2446.402	3.971	11.9	-5.0	NO		NO	bb
5	5 200229P1-7	Standard	12.500	5.57	906.122	2230.149	5.079	15.2	21.5	NO		NO	bb
6	6 200229P1-8	Standard	12.500	5.57	813.752	2610.765	3.896	11.6	-6.8	NO		NO	bb
7	7 200229P1-9	Standard	12.500	5.57	839.592	2795.483	3.754	11.2	-10.2	NO		NO	bb
8	8 200229P1-10	Standard	12.500	5.57	848.753	2514.325	4.220	12.6	0.9	NO		NO	MM
9	9 200229P1-11	Standard	12.500	5.57	761.338	2628.682	3.620	10.8	-13.4	NO		NO	MM
10	10 200229P1-12	Standard	12.500	5.57	703.473	2275.545	3.864	11.6	-7.6	NO		NO	MM

Compound name: d3-N-MeFOSA-EIS
Response Factor: 90.4695
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 200229P1-3	Standard	149.200	5.73	10935.630		10935.630	120.9	-19.0	NO		NO	bbX
2	2 200229P1-4	Standard	149.200	5.69	13527.701		13527.701	149.5	0.2	NO		NO	bbX
3	3 200229P1-5	Standard	149.200	5.69	12956.387		12956.387	143.2	-4.0	NO		NO	MMX
4	4 200229P1-6	Standard	149.200	5.69	12918.987		12918.987	142.8	-4.3	NO		NO	bbX
5	5 200229P1-7	Standard	149.200	5.69	12942.512		12942.512	143.1	-4.1	NO		NO	bbX
6	6 200229P1-8	Standard	149.200	5.69	13498.043		13498.043	149.2	0.0	NO		NO	bb
7	7 200229P1-9	Standard	149.200	5.69	14390.063		14390.063	159.1	6.6	NO		NO	bbX
8	8 200229P1-10	Standard	149.200	5.69	13285.713		13285.713	146.9	-1.6	NO		NO	bbX
9	9 200229P1-11	Standard	149.200	5.69	13913.983		13913.983	153.8	3.1	NO		NO	bbX
10	10 200229P1-12	Standard	149.200	5.69	13061.014		13061.014	144.4	-3.2	NO		NO	bbX

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Compound name: d3-N-MeFOSA-RSD
Response Factor: 0.0676858
RRF SD: 0.00738692, Relative SD: 10.9135
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 200229P1-3	Standard	149.200	5.73	10935.630	16310.590	8.381	123.8	-17.0	NO		NO	bb
2	2 200229P1-4	Standard	149.200	5.69	13527.701	15475.649	10.927	161.4	8.2	NO		NO	bb
3	3 200229P1-5	Standard	149.200	5.69	12918.850	17443.197	9.258	136.8	-8.3	NO		NO	MM
4	4 200229P1-6	Standard	149.200	5.69	12918.987	15913.268	10.148	149.9	0.5	NO		NO	bb
5	5 200229P1-7	Standard	149.200	5.69	12942.512	17453.613	9.269	136.9	-8.2	NO		NO	bb
6	6 200229P1-8	Standard	149.200	5.69	13498.043	18273.922	9.233	136.4	-8.6	NO		NO	bb
7	7 200229P1-9	Standard	149.200	5.69	14390.063	16250.412	11.069	163.5	9.6	NO		NO	bb
8	8 200229P1-10	Standard	149.200	5.69	13285.713	17097.771	9.713	143.5	-3.8	NO		NO	bb
9	9 200229P1-11	Standard	149.200	5.69	13913.983	15512.265	11.212	165.6	11.0	NO		NO	bb
10	10 200229P1-12	Standard	149.200	5.69	13061.014	13862.071	11.778	174.0	16.6	NO		NO	bb

Compound name: 13C2-PFTeDA-EIS
Response Factor: 1271.78
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 200229P1-3	Standard	12.500	6.06	13363.974		13363.974	10.5	-15.9	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	6.05	15848.644		15848.644	12.5	-0.3	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	6.05	15068.212		15068.212	11.8	-5.2	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	6.05	14366.785		14366.785	11.3	-9.6	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	6.05	13608.132		13608.132	10.7	-14.4	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	6.05	15897.249		15897.249	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	6.05	15872.385		15872.385	12.5	-0.2	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	6.05	13597.658		13597.658	10.7	-14.5	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	6.05	14180.411		14180.411	11.2	-10.8	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	6.05	13281.593		13281.593	10.4	-16.5	NO		NO	bbX

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Compound name: 13C2-PFTeDA-RSD
Response Factor: 0.890402
RRF SD: 0.0803562, Relative SD: 9.02472
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	200229P1-3	Standard	12.500	6.06	13363.974	16310.590	10.242	11.5	-8.0	NO		NO	bb
2	2	200229P1-4	Standard	12.500	6.05	15848.644	15475.649	12.801	14.4	15.0	NO		NO	bb
3	3	200229P1-5	Standard	12.500	6.05	15068.212	17443.197	10.798	12.1	-3.0	NO		NO	bb
4	4	200229P1-6	Standard	12.500	6.05	14366.785	15913.268	11.285	12.7	1.4	NO		NO	bb
5	5	200229P1-7	Standard	12.500	6.05	13608.132	17453.613	9.746	10.9	-12.4	NO		NO	bb
6	6	200229P1-8	Standard	12.500	6.05	15897.249	18273.922	10.874	12.2	-2.3	NO		NO	bb
7	7	200229P1-9	Standard	12.500	6.05	15872.385	16250.412	12.209	13.7	9.7	NO		NO	bb
8	8	200229P1-10	Standard	12.500	6.05	13597.658	17097.771	9.941	11.2	-10.7	NO		NO	bb
9	9	200229P1-11	Standard	12.500	6.05	14180.411	15512.265	11.427	12.8	2.7	NO		NO	bb
10	10	200229P1-12	Standard	12.500	6.05	13281.593	13862.071	11.977	13.5	7.6	NO		NO	bb

Compound name: d5-N-ETFOSA-EIS
Response Factor: 147.872
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	200229P1-3	Standard	149.200	6.14	18122.236		18122.236	122.6	-17.9	NO		NO	MMX
2	2	200229P1-4	Standard	149.200	6.12	20611.051		20611.051	139.4	-6.6	NO		NO	bbX
3	3	200229P1-5	Standard	149.200	6.12	20920.973		20920.973	141.5	-5.2	NO		NO	bbX
4	4	200229P1-6	Standard	149.200	6.12	20314.105		20314.105	137.4	-7.9	NO		NO	bbX
5	5	200229P1-7	Standard	149.200	6.11	20693.260		20693.260	139.9	-6.2	NO		NO	bbX
6	6	200229P1-8	Standard	149.200	6.12	22062.475		22062.475	149.2	0.0	NO		NO	bb
7	7	200229P1-9	Standard	149.200	6.12	21593.529		21593.529	146.0	-2.1	NO		NO	bbX
8	8	200229P1-10	Standard	149.200	6.12	19733.254		19733.254	133.4	-10.6	NO		NO	bbX
9	9	200229P1-11	Standard	149.200	6.12	20202.795		20202.795	136.6	-8.4	NO		NO	bbX
10	10	200229P1-12	Standard	149.200	6.12	17995.693		17995.693	121.7	-18.4	NO		NO	bbX

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Compound name: d5-N-ETFOSA-RSD
Response Factor: 0.103757
RRF SD: 0.00669712, Relative SD: 6.45465
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 200229P1-3	Standard	149.200	6.14	17944.387	16310.590	13.752	132.5	-11.2	NO		NO	MM
2	2 200229P1-4	Standard	149.200	6.12	20611.051	15475.649	16.648	160.5	7.5	NO		NO	bb
3	3 200229P1-5	Standard	149.200	6.12	20920.973	17443.197	14.992	144.5	-3.2	NO		NO	bb
4	4 200229P1-6	Standard	149.200	6.12	20314.105	15913.268	15.957	153.8	3.1	NO		NO	bb
5	5 200229P1-7	Standard	149.200	6.11	20693.260	17453.613	14.820	142.8	-4.3	NO		NO	bb
6	6 200229P1-8	Standard	149.200	6.12	22062.475	18273.922	15.092	145.5	-2.5	NO		NO	bb
7	7 200229P1-9	Standard	149.200	6.12	21593.529	16250.412	16.610	160.1	7.3	NO		NO	bb
8	8 200229P1-10	Standard	149.200	6.12	19733.254	17097.771	14.427	139.0	-6.8	NO		NO	bb
9	9 200229P1-11	Standard	149.200	6.12	20202.795	15512.265	16.280	156.9	5.2	NO		NO	bb
10	10 200229P1-12	Standard	149.200	6.12	17995.693	13862.071	16.227	156.4	4.8	NO		NO	bb

Compound name: 13C2-PFHxDA-EIS
Response Factor: 1949.43
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 200229P1-3	Standard	12.500	6.39	22948.350		22948.350	11.8	-5.8	NO		NO	bbX
2	2 200229P1-4	Standard	12.500	6.39	24522.900		24522.900	12.6	0.6	NO		NO	bbX
3	3 200229P1-5	Standard	12.500	6.39	24480.826		24480.826	12.6	0.5	NO		NO	bbX
4	4 200229P1-6	Standard	12.500	6.39	22875.904		22875.904	11.7	-6.1	NO		NO	bbX
5	5 200229P1-7	Standard	12.500	6.38	22963.584		22963.584	11.8	-5.8	NO		NO	bbX
6	6 200229P1-8	Standard	12.500	6.39	24367.902		24367.902	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	6.39	26075.000		26075.000	13.4	7.0	NO		NO	bbX
8	8 200229P1-10	Standard	12.500	6.39	23498.615		23498.615	12.1	-3.6	NO		NO	bbX
9	9 200229P1-11	Standard	12.500	6.39	24161.551		24161.551	12.4	-0.8	NO		NO	bbX
10	10 200229P1-12	Standard	12.500	6.38	20842.158		20842.158	10.7	-14.5	NO		NO	bbX

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Compound name: 13C2-PFHxDA-RSD
Response Factor: 1.45218
RRF SD: 0.104305, Relative SD: 7.18263
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 200229P1-3	Standard	12.500	6.39	22948.350	16310.590	17.587	12.1	-3.1	NO		NO	bb
2	2 200229P1-4	Standard	12.500	6.39	24522.900	15475.649	19.808	13.6	9.1	NO		NO	bb
3	3 200229P1-5	Standard	12.500	6.39	24480.826	17443.197	17.543	12.1	-3.4	NO		NO	bb
4	4 200229P1-6	Standard	12.500	6.39	22875.904	15913.268	17.969	12.4	-1.0	NO		NO	bb
5	5 200229P1-7	Standard	12.500	6.38	22963.584	17453.613	16.446	11.3	-9.4	NO		NO	bb
6	6 200229P1-8	Standard	12.500	6.39	24367.902	18273.922	16.668	11.5	-8.2	NO		NO	bb
7	7 200229P1-9	Standard	12.500	6.39	26075.000	16250.412	20.057	13.8	10.5	NO		NO	bb
8	8 200229P1-10	Standard	12.500	6.39	23498.615	17097.771	17.180	11.8	-5.4	NO		NO	bb
9	9 200229P1-11	Standard	12.500	6.39	24161.551	15512.265	19.470	13.4	7.3	NO		NO	bb
10	10 200229P1-12	Standard	12.500	6.38	20842.158	13862.071	18.794	12.9	3.5	NO		NO	bb

Compound name: d7-N-MeFOSE-EIS
Response Factor: 124.692
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 200229P1-3	Standard	149.200	6.29	15613.309		15613.309	125.2	-16.1	NO		NO	bbX
2	2 200229P1-4	Standard	149.200	6.30	17470.814		17470.814	140.1	-6.1	NO		NO	bbX
3	3 200229P1-5	Standard	149.200	6.30	17413.082		17413.082	139.6	-6.4	NO		NO	bbX
4	4 200229P1-6	Standard	149.200	6.29	17389.162		17389.162	139.5	-6.5	NO		NO	bbX
5	5 200229P1-7	Standard	149.200	6.29	17452.363		17452.363	140.0	-6.2	NO		NO	bbX
6	6 200229P1-8	Standard	149.200	6.29	18603.994		18603.994	149.2	0.0	NO		NO	bb
7	7 200229P1-9	Standard	149.200	6.30	18812.133		18812.133	150.9	1.1	NO		NO	bbX
8	8 200229P1-10	Standard	149.200	6.29	16814.250		16814.250	134.8	-9.6	NO		NO	bbX
9	9 200229P1-11	Standard	149.200	6.29	19260.871		19260.871	154.5	3.5	NO		NO	bbX
10	10 200229P1-12	Standard	149.200	6.29	16561.521		16561.521	132.8	-11.0	NO		NO	bbX

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Compound name: d7-N-MeFOSE-RSD
Response Factor: 0.0902533
RRF SD: 0.00833734, Relative SD: 9.23772
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 200229P1-3	Standard	149.200	6.29	15613.309	16310.590	11.966	132.6	-11.1	NO		NO	bb
2	2 200229P1-4	Standard	149.200	6.30	17470.814	15475.649	14.112	156.4	4.8	NO		NO	bb
3	3 200229P1-5	Standard	149.200	6.30	17413.082	17443.197	12.478	138.3	-7.3	NO		NO	bb
4	4 200229P1-6	Standard	149.200	6.29	17389.162	15913.268	13.659	151.3	1.4	NO		NO	bb
5	5 200229P1-7	Standard	149.200	6.29	17452.363	17453.613	12.499	138.5	-7.2	NO		NO	bb
6	6 200229P1-8	Standard	149.200	6.29	18603.994	18273.922	12.726	141.0	-5.5	NO		NO	bb
7	7 200229P1-9	Standard	149.200	6.30	18812.133	16250.412	14.471	160.3	7.5	NO		NO	bb
8	8 200229P1-10	Standard	149.200	6.29	16814.250	17097.771	12.293	136.2	-8.7	NO		NO	bb
9	9 200229P1-11	Standard	149.200	6.29	19260.871	15512.265	15.521	172.0	15.3	NO		NO	bb
10	10 200229P1-12	Standard	149.200	6.29	16561.521	13862.071	14.934	165.5	10.9	NO		NO	bb

Compound name: d9-N-EtFOSE-EIS
Response Factor: 146.984
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 200229P1-3	Standard	149.200	6.44	16255.980		16255.980	110.6	-25.9	NO		NO	bbX
2	2 200229P1-4	Standard	149.200	6.44	19541.107		19541.107	132.9	-10.9	NO		NO	bbX
3	3 200229P1-5	Standard	149.200	6.44	19959.885		19959.885	135.8	-9.0	NO		NO	bbX
4	4 200229P1-6	Standard	149.200	6.44	19709.787		19709.787	134.1	-10.1	NO		NO	MMX
5	5 200229P1-7	Standard	149.200	6.44	20249.461		20249.461	137.8	-7.7	NO		NO	bbX
6	6 200229P1-8	Standard	149.200	6.44	21930.020		21930.020	149.2	0.0	NO		NO	bb
7	7 200229P1-9	Standard	149.200	6.44	22480.229		22480.229	152.9	2.5	NO		NO	bbX
8	8 200229P1-10	Standard	149.200	6.44	21166.922		21166.922	144.0	-3.5	NO		NO	bbX
9	9 200229P1-11	Standard	149.200	6.44	21542.221		21542.221	146.6	-1.8	NO		NO	bbX
10	10 200229P1-12	Standard	149.200	6.44	19468.021		19468.021	132.4	-11.2	NO		NO	bbX

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Compound name: d9-N-EtFOSE-RSD
Response Factor: 0.104137
RRF SD: 0.010693, Relative SD: 10.2682
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	200229P1-3	Standard	149.200	6.44	16255.980	16310.590	12.458	119.6	-19.8	NO		NO	bb
2	2	200229P1-4	Standard	149.200	6.44	19541.107	15475.649	15.784	151.6	1.6	NO		NO	bb
3	3	200229P1-5	Standard	149.200	6.44	19959.885	17443.197	14.303	137.4	-7.9	NO		NO	bb
4	4	200229P1-6	Standard	149.200	6.44	19914.111	15913.268	15.643	150.2	0.7	NO		NO	bd
5	5	200229P1-7	Standard	149.200	6.44	20249.461	17453.613	14.502	139.3	-6.7	NO		NO	bb
6	6	200229P1-8	Standard	149.200	6.44	21930.020	18273.922	15.001	144.0	-3.5	NO		NO	bb
7	7	200229P1-9	Standard	149.200	6.44	22480.229	16250.412	17.292	166.1	11.3	NO		NO	bb
8	8	200229P1-10	Standard	149.200	6.44	21166.922	17097.771	15.475	148.6	-0.4	NO		NO	bb
9	9	200229P1-11	Standard	149.200	6.44	21542.221	15512.265	17.359	166.7	11.7	NO		NO	bb
10	10	200229P1-12	Standard	149.200	6.44	19468.021	13862.071	17.555	168.6	13.0	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	200229P1-3	Standard	12.500	1.38	5835.744	5835.744	12.500	12.5	0.0	NO		NO	MM
2	2	200229P1-4	Standard	12.500	1.31	5669.284	5669.284	12.500	12.5	0.0	NO		NO	MM
3	3	200229P1-5	Standard	12.500	1.30	5537.038	5537.038	12.500	12.5	0.0	NO		NO	bb
4	4	200229P1-6	Standard	12.500	1.30	5559.221	5559.221	12.500	12.5	0.0	NO		NO	bb
5	5	200229P1-7	Standard	12.500	1.30	5626.135	5626.135	12.500	12.5	0.0	NO		NO	bb
6	6	200229P1-8	Standard	12.500	1.30	6231.405	6231.405	12.500	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	1.30	6272.565	6272.565	12.500	12.5	0.0	NO		NO	bb
8	8	200229P1-10	Standard	12.500	1.30	5837.685	5837.685	12.500	12.5	0.0	NO		NO	bb
9	9	200229P1-11	Standard	12.500	1.30	6104.808	6104.808	12.500	12.5	0.0	NO		NO	MM
10	10	200229P1-12	Standard	12.500	1.30	5906.391	5906.391	12.500	12.5	0.0	NO		NO	MM

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Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 9.06493e-017, Relative SD: 9.06493e-015
Response type: Internal Std (Ref 100), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	200229P1-3	Standard	12.500	3.08	12669.063	12669.063	12.500	12.5	0.0	NO		NO	bb
2	2	200229P1-4	Standard	12.500	3.03	13823.993	13823.993	12.500	12.5	0.0	NO		NO	bb
3	3	200229P1-5	Standard	12.500	3.03	13588.657	13588.657	12.500	12.5	0.0	NO		NO	bb
4	4	200229P1-6	Standard	12.500	3.03	13872.069	13872.069	12.500	12.5	0.0	NO		NO	bb
5	5	200229P1-7	Standard	12.500	3.03	13960.303	13960.303	12.500	12.5	0.0	NO		NO	bb
6	6	200229P1-8	Standard	12.500	3.03	14521.299	14521.299	12.500	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	3.03	15497.363	15497.363	12.500	12.5	0.0	NO		NO	bb
8	8	200229P1-10	Standard	12.500	3.03	13645.467	13645.467	12.500	12.5	0.0	NO		NO	bb
9	9	200229P1-11	Standard	12.500	3.03	13806.657	13806.657	12.500	12.5	0.0	NO		NO	bb
10	10	200229P1-12	Standard	12.500	3.03	12632.668	12632.668	12.500	12.5	0.0	NO		NO	bb

Compound name: 18O2-PFHxS
Response Factor: 1
RRF SD: 9.79125e-017, Relative SD: 9.79125e-015
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	200229P1-3	Standard	12.500	3.82	856.125	856.125	12.500	12.5	0.0	NO		NO	bb
2	2	200229P1-4	Standard	12.500	3.79	861.102	861.102	12.500	12.5	0.0	NO		NO	bb
3	3	200229P1-5	Standard	12.500	3.78	886.043	886.043	12.500	12.5	0.0	NO		NO	bb
4	4	200229P1-6	Standard	12.500	3.78	906.847	906.847	12.500	12.5	0.0	NO		NO	bb
5	5	200229P1-7	Standard	12.500	3.78	1007.768	1007.768	12.500	12.5	0.0	NO		NO	bd
6	6	200229P1-8	Standard	12.500	3.78	949.511	949.511	12.500	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	3.78	926.409	926.409	12.500	12.5	0.0	NO		NO	bb
8	8	200229P1-10	Standard	12.500	3.78	777.999	777.999	12.500	12.5	0.0	NO		NO	bb
9	9	200229P1-11	Standard	12.500	3.78	872.006	872.006	12.500	12.5	0.0	NO		NO	bb
10	10	200229P1-12	Standard	12.500	3.78	855.193	855.193	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 7.40149e-017, Relative SD: 7.40149e-015
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 200229P1-3	Standard	12.500	4.19	14173.799	14173.799	12.500	12.5	0.0	NO		NO	bb
2	2 200229P1-4	Standard	12.500	4.15	14178.126	14178.126	12.500	12.5	0.0	NO		NO	bb
3	3 200229P1-5	Standard	12.500	4.15	14149.585	14149.585	12.500	12.5	0.0	NO		NO	bb
4	4 200229P1-6	Standard	12.500	4.15	13984.859	13984.859	12.500	12.5	0.0	NO		NO	bb
5	5 200229P1-7	Standard	12.500	4.15	14429.136	14429.136	12.500	12.5	0.0	NO		NO	bb
6	6 200229P1-8	Standard	12.500	4.15	15418.980	15418.980	12.500	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.15	16177.321	16177.321	12.500	12.5	0.0	NO		NO	bb
8	8 200229P1-10	Standard	12.500	4.15	14387.090	14387.090	12.500	12.5	0.0	NO		NO	bb
9	9 200229P1-11	Standard	12.500	4.15	14081.781	14081.781	12.500	12.5	0.0	NO		NO	bb
10	10 200229P1-12	Standard	12.500	4.15	12651.249	12651.249	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C9-PFNA
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 200229P1-3	Standard	12.500	4.63	10628.747	10628.747	12.500	12.5	0.0	NO		NO	bb
2	2 200229P1-4	Standard	12.500	4.60	11974.754	11974.754	12.500	12.5	0.0	NO		NO	bd
3	3 200229P1-5	Standard	12.500	4.60	11455.452	11455.452	12.500	12.5	0.0	NO		NO	bb
4	4 200229P1-6	Standard	12.500	4.60	11904.761	11904.761	12.500	12.5	0.0	NO		NO	bb
5	5 200229P1-7	Standard	12.500	4.60	11187.718	11187.718	12.500	12.5	0.0	NO		NO	bb
6	6 200229P1-8	Standard	12.500	4.60	12967.569	12967.569	12.500	12.5	0.0	NO		NO	bb
7	7 200229P1-9	Standard	12.500	4.60	13536.669	13536.669	12.500	12.5	0.0	NO		NO	bb
8	8 200229P1-10	Standard	12.500	4.60	11939.165	11939.165	12.500	12.5	0.0	NO		NO	bb
9	9 200229P1-11	Standard	12.500	4.60	11152.880	11152.880	12.500	12.5	0.0	NO		NO	bb
10	10 200229P1-12	Standard	12.500	4.60	10709.433	10709.433	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C4-PFOS
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	200229P1-3	Standard	12.500	4.71	2272.423	2272.423	12.500	12.5	0.0	NO		NO	bb
2	2	200229P1-4	Standard	12.500	4.69	2622.329	2622.329	12.500	12.5	0.0	NO		NO	bb
3	3	200229P1-5	Standard	12.500	4.69	2619.181	2619.181	12.500	12.5	0.0	NO		NO	bb
4	4	200229P1-6	Standard	12.500	4.68	2446.402	2446.402	12.500	12.5	0.0	NO		NO	bb
5	5	200229P1-7	Standard	12.500	4.69	2230.149	2230.149	12.500	12.5	0.0	NO		NO	bb
6	6	200229P1-8	Standard	12.500	4.69	2610.765	2610.765	12.500	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	4.69	2795.483	2795.483	12.500	12.5	0.0	NO		NO	bb
8	8	200229P1-10	Standard	12.500	4.69	2514.325	2514.325	12.500	12.5	0.0	NO		NO	bb
9	9	200229P1-11	Standard	12.500	4.69	2628.682	2628.682	12.500	12.5	0.0	NO		NO	bb
10	10	200229P1-12	Standard	12.500	4.69	2275.545	2275.545	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 8.27511e-017, Relative SD: 8.27511e-015
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	200229P1-3	Standard	12.500	5.01	13206.572	13206.572	12.500	12.5	0.0	NO		NO	bb
2	2	200229P1-4	Standard	12.500	4.98	12862.382	12862.382	12.500	12.5	0.0	NO		NO	bb
3	3	200229P1-5	Standard	12.500	4.98	14104.088	14104.088	12.500	12.5	0.0	NO		NO	bb
4	4	200229P1-6	Standard	12.500	4.98	12585.971	12585.971	12.500	12.5	0.0	NO		NO	bb
5	5	200229P1-7	Standard	12.500	4.98	13691.760	13691.760	12.500	12.5	0.0	NO		NO	bb
6	6	200229P1-8	Standard	12.500	4.98	14224.657	14224.657	12.500	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	4.98	13694.373	13694.373	12.500	12.5	0.0	NO		NO	bb
8	8	200229P1-10	Standard	12.500	4.98	13248.680	13248.680	12.500	12.5	0.0	NO		NO	bd
9	9	200229P1-11	Standard	12.500	4.98	12052.096	12052.096	12.500	12.5	0.0	NO		NO	bb
10	10	200229P1-12	Standard	12.500	4.98	11350.231	11350.231	12.500	12.5	0.0	NO		NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:31:19 Pacific Standard Time
Printed: Monday, March 02, 2020 10:45:03 Pacific Standard Time

Compound name: 13C7-PFUdA
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	200229P1-3	Standard	12.500	5.32	16310.590	16310.590	12.500	12.5	0.0	NO		NO	bb
2	2	200229P1-4	Standard	12.500	5.31	15475.649	15475.649	12.500	12.5	0.0	NO		NO	bd
3	3	200229P1-5	Standard	12.500	5.31	17443.197	17443.197	12.500	12.5	0.0	NO		NO	bb
4	4	200229P1-6	Standard	12.500	5.31	15913.268	15913.268	12.500	12.5	0.0	NO		NO	bb
5	5	200229P1-7	Standard	12.500	5.31	17453.613	17453.613	12.500	12.5	0.0	NO		NO	bb
6	6	200229P1-8	Standard	12.500	5.31	18273.922	18273.922	12.500	12.5	0.0	NO		NO	bb
7	7	200229P1-9	Standard	12.500	5.31	16250.412	16250.412	12.500	12.5	0.0	NO		NO	bb
8	8	200229P1-10	Standard	12.500	5.31	17097.771	17097.771	12.500	12.5	0.0	NO		NO	bb
9	9	200229P1-11	Standard	12.500	5.31	15512.265	15512.265	12.500	12.5	0.0	NO		NO	bb
10	10	200229P1-12	Standard	12.500	5.31	13862.071	13862.071	12.500	12.5	0.0	NO		NO	bb

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Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 12:09:39 Pacific Standard Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022920.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Name: 200229P1-8, Date: 29-Feb-2020, Time: 16:38:28, ID: ST200229P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	IS#	CoD	CoD Flag	%RSD
1	1	PFBA	47	0.9990	NO	
2	2	PFPrS	51	0.9989	NO	
3	3	3:3 FTCA	49	0.9995	NO	
4	4	PFPeA	49	0.9992	NO	
5	5	PFBS	51	0.9995	NO	
6	6	4:2 FTS	55	0.9975	NO	
7	7	PFHxA	57	0.9992	NO	
8	8	PFPeS	51	0.9996	NO	
9	9	HFPO-DA	53	0.9988	NO	
10	10	5:3 FTCA	59	0.9997	NO	
11	11	PFHpA	59	0.9985	NO	
12	12	ADONA	59	0.9946	NO	
13	13	L-PFHxS	61	0.9987	NO	
14	15	6:2 FTS	63	0.9997	NO	
15	16	L-PFOA	69	0.9996	NO	
16	18	PFecHS	69	0.9997	NO	
17	19	PFHpS	71	0.9924	NO	
18	20	7:3 FTCA	65	0.9971	NO	
19	21	PFNA	65	0.9984	NO	
20	22	PFOSA	67	0.9982	NO	
21	23	L-PFOS	71	0.9998	NO	
22	25	9Cl-PF30NS	71	0.9968	NO	
23	26	PFDA	73	0.9975	NO	
24	27	8:2 FTS	75	0.9941	NO	
25	28	PFNS	71	0.9991	NO	
26	29	L-MeFOSAA	77	0.9986	NO	

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Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:31:19 Pacific Standard Time
Printed: Monday, March 02, 2020 10:51:50 Pacific Standard Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022820.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:27:54

Name: 200229P1-8, Date: 29-Feb-2020, Time: 16:38:28, ID: ST200229P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	IS#	CoD	CoD Flag	%RSD
1	31	L-EtFOSAA	81	0.9968	NO	
2	33	PFUdA	79	0.9994	NO	
3	34	PFDS	71	0.9978	NO	
4	35	11Cl-PF30UdS	83	0.9997	NO	
5	36	10:2 FTS	85	0.9991	NO	
6	37	PFDoA	83	0.9996	NO	
7	38	N-MeFOSA	87	0.9990	NO	
8	39	PFTrDA	83	0.9997	NO	
9	40	PFDoS	89	0.9992	NO	
10	41	PFTeDA	89	0.9996	NO	
11	42	N-EtFOSA	91	0.9992	NO	
12	43	PFHxDA	93	0.9985	NO	
13	44	PFODA	93	0.9984	NO	
14	45	N-MeFOSE	95	0.9975	NO	
15	46	N-EtFOSE	97	0.9984	NO	
16	47	13C3-PFBA-EIS			NO	5.447
17	48	13C3-PFBA-RSD	99		NO	1.772
18	49	13C3-PFPeA-EIS			NO	0.000
19	50	13C3-PFPeA-RSD	100		NO	3.221
20	51	13C3-PFBS-EIS			NO	0.000
21	52	13C3-PFBS-RSD	101		NO	5.751
22	53	13C3-HFPO-DA-EIS			NO	0.000
23	54	13C3-HFPO-DA-RSD	100		NO	4.552
24	55	13C2-4:2 FTS-EIS			NO	0.000
25	56	13C2-4:2 FTS-RSD	101		NO	4.857
26	57	13C2-PFHxA-EIS			NO	0.000
27	58	13C2-PFHxA-RSD	100		NO	2.971
28	59	13C4-PFHpA-EIS			NO	0.000
29	60	13C4-PFHpA-RSD	100		NO	4.617
30	61	13C3-PFHxS-EIS			NO	0.000
31	62	13C3-PFHxS-RSD	101		NO	7.851
32	63	13C2-6:2 FTS-EIS			NO	0.000

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Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:31:19 Pacific Standard Time
Printed: Monday, March 02, 2020 10:51:50 Pacific Standard Time

Name: 200229P1-8, Date: 29-Feb-2020, Time: 16:38:28, ID: ST200229P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	IS#	CoD	CoD Flag	%RSD
33	64	13C2-6:2 FTS-RSD	104		NO	9.621
34	65	13C5-PFNA-EIS			NO	0.000
35	66	13C5-PFNA-RSD	103		NO	3.970
36	67	13C8-PFOSA-EIS			NO	0.000
37	68	13C8-PFOSA-RSD	106		NO	9.427
38	69	13C2-PFOA-EIS			NO	0.000
39	70	13C2-PFOA-RSD	102		NO	2.329
40	71	13C8-PFOS-EIS			NO	0.000
41	72	13C8-PFOS-RSD	104		NO	6.866
42	73	13C2-PFDA-EIS			NO	0.000
43	74	13C2-PFDA-RSD	105		NO	5.029
44	75	13C2-8:2 FTS-EIS			NO	0.000
45	76	13C2-8:2 FTS-RSD	104		NO	11.124
46	77	d3-N-MeFOSAA-EIS			NO	0.000
47	78	d3-N-MeFOSAA-RSD	106		NO	9.677
48	79	13C2-PFUdA-EIS			NO	0.000
49	80	13C2-PFUdA-RSD	106		NO	5.790
50	81	d5-N-EtFOSAA-EIS			NO	0.000
51	82	d5-N-EtFOSAA-RSD	106		NO	5.272
52	83	13C2-PFDoA-EIS			NO	0.000
53	84	13C2-PFDoA-RSD	105		NO	7.755
54	85	13C2-10:2 FTS-EIS			NO	0.000
55	86	13C2-10:2 FTS-RSD	104		NO	11.501
56	87	d3-N-MeFOSA-EIS			NO	0.000
57	88	d3-N-MeFOSA-RSD	106		NO	10.914
58	89	13C2-PFTeDA-EIS			NO	0.000
59	90	13C2-PFTeDA-RSD	106		NO	9.025
60	91	d5-N-ETFOSA-EIS			NO	0.000
61	92	d5-N-ETFOSA-RSD	106		NO	6.455
62	93	13C2-PFHxDA-EIS			NO	0.000
63	94	13C2-PFHxDA-RSD	106		NO	7.183
64	95	d7-N-MeFOSE-EIS			NO	0.000
65	96	d7-N-MeFOSE-RSD	106		NO	9.238
66	97	d9-N-EtFOSE-EIS			NO	0.000
67	98	d9-N-EtFOSE-RSD	106		NO	10.268
68	99	13C4-PFBA	99		NO	0.000

Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:31:19 Pacific Standard Time
Printed: Monday, March 02, 2020 10:51:50 Pacific Standard Time

Name: 200229P1-8, Date: 29-Feb-2020, Time: 16:38:28, ID: ST200229P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	#	Name	IS#	CoD	CoD Flag	%RSD
69	1...	13C5-PFHxA	100		NO	0.000
70	1...	18O2-PFHxS	101		NO	0.000
71	1...	13C8-PFOA	102		NO	0.000
72	1...	13C9-PFNA	103		NO	0.000
73	1...	13C4-PFOS	104		NO	0.000
74	1...	13C6-PFDA	105		NO	0.000
75	1...	13C7-PFUdA	106		NO	0.000

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Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 11:03:56 Pacific Standard Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022820.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Name: 200229P1-8, Date: 29-Feb-2020, Time: 16:38:28, ID: ST200229P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	PFBA	1.30	1.30			
2	PFPrS	1.69	1.63	2.395	2.330	NO
3	3:3 FTCA	2.09	2.09	3.660	4.128	NO
4	PFPeA	2.23	2.23			
5	PFBS	2.51	2.51	3.139	3.298	NO
6	4:2 FTS	2.95	2.95	0.899	1.041	NO
7	PFHxA	3.03	3.03	16.931	17.285	NO
8	PFPeS	3.18	3.24	2.432	2.549	NO
9	HFPO-DA	3.25	3.25	2.776	2.855	NO
10	5:3 FTCA	3.59	3.58	1.853	1.833	NO
11	PFHpA	3.64	3.64	33.693	16.937	NO
12	ADONA	3.73	3.75	4.296	3.896	NO
13	L-PFHxS	3.78	3.78	2.174	3.153	NO
14	6:2 FTS	4.10	4.10	1.229	1.406	NO
15	L-PFOA	4.15	4.15	2.800	3.375	NO
16	PFecHS	4.17	4.17	0.486	0.505	NO
17	PFHpS	4.30	4.27	2.025	2.001	NO
18	7:3 FTCA	4.59	4.59	1.539	1.765	NO
19	PFNA	4.60	4.60	9.406	6.213	NO
20	PFOSA	4.65	4.66	26.472	26.281	NO
21	L-PFOS	4.69	4.69	2.608	2.129	NO
22	9Cl-PF30NS	4.89	4.91	16.976	28.181	YES
23	PFDA	4.98	4.98	11.681	7.905	NO
24	8:2 FTS	4.95	4.95	2.559	2.038	NO
25	PFNS	5.03	5.04	2.122	2.242	NO
26	L-MeFOSAA	5.13	5.13	1.874	1.969	NO

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Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 11:04:24 Pacific Standard Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022820.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Name: 200229P1-8, Date: 29-Feb-2020, Time: 16:38:28, ID: ST200229P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	L-EtFOSAA	5.28	5.29	1.127	1.274	NO
2	PFUdA	5.30	5.30	23.768	14.121	NO
3	PFDS	5.31	5.35	2.050	2.285	NO
4	11Cl-PF30UdS	5.52	5.52	19.229	19.064	NO
5	10:2 FTS	5.57	5.57	0.992	1.004	NO
6	PFDoA	5.58	5.58	9.903	9.742	NO
7	N-MeFOSA	5.68	5.66	1.781	1.681	NO
8	PFTrDA	5.84	5.83	50.652	42.389	NO
9	PFDoS	5.85	5.86	3.011	3.192	NO
10	PFTeDA	6.05	6.05	17.346	17.143	NO
11	N-EtFOSA	6.10	6.10	1.652	1.696	NO
12	PFHxDA	6.39	6.39	155.012	99.146	NO
13	PFODA	6.60	6.62			
14	N-MeFOSE	6.29	6.30			
15	N-EtFOSE	6.44	6.45			

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Dataset: Untitled

Last Altered: Monday, March 02, 2020 11:08:35 Pacific Standard Time
Printed: Monday, March 02, 2020 11:08:51 Pacific Standard Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022920.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	200229P1-1	IPA	29-Feb-20	15:24:43
2	2	200229P1-2	IPA	29-Feb-20	15:35:28
3	3	200229P1-3	ST200229P1-1 PFC CS-2 20B1102	29-Feb-20	15:45:57
4	4	200229P1-4	ST200229P1-2 PFC CS-1 20B1103	29-Feb-20	15:56:29
5	5	200229P1-5	ST200229P1-3 PFC CS0 20B1104	29-Feb-20	16:06:57
6	6	200229P1-6	ST200229P1-4 PFC CS1 20B1105	29-Feb-20	16:17:29
7	7	200229P1-7	ST200229P1-5 PFC CS2 20B1106	29-Feb-20	16:28:00
8	8	200229P1-8	ST200229P1-6 PFC CS3 20B1107	29-Feb-20	16:38:28
9	9	200229P1-9	ST200229P1-7 PFC CS4 20B1108	29-Feb-20	16:49:00
10	10	200229P1-10	ST200229P1-8 PFC CS5 20B1109	29-Feb-20	16:59:31
11	11	200229P1-11	ST200229P1-9 PFC CS6 20B1110	29-Feb-20	17:10:00
12	12	200229P1-12	ST200229P1-10 PFC CS7 20B1111	29-Feb-20	17:20:30
13	13	200229P1-13	IB	29-Feb-20	17:31:01
14	14	200229P1-14	ICV200229P1-1 PFC ICV 20B1112	29-Feb-20	17:41:30
15	15	200229P1-15	IB	29-Feb-20	17:52:02

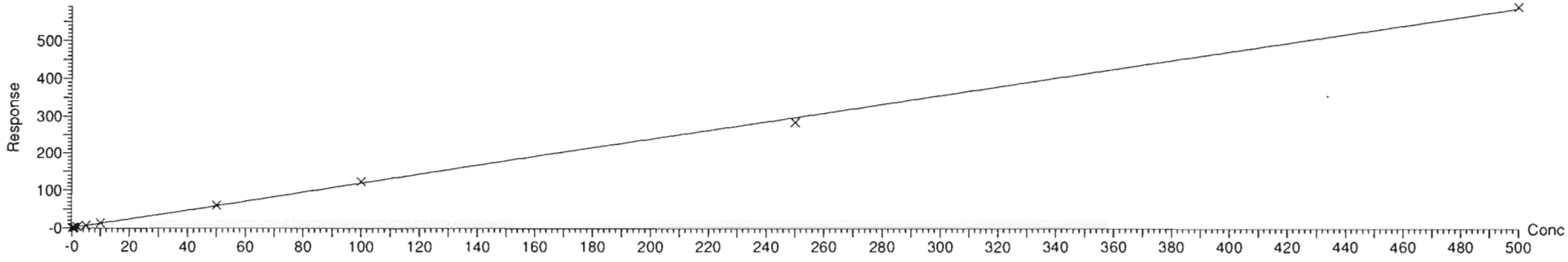
Vista Analytical Laboratory Q1

Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

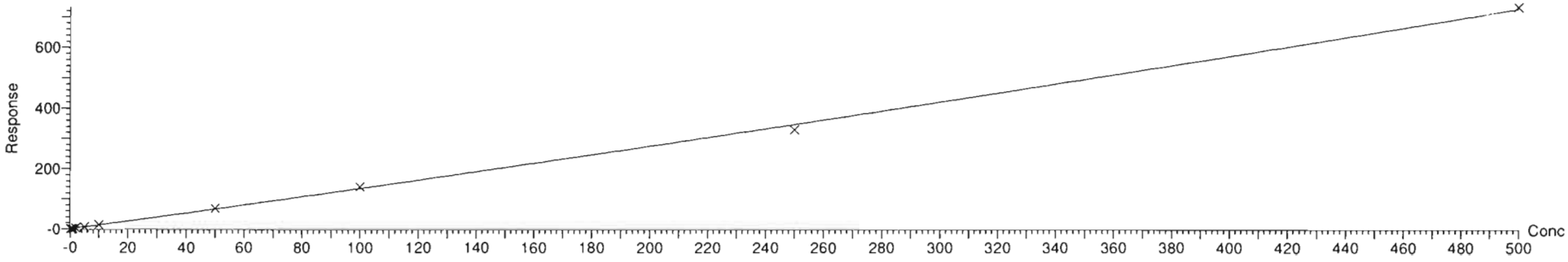
Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 10:55:30 Pacific Standard Time

Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022820.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Compound name: PFBA
Coefficient of Determination: R^2 = 0.999014
Calibration curve: -7.26e-005 * x^2 + 1.20883 * x + 0.0539221
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



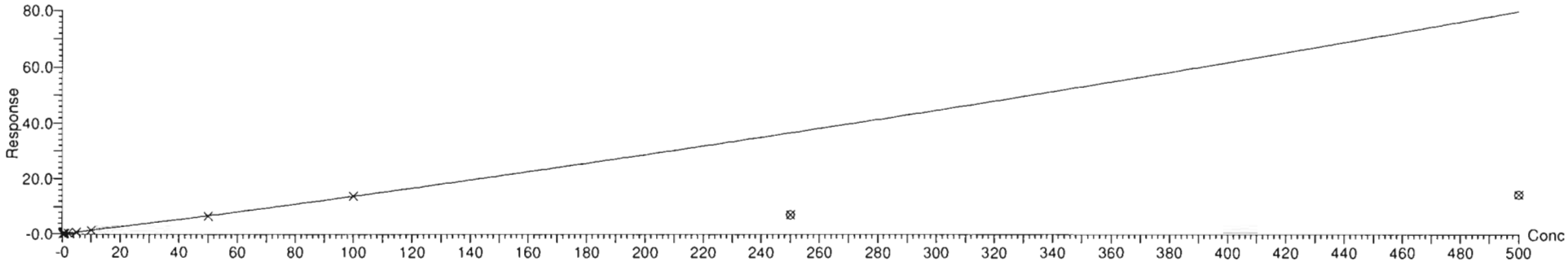
Compound name: PFPrS
Coefficient of Determination: R^2 = 0.998898
Calibration curve: 0.000254058 * x^2 + 1.32918 * x + -0.0292731
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



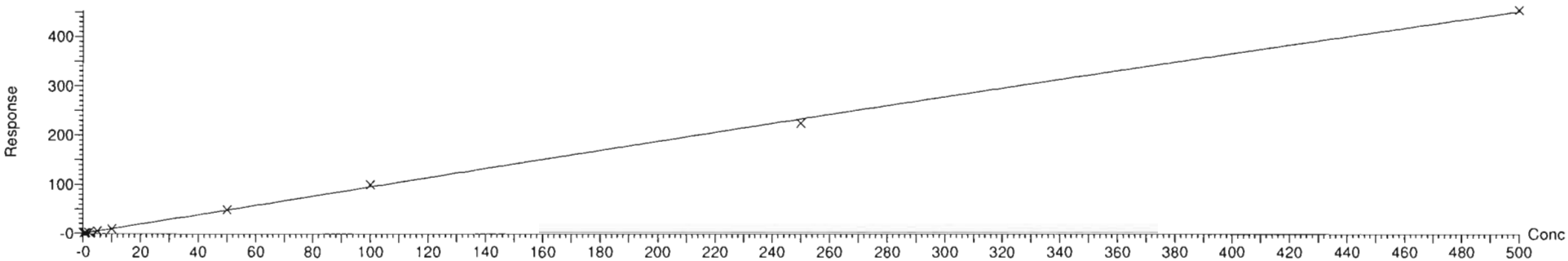
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 10:55:30 Pacific Standard Time

Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.999514
Calibration curve: 5.29325e-005 * x^2 + 0.133561 * x + -0.00607305
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



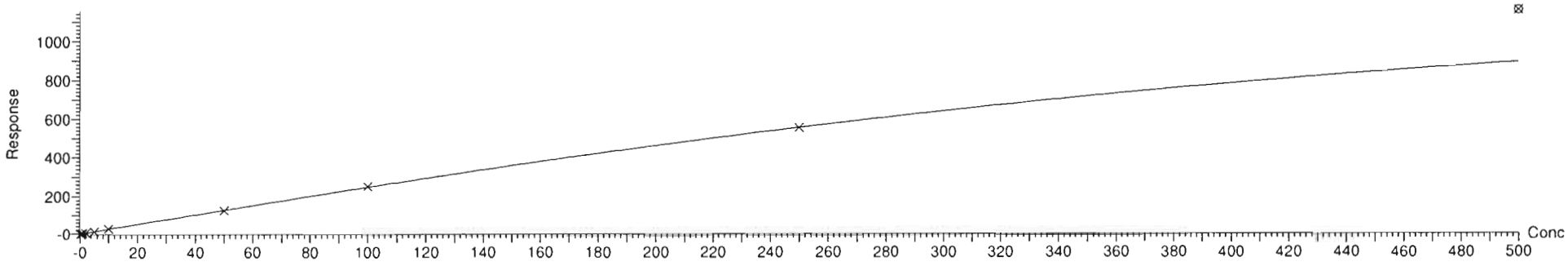
Compound name: PFPeA
Coefficient of Determination: R^2 = 0.999206
Calibration curve: -0.000124021 * x^2 + 0.964733 * x + 0.0392424
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



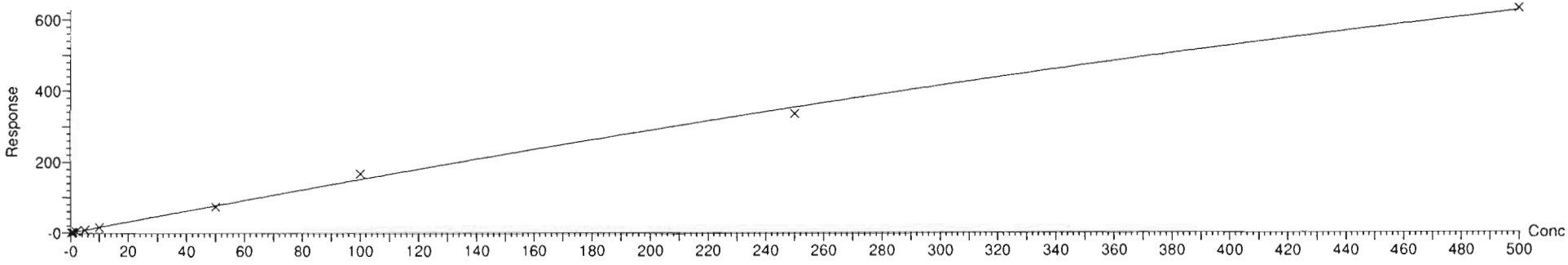
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 10:55:30 Pacific Standard Time

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999497
Calibration curve: -0.00173094 * x^2 + 2.6513 * x + -0.251741
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



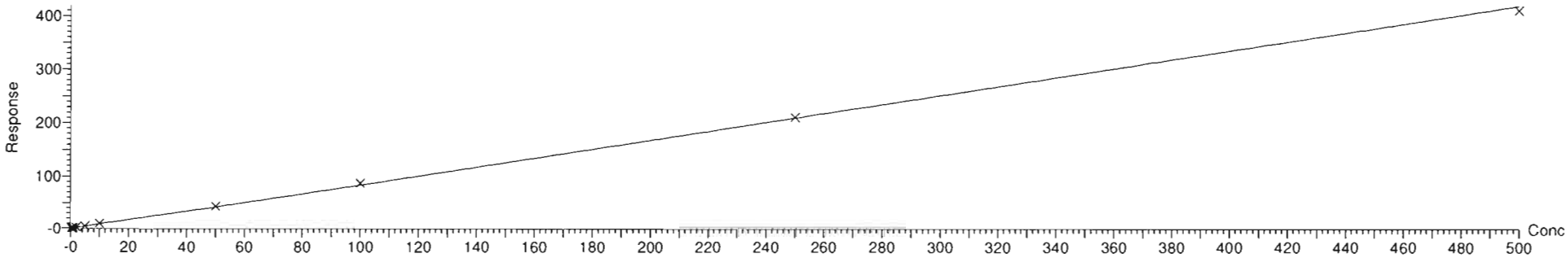
Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.997493
Calibration curve: -0.000644207 * x^2 + 1.56988 * x + -0.0868661
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



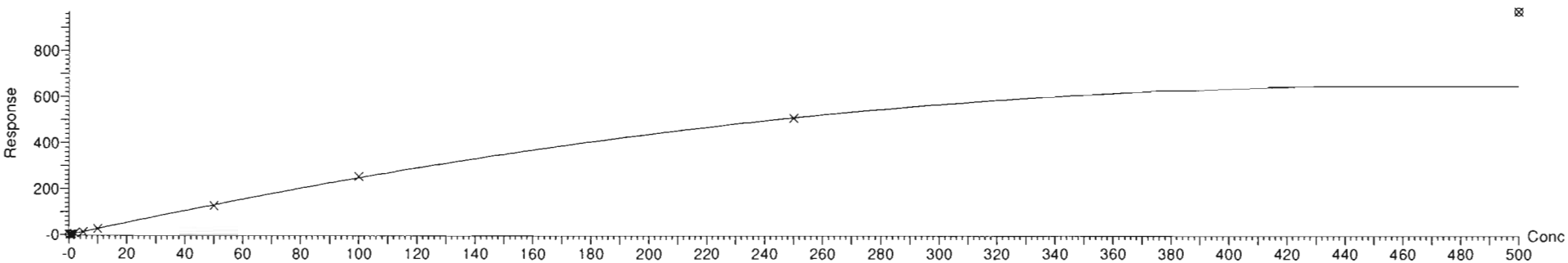
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: PFHxA
Correlation coefficient: r = 0.999611, r^2 = 0.999222
Calibration curve: 0.838943 * x + 0.10463
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



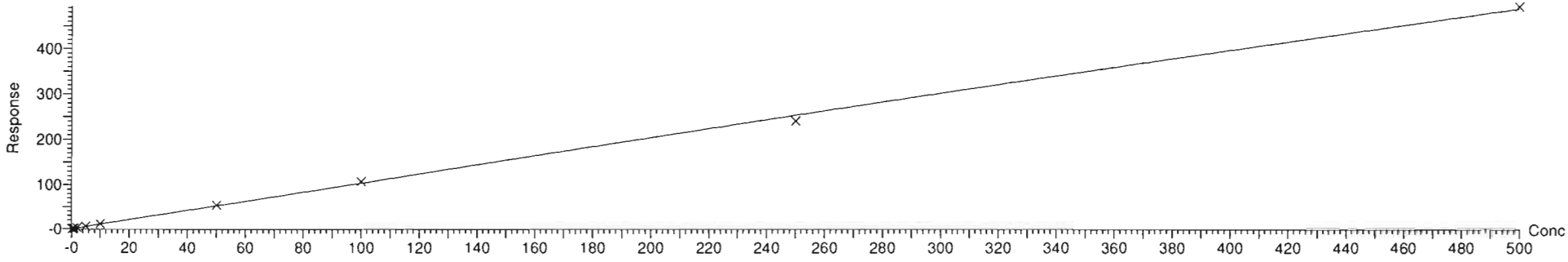
Compound name: PFPeS
Coefficient of Determination: R^2 = 0.999637
Calibration curve: -0.0030014 * x^2 + 2.79602 * x + -0.53413
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



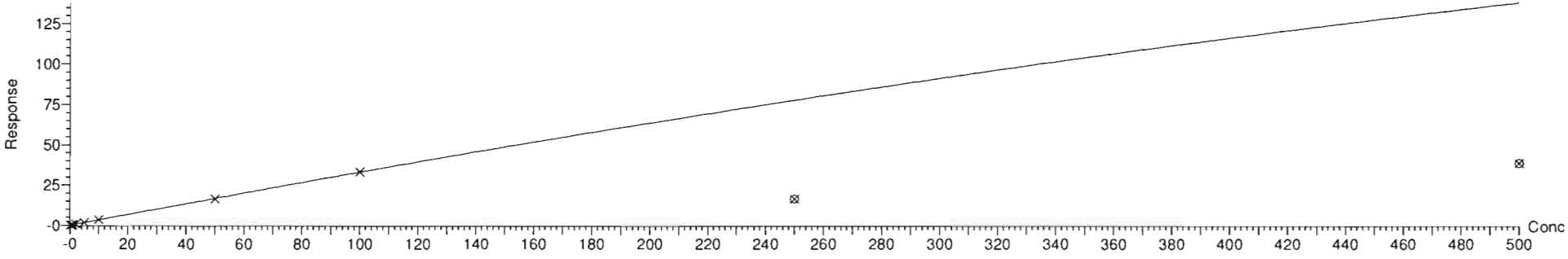
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.998793
Calibration curve: -0.000153928 * x^2 + 1.05532 * x + 0.0533749
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



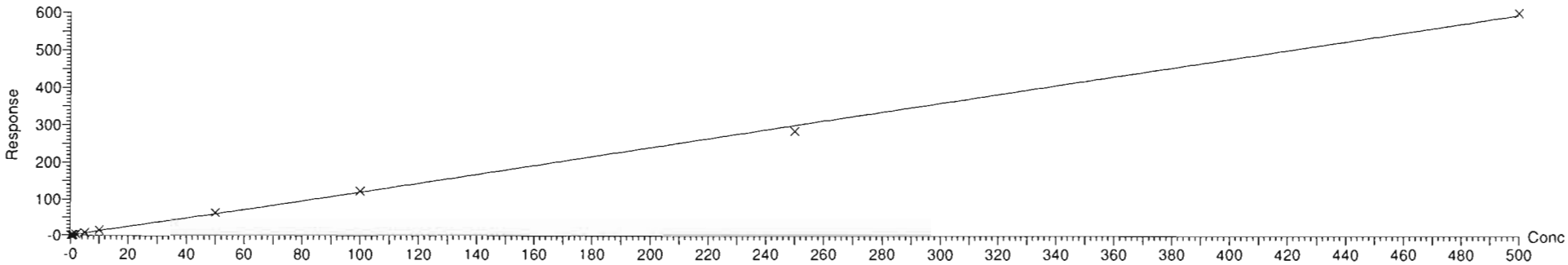
Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999659
Calibration curve: -0.000139609 * x^2 + 0.346434 * x + -0.000467738
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



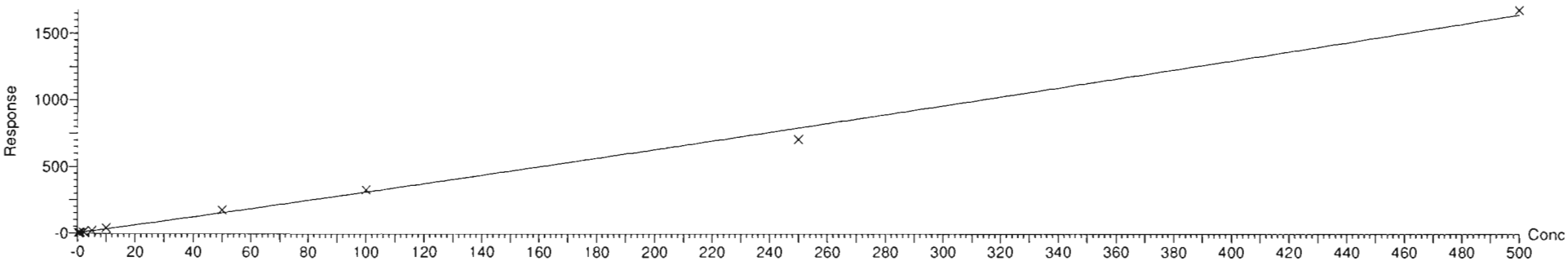
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998543
Calibration curve: -2.80604e-005 * x^2 + 1.20464 * x + 0.137234
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



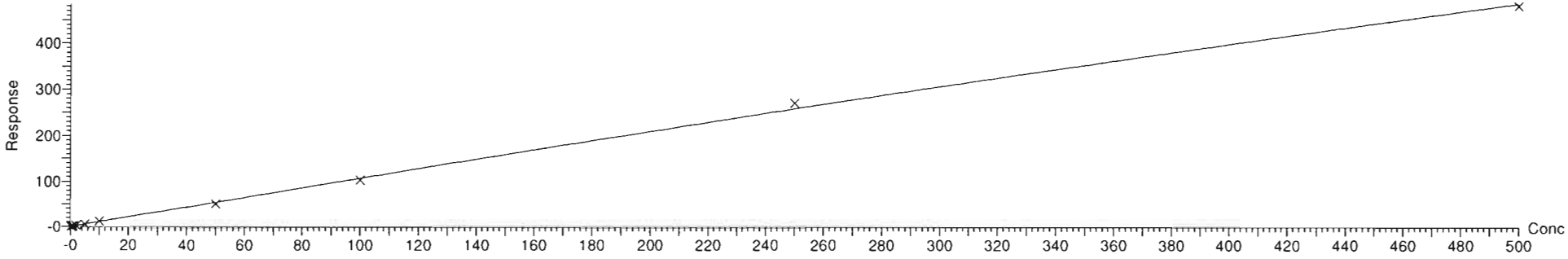
Compound name: ADONA
Coefficient of Determination: R^2 = 0.994634
Calibration curve: 0.000465383 * x^2 + 3.05822 * x + 0.398385
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



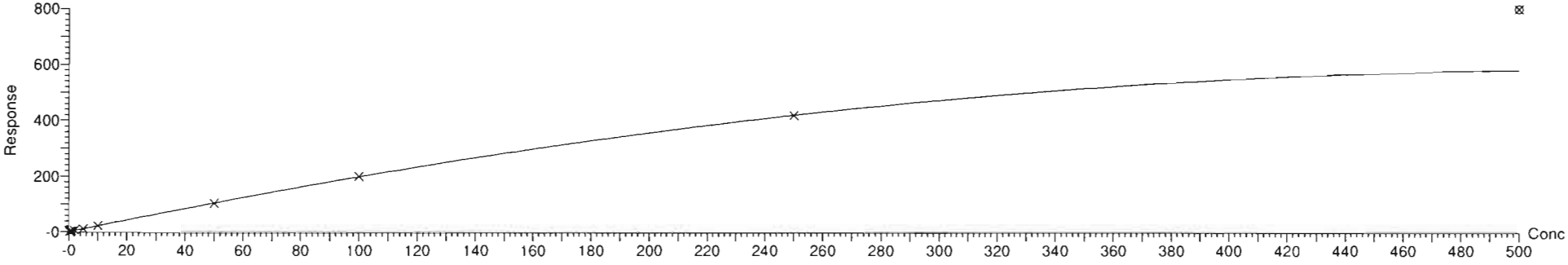
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.998679
Calibration curve: -0.000251852 * x^2 + 1.09858 * x + -0.145925
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



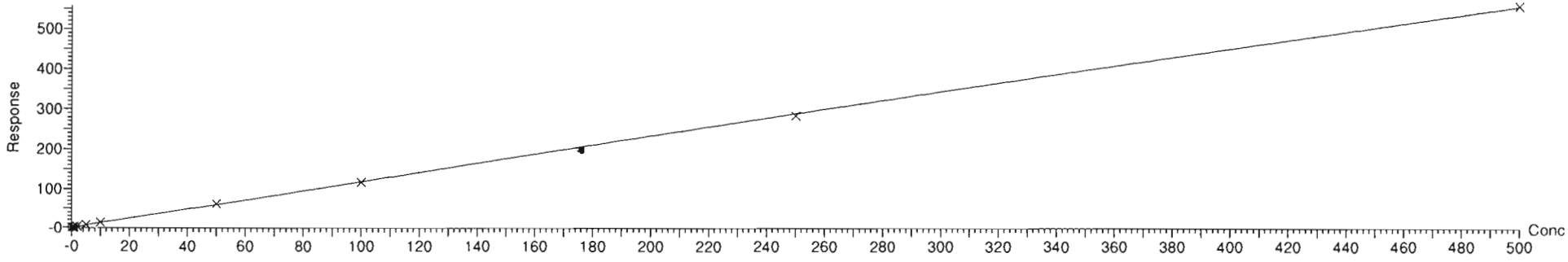
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.999738
Calibration curve: -0.00207235 * x^2 + 2.19851 * x + -0.0932146
Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



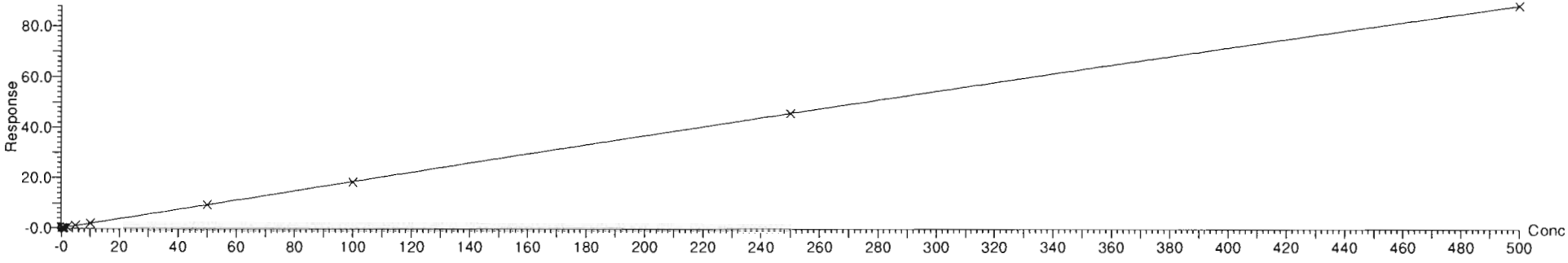
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999566
Calibration curve: -0.000173152 * x^2 + 1.19871 * x + 0.255567
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



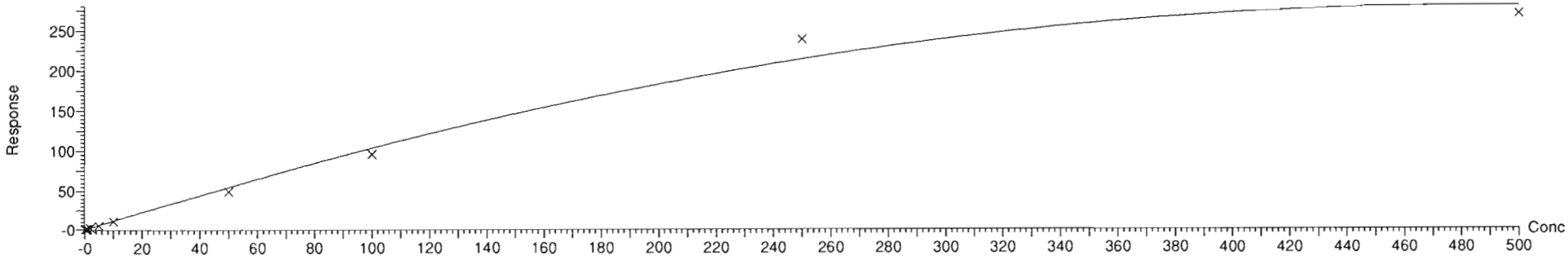
Compound name: PFecHS
Coefficient of Determination: R^2 = 0.999692
Calibration curve: -2.49656e-005 * x^2 + 0.189183 * x + -0.0174813
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



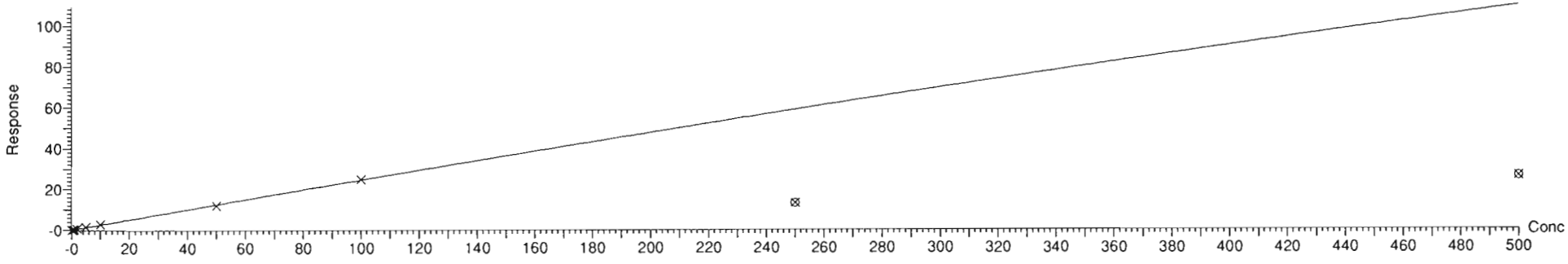
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.992382
Calibration curve: -0.00118396 * x^2 + 1.15176 * x + -0.0858055
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



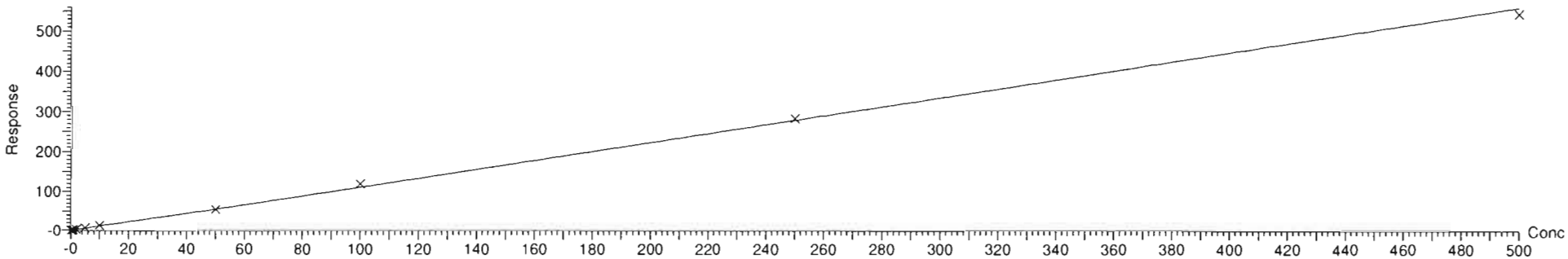
Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.997113
Calibration curve: -6.34032e-005 * x^2 + 0.250677 * x + -0.0155274
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



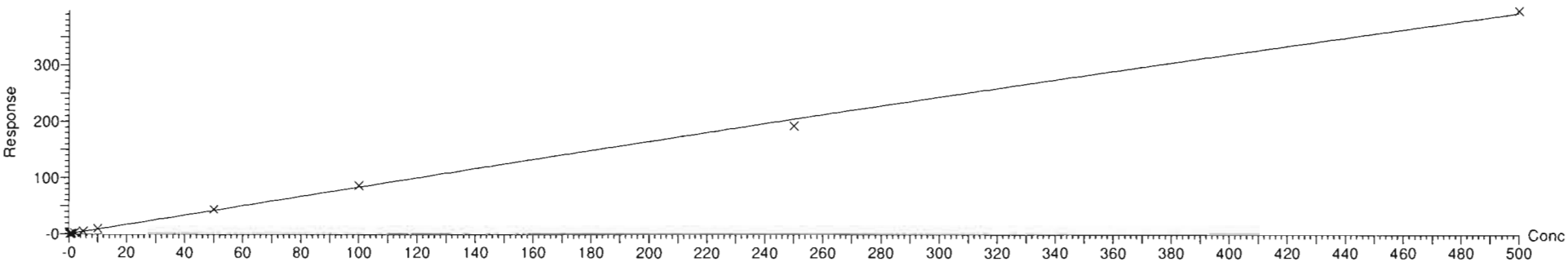
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: PFNA
Correlation coefficient: r = 0.999204, r^2 = 0.998408
Calibration curve: 1.1206 * x + 0.0471681
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



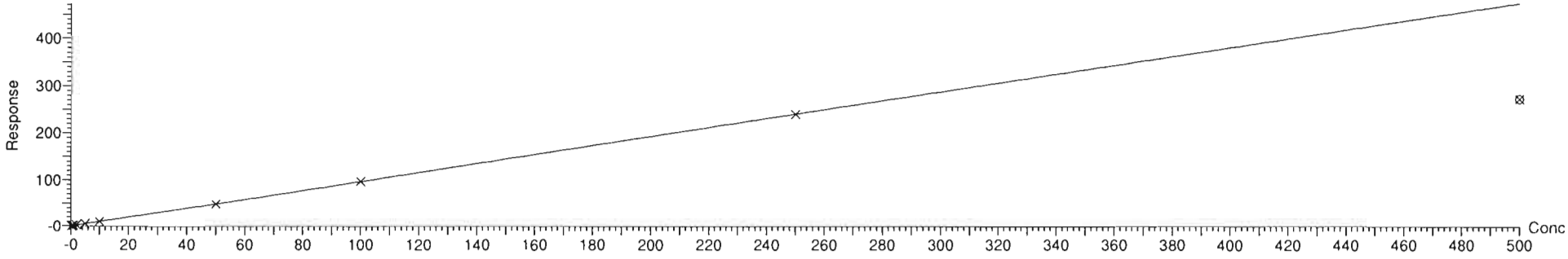
Compound name: PFOSA
Coefficient of Determination: R^2 = 0.998244
Calibration curve: -0.000135417 * x^2 + 0.853196 * x + 0.0420568
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



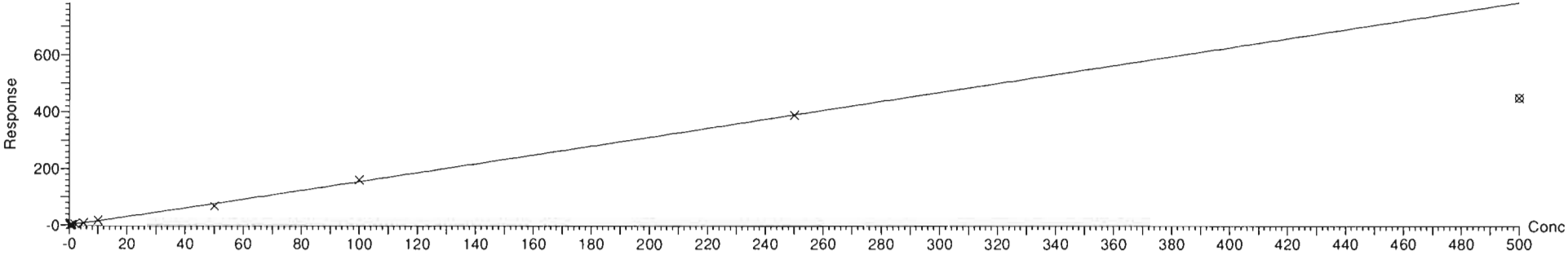
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999770
Calibration curve: -5.78438e-005 * x^2 + 0.977835 * x + -0.0758606
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



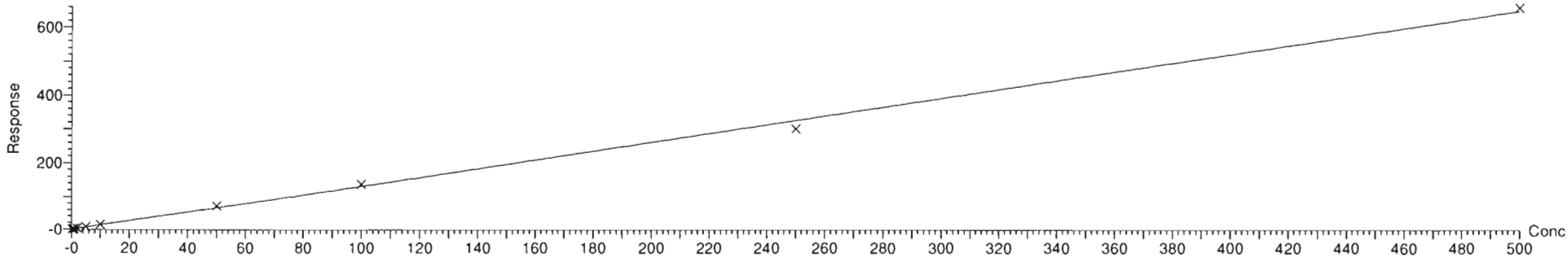
Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.996808
Calibration curve: 4.27072e-005 * x^2 + 1.54969 * x + -0.000241627
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



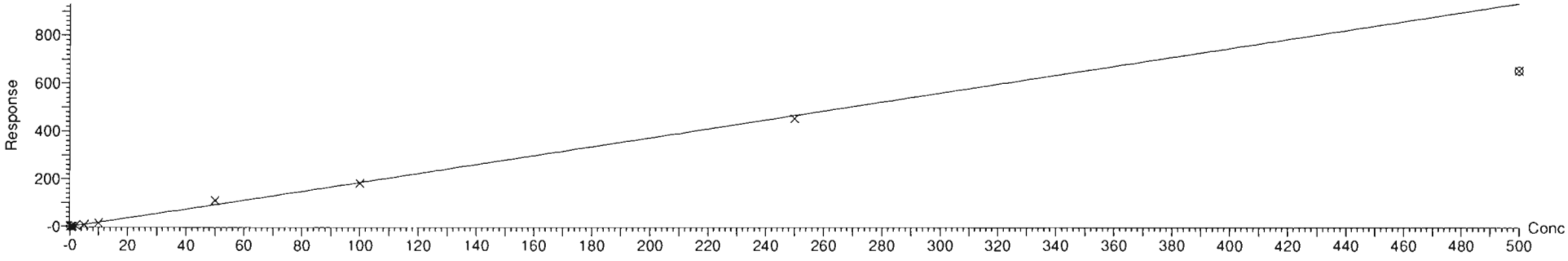
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.997454
Calibration curve: -1.7216e-005 * x^2 + 1.30956 * x + 0.0697503
Response type: Internal Std (Ref 73), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



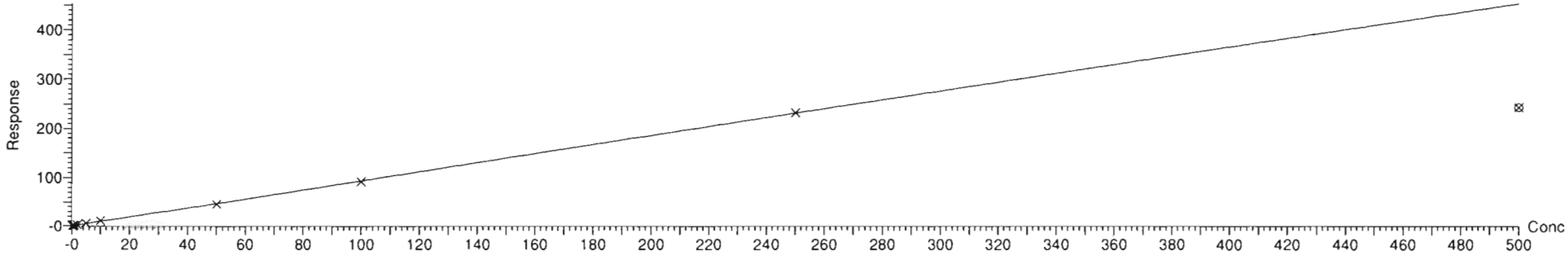
Compound name: 8:2 FTS
Correlation coefficient: r = 0.997040, r^2 = 0.994088
Calibration curve: 1.86851 * x + -0.58767
Response type: Internal Std (Ref 75), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



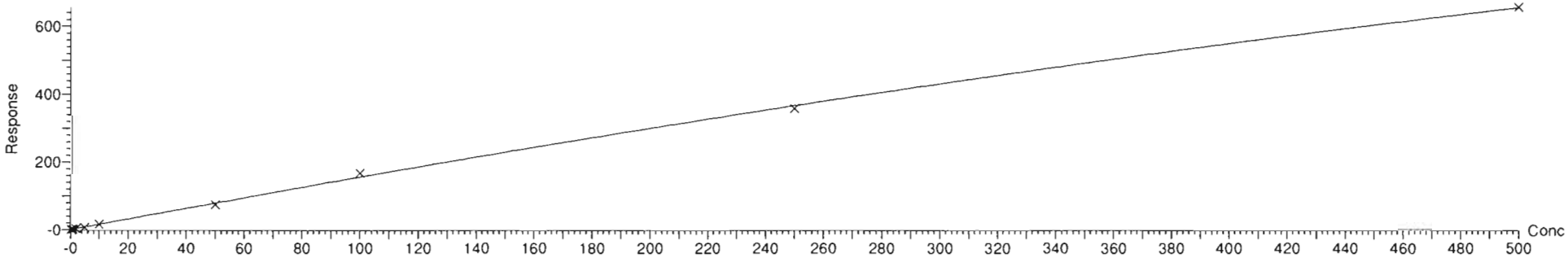
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: PFNS
Coefficient of Determination: R^2 = 0.999120
Calibration curve: -7.6989e-005 * x^2 + 0.946618 * x + -0.154527
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: L-MeFOSAA
Coefficient of Determination: R^2 = 0.998610
Calibration curve: -0.000634818 * x^2 + 1.62895 * x + -0.0773097
Response type: Internal Std (Ref 77), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

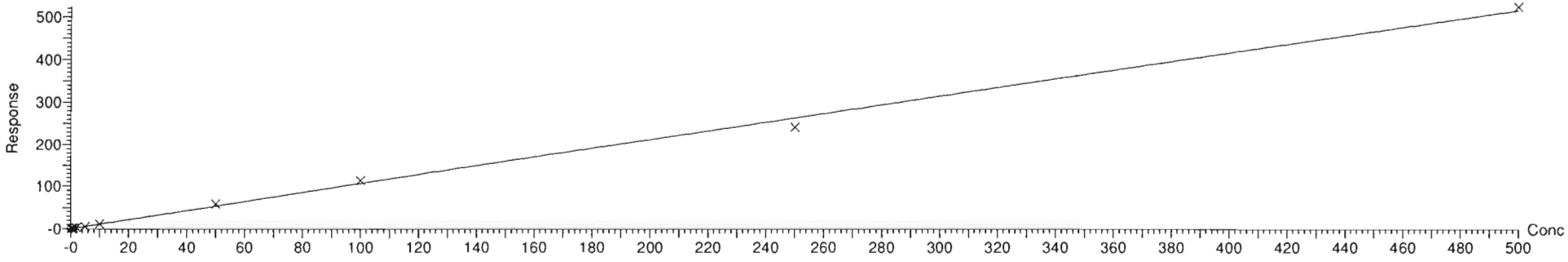


Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

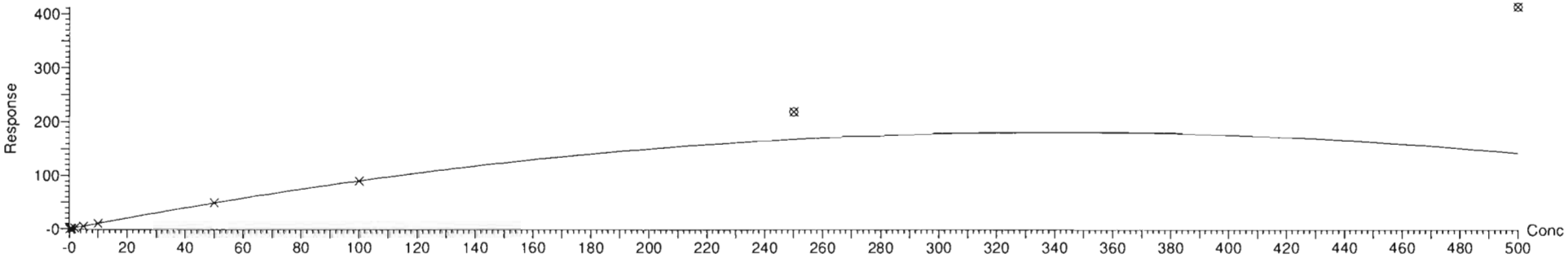
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Method: D:\PFAS5.PRO\MethDB\NEW_PFAS_80C_022820.mdb 02 Mar 2020 10:31:16
Calibration: D:\PFAS5.PRO\CurveDB\C18_VAL-PFAS_Q5_02-29-20.cdb 02 Mar 2020 10:55:04

Compound name: L-EtFOSAA
Coefficient of Determination: R^2 = 0.996768
Calibration curve: -9.38021e-005 * x^2 + 1.07916 * x + -0.0261113
Response type: Internal Std (Ref 81), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



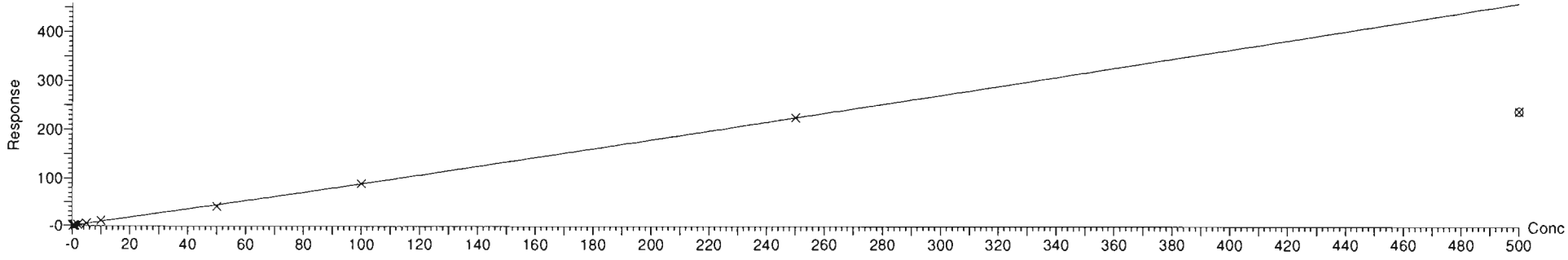
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999416
Calibration curve: -0.00155432 * x^2 + 1.06125 * x + -0.0557055
Response type: Internal Std (Ref 79), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



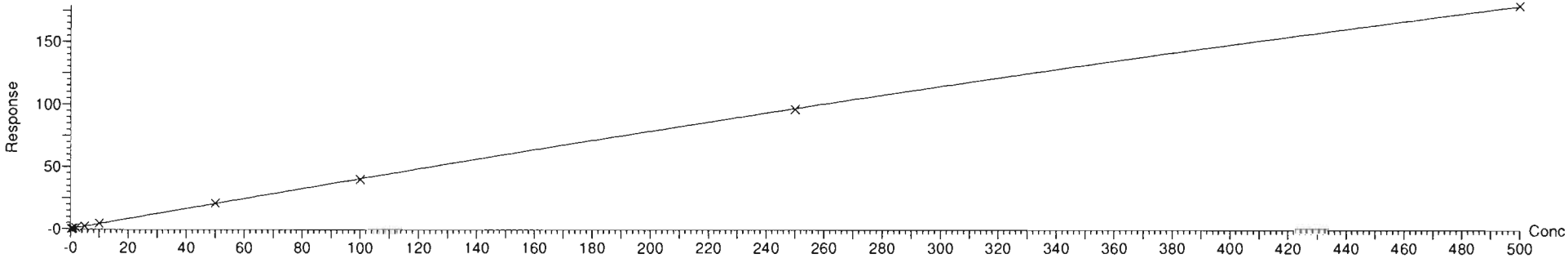
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: PFDS
Coefficient of Determination: R^2 = 0.997825
Calibration curve: 7.28117e-005 * x^2 + 0.883279 * x + -0.0867867
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



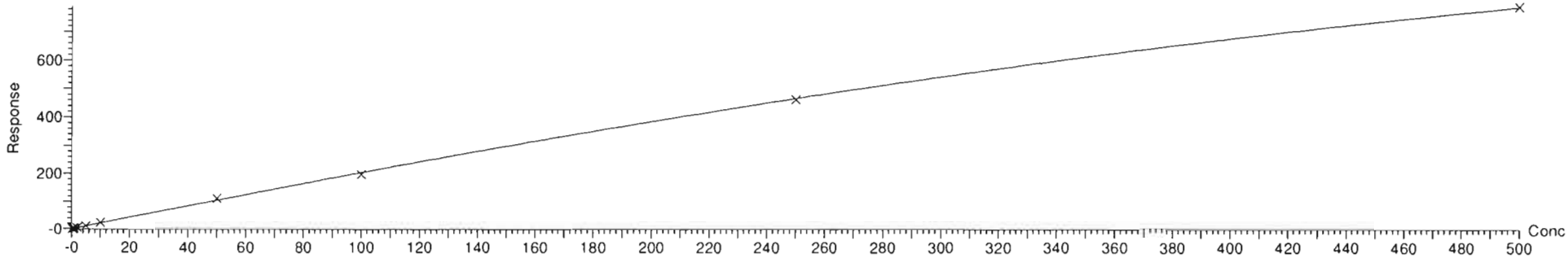
Compound name: 11Cl-PF30UdS
Coefficient of Determination: R^2 = 0.999727
Calibration curve: -0.000120038 * x^2 + 0.417922 * x + 0.0152764
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



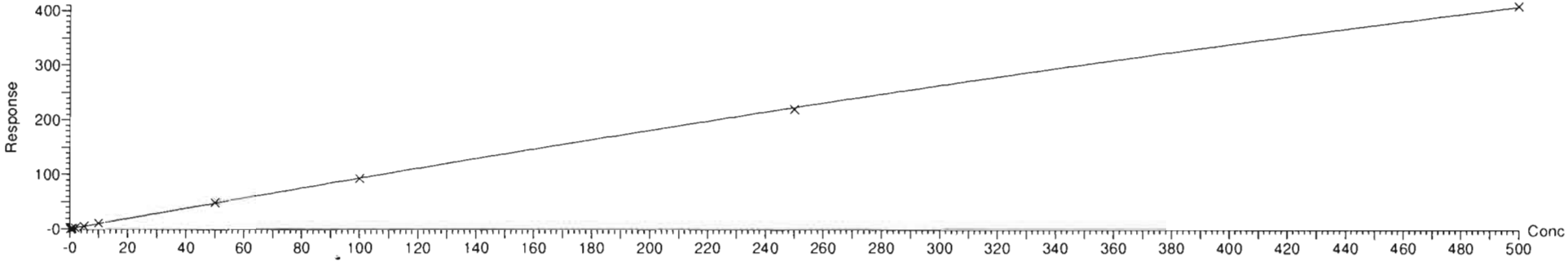
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: 10:2 FTS
Coefficient of Determination: R^2 = 0.999120
Calibration curve: -0.00116944 * x^2 + 2.16156 * x + -0.11312
Response type: Internal Std (Ref 85), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



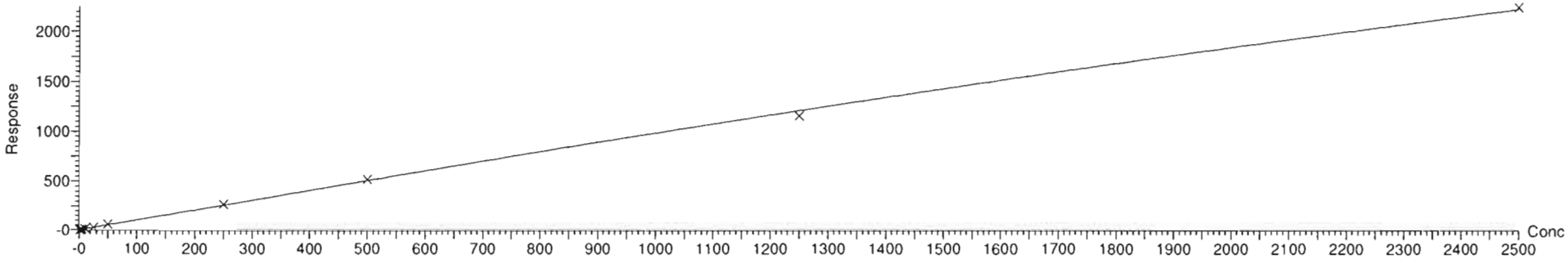
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999647
Calibration curve: -0.000311507 * x^2 + 0.972615 * x + 0.0366162
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



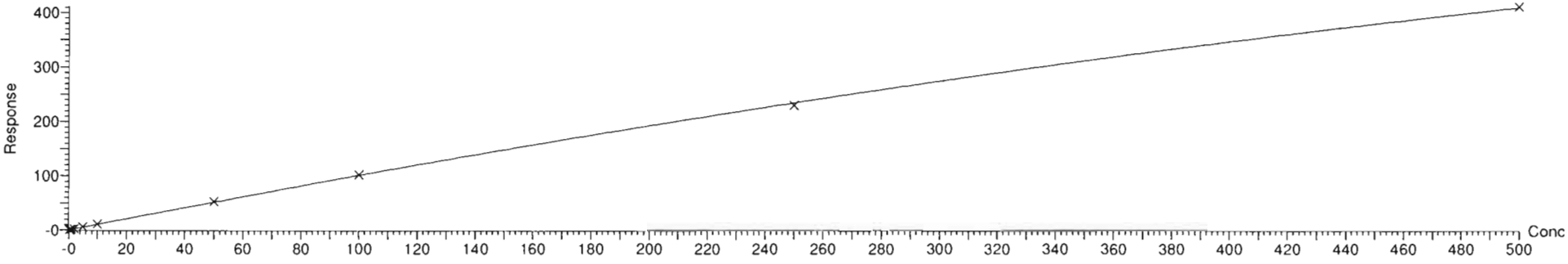
Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

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Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.998963
Calibration curve: -6.26912e-005 * x^2 + 1.04758 * x + 0.13891
Response type: Internal Std (Ref 87), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



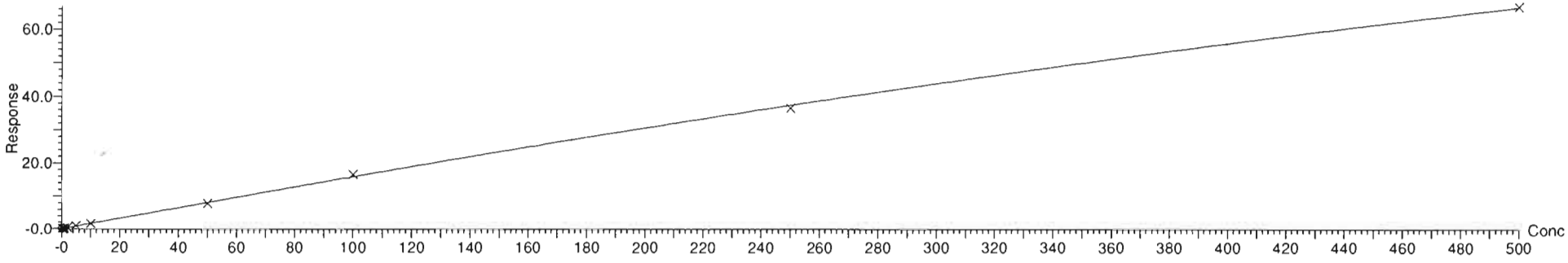
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999653
Calibration curve: -0.000483457 * x^2 + 1.06119 * x + 0.0940389
Response type: Internal Std (Ref 83), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



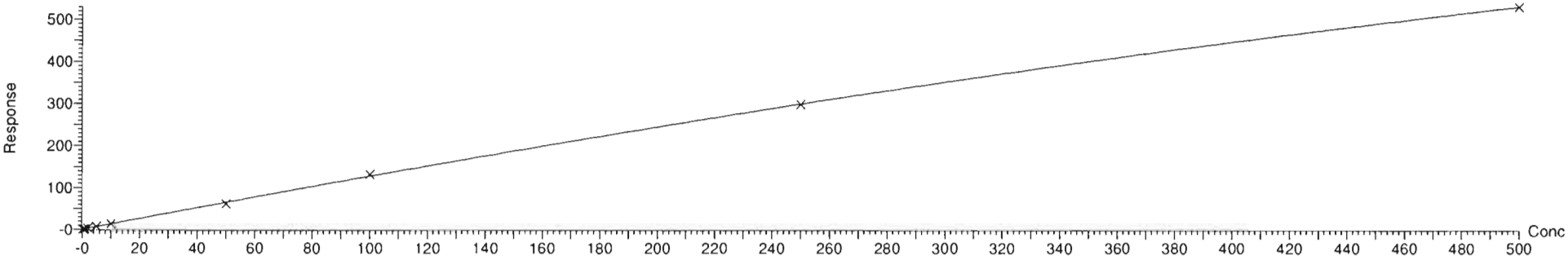
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Compound name: PFDoS
Coefficient of Determination: R^2 = 0.999248
Calibration curve: -6.72059e-005 * x^2 + 0.166876 * x + -0.0249515
Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



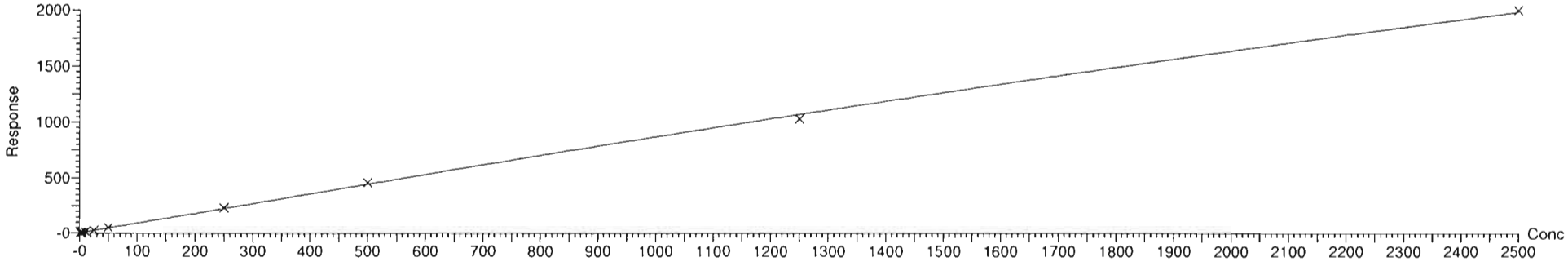
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999578
Calibration curve: -0.000551541 * x^2 + 1.33737 * x + 0.00164932
Response type: Internal Std (Ref 89), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



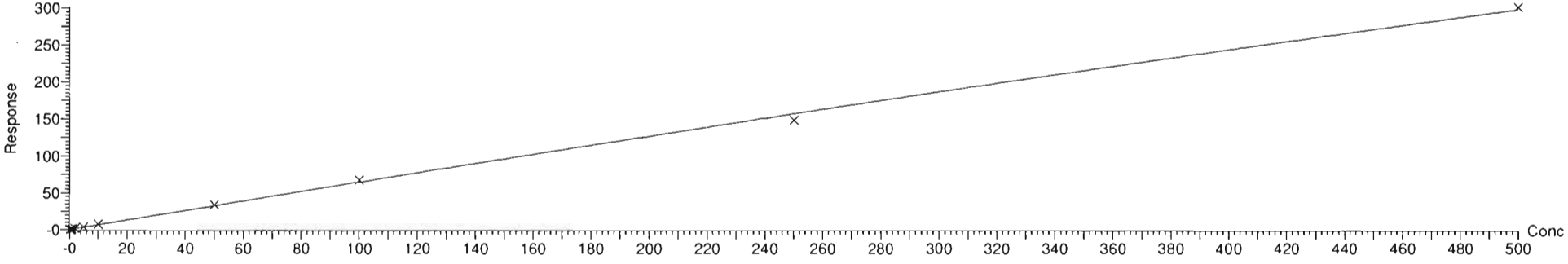
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Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 10:56:55 Pacific Standard Time

Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999219
Calibration curve: -5.04959e-005 * x^2 + 0.921576 * x + 0.268488
Response type: Internal Std (Ref 91), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



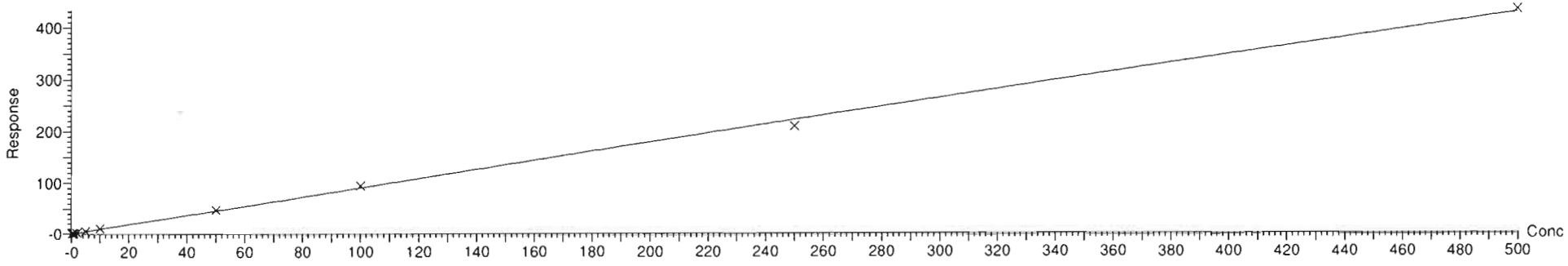
Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998523
Calibration curve: -0.000133679 * x^2 + 0.663349 * x + 0.143374
Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



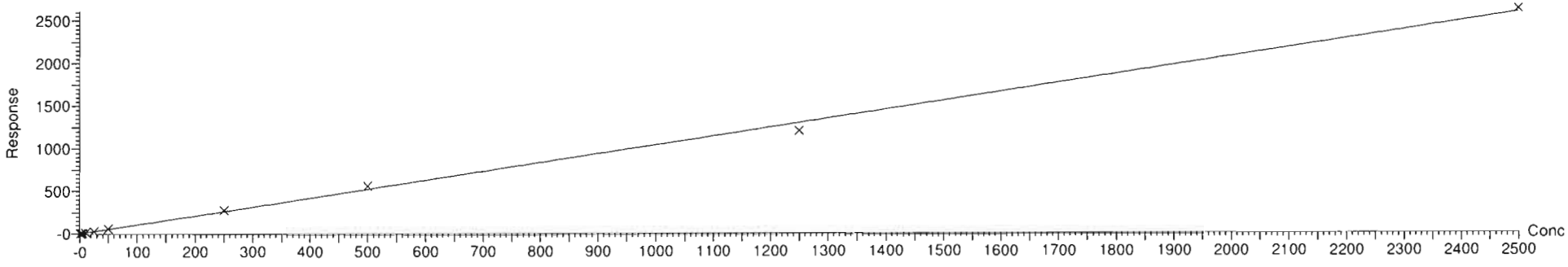
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Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 10:56:55 Pacific Standard Time

Compound name: PFODA
Coefficient of Determination: R^2 = 0.998419
Calibration curve: -0.000117862 * x^2 + 0.914837 * x + 0.0554344
Response type: Internal Std (Ref 93), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



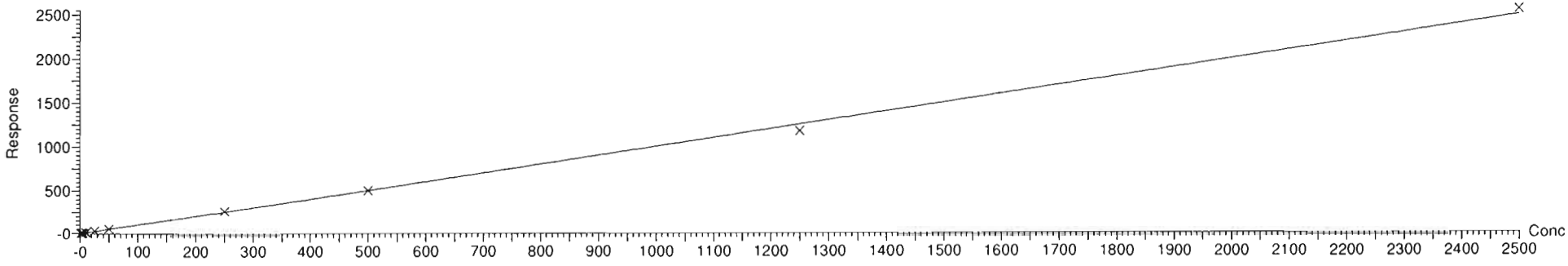
Compound name: N-MeFOSE
Correlation coefficient: r = 0.998734, r^2 = 0.997470
Calibration curve: 1.03547 * x + 0.325816
Response type: Internal Std (Ref 95), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-CRV.qld

Last Altered: Monday, March 02, 2020 10:55:04 Pacific Standard Time
Printed: Monday, March 02, 2020 10:56:55 Pacific Standard Time

Compound name: N-EtFOSE
Correlation coefficient: r = 0.999189, r^2 = 0.998378
Calibration curve: 0.996847 * x + 0.706727
Response type: Internal Std (Ref 97), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory

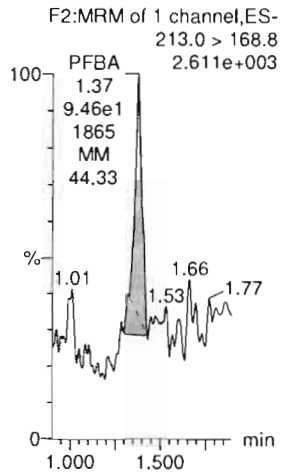
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

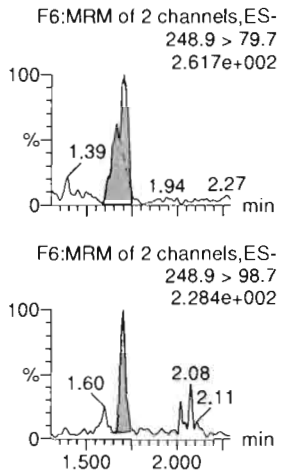
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Name: 200229P1-3, Date: 29-Feb-2020, Time: 15:45:57, ID: ST200229P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

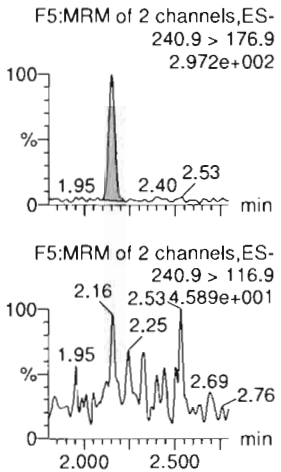
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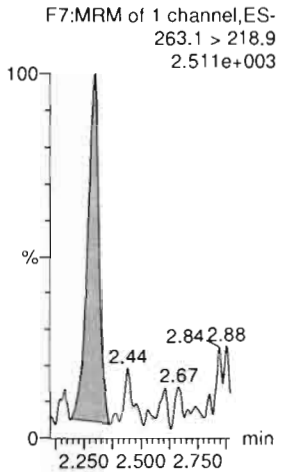
PFPrS



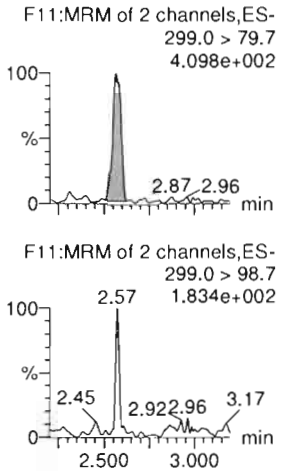
3:3 FTCA



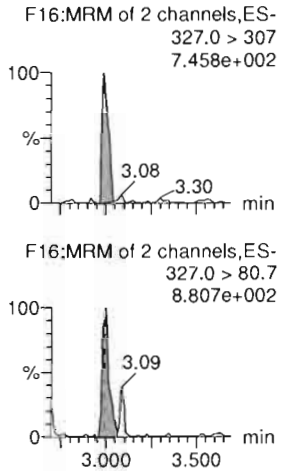
PFPeA



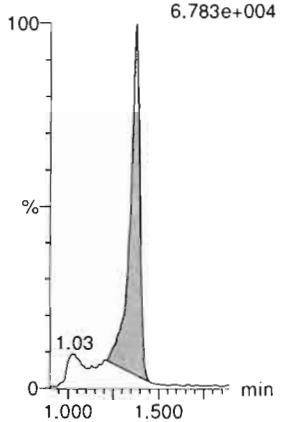
PFBS



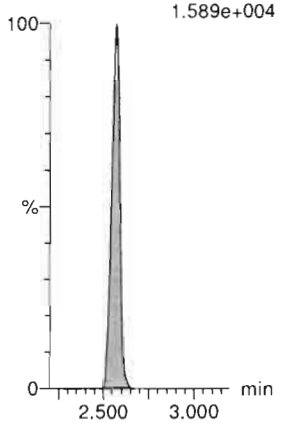
4:2 FTS



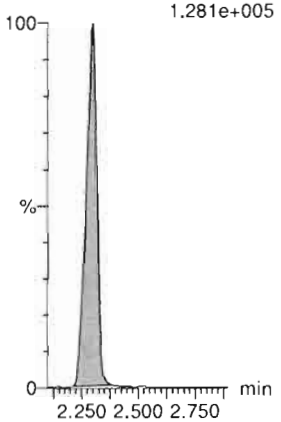
13C3-PFBA-EIS



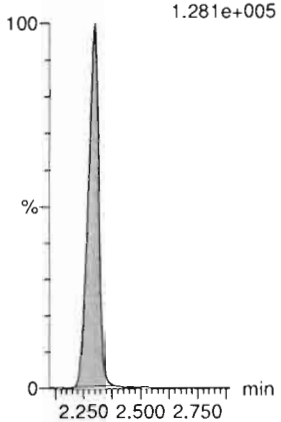
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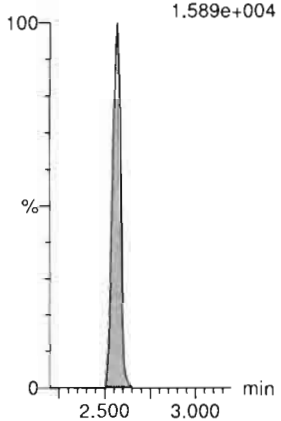
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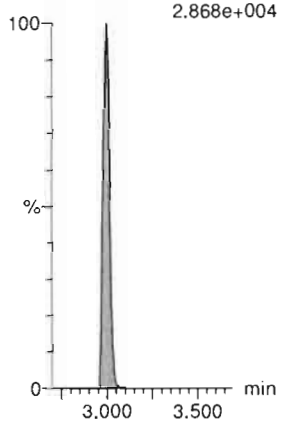
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS

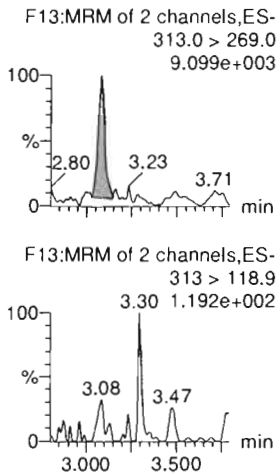


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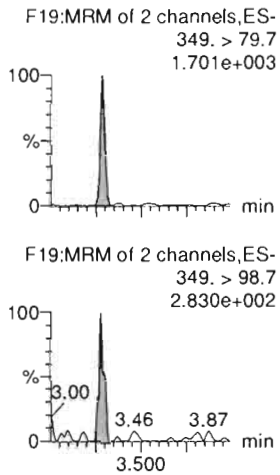
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

Name: 200229P1-3, Date: 29-Feb-2020, Time: 15:45:57, ID: ST200229P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

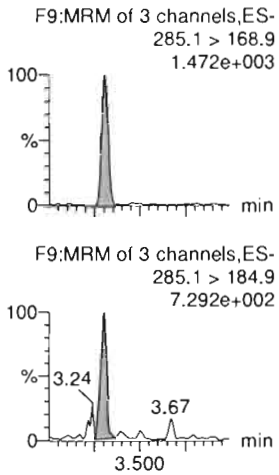
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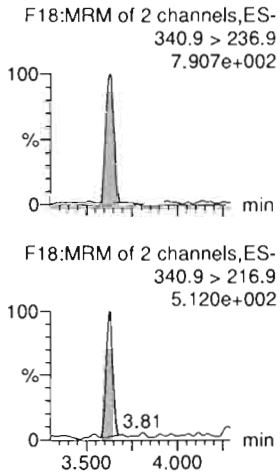
PFPeS



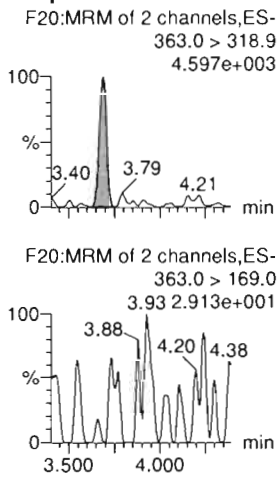
HFPO-DA



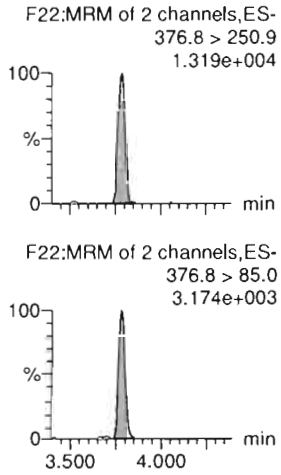
5:3 FTCA



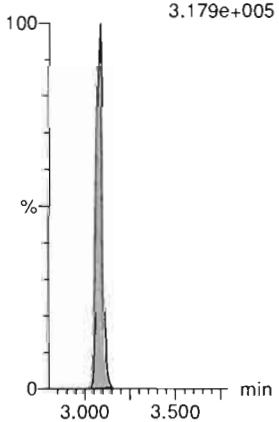
PFHpA



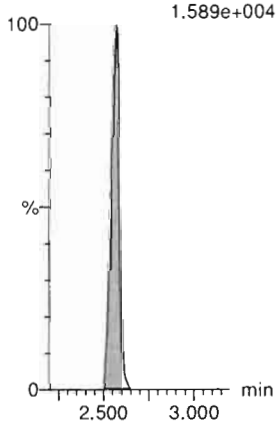
ADONA



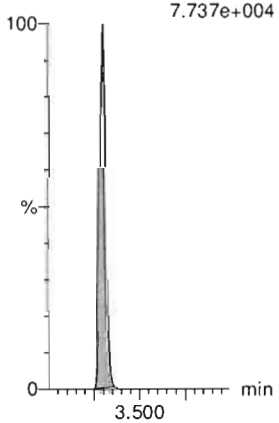
13C2-PFHxA-EIS



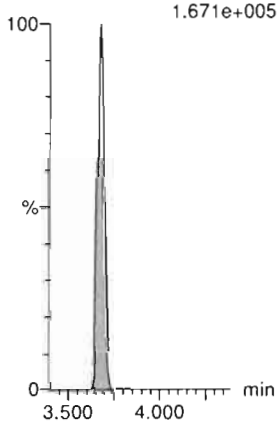
13C3-PFBS-EIS



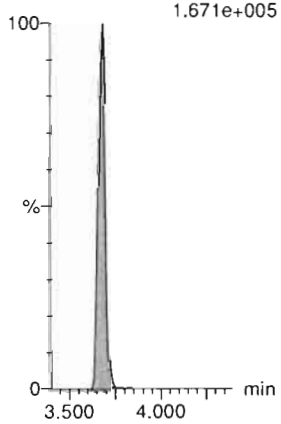
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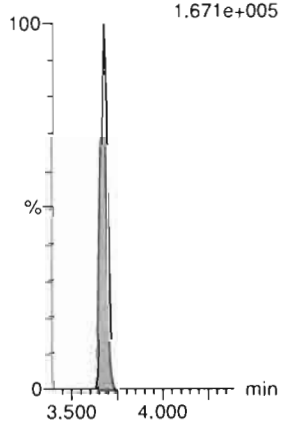
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

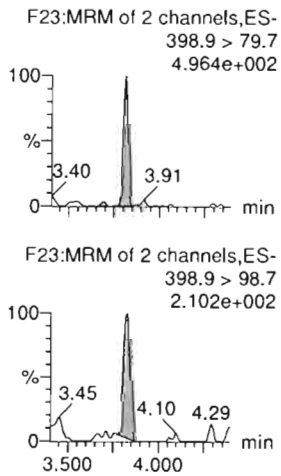


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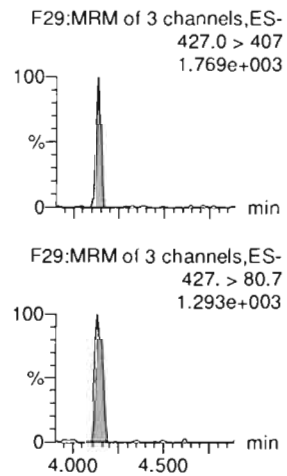
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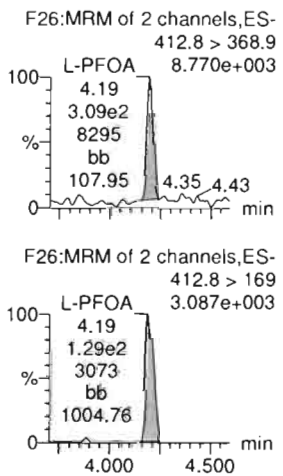
L-PFHxS



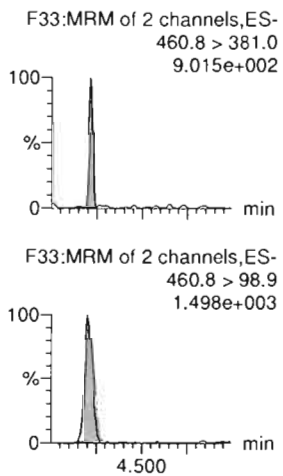
6:2 FTS



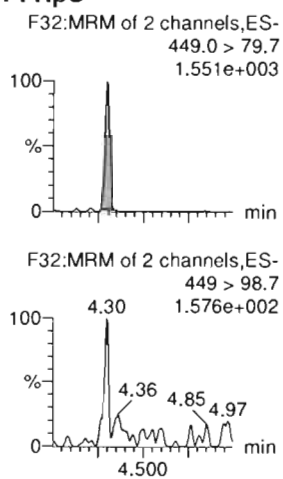
L-PFOA



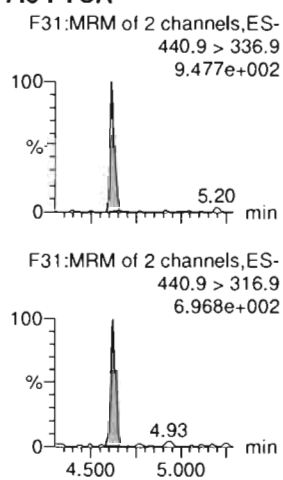
PFEChS



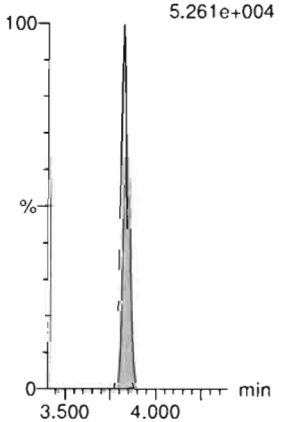
PFHpS



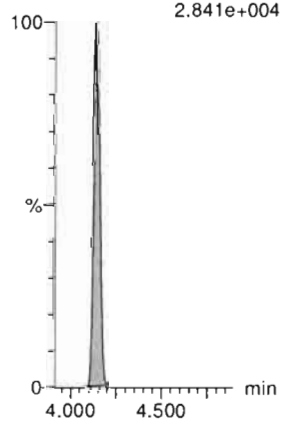
7:3 FTCA



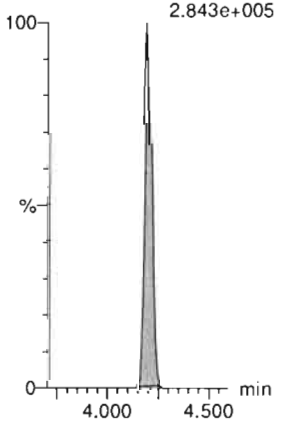
13C3-PFHxS-EIS



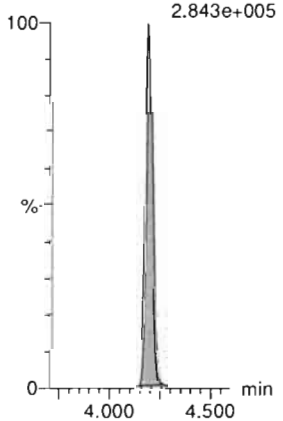
13C2-6:2 FTS-EIS



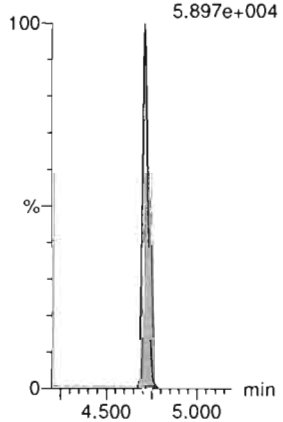
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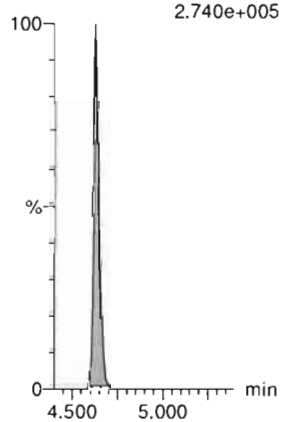
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

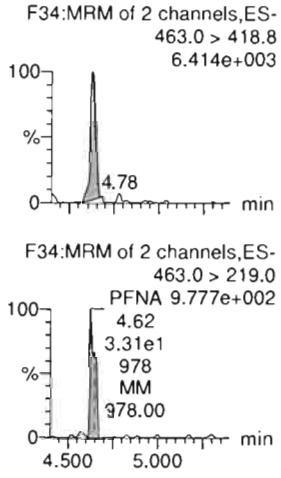


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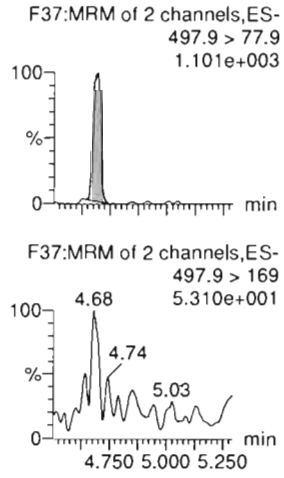
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

Name: 200229P1-3, Date: 29-Feb-2020, Time: 15:45:57, ID: ST200229P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

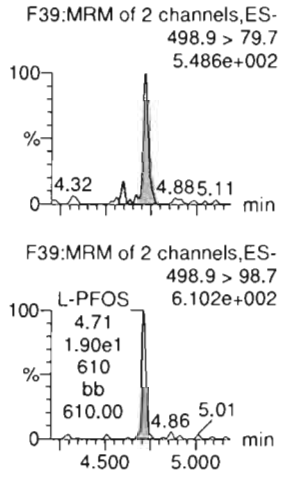
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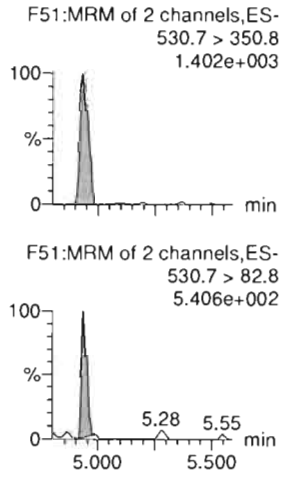
PFOSA



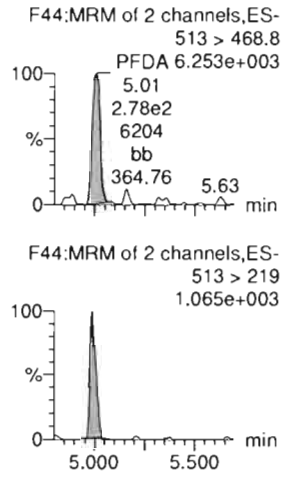
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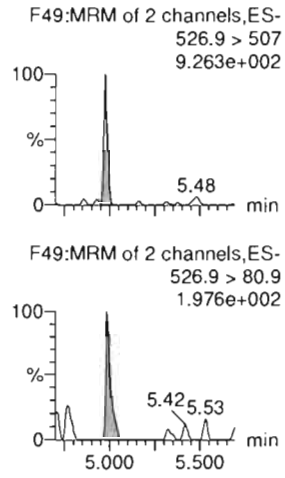
9Cl-PF30NS



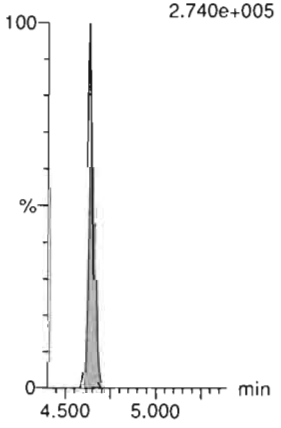
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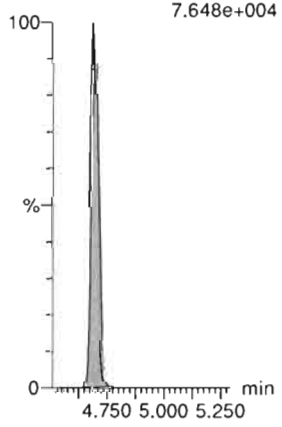
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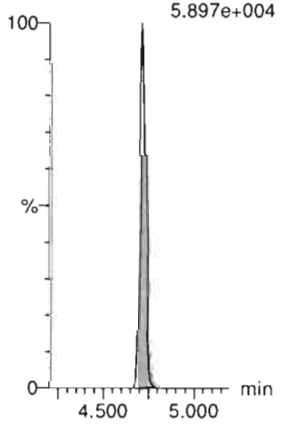
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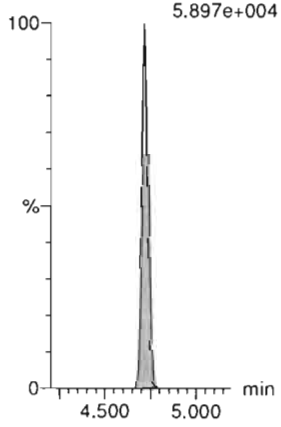
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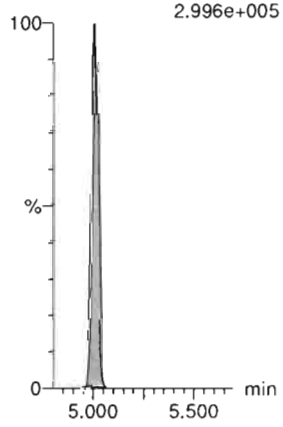
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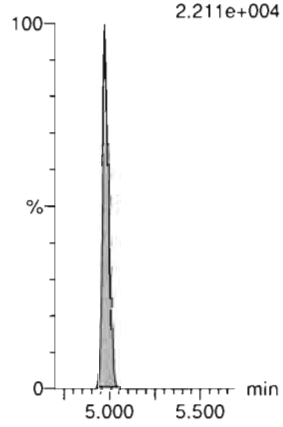
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

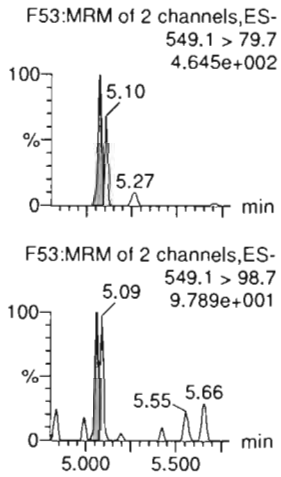


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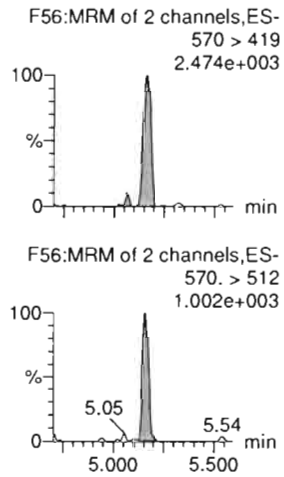
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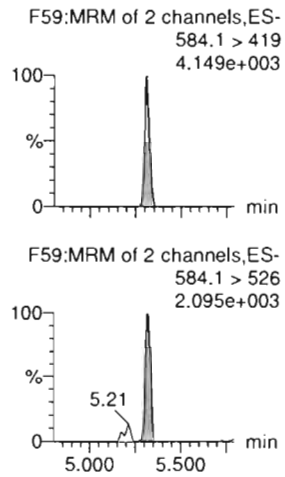
PFNS



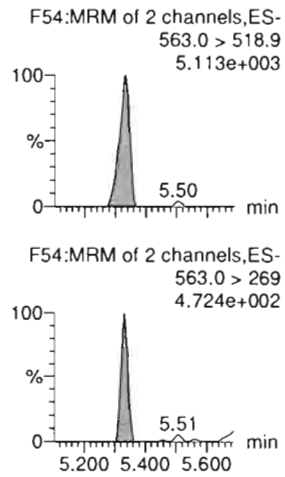
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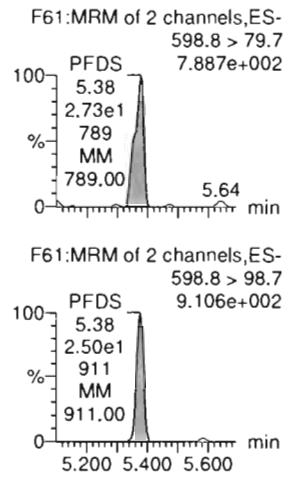
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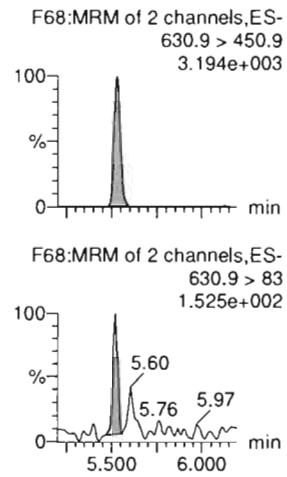
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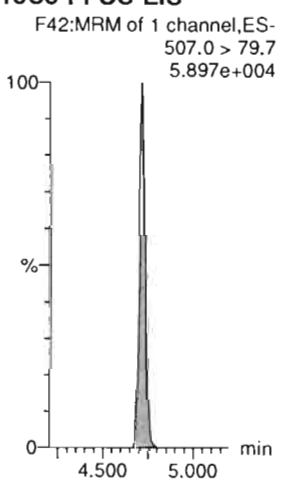
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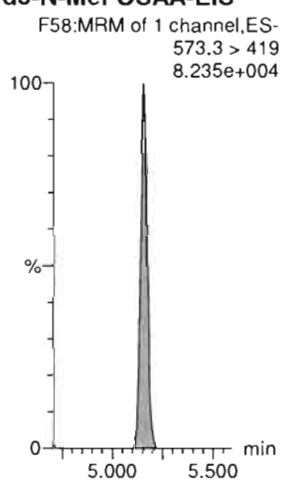
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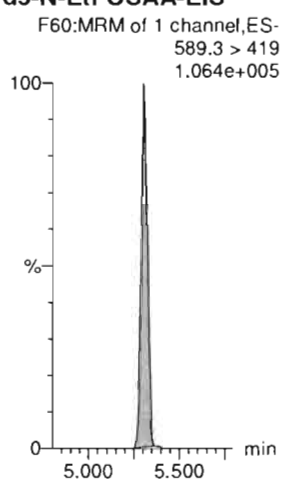
13C8-PFOS-EIS



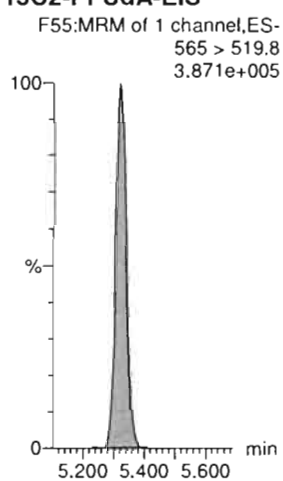
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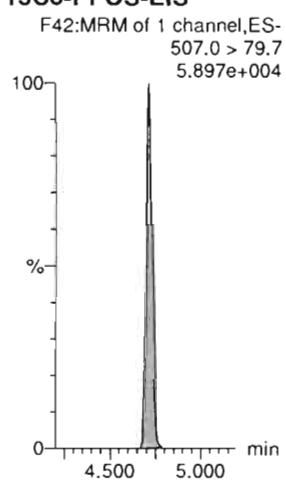
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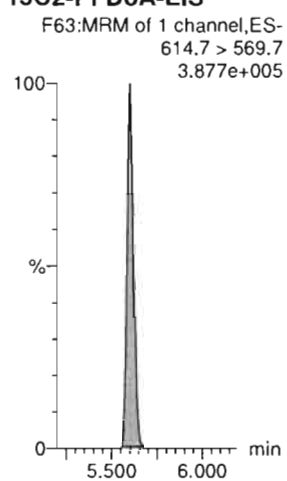
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13C8-PFOS-EIS



13C2-PFDoA-EIS

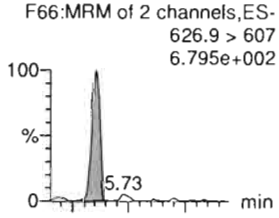


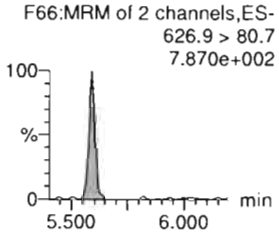
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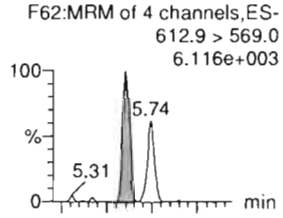
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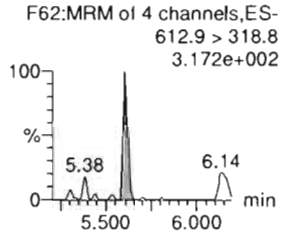
10:2 FTS



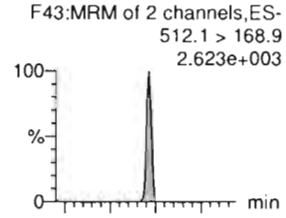


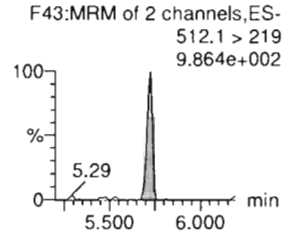
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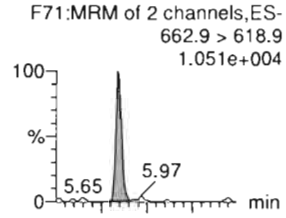


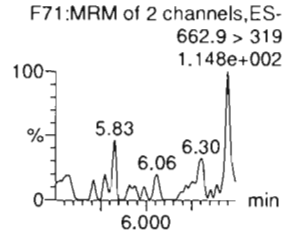
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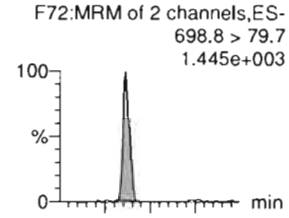


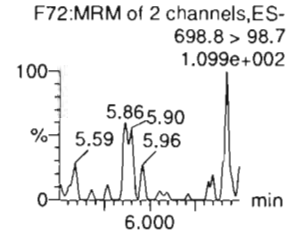
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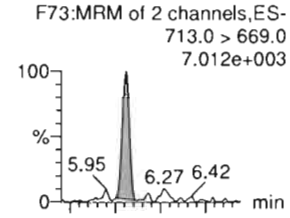


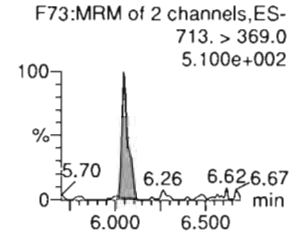
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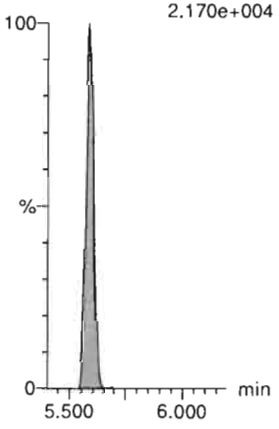


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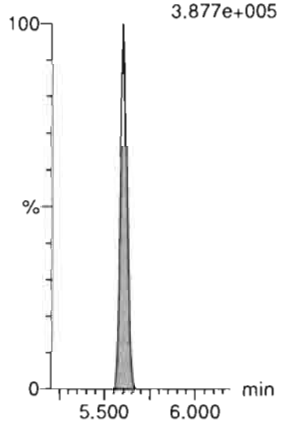




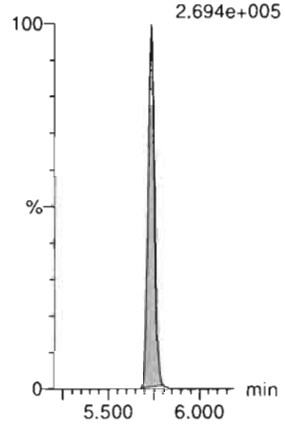
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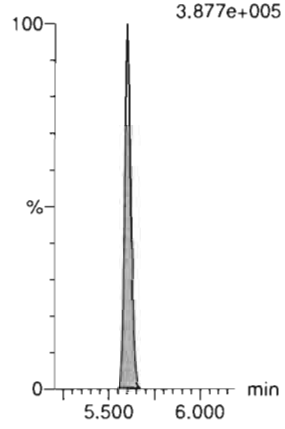
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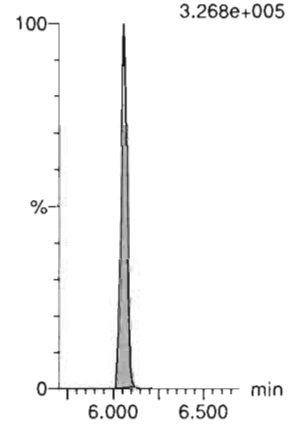
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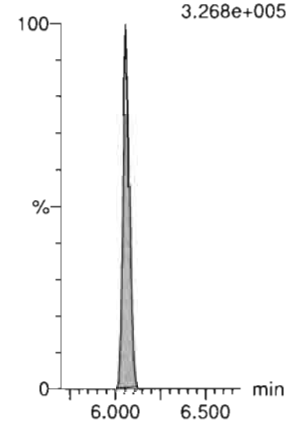
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

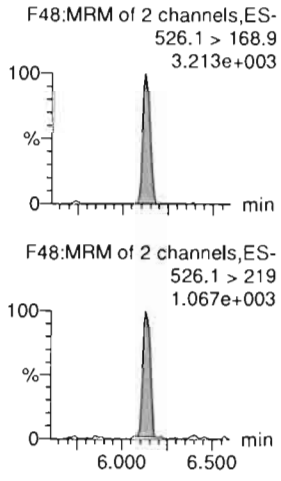


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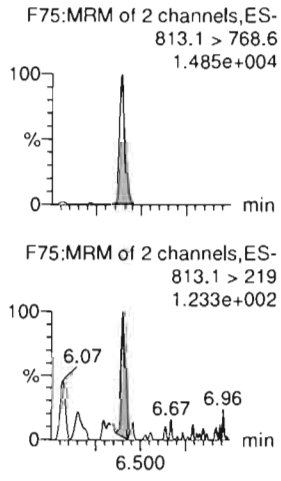
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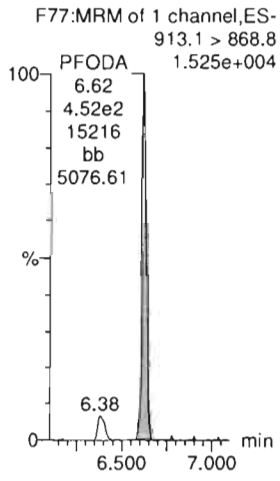
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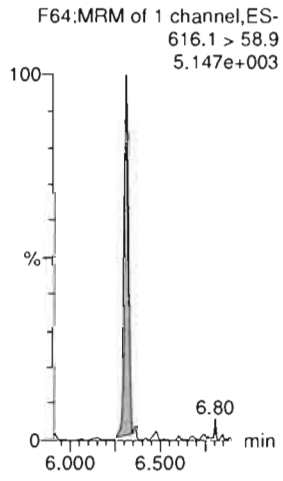
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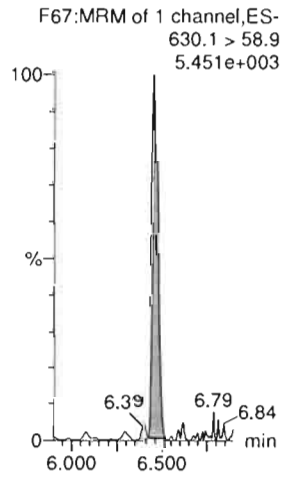
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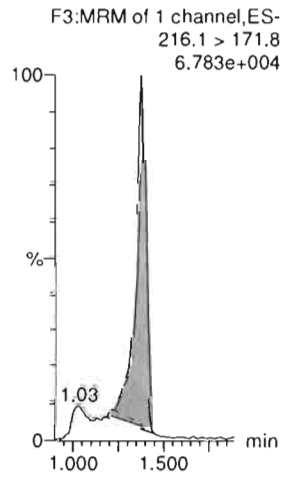
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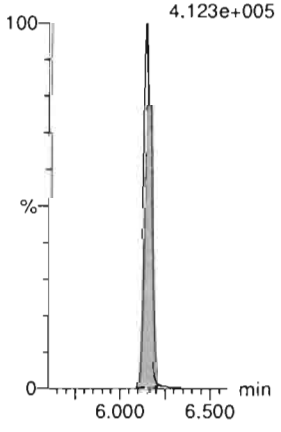
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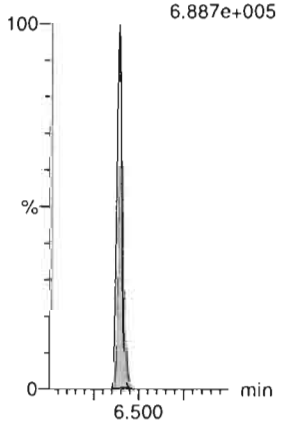
13C3-PFBA-RSD



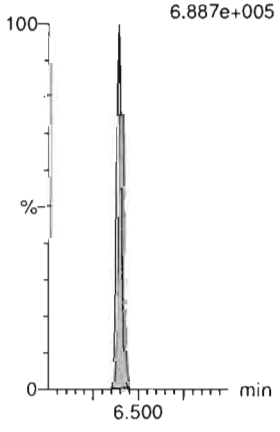
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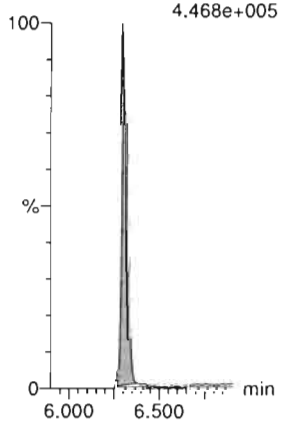
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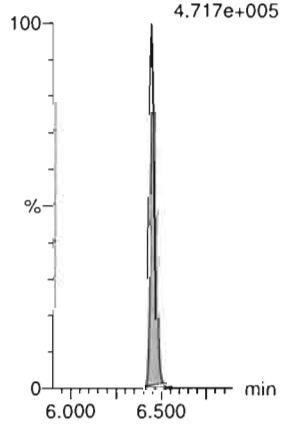
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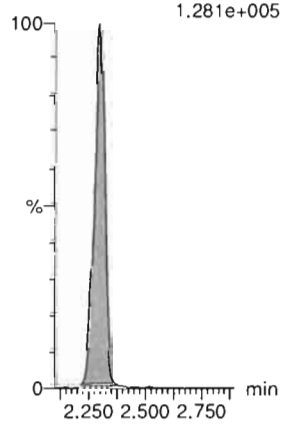
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d9-N-EtFOSE-EIS



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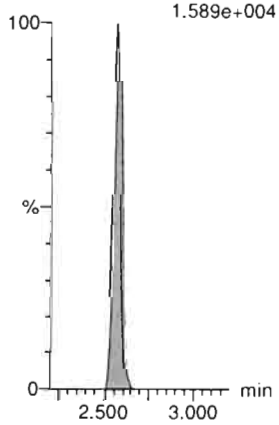


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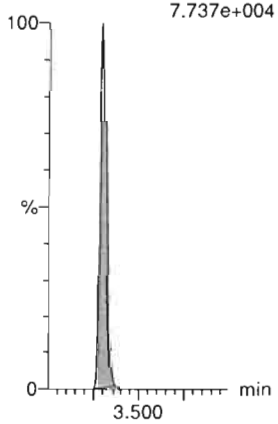
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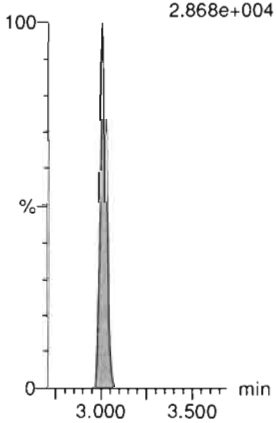
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F12:MRM of 1 channel,ES-
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1.589e+004



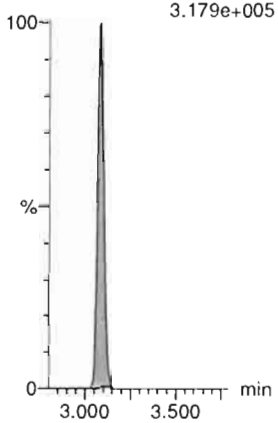
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
7.737e+004



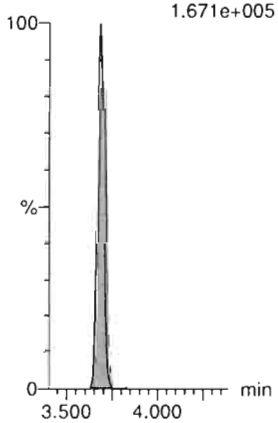
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
2.868e+004



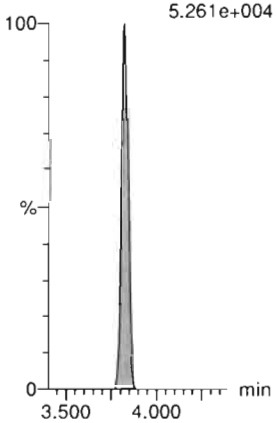
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.179e+005



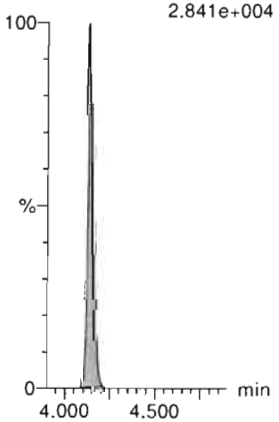
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.671e+005



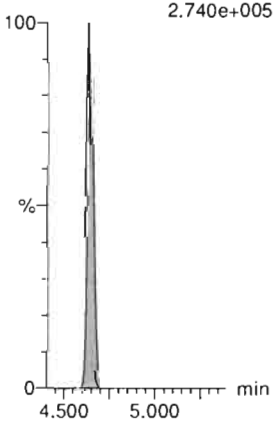
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
5.261e+004



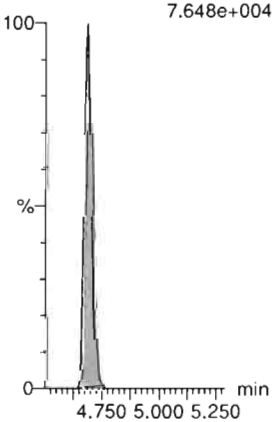
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.841e+004



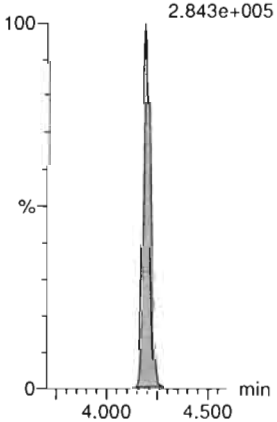
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
2.740e+005



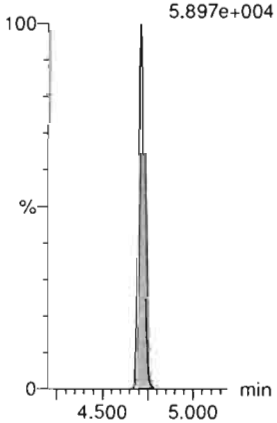
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
7.648e+004



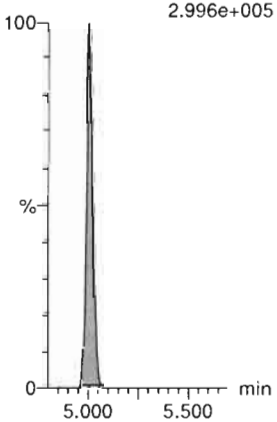
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
2.843e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
5.897e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
2.996e+005

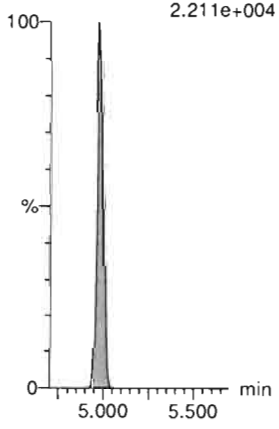


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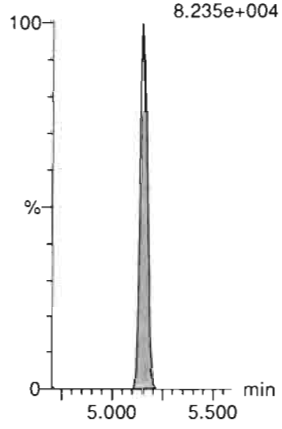
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

Name: 200229P1-3, Date: 29-Feb-2020, Time: 15:45:57, ID: ST200229P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

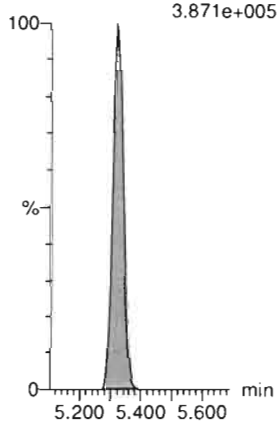
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.211e+004



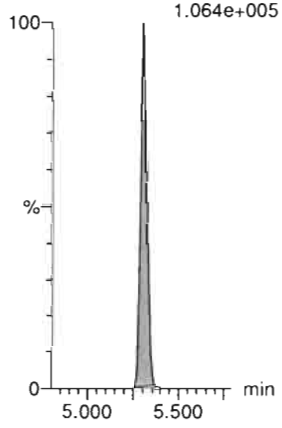
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.235e+004



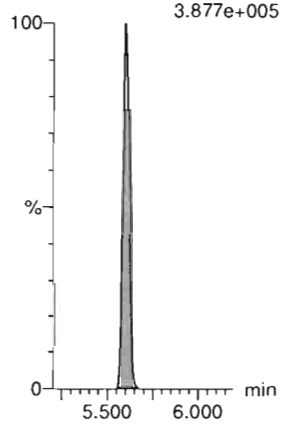
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
3.871e+005



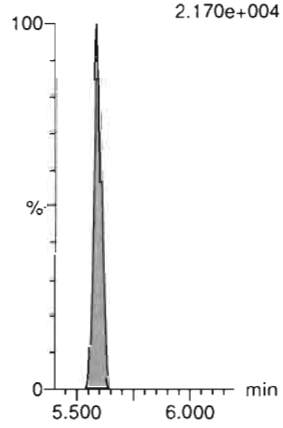
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.064e+005



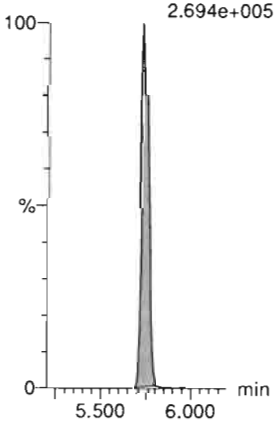
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
3.877e+005



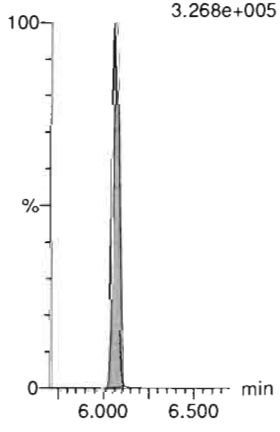
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.170e+004



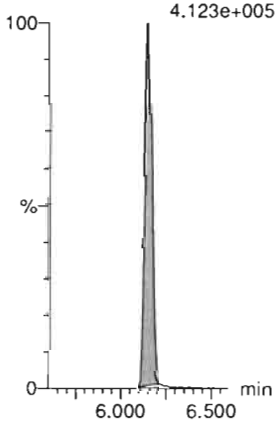
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
2.694e+005



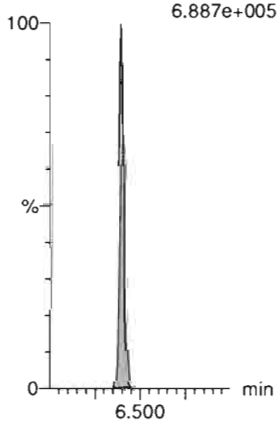
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.268e+005



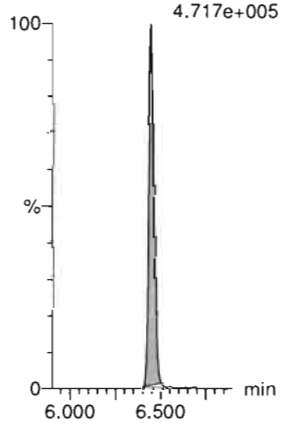
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.123e+005



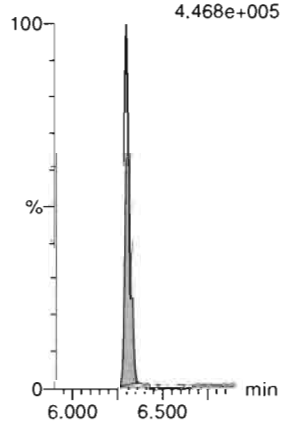
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
6.887e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
4.717e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.468e+005

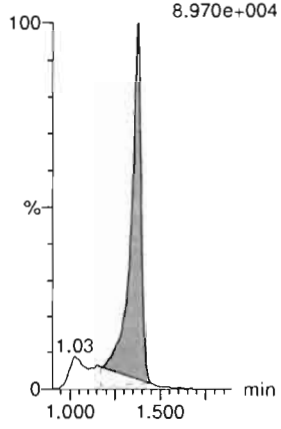


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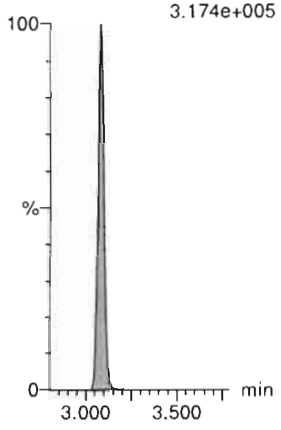
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Name: 200229P1-3, Date: 29-Feb-2020, Time: 15:45:57, ID: ST200229P1-1 PFC CS-2 20B1102, Description: PFC CS-2 20B1102

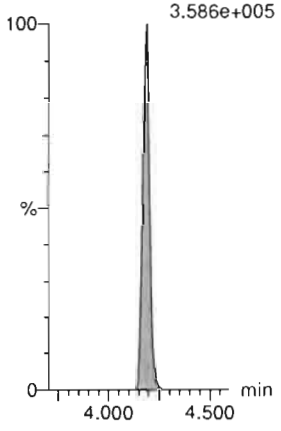
13C4-PFBA



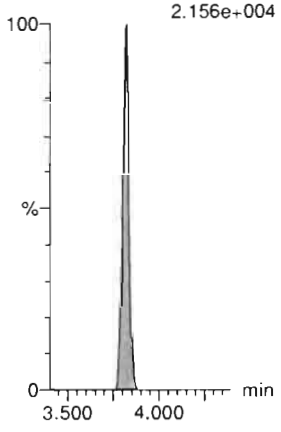
13C5-PFHxA



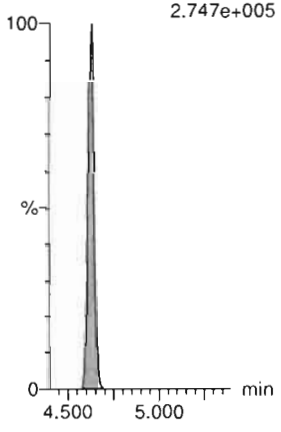
13C8-PFOA



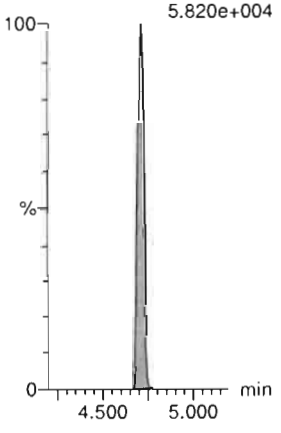
18O2-PFHxS



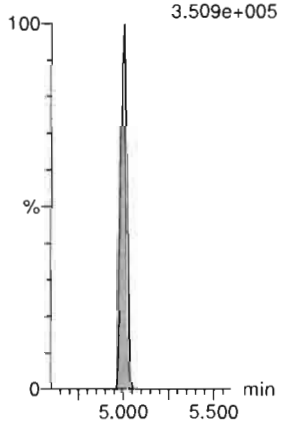
13C9-PFNA



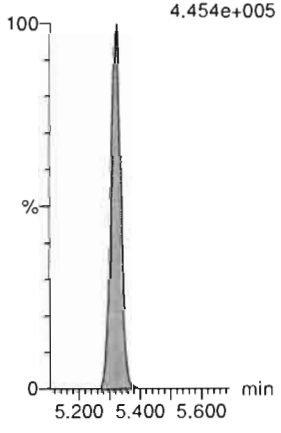
13C4-PFOS



13C6-PFDA



13C7-PFUdA

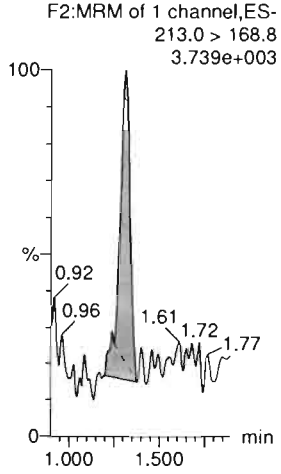


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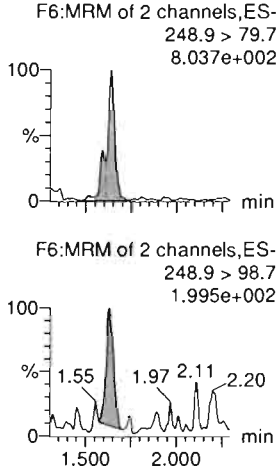
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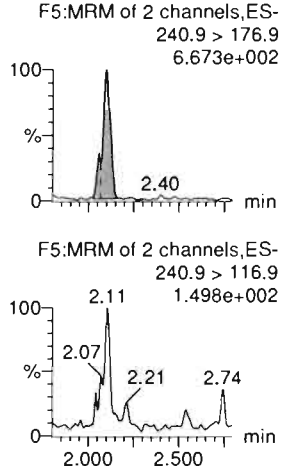
PFBA



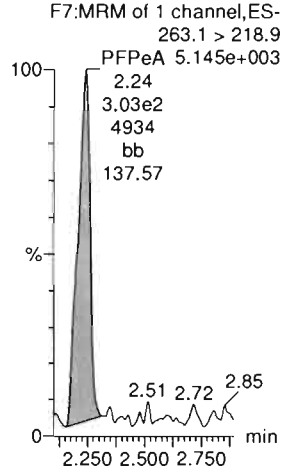
PFPrS



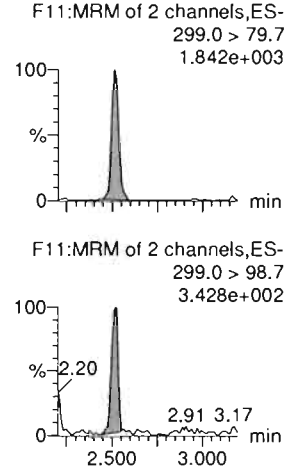
3:3 FTCA



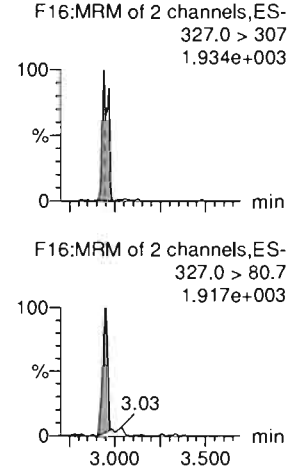
PFPeA



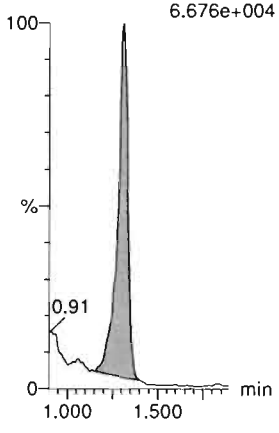
PFBS



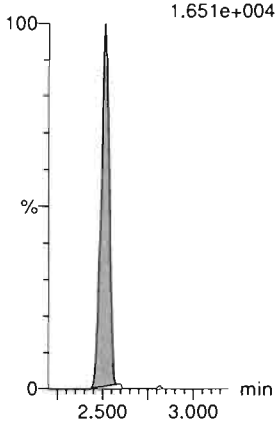
4:2 FTS



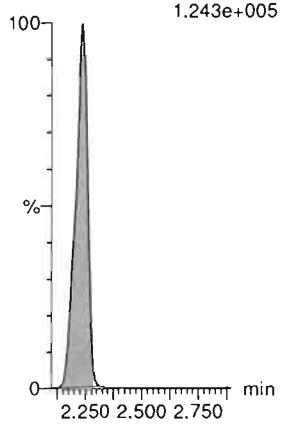
13C3-PFBA-EIS



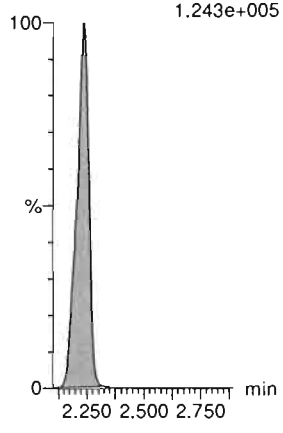
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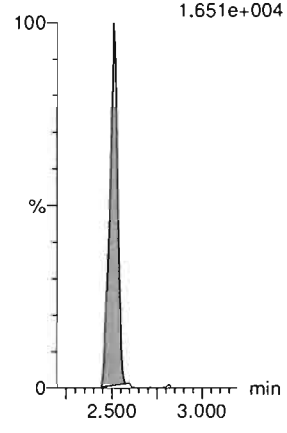
13C3-PFPeA-EIS



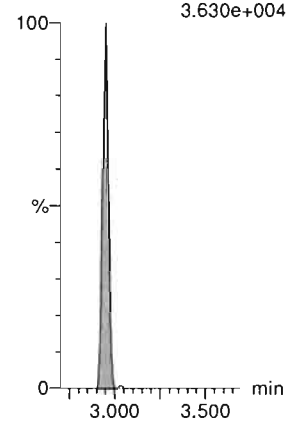
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS

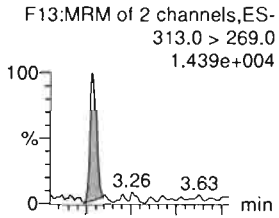


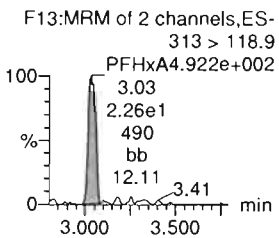
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

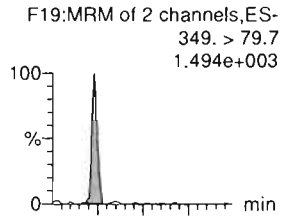
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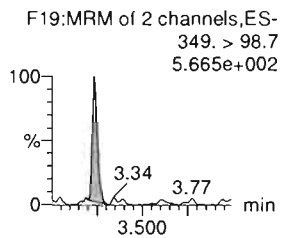
PFHxA



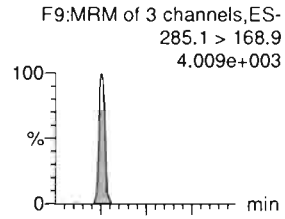


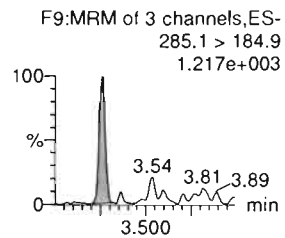
PFPeS



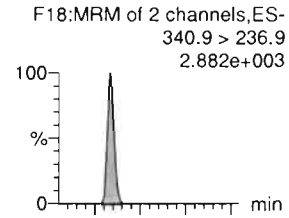


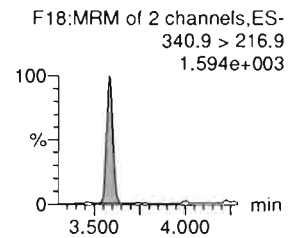
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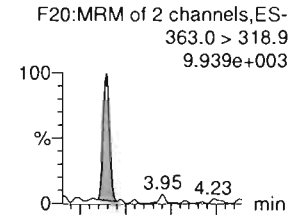


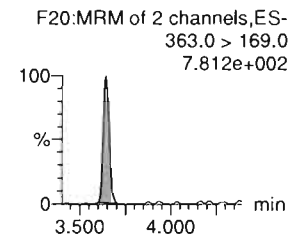
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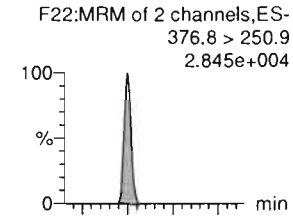


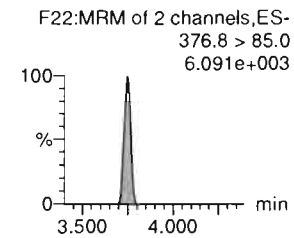
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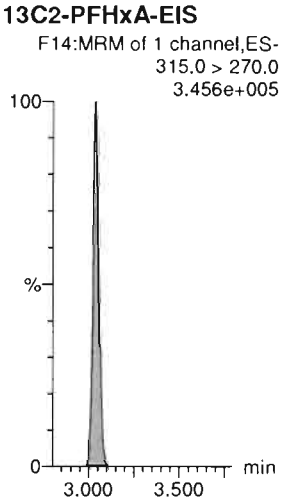


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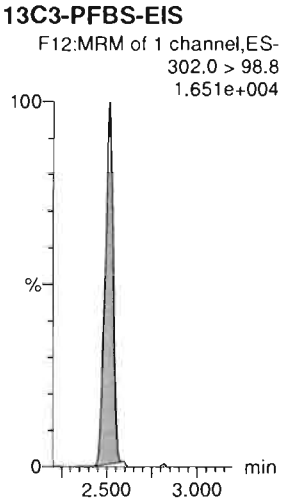




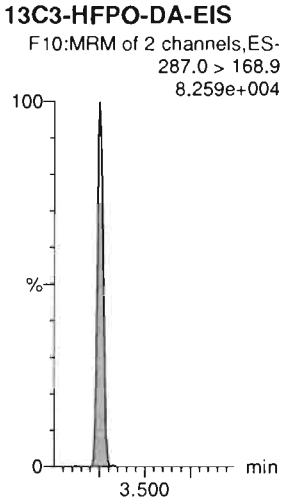
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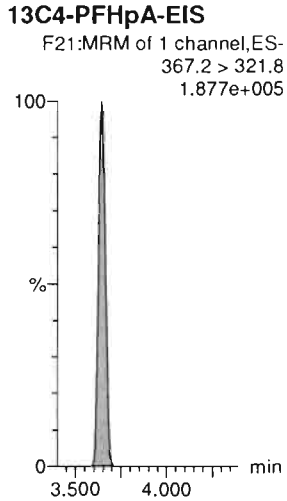
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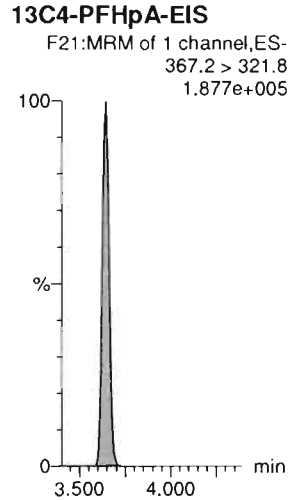
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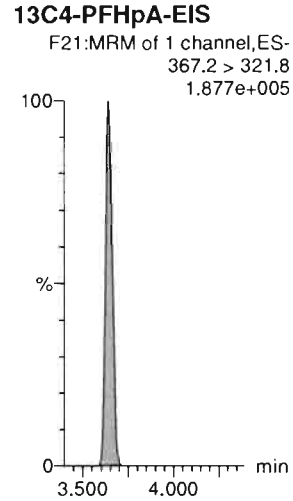
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

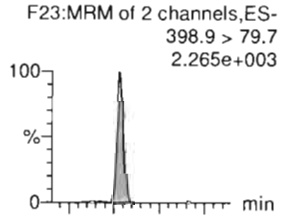


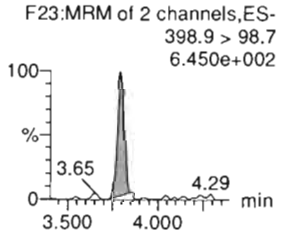
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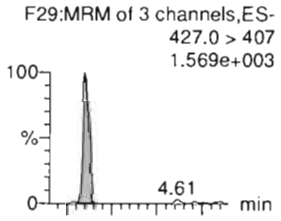
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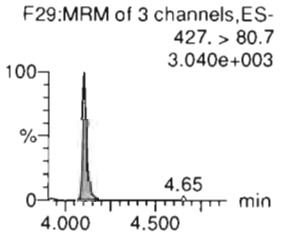
L-PFHxS



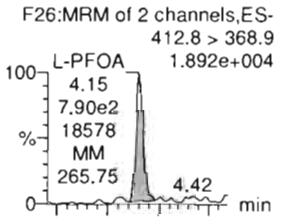


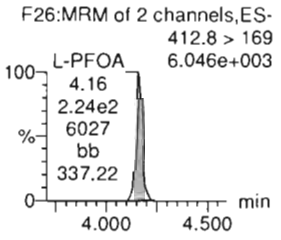
6:2 FTS



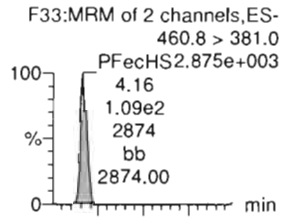


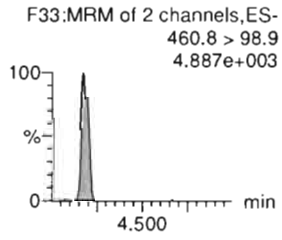
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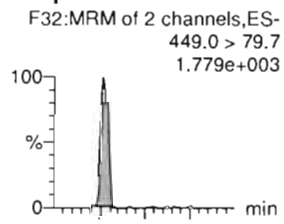


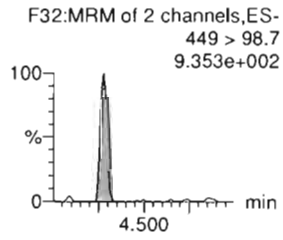
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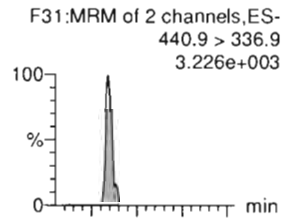


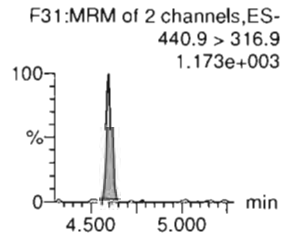
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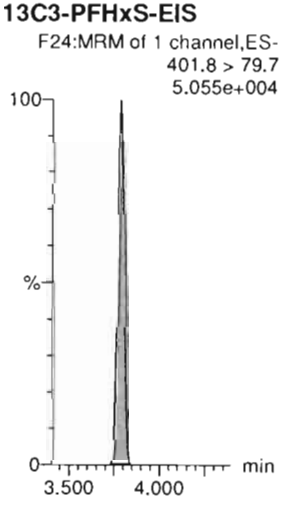


7:3 FTCA

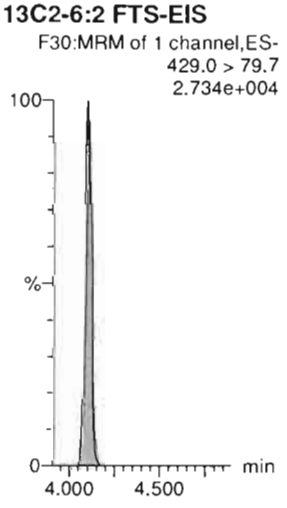




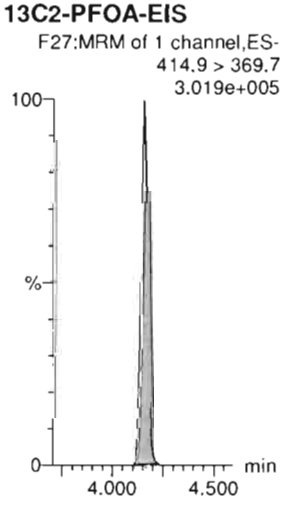
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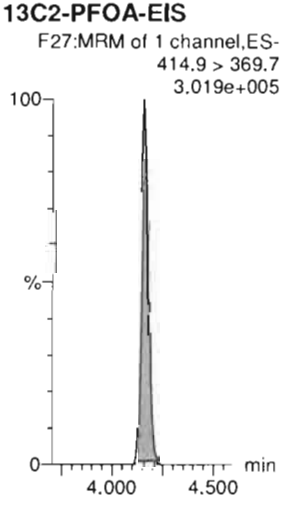
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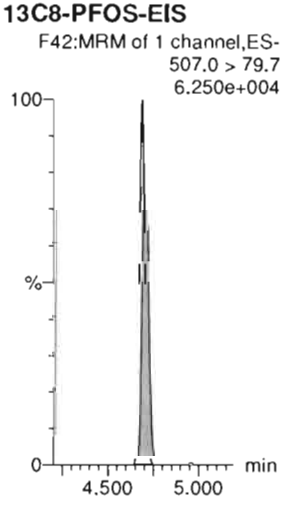
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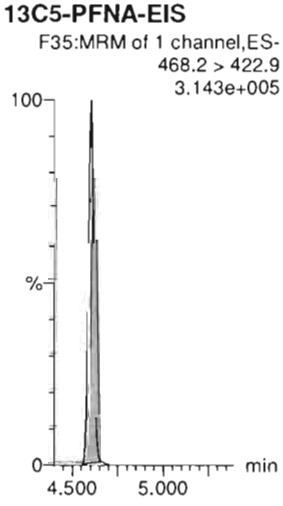
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13C8-PFOS-EIS



13C5-PFNA-EIS

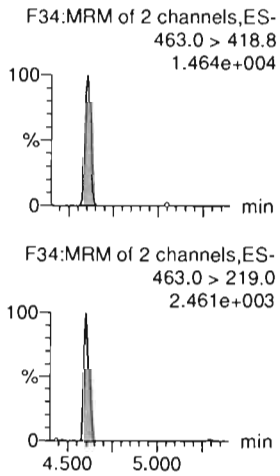


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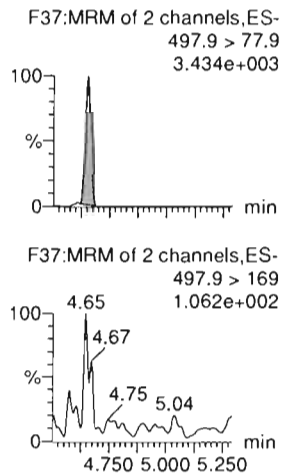
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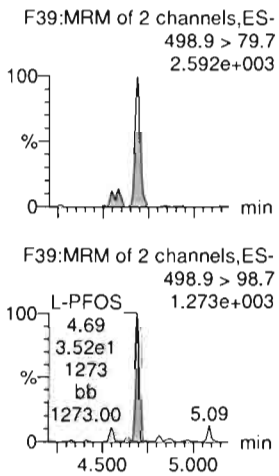
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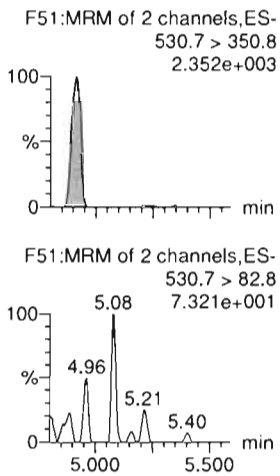
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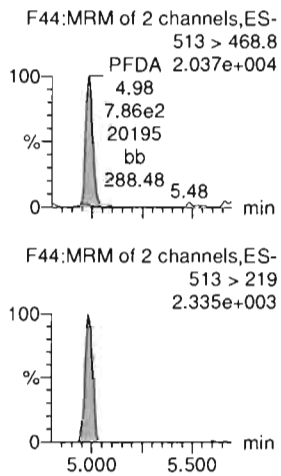
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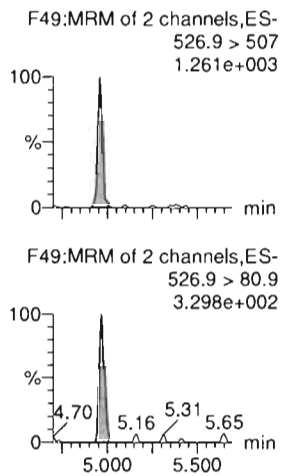
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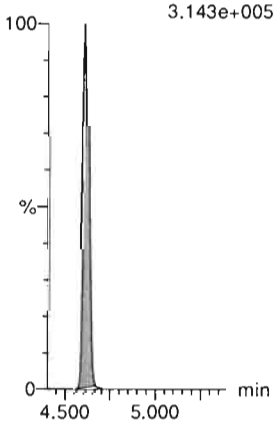
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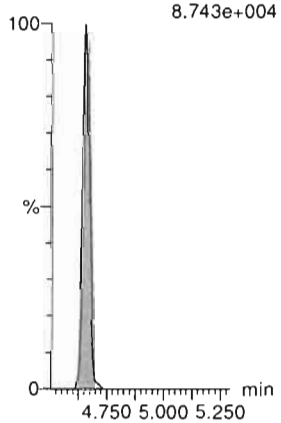
8:2 FTS



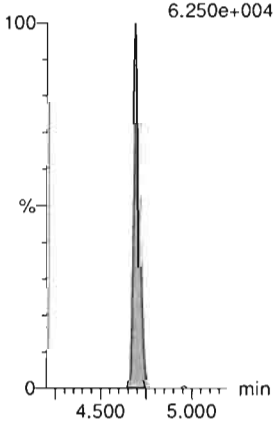
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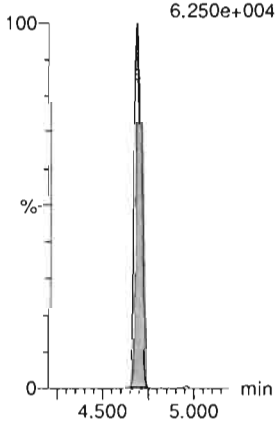
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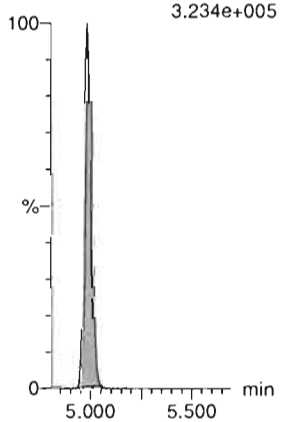
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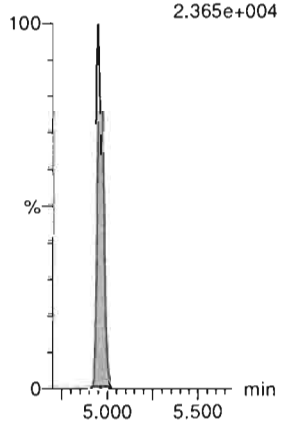
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13C2-PFDA-EIS



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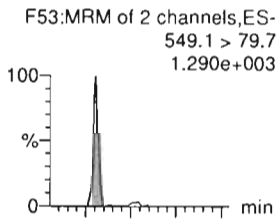


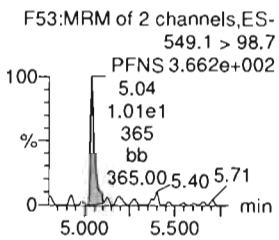
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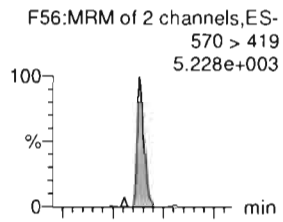
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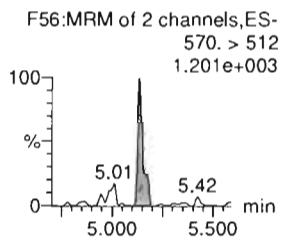
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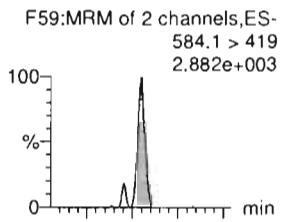


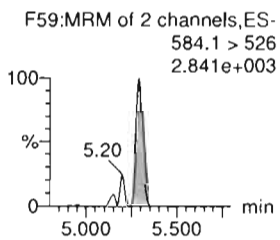
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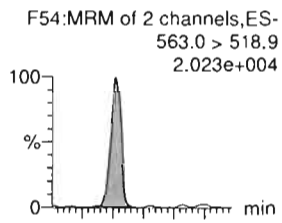


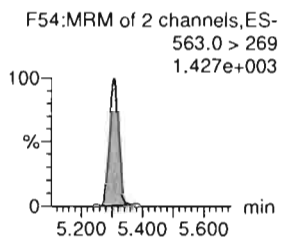
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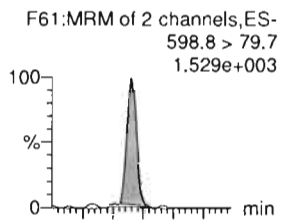


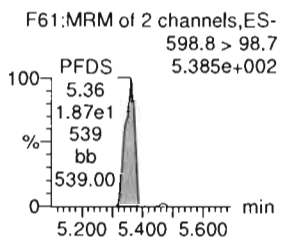
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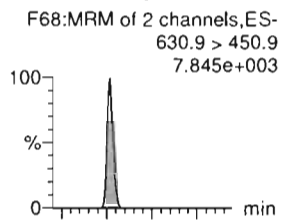


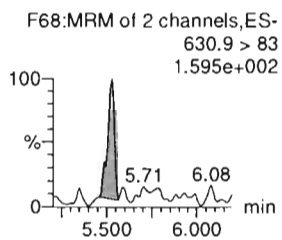
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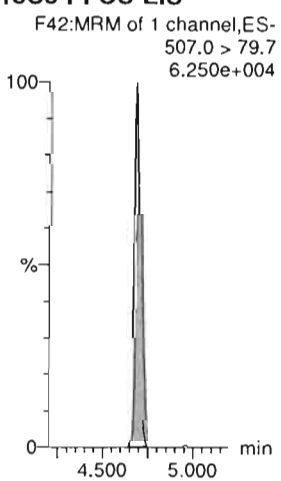


11Cl-PF30UdS

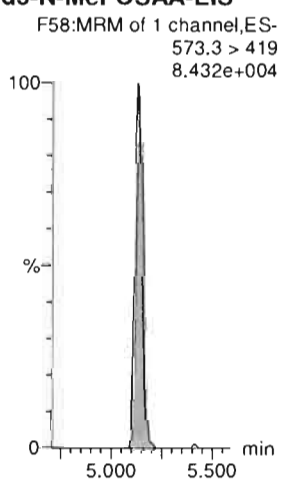




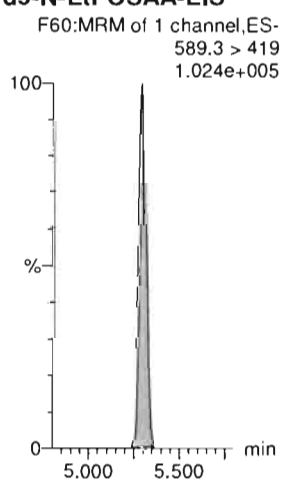
13C8-PFOS-EIS



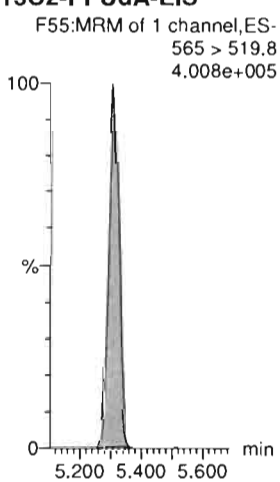
d3-N-MeFOSAA-EIS



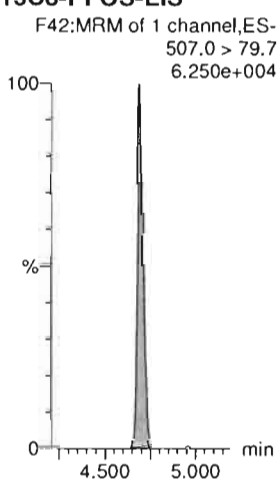
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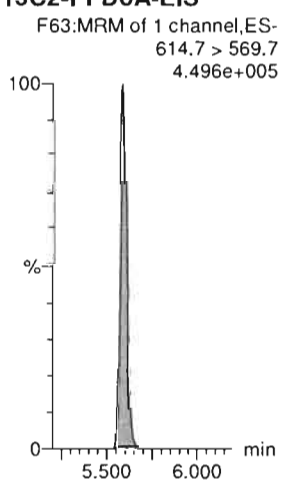
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13C8-PFOS-EIS



13C2-PFDoA-EIS

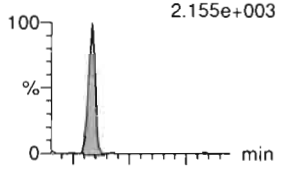


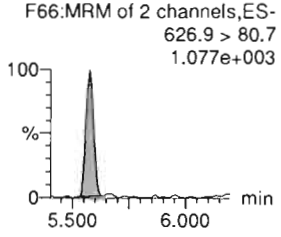
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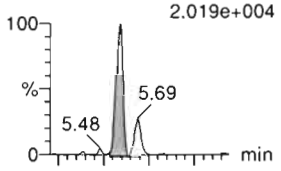
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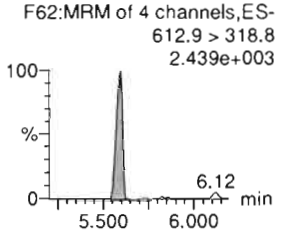
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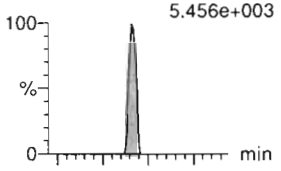


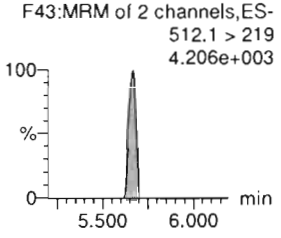
PFDoA



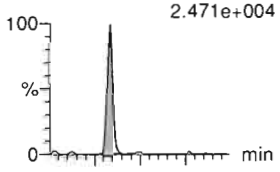


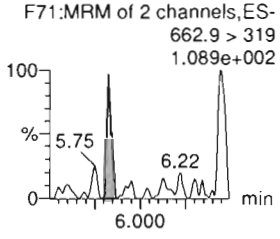
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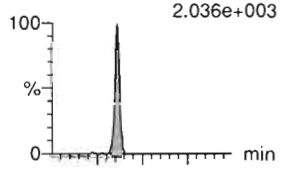


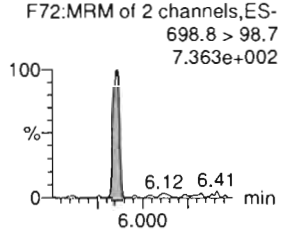
PFTrDA



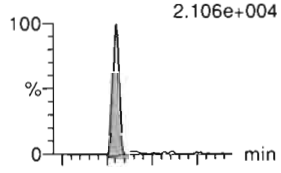


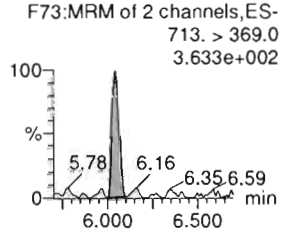
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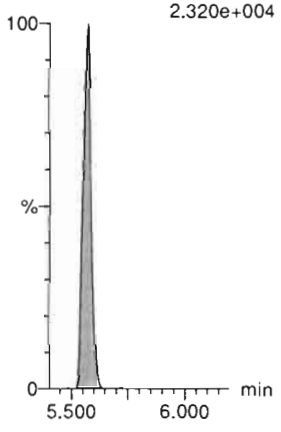


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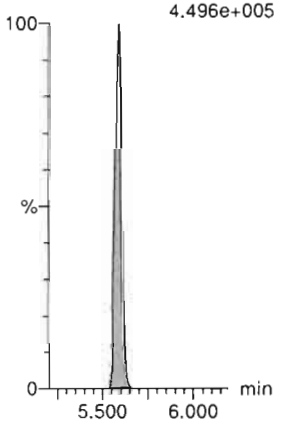




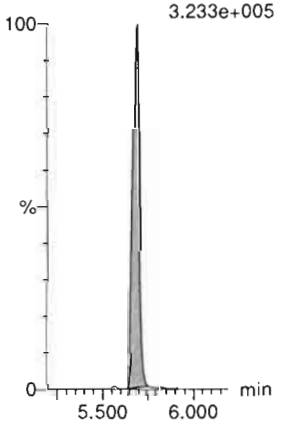
13C2-10:2 FTS-EIS



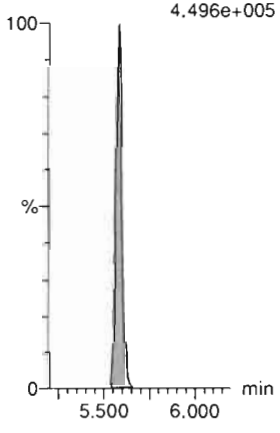
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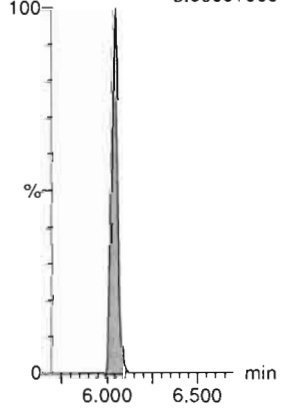
d3-N-MeFOSA-EIS



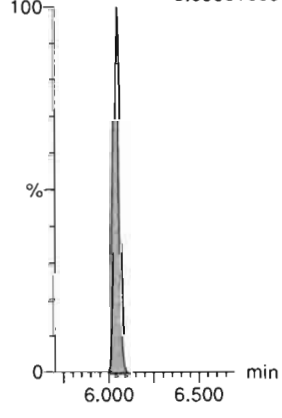
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

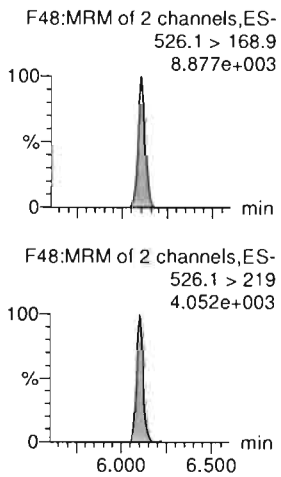


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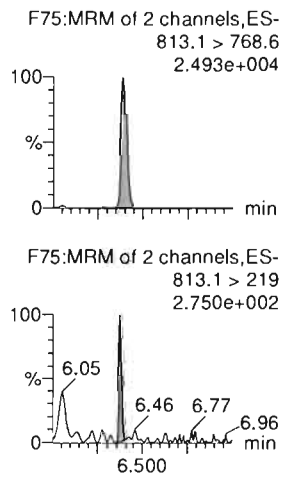
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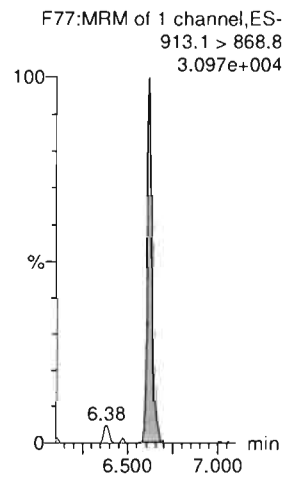
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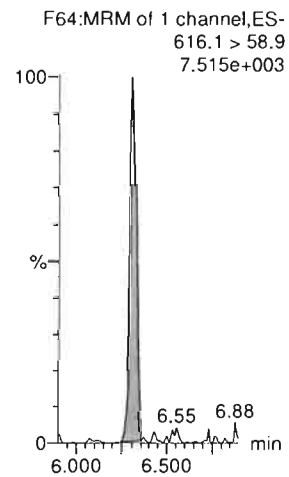
PFHxDA



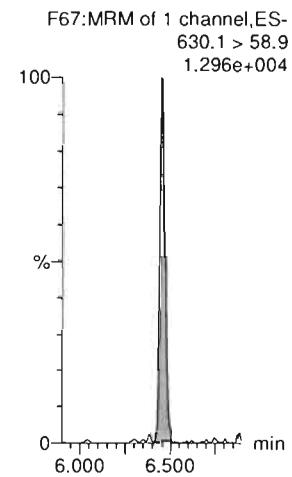
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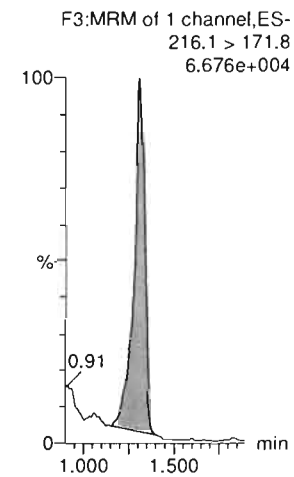
N-MeFOSE



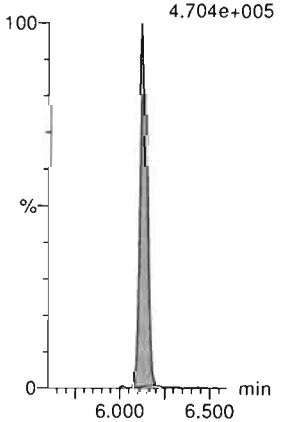
N-EtFOSE



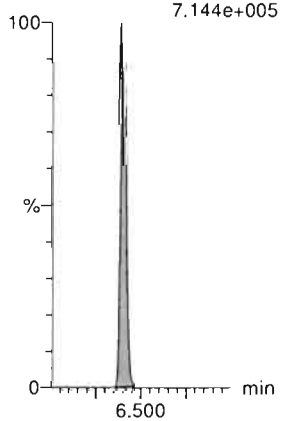
13C3-PFBA-RSD



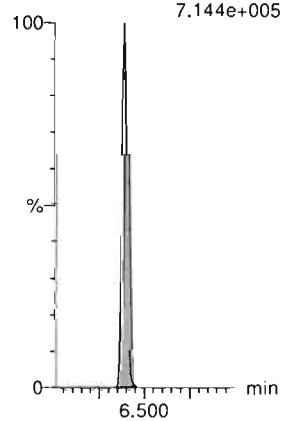
d5-N-ETFOSA-EIS



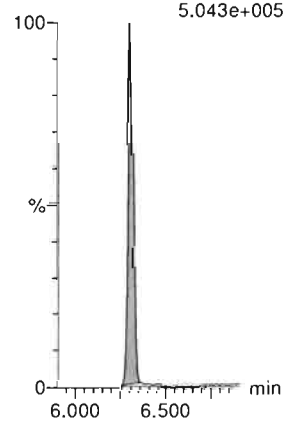
13C2-PFHxDA-EIS



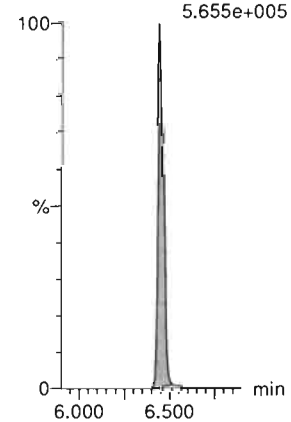
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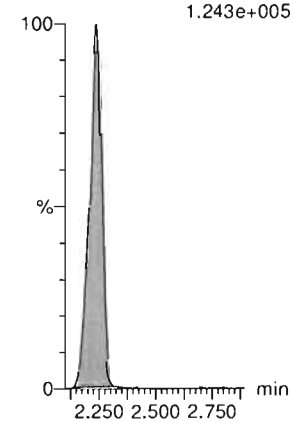
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d9-N-EtFOSE-EIS



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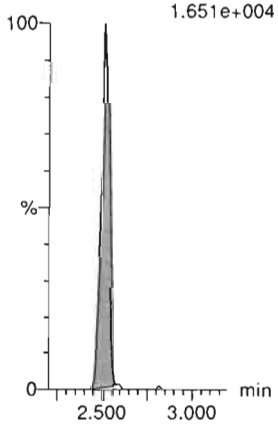


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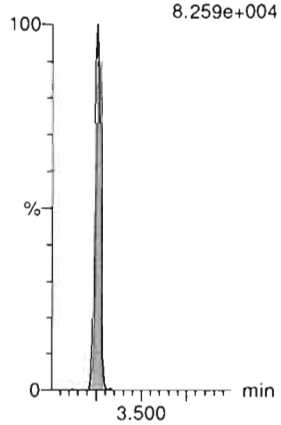
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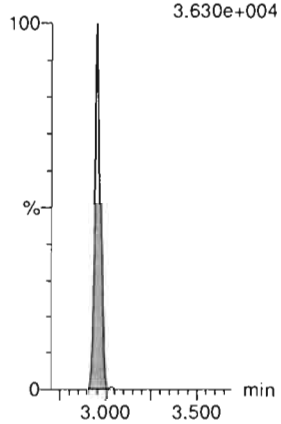
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.651e+004



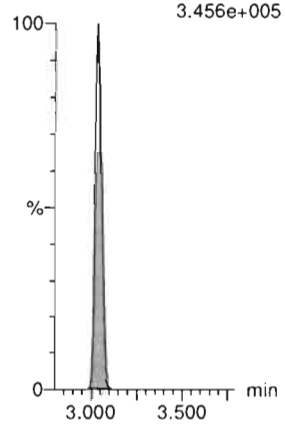
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.259e+004



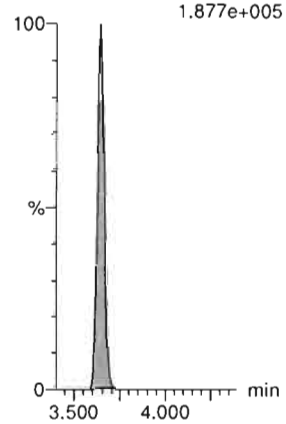
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.630e+004



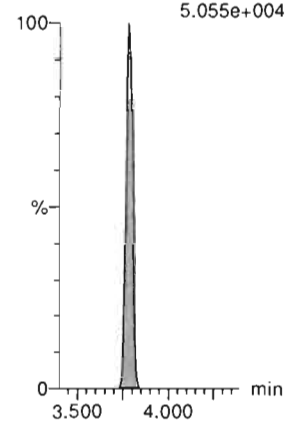
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.456e+005



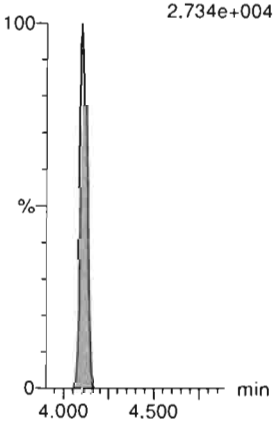
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.877e+005



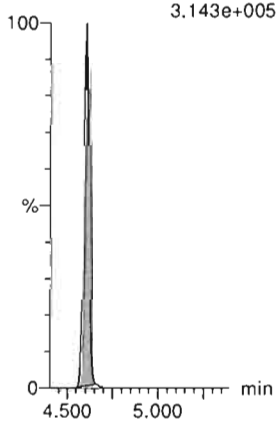
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
5.055e+004



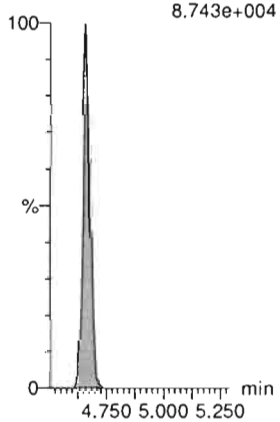
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.734e+004



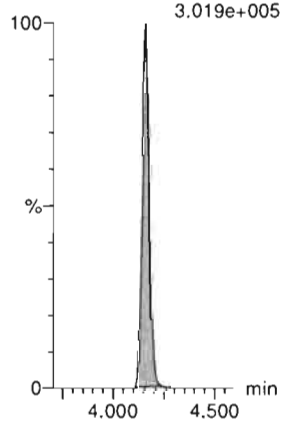
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
3.143e+005



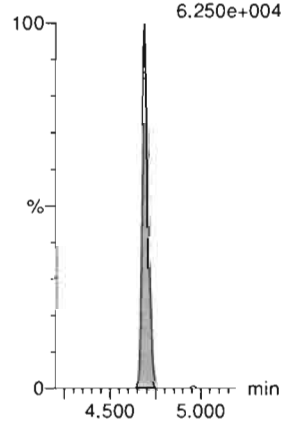
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
8.743e+004



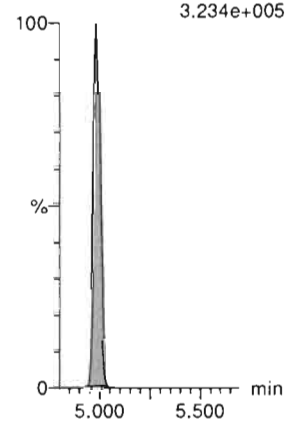
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
3.019e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.250e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.234e+005

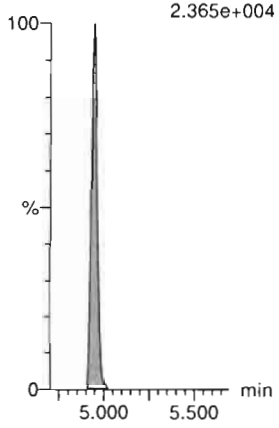


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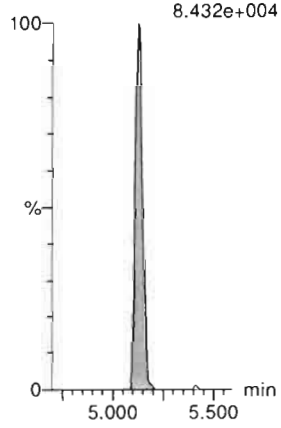
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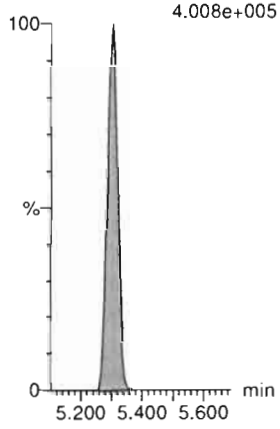
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.365e+004



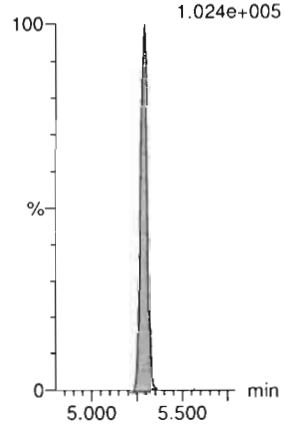
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.432e+004



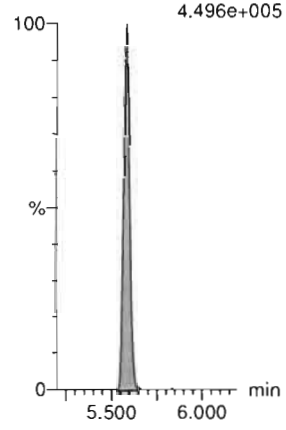
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.008e+005



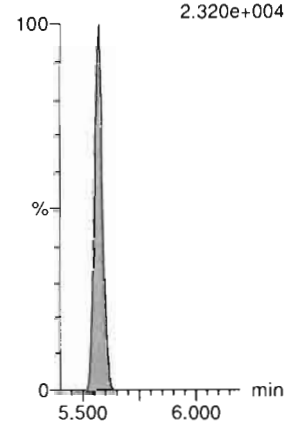
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.024e+005



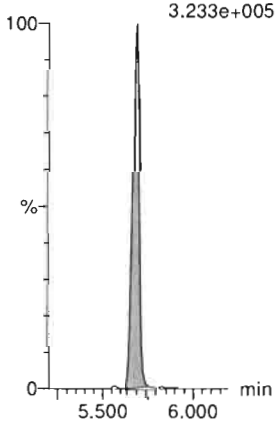
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.496e+005



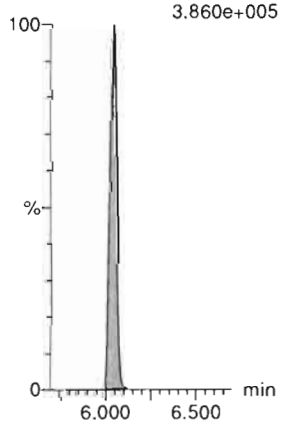
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.320e+004



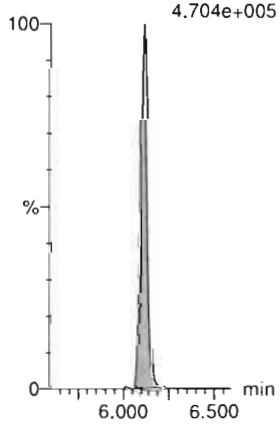
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F46:MRM of 1 channel,ES-
515.2 > 168.9
3.233e+005



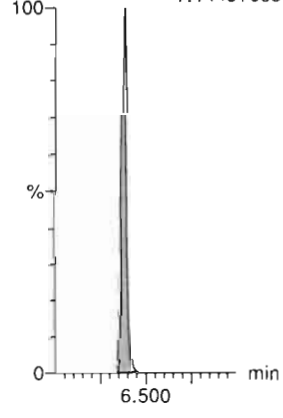
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.860e+005



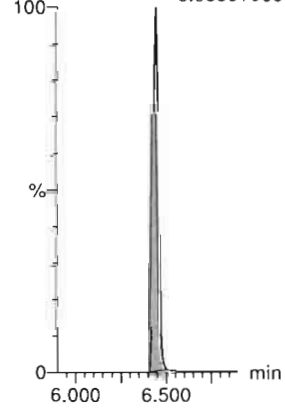
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.704e+005



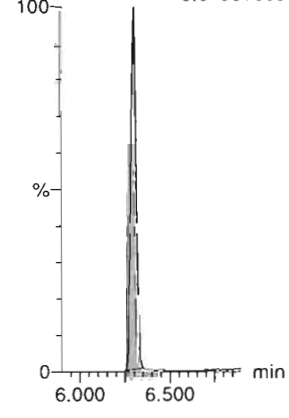
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
7.144e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.655e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.043e+005

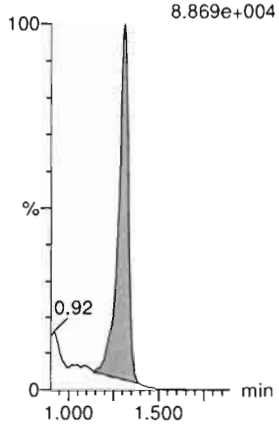


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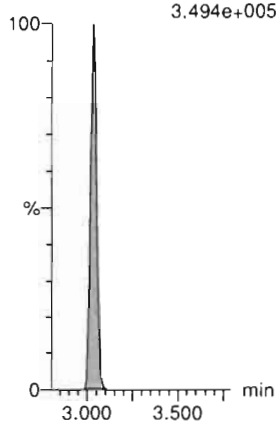
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

Name: 200229P1-4, Date: 29-Feb-2020, Time: 15:56:29, ID: ST200229P1-2 PFC CS-1 20B1103, Description: PFC CS-1 20B1103

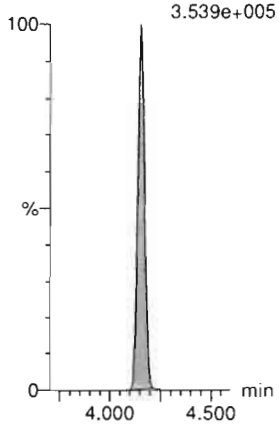
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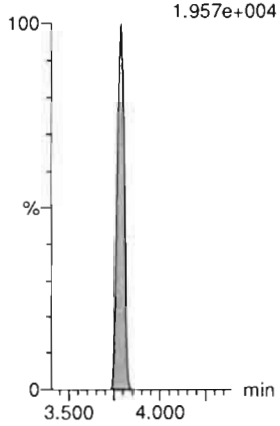
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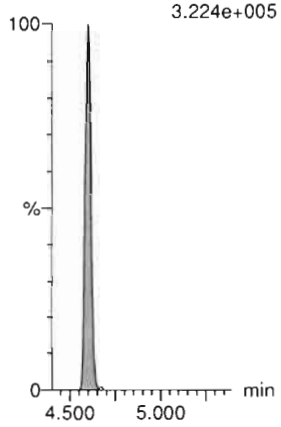
13C8-PFOA



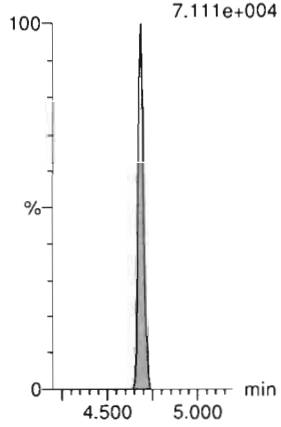
18O2-PFHxS



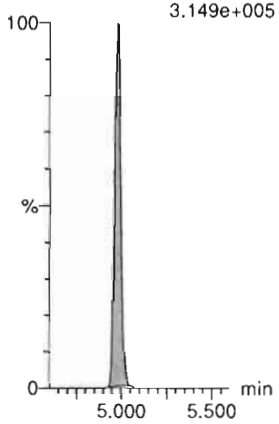
13C9-PFNA



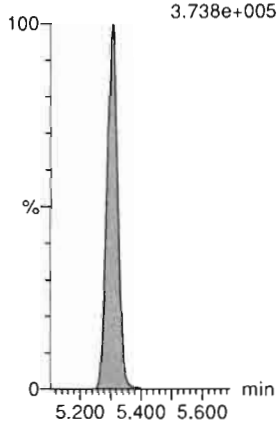
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13C6-PFDA



13C7-PFUdA

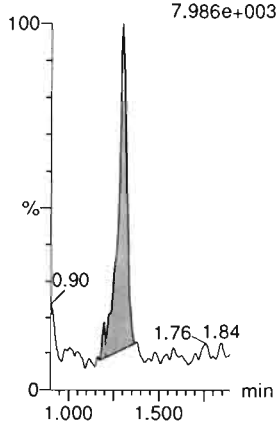


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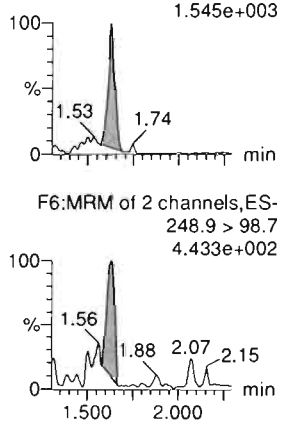
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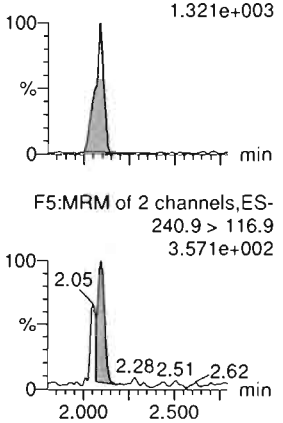
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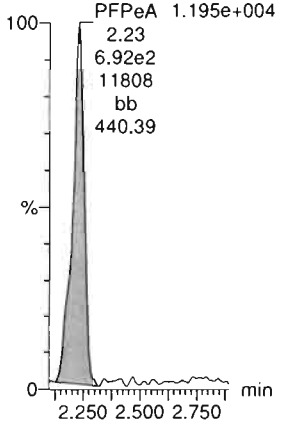
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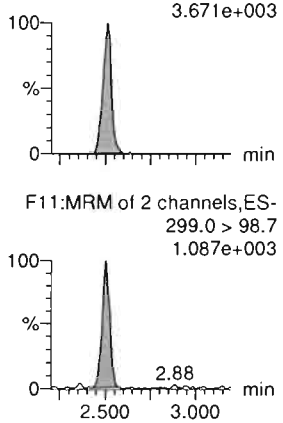
3:3 FTCA



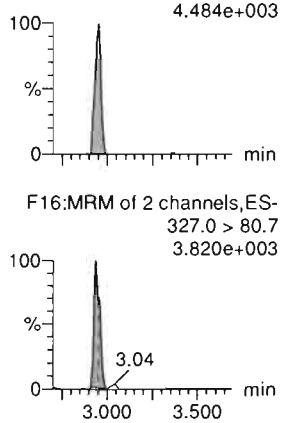
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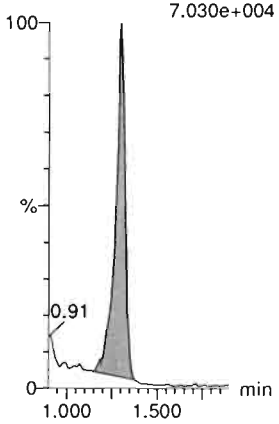
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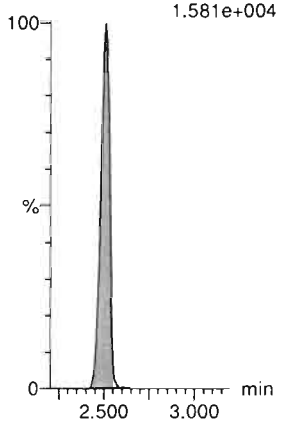
4:2 FTS



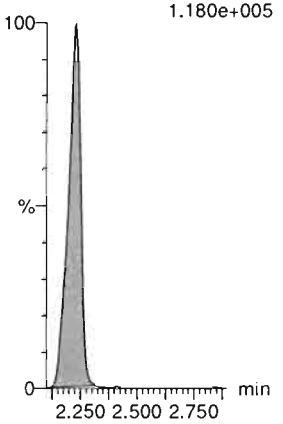
13C3-PFBA-EIS



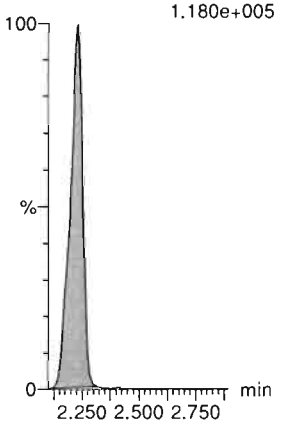
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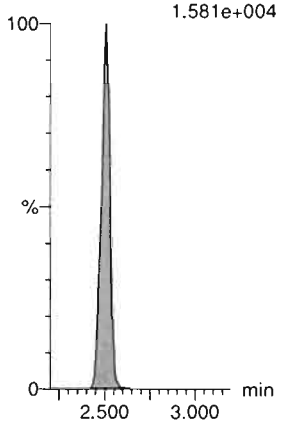
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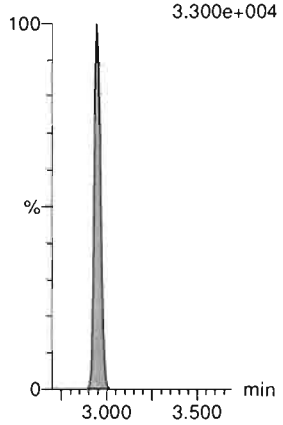
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

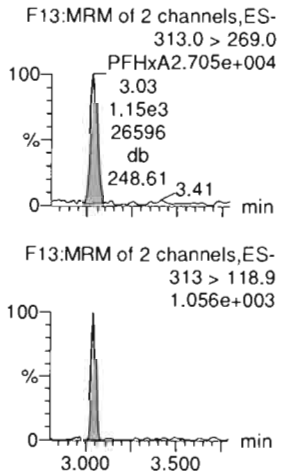


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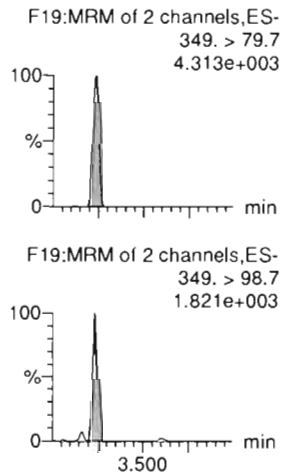
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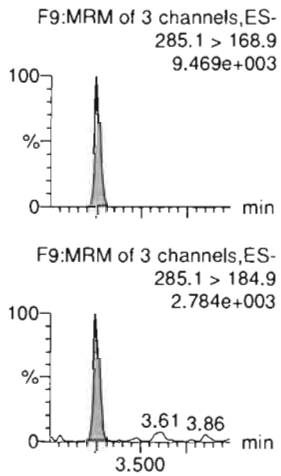
PFHxA



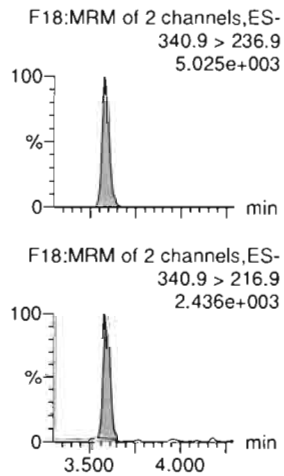
PFPeS



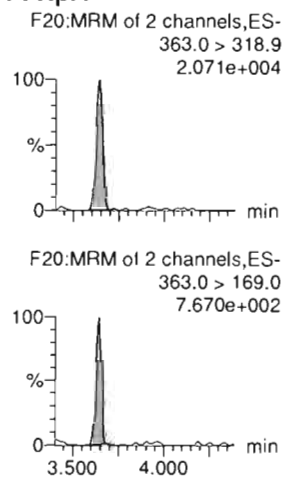
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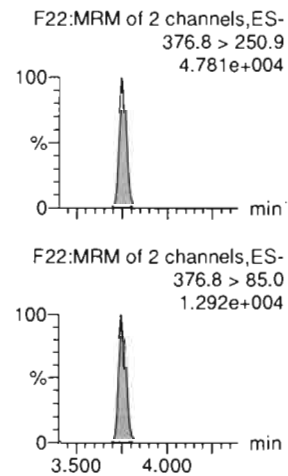
5:3 FTCA



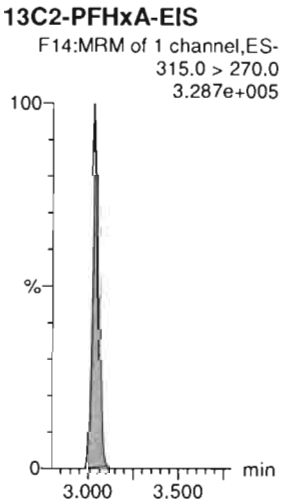
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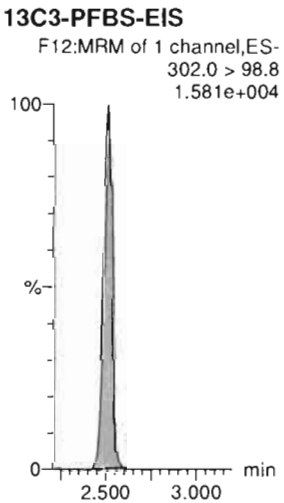
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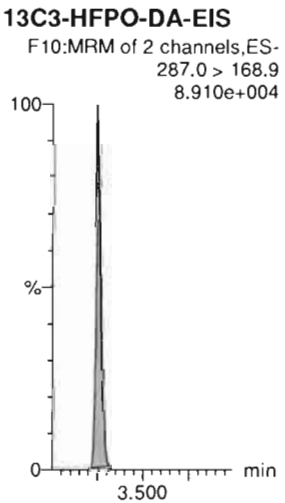
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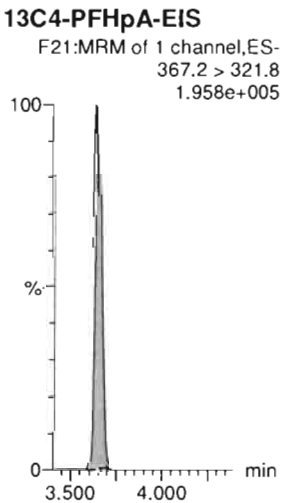
13C3-PFBS-EIS



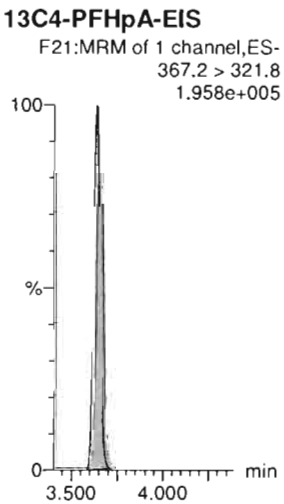
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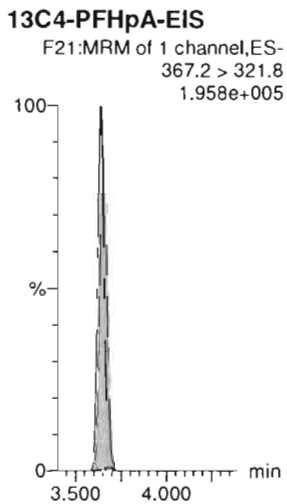
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

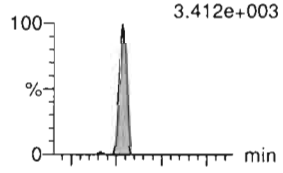


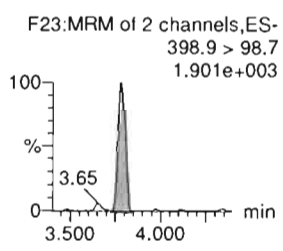
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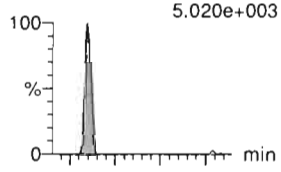
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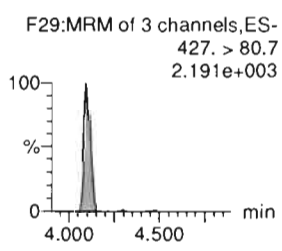
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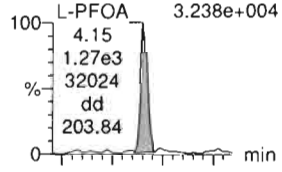


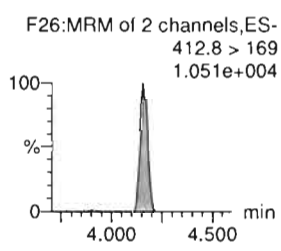
6:2 FTS



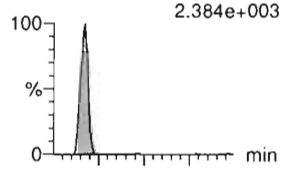


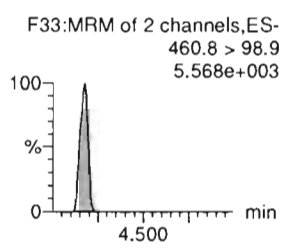
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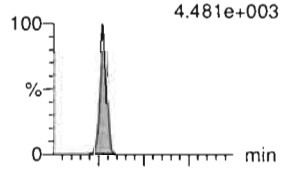


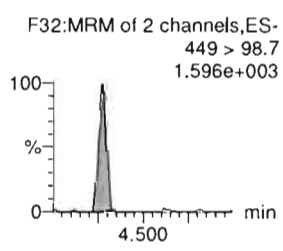
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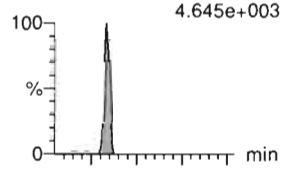


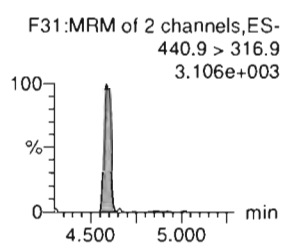
PFHpS



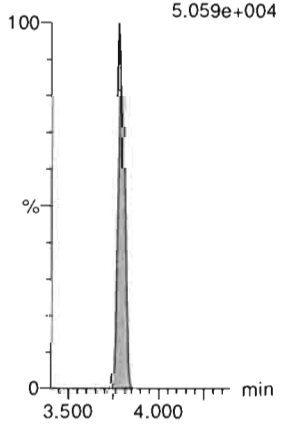


7:3 FTCA

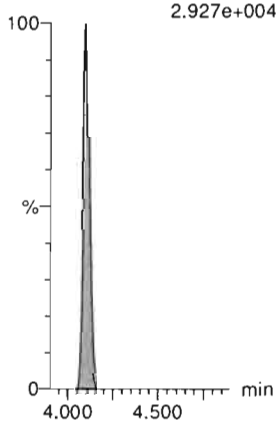




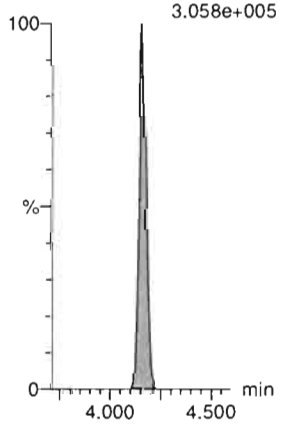
13C3-PFHxS-EIS



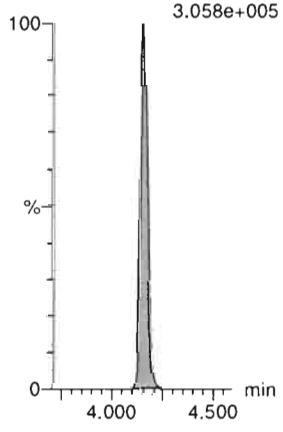
13C2-6:2 FTS-EIS



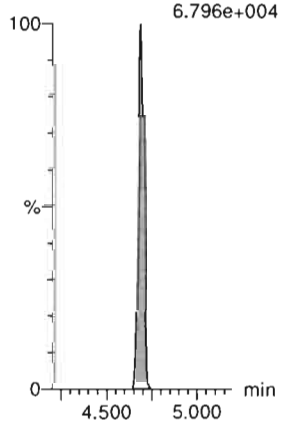
13C2-PFOA-EIS



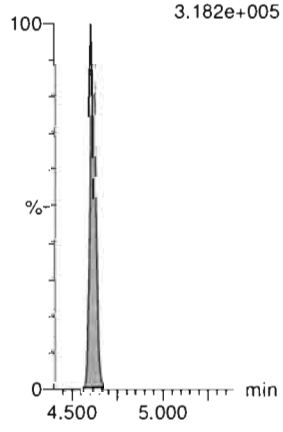
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

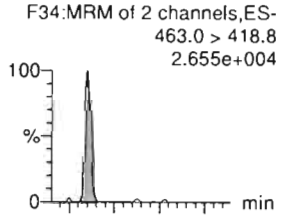


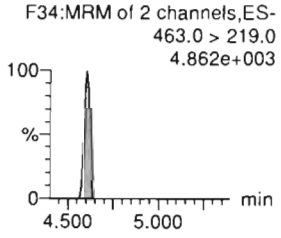
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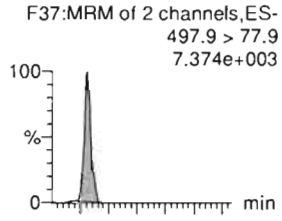
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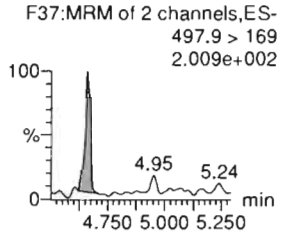
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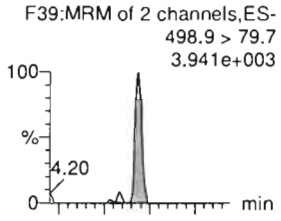


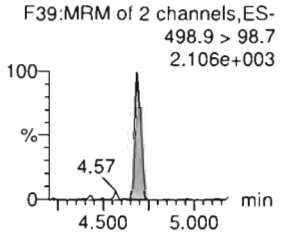
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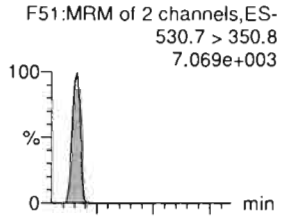


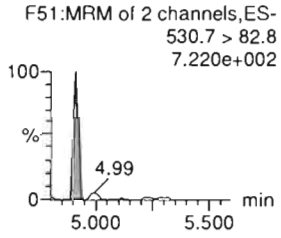
L-PFOS



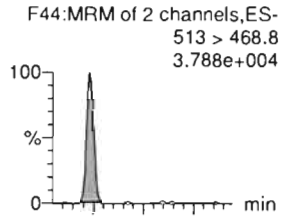


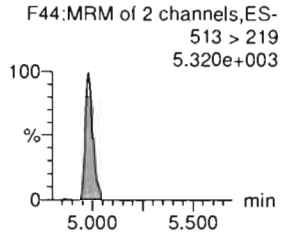
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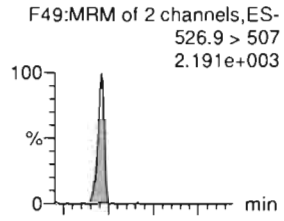


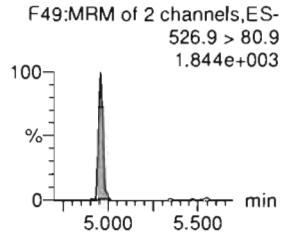
PFDA



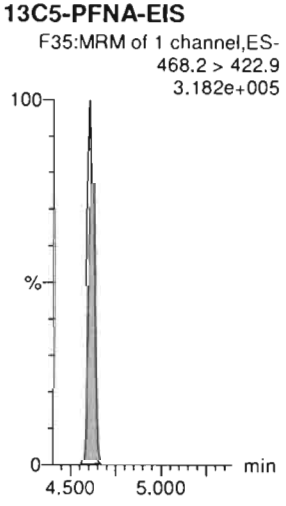


8:2 FTS

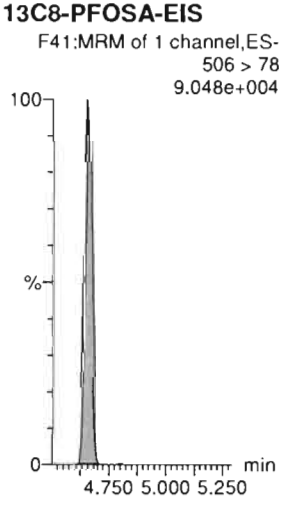




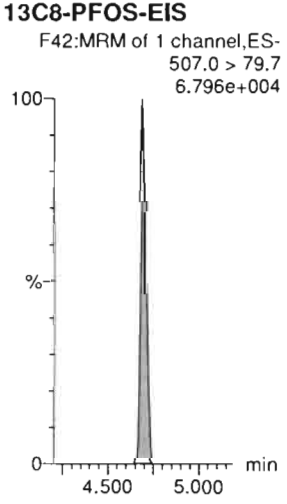
13C5-PFNA-EIS



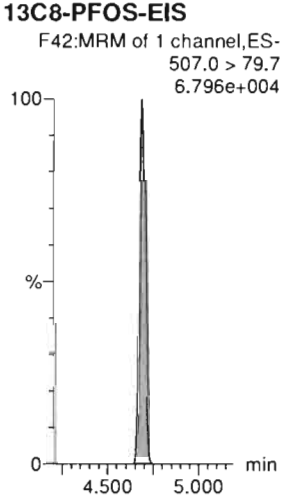
13C8-PFOSA-EIS



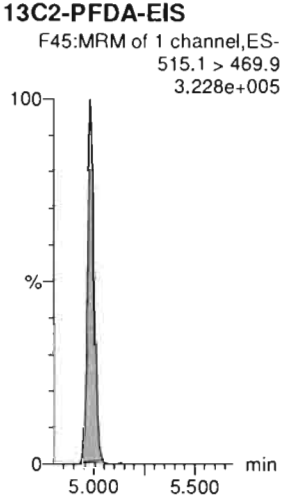
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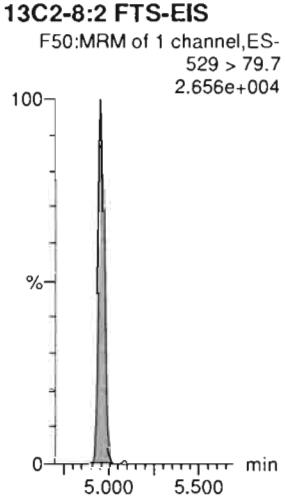
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

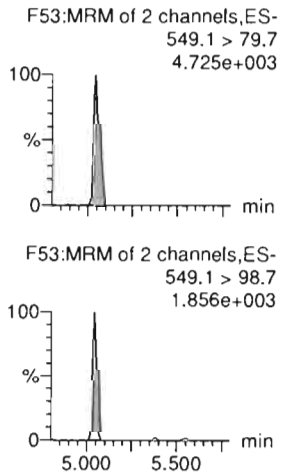


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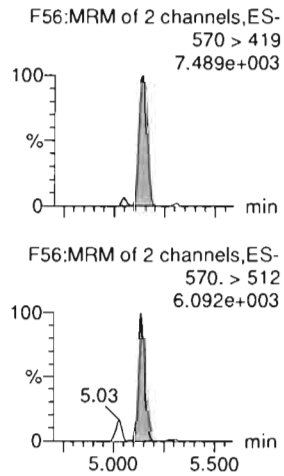
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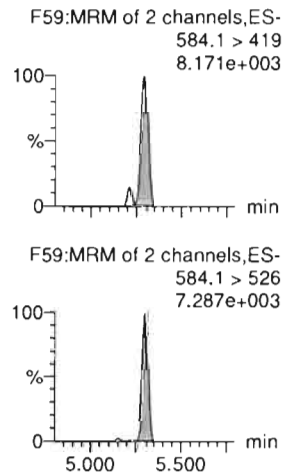
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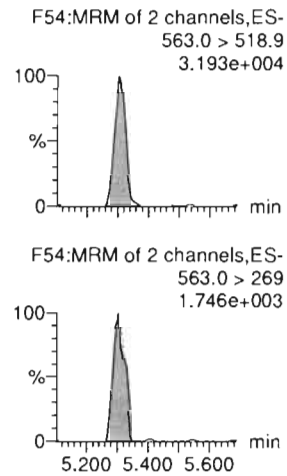
L-MeFOSAA



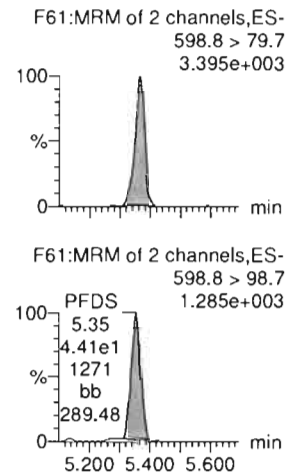
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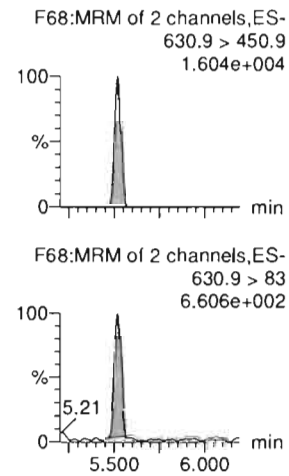
PFUdA



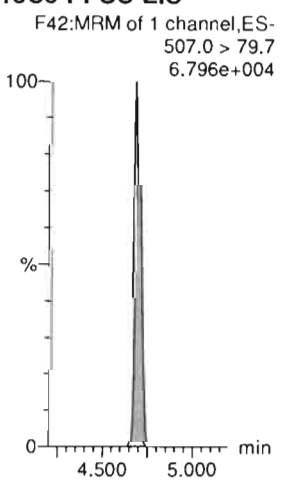
PFDS



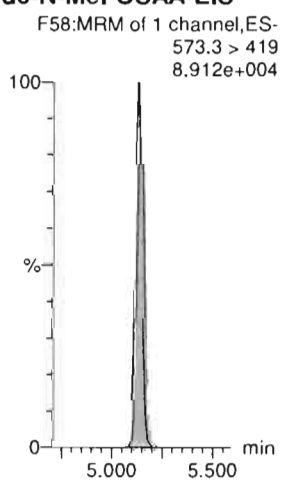
11Cl-PF30UdS



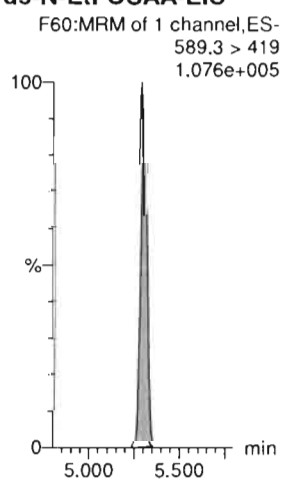
13C8-PFOS-EIS



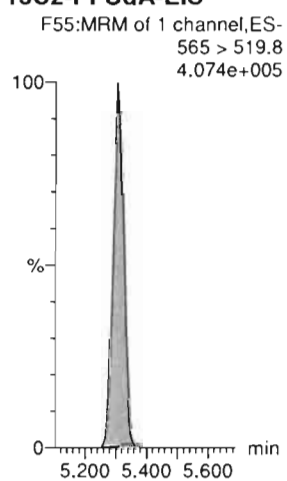
d3-N-MeFOSAA-EIS



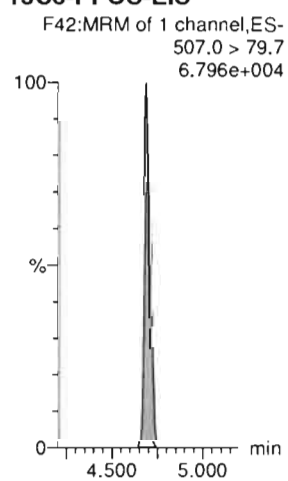
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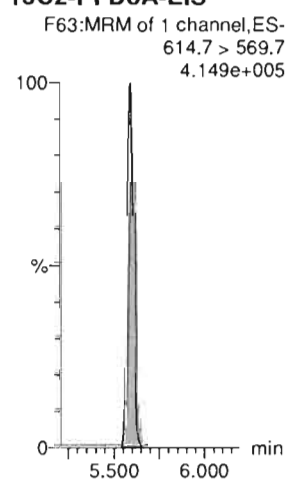
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

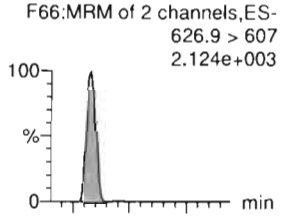


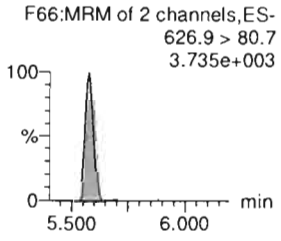
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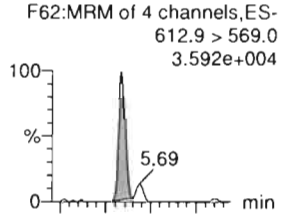
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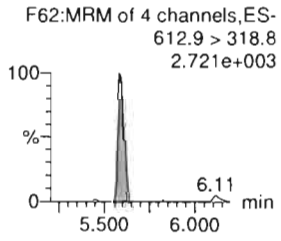
10:2 FTS



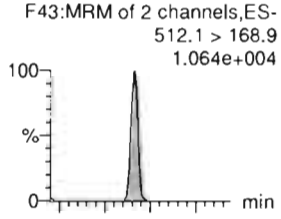


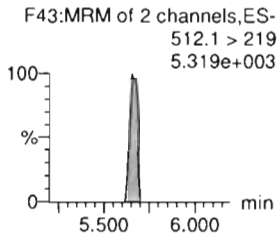
PFDoA



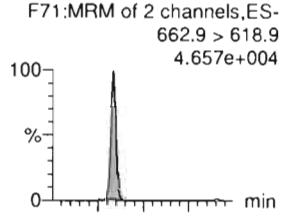


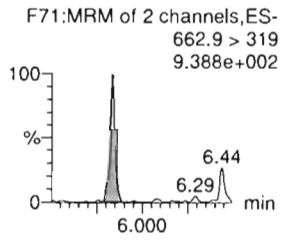
N-MeFOSA



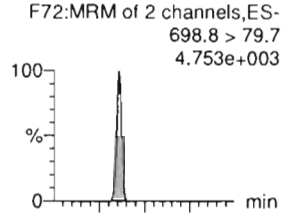


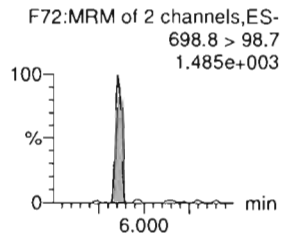
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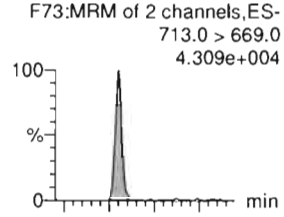


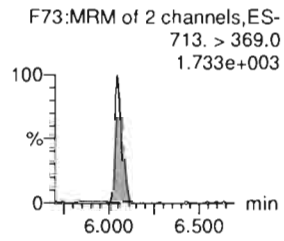
PFDoS



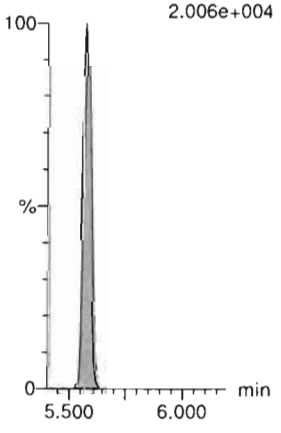


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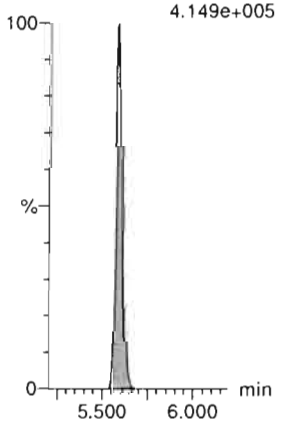




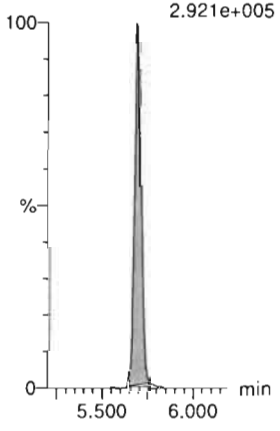
13C2-10:2 FTS-EIS



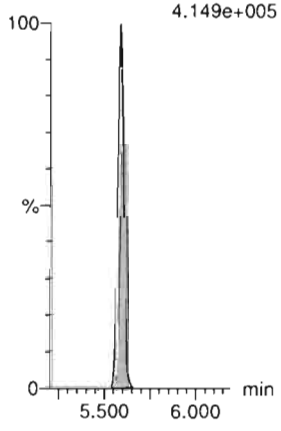
13C2-PFDoA-EIS



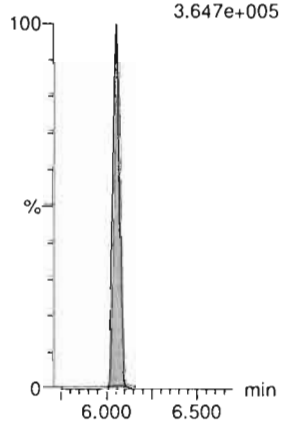
d3-N-MeFOSA-EIS



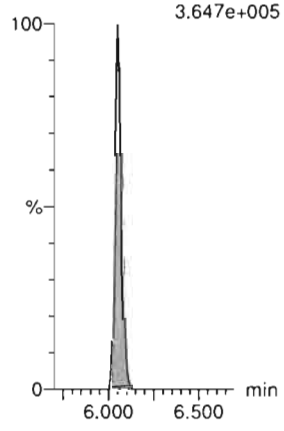
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

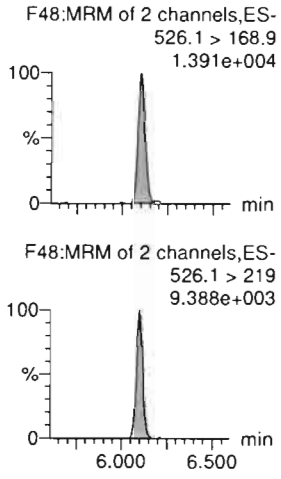


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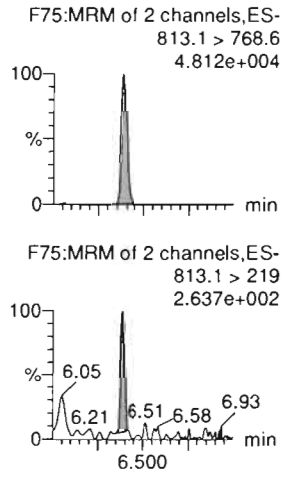
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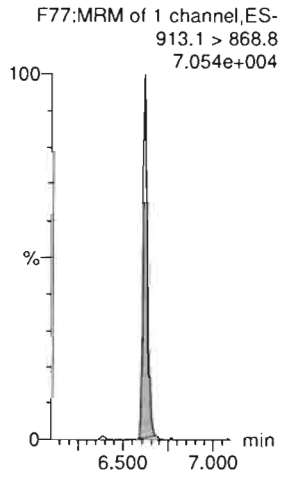
N-EtFOSA



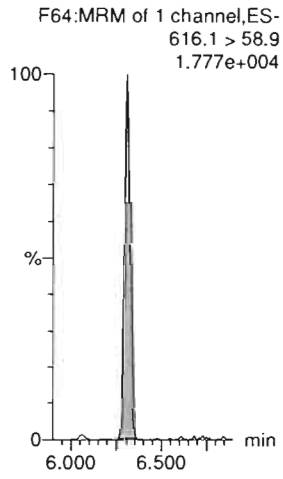
PFHxDA



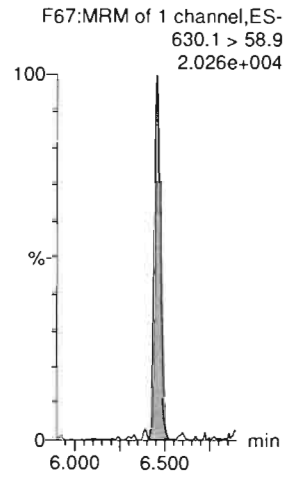
PFODA



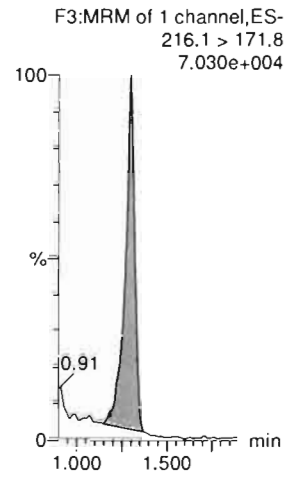
N-MeFOSE



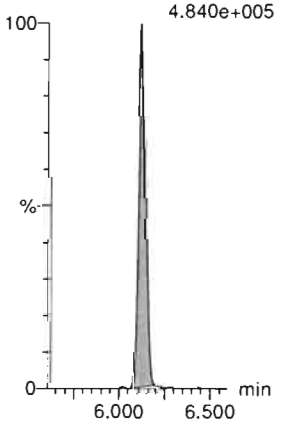
N-EtFOSE



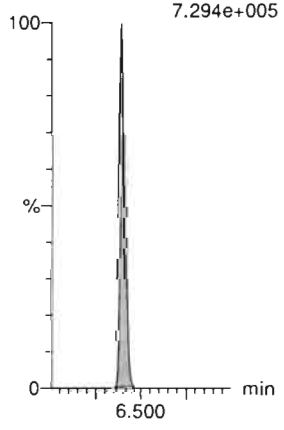
13C3-PFBA-RSD



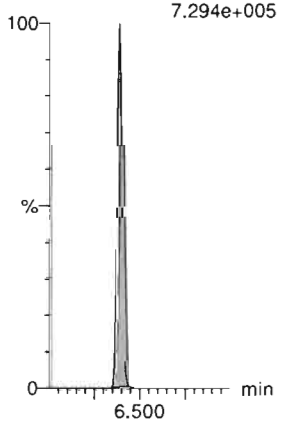
d5-N-ETFOSA-EIS



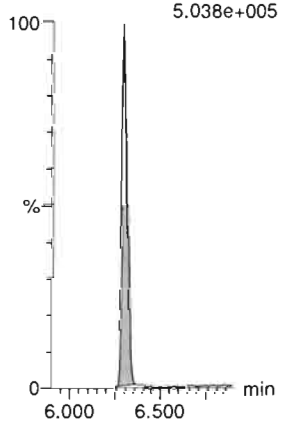
13C2-PFHxDA-EIS



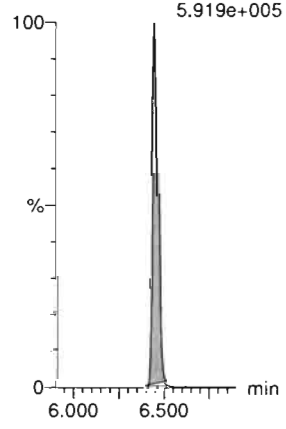
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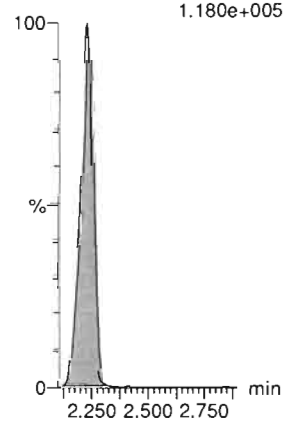
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

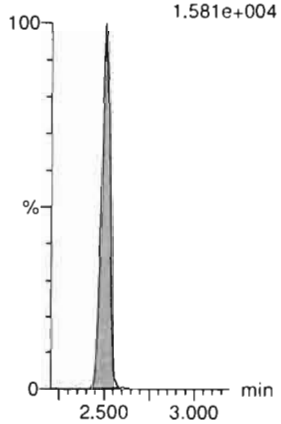


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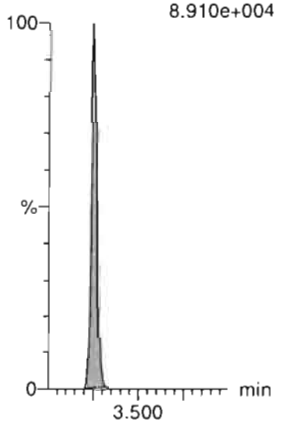
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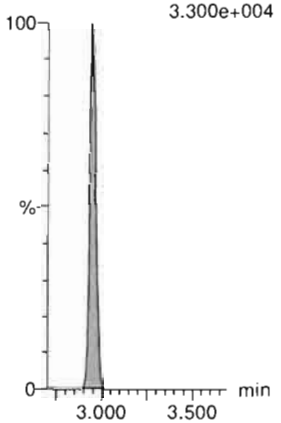
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.581e+004



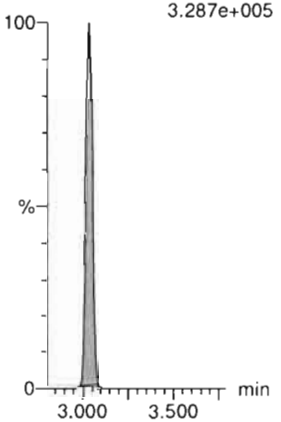
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.910e+004



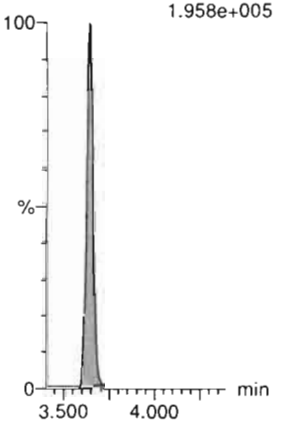
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.300e+004



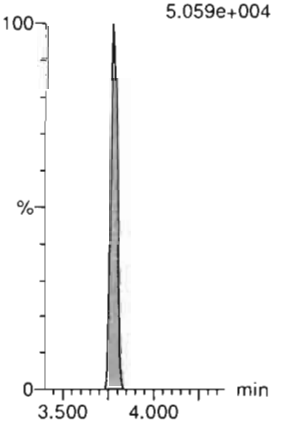
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.287e+005



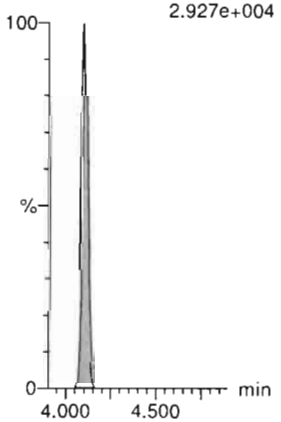
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.958e+005



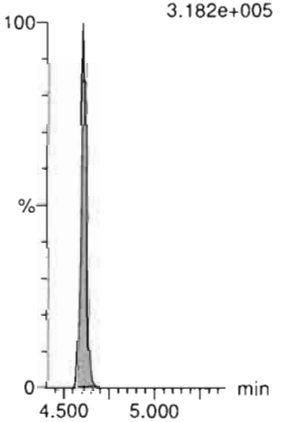
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
5.059e+004



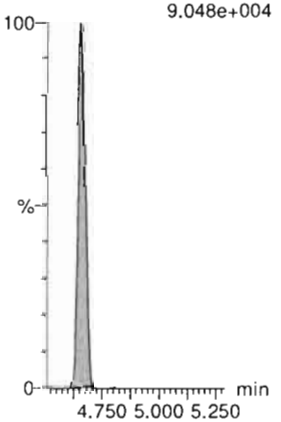
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.927e+004



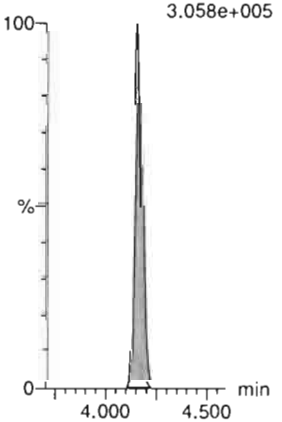
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
3.182e+005



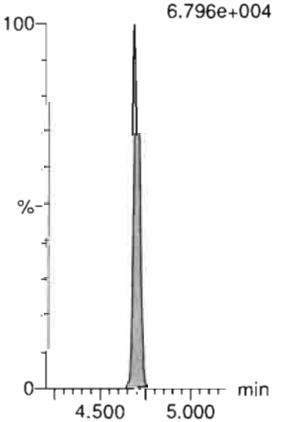
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.048e+004



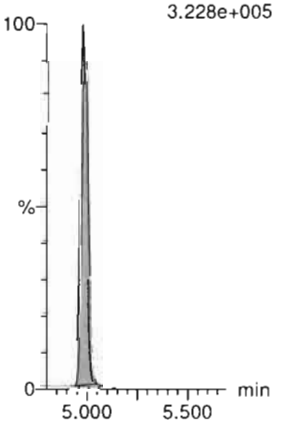
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
3.058e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.796e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.228e+005

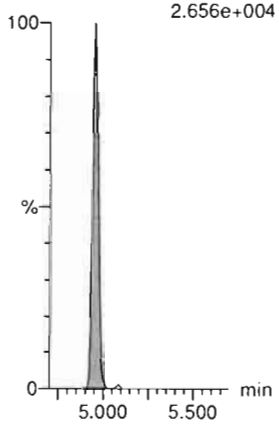


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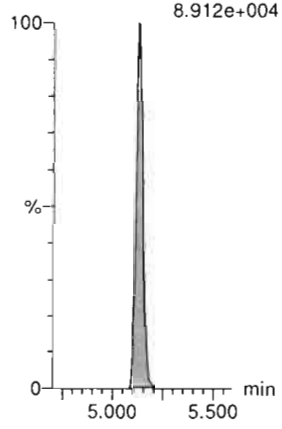
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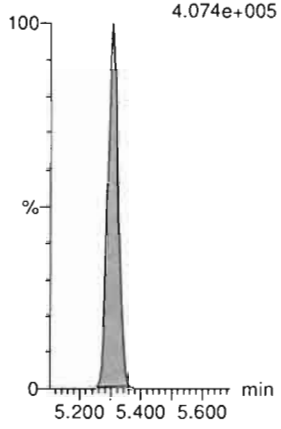
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.656e+004



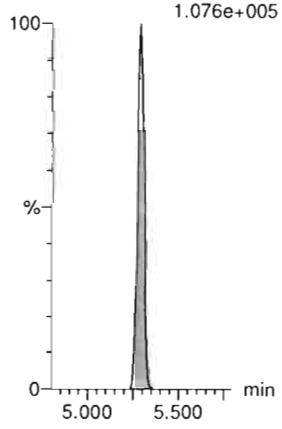
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.912e+004



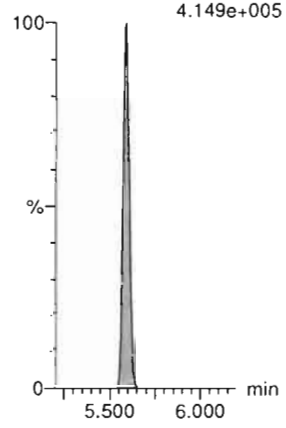
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.074e+005



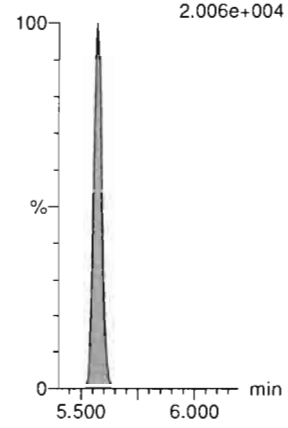
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F60:MRM of 1 channel,ES-
589.3 > 419
1.076e+005



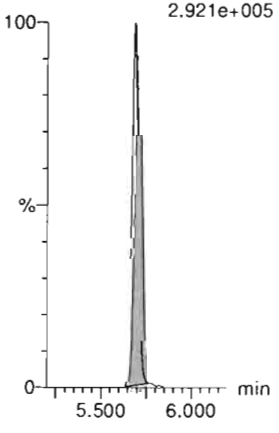
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.149e+005



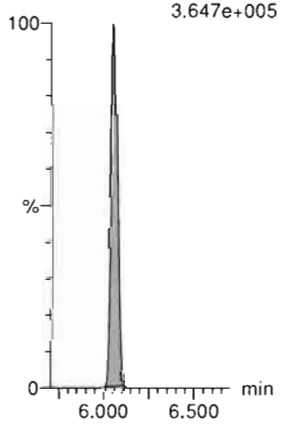
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.006e+004



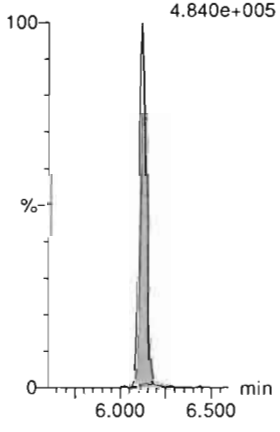
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
2.921e+005



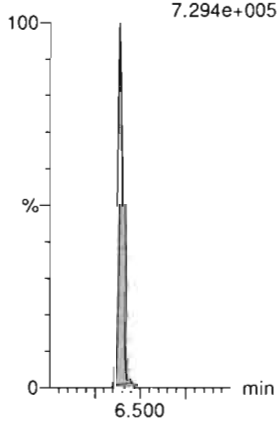
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.647e+005



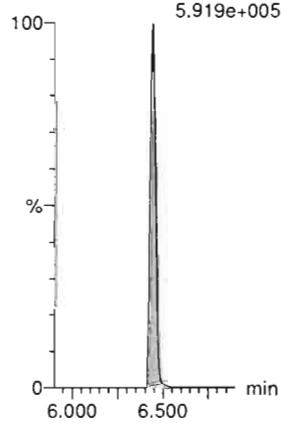
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.840e+005



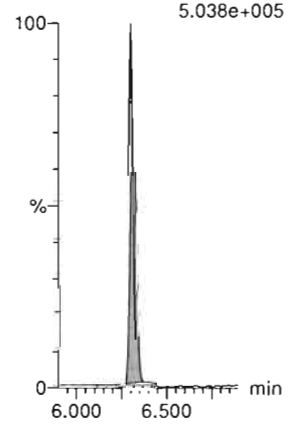
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
7.294e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.919e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.038e+005

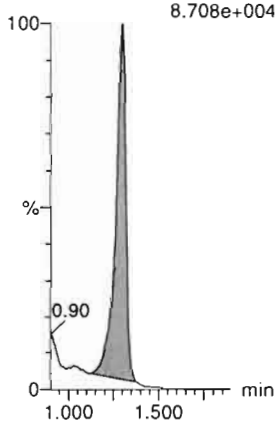


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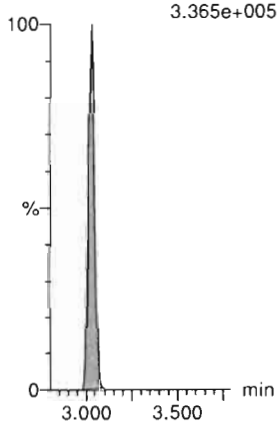
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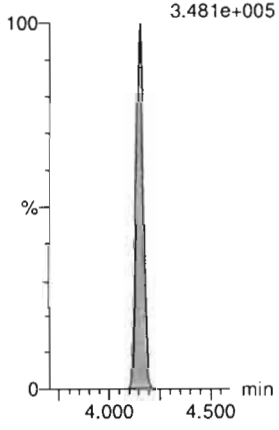
13C4-PFBA



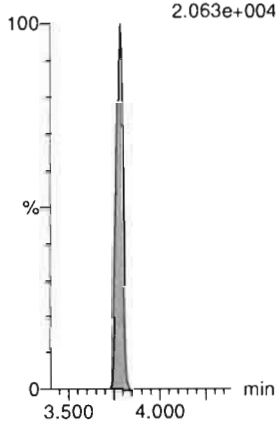
13C5-PFHxA



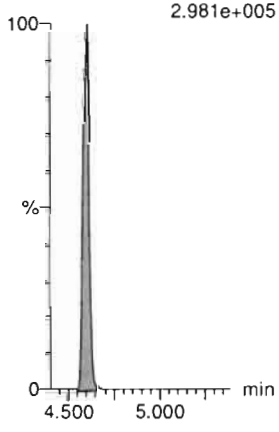
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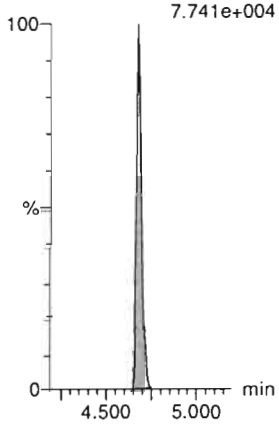
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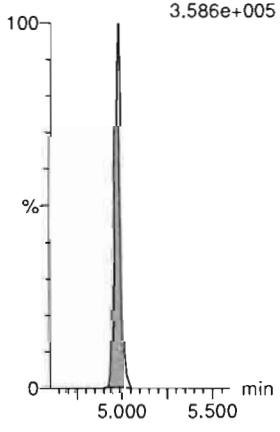
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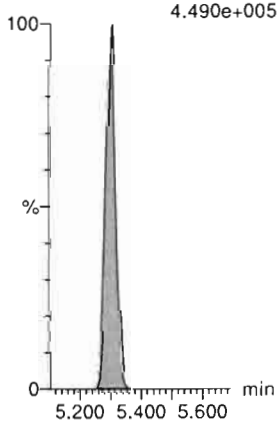
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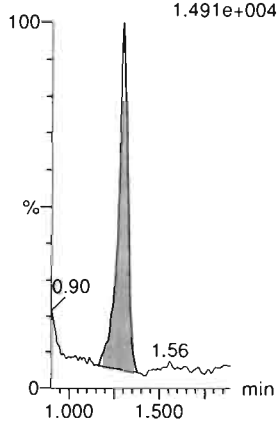


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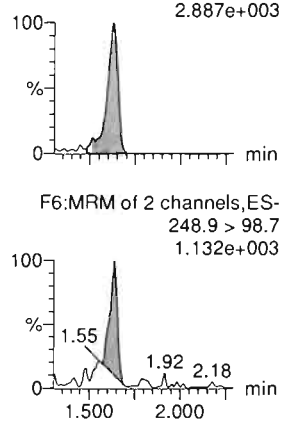
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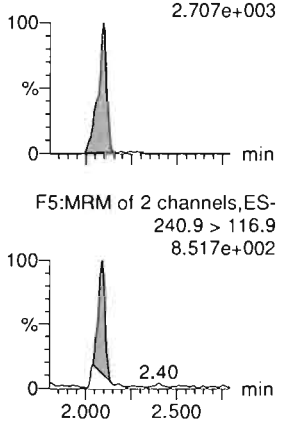
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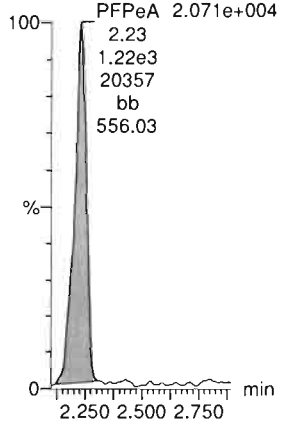
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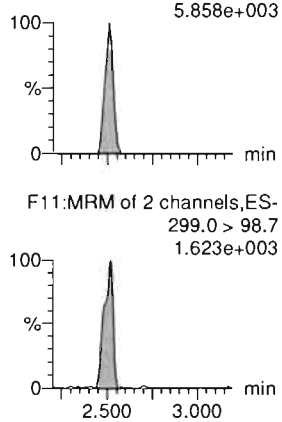
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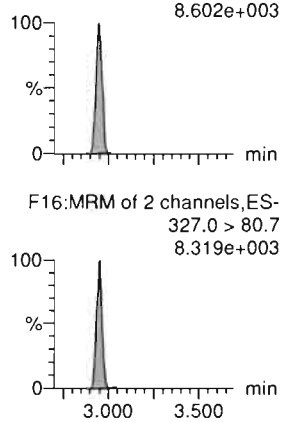
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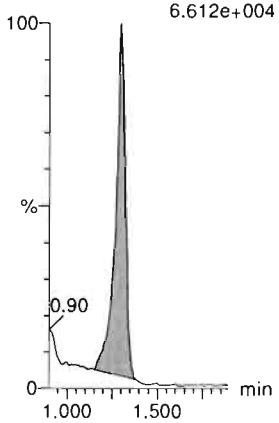
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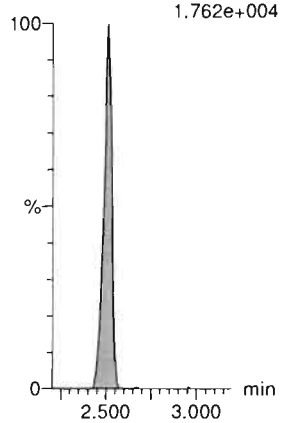
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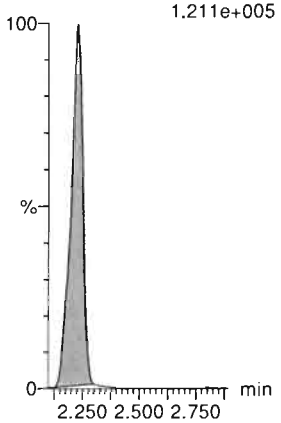
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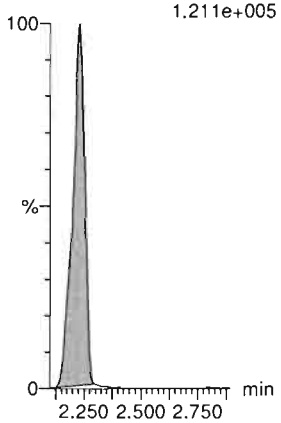
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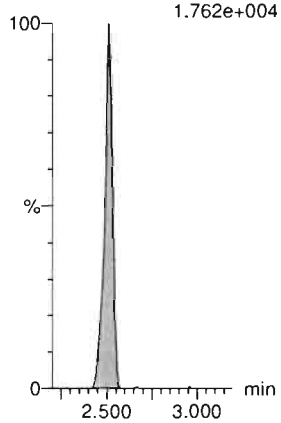
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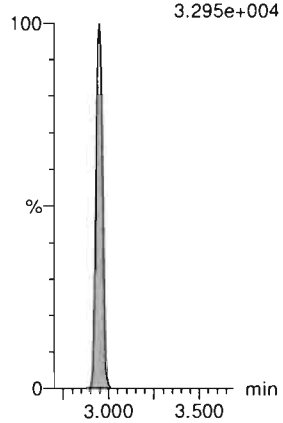
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13C3-PFBS-EIS



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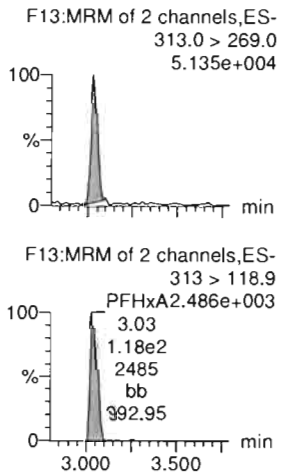


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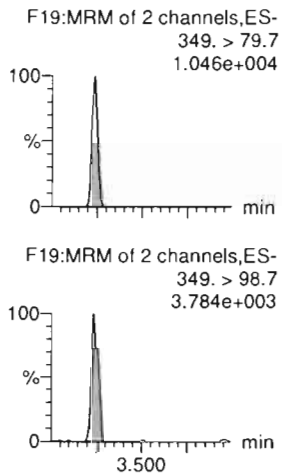
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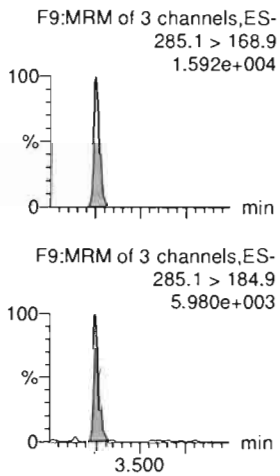
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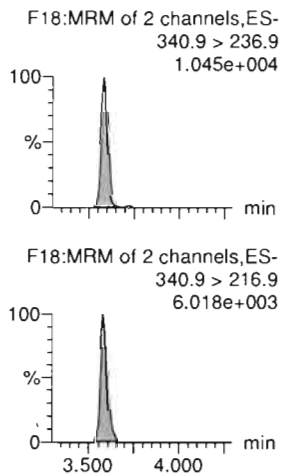
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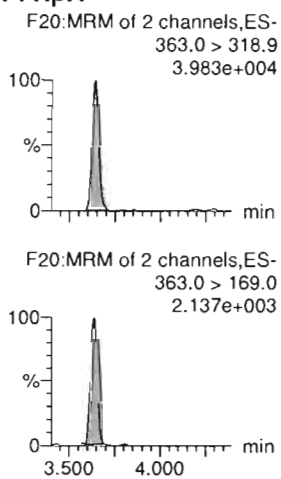
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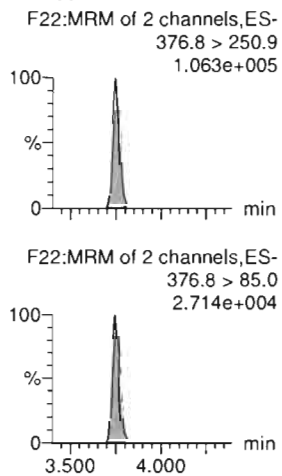
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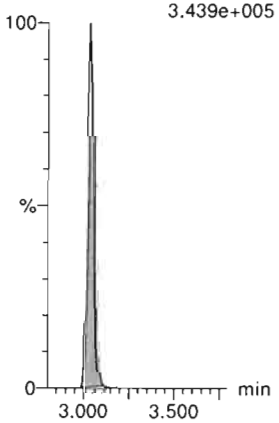
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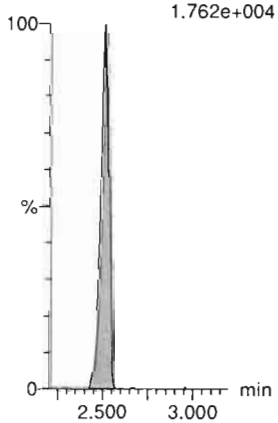
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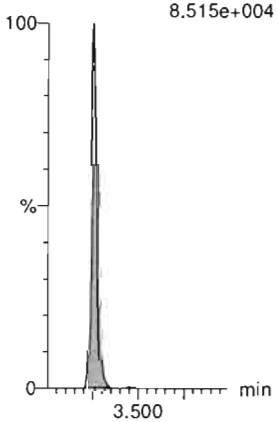
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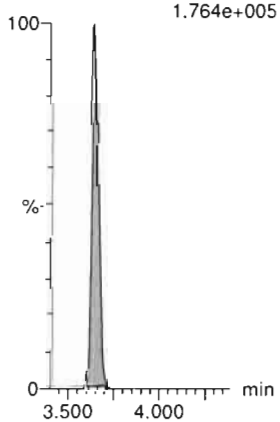
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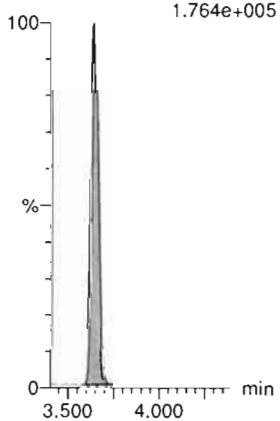
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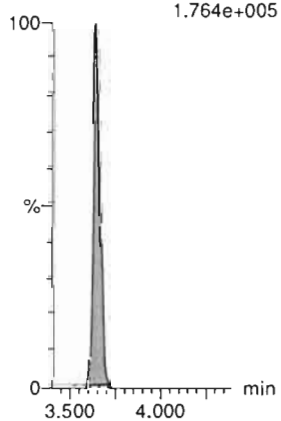
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13C4-PFHpA-EIS



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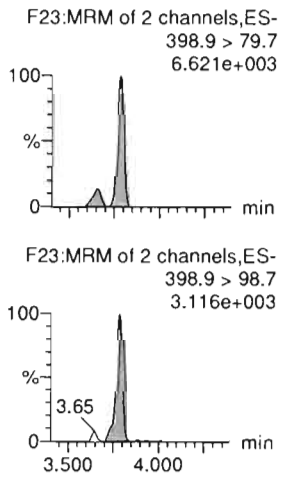


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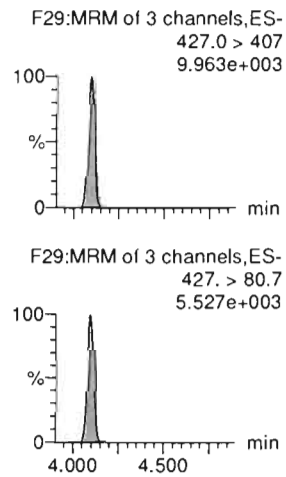
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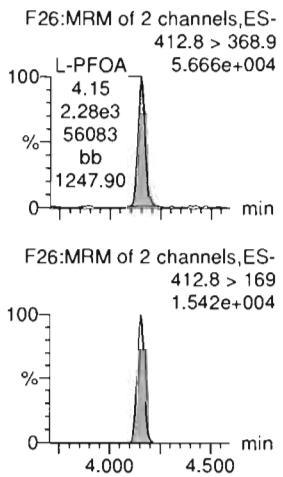
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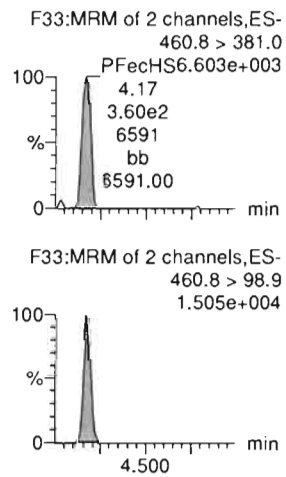
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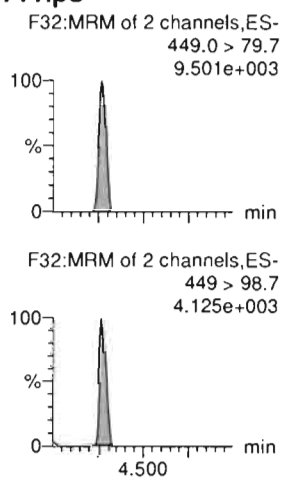
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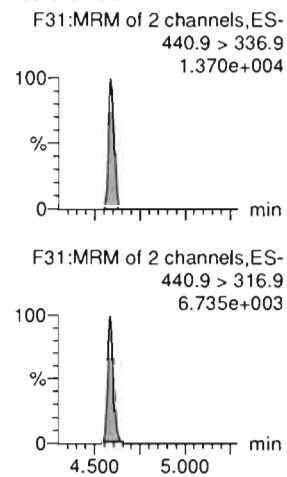
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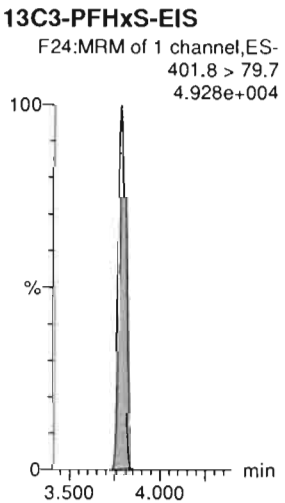
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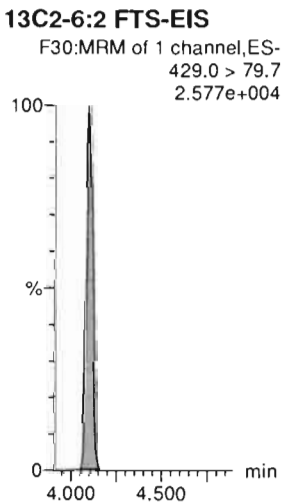
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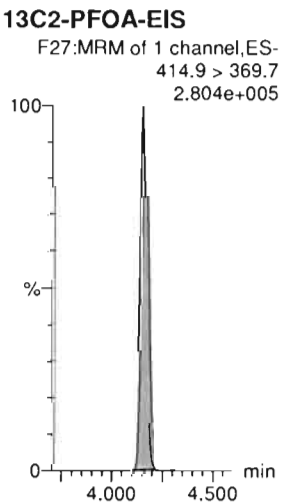
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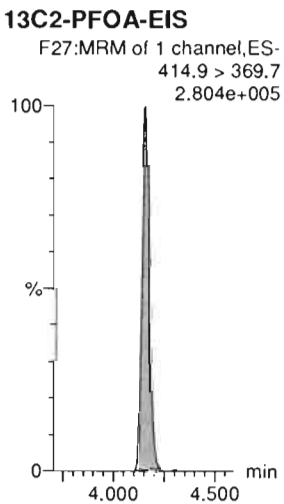
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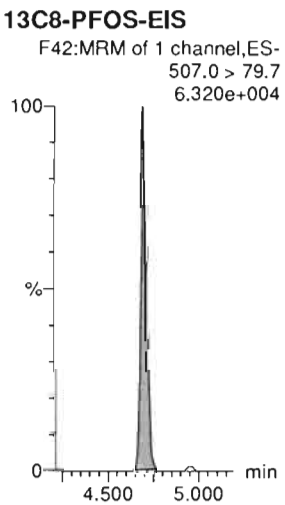
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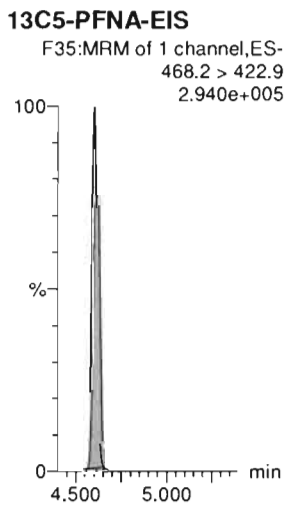
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13C8-PFOS-EIS



13C5-PFNA-EIS

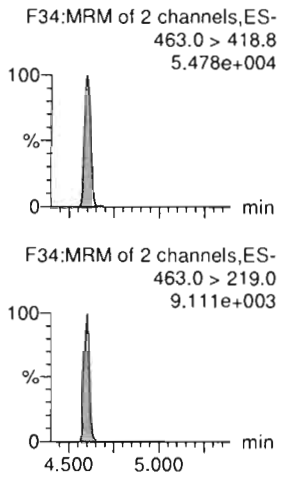


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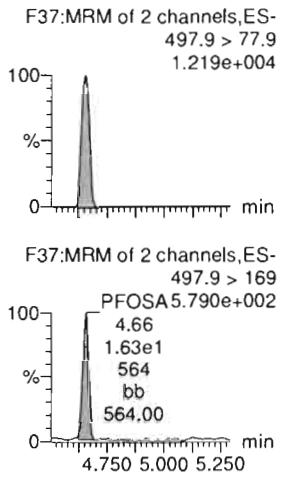
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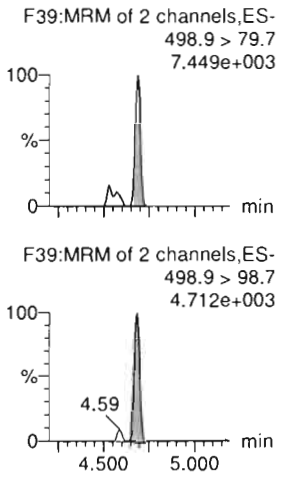
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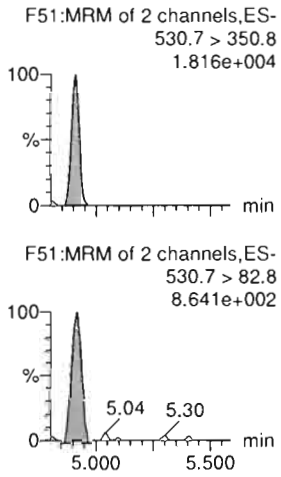
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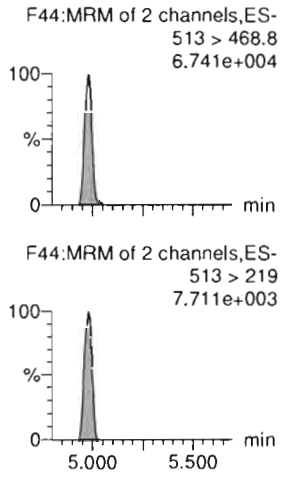
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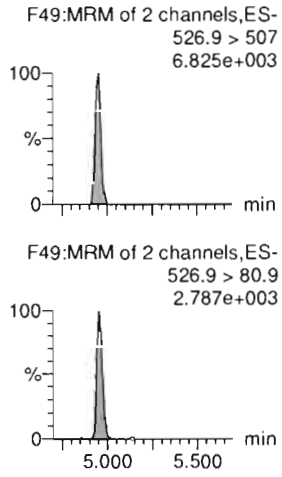
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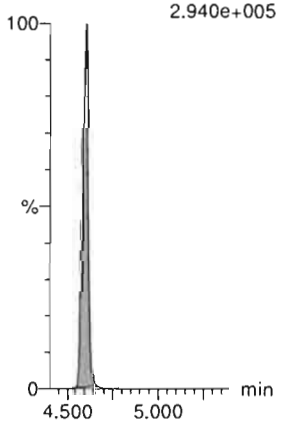
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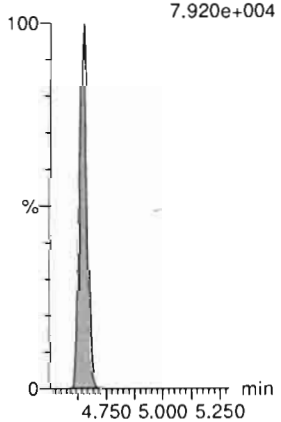
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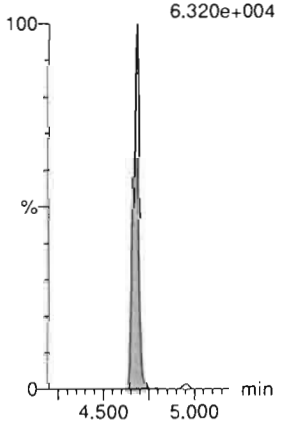
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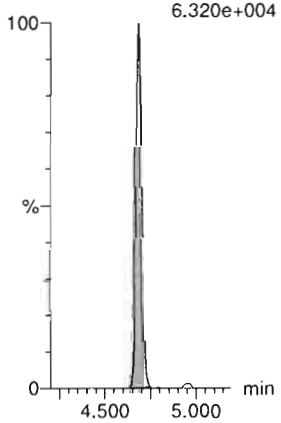
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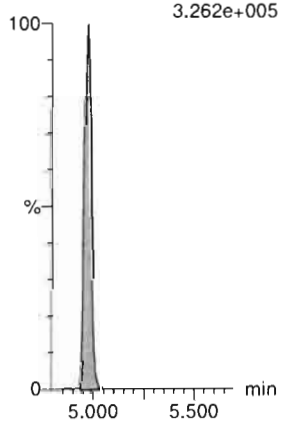
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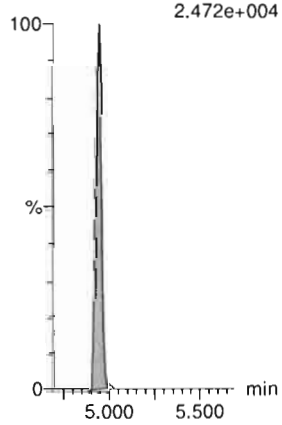
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

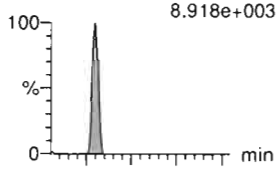


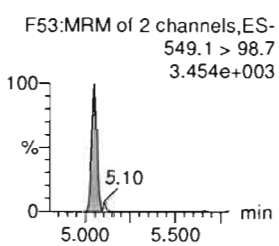
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

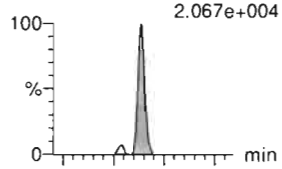
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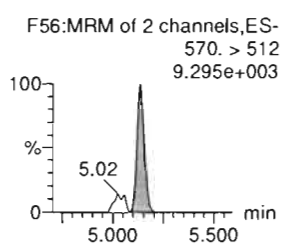
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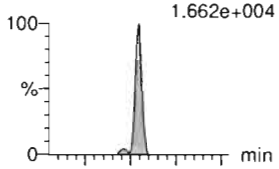


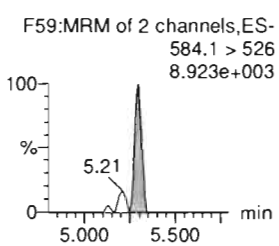
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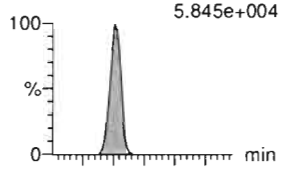


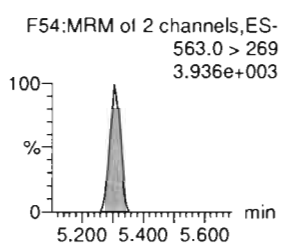
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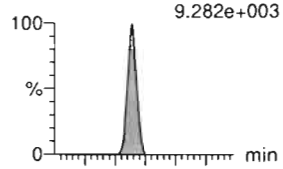


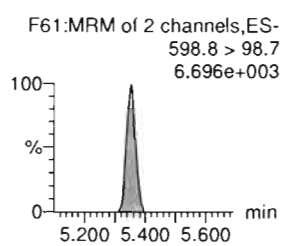
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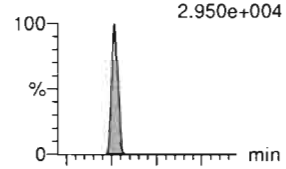


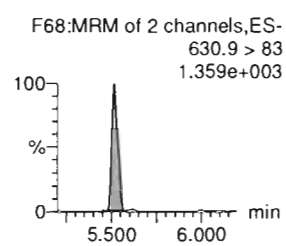
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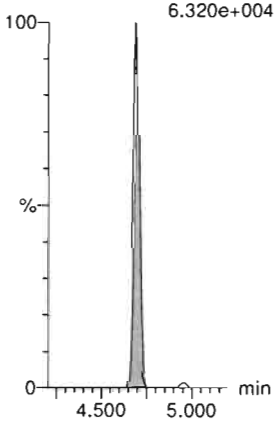


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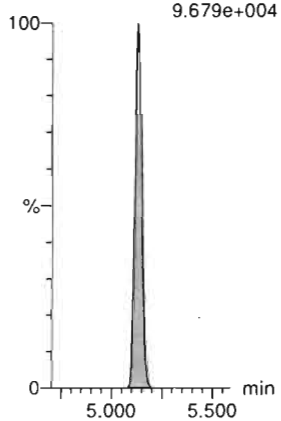




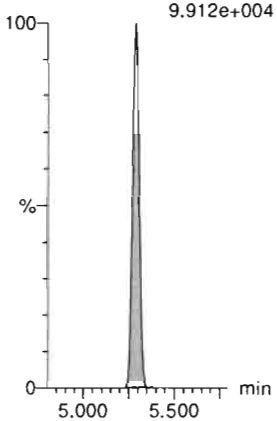
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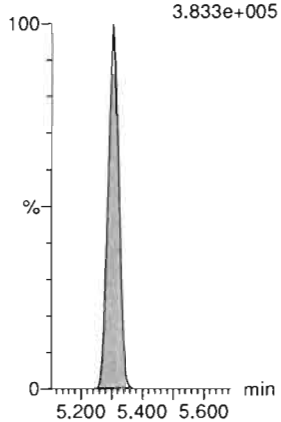
d3-N-MeFOSAA-EIS



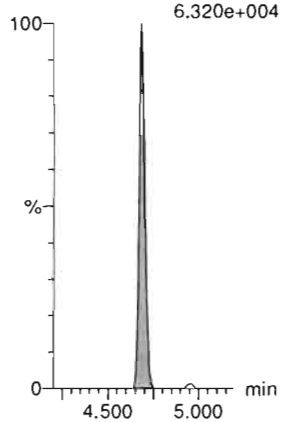
d5-N-EtFOSAA-EIS



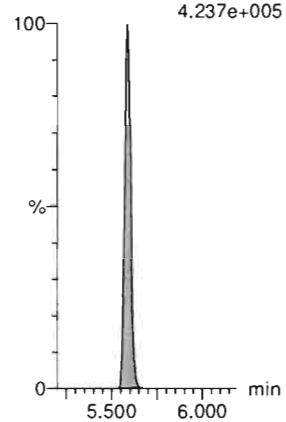
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

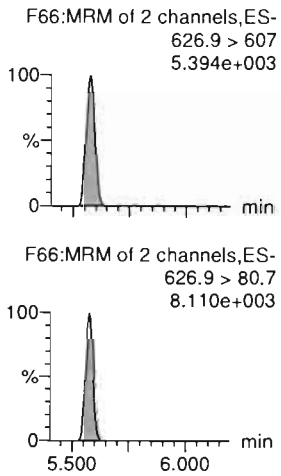


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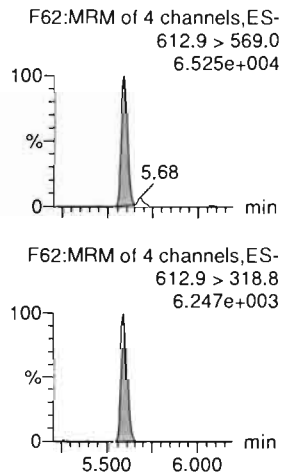
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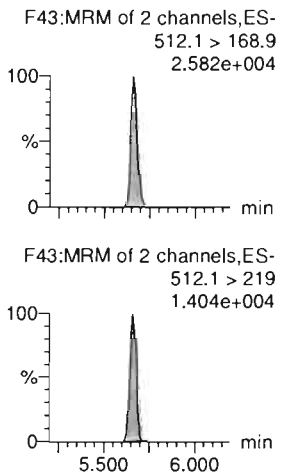
10:2 FTS



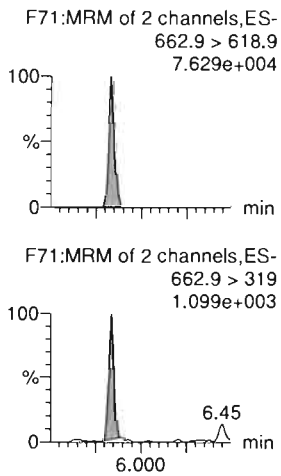
PFDoA



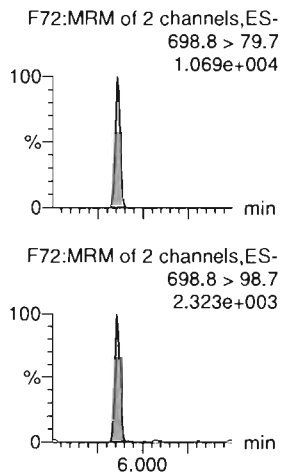
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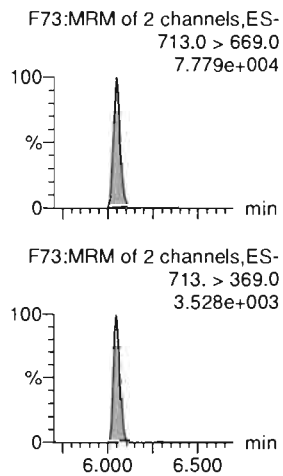
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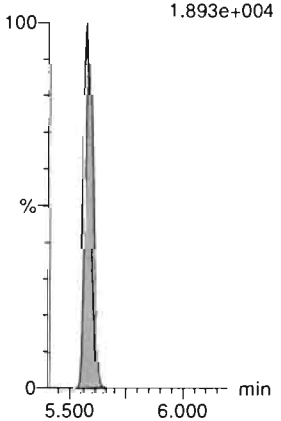
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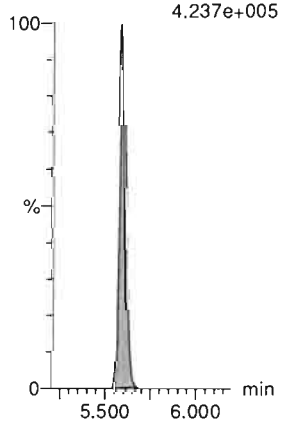
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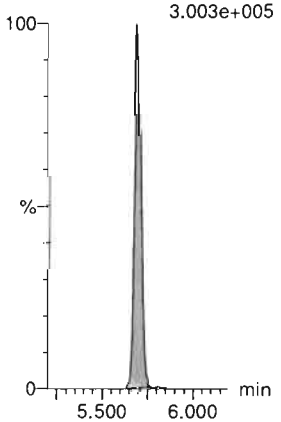
13C2-10:2 FTS-EIS



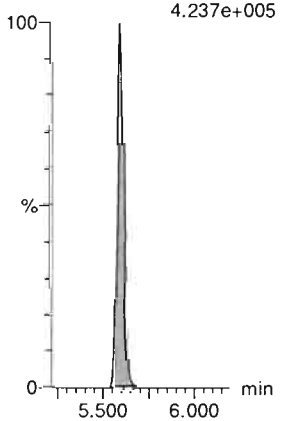
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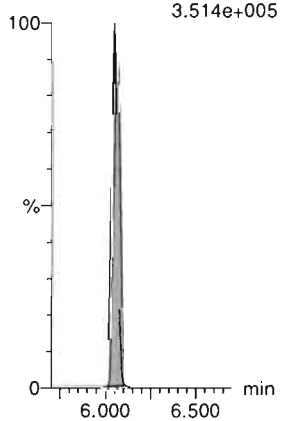
d3-N-MeFOSA-EIS



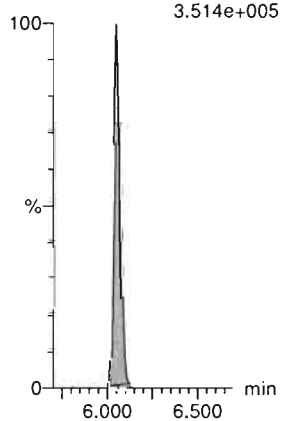
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

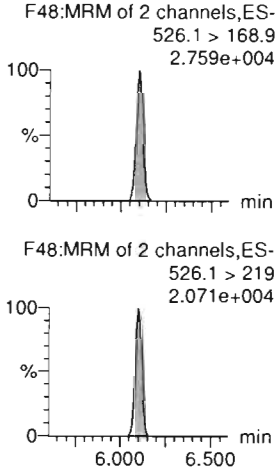


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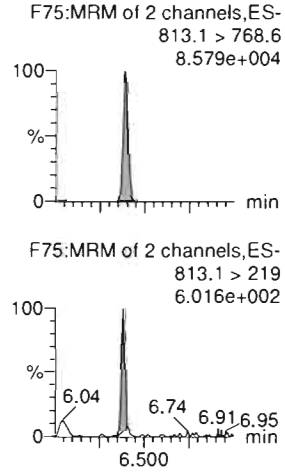
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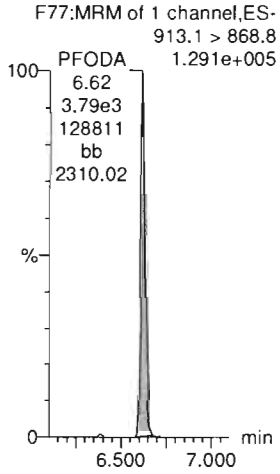
N-EtFOSA



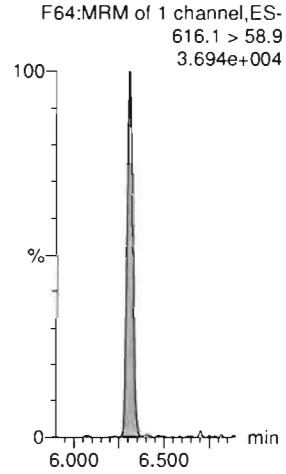
PFHxDA



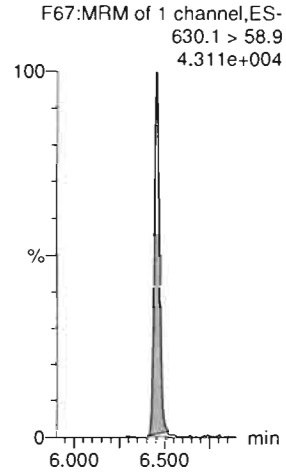
PFODA



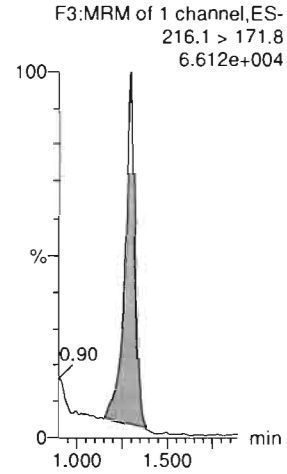
N-MeFOSE



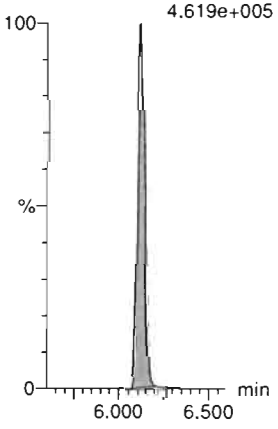
N-EtFOSE



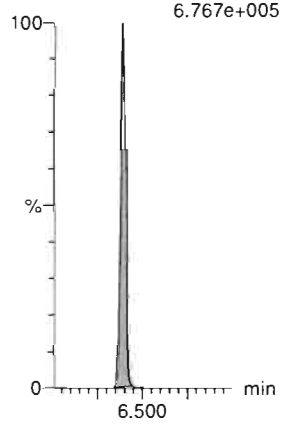
13C3-PFBA-RSD



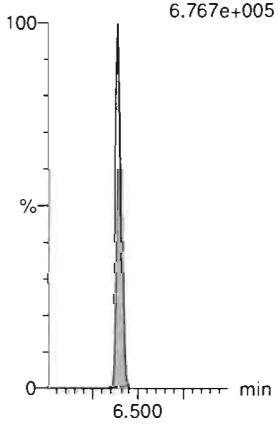
d5-N-ETFOSA-EIS



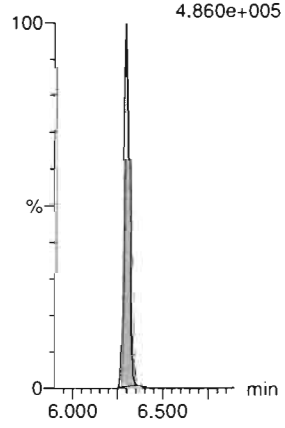
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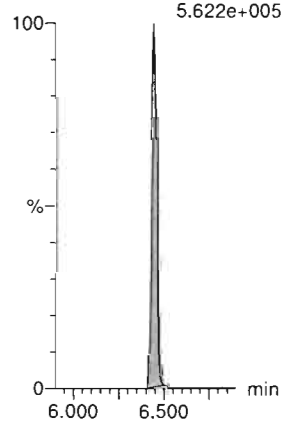
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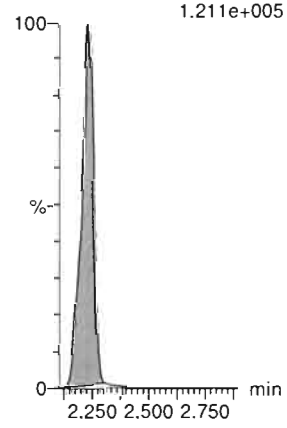
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

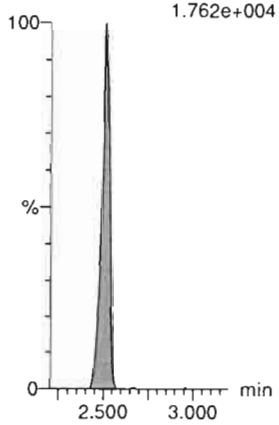


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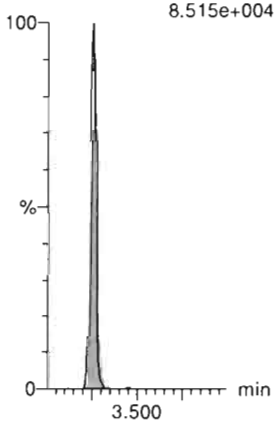
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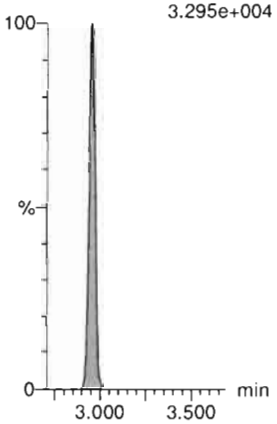
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
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1.762e+004



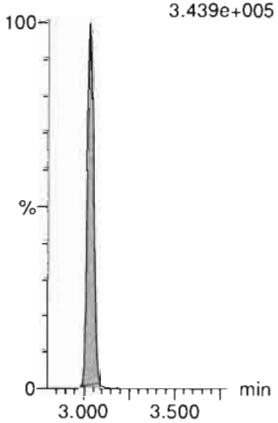
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.515e+004



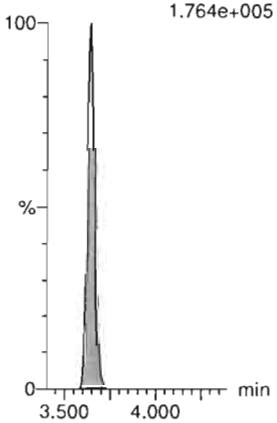
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.295e+004



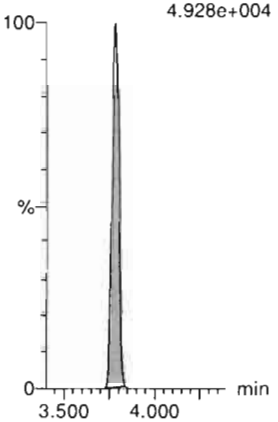
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F14:MRM of 1 channel,ES-
315.0 > 270.0
3.439e+005



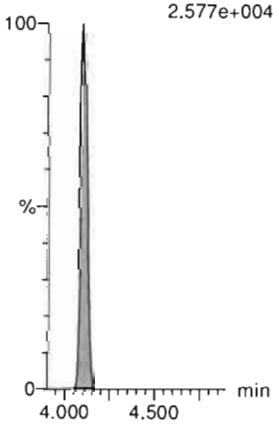
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.764e+005



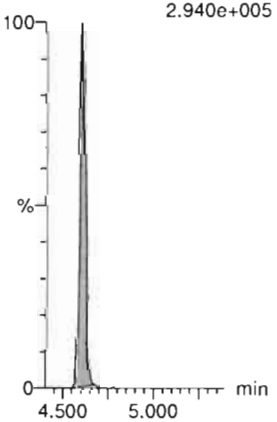
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
4.928e+004



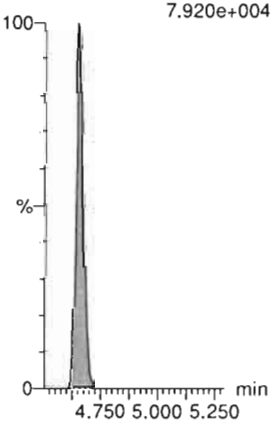
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.577e+004



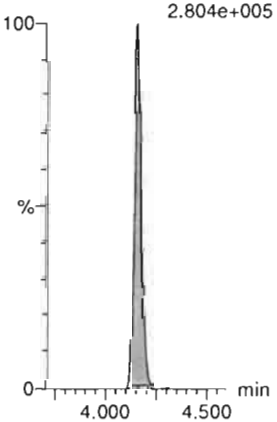
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
2.940e+005



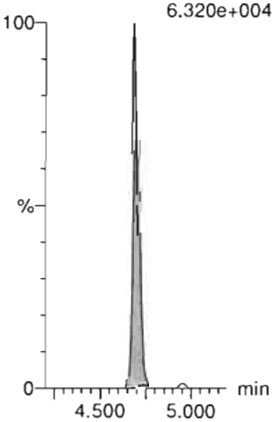
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
7.920e+004



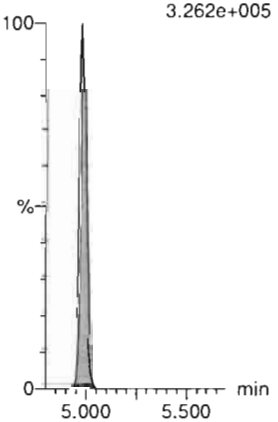
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
2.804e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.320e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.262e+005

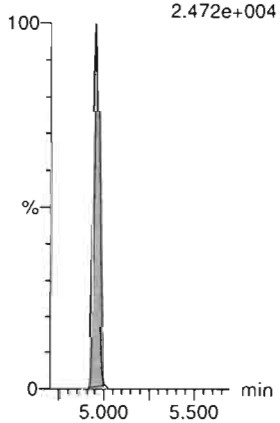


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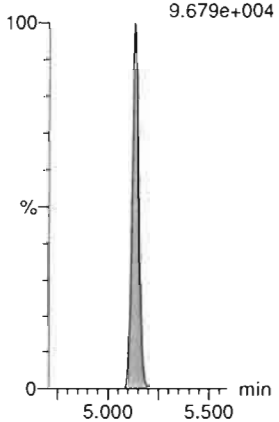
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Name: 200229P1-6, Date: 29-Feb-2020, Time: 16:17:29, ID: ST200229P1-4 PFC CS1 20B1105, Description: PFC CS1 20B1105

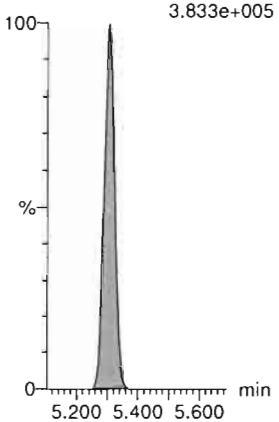
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.472e+004



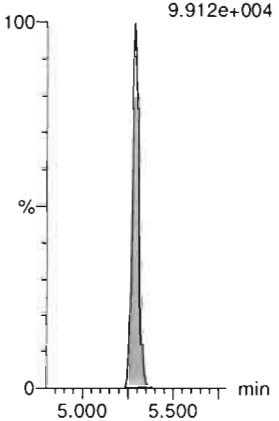
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
9.679e+004



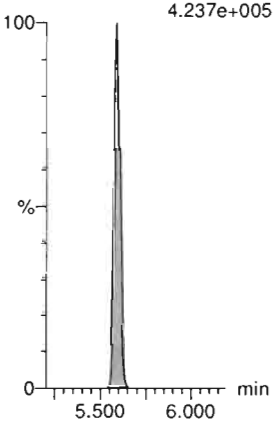
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F55:MRM of 1 channel,ES-
565 > 519.8
3.833e+005



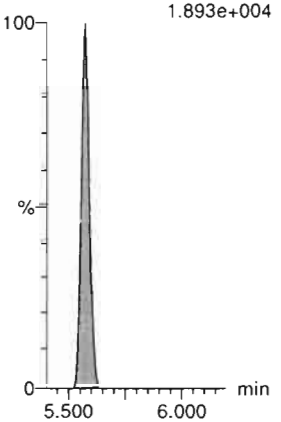
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F60:MRM of 1 channel,ES-
589.3 > 419
9.912e+004



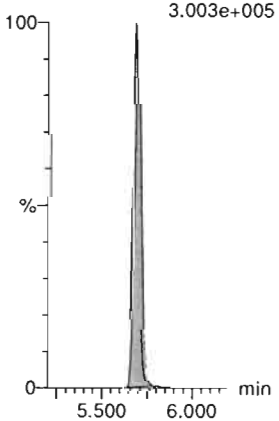
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.237e+005



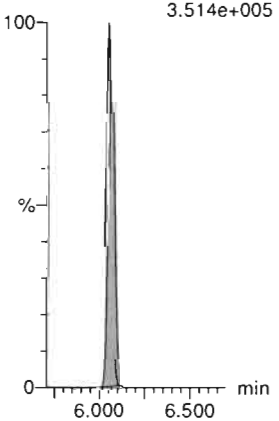
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.893e+004



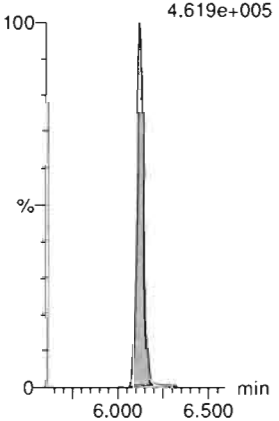
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.003e+005



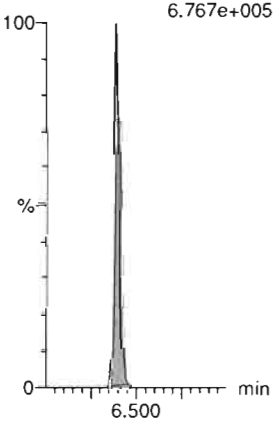
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.514e+005



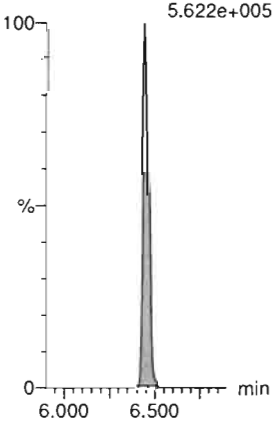
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.619e+005



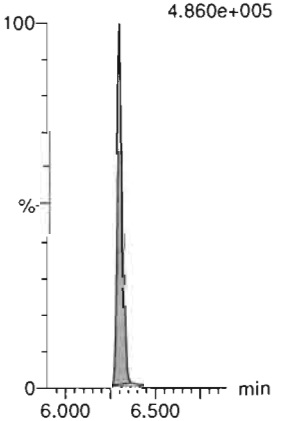
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
6.767e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.622e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.860e+005

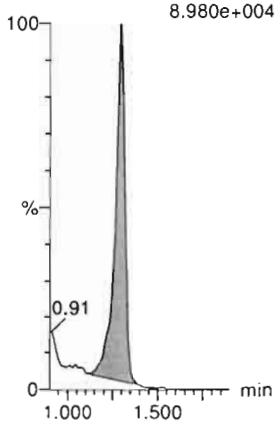


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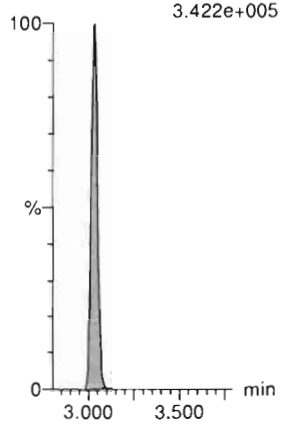
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Name: 200229P1-6, Date: 29-Feb-2020, Time: 16:17:29, ID: ST200229P1-4 PFC CS1 20B1105, Description: PFC CS1 20B1105

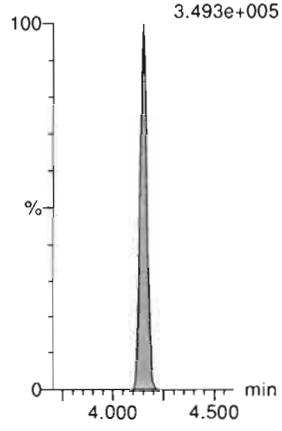
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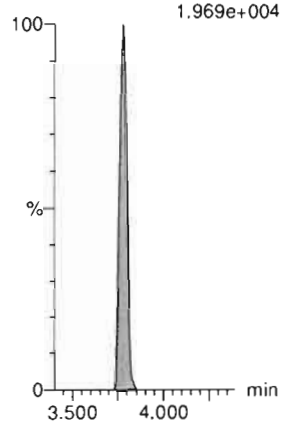
13C5-PFHxA



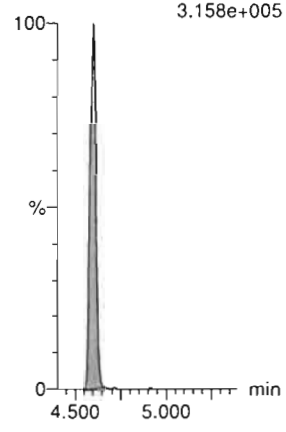
13C8-PFOA



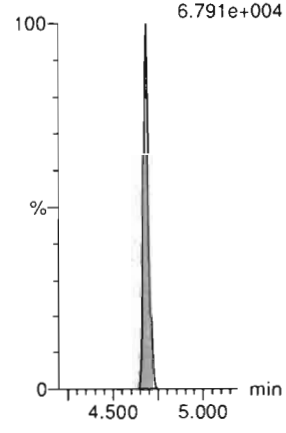
18O2-PFHxS



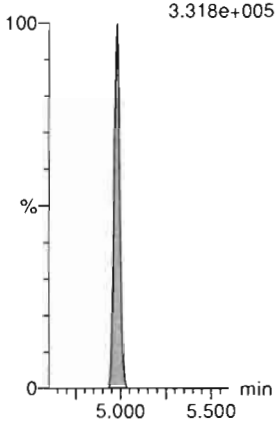
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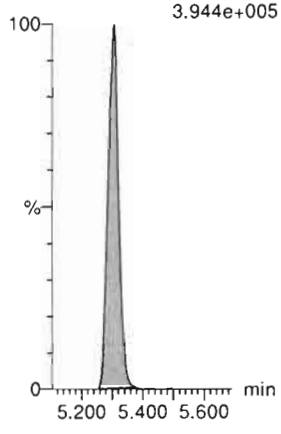
13C4-PFOS



13C6-PFDA



13C7-PFUdA

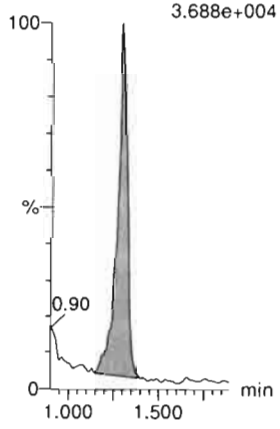


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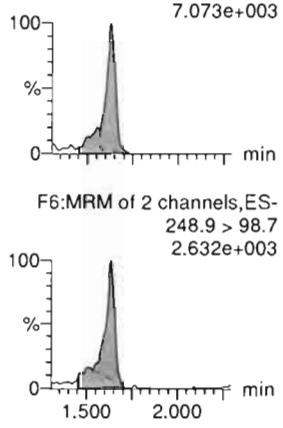
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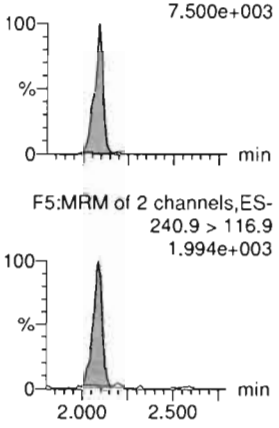
PFBA



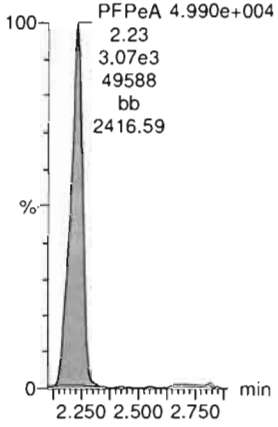
PFPrS



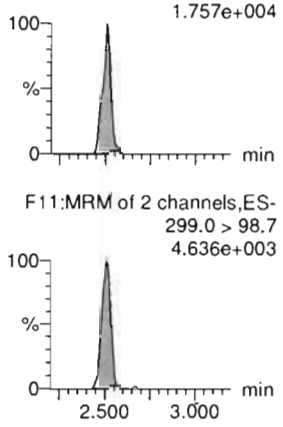
3:3 FTCA



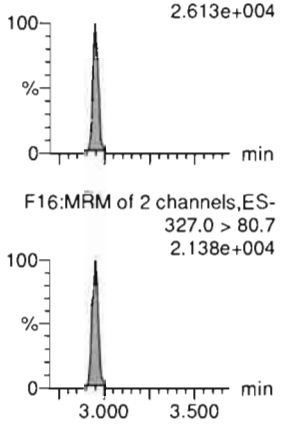
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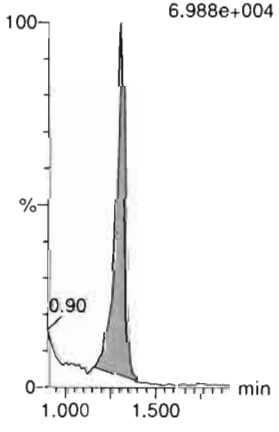
PFBS



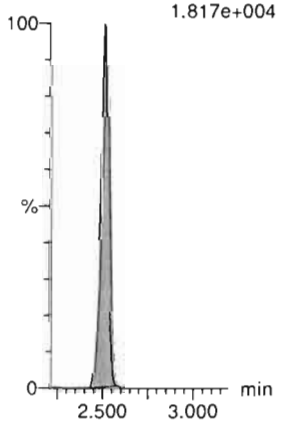
4:2 FTS



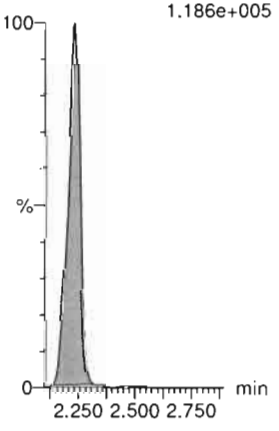
13C3-PFBA-EIS



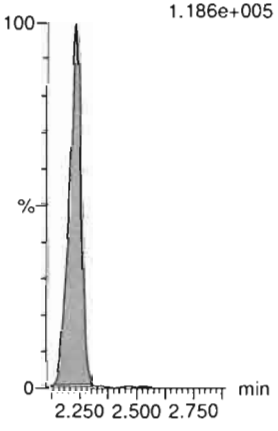
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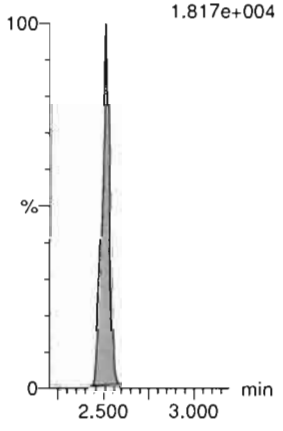
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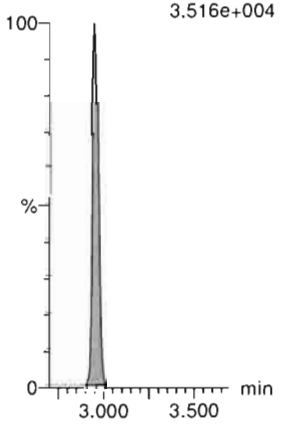
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS

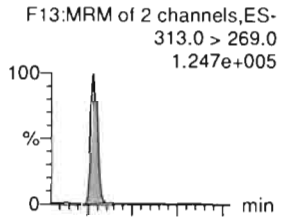


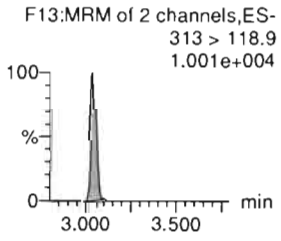
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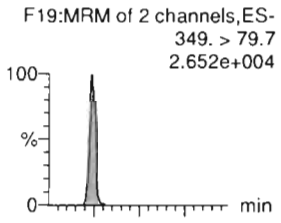
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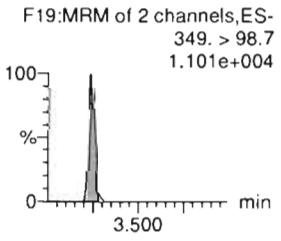
PFHxA



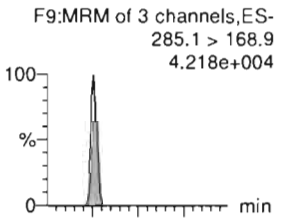


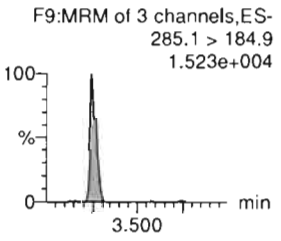
PFPeS



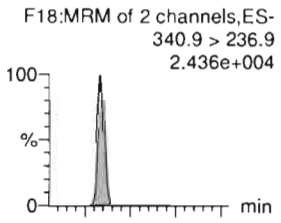


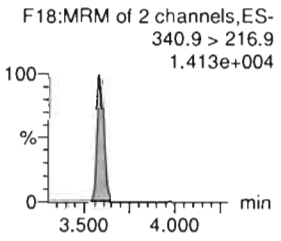
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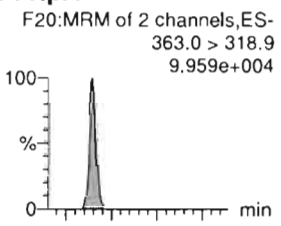


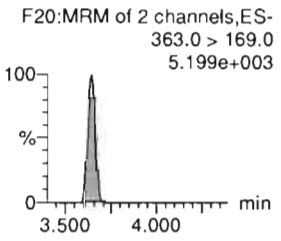
5:3 FTCA



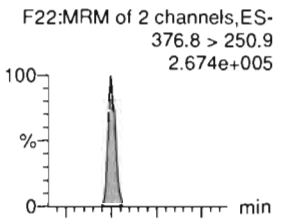


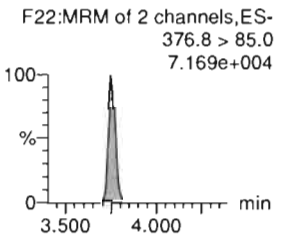
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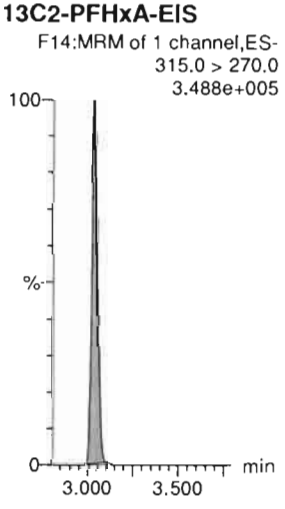


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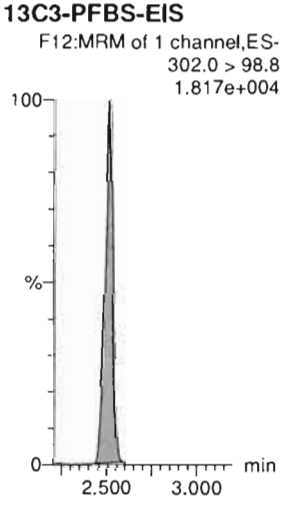




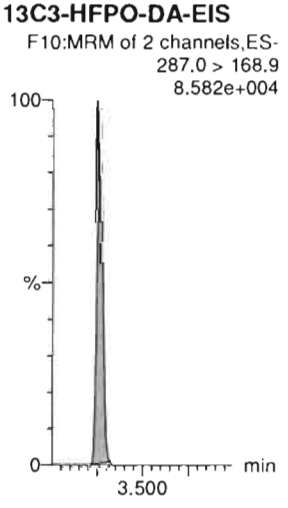
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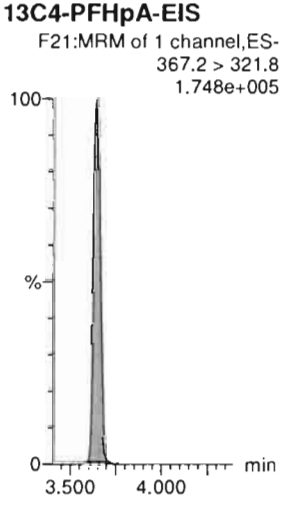
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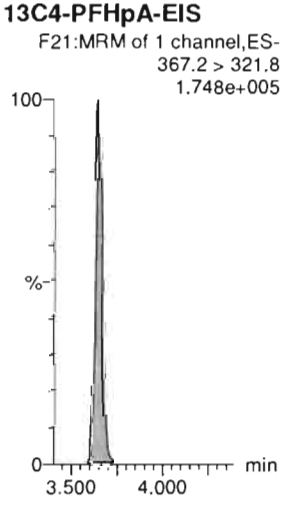
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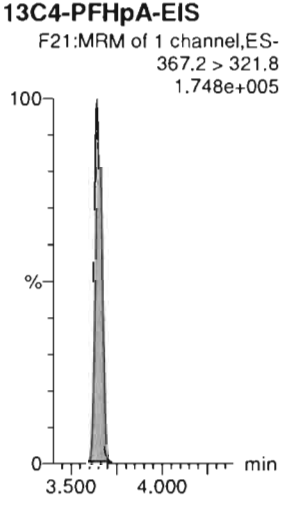
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

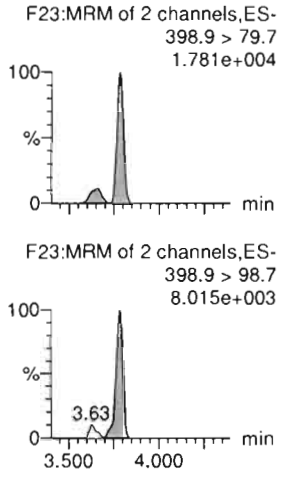


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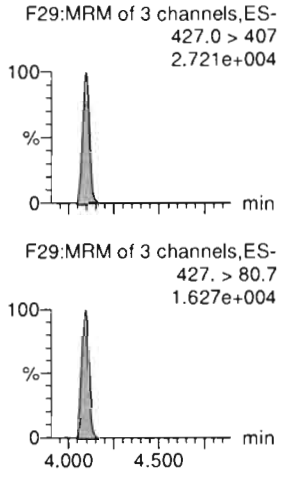
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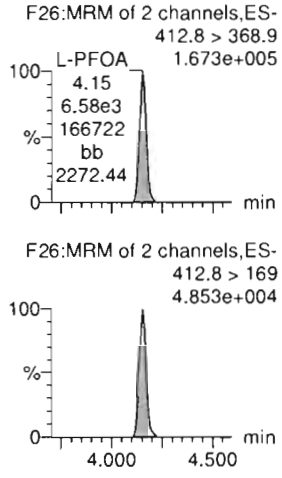
L-PFHxS



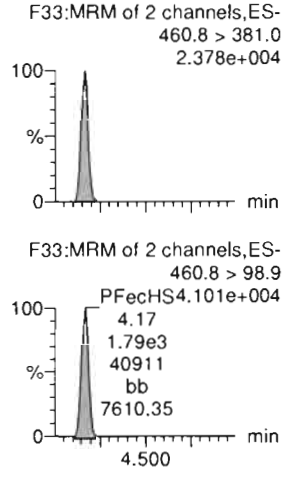
6:2 FTS



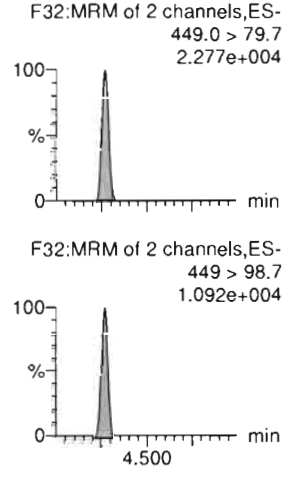
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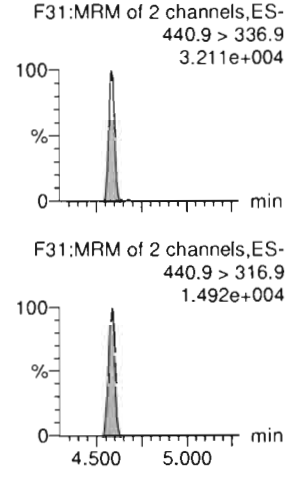
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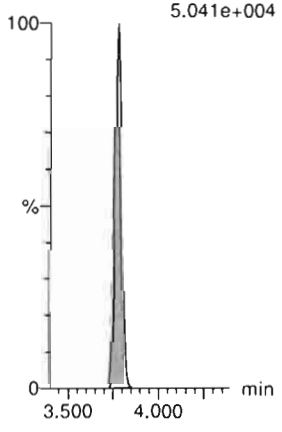
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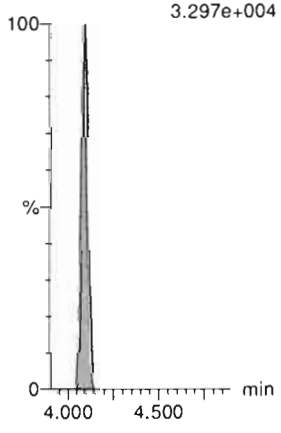
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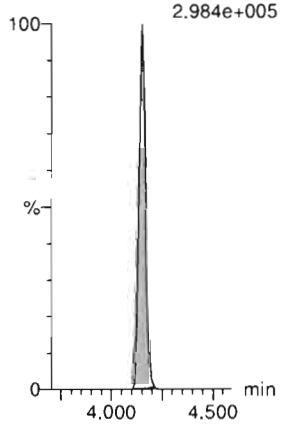
13C3-PFHxS-EIS



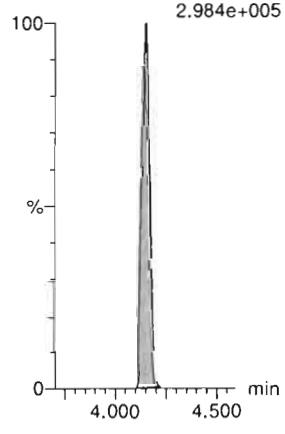
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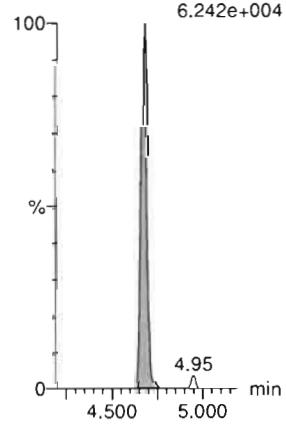
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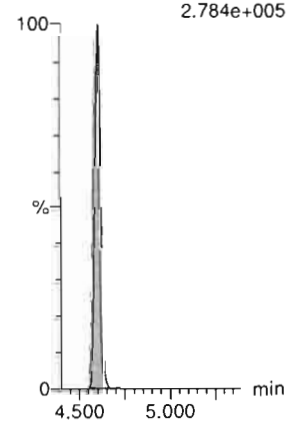
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13C8-PFOS-EIS



13C5-PFNA-EIS

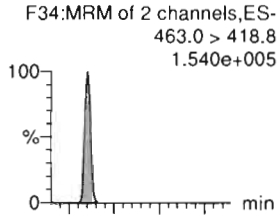


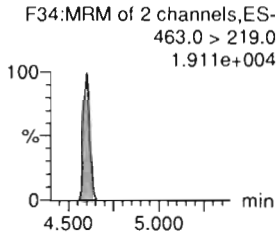
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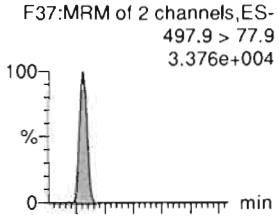
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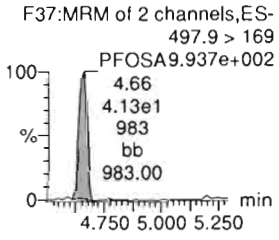
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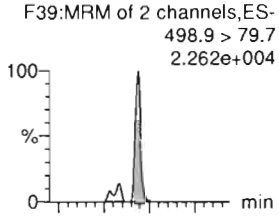


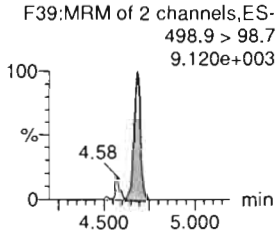
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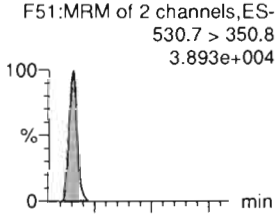


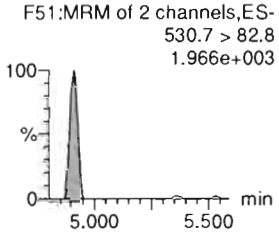
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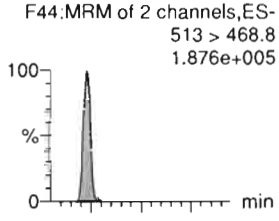


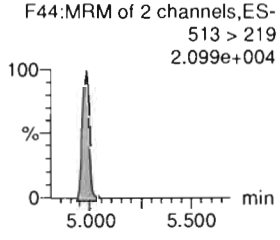
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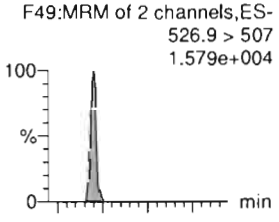


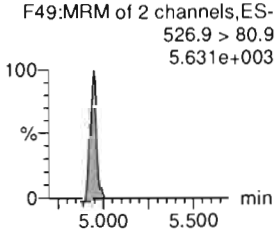
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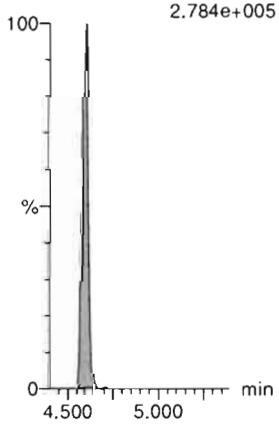


8:2 FTS

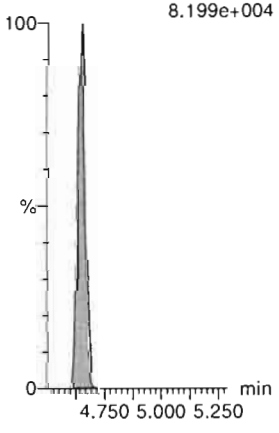




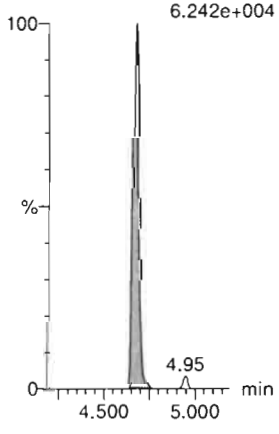
13C5-PFNA-EIS



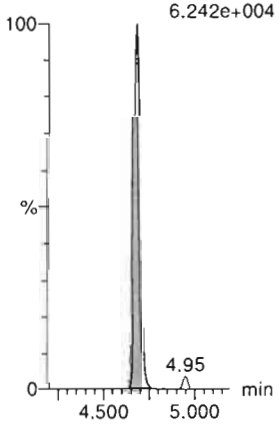
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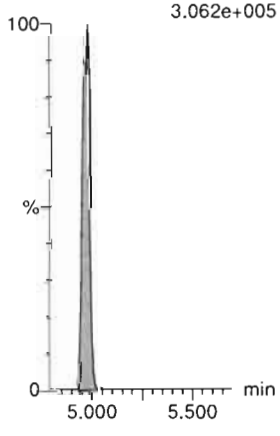
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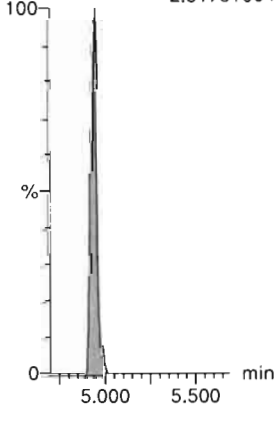
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

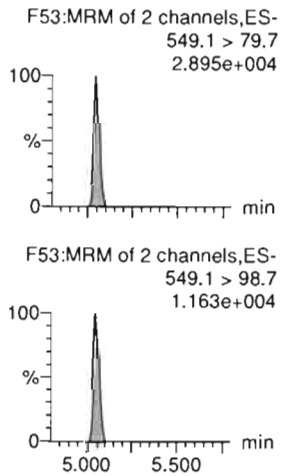


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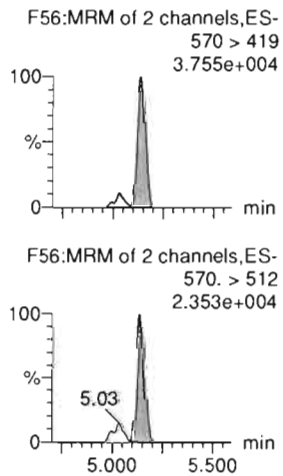
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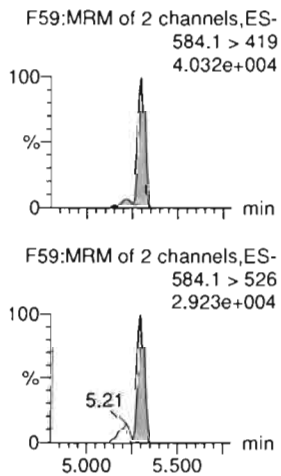
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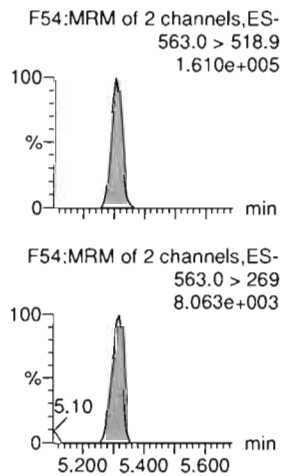
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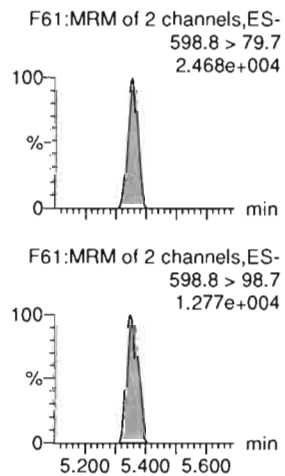
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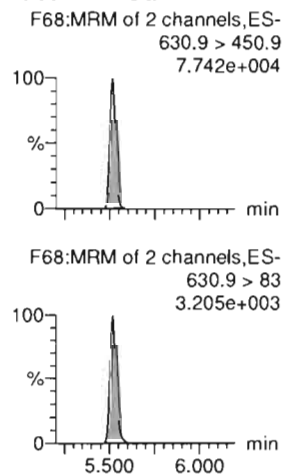
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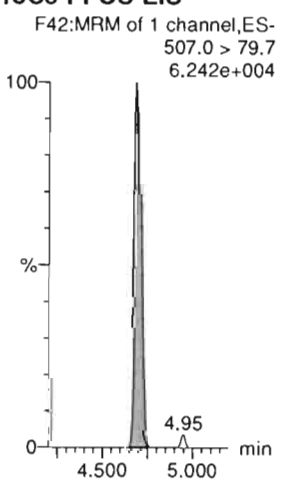
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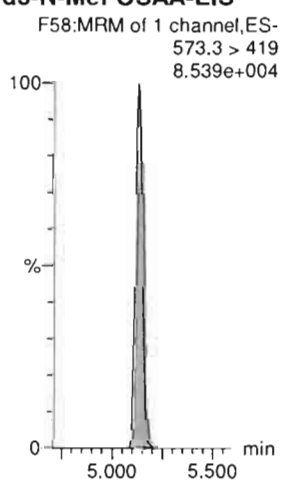
11Cl-PF30UdS



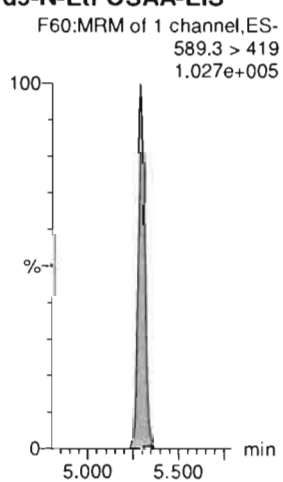
13C8-PFOS-EIS



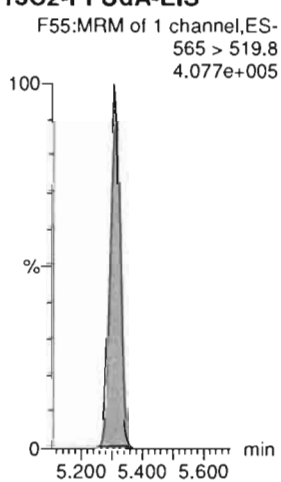
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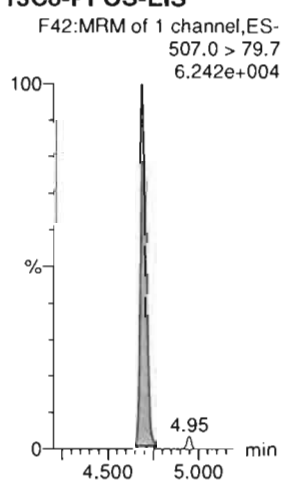
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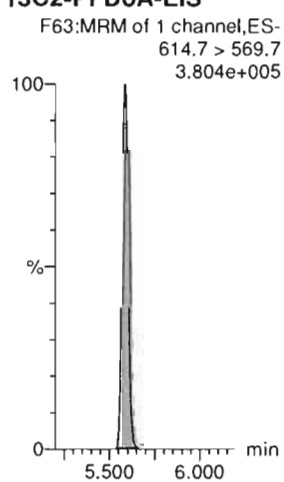
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

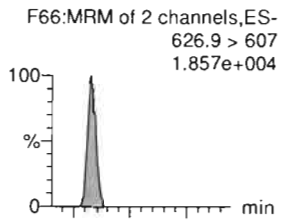


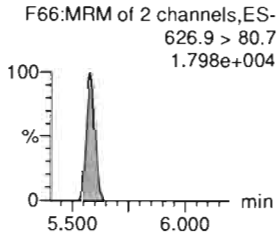
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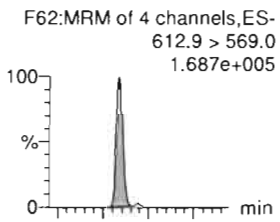
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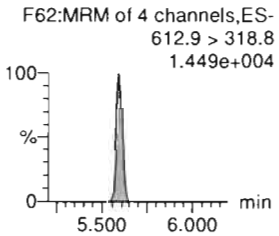
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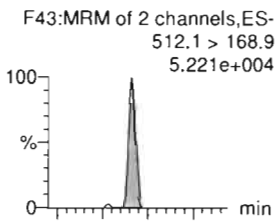


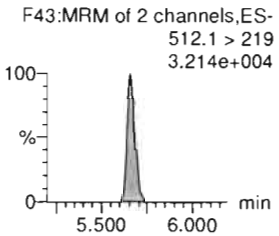
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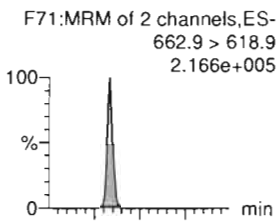


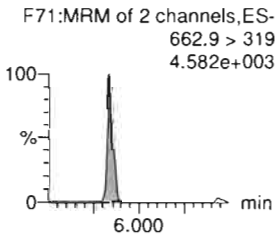
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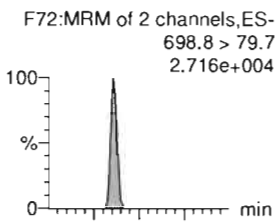


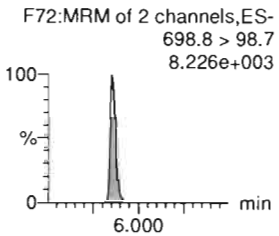
PFTrDA



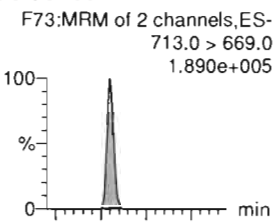


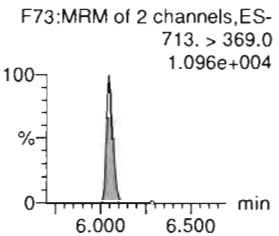
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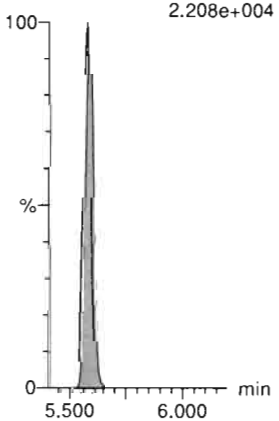


PFTeDA

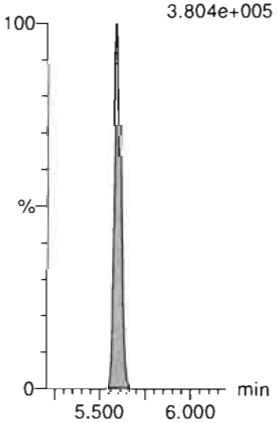




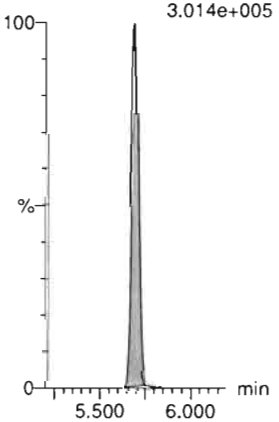
13C2-10:2 FTS-EIS



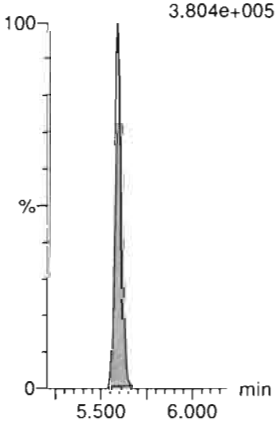
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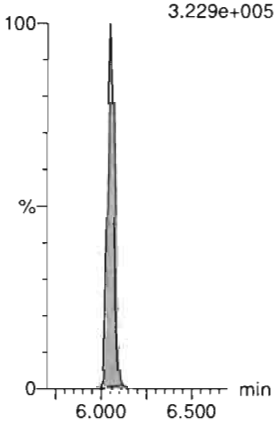
d3-N-MeFOSA-EIS



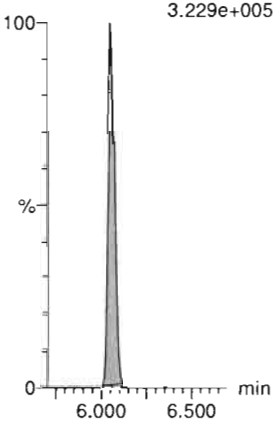
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

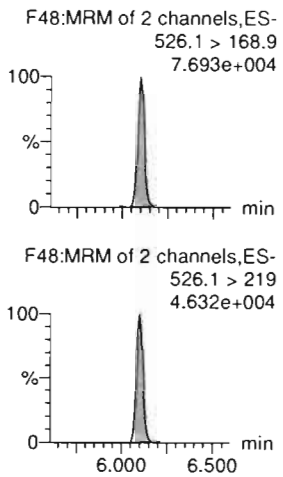


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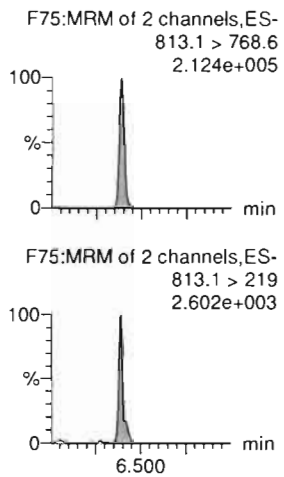
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Name: 200229P1-7, Date: 29-Feb-2020, Time: 16:28:00, ID: ST200229P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

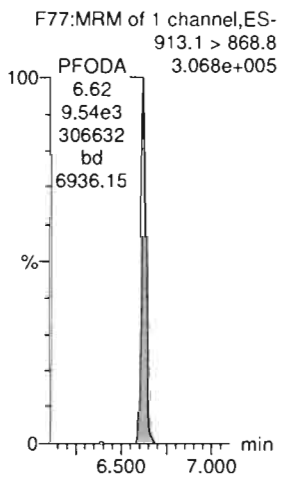
N-EtFOSA



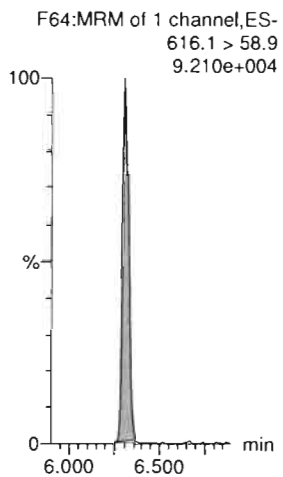
PFHxDA



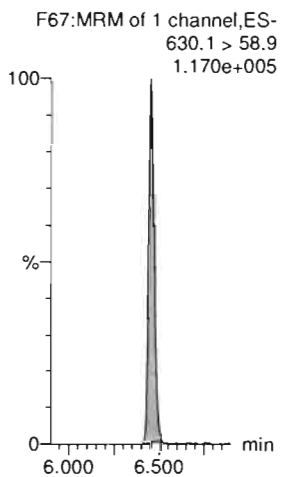
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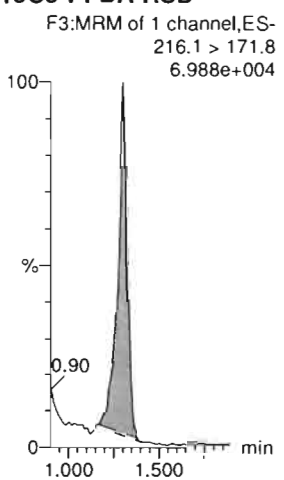
N-MeFOSE



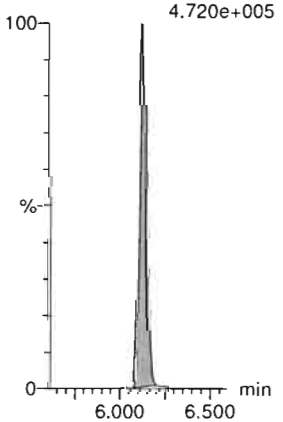
N-EtFOSE



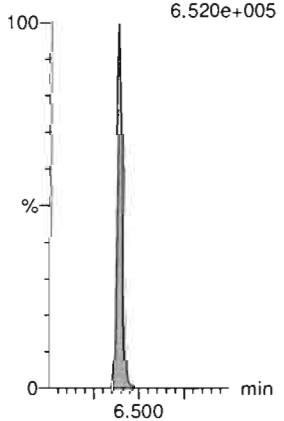
13C3-PFBA-RSD



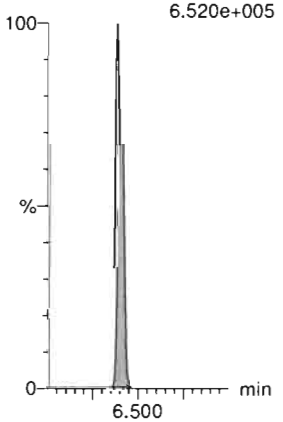
d5-N-ETFOSA-EIS



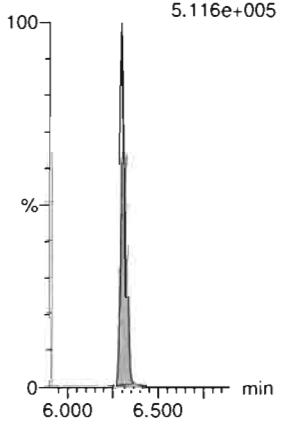
13C2-PFHxDA-EIS



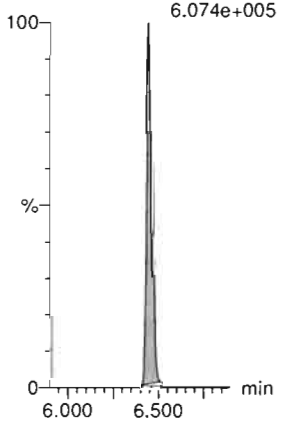
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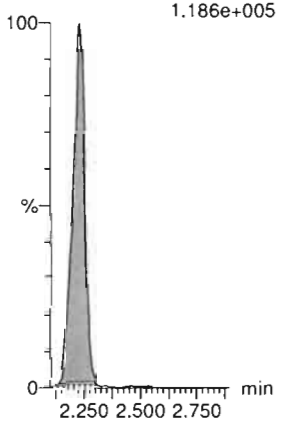
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

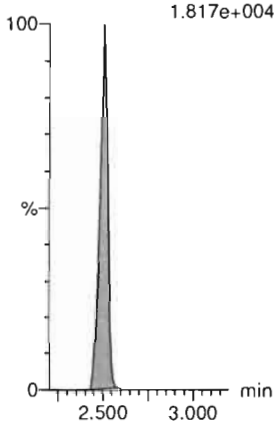


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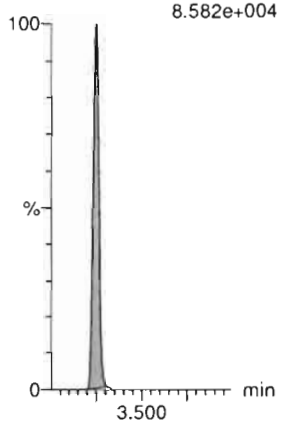
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Name: 200229P1-7, Date: 29-Feb-2020, Time: 16:28:00, ID: ST200229P1-5 PFC CS2 20B1106, Description: PFC CS2 20B1106

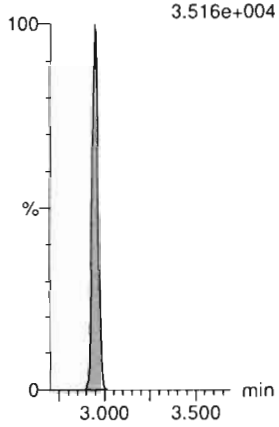
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.817e+004



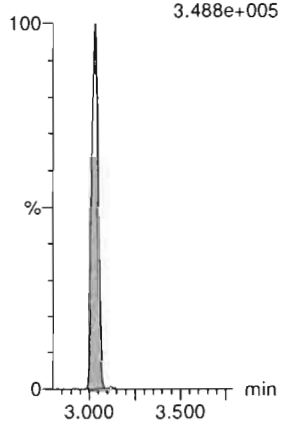
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.582e+004



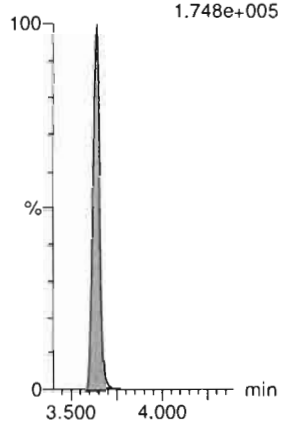
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.516e+004



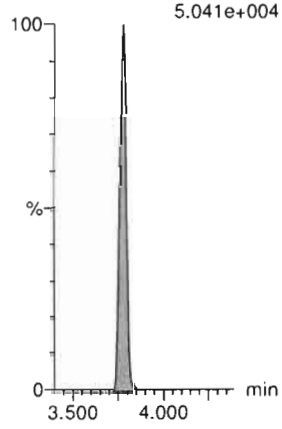
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.488e+005



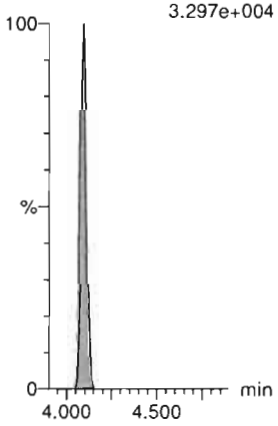
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.748e+005



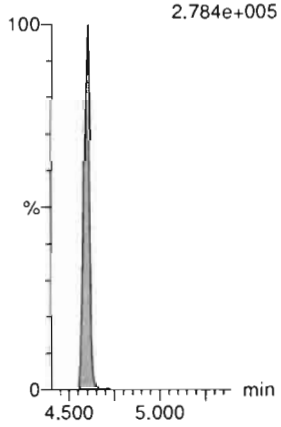
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
5.041e+004



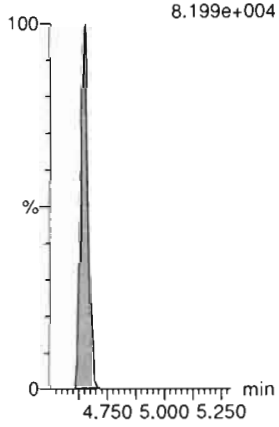
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
3.297e+004



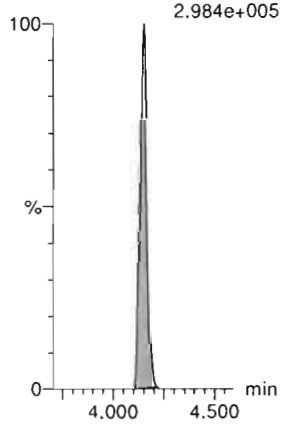
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
2.784e+005



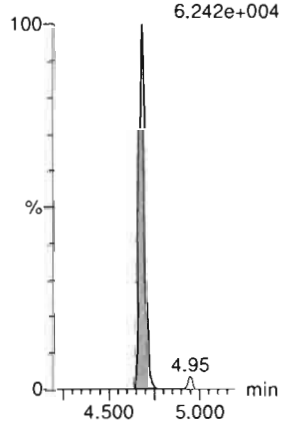
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
8.199e+004



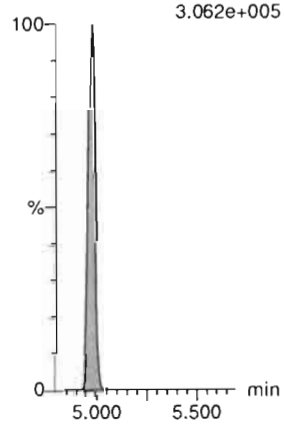
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
2.984e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.242e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.062e+005

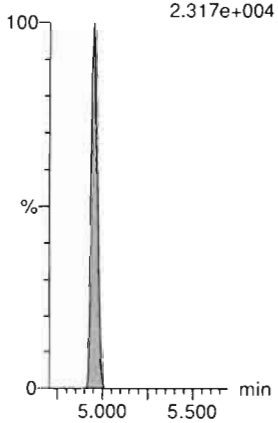


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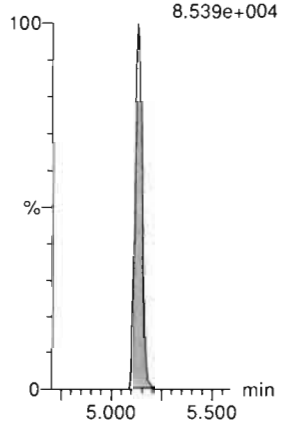
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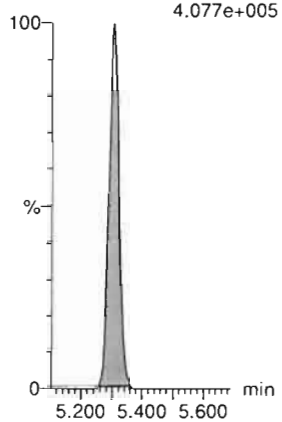
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.317e+004



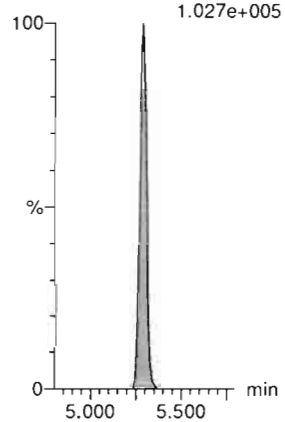
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.539e+004



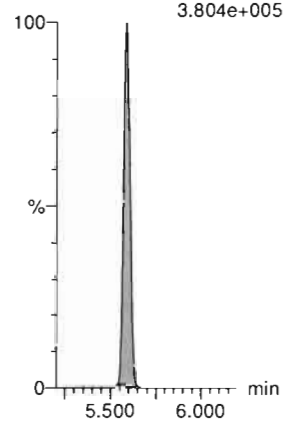
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.077e+005



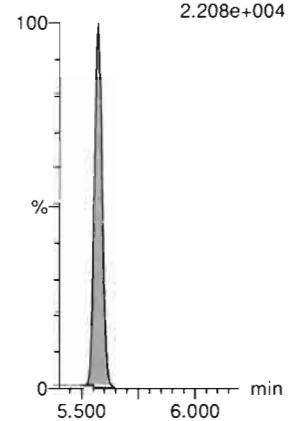
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.027e+005



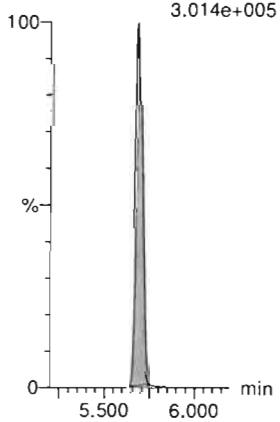
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
3.804e+005



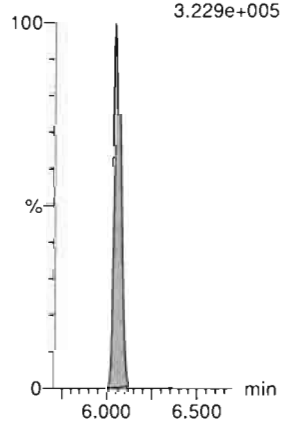
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
2.208e+004



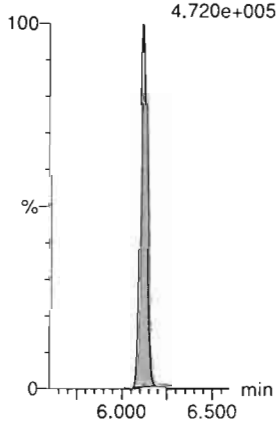
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.014e+005



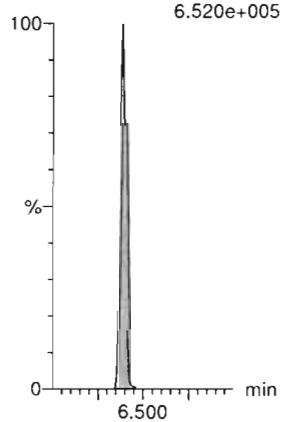
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.229e+005



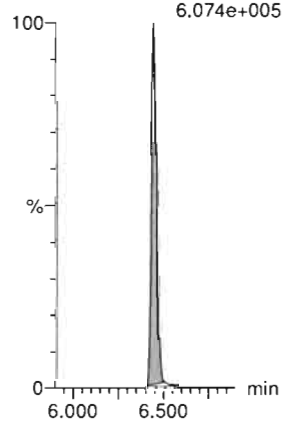
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.720e+005



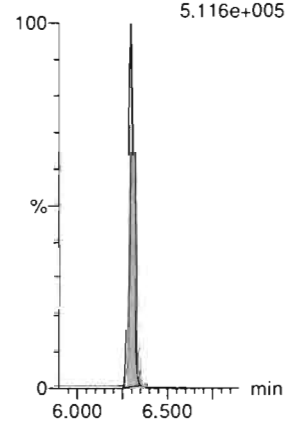
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
6.520e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.074e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.116e+005

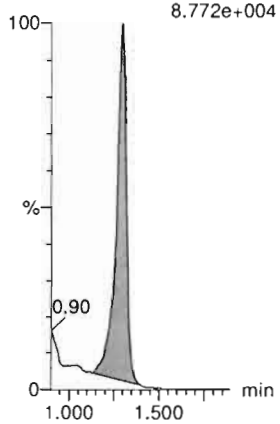


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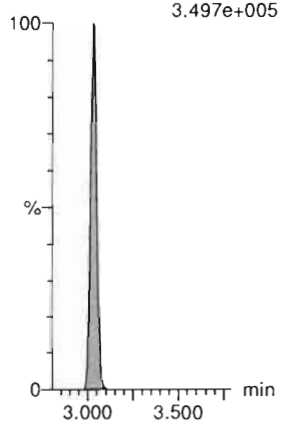
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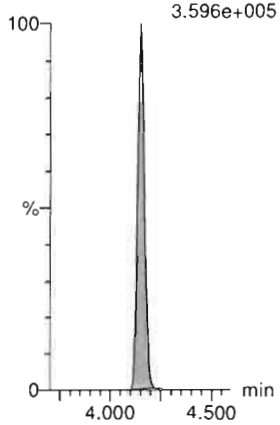
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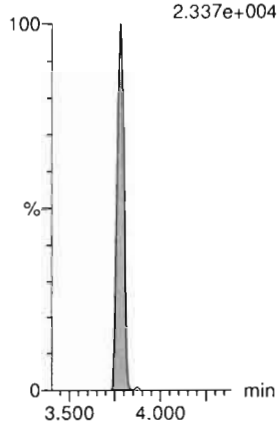
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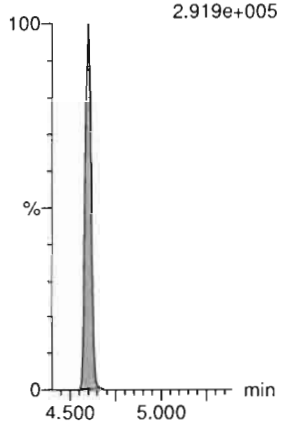
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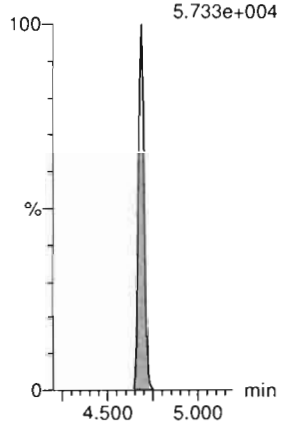
18O2-PFHxS



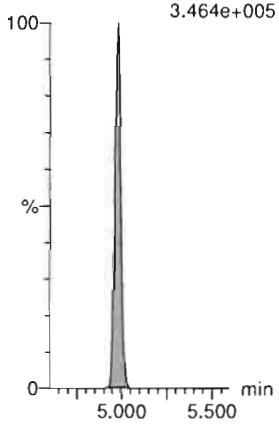
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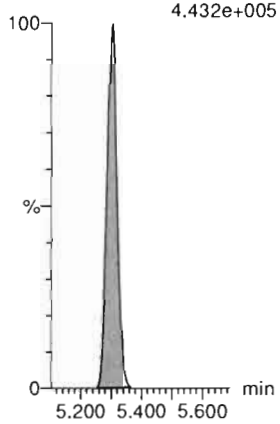
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13C6-PFDA



13C7-PFUdA

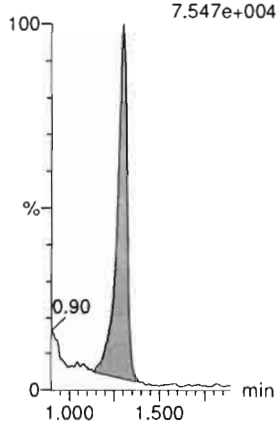


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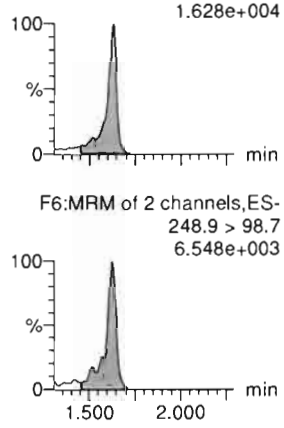
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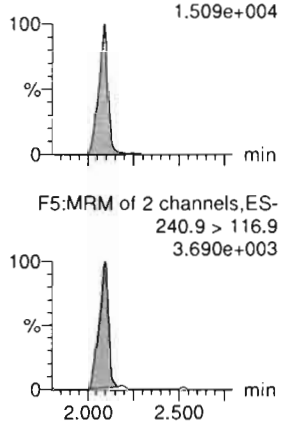
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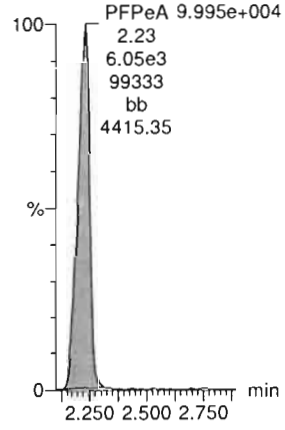
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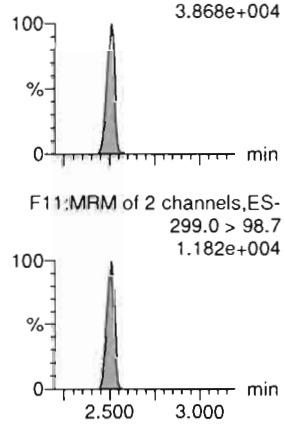
3:3 FTCA



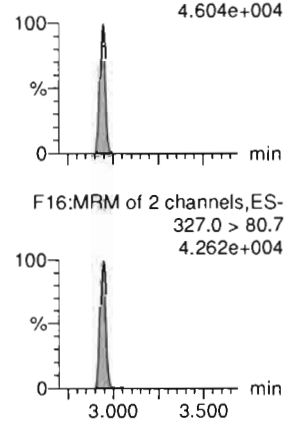
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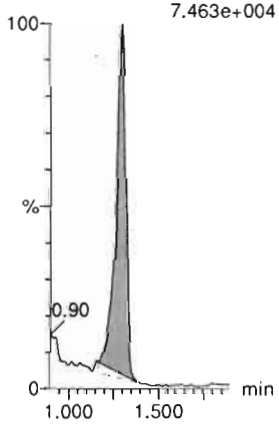
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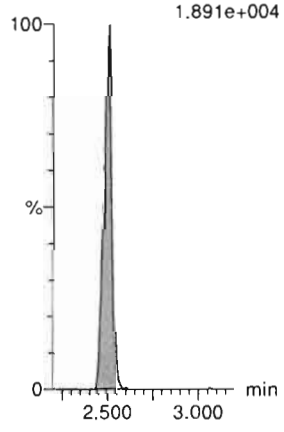
4:2 FTS



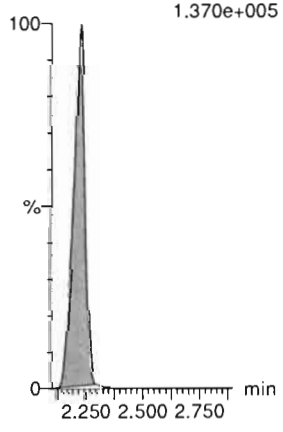
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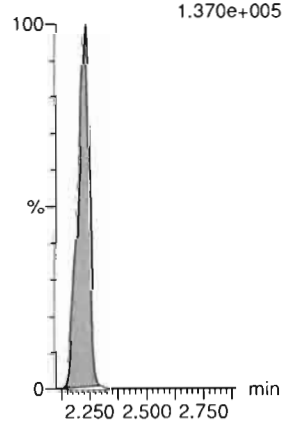
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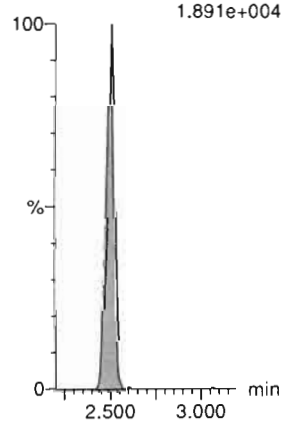
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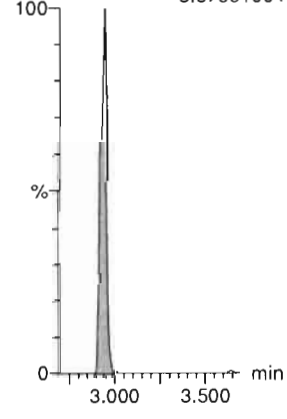
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

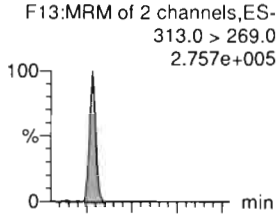


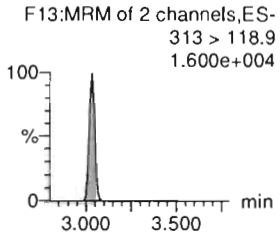
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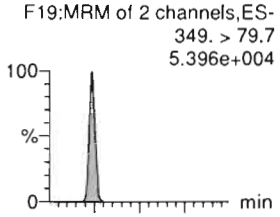
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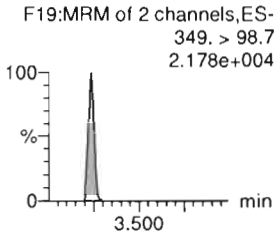
PFHxA



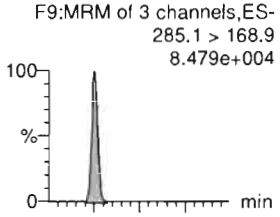


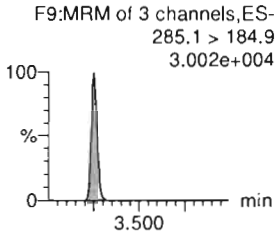
PFPeS



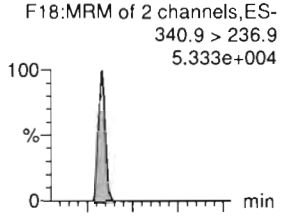


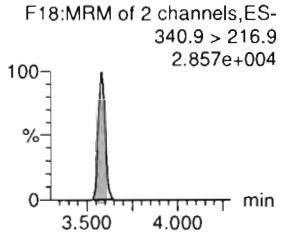
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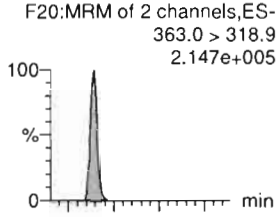


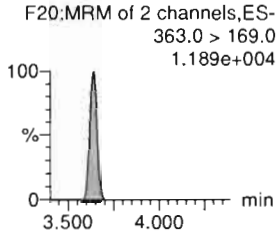
5:3 FTCA



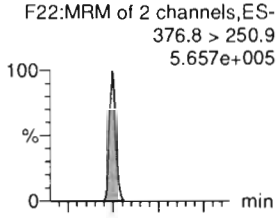


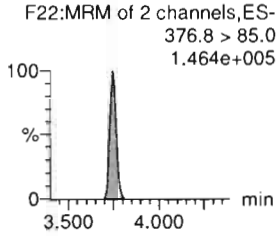
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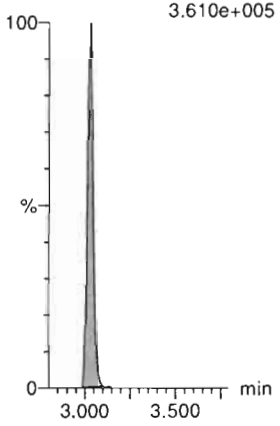


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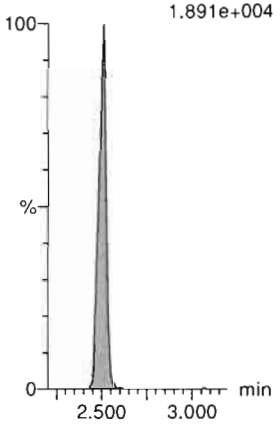




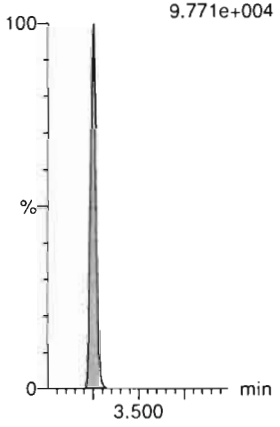
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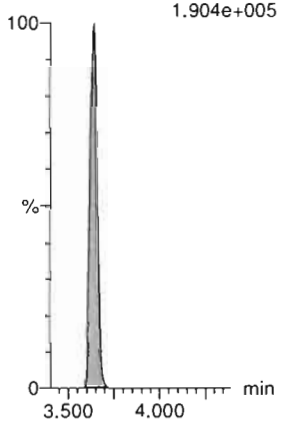
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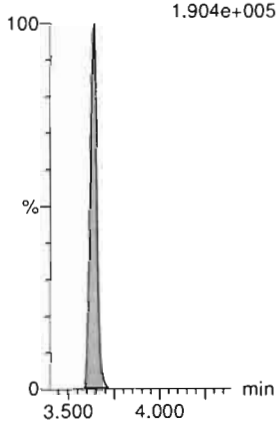
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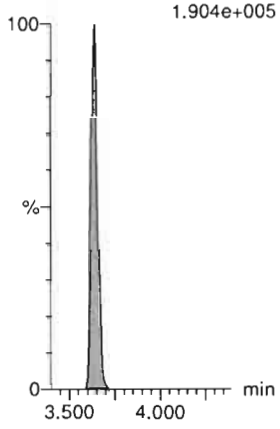
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13C4-PFHpA-EIS



13C4-PFHpA-EIS

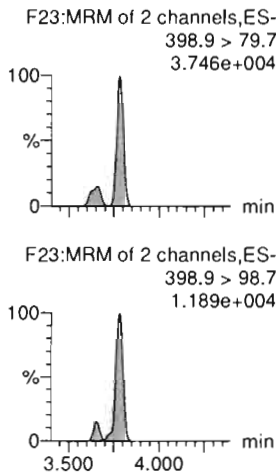


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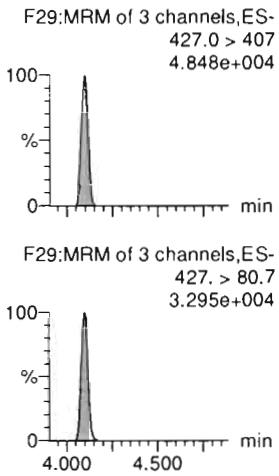
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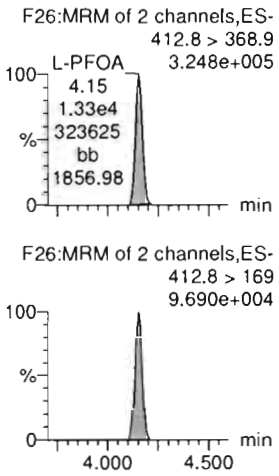
L-PFHxS



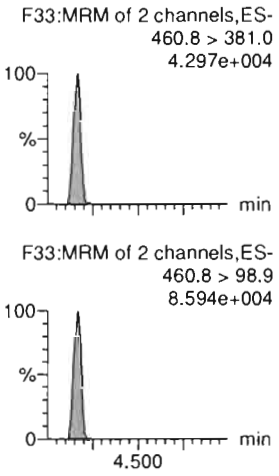
6:2 FTS



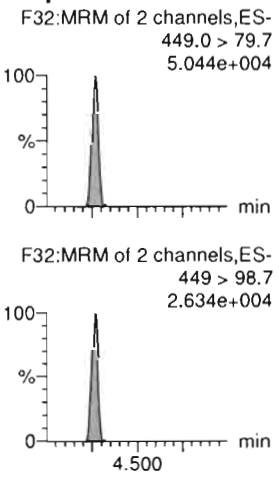
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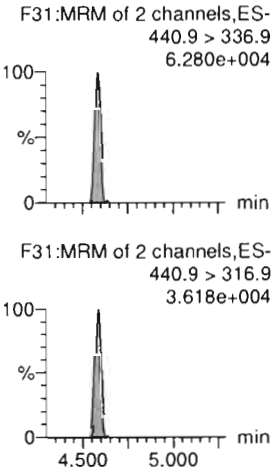
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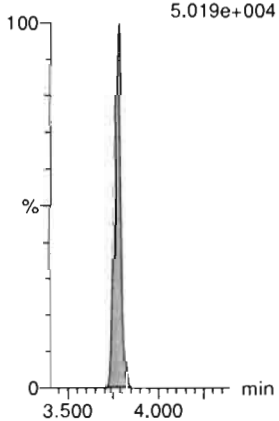
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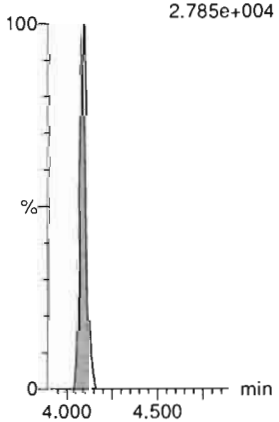
7:3 FTCA



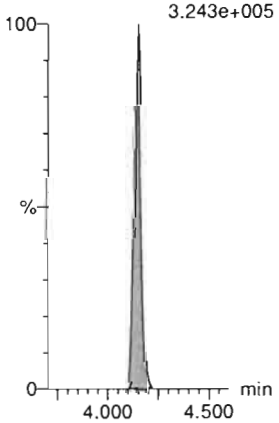
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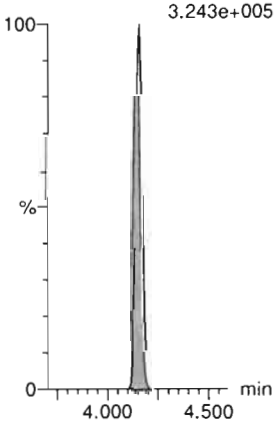
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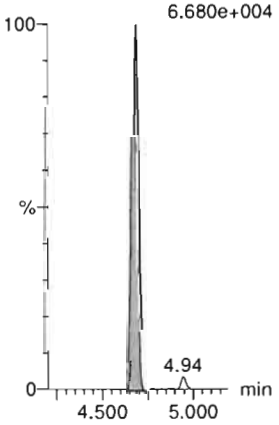
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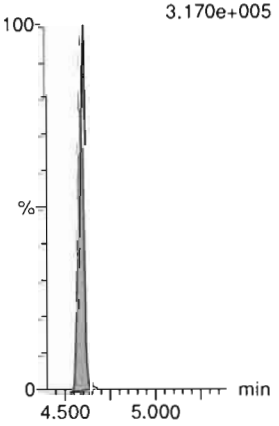
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13C8-PFOS-EIS



13C5-PFNA-EIS

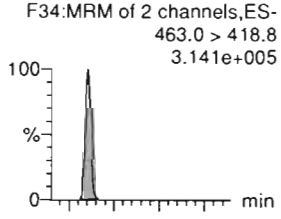


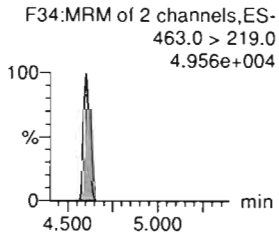
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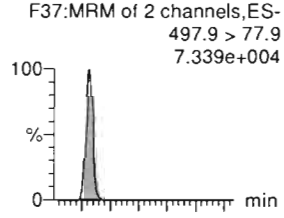
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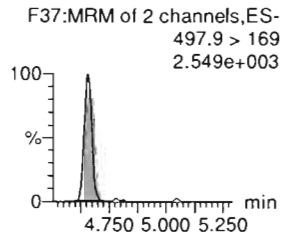
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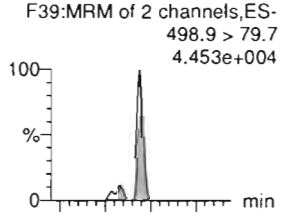


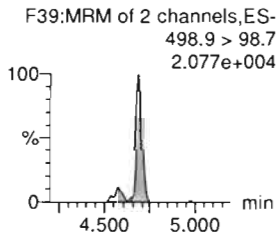
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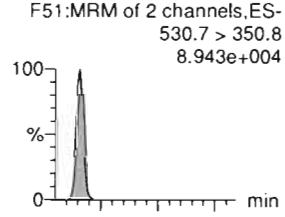


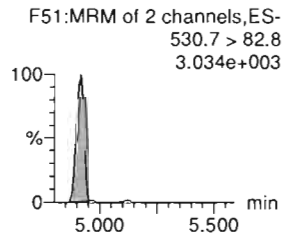
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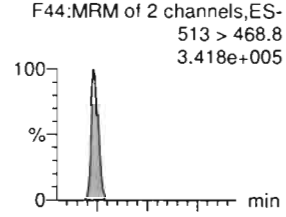


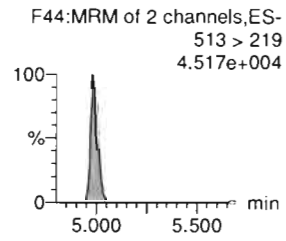
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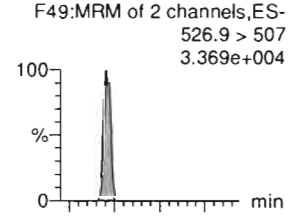


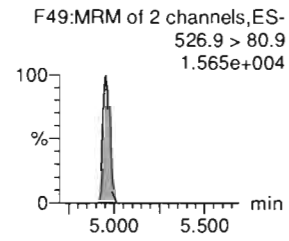
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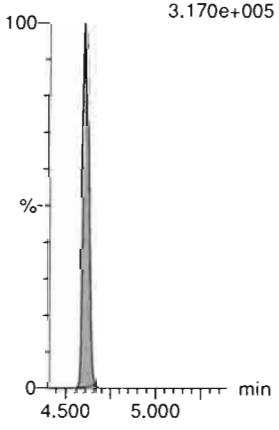


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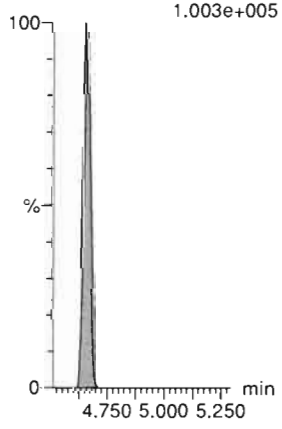




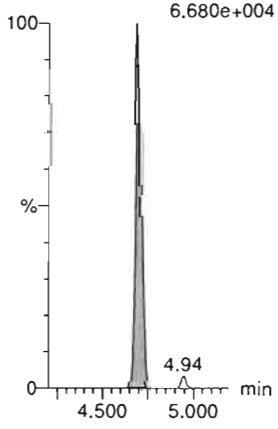
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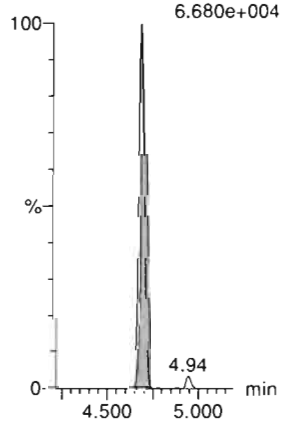
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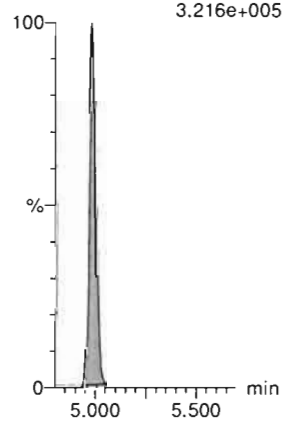
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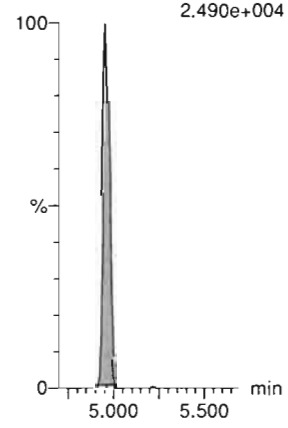
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13C2-8:2 FTS-EIS

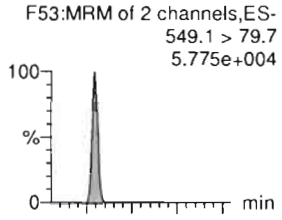


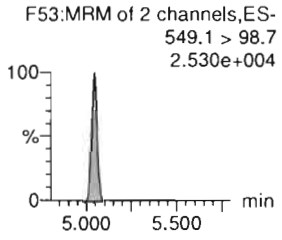
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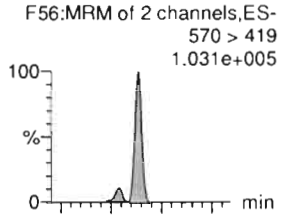
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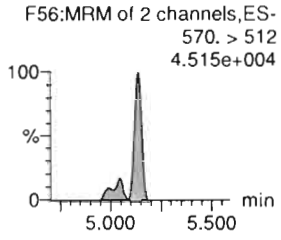
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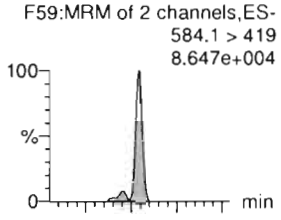


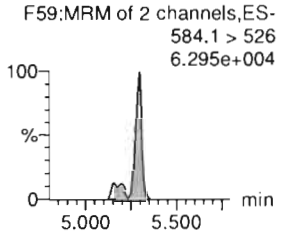
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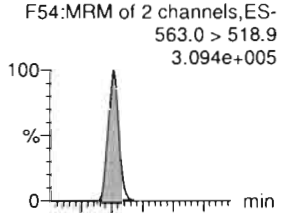


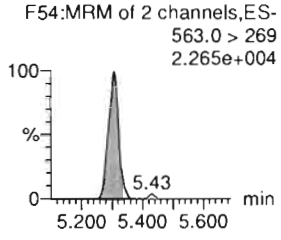
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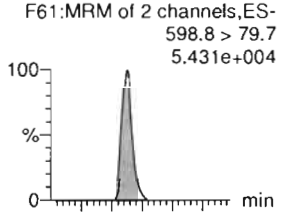


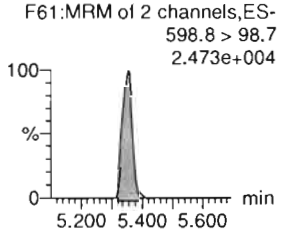
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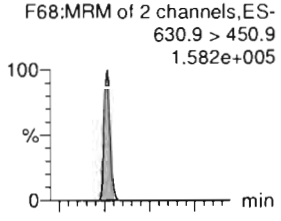


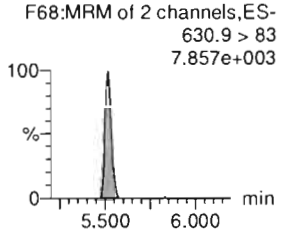
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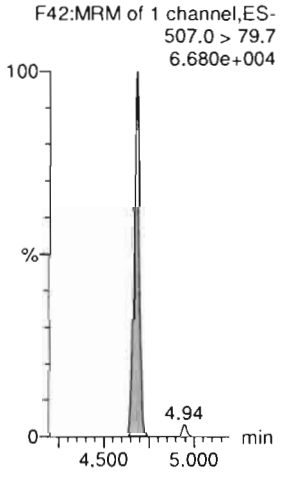


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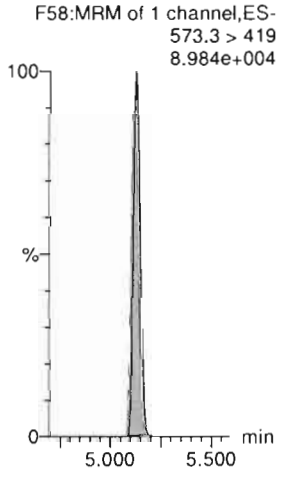




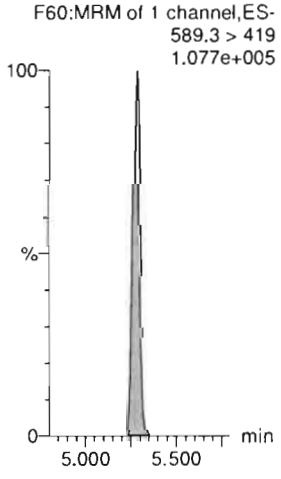
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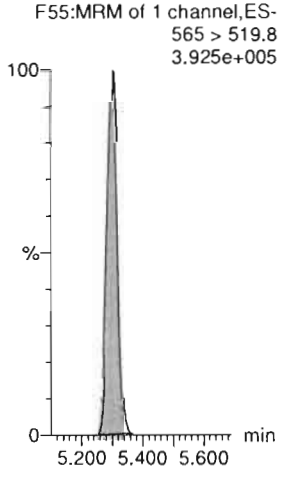
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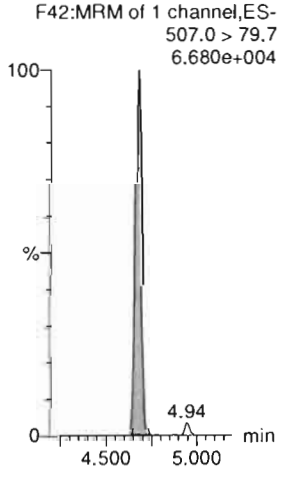
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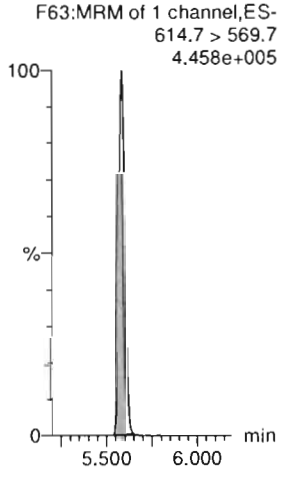
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13C8-PFOS-EIS



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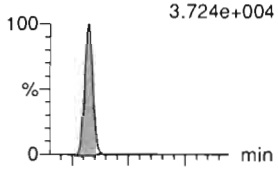


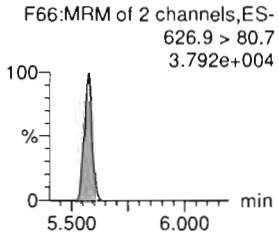
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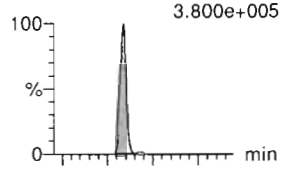
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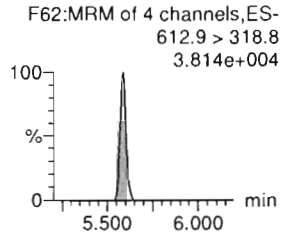
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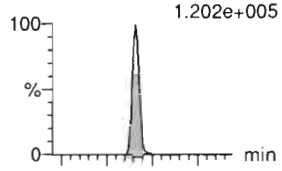


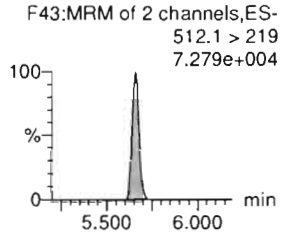
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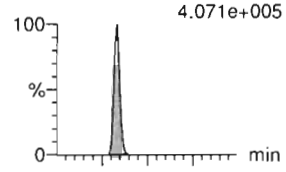


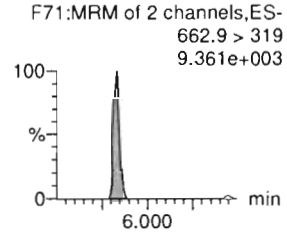
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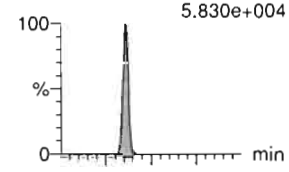


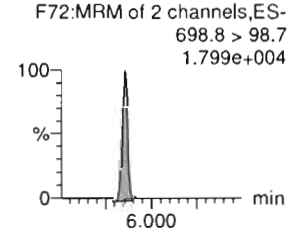
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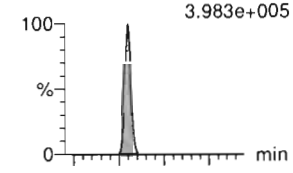


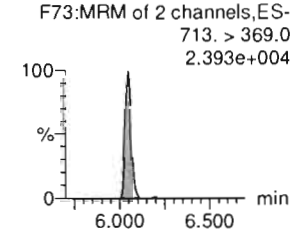
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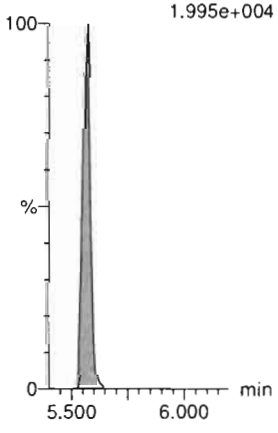


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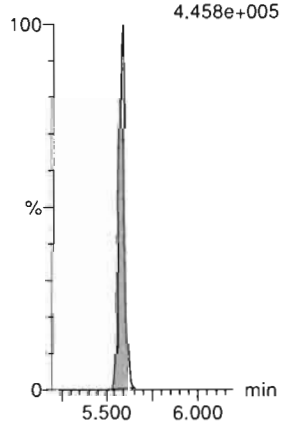




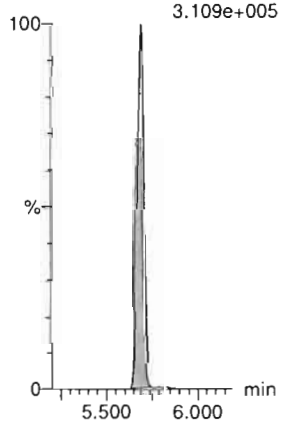
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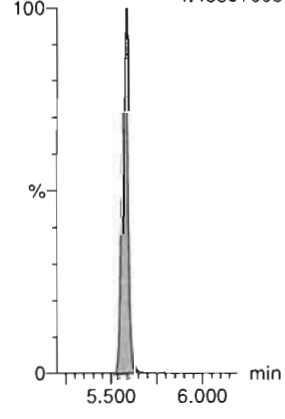
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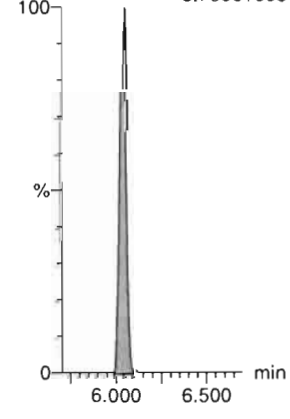
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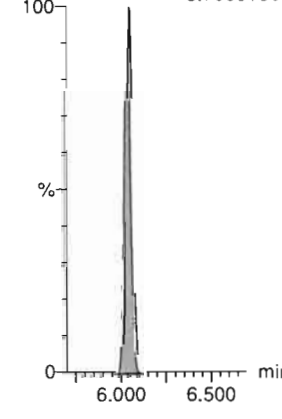
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13C2-PFTeDA-EIS



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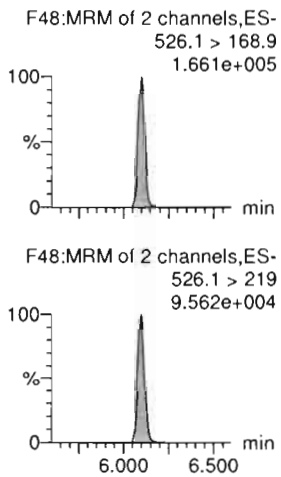


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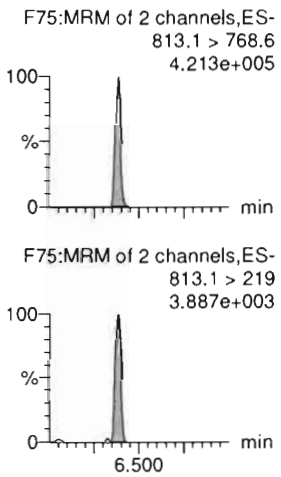
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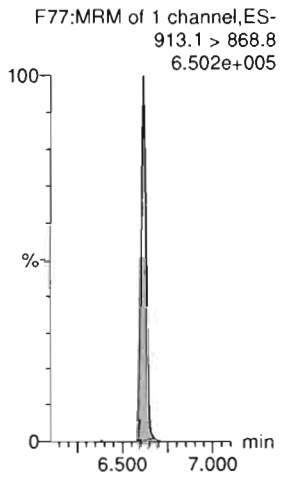
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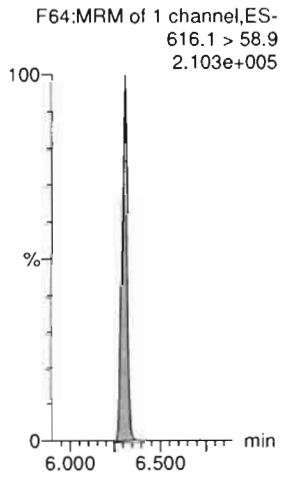
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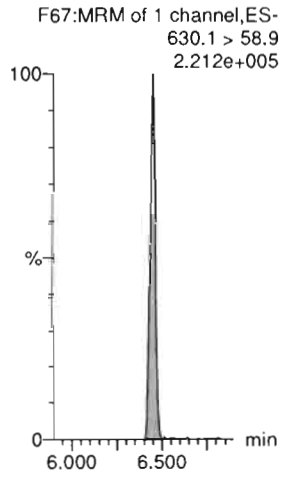
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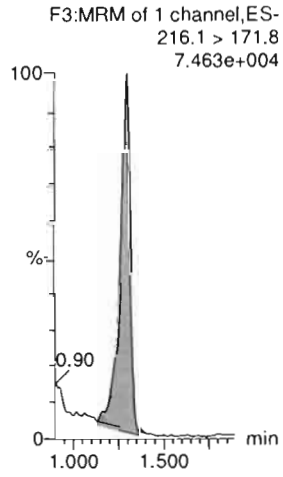
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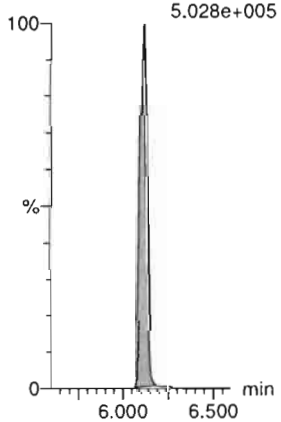
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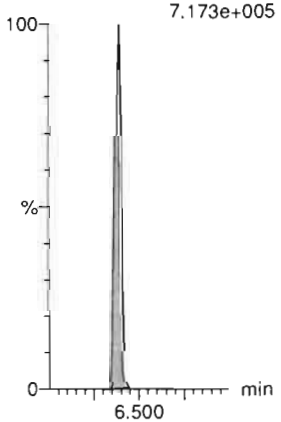
13C3-PFBA-RSD



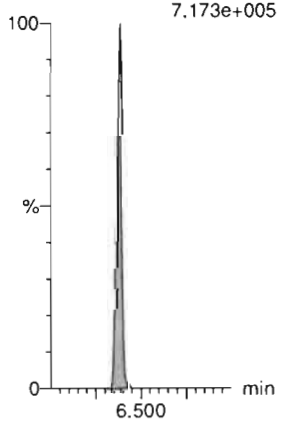
d5-N-ETFOSA-EIS



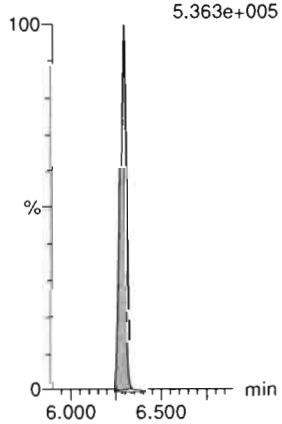
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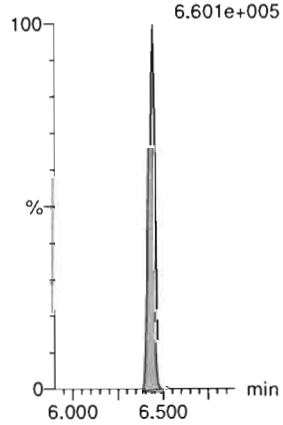
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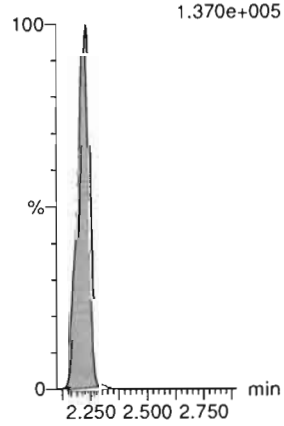
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

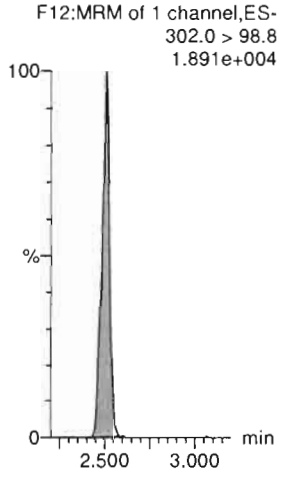


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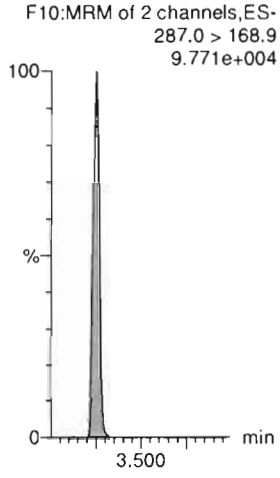
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Name: 200229P1-8, Date: 29-Feb-2020, Time: 16:38:28, ID: ST200229P1-6 PFC CS3 20B1107, Description: PFC CS3 20B1107

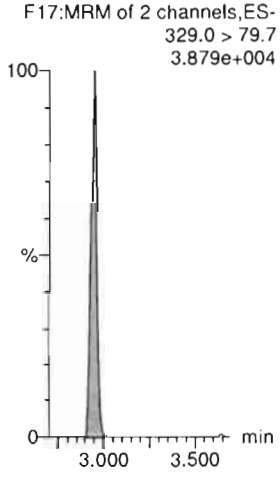
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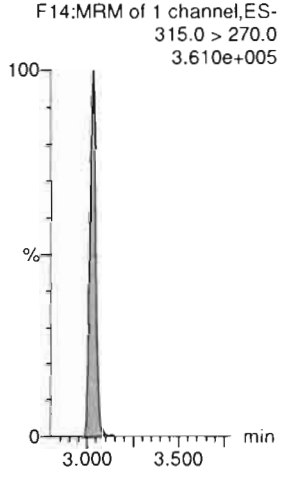
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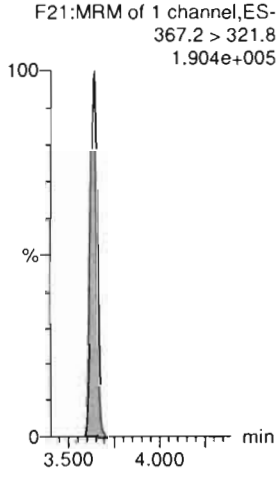
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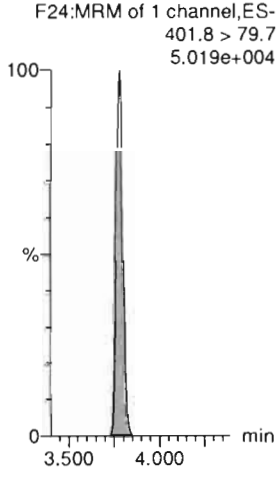
13C2-PFHxA-RSD



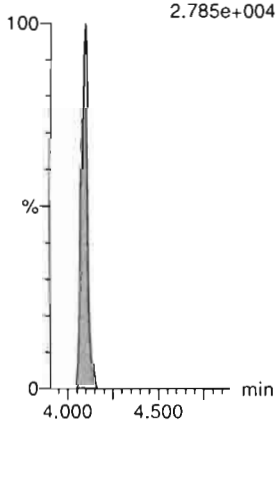
13C4-PFHpA-RSD



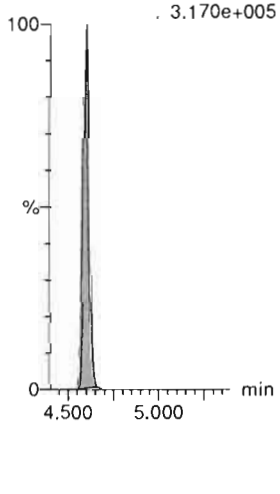
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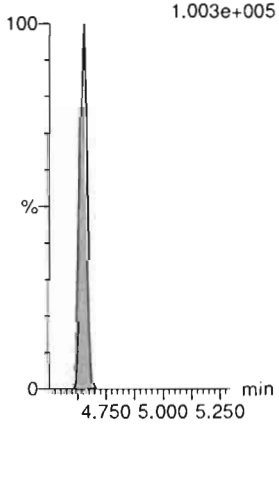
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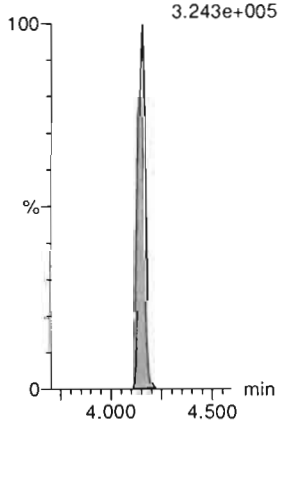
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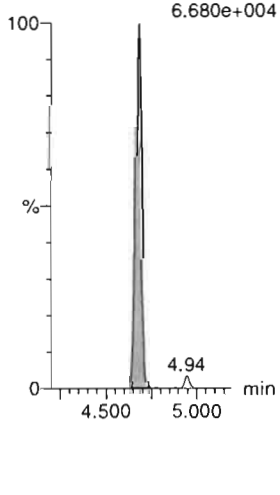
13C8-PFOSA-RSD



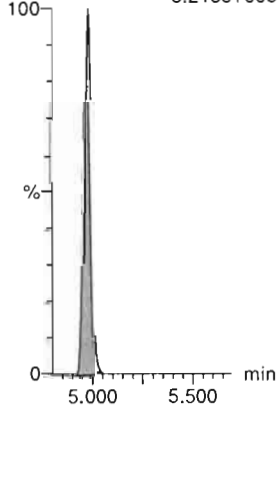
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13C8-PFOS-RSD



13C2-PFDA-RSD

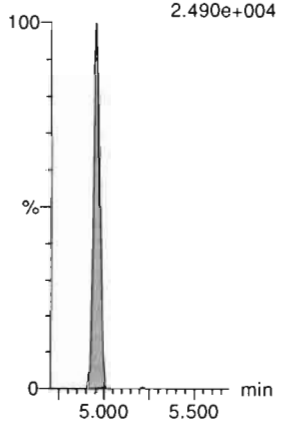


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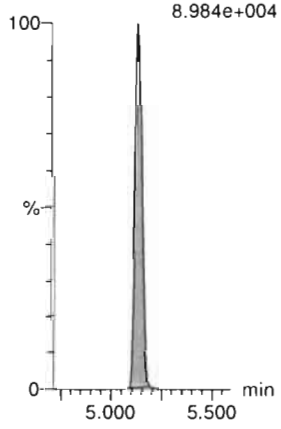
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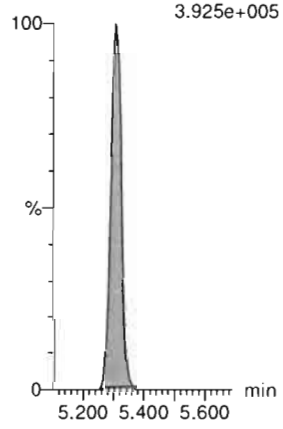
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F50:MRM of 1 channel,ES-
529 > 79.7
2.490e+004



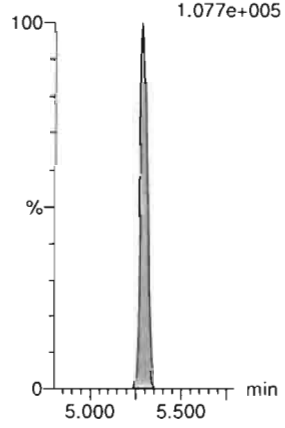
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.984e+004



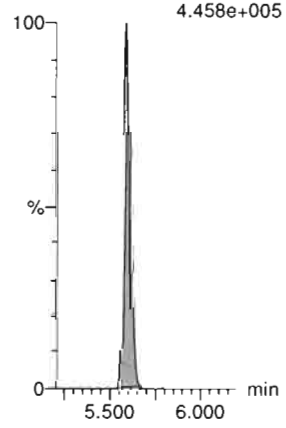
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F55:MRM of 1 channel,ES-
565 > 519.8
3.925e+005



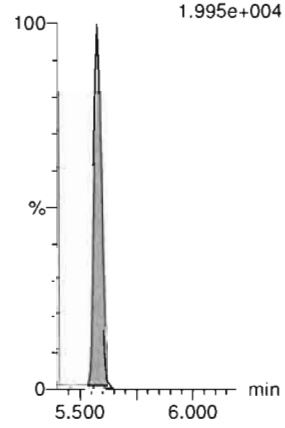
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F60:MRM of 1 channel,ES-
589.3 > 419
1.077e+005



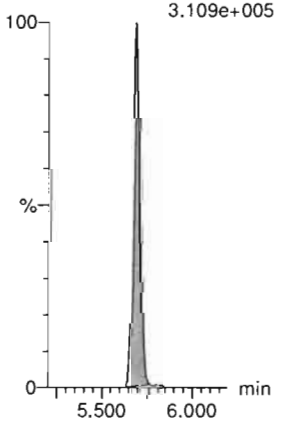
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.458e+005



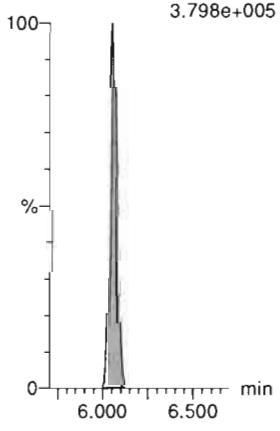
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.995e+004



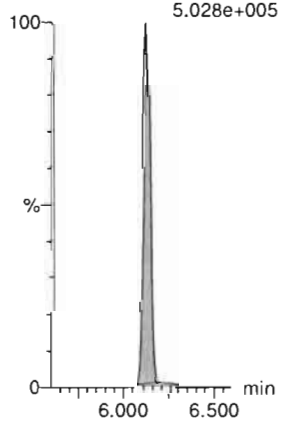
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.109e+005



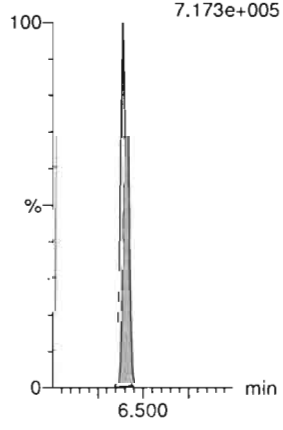
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.798e+005



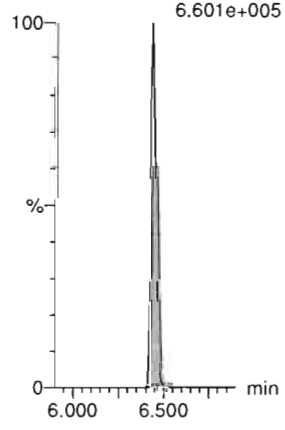
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.028e+005



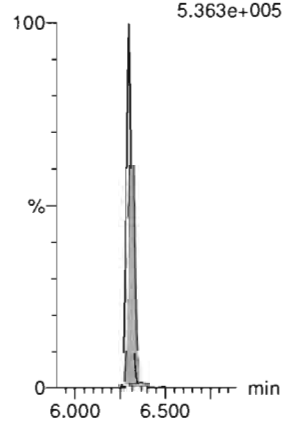
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
7.173e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.601e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.363e+005

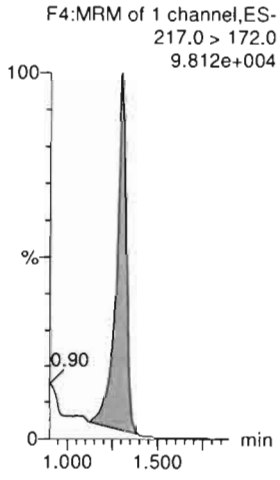


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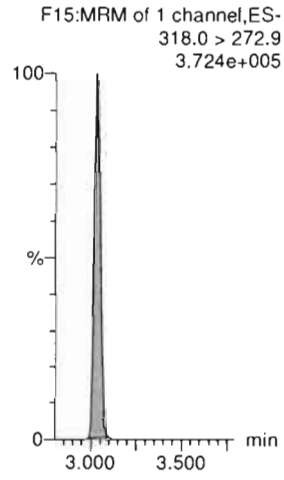
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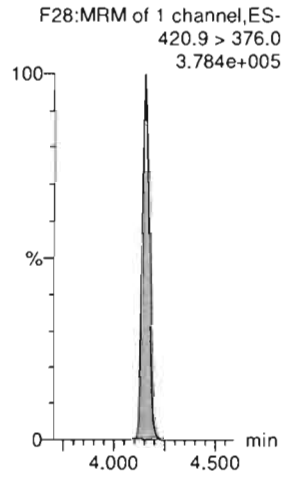
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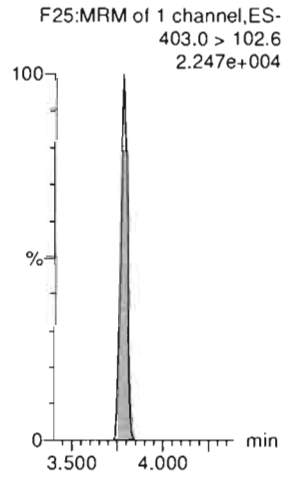
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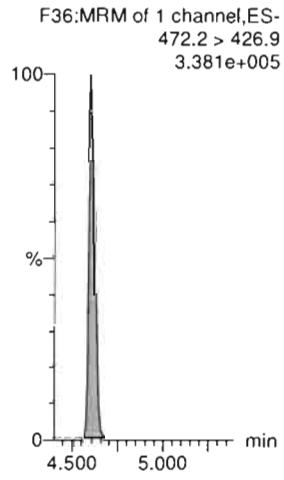
13C8-PFOA



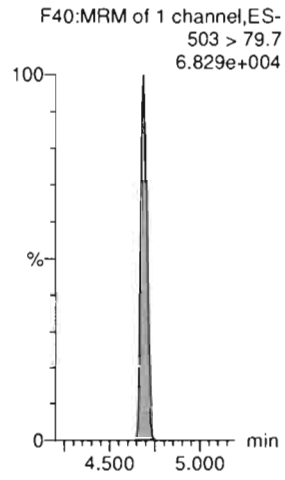
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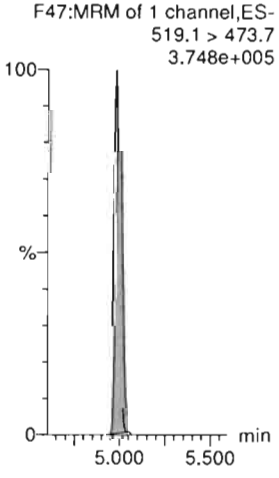
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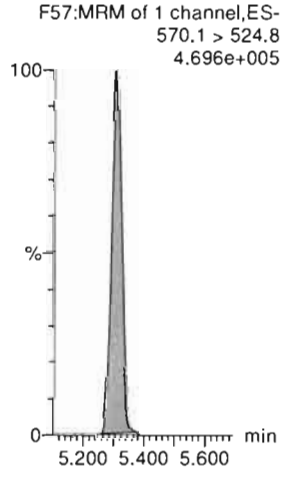
13C4-PFOS



13C6-PFDA



13C7-PFUdA

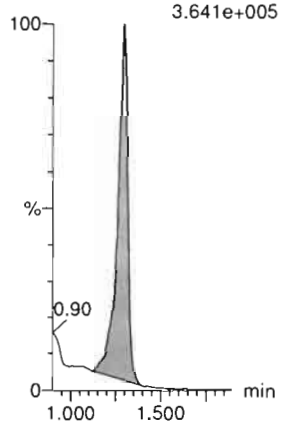


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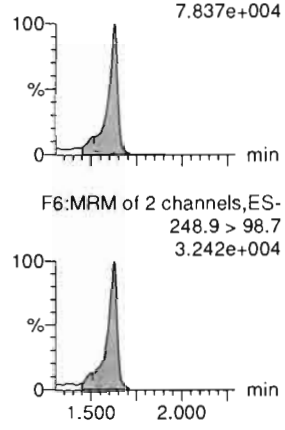
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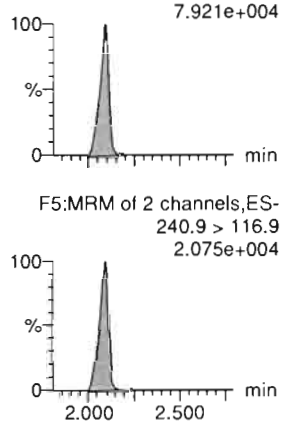
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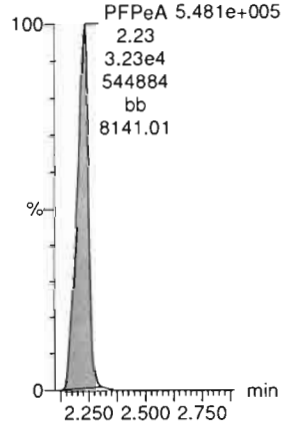
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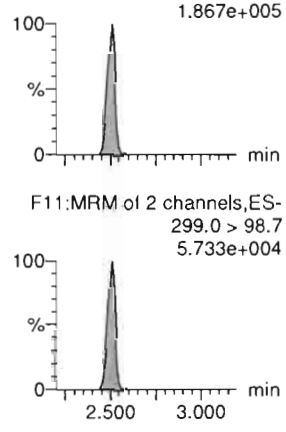
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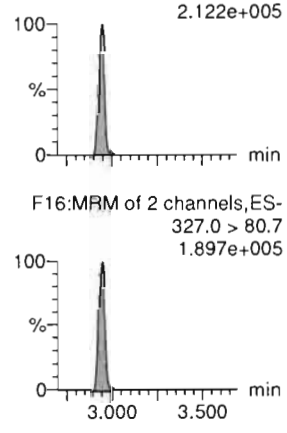
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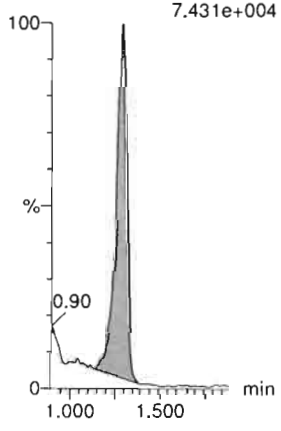
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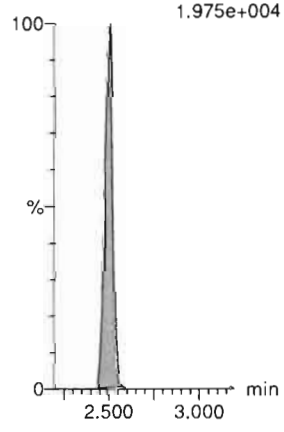
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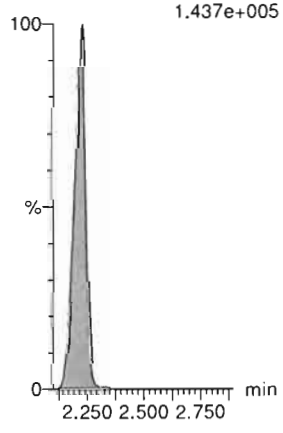
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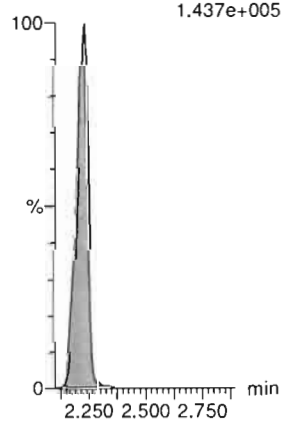
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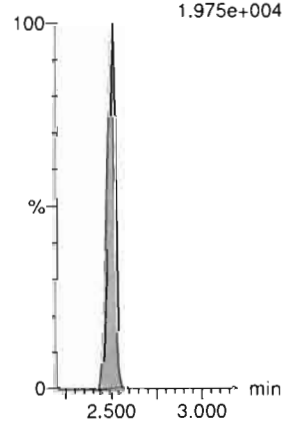
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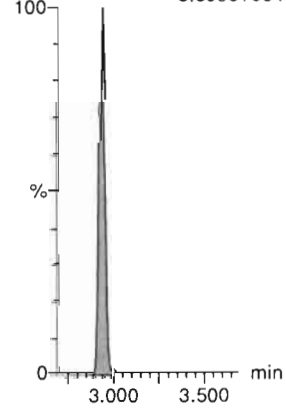
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13C3-PFBS-EIS



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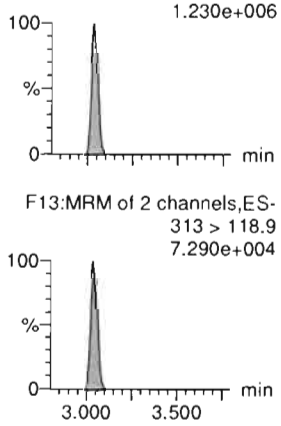


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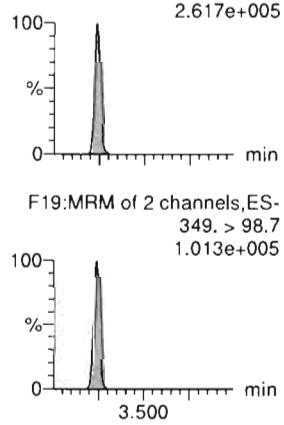
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Name: 200229P1-9, Date: 29-Feb-2020, Time: 16:49:00, ID: ST200229P1-7 PFC CS4 20B1108, Description: PFC CS4 20B1108

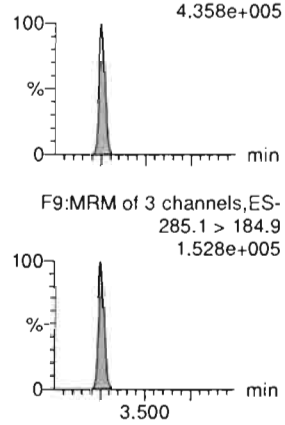
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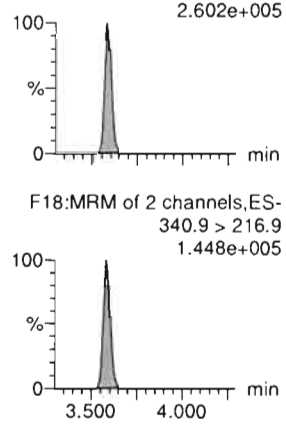
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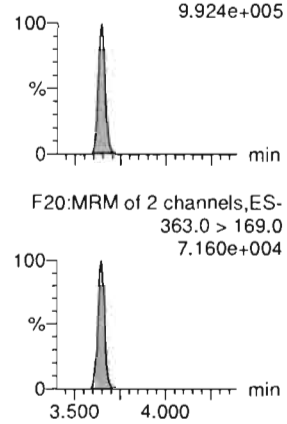
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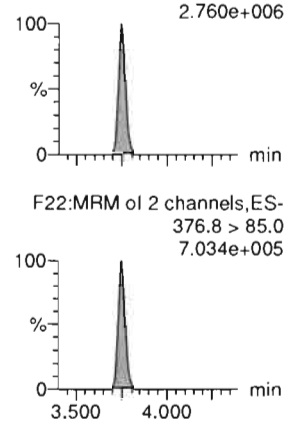
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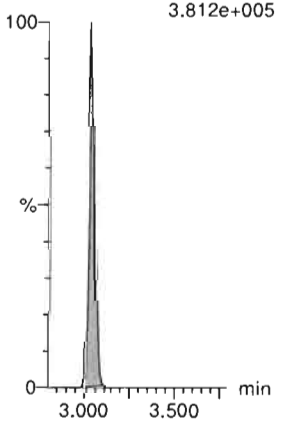
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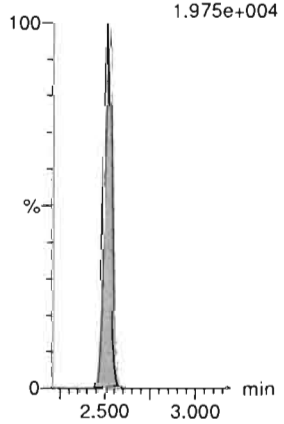
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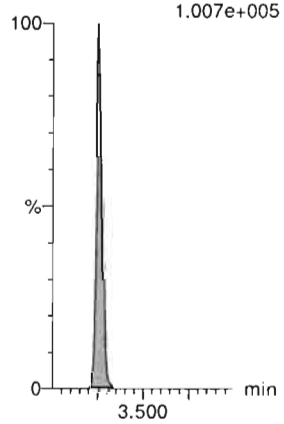
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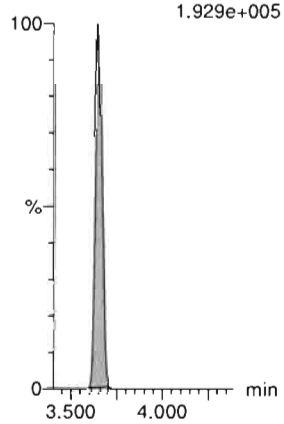
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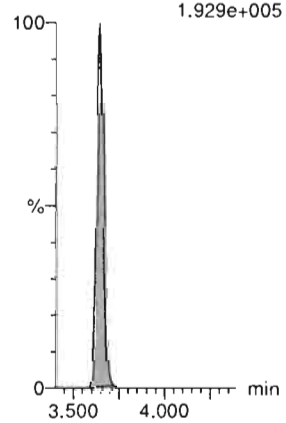
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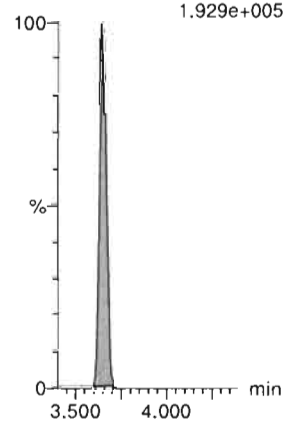
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13C4-PFHpA-EIS



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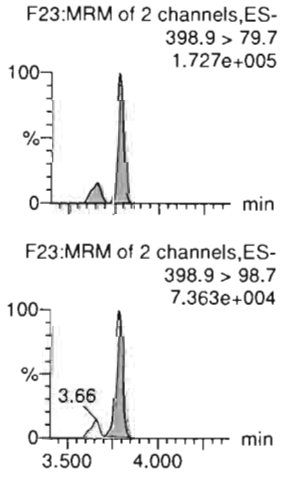


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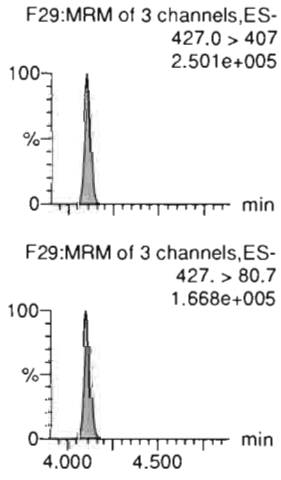
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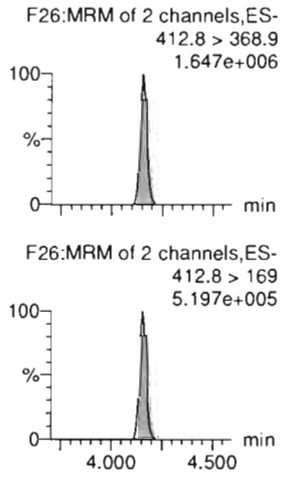
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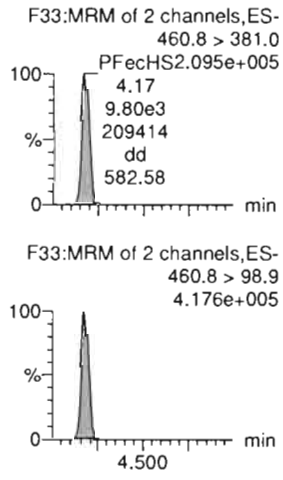
6:2 FTS



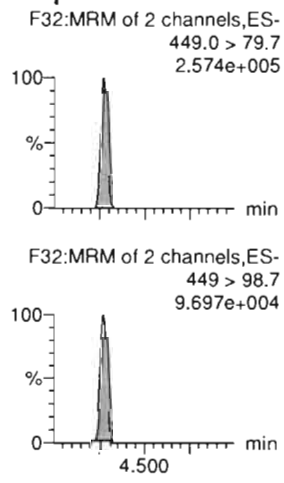
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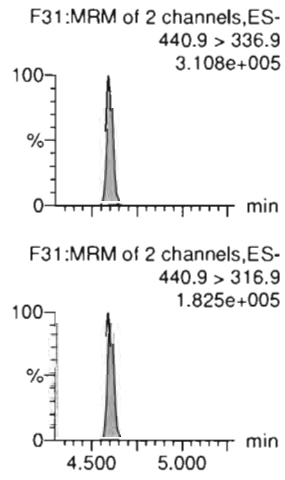
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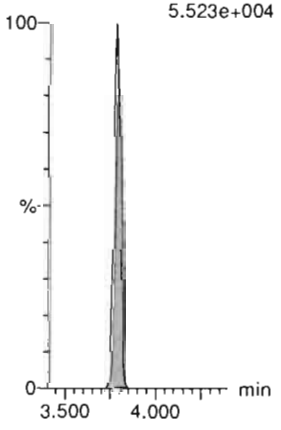
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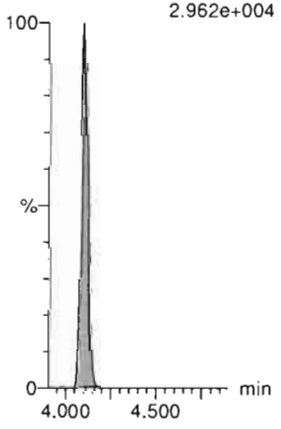
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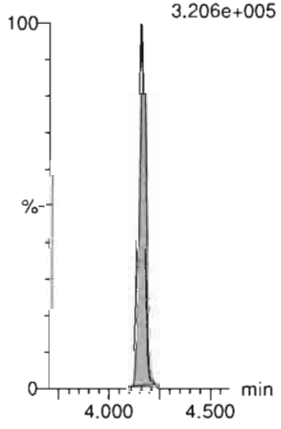
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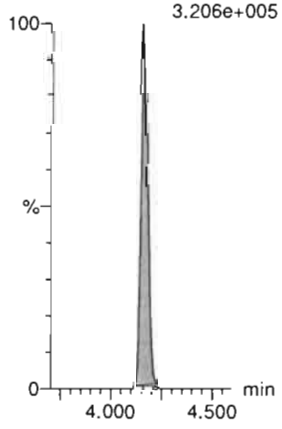
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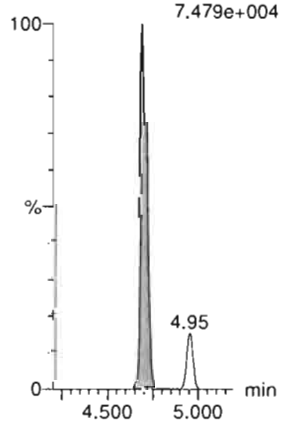
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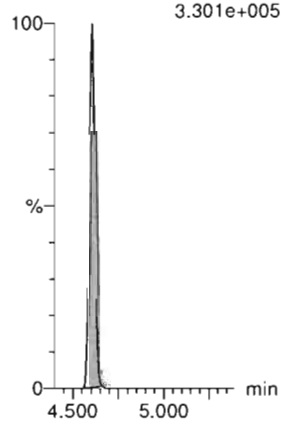
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13C8-PFOS-EIS



13C5-PFNA-EIS

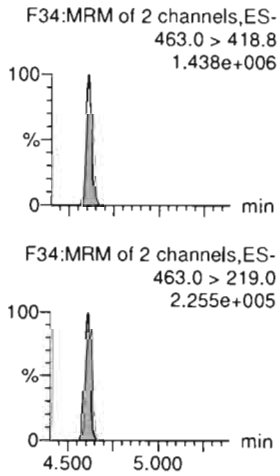


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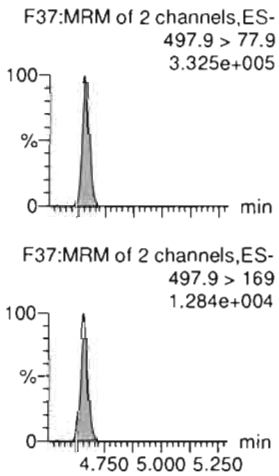
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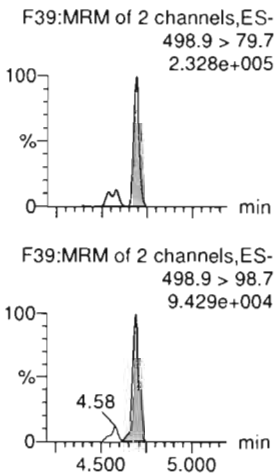
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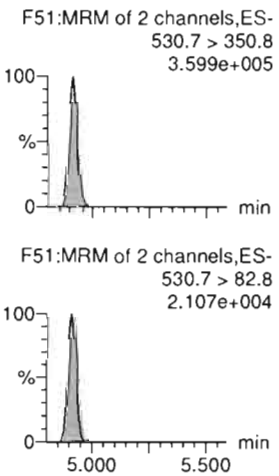
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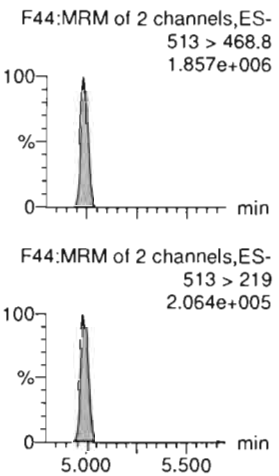
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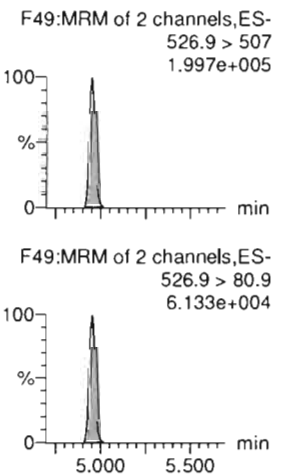
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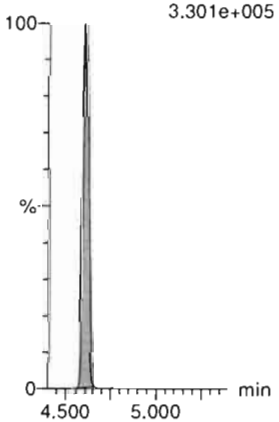
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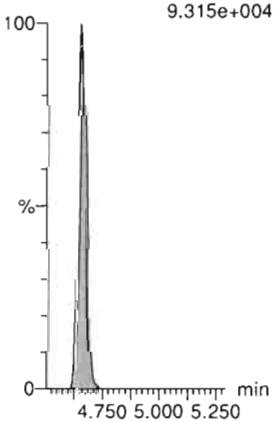
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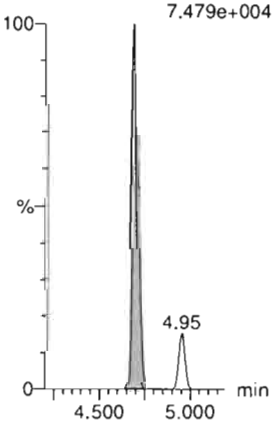
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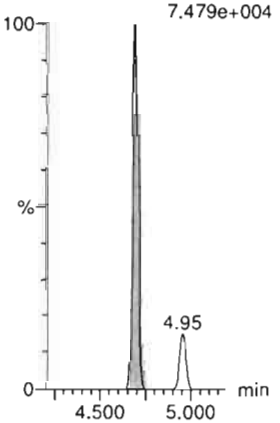
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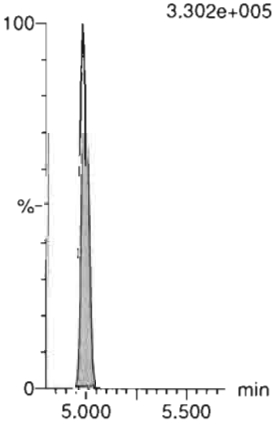
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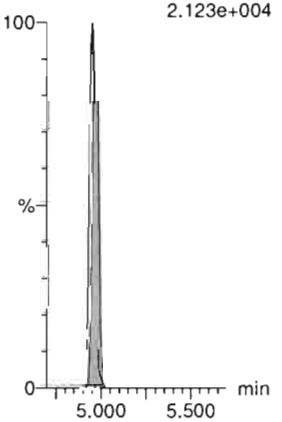
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

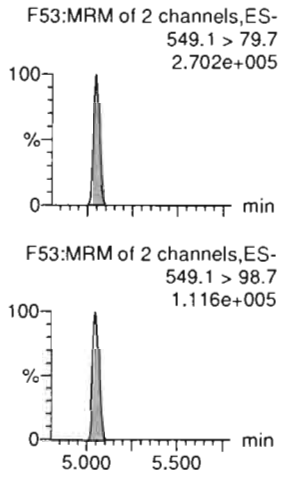


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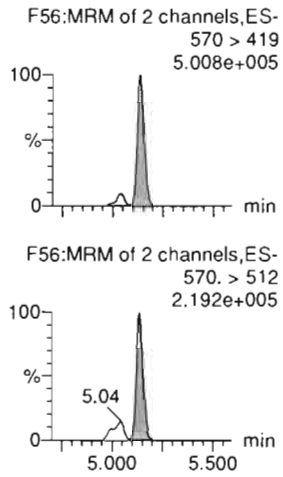
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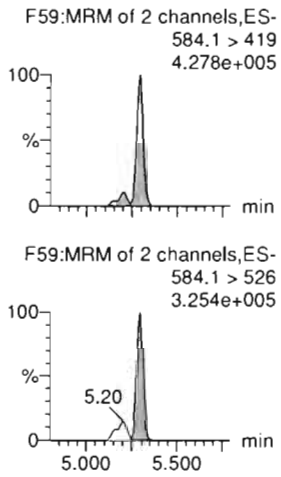
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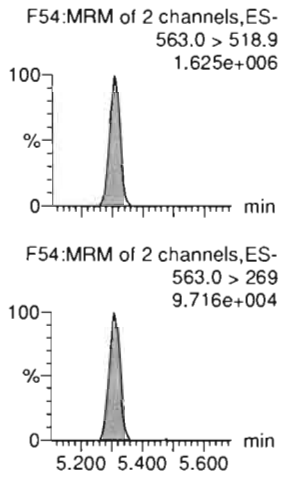
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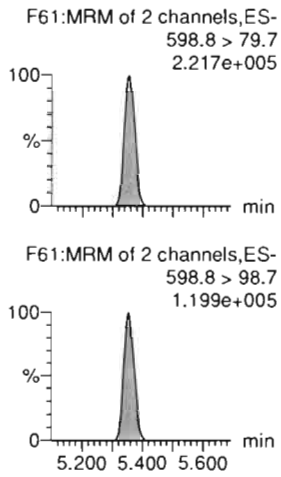
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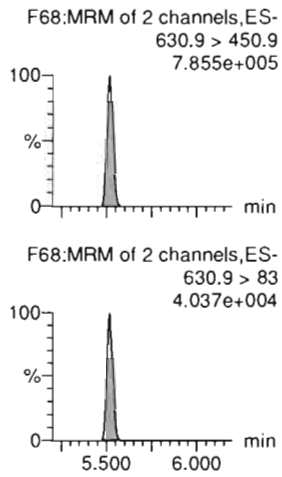
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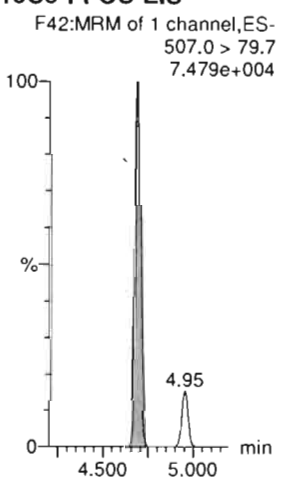
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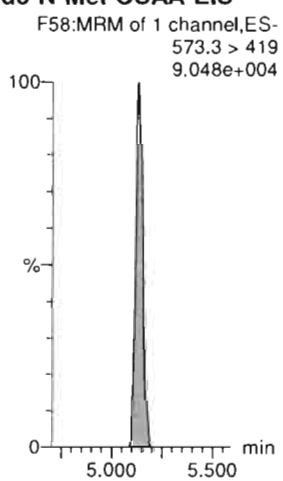
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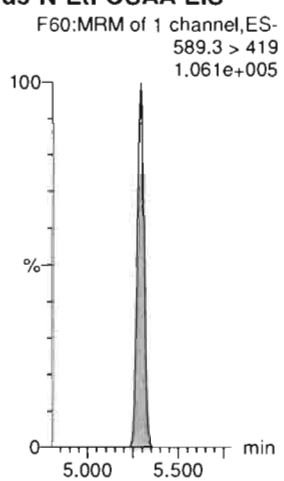
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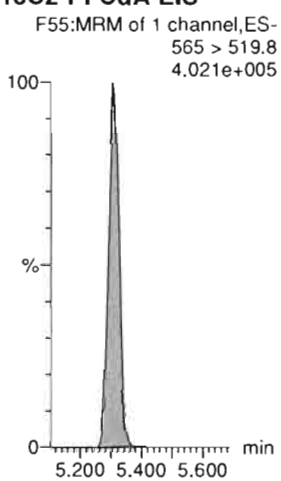
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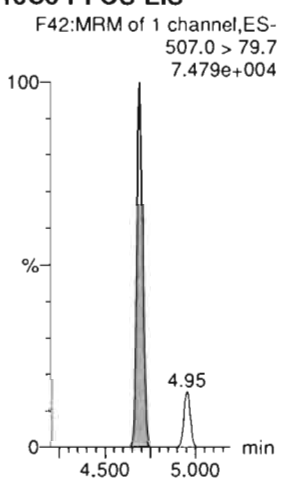
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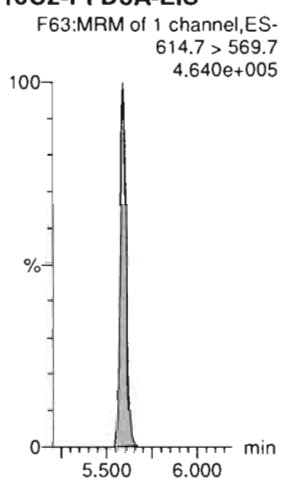
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13C8-PFOS-EIS



13C2-PFDoA-EIS

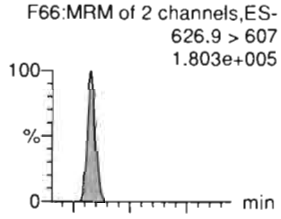


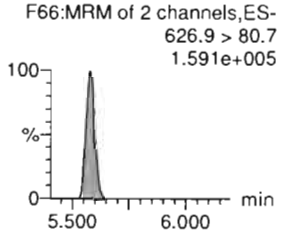
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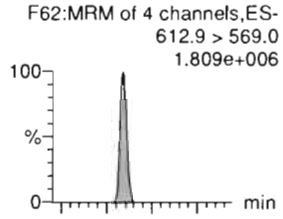
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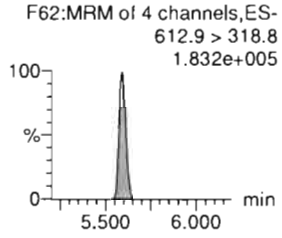
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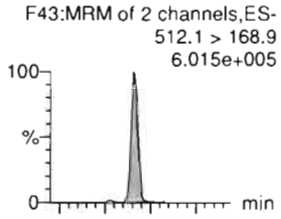


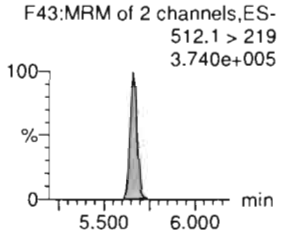
PFDoA



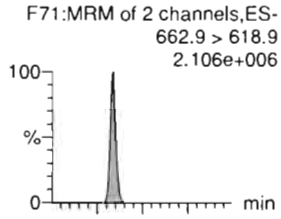


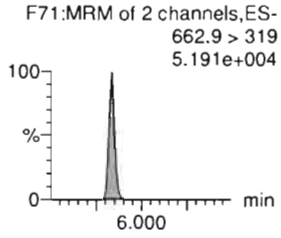
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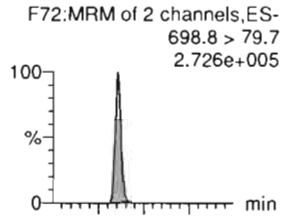


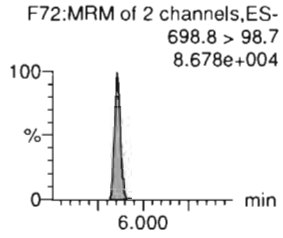
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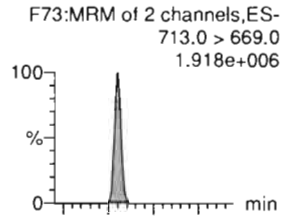


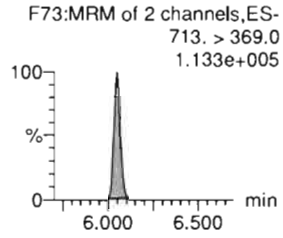
PFDoS



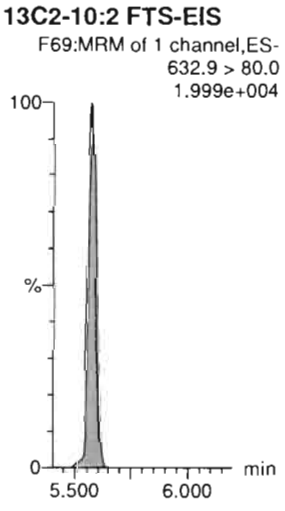


PFTeDA

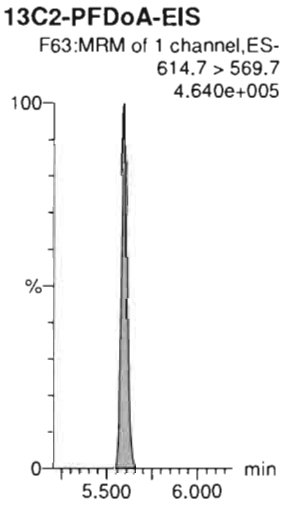




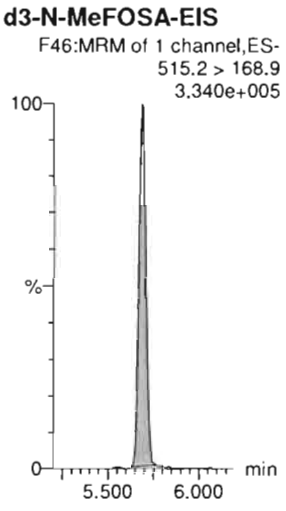
13C2-10:2 FTS-EIS



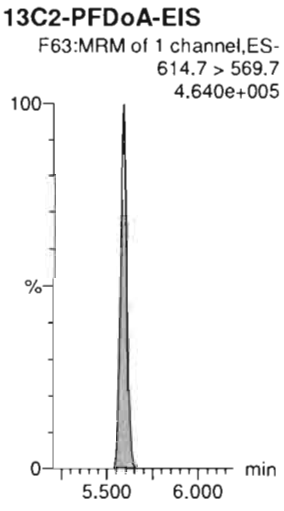
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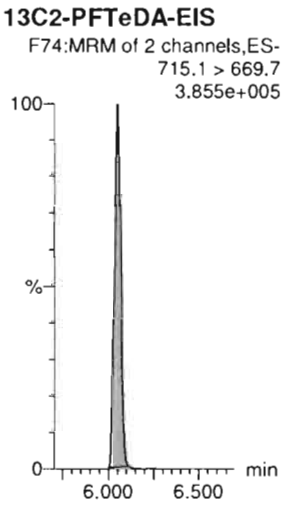
d3-N-MeFOSA-EIS



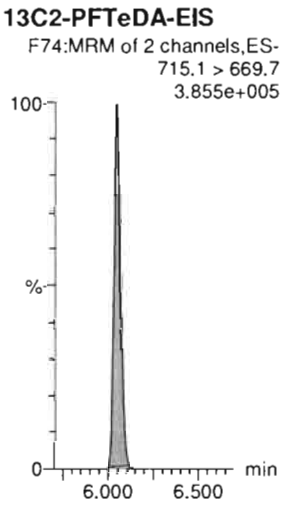
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13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

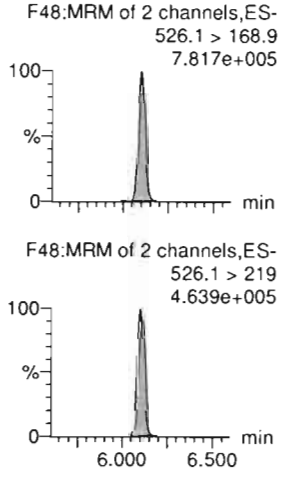


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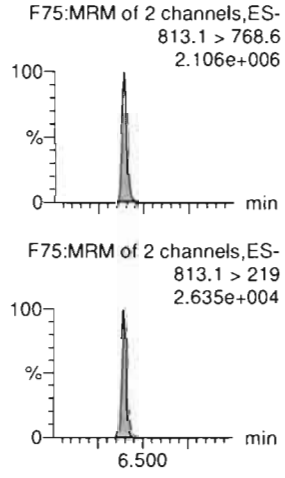
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Name: 200229P1-9, Date: 29-Feb-2020, Time: 16:49:00, ID: ST200229P1-7 PFC CS4 20B1108, Description: PFC CS4 20B1108

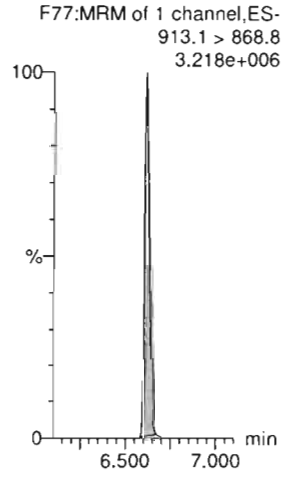
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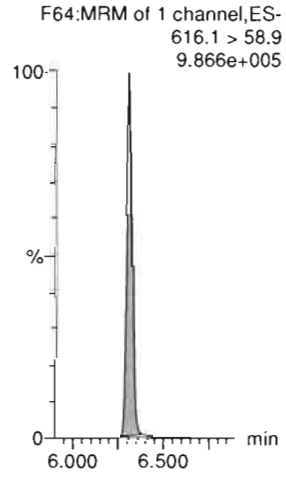
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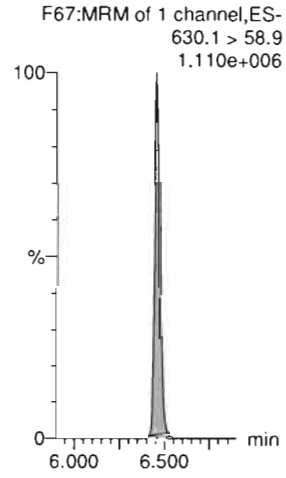
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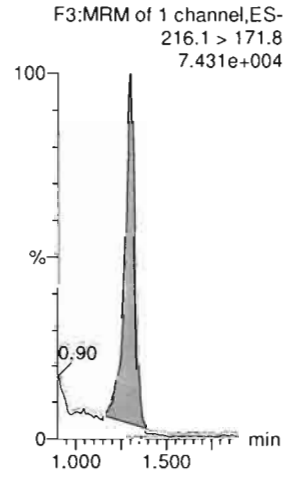
N-MeFOSE



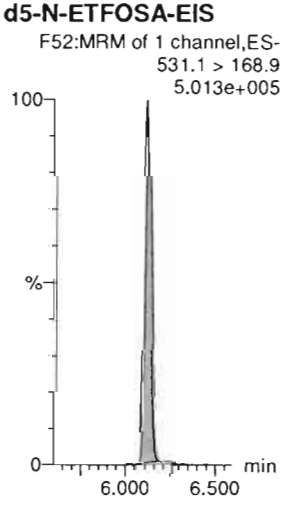
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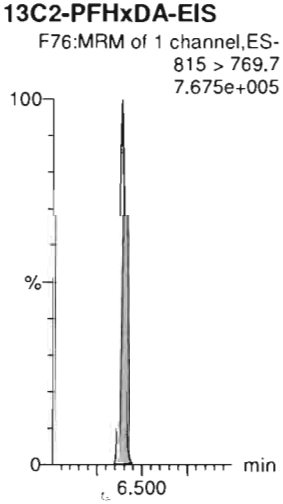
13C3-PFBA-RSD



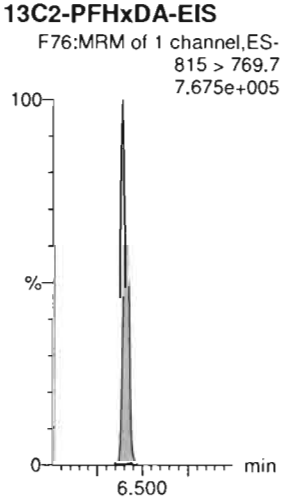
d5-N-ETFOSA-EIS



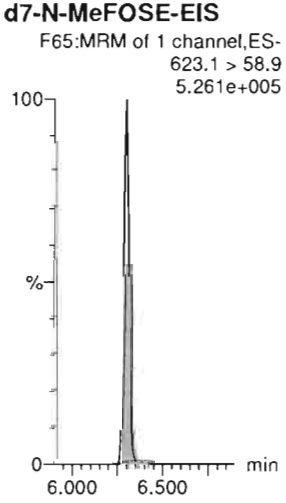
13C2-PFHxDA-EIS



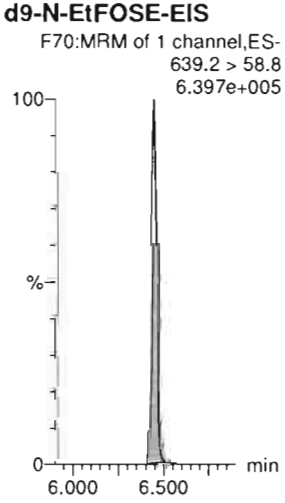
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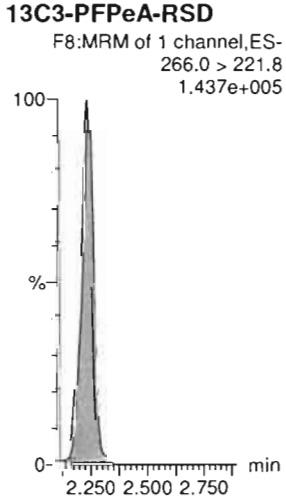
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



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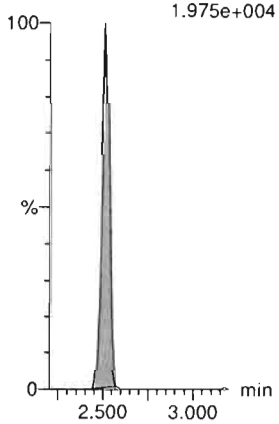


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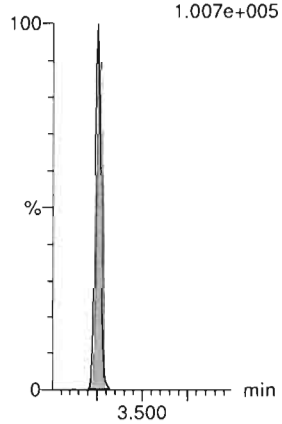
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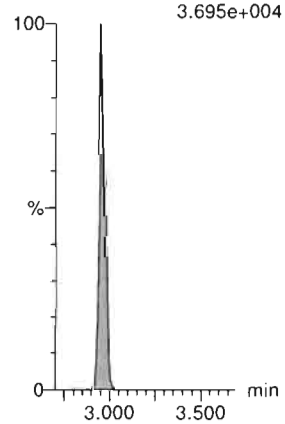
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F12:MRM of 1 channel,ES-
302.0 > 98.8
1.975e+004



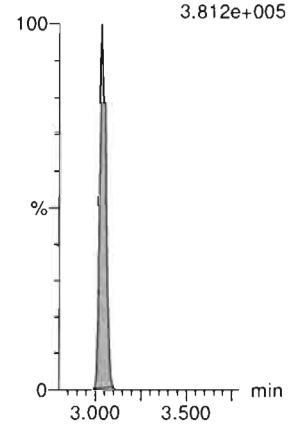
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
1.007e+005



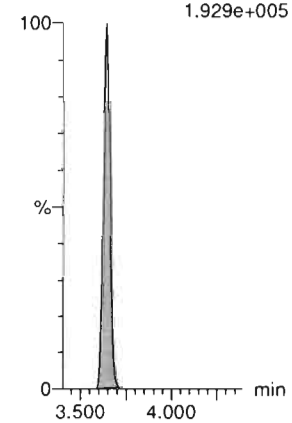
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.695e+004



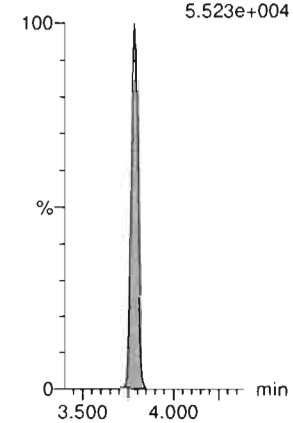
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.812e+005



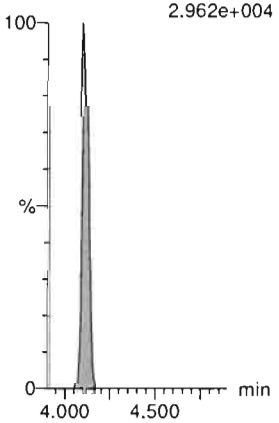
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.929e+005



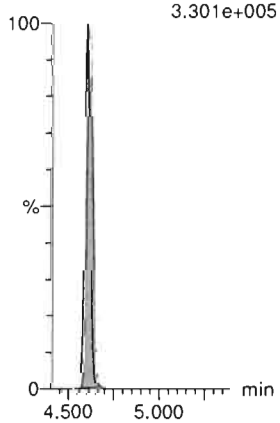
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
5.523e+004



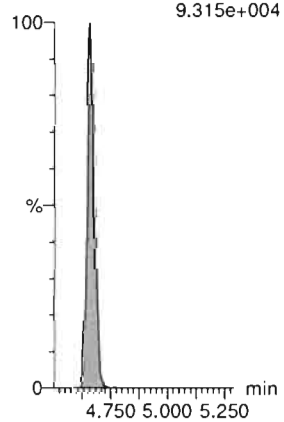
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.962e+004



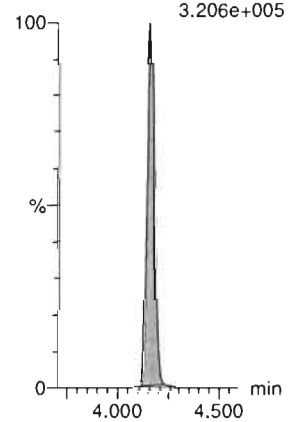
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
3.301e+005



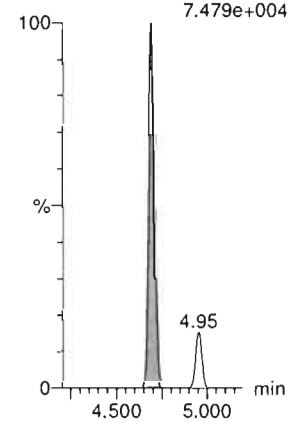
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.315e+004



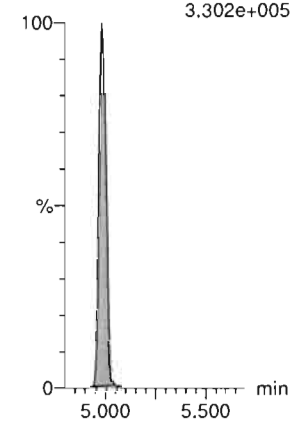
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
3.206e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
7.479e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.302e+005

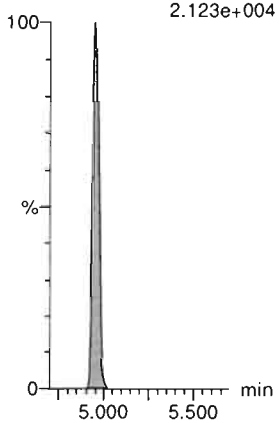


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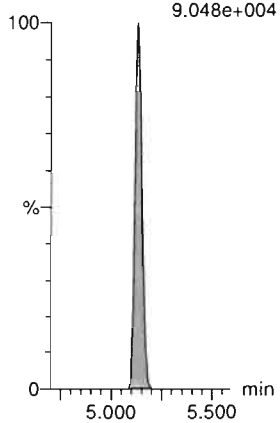
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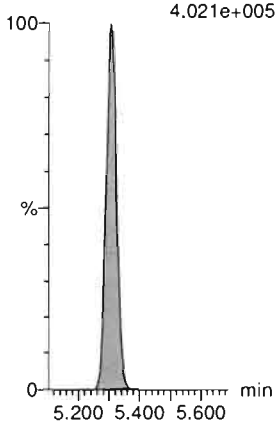
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.123e+004



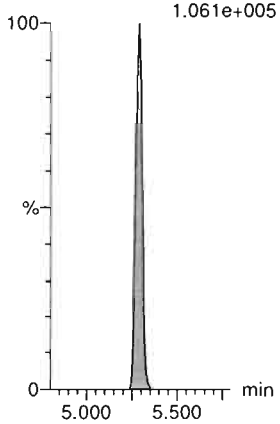
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F58:MRM of 1 channel,ES-
573.3 > 419
9.048e+004



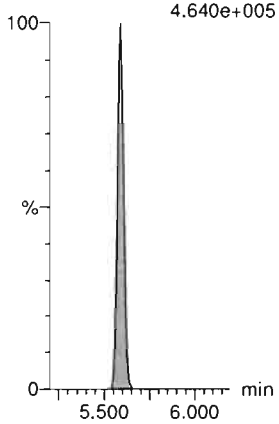
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.021e+005



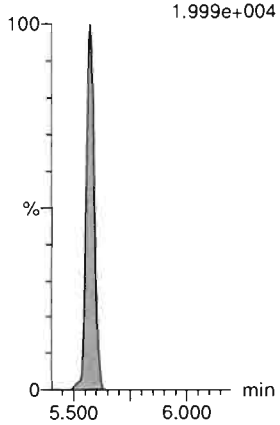
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F60:MRM of 1 channel,ES-
589.3 > 419
1.061e+005



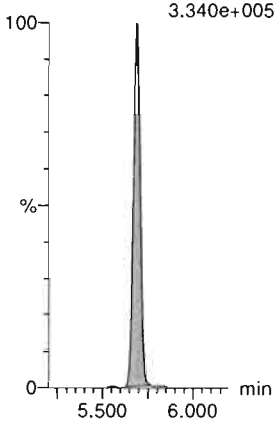
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.640e+005



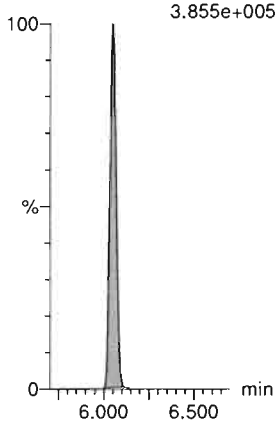
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.999e+004



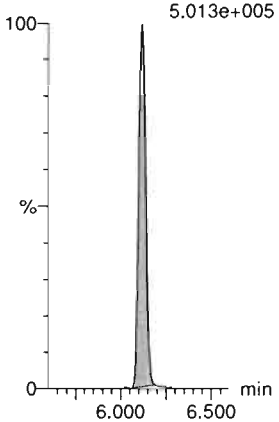
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.340e+005



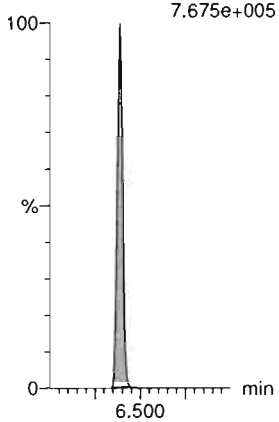
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.855e+005



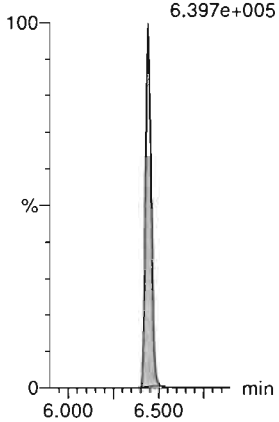
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
5.013e+005



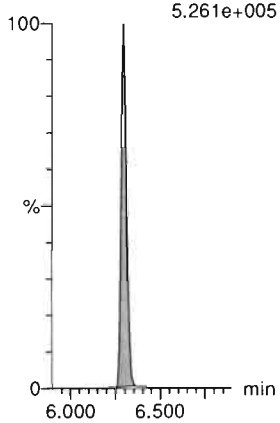
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
7.675e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.397e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.261e+005

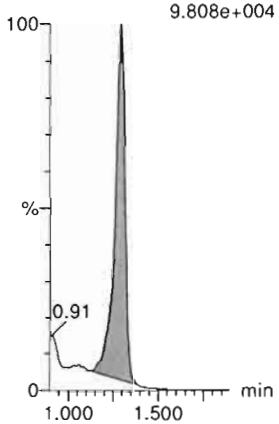


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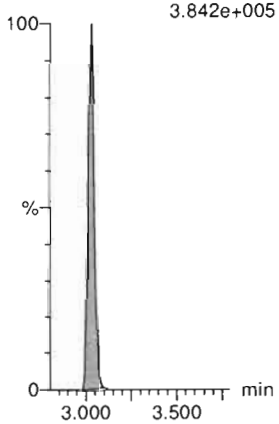
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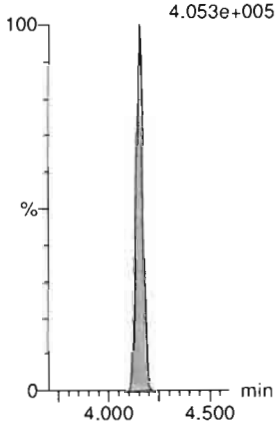
13C4-PFBA



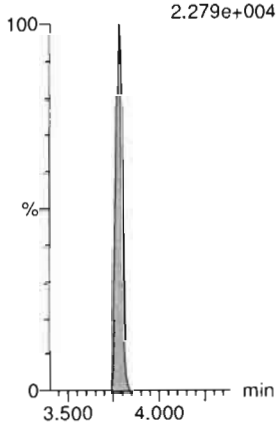
13C5-PFHxA



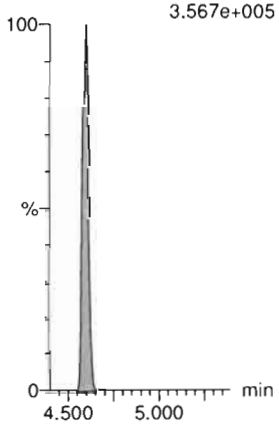
13C8-PFOA



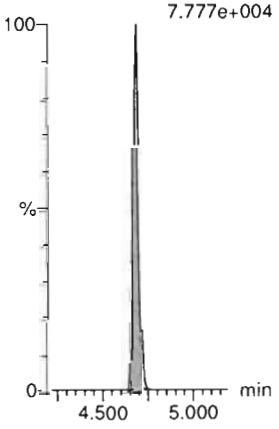
18O2-PFHxS



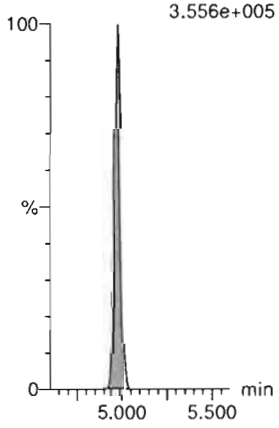
13C9-PFNA



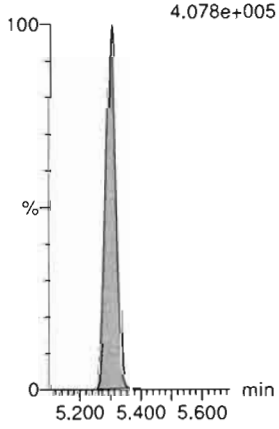
13C4-PFOS



13C6-PFDA



13C7-PFUdA

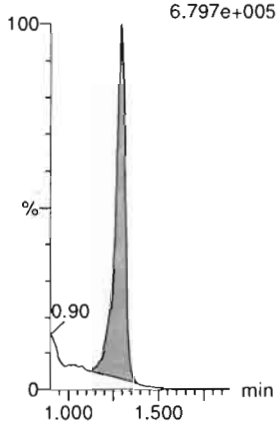


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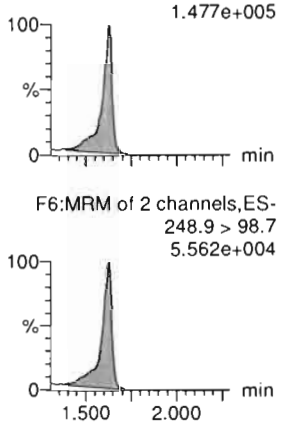
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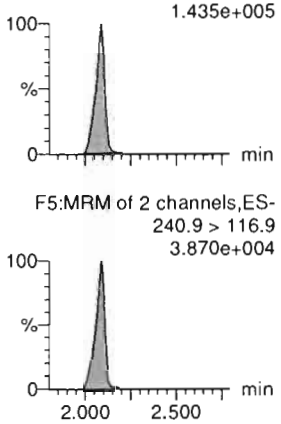
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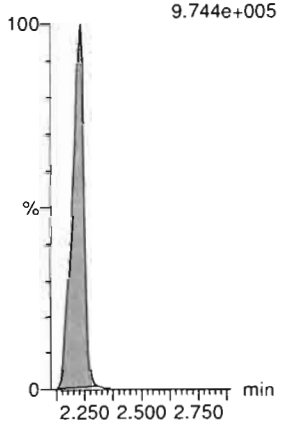
PFPrS



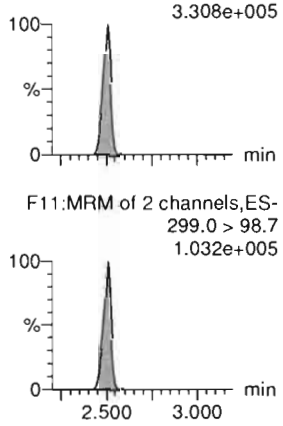
3:3 FTCA



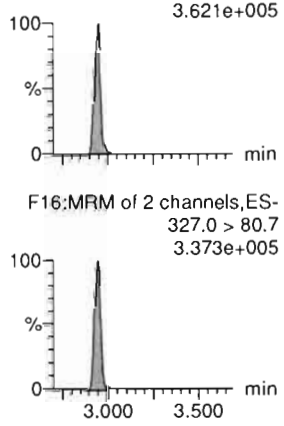
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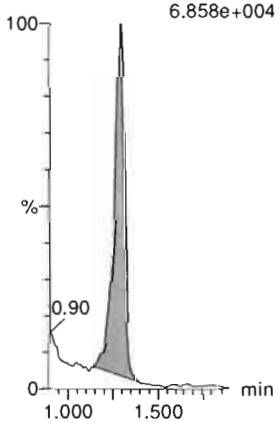
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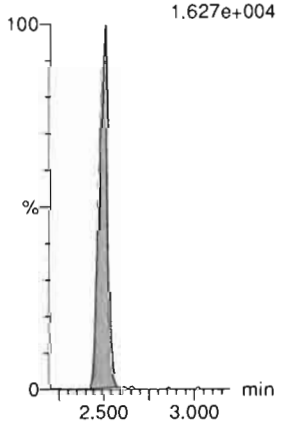
4:2 FTS



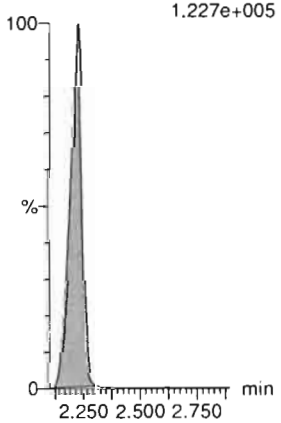
13C3-PFBA-EIS



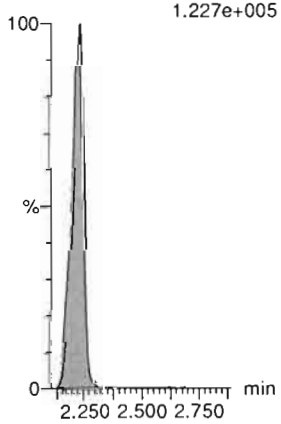
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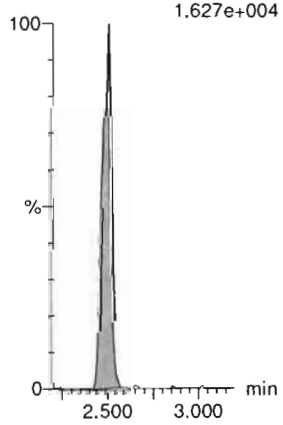
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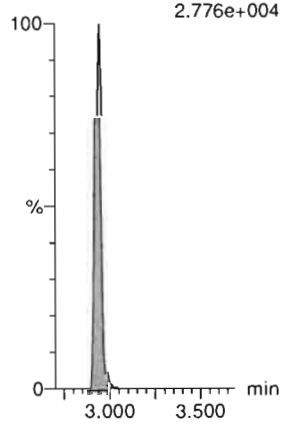
13C3-PFPeA-EIS



13C3-PFBS-EIS



13C2-4:2 FTS-EIS

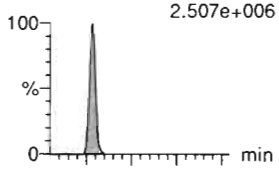


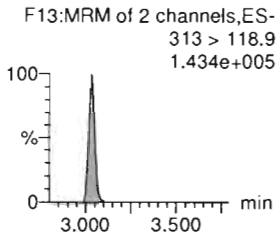
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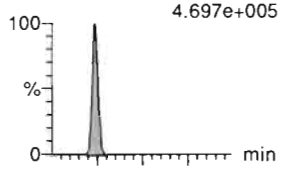
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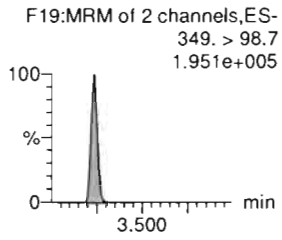
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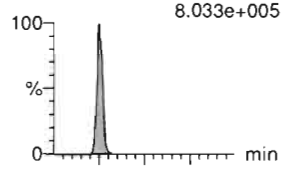


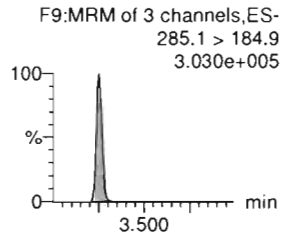
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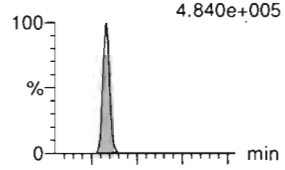


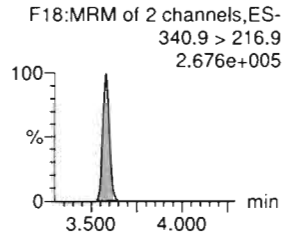
HFPO-DA



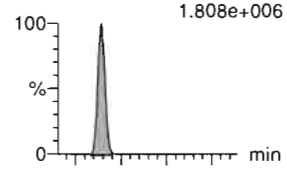


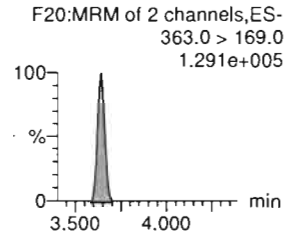
5:3 FTCA



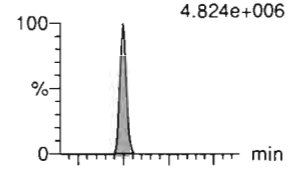


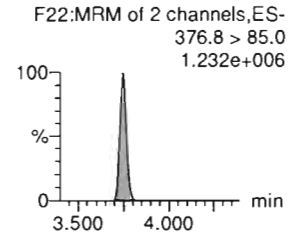
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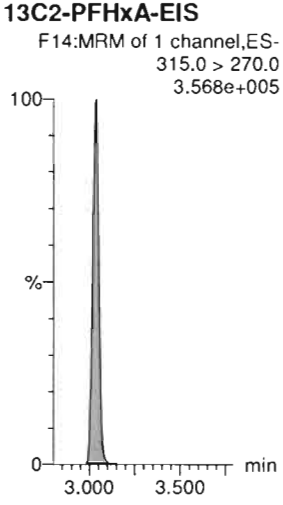


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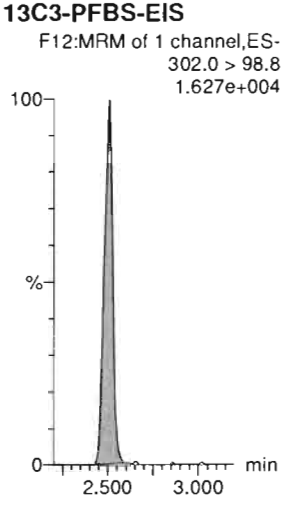




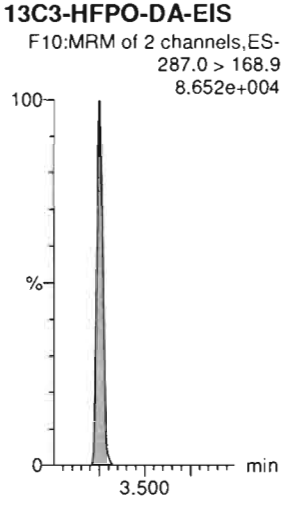
13C2-PFHxA-EIS



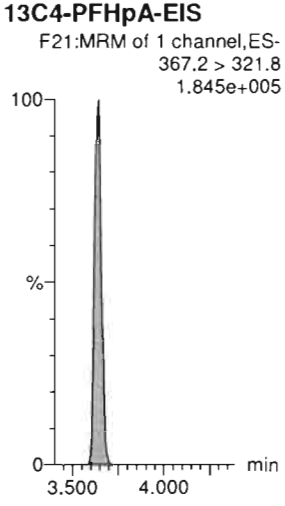
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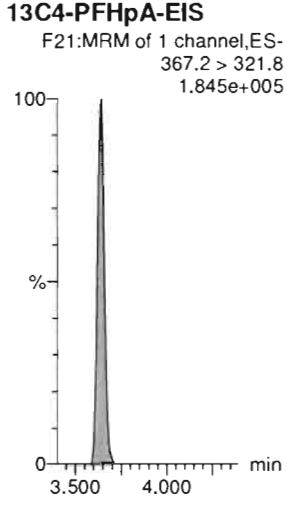
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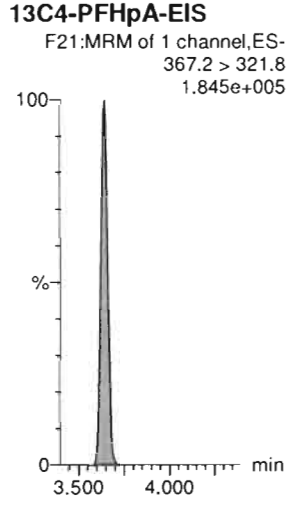
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

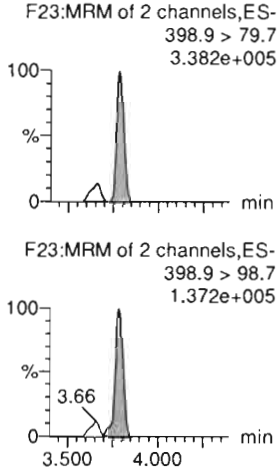


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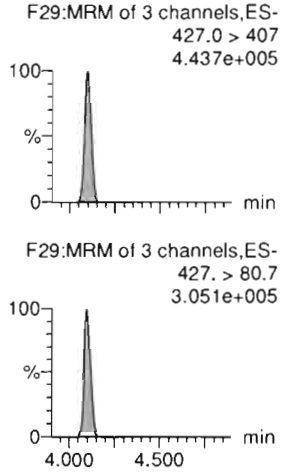
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

Name: 200229P1-10, Date: 29-Feb-2020, Time: 16:59:31, ID: ST200229P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

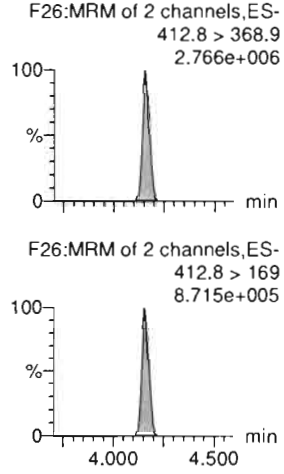
L-PFHxS



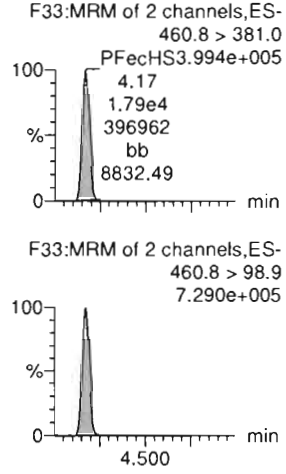
6:2 FTS



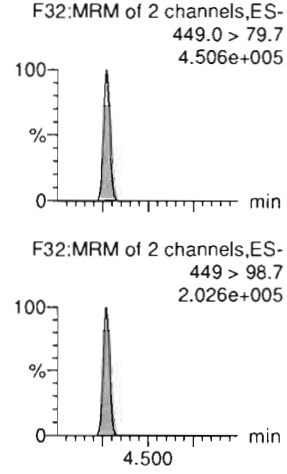
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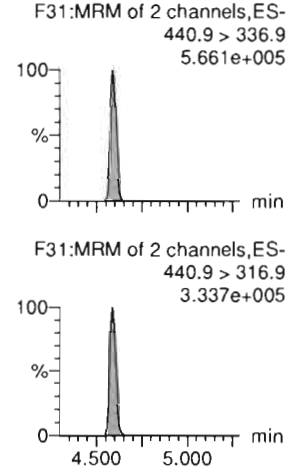
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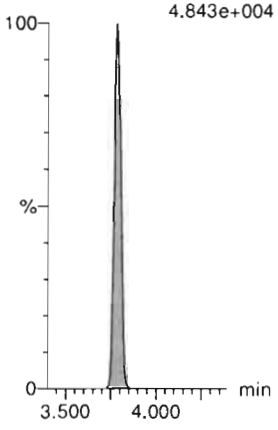
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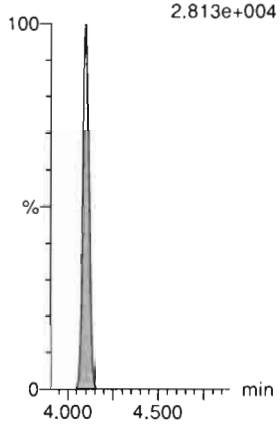
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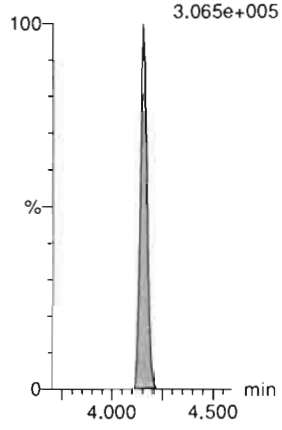
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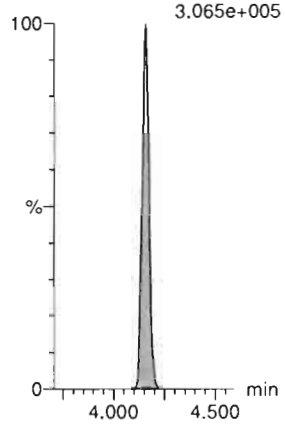
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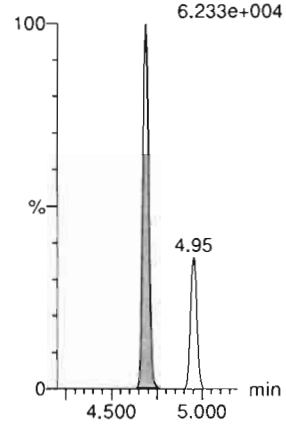
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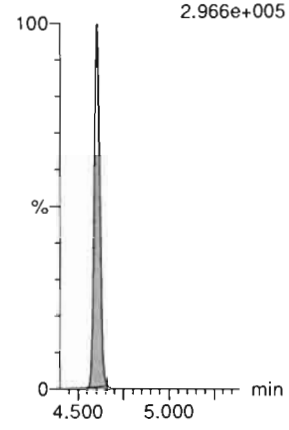
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

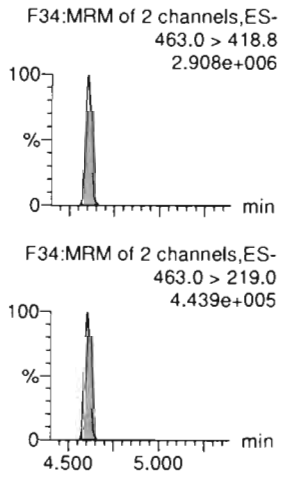


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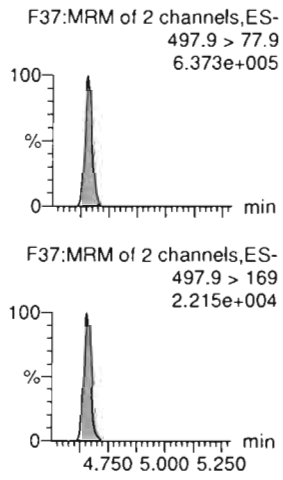
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Name: 200229P1-10, Date: 29-Feb-2020, Time: 16:59:31, ID: ST200229P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

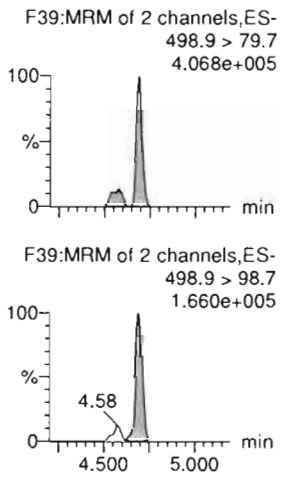
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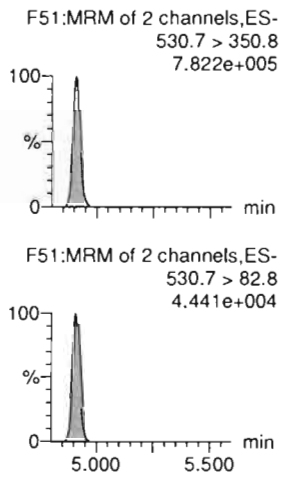
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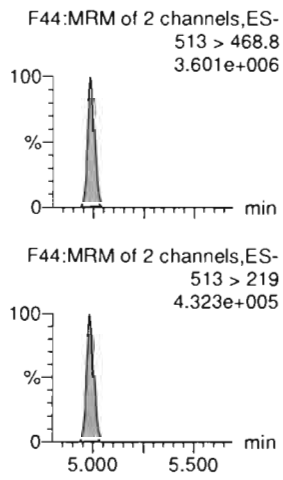
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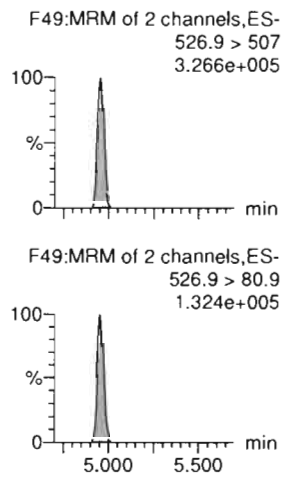
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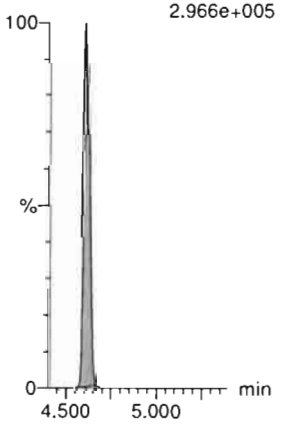
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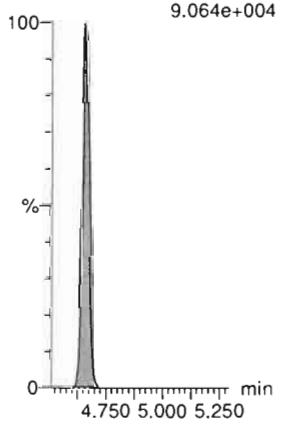
8:2 FTS



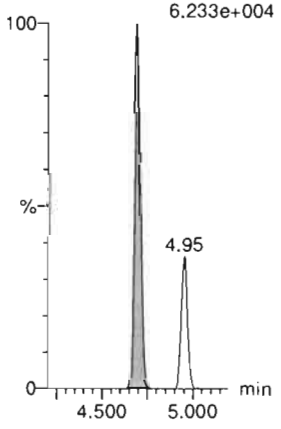
13C5-PFNA-EIS



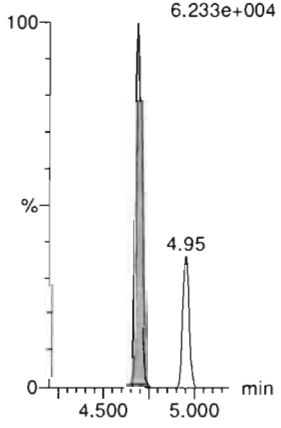
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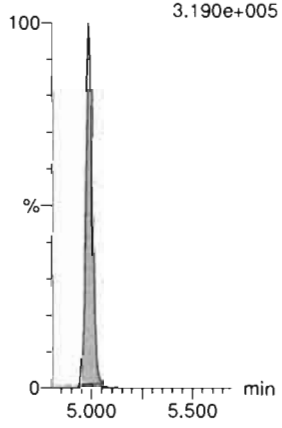
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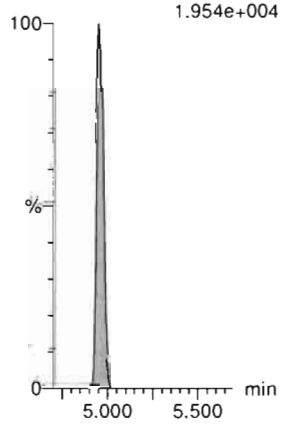
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13C2-PFDA-EIS



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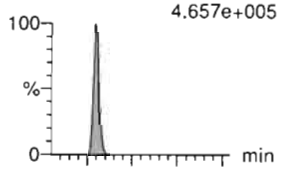


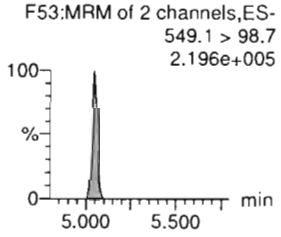
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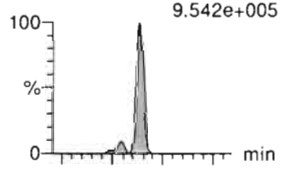
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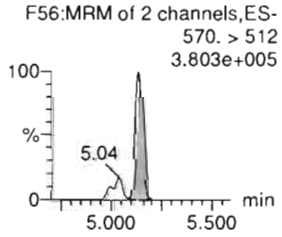
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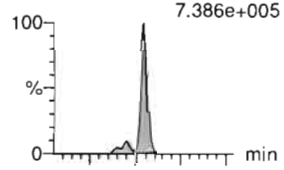


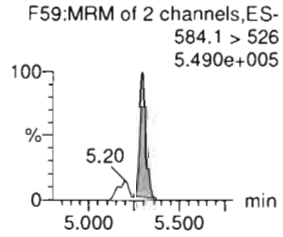
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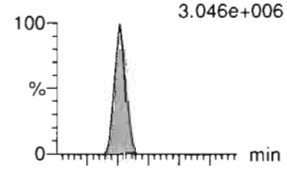


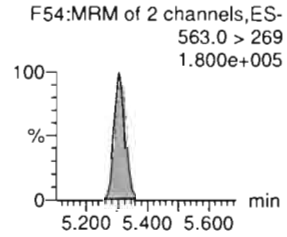
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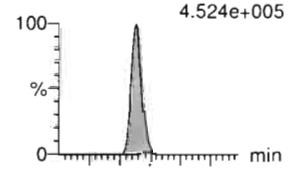


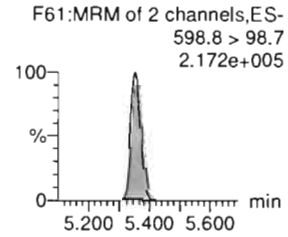
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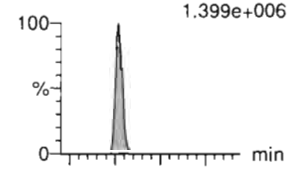


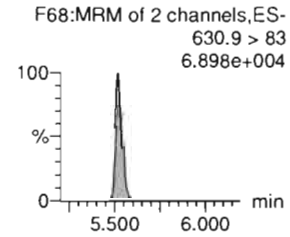
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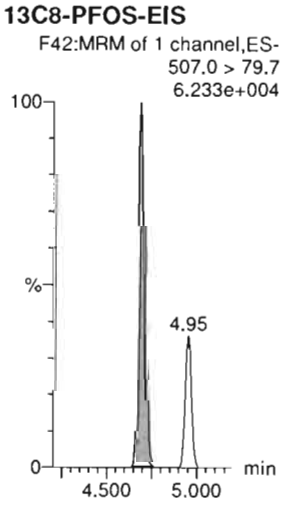


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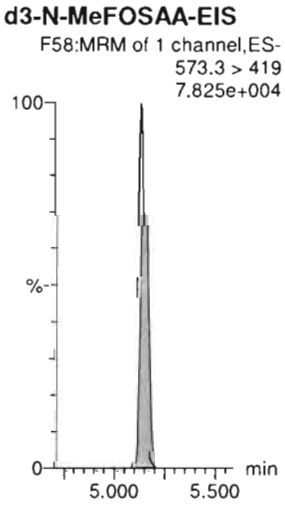




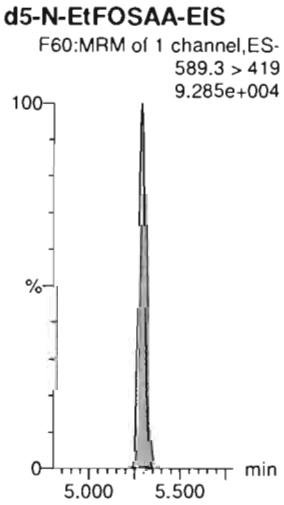
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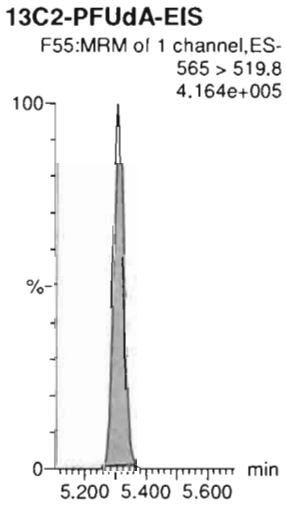
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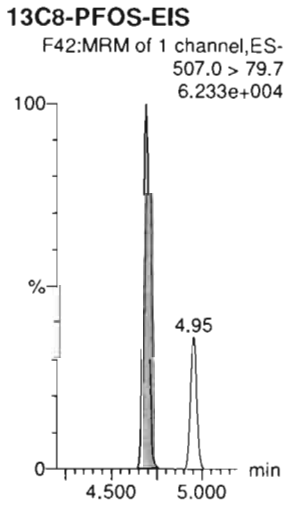
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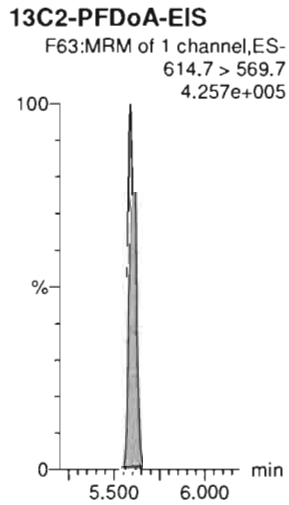
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

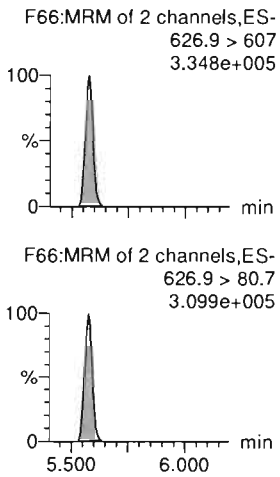


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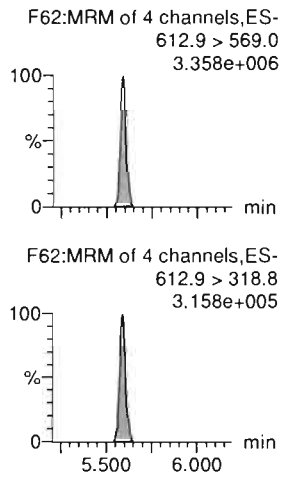
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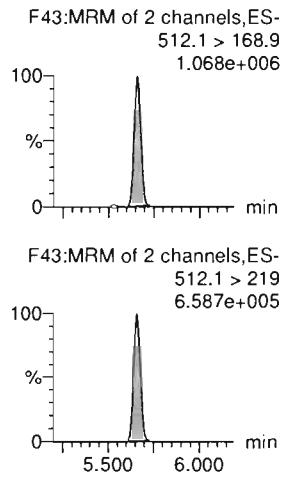
10:2 FTS



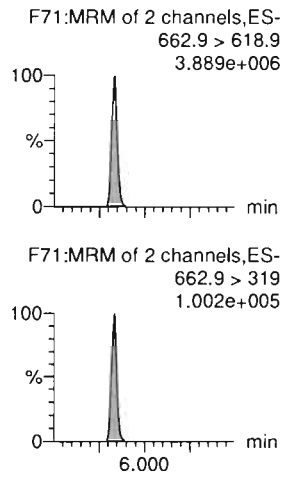
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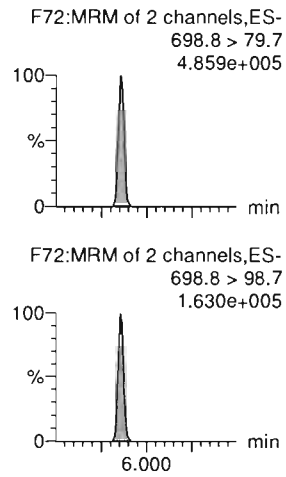
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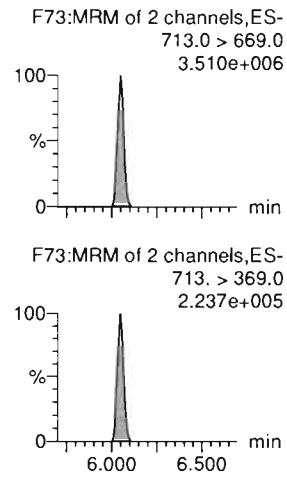
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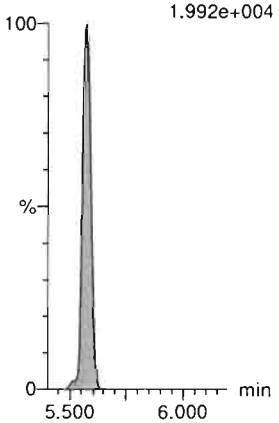
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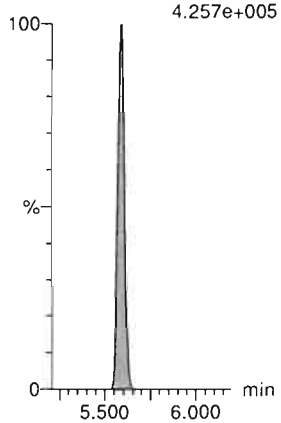
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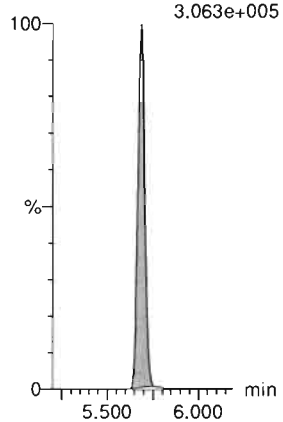
13C2-10:2 FTS-EIS



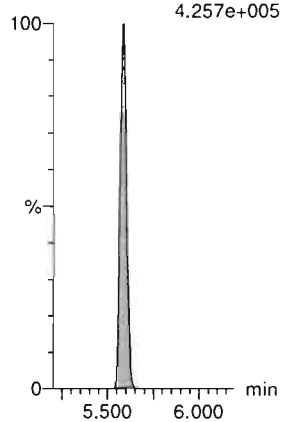
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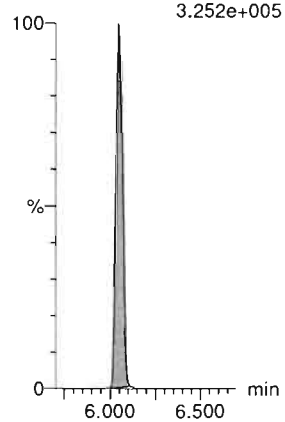
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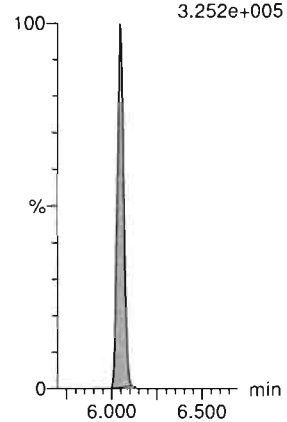
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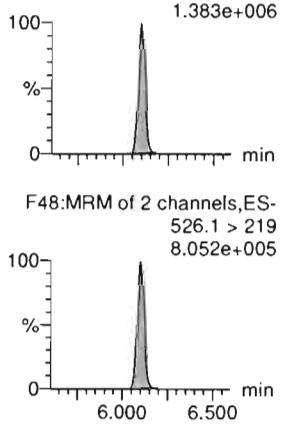


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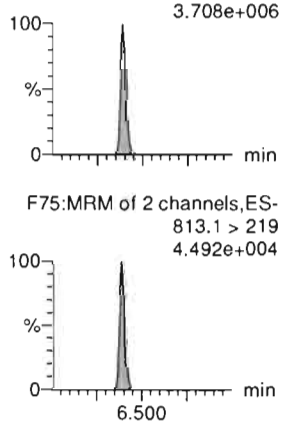
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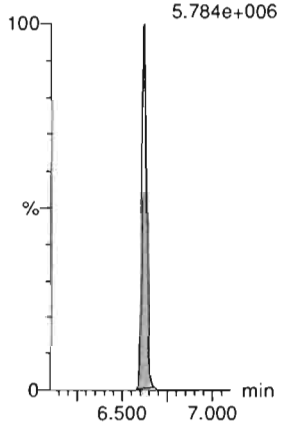
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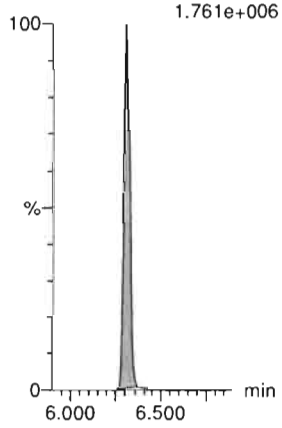
PFHxDA



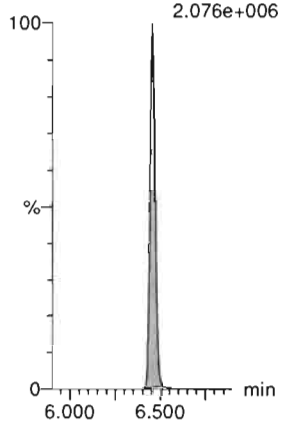
PFODA



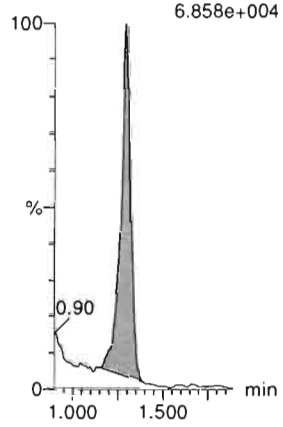
N-MeFOSE



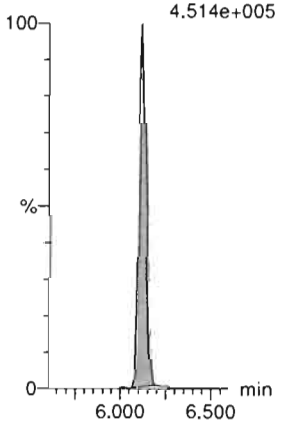
N-EtFOSE



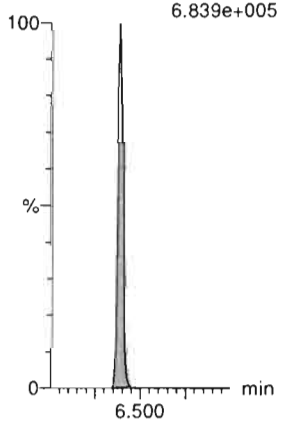
13C3-PFBA-RSD



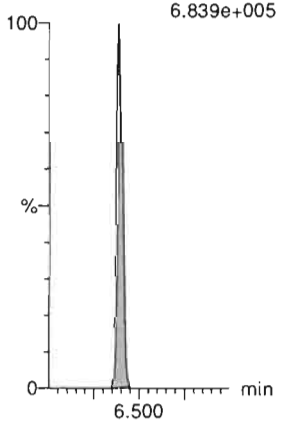
d5-N-ETFOSA-EIS



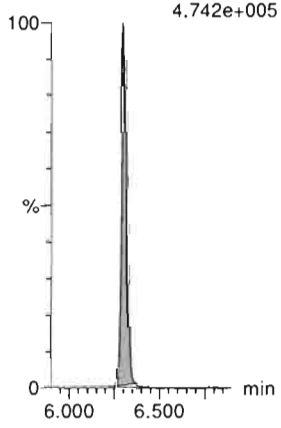
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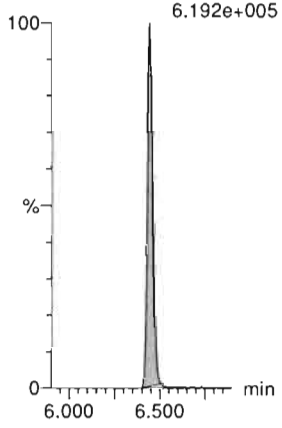
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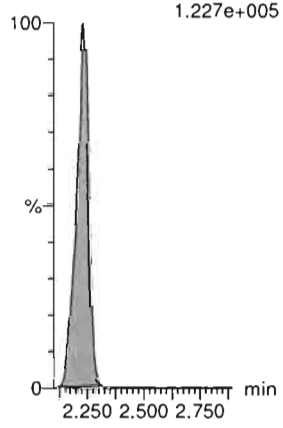
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

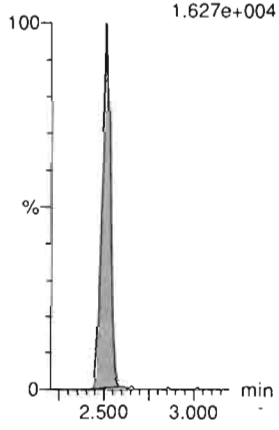


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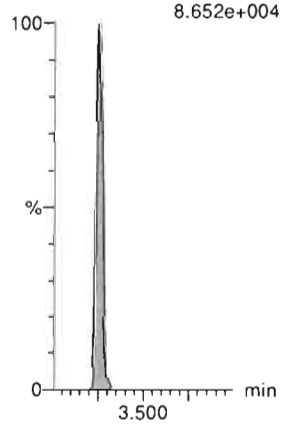
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Name: 200229P1-10, Date: 29-Feb-2020, Time: 16:59:31, ID: ST200229P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

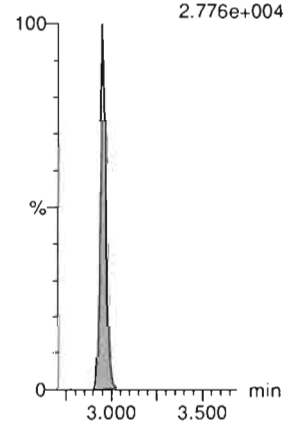
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.627e+004



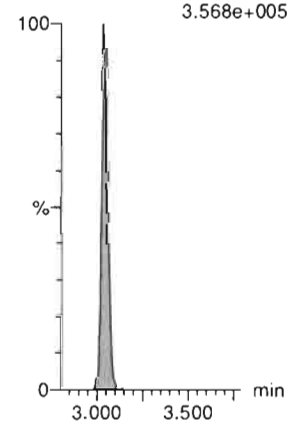
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.652e+004



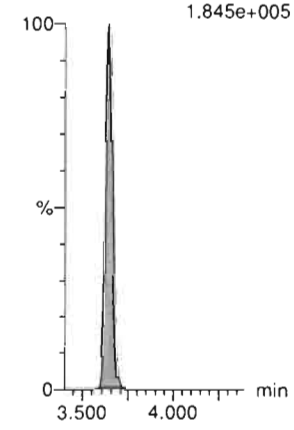
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
2.776e+004



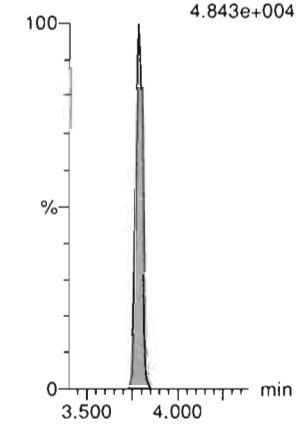
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.568e+005



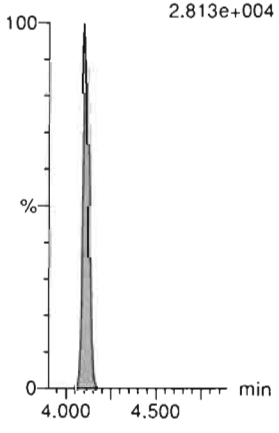
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.845e+005



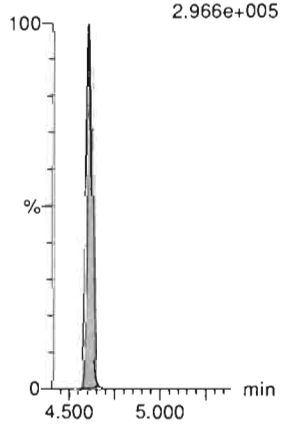
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
4.843e+004



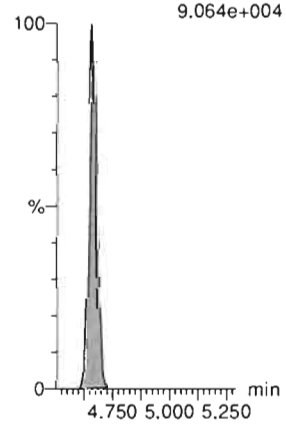
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.813e+004



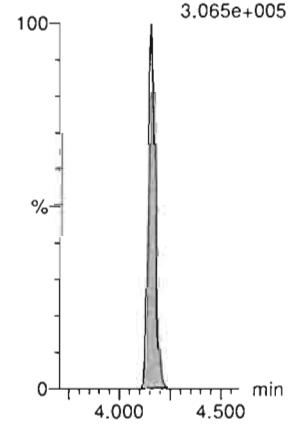
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
2.966e+005



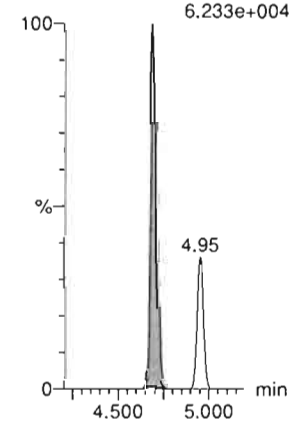
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.064e+004



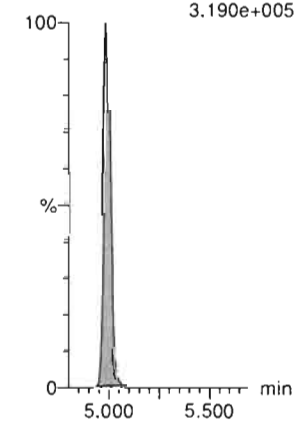
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
3.065e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.233e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.190e+005

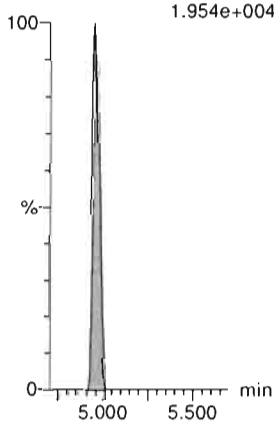


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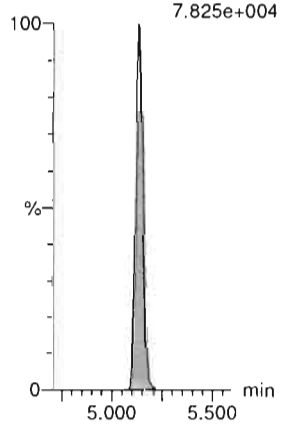
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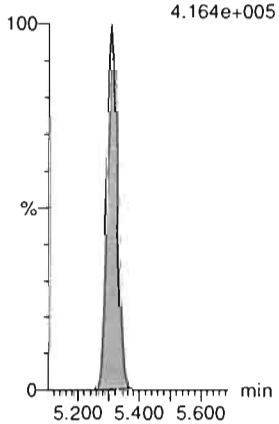
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
1.954e+004



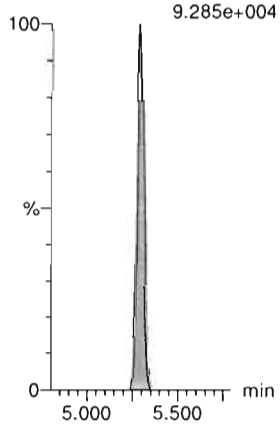
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
7.825e+004



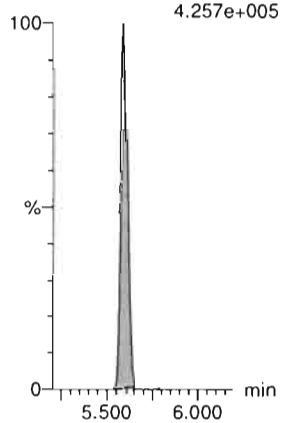
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
4.164e+005



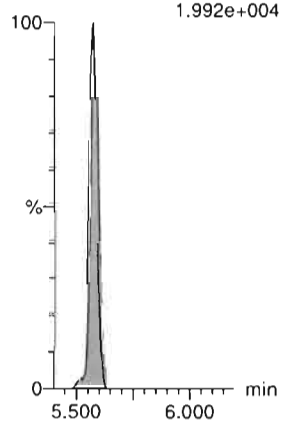
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
9.285e+004



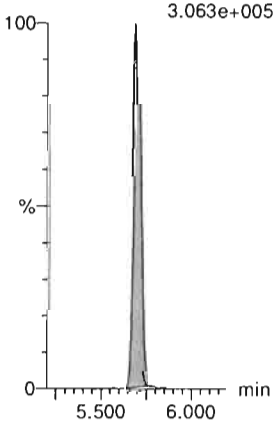
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.257e+005



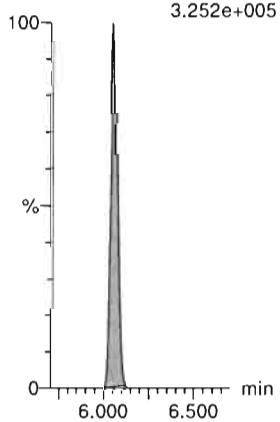
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.992e+004



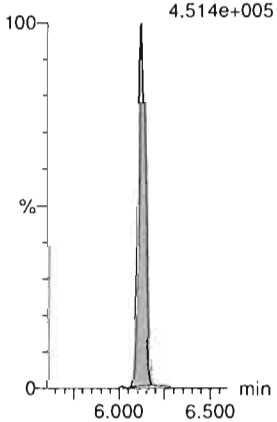
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.063e+005



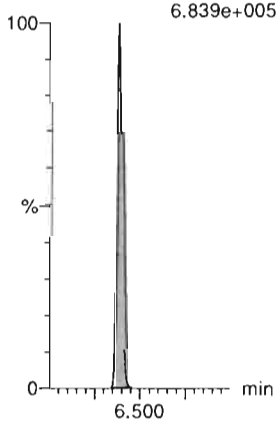
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.252e+005



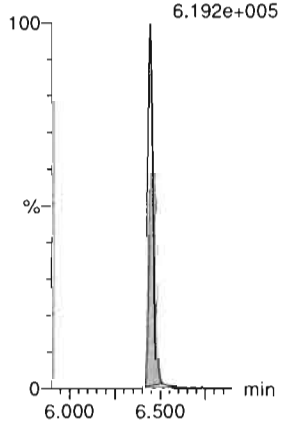
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.514e+005



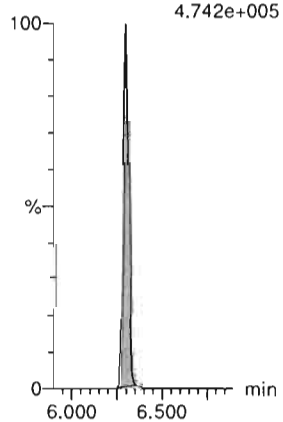
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
6.839e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.192e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.742e+005

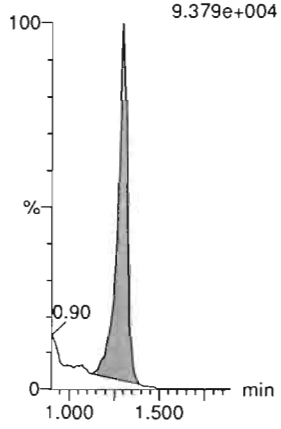


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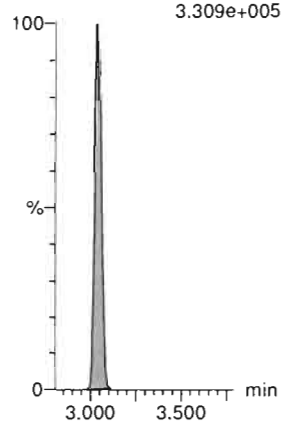
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Name: 200229P1-10, Date: 29-Feb-2020, Time: 16:59:31, ID: ST200229P1-8 PFC CS5 20B1109, Description: PFC CS5 20B1109

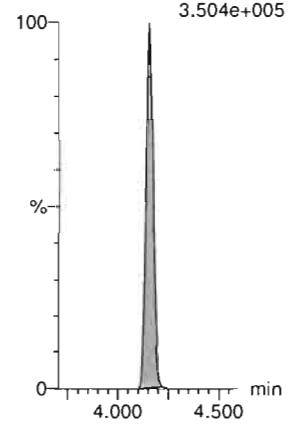
13C4-PFBA



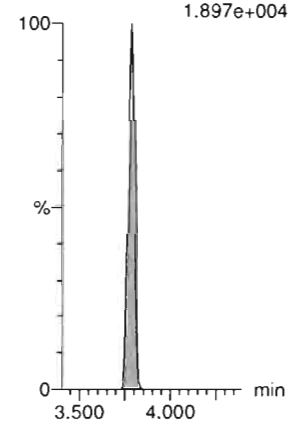
13C5-PFHxA



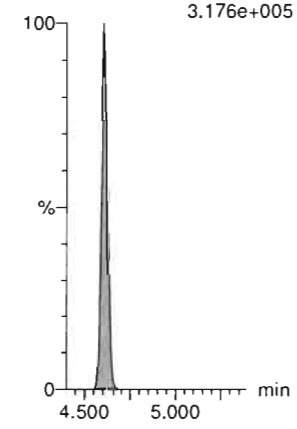
13C8-PFOA



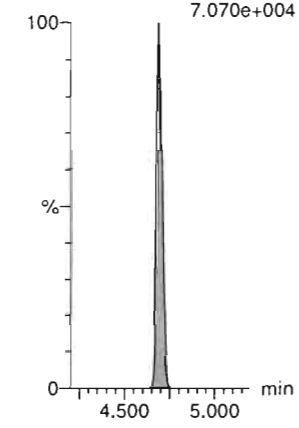
18O2-PFHxS



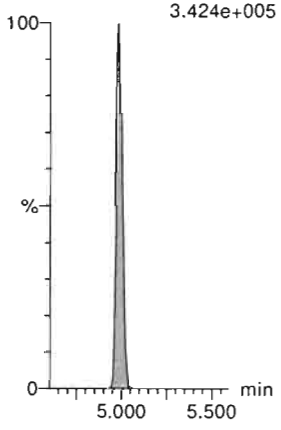
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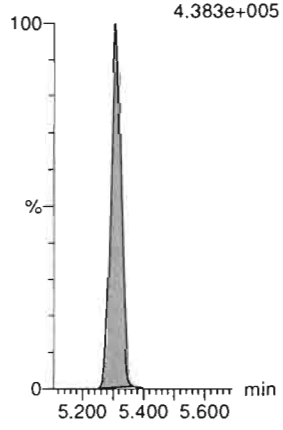
13C4-PFOS



13C6-PFDA



13C7-PFUdA

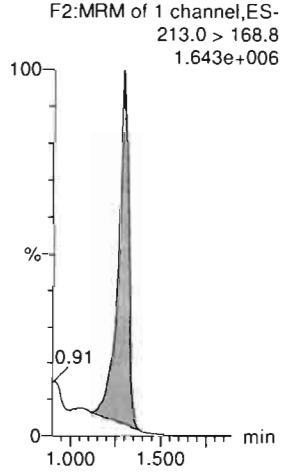


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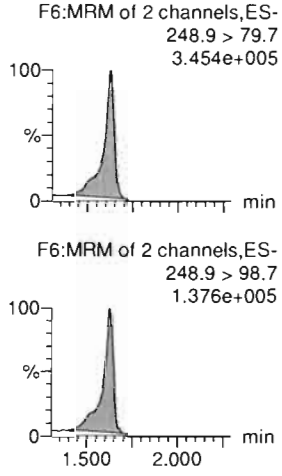
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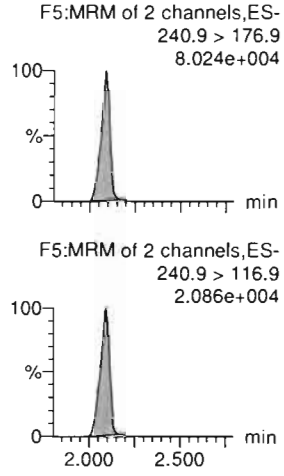
PFBA



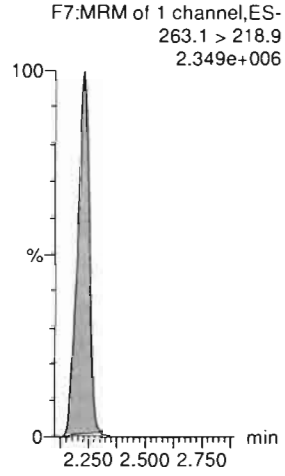
PFPrS



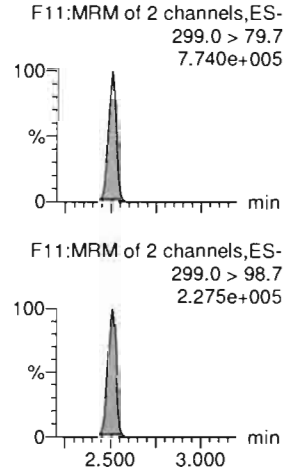
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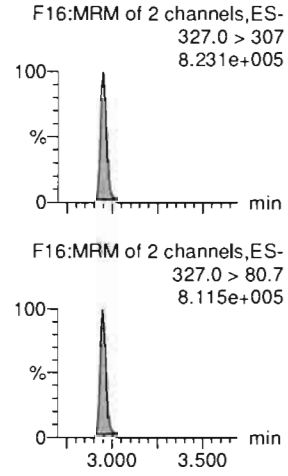
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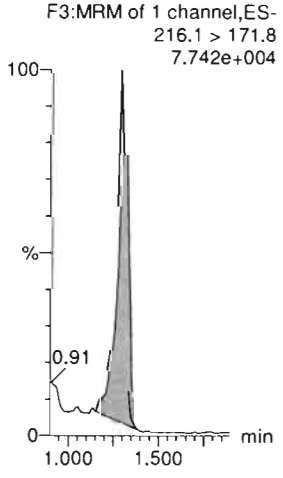
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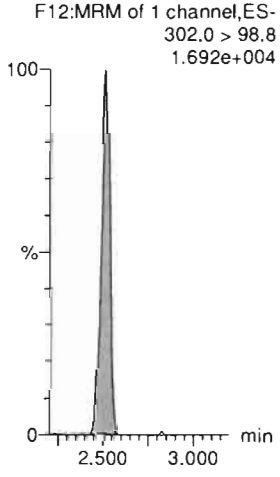
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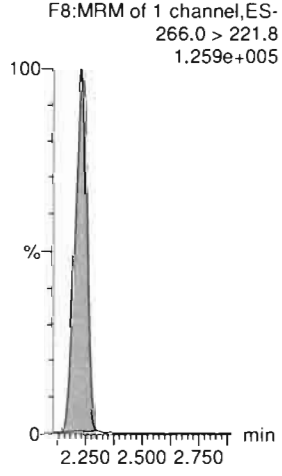
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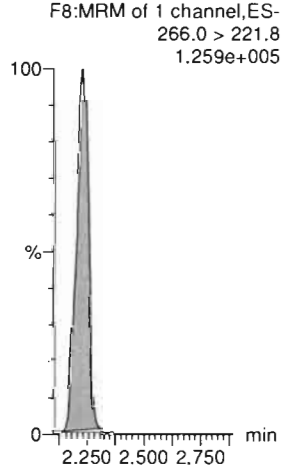
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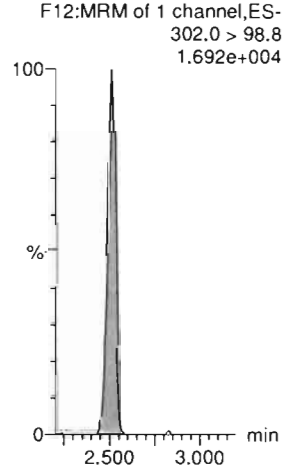
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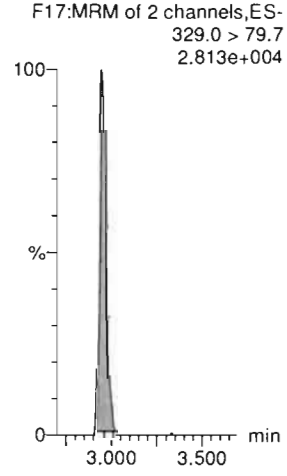
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13C3-PFBS-EIS



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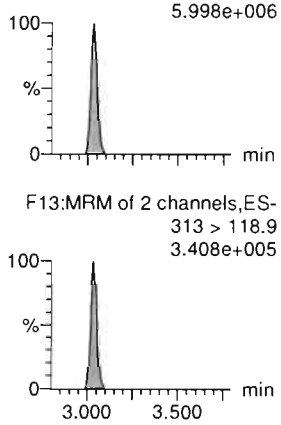


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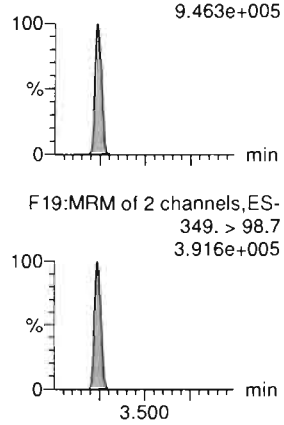
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Name: 200229P1-11, Date: 29-Feb-2020, Time: 17:10:00, ID: ST200229P1-9 PFC CS6 20B1110, Description: PFC CS6 20B1110

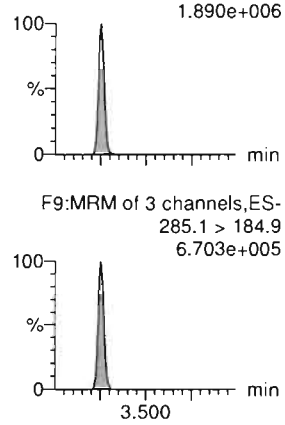
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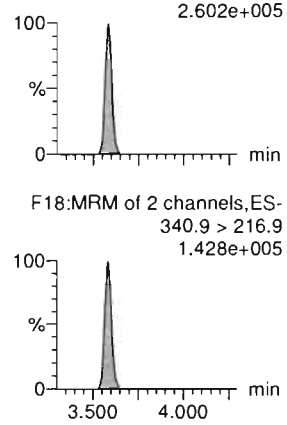
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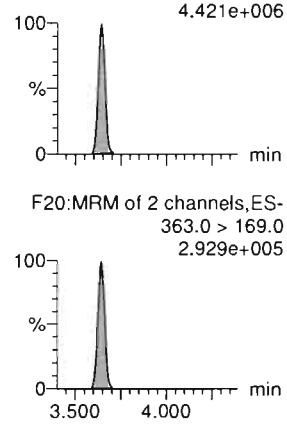
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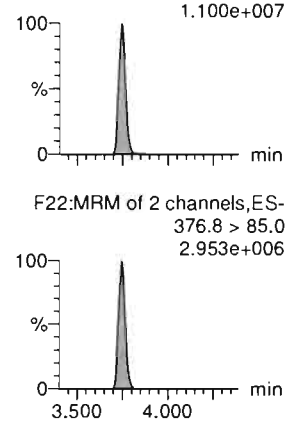
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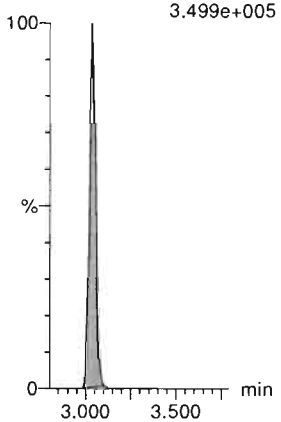
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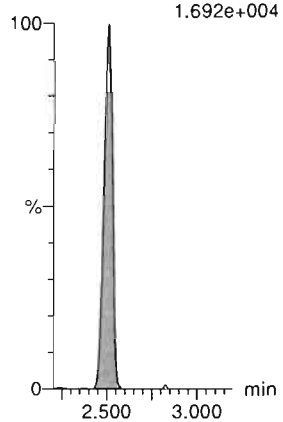
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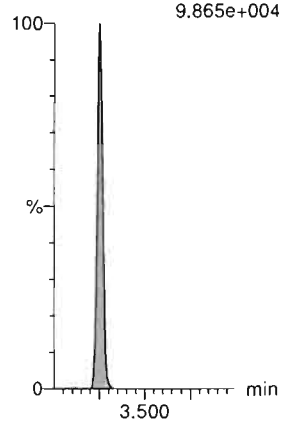
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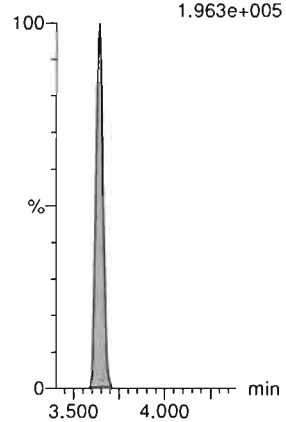
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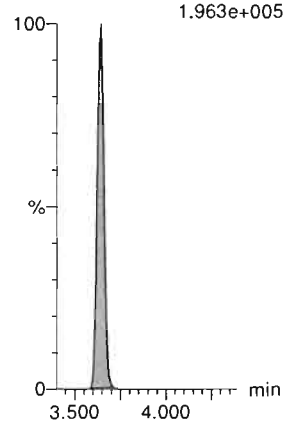
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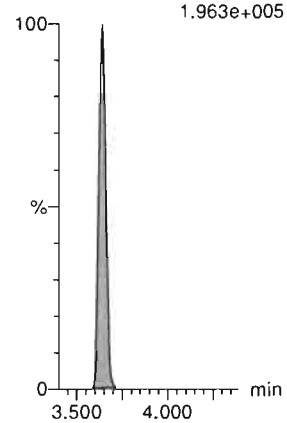
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13C4-PFHpA-EIS



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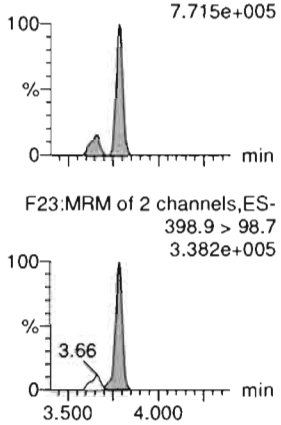


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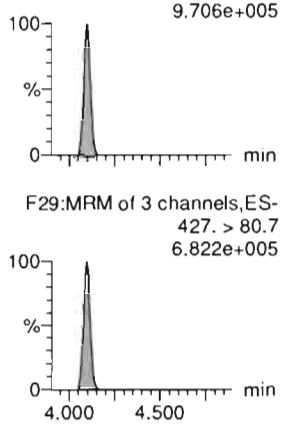
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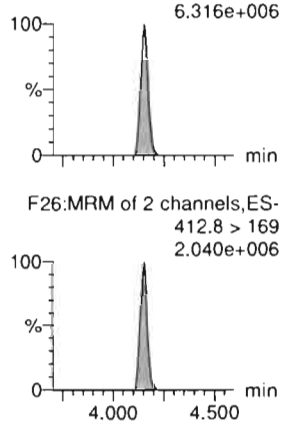
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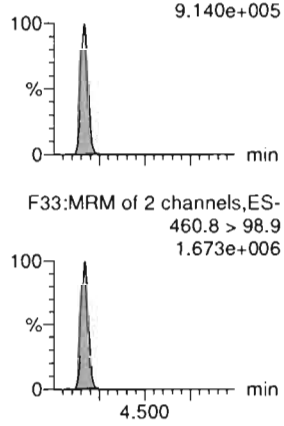
6:2 FTS



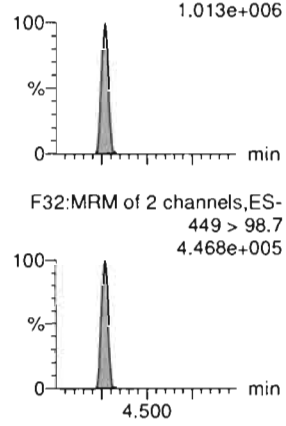
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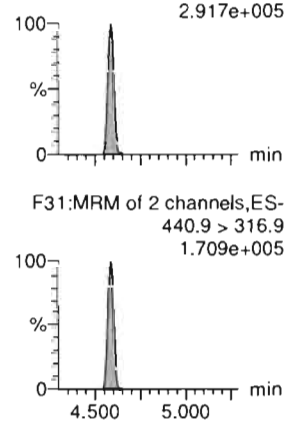
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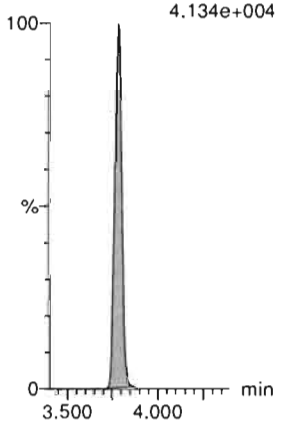
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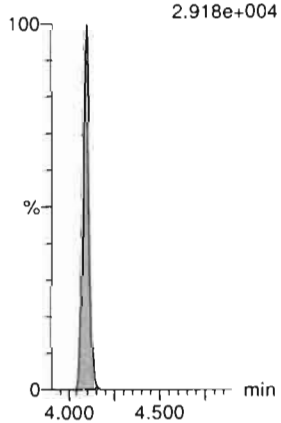
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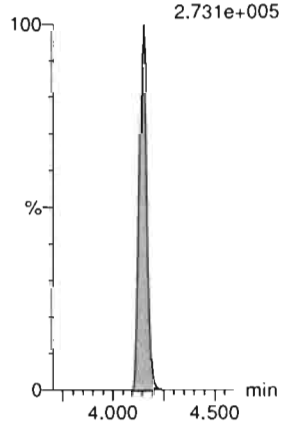
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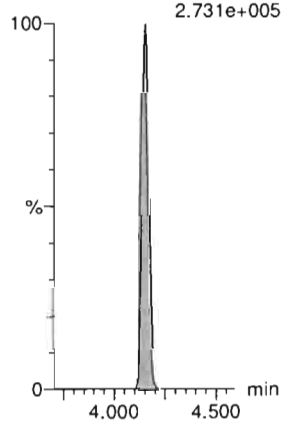
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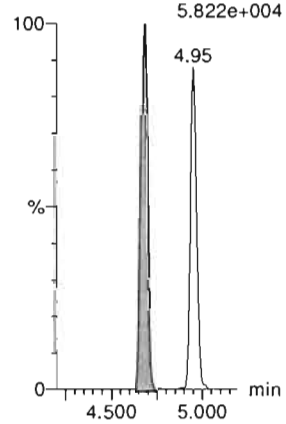
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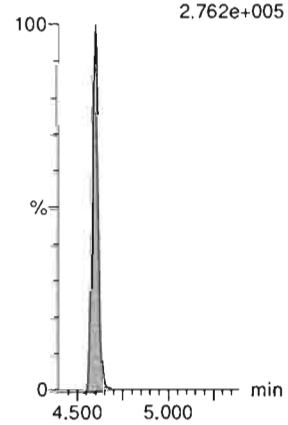
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13C8-PFOS-EIS



13C5-PFNA-EIS

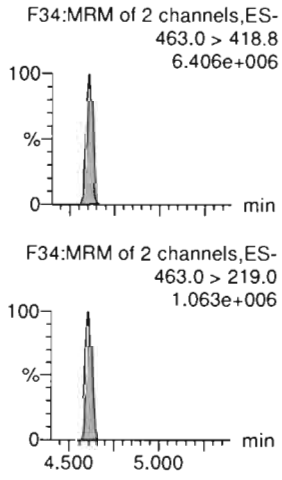


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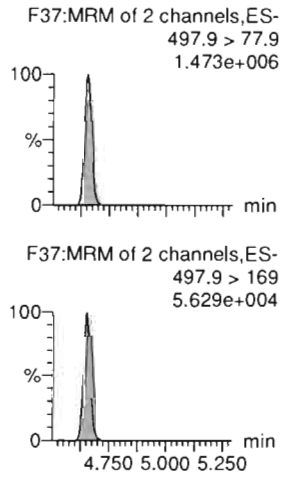
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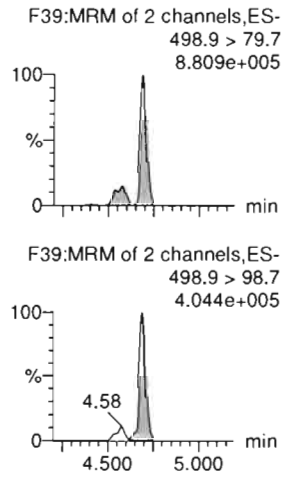
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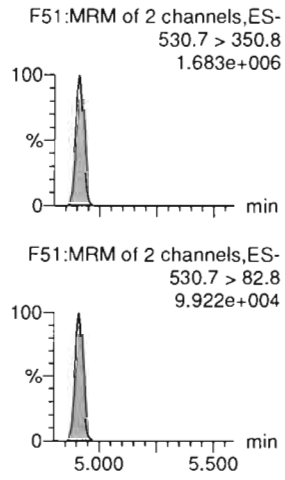
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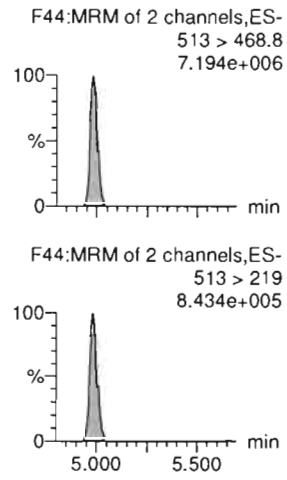
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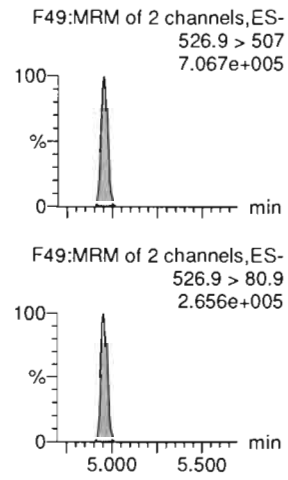
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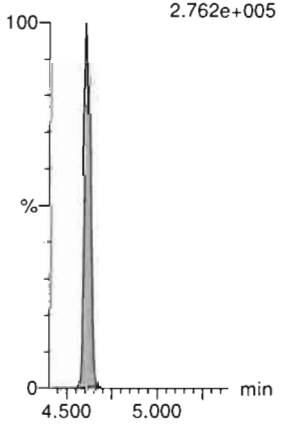
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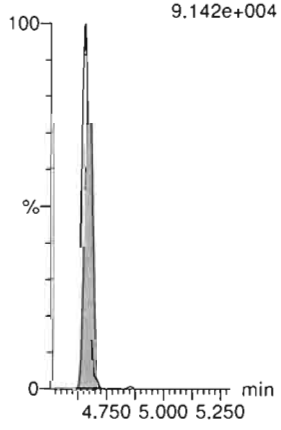
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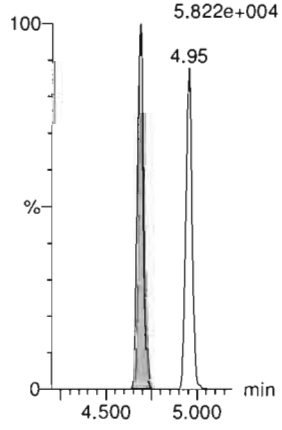
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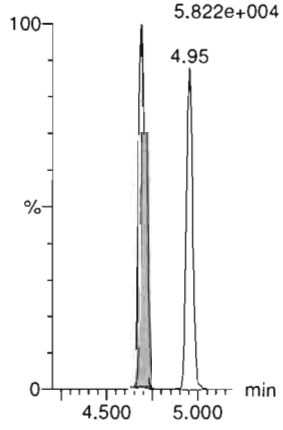
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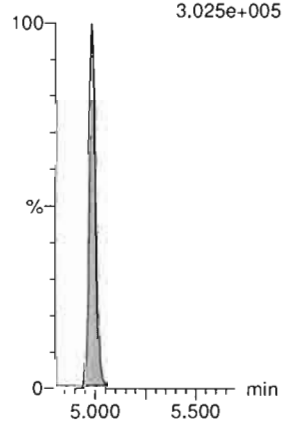
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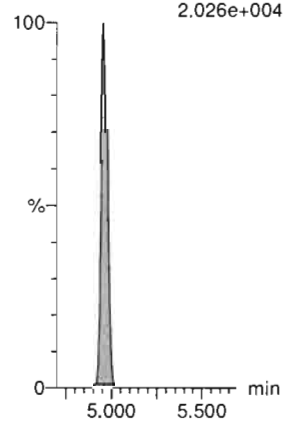
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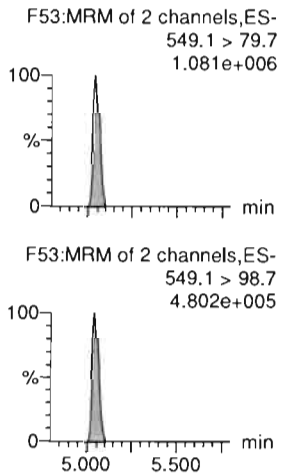


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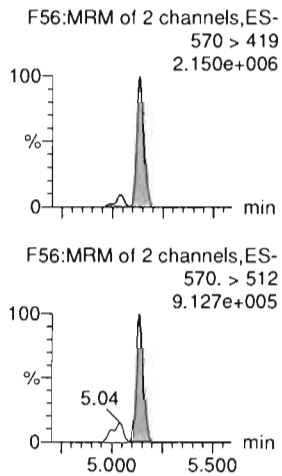
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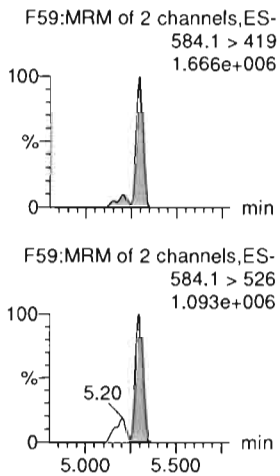
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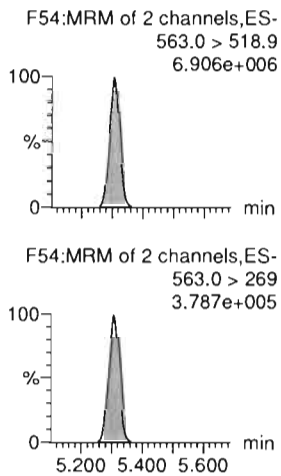
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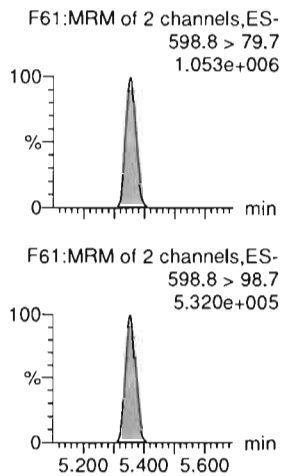
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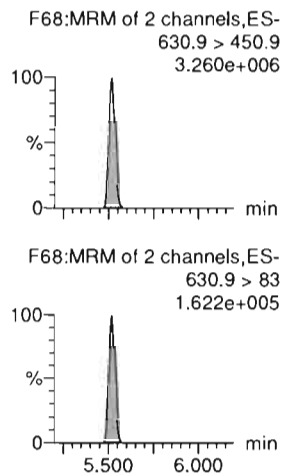
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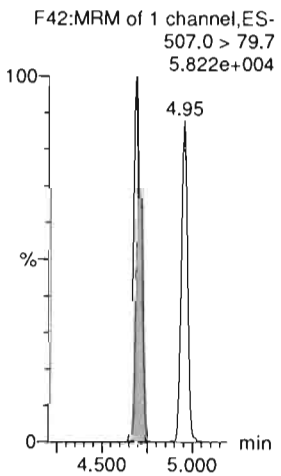
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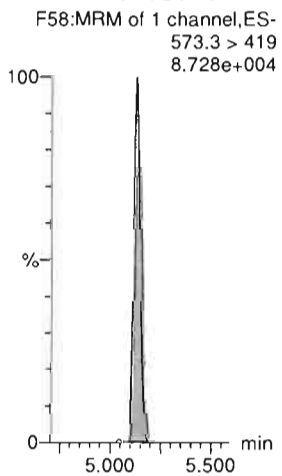
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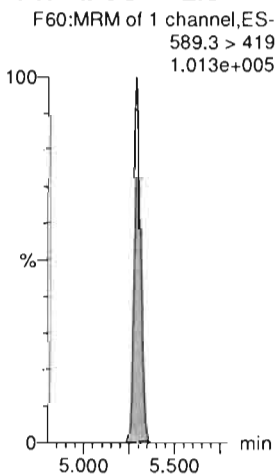
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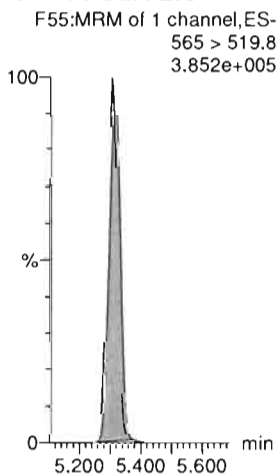
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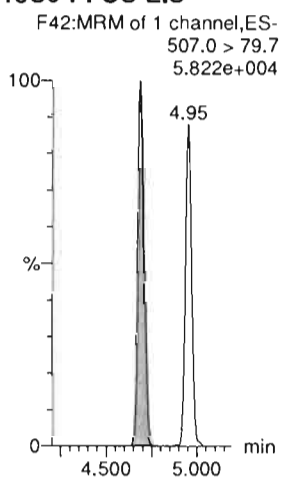
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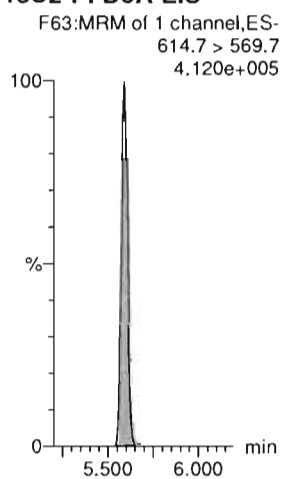
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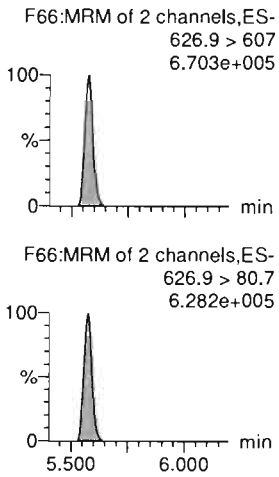


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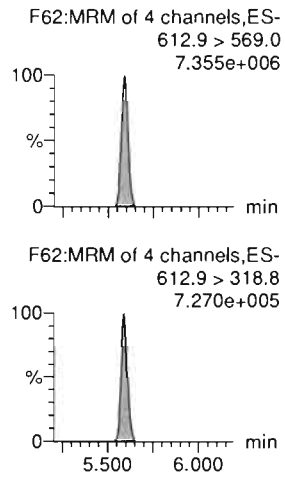
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Name: 200229P1-11, Date: 29-Feb-2020, Time: 17:10:00, ID: ST200229P1-9 PFC CS6 20B1110, Description: PFC CS6 20B1110

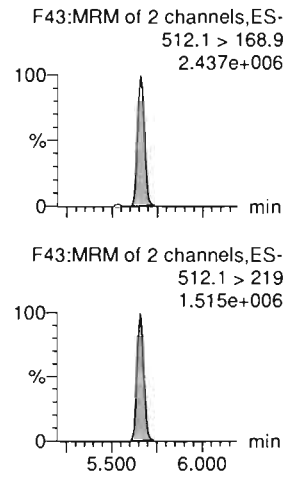
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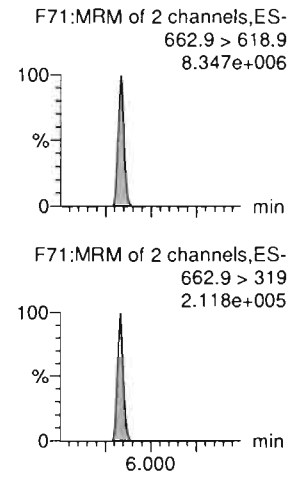
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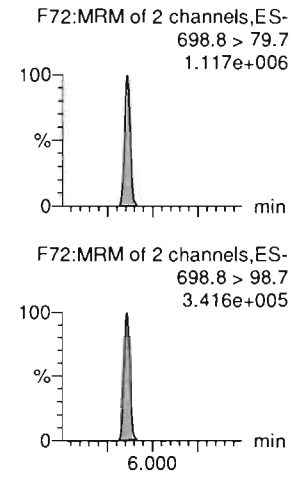
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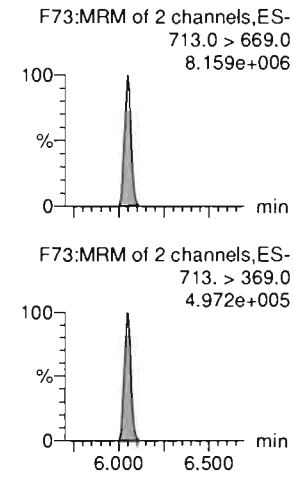
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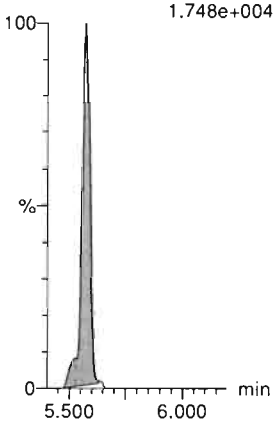
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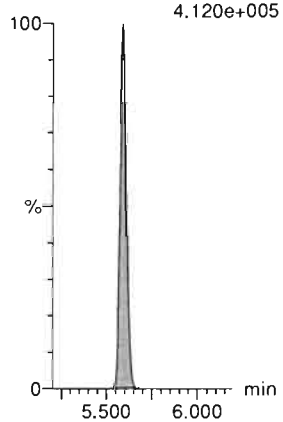
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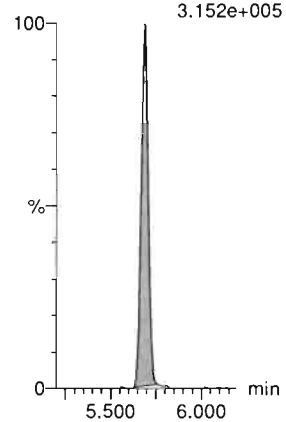
13C2-10:2 FTS-EIS



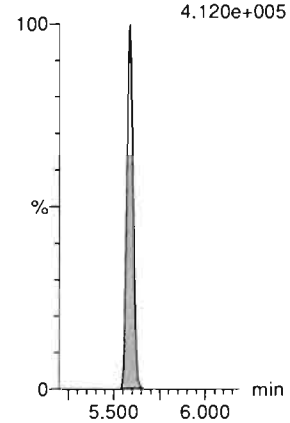
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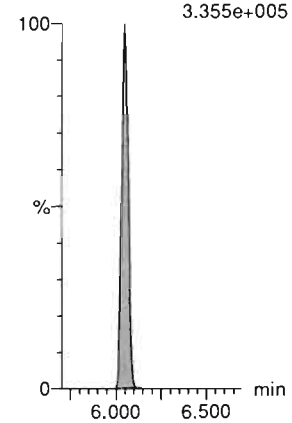
d3-N-MeFOSA-EIS



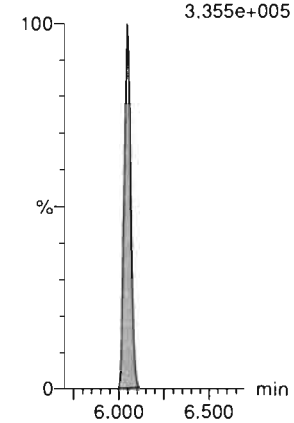
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

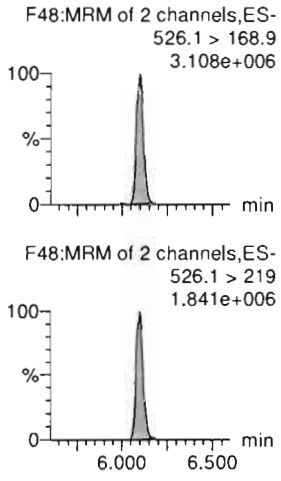


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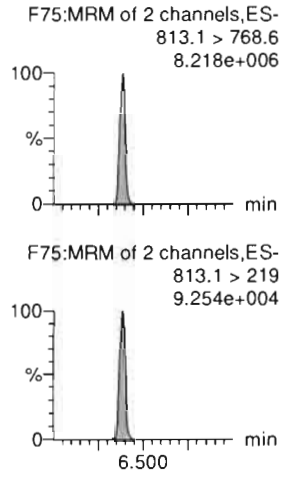
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Name: 200229P1-11, Date: 29-Feb-2020, Time: 17:10:00, ID: ST200229P1-9 PFC CS6 20B1110, Description: PFC CS6 20B1110

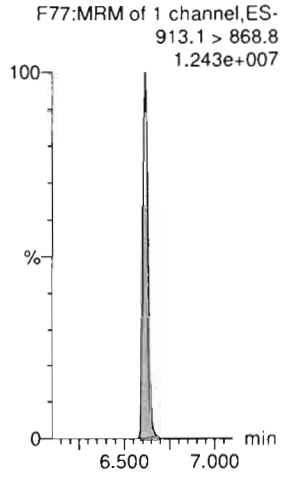
N-EtFOSA



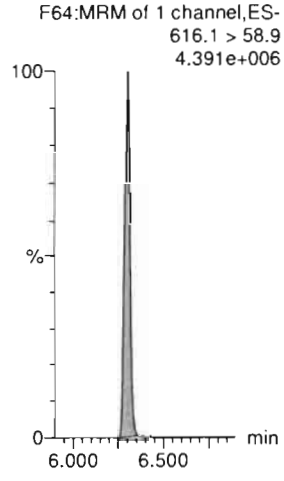
PFHxDA



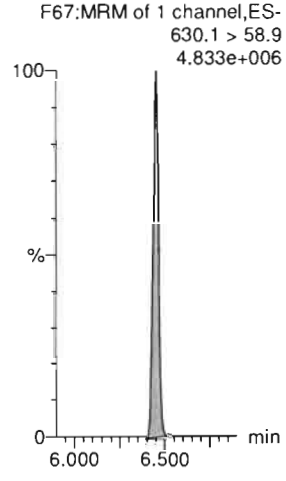
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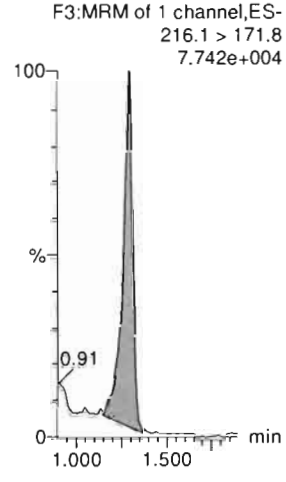
N-MeFOSE



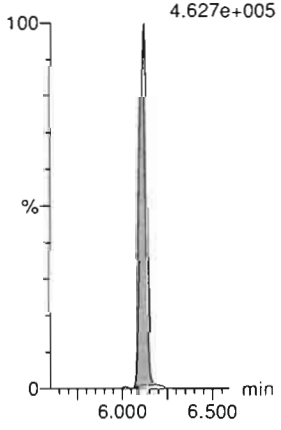
N-EtFOSE



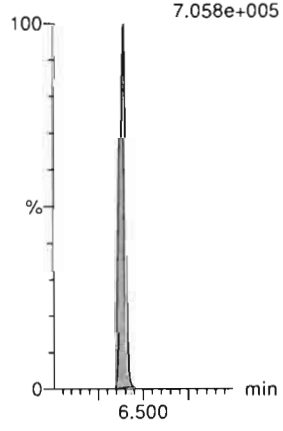
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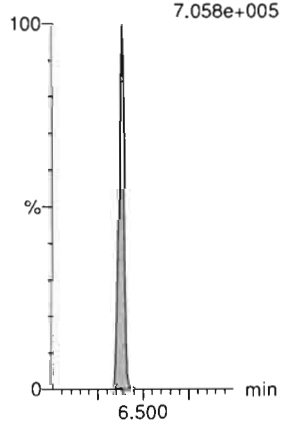
d5-N-ETFOSA-EIS



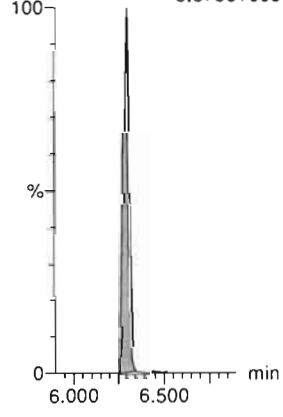
13C2-PFHxDA-EIS



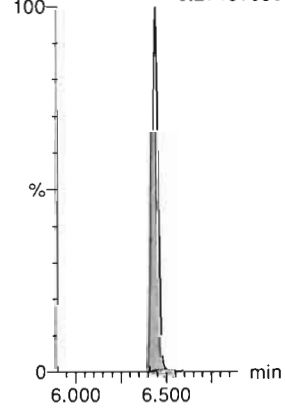
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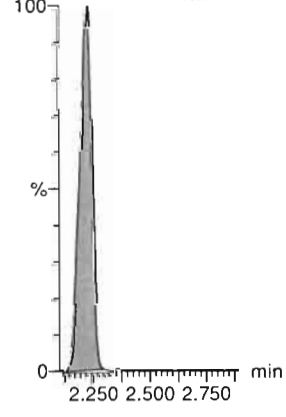
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

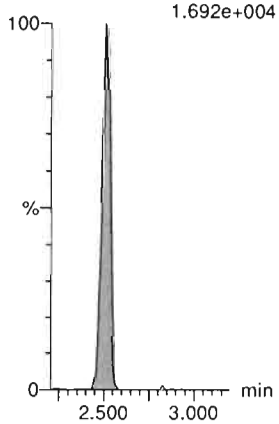


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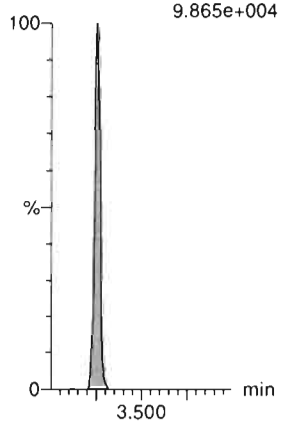
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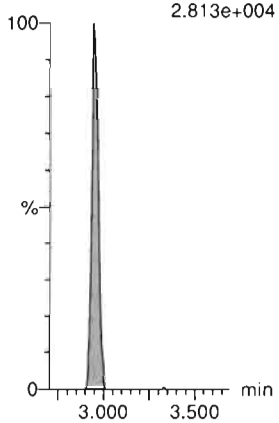
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.692e+004



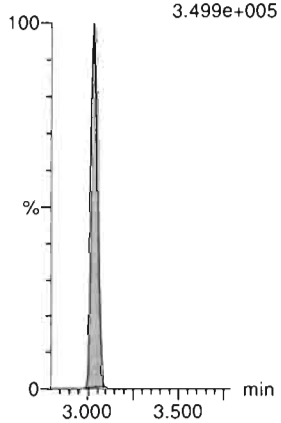
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
9.865e+004



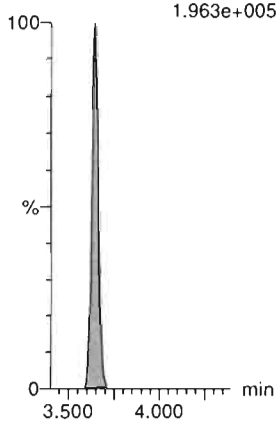
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
2.813e+004



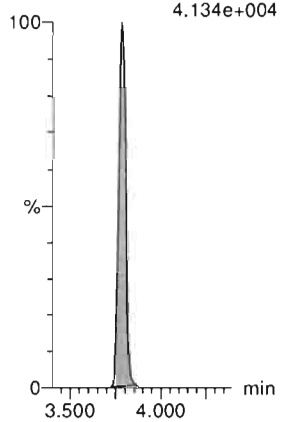
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.499e+005



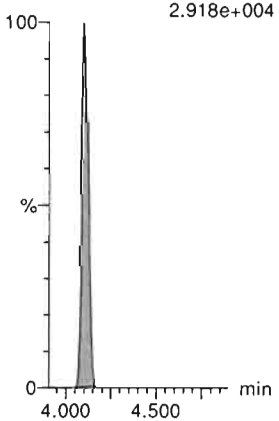
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.963e+005



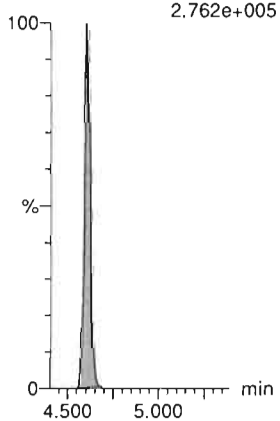
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
4.134e+004



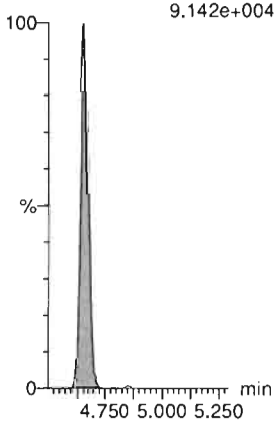
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.918e+004



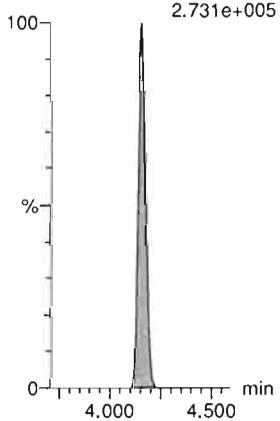
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
2.762e+005



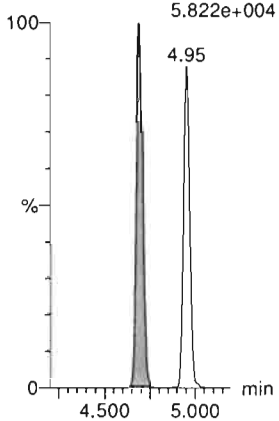
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
9.142e+004



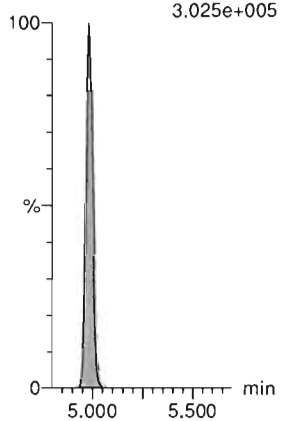
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
2.731e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
5.822e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.025e+005

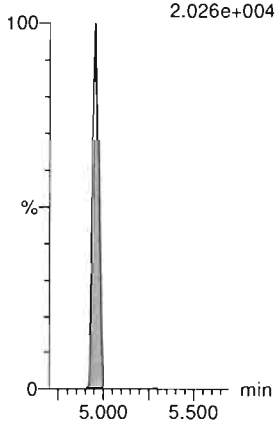


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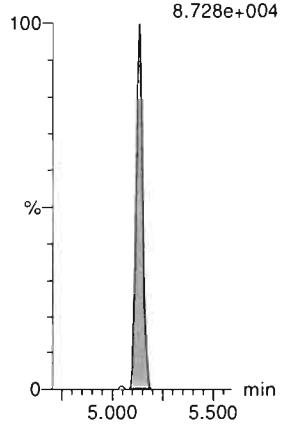
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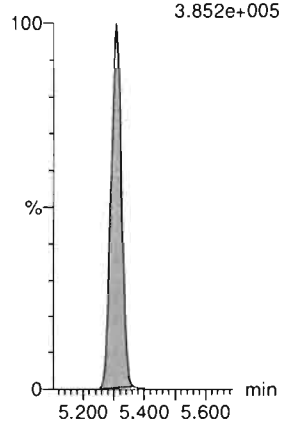
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.026e+004



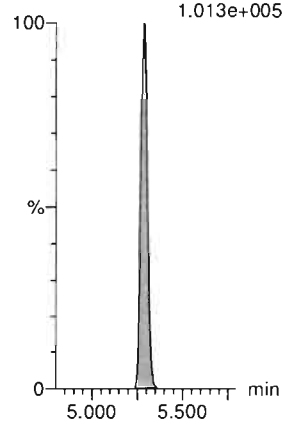
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F58:MRM of 1 channel,ES-
573.3 > 419
8.728e+004



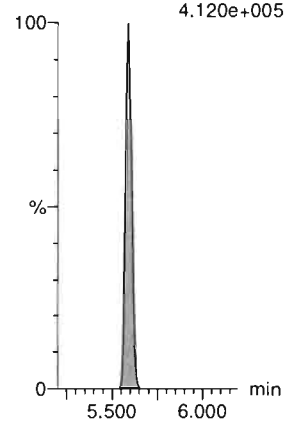
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
3.852e+005



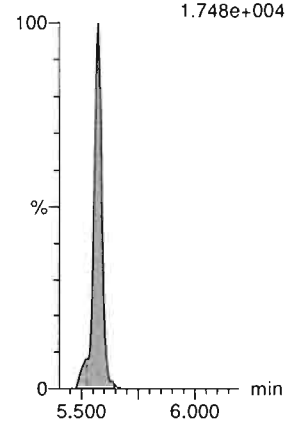
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F60:MRM of 1 channel,ES-
589.3 > 419
1.013e+005



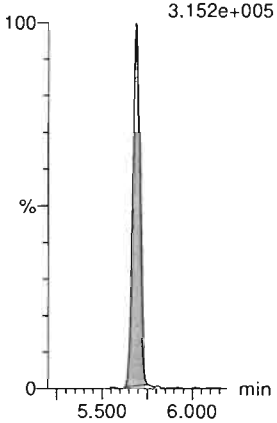
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
4.120e+005



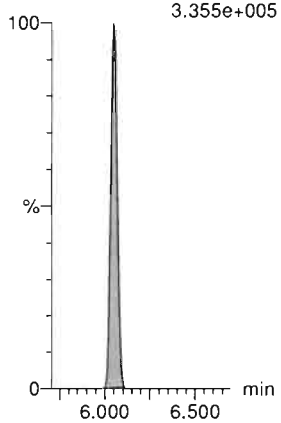
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.748e+004



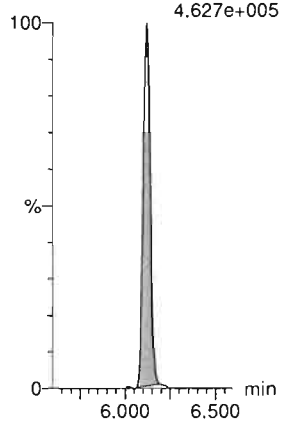
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.152e+005



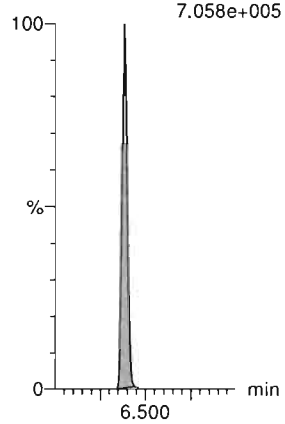
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.355e+005



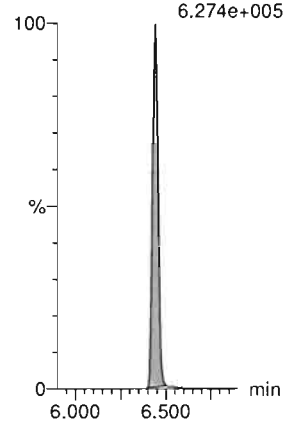
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.627e+005



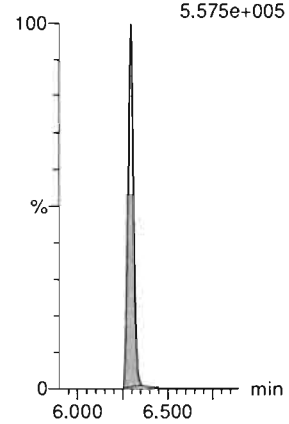
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
7.058e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
6.274e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
5.575e+005

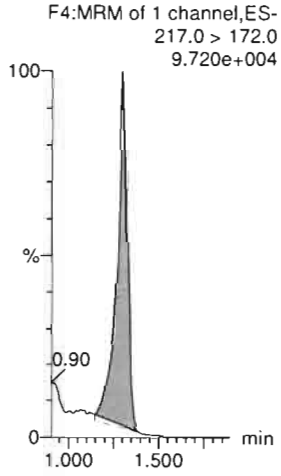


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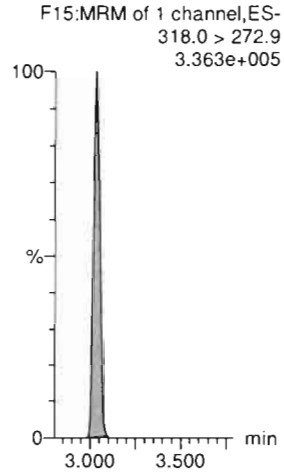
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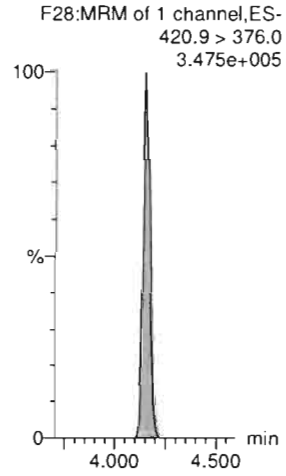
13C4-PFBA



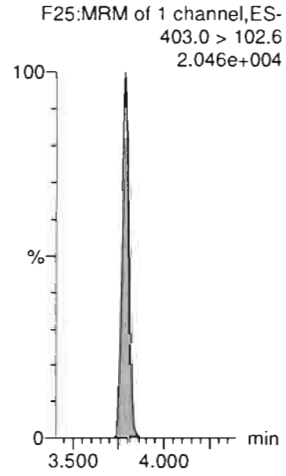
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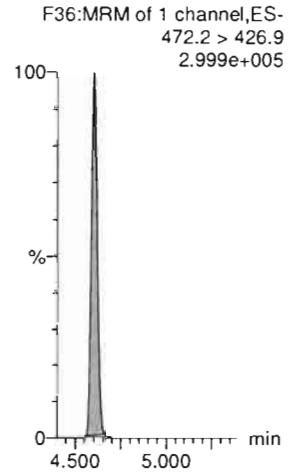
13C8-PFOA



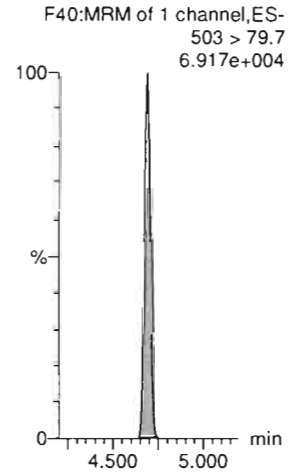
18O2-PFHxS



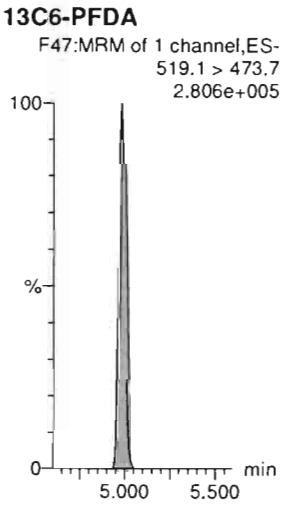
13C9-PFNA



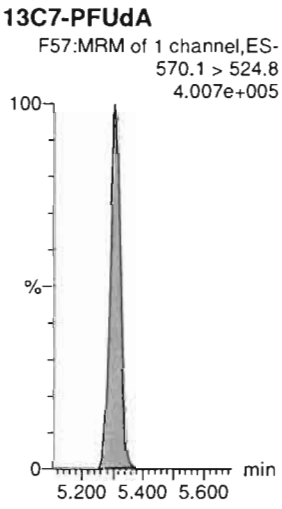
13C4-PFOS



13C6-PFDA



13C7-PFUdA

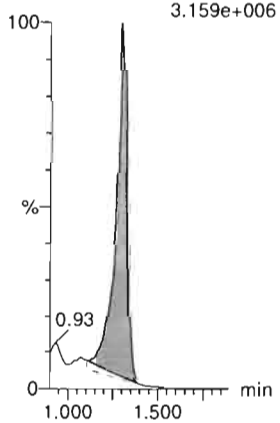


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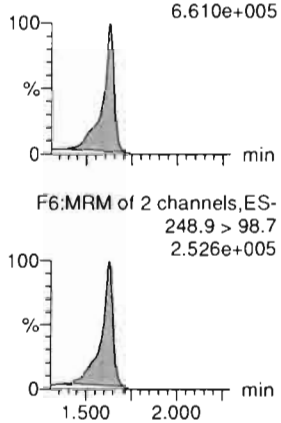
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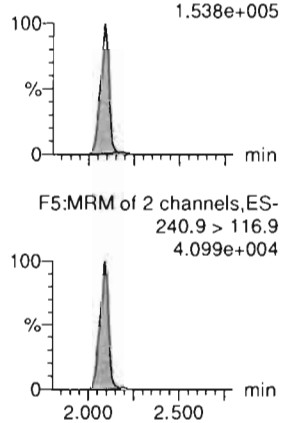
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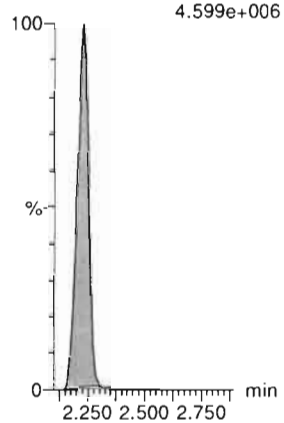
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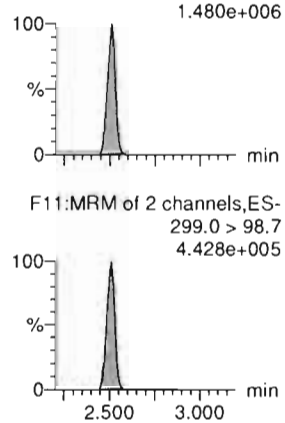
3:3 FTCA



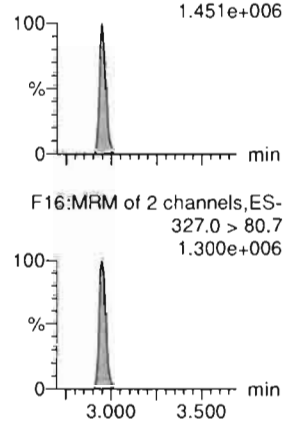
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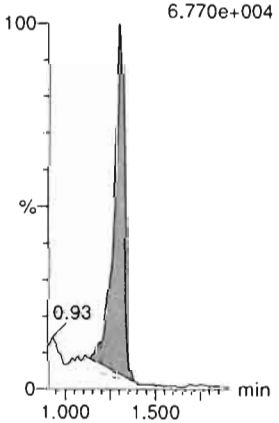
PFBS



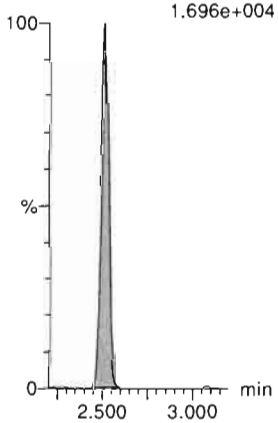
4:2 FTS



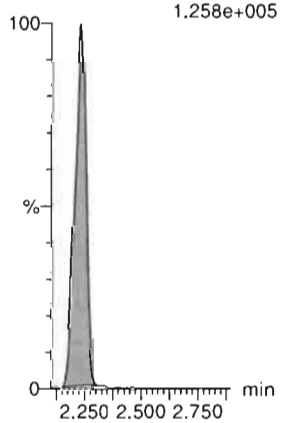
13C3-PFBA-EIS



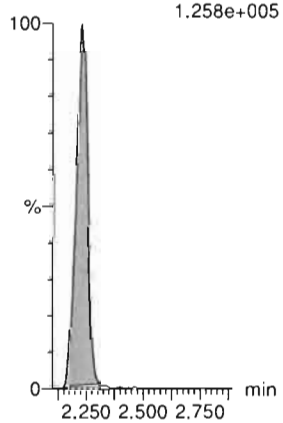
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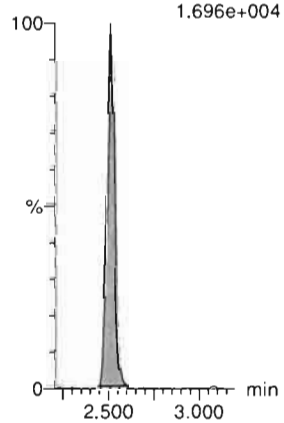
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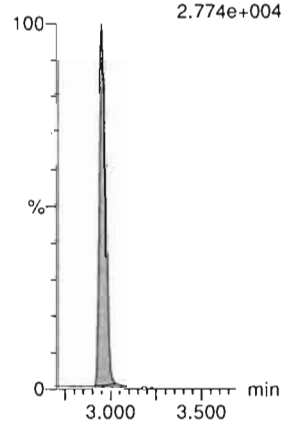
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

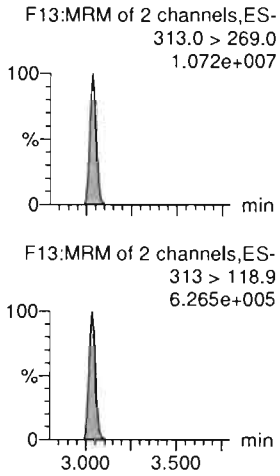


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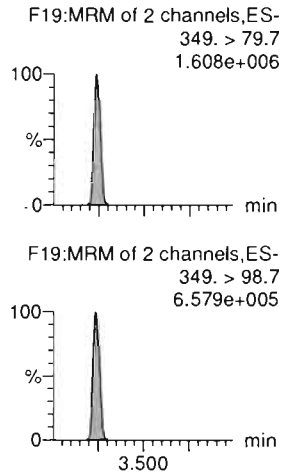
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Name: 200229P1-12, Date: 29-Feb-2020, Time: 17:20:30, ID: ST200229P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

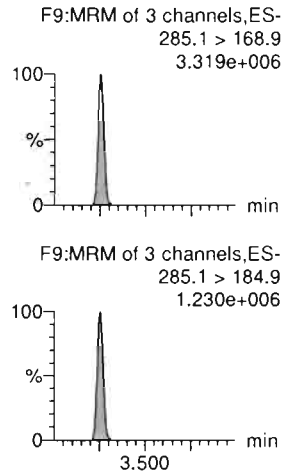
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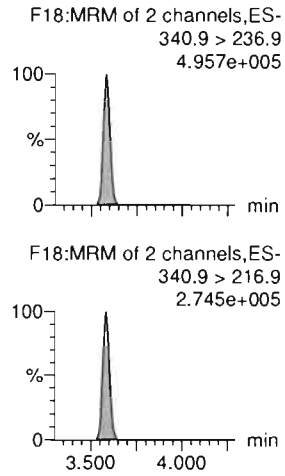
PFPeS



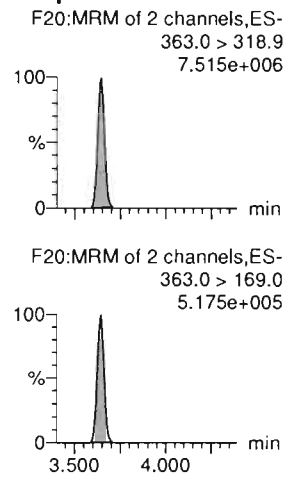
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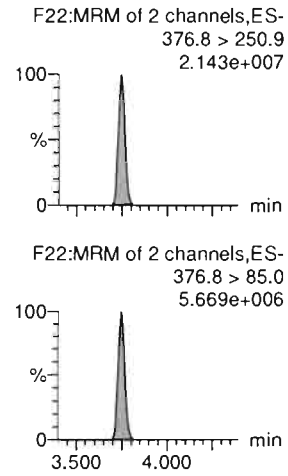
5:3 FTCA



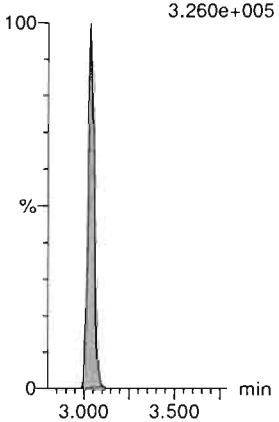
PFHpA



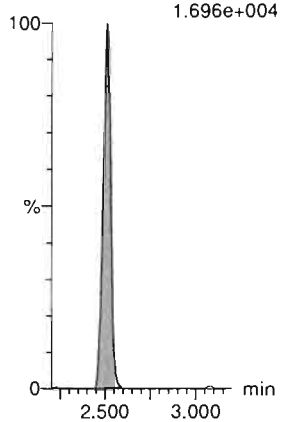
ADONA



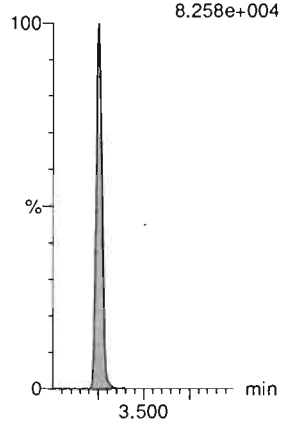
13C2-PFHxA-EIS



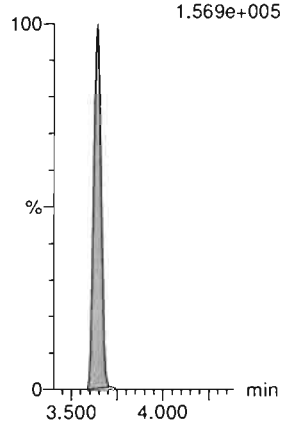
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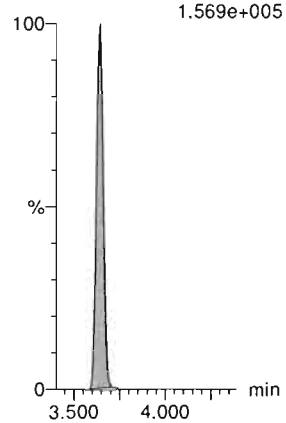
13C3-HFPO-DA-EIS



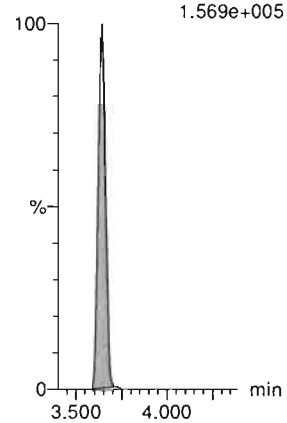
13C4-PFHpA-EIS



13C4-PFHpA-EIS



13C4-PFHpA-EIS

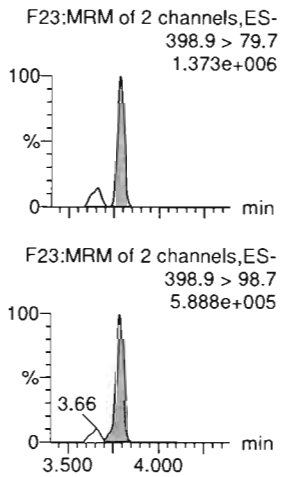


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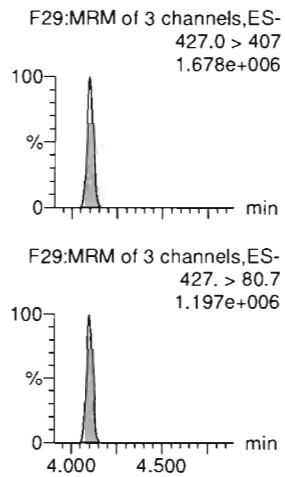
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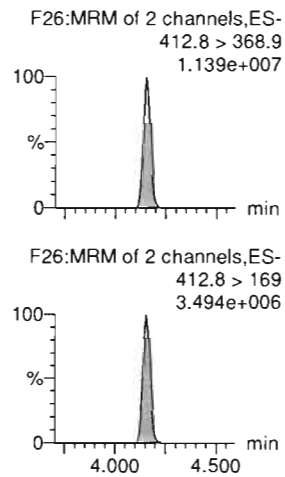
L-PFHxS



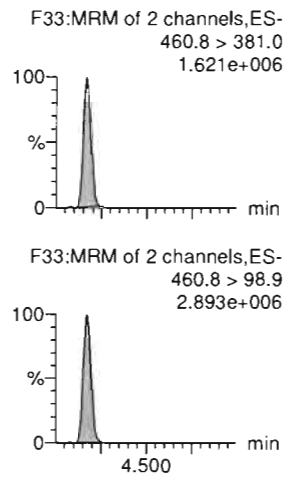
6:2 FTS



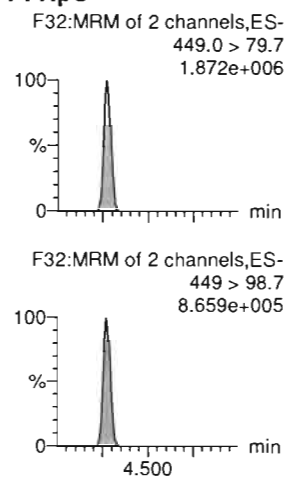
L-PFOA



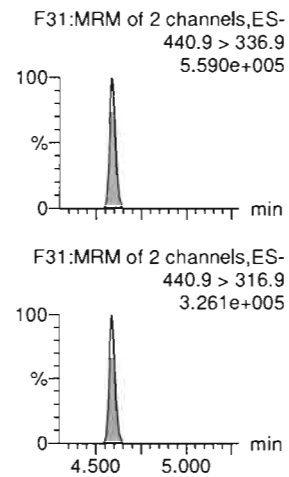
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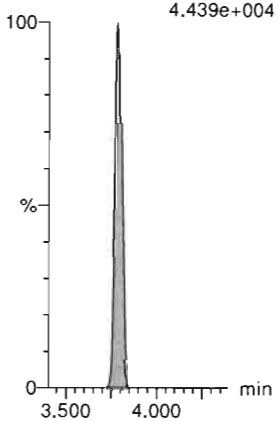
PFHpS



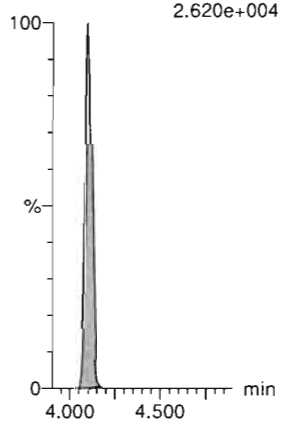
7:3 FTCA



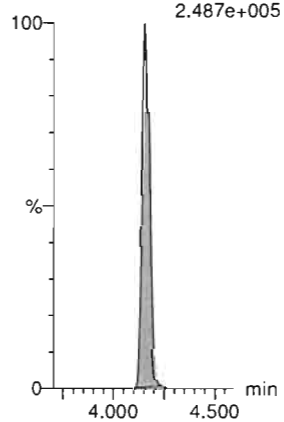
13C3-PFHxS-EIS



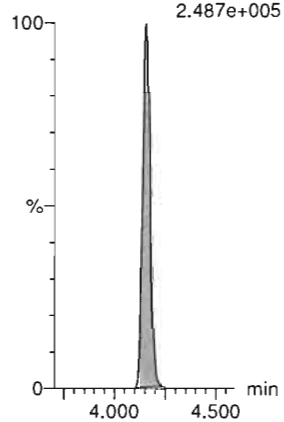
13C2-6:2 FTS-EIS



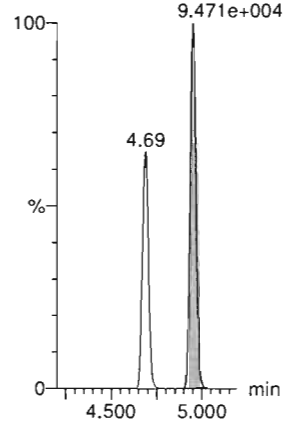
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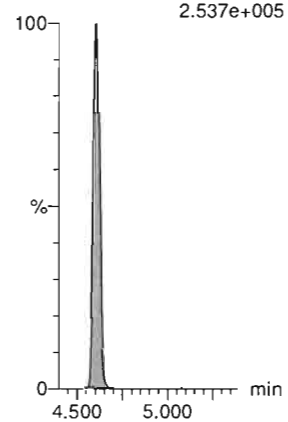
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13C8-PFOS-EIS



13C5-PFNA-EIS

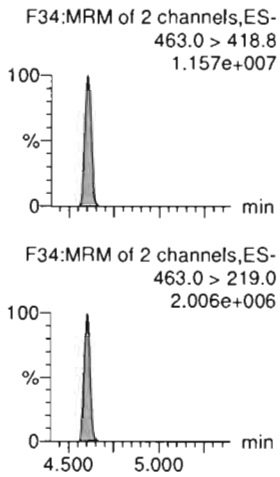


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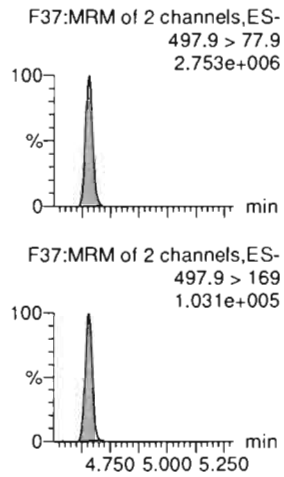
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Name: 200229P1-12, Date: 29-Feb-2020, Time: 17:20:30, ID: ST200229P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

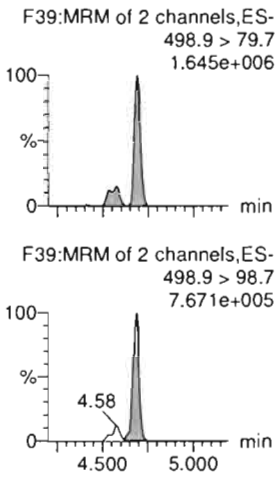
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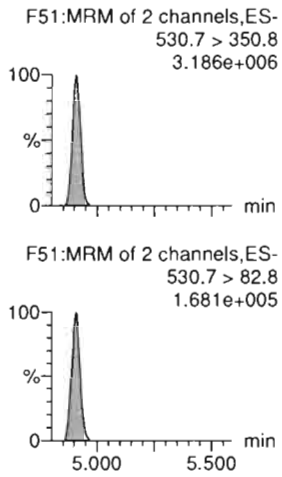
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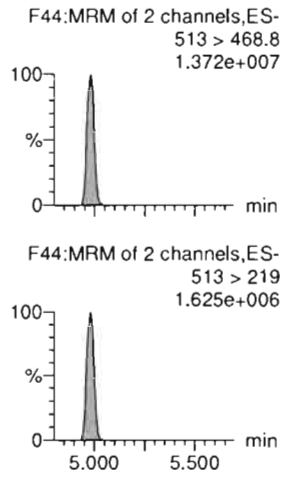
L-PFOS



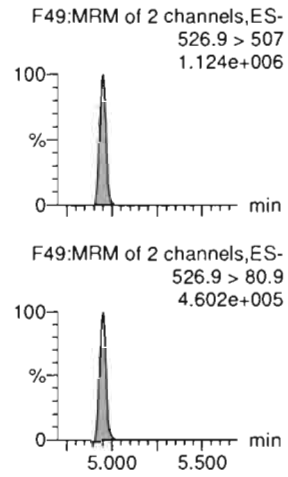
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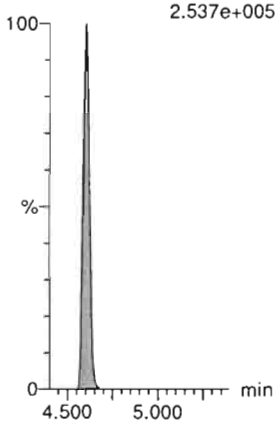
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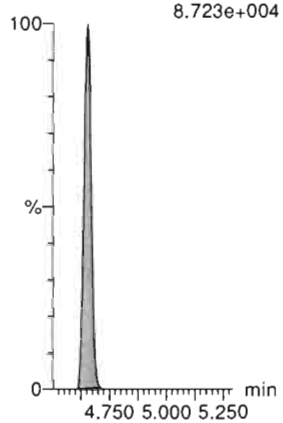
8:2 FTS



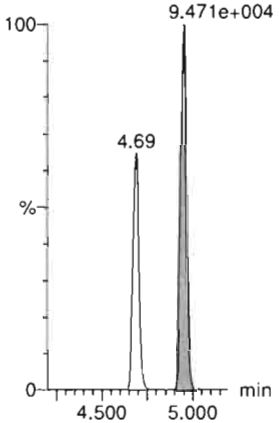
13C5-PFNA-EIS



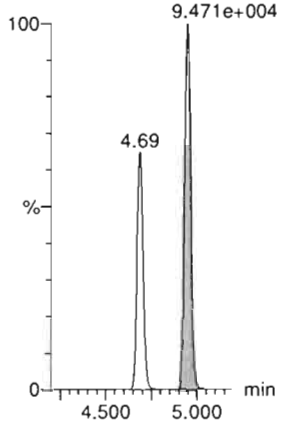
13C8-PFOSA-EIS



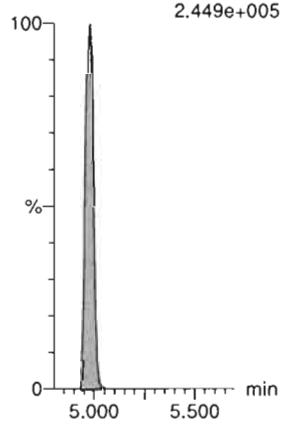
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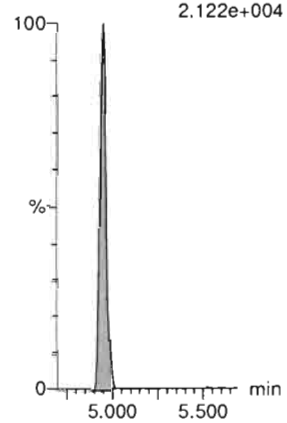
13C8-PFOS-EIS



13C2-PFDA-EIS



13C2-8:2 FTS-EIS

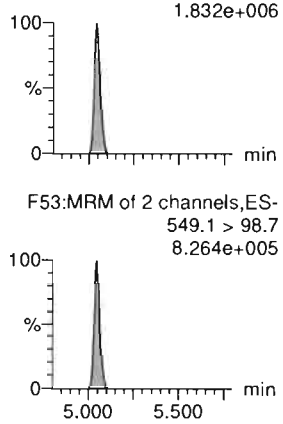


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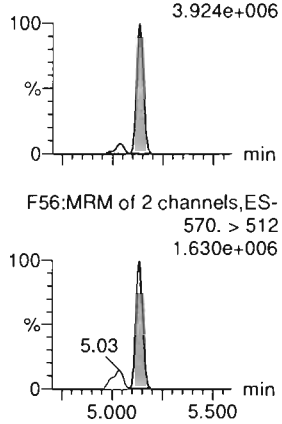
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

Name: 200229P1-12, Date: 29-Feb-2020, Time: 17:20:30, ID: ST200229P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

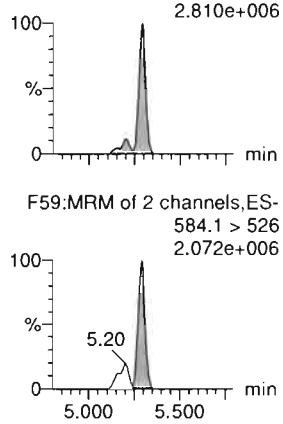
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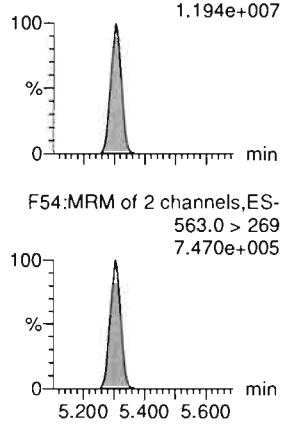
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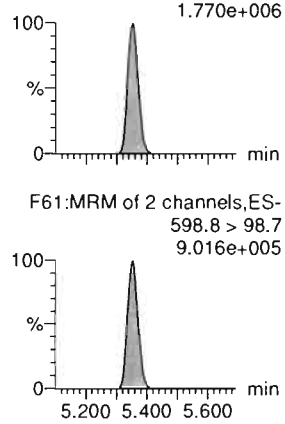
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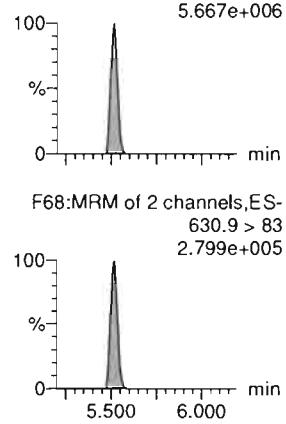
PFUdA



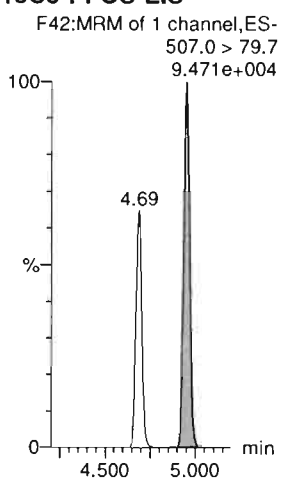
PFDS



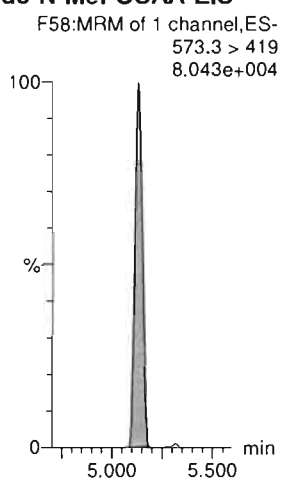
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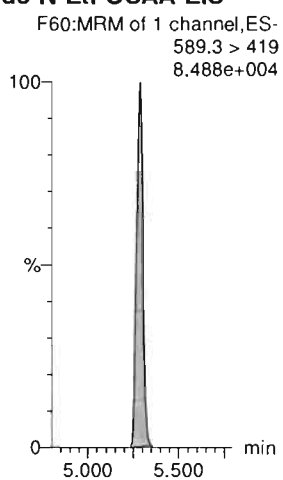
13C8-PFOS-EIS



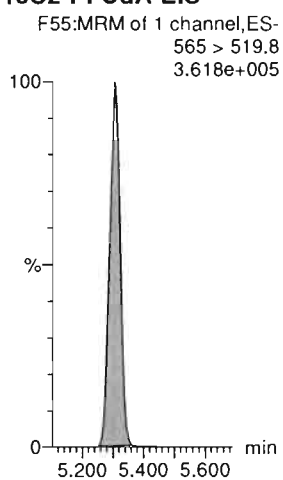
d3-N-MeFOSAA-EIS



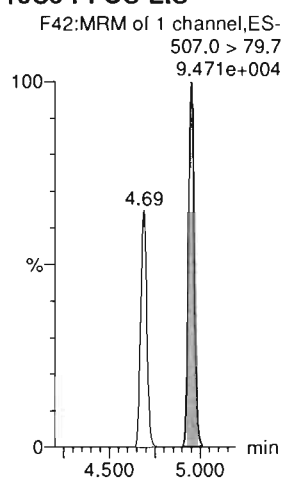
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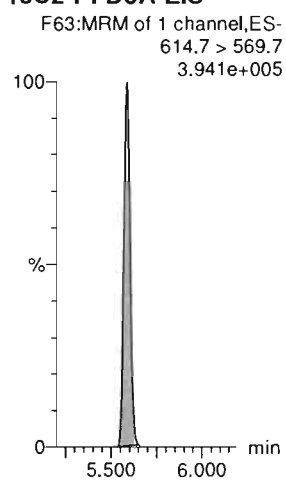
13C2-PFUdA-EIS



13C8-PFOS-EIS



13C2-PFDoA-EIS

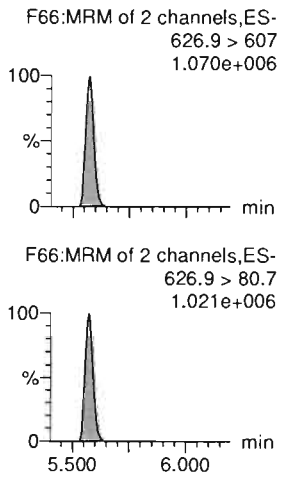


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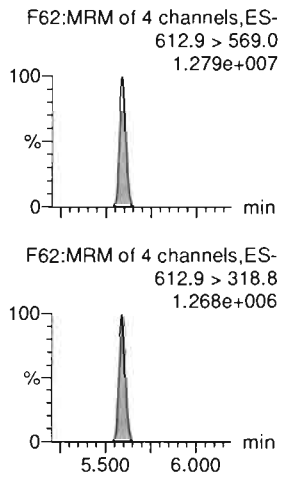
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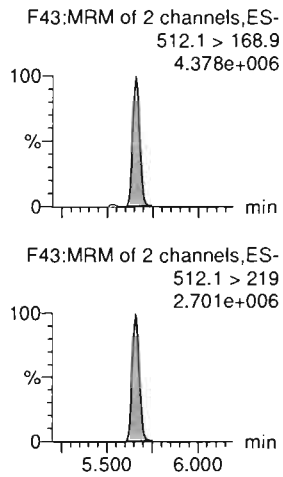
10:2 FTS



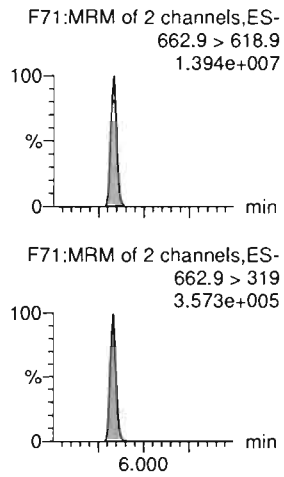
PFDoA



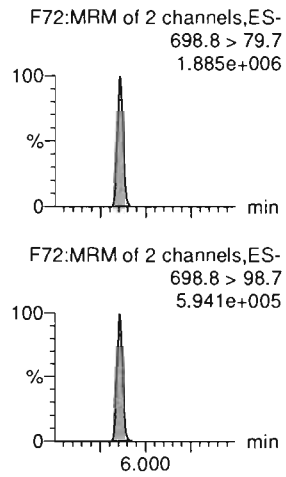
N-MeFOSA



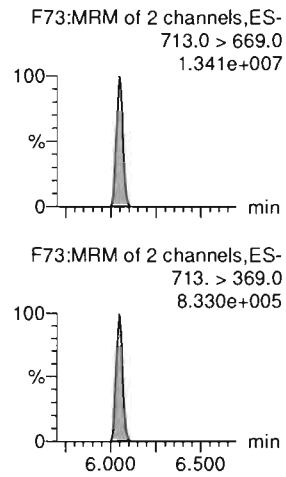
PFTrDA



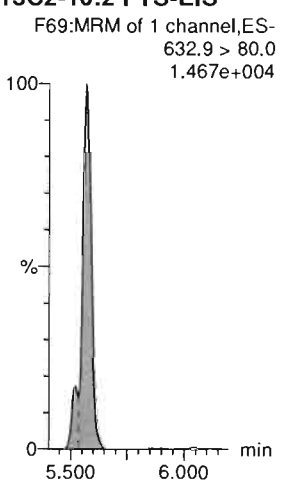
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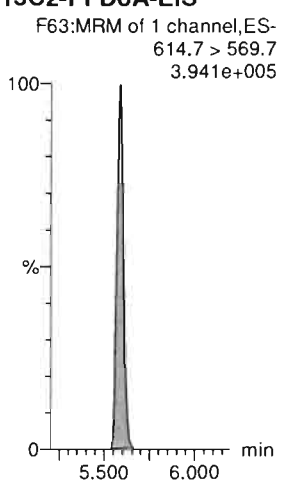
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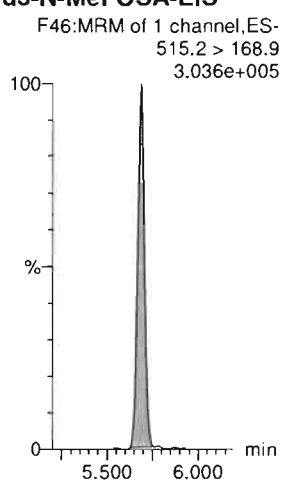
13C2-10:2 FTS-EIS



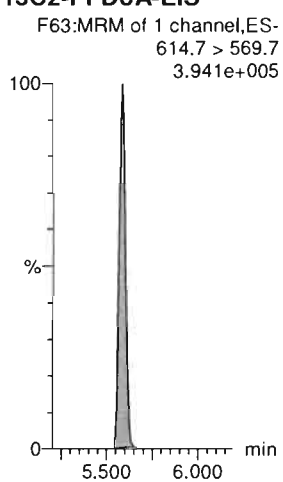
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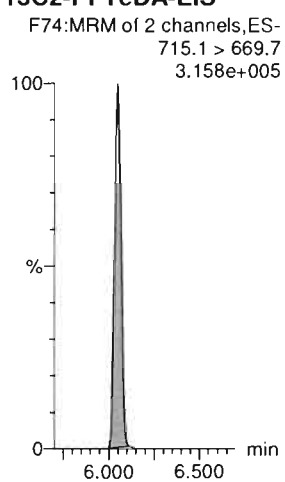
d3-N-MeFOSA-EIS



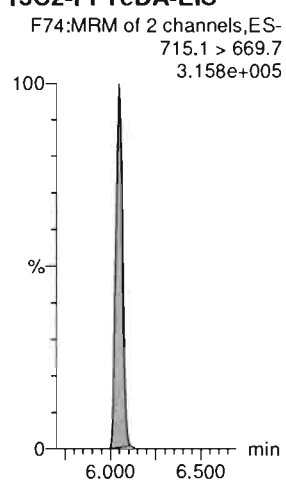
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

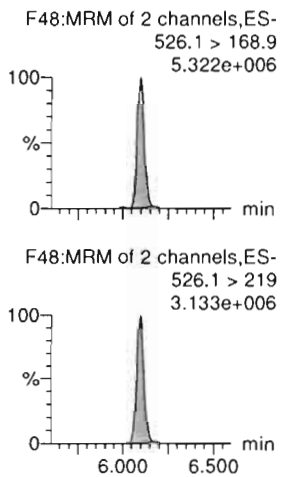


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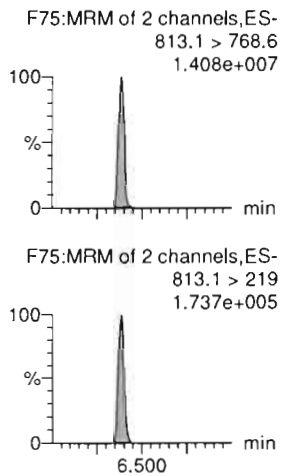
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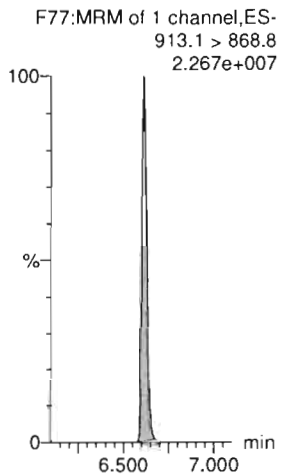
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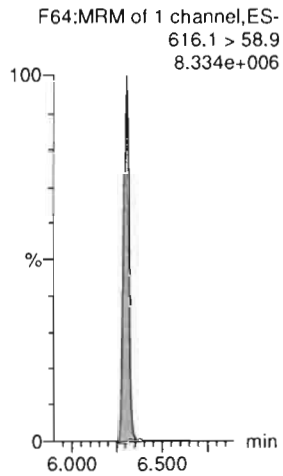
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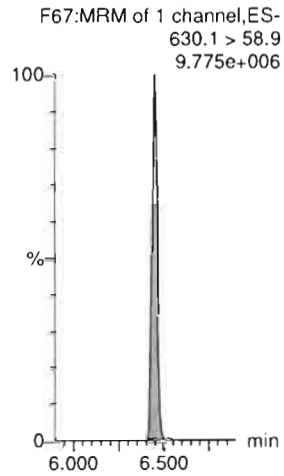
PFODA



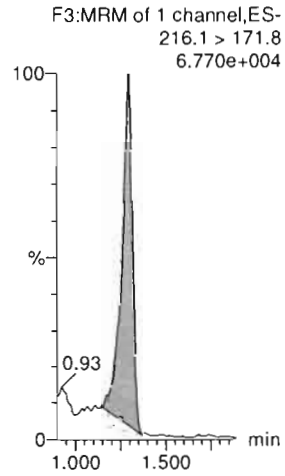
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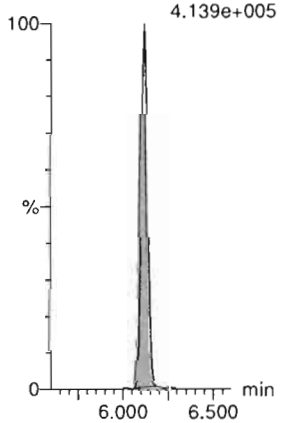
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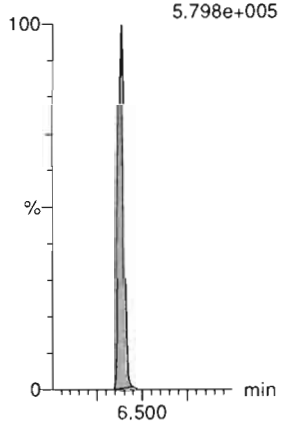
13C3-PFBA-RSD



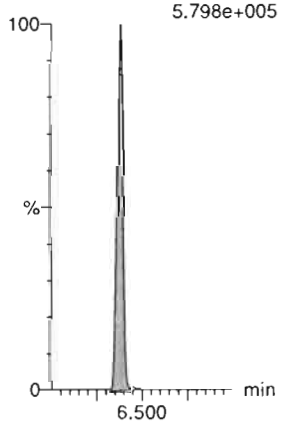
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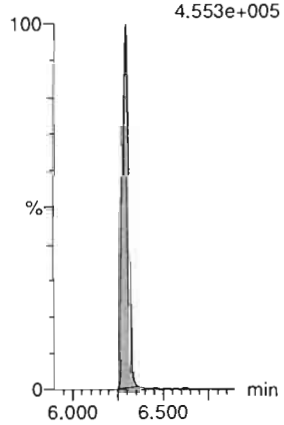
13C2-PFHxDA-EIS



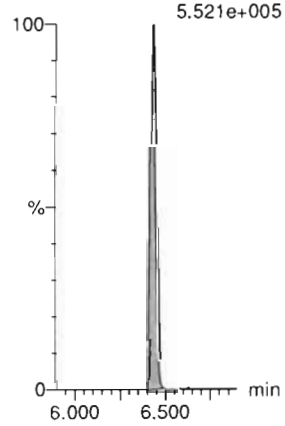
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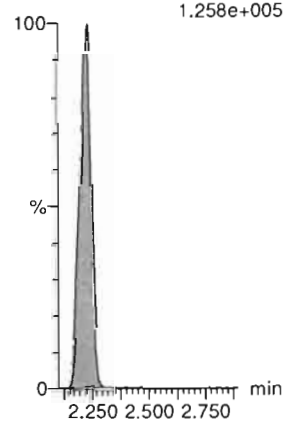
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d9-N-EtFOSE-EIS



13C3-PFPeA-RSD

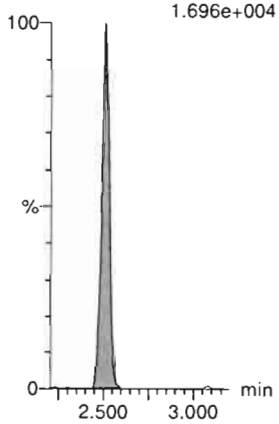


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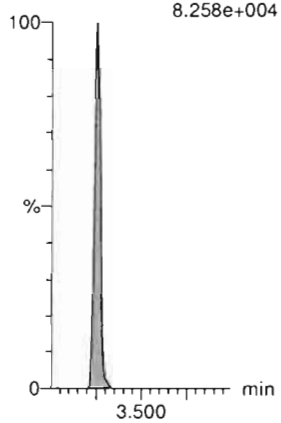
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Name: 200229P1-12, Date: 29-Feb-2020, Time: 17:20:30, ID: ST200229P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

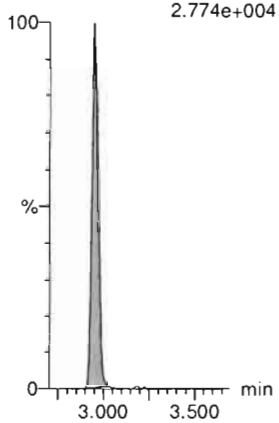
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.696e+004



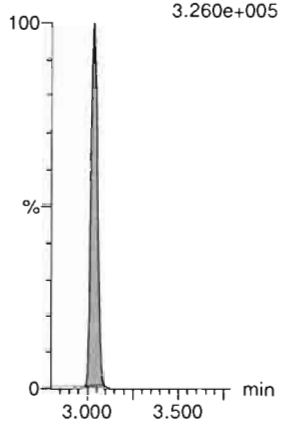
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.258e+004



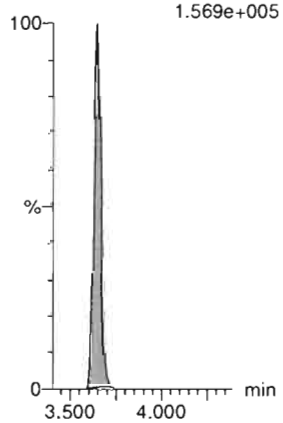
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
2.774e+004



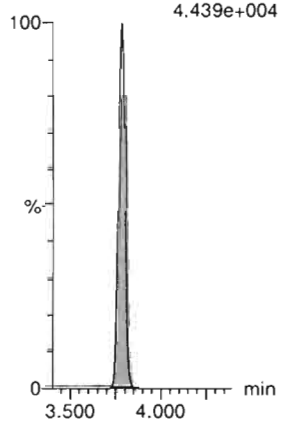
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F14:MRM of 1 channel,ES-
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3.260e+005



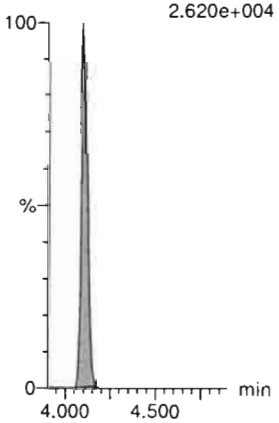
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.569e+005



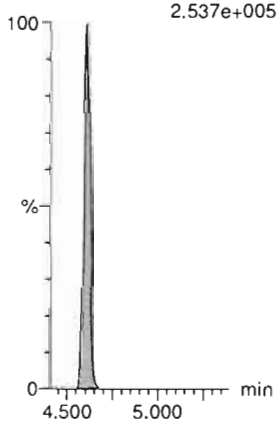
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
4.439e+004



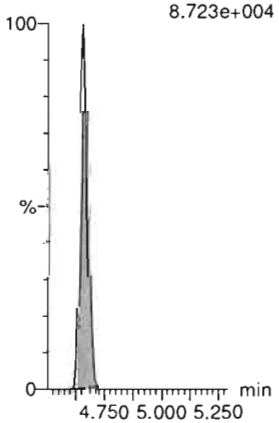
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.620e+004



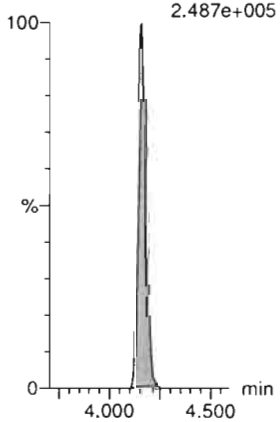
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
2.537e+005



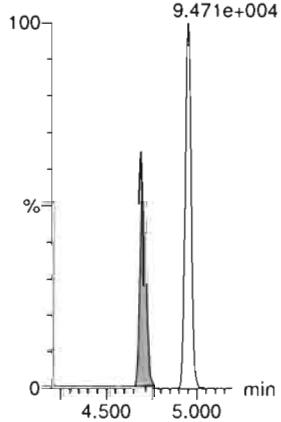
13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
8.723e+004



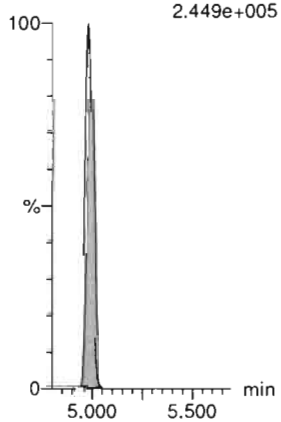
13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
2.487e+005



13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
9.471e+004



13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
2.449e+005

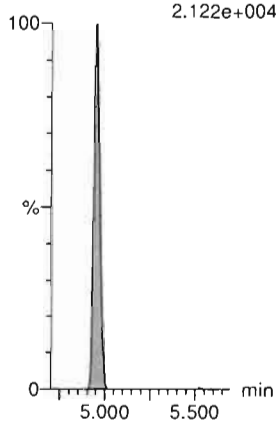


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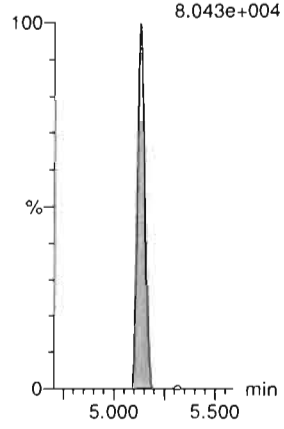
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

Name: 200229P1-12, Date: 29-Feb-2020, Time: 17:20:30, ID: ST200229P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

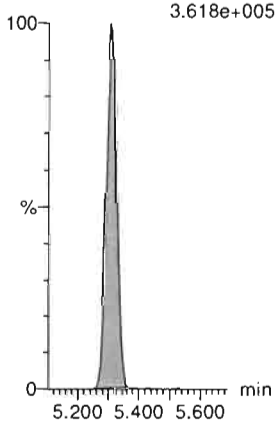
13C2-8:2 FTS-RSD
F50:MRM of 1 channel,ES-
529 > 79.7
2.122e+004



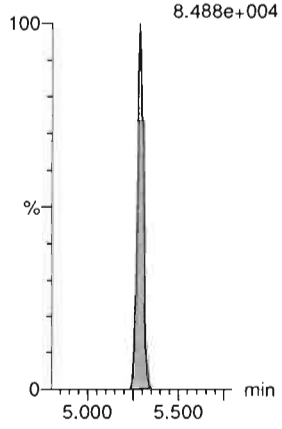
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.043e+004



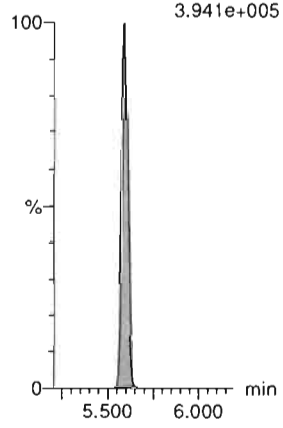
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
3.618e+005



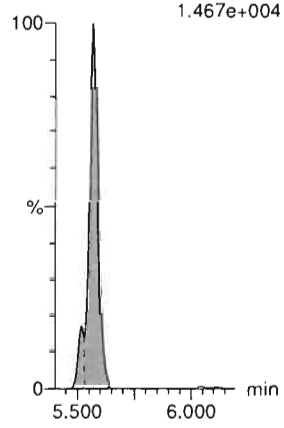
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
8.488e+004



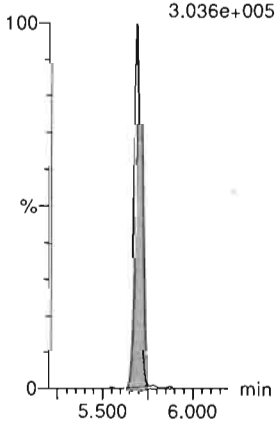
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
3.941e+005



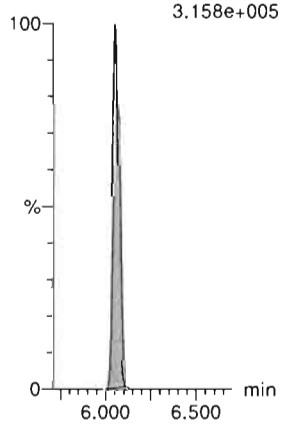
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.467e+004



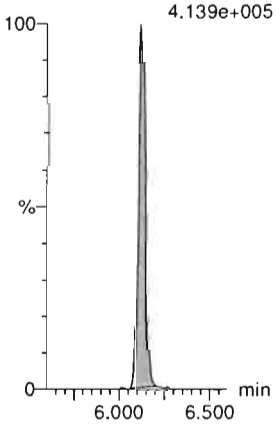
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.036e+005



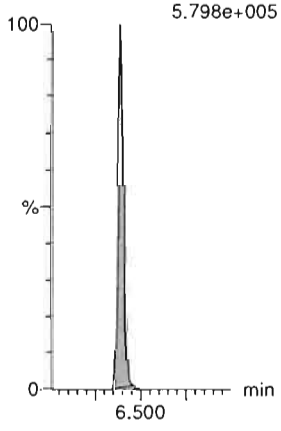
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.158e+005



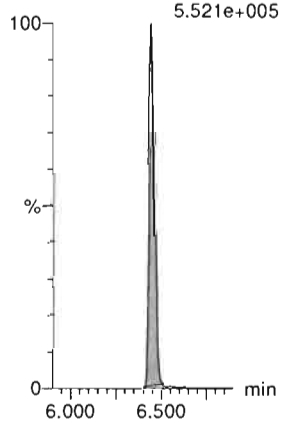
d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.139e+005



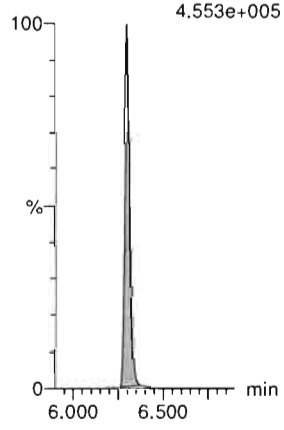
13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
5.798e+005



d9-N-EtFOSE-RSD
F70:MRM of 1 channel,ES-
639.2 > 58.8
5.521e+005



d7-N-MeFOSE-RSD
F65:MRM of 1 channel,ES-
623.1 > 58.9
4.553e+005

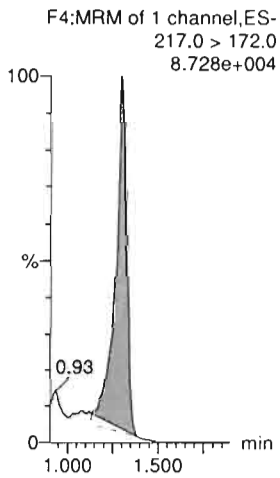


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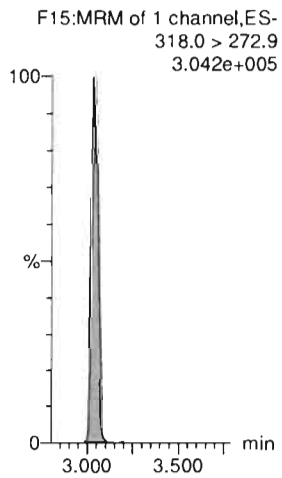
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Printed: Monday, March 02, 2020 09:34:32 Pacific Standard Time

Name: 200229P1-12, Date: 29-Feb-2020, Time: 17:20:30, ID: ST200229P1-10 PFC CS7 20B1111, Description: PFC CS7 20B1111

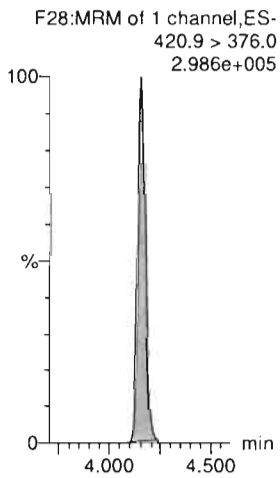
13C4-PFBA



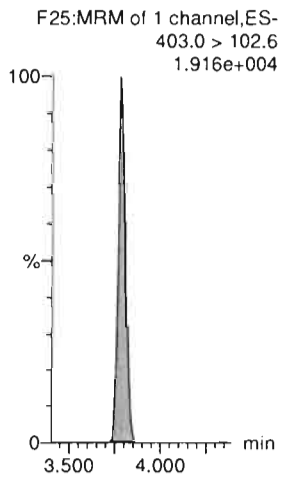
13C5-PFHxA



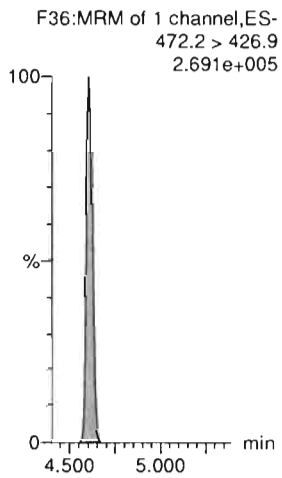
13C8-PFOA



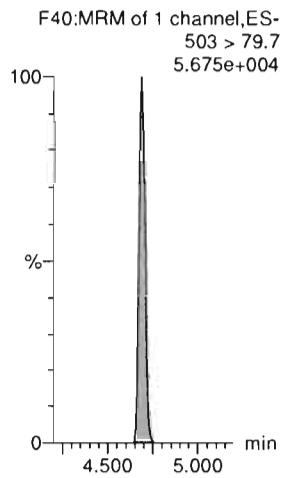
18O2-PFHxS



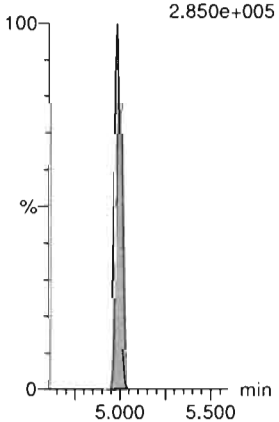
13C9-PFNA



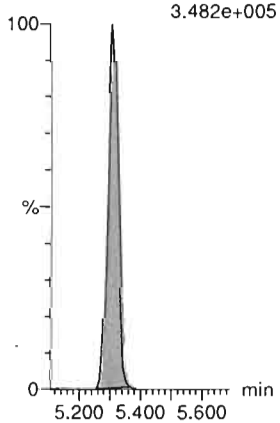
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-ICV.qld

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(A) not in ICV

Name: 200229P1-14, Date: 29-Feb-2020, Time: 17:41:30, ID: ICV200229P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	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	4148.566	4288.024	1.00	1.30	12.093	10.000	9.97	99.7	NO		
2	2	PFPrS	248.9 > 79.7		833.313	1.00			10.000		(A)	NO		YES
3	3	3:3 FTCA	240.9 > 176.9		7416.849	1.00			10.000		↓	NO		YES
4	4	PFPeA	263.1 > 218.9	6018.801	7416.849	1.00	2.23	10.144	10.000	10.5	104.9	NO		
5	5	PFBS	299.0 > 79.7	1549.574	833.313	1.00	2.52	23.244	8.840	8.91	100.8	NO	3.431	NO
6	6	4:2 FTS	327.0 > 307	1523.445	1370.667	1.00	2.95	13.893	9.360	8.94	95.5	NO	1.084	NO
7	47	13C3-PFBA-EIS	216.1 > 171.8	4288.024		1.00	1.30	4288.024	12.500	12.3	98.6	NO		
8	51	13C3-PFBS-EIS	302.0 > 98.8	833.313		1.00	2.51	833.313	12.500	11.2	89.3	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	7416.849		1.00	2.23	7416.849	12.500	11.5	92.1	NO		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	7416.849		1.00	2.23	7416.849	12.500	11.5	92.1	NO		
11	51	13C3-PFBS-EIS	302.0 > 98.8	833.313		1.00	2.51	833.313	12.500	11.2	89.3	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	1370.667		1.00	2.95	1370.667	12.500	11.8	94.1	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	11175.255	14140.643	1.00	3.03	9.879	10.000	11.7	116.5	NO	19.343	NO
15	8	PFPeS	349.>79.7	1657.875	833.313	1.00	3.24	24.869	9.360	9.18	98.0	NO	2.429	NO
16	9	HFPO-DA	285.1 > 168.9	2835.297	3136.568	1.00	3.25	11.299	10.000	10.7	106.7	NO	2.602	NO
17	10	5:3 FTCA	340.9 > 236.9		7378.397	1.00			10.000		(A)	NO		YES
18	11	PFHpA	363.0 > 318.9	8495.516	7378.397	1.00	3.64	14.393	10.000	11.8	118.4	NO	16.718	NO
19	12	ADONA	376.8 > 250.9	21913.801	7378.397	1.00	3.75	37.125	10.000	12.0	119.9	NO	4.046	NO
20	57	13C2-PFHxA-EIS	315.0 > 270.0	14140.643		1.00	3.03	14140.643	12.500	12.4	99.0	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	833.313		1.00	2.51	833.313	12.500	11.2	89.3	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	3136.568		1.00	3.25	3136.568	12.500	11.0	87.9	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	7378.397		1.00	3.64	7378.397	12.500	11.3	90.8	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	7378.397		1.00	3.64	7378.397	12.500	11.3	90.8	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	7378.397		1.00	3.64	7378.397	12.500	11.3	90.8	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	1668.992	1926.065	1.00	3.78	10.832	9.120	10.0	109.8	NO	2.565	NO
28	15	6:2 FTS	427.0 > 407	1883.392	1207.833	1.00	4.10	19.491	9.480	8.98	94.8	NO	1.261	NO
29	16	L-PFOA	412.8 > 368.9	12268.184	12124.160	1.00	4.15	12.648	10.000	10.4	103.5	NO	3.145	NO
30	18	PFecHS	460.8 > 381.0		12124.160	1.00			10.000		(A)	NO		YES
31	19	PFHpS	449.0 > 79.7	1921.474	2380.266	1.00	4.27	10.091	9.480	8.92	94.1	NO	2.289	NO
32	20	7:3 FTCA	440.9 > 336.9		10465.935	1.00			10.000		(A)	NO		YES
33	61	13C3-PFHxS-EIS	401.8 > 79.7	1926.065		1.00	3.78	1926.065	12.500	11.4	90.8	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1207.833		1.00	4.10	1207.833	12.500	13.0	104.1	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	12124.160		1.00	4.15	12124.160	12.500	11.9	95.1	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	12124.160		1.00	4.15	12124.160	12.500	11.9	95.1	NO		

Dataset: D:\PFAS5.PRO\RESULTS\200229P1\200229P1-ICV.qld

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Name: 200229P1-14, Date: 29-Feb-2020, Time: 17:41:30, ID: ICV200229P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	71	13C8-PFOS-EIS	507.0 > 79.7	2380.266		1.00	4.69	2380.266	12.500	12.1	97.1	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	10465.935		1.00	4.60	10465.935	12.500	11.3	90.2	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	10728.196	10465.935	1.00	4.60	12.813	10.000	11.4	113.9	NO	6.195	NO
41	22	PFOSA	497.9 > 77.9	2538.943	3199.073	1.00	4.66	9.921	10.000	11.6	116.0	NO	30.620	NO
42	23	L-PFOS	498.9 > 79.7	1590.971	2380.266	1.00	4.69	8.355	9.280	8.63	93.0	NO	2.231	NO
43	25	9Cl-PF30NS	530.7 > 350.8	2991.537	2380.266	1.00	4.91	15.710	9.280	10.1	109.2	NO	17.209	NO
44	26	PFDA	513 > 468.8	13297.075	12017.090	1.00	4.99	13.831	10.000	10.5	105.1	NO	8.212	NO
45	27	8:2 FTS	526.9 > 507	1271.184	948.210	1.00	4.95	16.758	9.600	9.28	96.7	NO	2.457	YES
46	65	13C5-PFNA-EIS	468.2 > 422.9	10465.935		1.00	4.60	10465.935	12.500	11.3	90.2	NO		
47	67	13C8-PFOSA-EIS	506 > 78	3199.073		1.00	4.65	3199.073	12.500	10.8	86.7	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	2380.266		1.00	4.69	2380.266	12.500	12.1	97.1	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	2380.266		1.00	4.69	2380.266	12.500	12.1	97.1	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	12017.090		1.00	4.99	12017.090	12.500	12.1	97.1	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	948.210		1.00	4.95	948.210	12.500	11.2	89.9	NO		
52	-1													
53	28	PFNS	549.1 > 79.7	1931.726	2380.266	1.00	5.05	10.144	9.600	10.9	113.4	NO	2.648	NO
54	29	L-MeFOSAA	570 > 419	4462.672	3409.273	1.00	5.14	16.362	10.000	10.1	101.3	NO	2.295	NO
55	31	L-EtFOSAA	584.1 > 419	3703.741	4362.589	1.00	5.29	10.612	10.000	9.87	98.7	NO	1.236	NO
56	33	PFUdA	563.0 > 518.9	12571.445	15468.412	1.00	5.31	10.159	10.000	9.76	97.6	NO	14.234	YES
57	34	PFDS	598.8 > 79.7	1760.107	2380.266	1.00	5.36	9.243	9.600	10.6	109.9	NO	2.214	NO
58	35	11Cl-PF30UdS	630.9 > 450.9	5304.985	16946.885	1.00	5.52	3.913	9.440	9.35	99.1	NO	21.491	NO
59	71	13C8-PFOS-EIS	507.0 > 79.7	2380.266		1.00	4.69	2380.266	12.500	12.1	97.1	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	3409.273		1.00	5.13	3409.273	12.500	11.9	95.4	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	4362.589		1.00	5.29	4362.589	12.500	11.6	92.7	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	15468.412		1.00	5.31	15468.412	12.500	12.4	99.1	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	2380.266		1.00	4.69	2380.266	12.500	12.1	97.1	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	16946.885		1.00	5.59	16946.885	12.500	12.1	96.7	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607		773.902	1.00			10.000		(A)	NO		YES
67	37	PFDoA	612.9 > 569.0	13728.385	16946.885	1.00	5.59	10.126	10.000	10.4	104.1	NO	9.464	NO
68	38	N-MeFOSA	512.1 > 168.9		13262.215	1.00			9.600		(A)	NO		YES
69	39	PFTrDA	662.9 > 618.9	15671.931	16946.885	1.00	5.83	11.560	10.000	10.9	108.6	NO	39.075	NO
70	40	PFDoS	698.8 > 79.7		14450.867	1.00			10.000		(A)	NO		YES
71	41	PFTeDA	713.0 > 669.0	14901.218	14450.867	1.00	6.05	12.890	10.000	9.68	96.8	NO	16.202	NO
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	773.902		1.00	5.57	773.902	12.500	11.9	95.1	NO		

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Name: 200229P1-14, Date: 29-Feb-2020, Time: 17:41:30, ID: ICV200229P1-1 PFC ICV 20B1112, Description: PFC ICV 20B1112

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	83	13C2-PFDoA-EIS	614.7 > 569.7	16946.885		1.00	5.59	16946.885	12.500	12.1	96.7	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	13262.215		1.00	5.69	13262.215	149.200	147	98.3	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	16946.885		1.00	5.59	16946.885	12.500	12.1	96.7	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	14450.867		1.00	6.05	14450.867	12.500	11.4	90.9	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	14450.867		1.00	6.05	14450.867	12.500	11.4	90.9	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9		20914.270	1.00			9.600			NO		YES
80	43	PFHxDA	813.1 > 768.6		22833.469	1.00			10.000			NO		YES
81	44	PFODA	913.1 > 868.8		22833.469	1.00			10.000			NO		
82	45	N-MeFOSE	616.1 > 58.9		17397.615	1.00			9.600			NO		
83	46	N-EtFOSE	630.1 > 58.9		19640.764	1.00			9.600			NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	20914.270		1.00	6.12	20914.270	149.200	141	94.8	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	22833.469		1.00	6.39	22833.469	12.500	11.7	93.7	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	22833.469		1.00	6.39	22833.469	12.500	11.7	93.7	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	17397.615		1.00	6.30	17397.615	149.200	140	93.5	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	19640.764		1.00	6.44	19640.764	149.200	134	89.6	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	2380.266		1.00	4.69	2380.266	12.500	12.1	97.1	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	4267.563	5576.041	1.00	1.30	9.567	12.500	12.8	102.3	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	7416.849	14214.949	1.00	2.23	6.522	12.500	11.9	95.3	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	833.313	860.064	1.00	2.51	12.111	12.500	12.2	97.3	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	3136.568	14214.949	1.00	3.25	2.758	12.500	11.5	91.7	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	1368.098	860.064	1.00	2.95	19.884	12.500	13.8	110.1	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	13995.289	14214.949	1.00	3.03	12.307	12.500	12.2	97.4	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	7378.397	14214.949	1.00	3.64	6.488	12.500	11.4	91.5	NO		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	1910.160	860.064	1.00	3.78	27.762	12.500	11.7	93.3	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1210.567	2516.384	1.00	4.10	6.013	12.500	12.9	103.3	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	10465.935	11054.983	1.00	4.60	11.834	12.500	12.4	99.4	NO		
101	68	13C8-PFOSA-RSD	506 > 78	3199.073	16732.479	1.00	4.65	2.390	12.500	11.8	94.7	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	12124.160	15351.857	1.00	4.15	9.872	12.500	12.0	95.9	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	2362.960	2516.384	1.00	4.69	11.738	12.500	12.2	97.9	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	12017.090	13044.691	1.00	4.99	11.515	12.500	12.4	99.4	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	948.210	2516.384	1.00	4.95	4.710	12.500	12.8	102.8	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	3408.903	16732.479	1.00	5.13	2.547	12.500	11.9	94.9	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	15323.069	16732.479	1.00	5.31	11.447	12.500	12.0	95.9	NO		

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	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	4346.567	16732.479	1.00	5.29	3.247	12.500	12.5	100.3	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	16698.979	13044.691	1.00	5.59	16.002	12.500	12.4	99.0	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	773.902	2516.384	1.00	5.57	3.844	12.500	11.5	91.9	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	13189.632	16732.479	1.00	5.69	9.853	149.200	146	97.6	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	14316.622	16732.479	1.00	6.05	10.695	12.500	12.0	96.1	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	20801.883	16732.479	1.00	6.12	15.540	149.200	150	100.4	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	22605.750	16732.479	1.00	6.39	16.888	12.500	11.6	93.0	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	17290.746	16732.479	1.00	6.30	12.917	149.200	143	95.9	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	19492.027	16732.479	1.00	6.44	14.562	149.200	140	93.7	NO		
119	99	13C4-PFBA	217.0 > 172.0	5576.041	5576.041	1.00	1.30	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	14214.949	14214.949	1.00	3.03	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	15351.857	15351.857	1.00	4.15	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	860.064	860.064	1.00	3.78	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	11054.983	11054.983	1.00	4.60	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	2516.384	2516.384	1.00	4.69	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	13044.691	13044.691	1.00	4.99	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	16732.479	16732.479	1.00	5.31	12.500	12.500	12.5	100.0	NO		

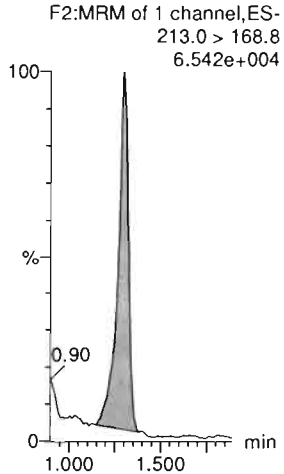
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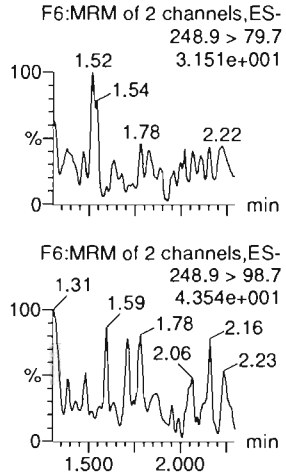
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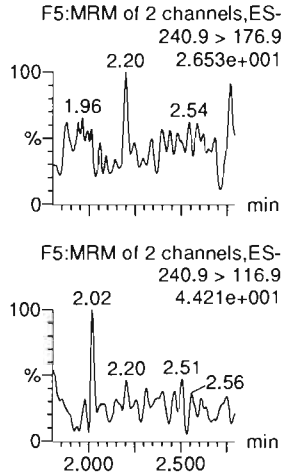
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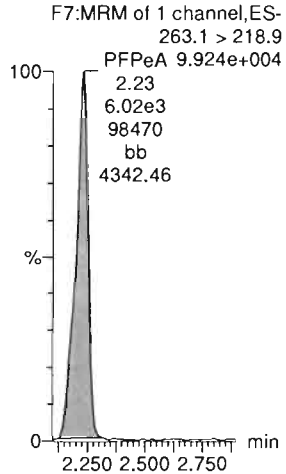
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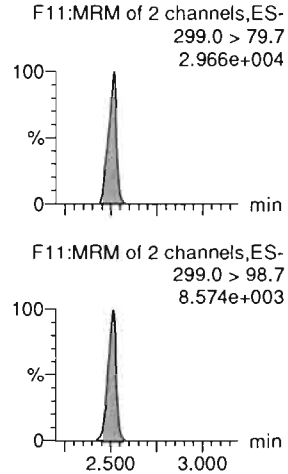
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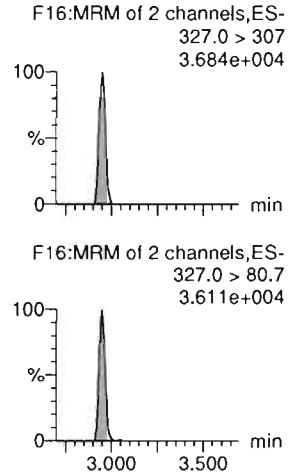
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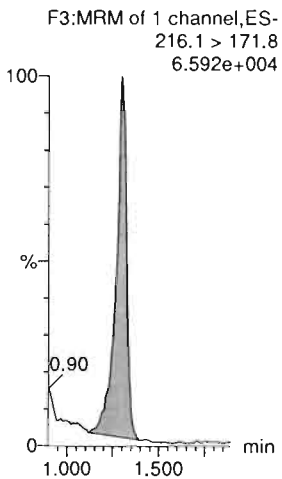
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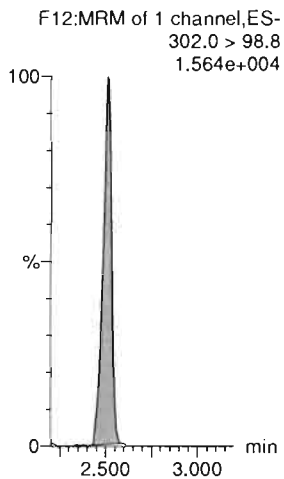
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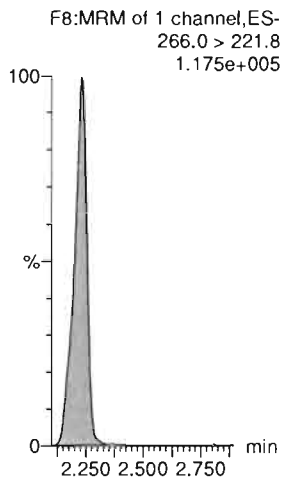
13C3-PFBA-EIS



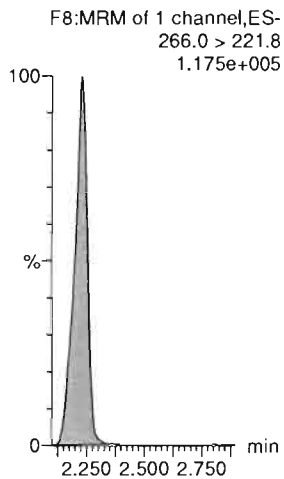
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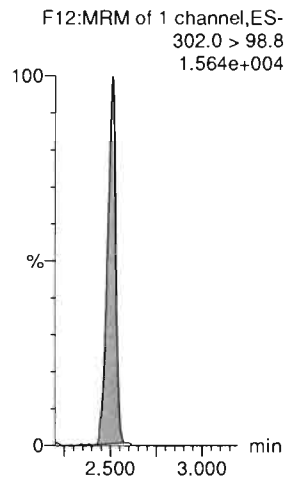
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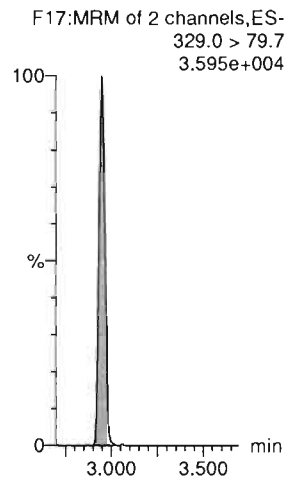
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

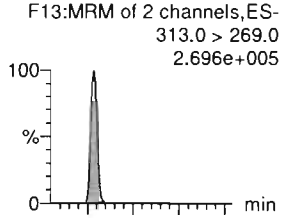


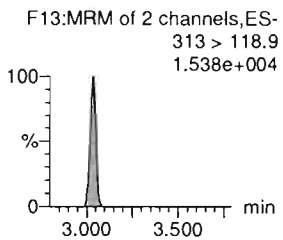
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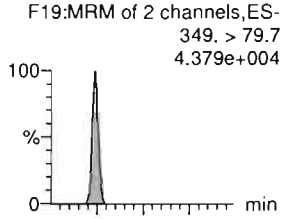
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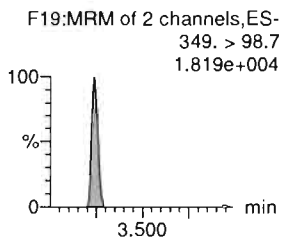
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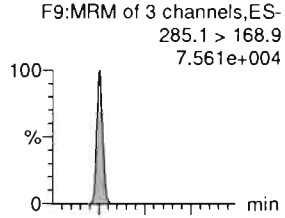


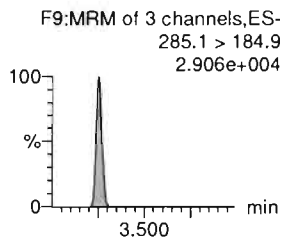
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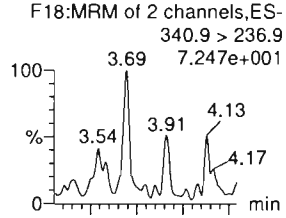


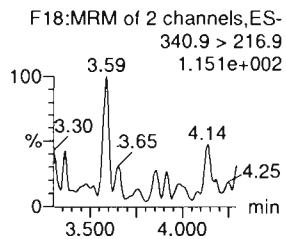
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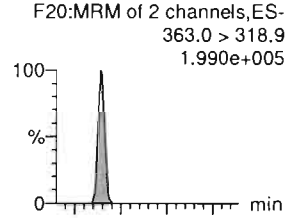


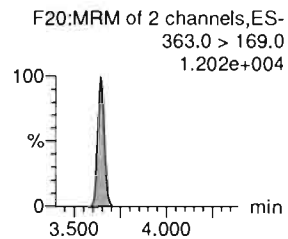
5:3 FTCA



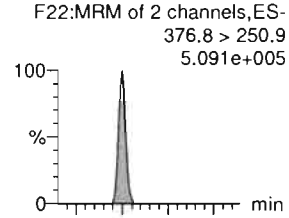


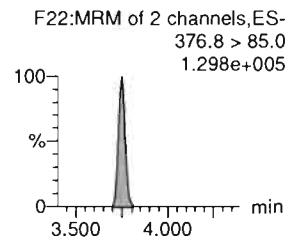
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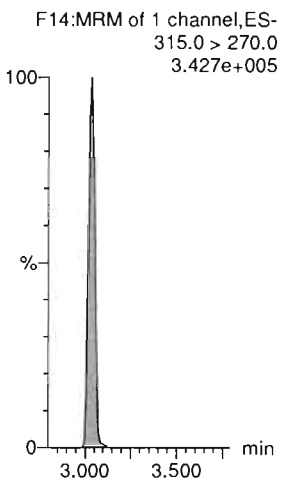


ADONA

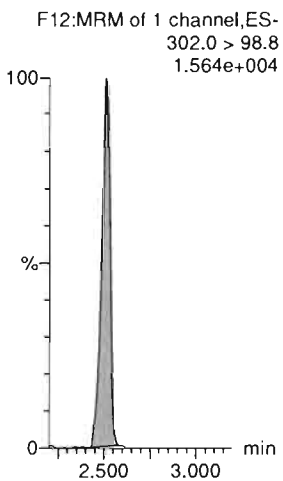




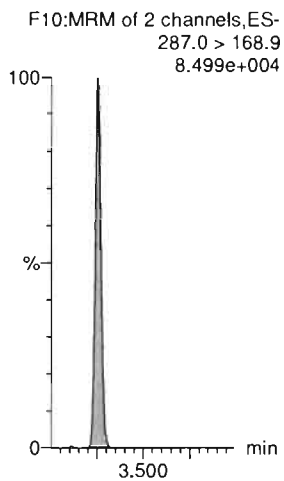
13C2-PFHxA-EIS



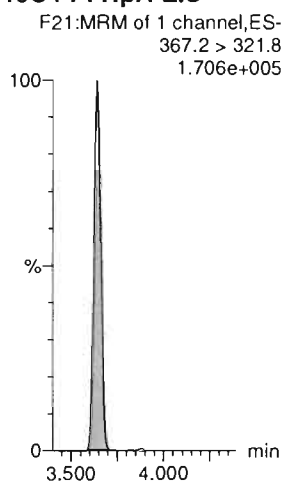
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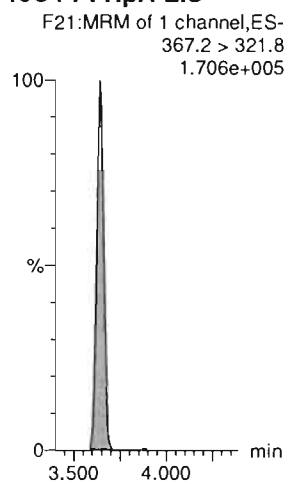
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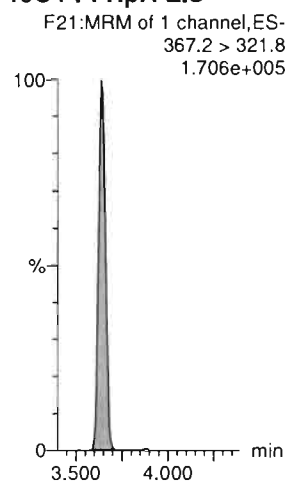
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13C4-PFHpA-EIS



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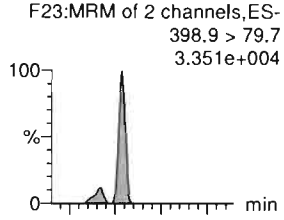


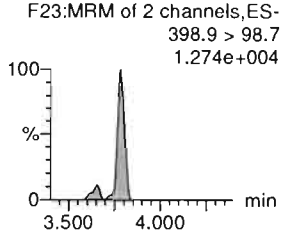
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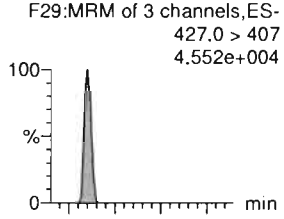
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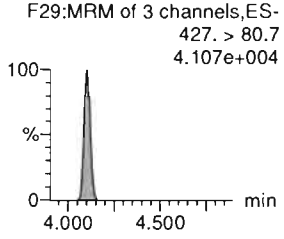
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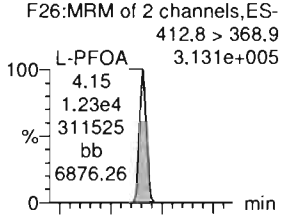


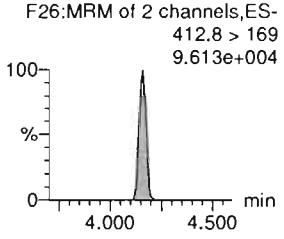
6:2 FTS



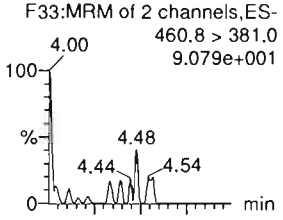


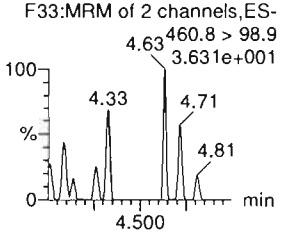
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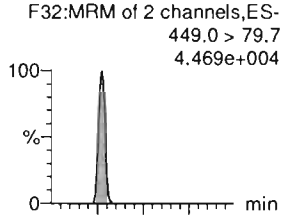


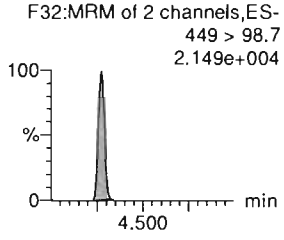
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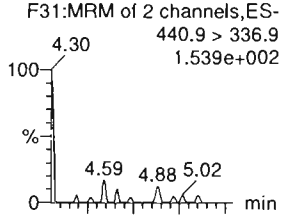


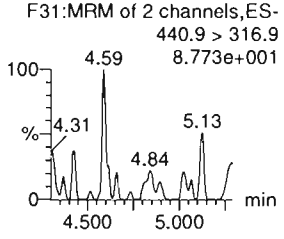
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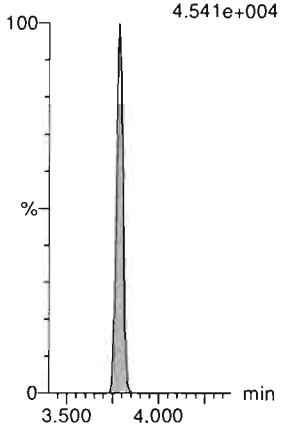


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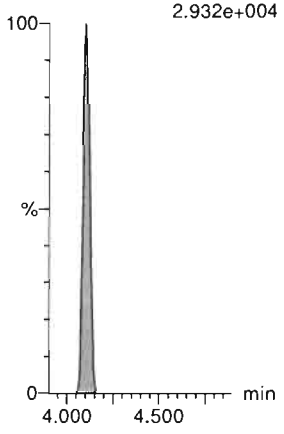




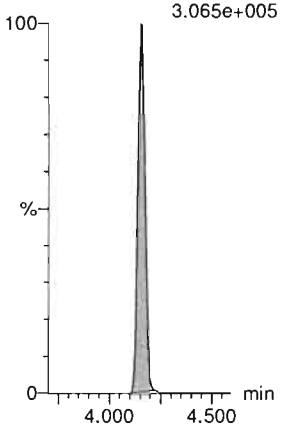
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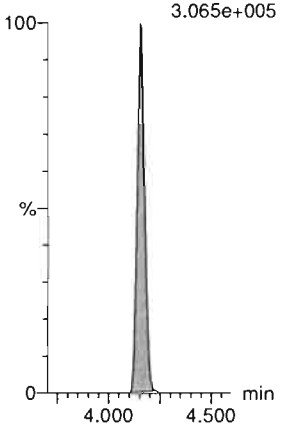
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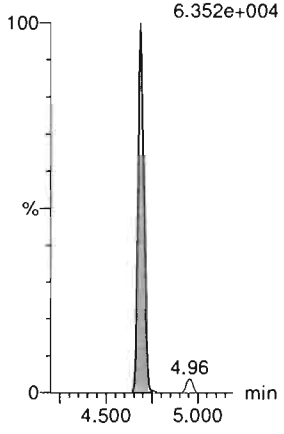
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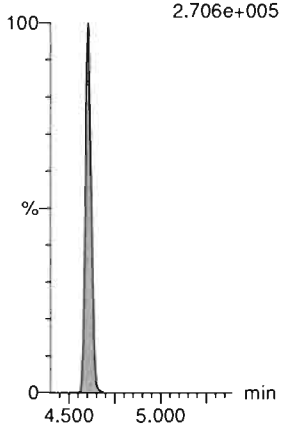
13C2-PFOA-EIS



13C8-PFOS-EIS



13C5-PFNA-EIS

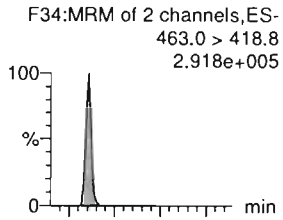


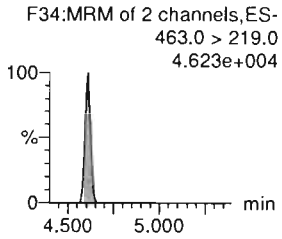
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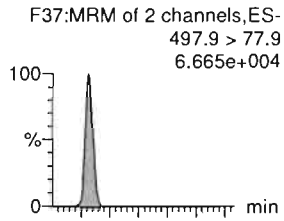
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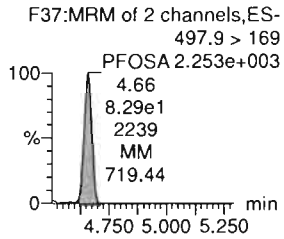
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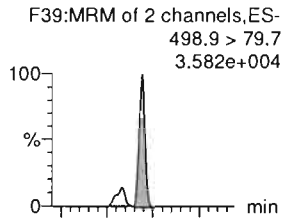


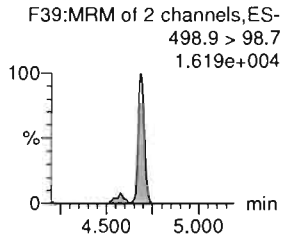
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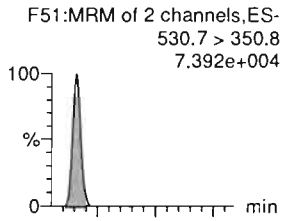


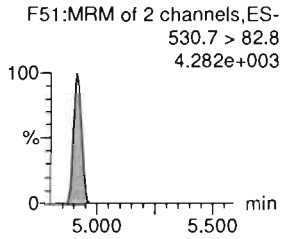
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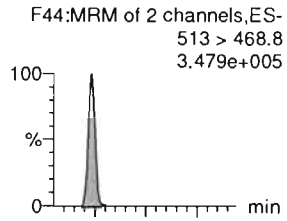


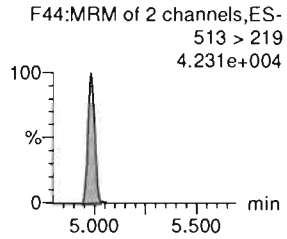
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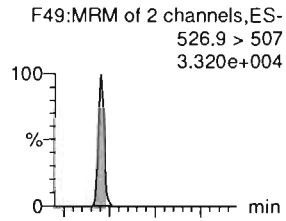


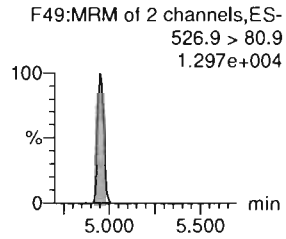
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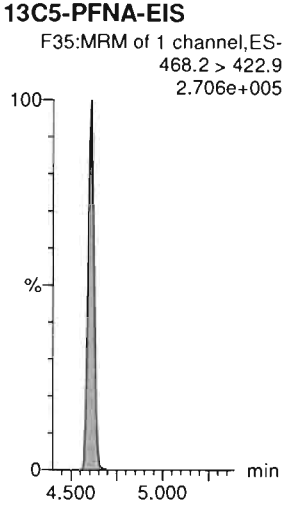


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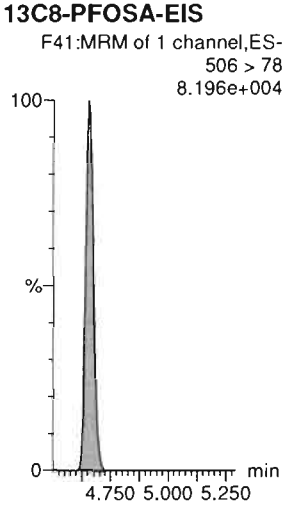




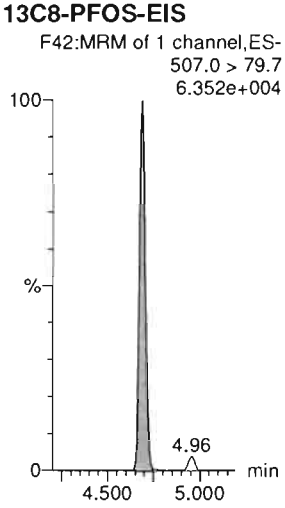
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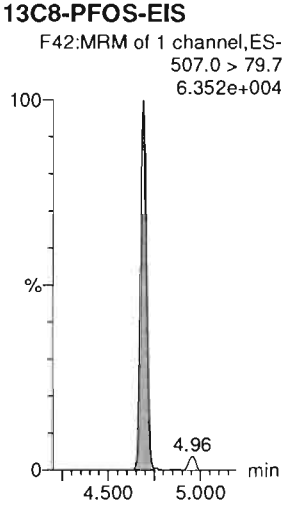
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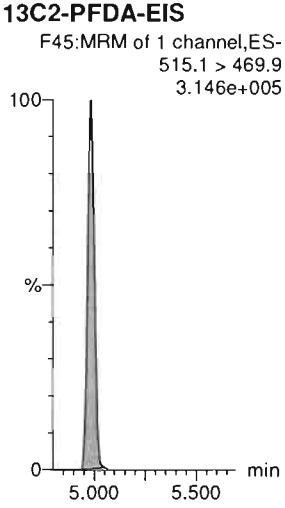
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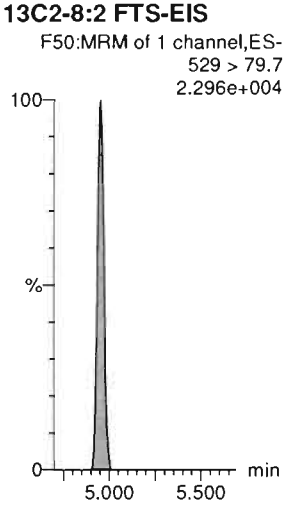
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13C2-PFDA-EIS



13C2-8:2 FTS-EIS

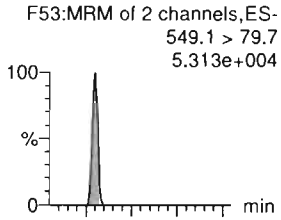


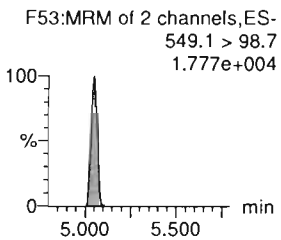
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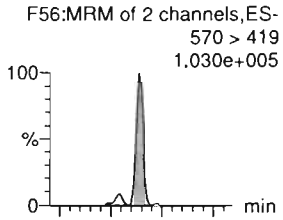
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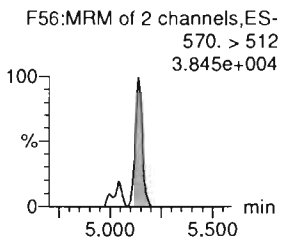
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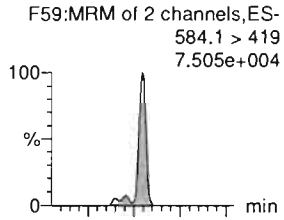


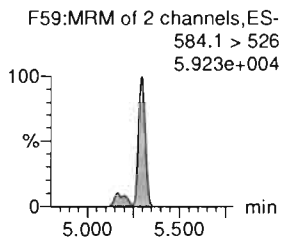
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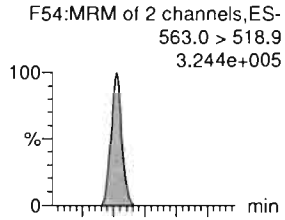


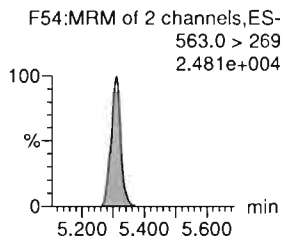
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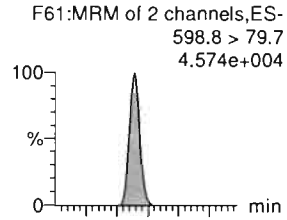


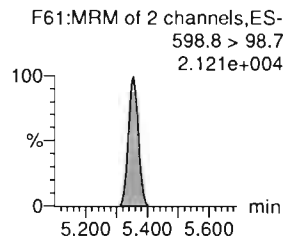
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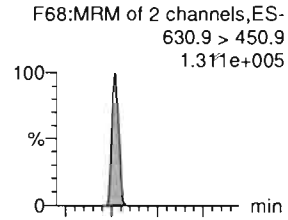


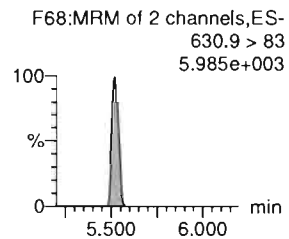
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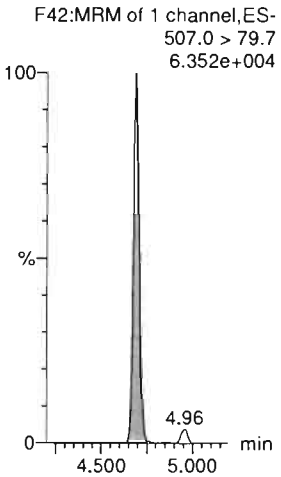


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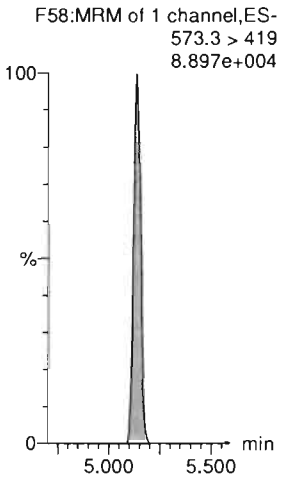




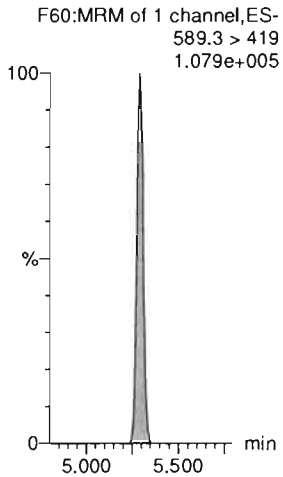
13C8-PFOS-EIS



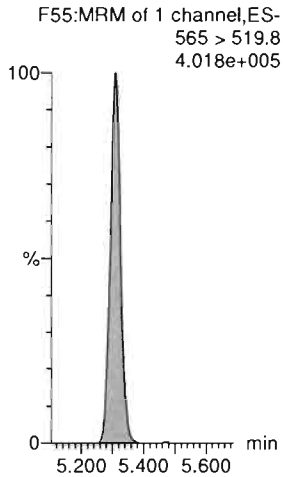
d3-N-MeFOSAA-EIS



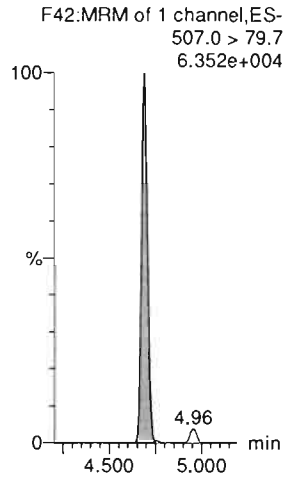
d5-N-EtFOSAA-EIS



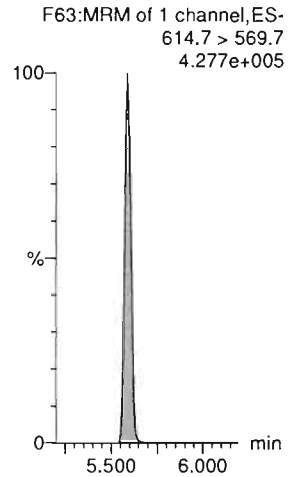
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13C8-PFOS-EIS



13C2-PFDoA-EIS

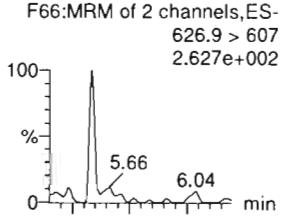


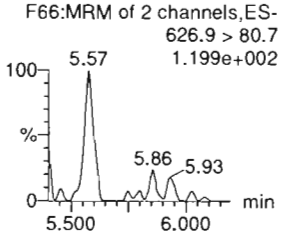
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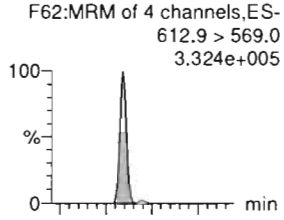
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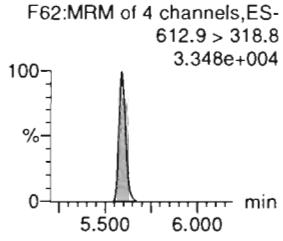
10:2 FTS



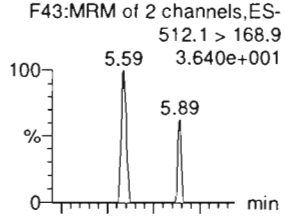


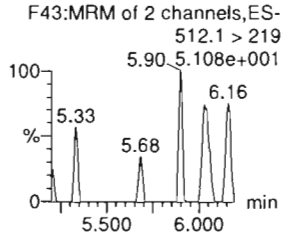
PFDoA



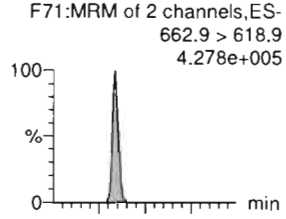


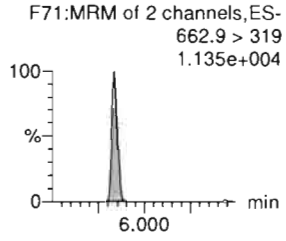
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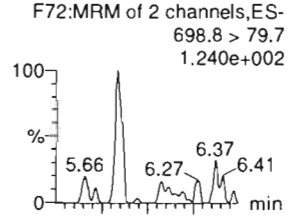


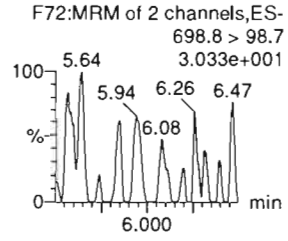
PFTrDA



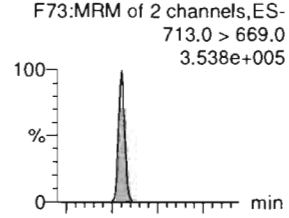


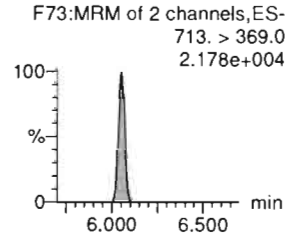
PFDoS



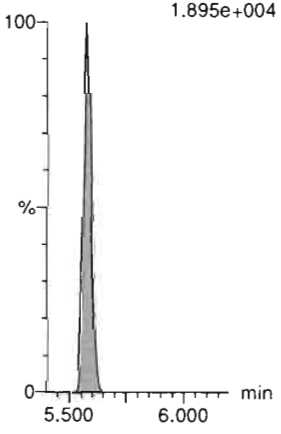


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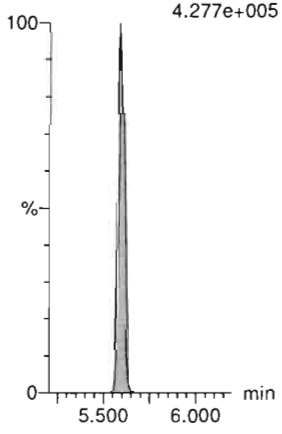




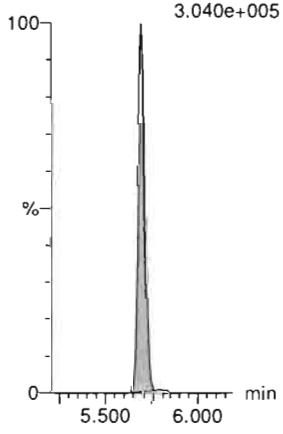
13C2-10:2 FTS-EIS



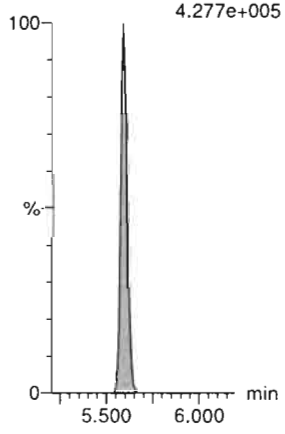
13C2-PFDoA-EIS



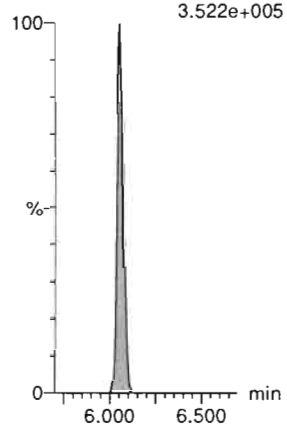
d3-N-MeFOSA-EIS



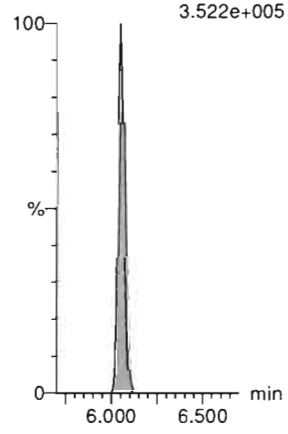
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

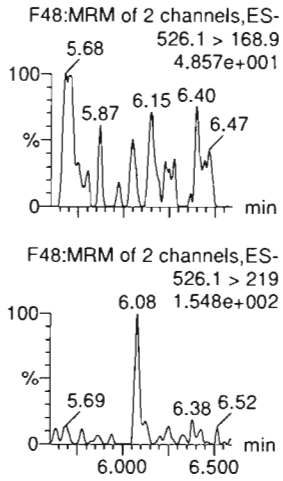


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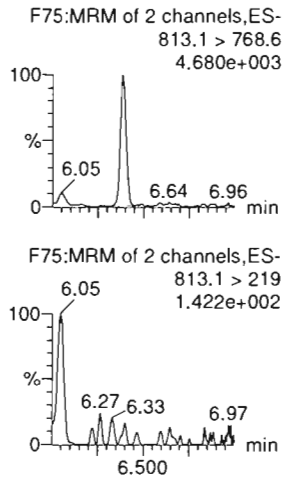
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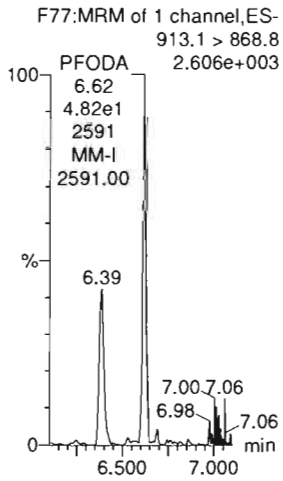
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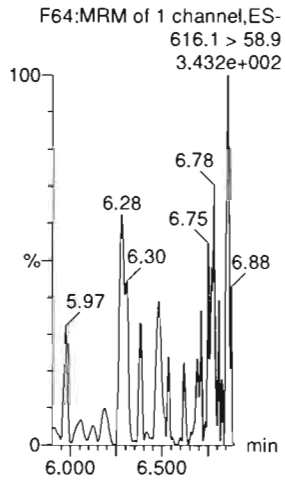
PFHxDA



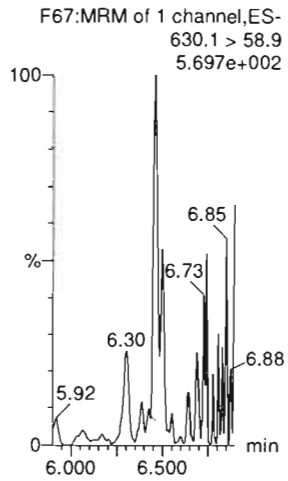
PFODA



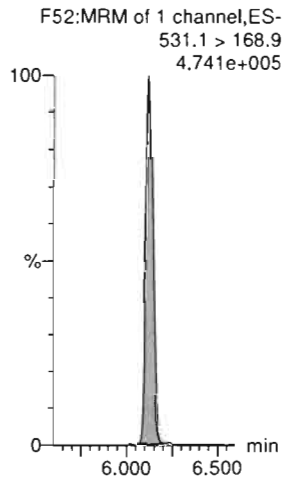
N-MeFOSE



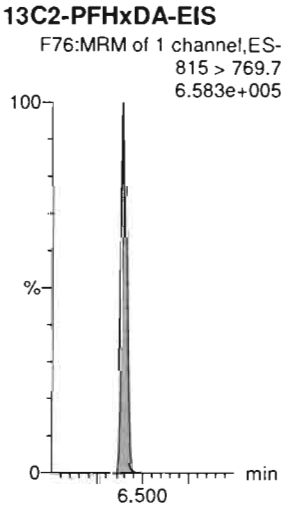
N-EtFOSE



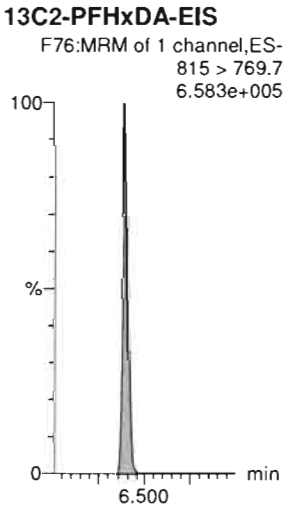
d5-N-ETFOSA-EIS



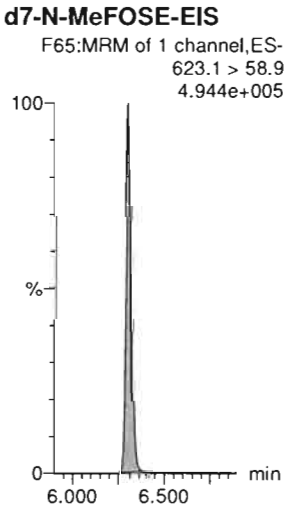
13C2-PFHxDA-EIS



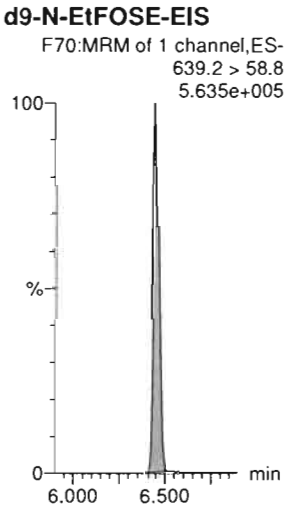
13C2-PFHxDA-EIS



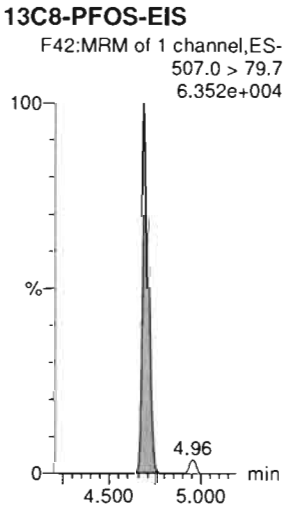
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C8-PFOS-EIS

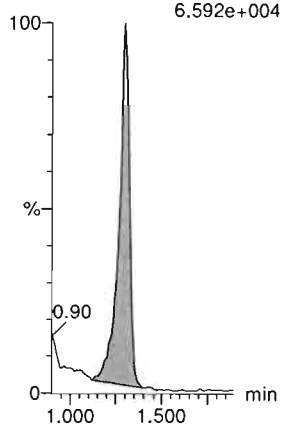


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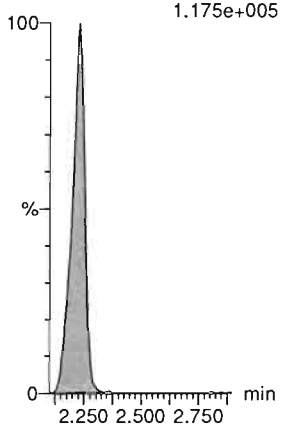
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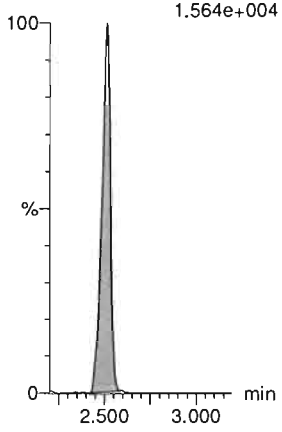
13C3-PFBA-RSD
F3:MRM of 1 channel,ES-
216.1 > 171.8
6.592e+004



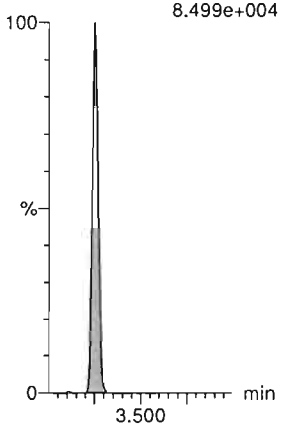
13C3-PFPeA-RSD
F8:MRM of 1 channel,ES-
266.0 > 221.8
1.175e+005



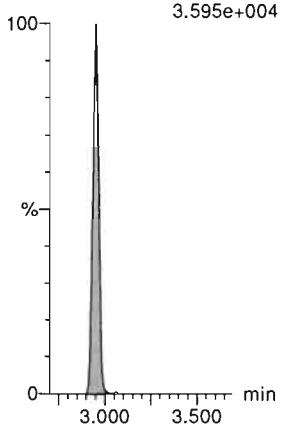
13C3-PFBS-RSD
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.564e+004



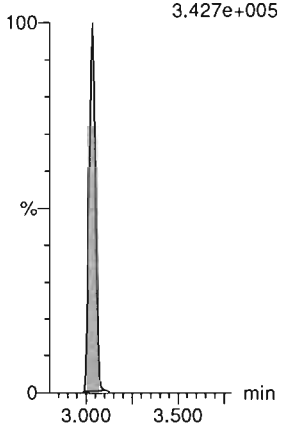
13C3-HFPO-DA-RSD
F10:MRM of 2 channels,ES-
287.0 > 168.9
8.499e+004



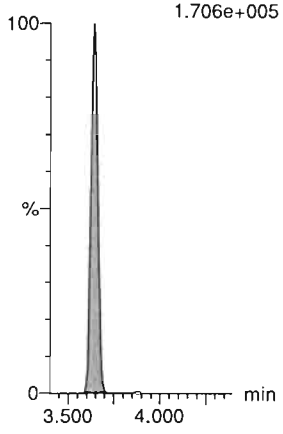
13C2-4:2 FTS-RSD
F17:MRM of 2 channels,ES-
329.0 > 79.7
3.595e+004



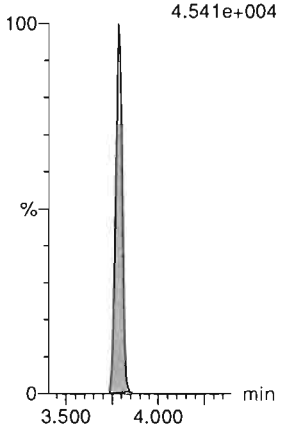
13C2-PFHxA-RSD
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.427e+005



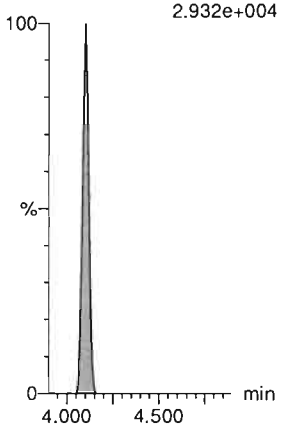
13C4-PFHpA-RSD
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.706e+005



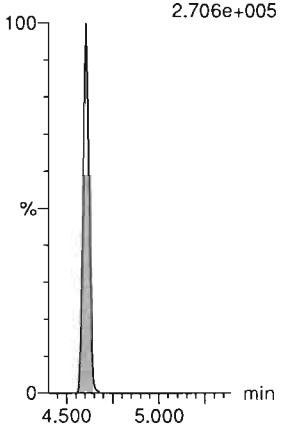
13C3-PFHxS-RSD
F24:MRM of 1 channel,ES-
401.8 > 79.7
4.541e+004



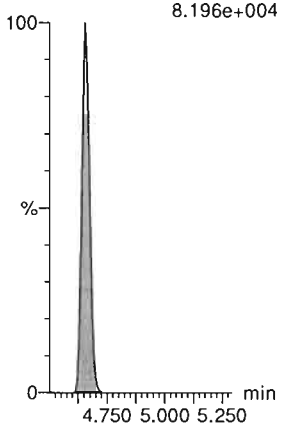
13C2-6:2 FTS-RSD
F30:MRM of 1 channel,ES-
429.0 > 79.7
2.932e+004



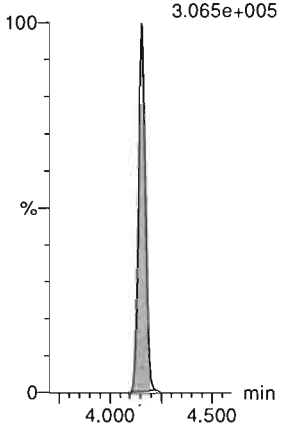
13C5-PFNA-RSD
F35:MRM of 1 channel,ES-
468.2 > 422.9
2.706e+005



13C8-PFOSA-RSD
F41:MRM of 1 channel,ES-
506 > 78
8.196e+004



13C2-PFOA-RSD
F27:MRM of 1 channel,ES-
414.9 > 369.7
3.065e+005

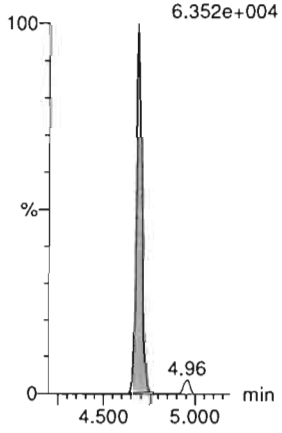


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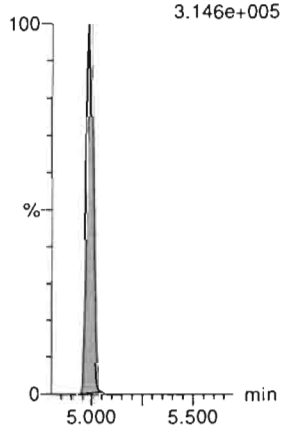
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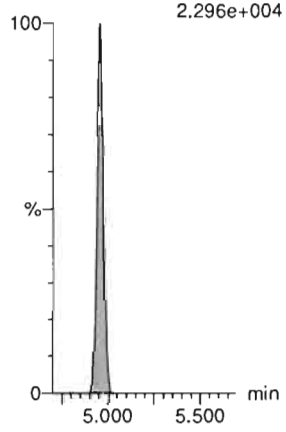
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.352e+004



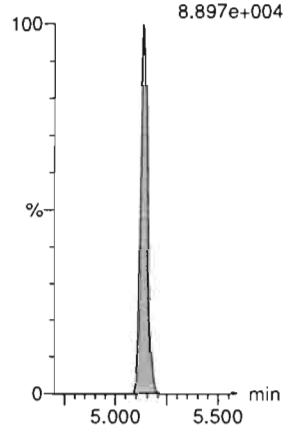
13C2-PFDA-RSD
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.146e+005



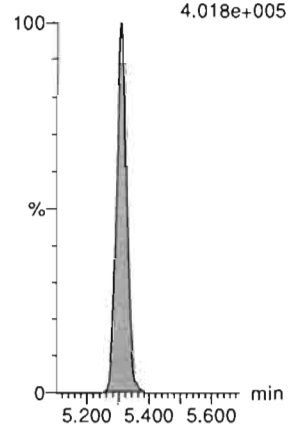
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F50:MRM of 1 channel,ES-
529 > 79.7
2.296e+004



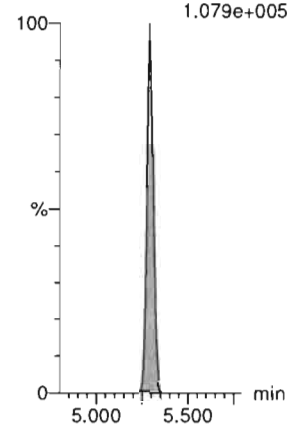
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F58:MRM of 1 channel,ES-
573.3 > 419
8.897e+004



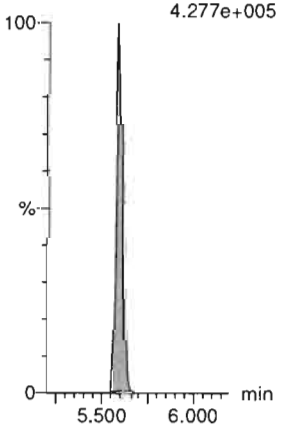
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F55:MRM of 1 channel,ES-
565 > 519.8
4.018e+005



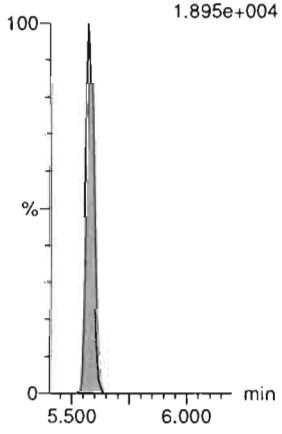
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F60:MRM of 1 channel,ES-
589.3 > 419
1.079e+005



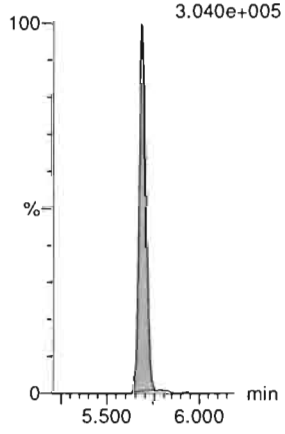
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F63:MRM of 1 channel,ES-
614.7 > 569.7
4.277e+005



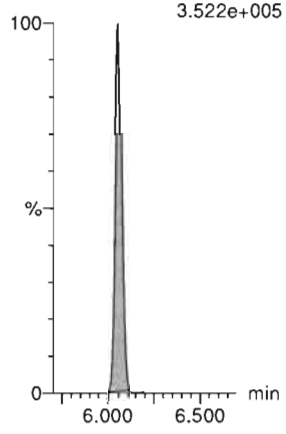
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F69:MRM of 1 channel,ES-
632.9 > 80.0
1.895e+004



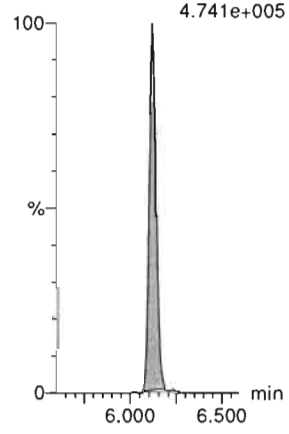
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F46:MRM of 1 channel,ES-
515.2 > 168.9
3.040e+005



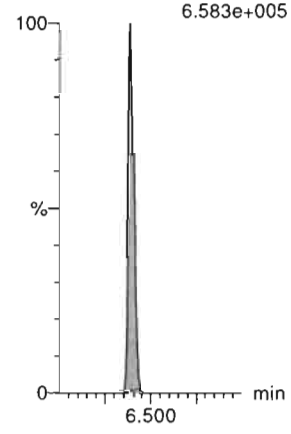
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.522e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.741e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
6.583e+005

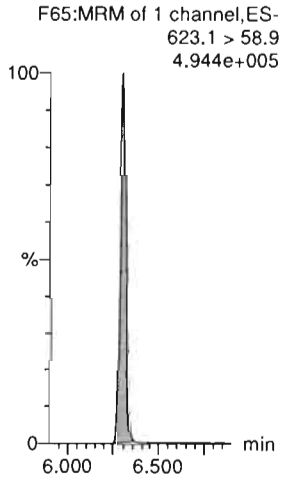


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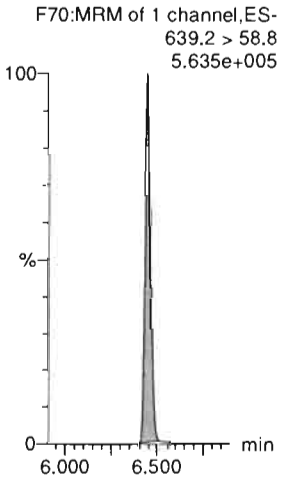
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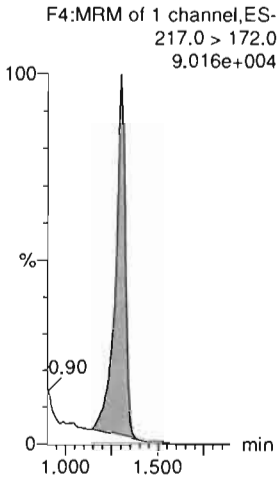
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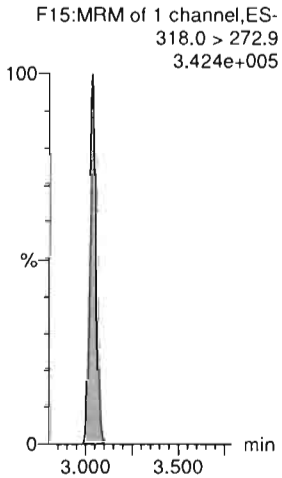
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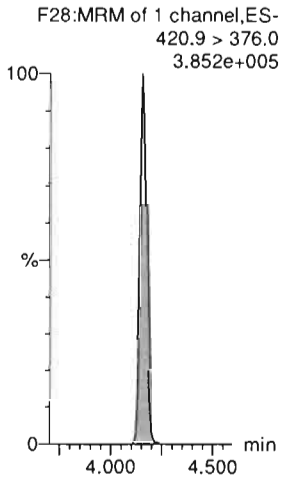
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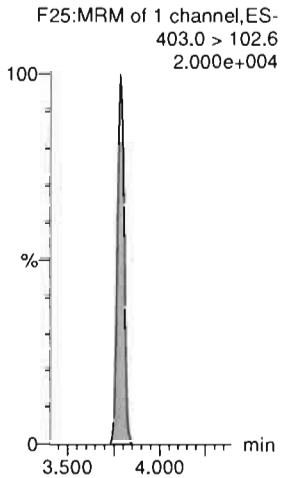
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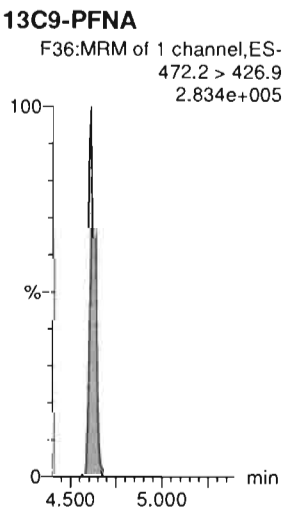
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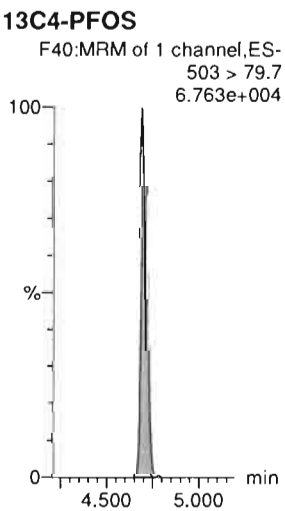
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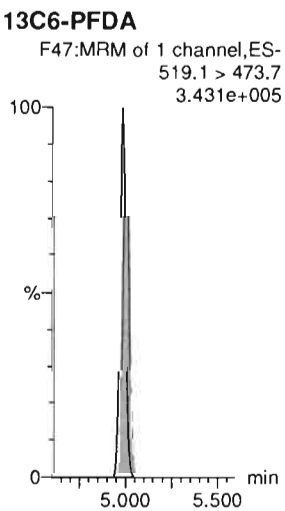
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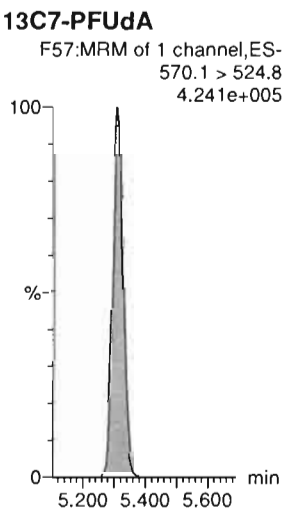
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13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

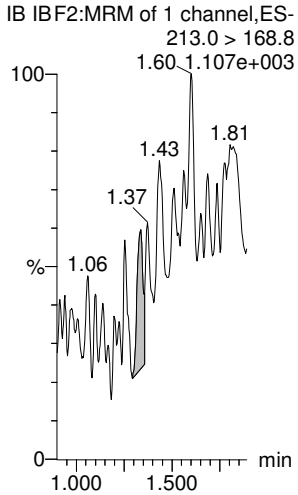
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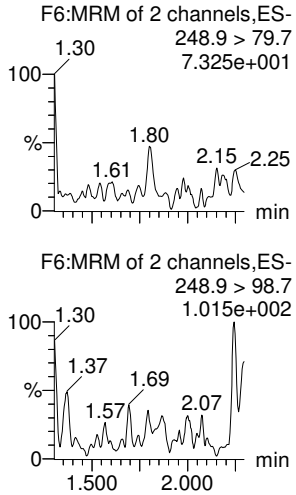
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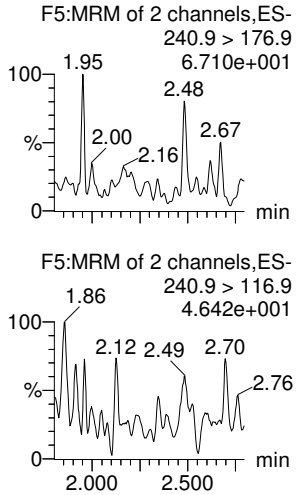
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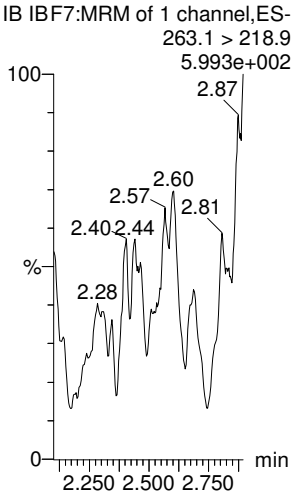
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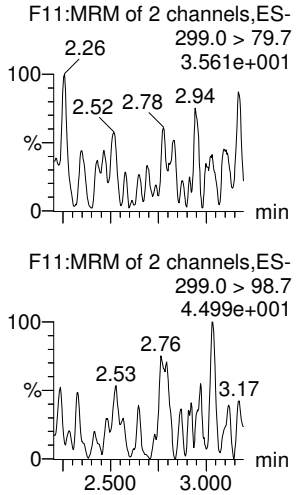
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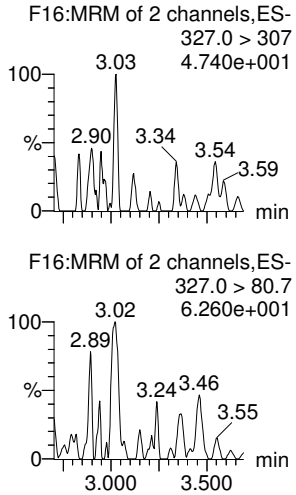
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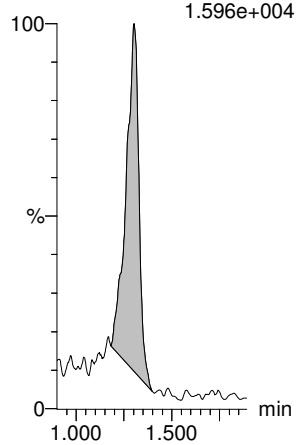
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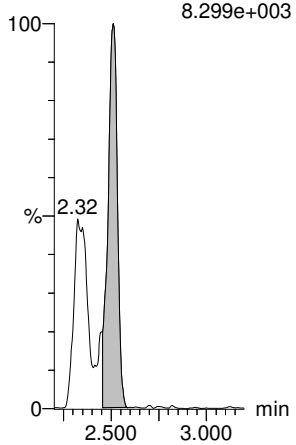
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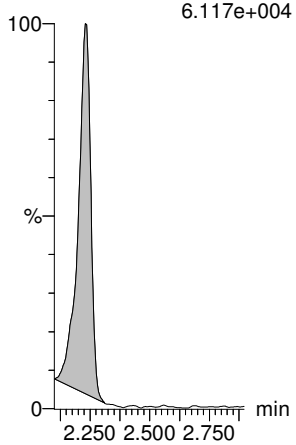
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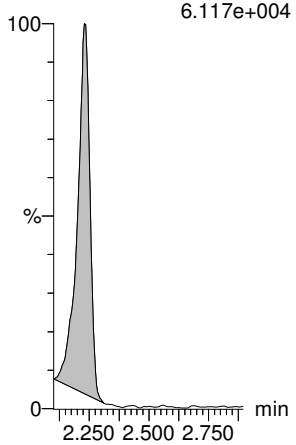
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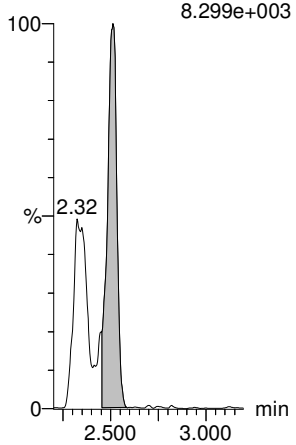
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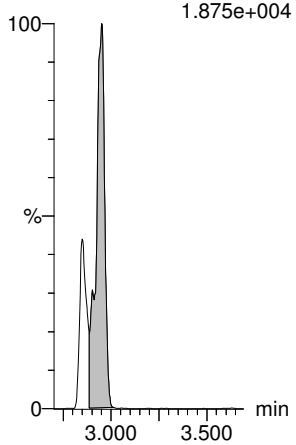
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13C3-PFBS-EIS



13C2-4:2 FTS-EIS

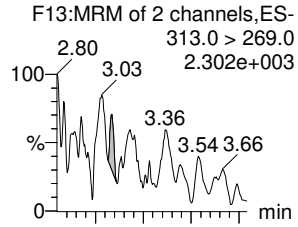


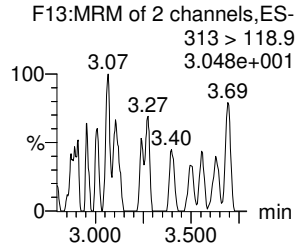
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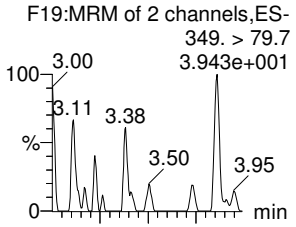
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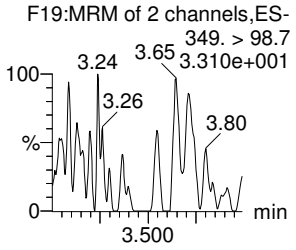
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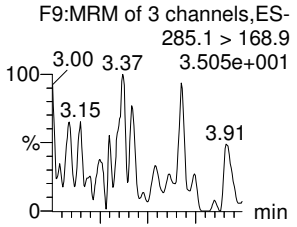


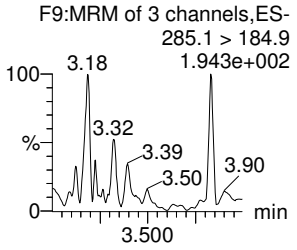
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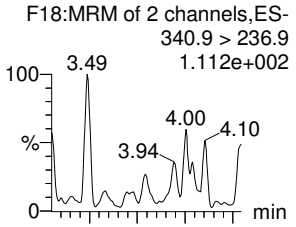


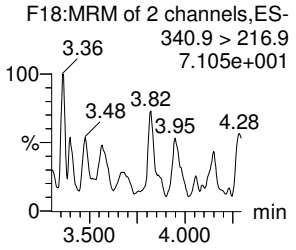
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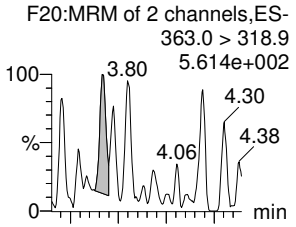


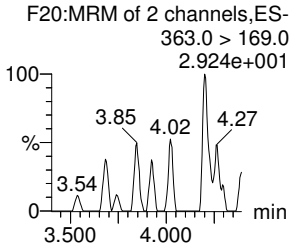
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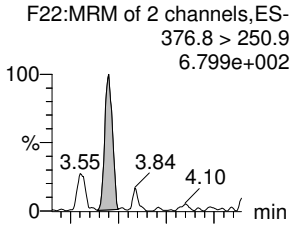


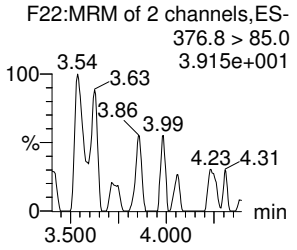
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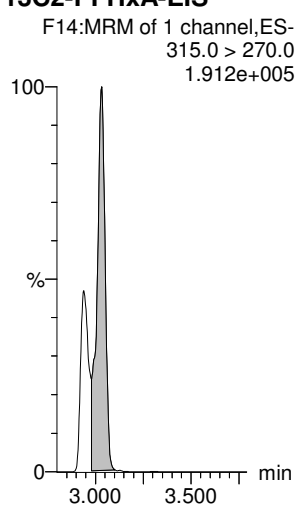


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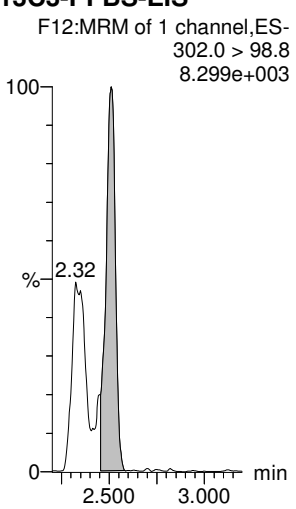




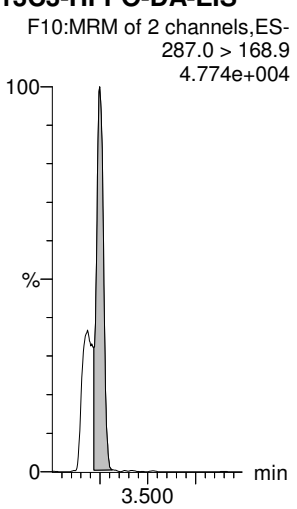
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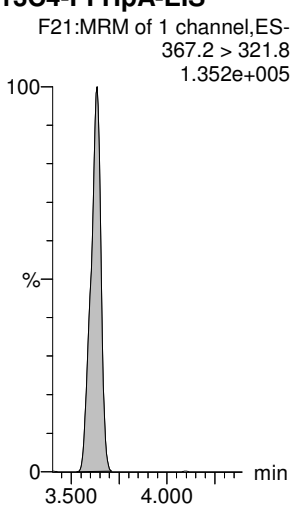
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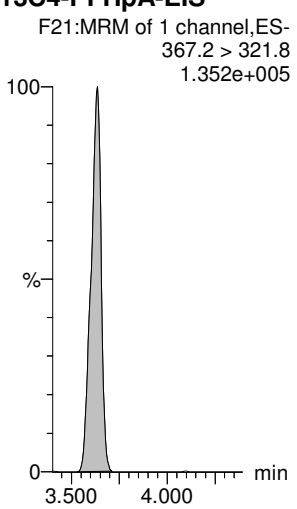
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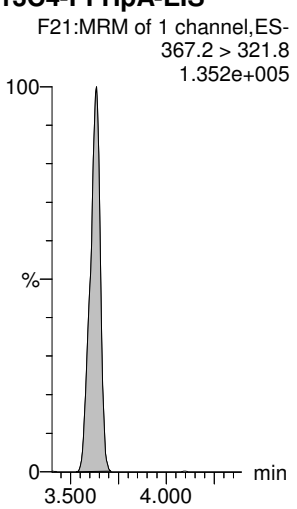
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13C4-PFHpA-EIS



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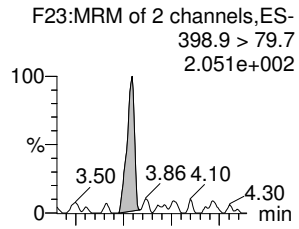


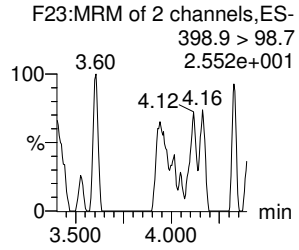
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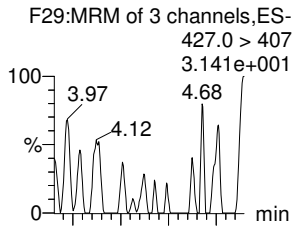
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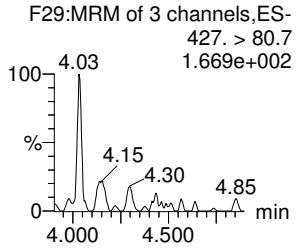
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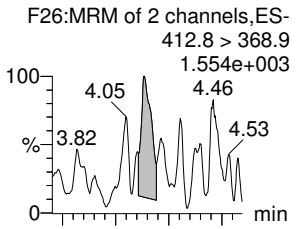


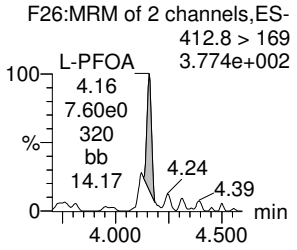
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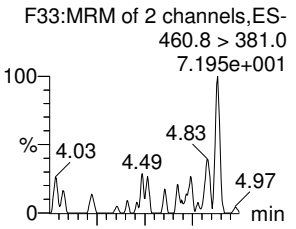


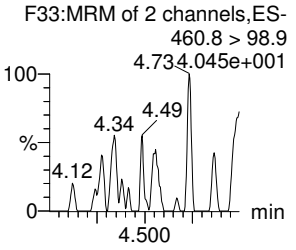
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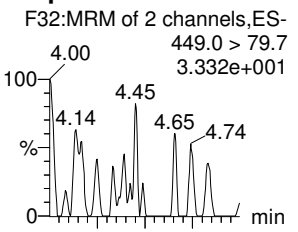


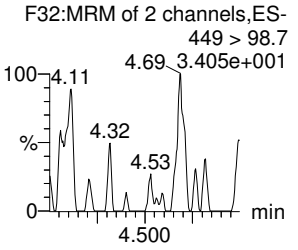
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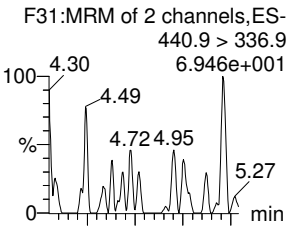


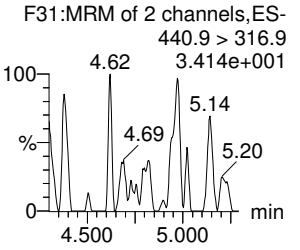
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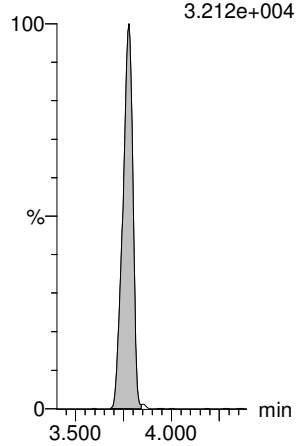


7:3 FTCA

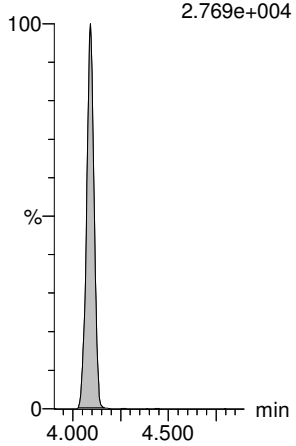




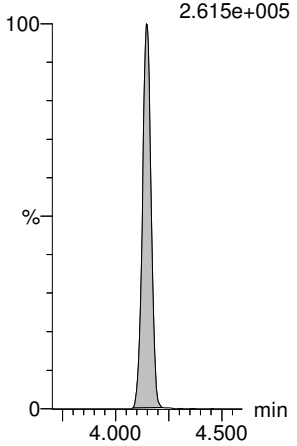
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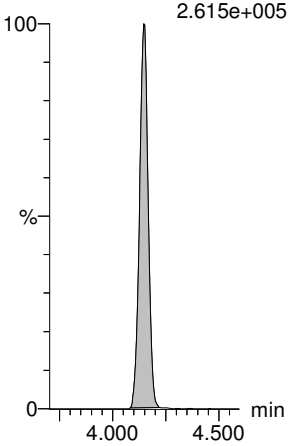
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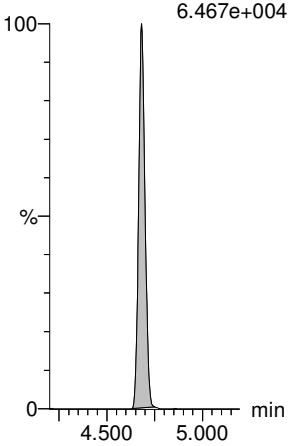
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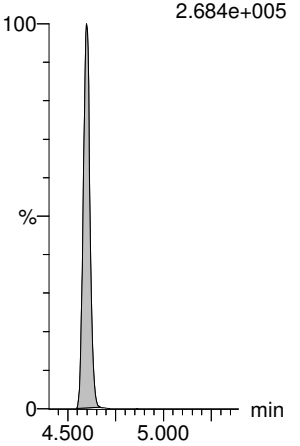
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13C8-PFOS-EIS



13C5-PFNA-EIS

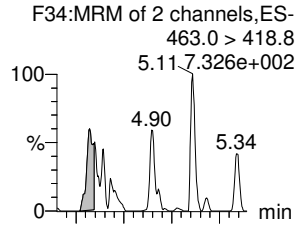


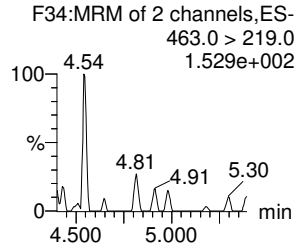
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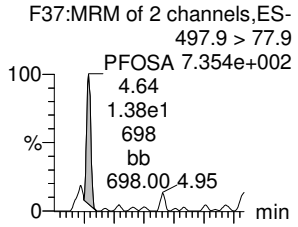
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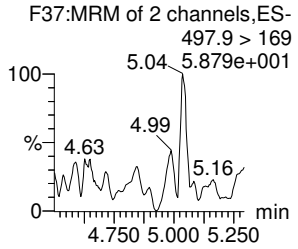
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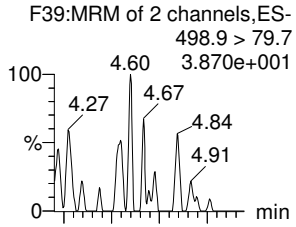


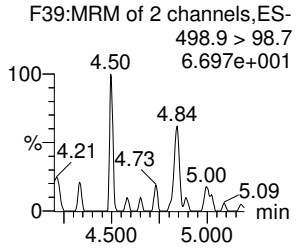
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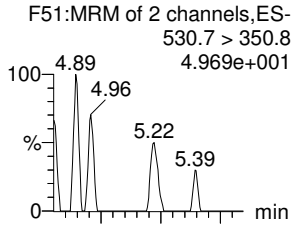


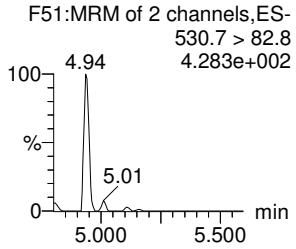
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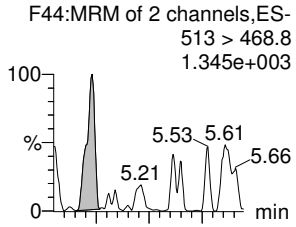


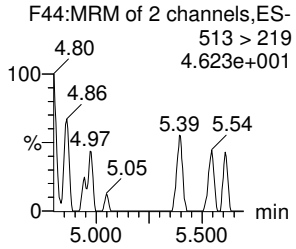
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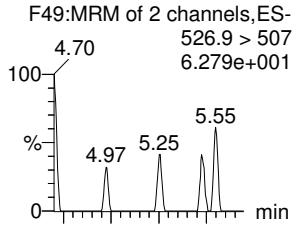


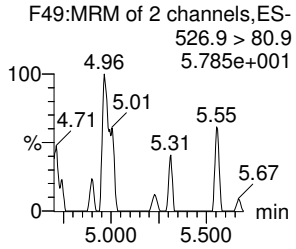
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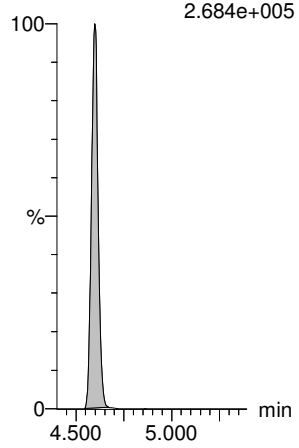


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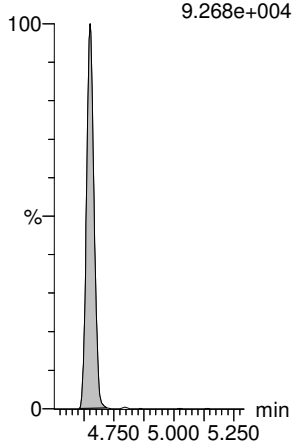




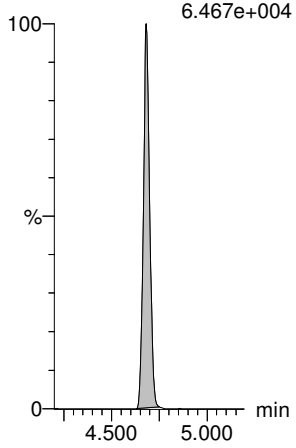
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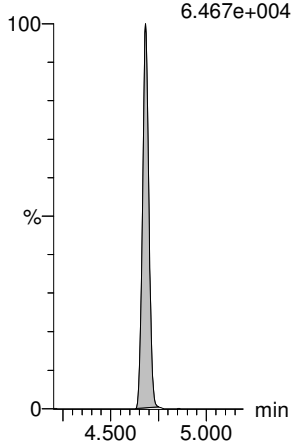
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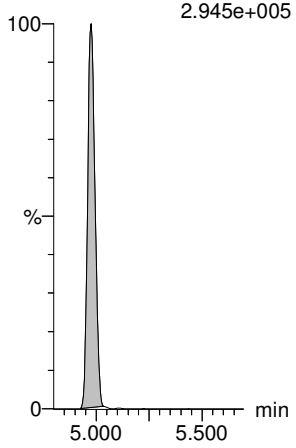
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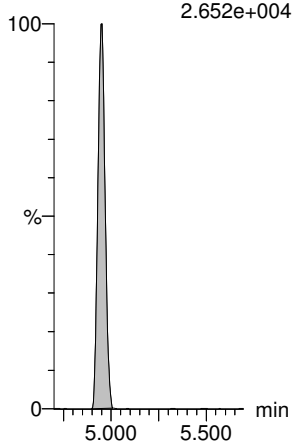
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13C2-PFDA-EIS



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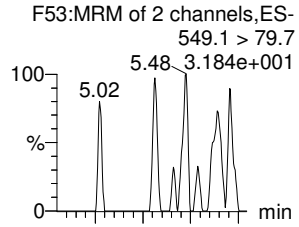


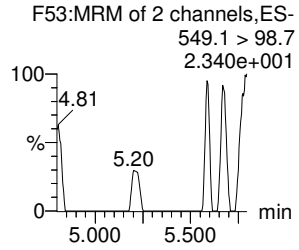
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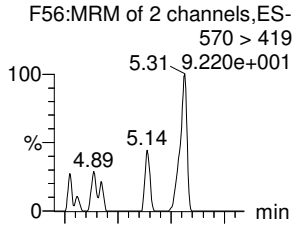
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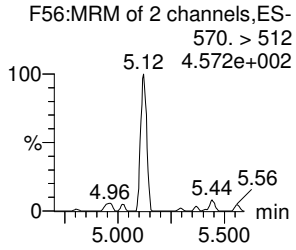
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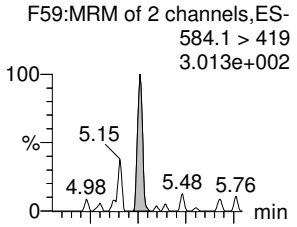


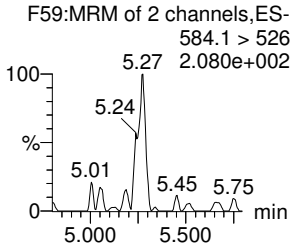
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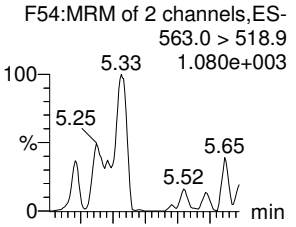


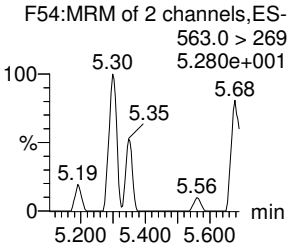
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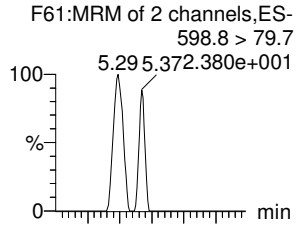


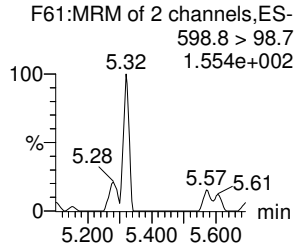
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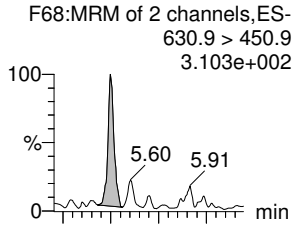


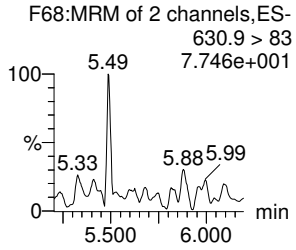
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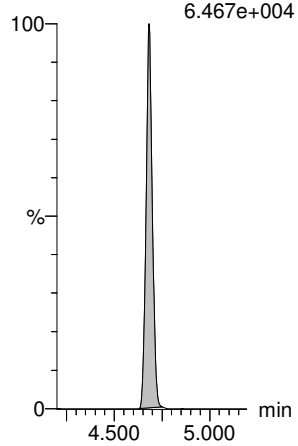


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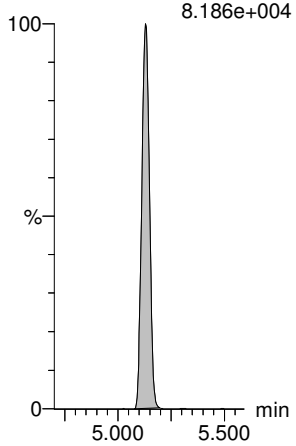




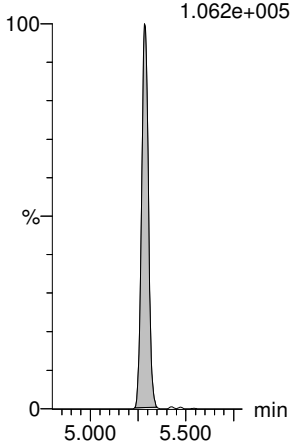
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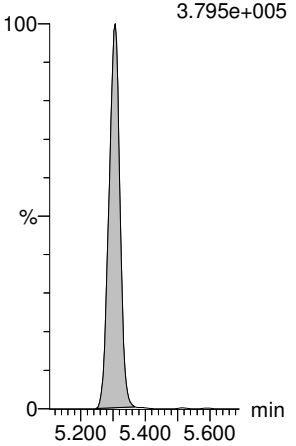
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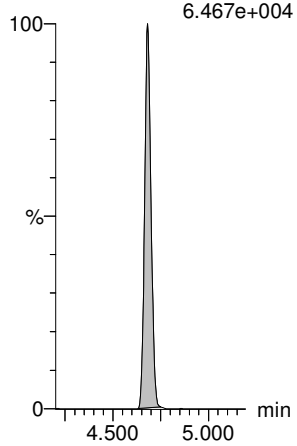
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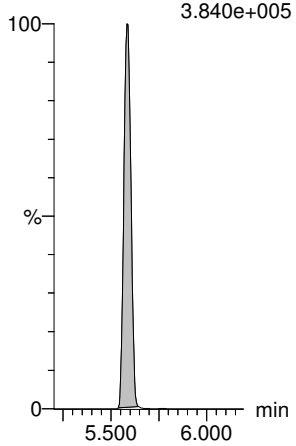
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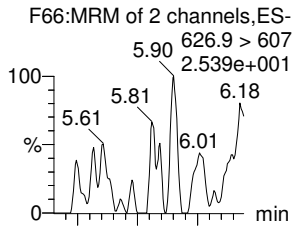


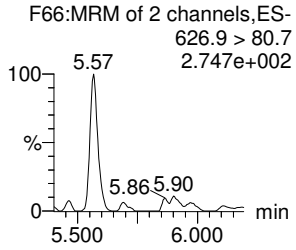
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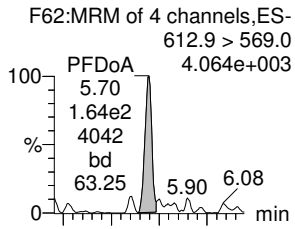
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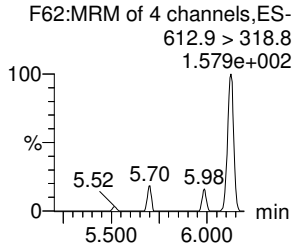
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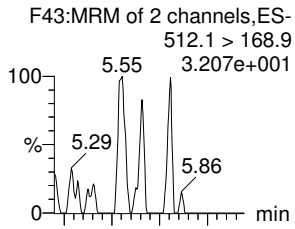


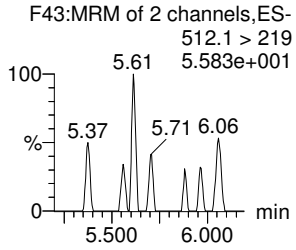
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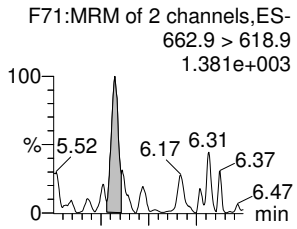


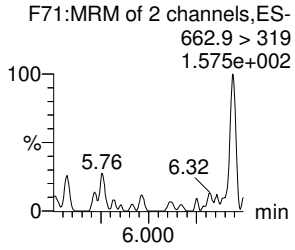
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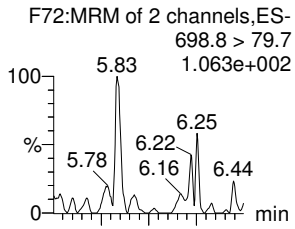


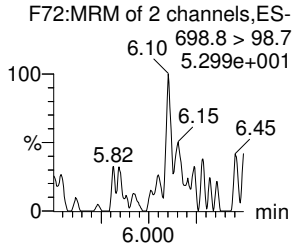
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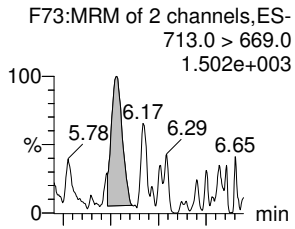


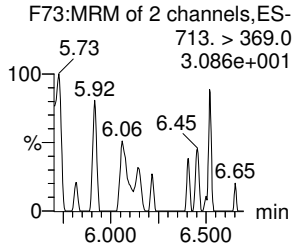
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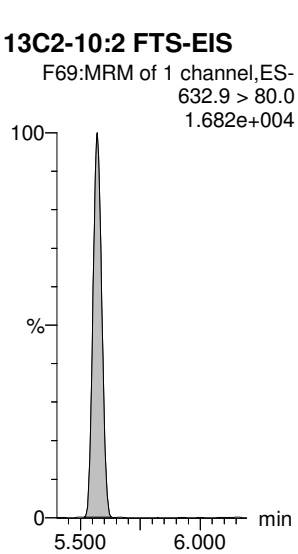


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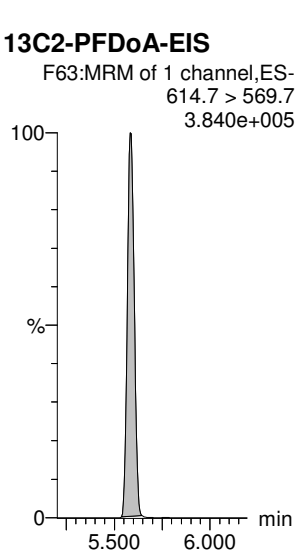




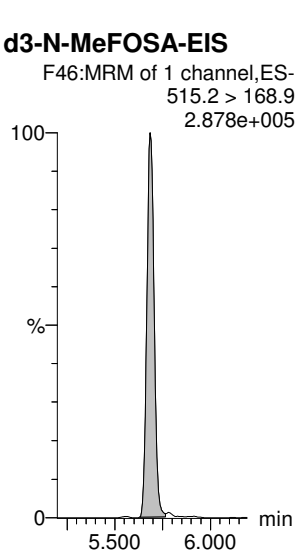
13C2-10:2 FTS-EIS



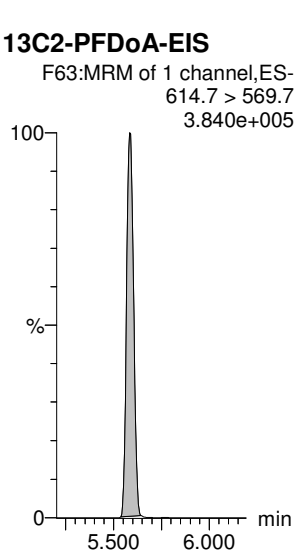
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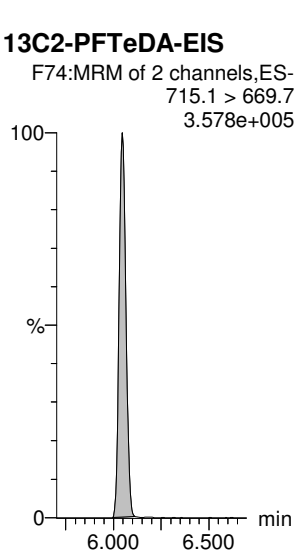
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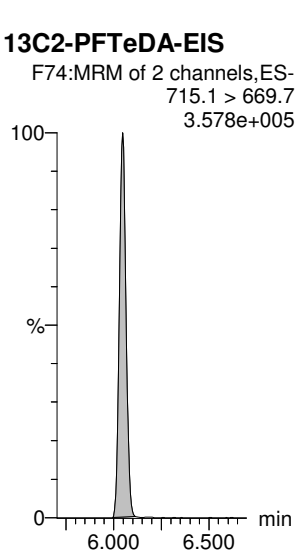
13C2-PFDoA-EIS



13C2-PFTeDA-EIS



13C2-PFTeDA-EIS

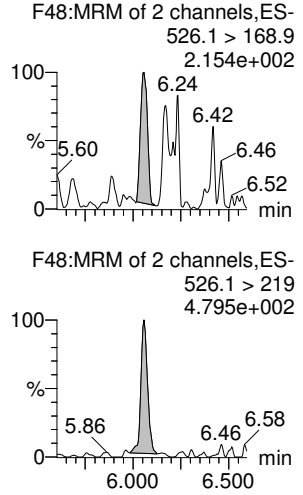


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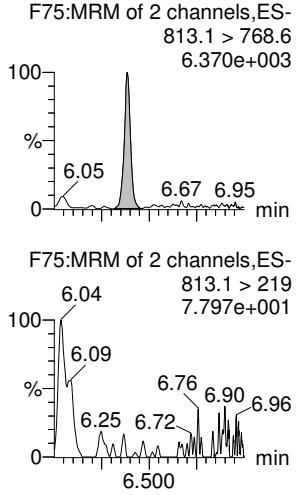
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Name: 200229P1-13, Date: 29-Feb-2020, Time: 17:31:01, ID: IB, Description: IB

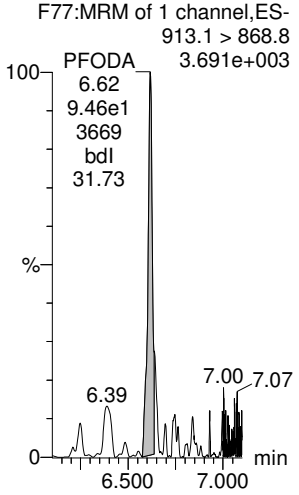
N-EtFOSA



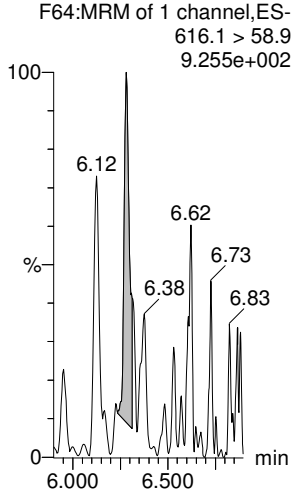
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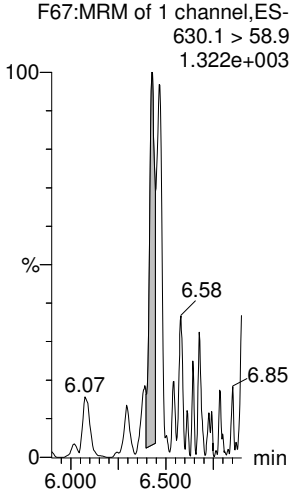
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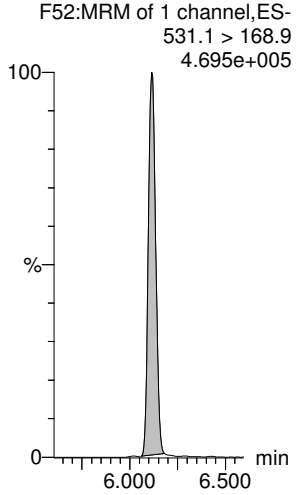
N-MeFOSE



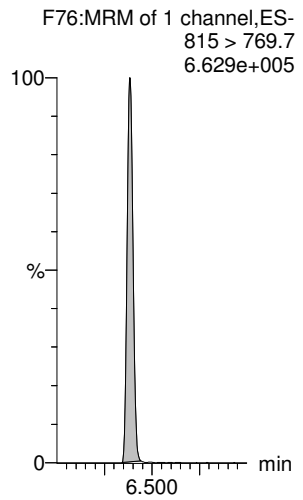
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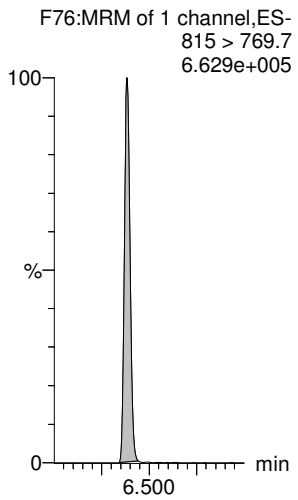
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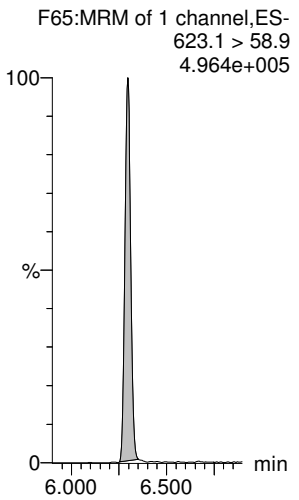
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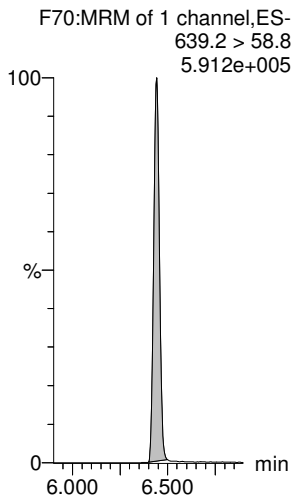
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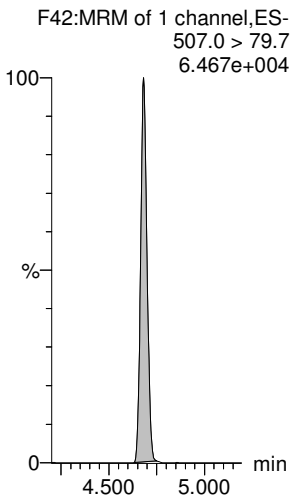
d7-N-MeFOSE-EIS



d9-N-EtFOSE-EIS



13C8-PFOS-EIS

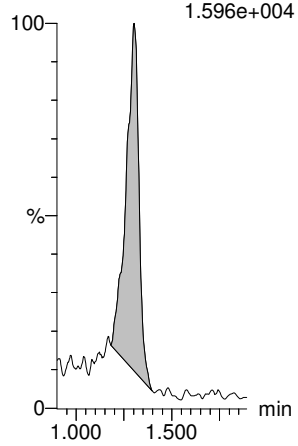


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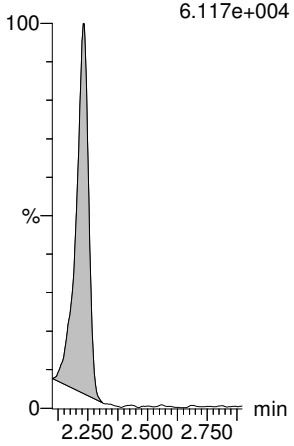
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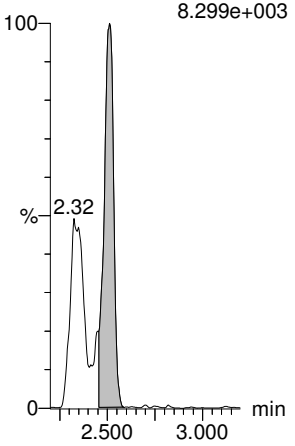
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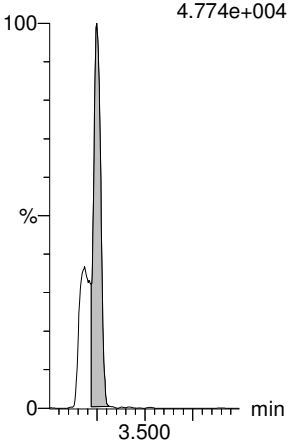
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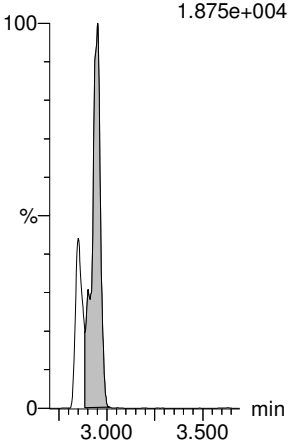
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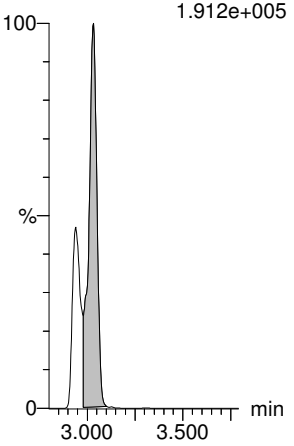
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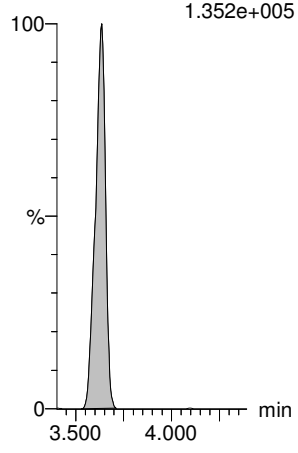
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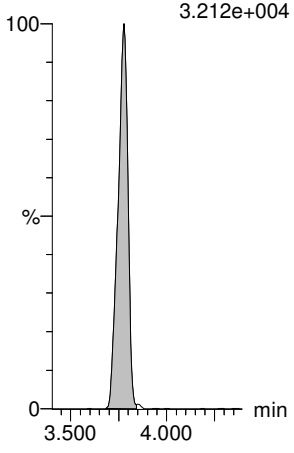
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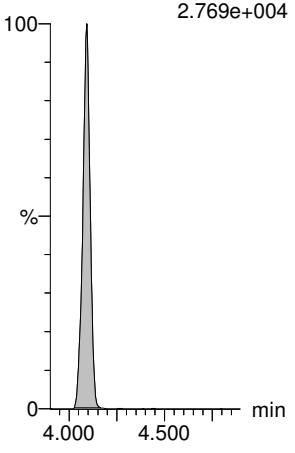
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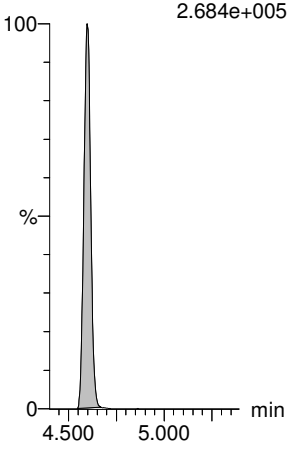
13C3-PFHxS-RSD



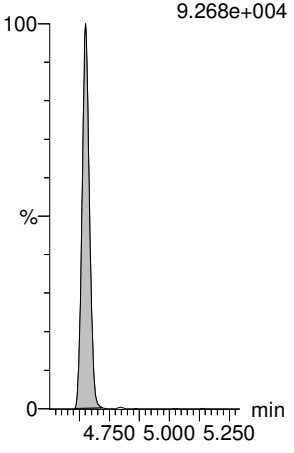
13C2-6:2 FTS-RSD



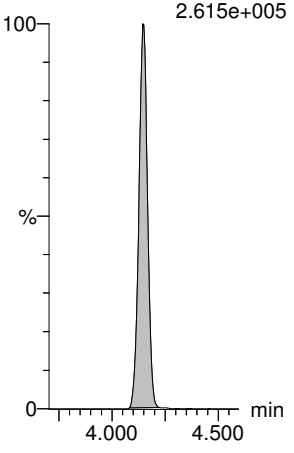
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13C8-PFOSA-RSD



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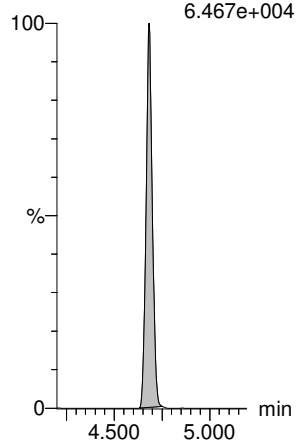


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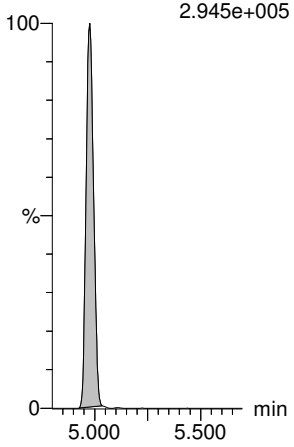
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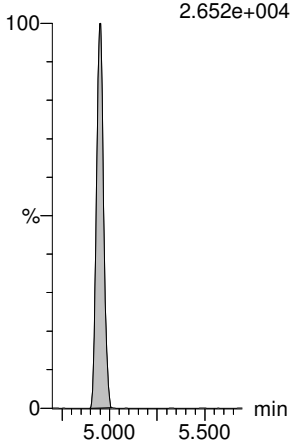
13C8-PFOS-RSD
F42:MRM of 1 channel,ES-
507.0 > 79.7
6.467e+004



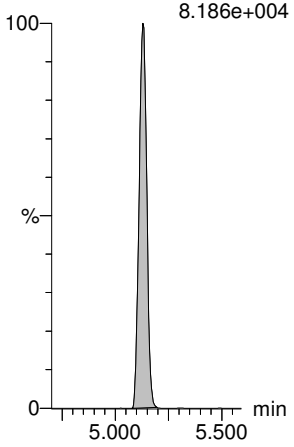
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F45:MRM of 1 channel,ES-
515.1 > 469.9
2.945e+005



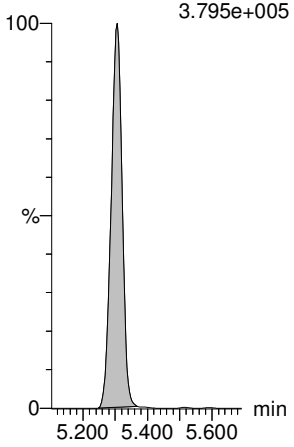
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F50:MRM of 1 channel,ES-
529 > 79.7
2.652e+004



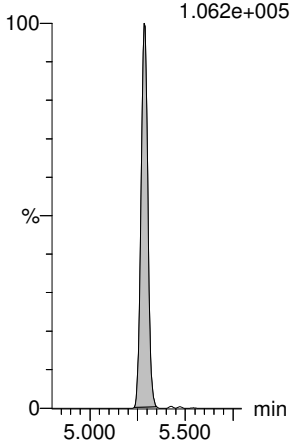
d3-N-MeFOSAA-RSD
F58:MRM of 1 channel,ES-
573.3 > 419
8.186e+004



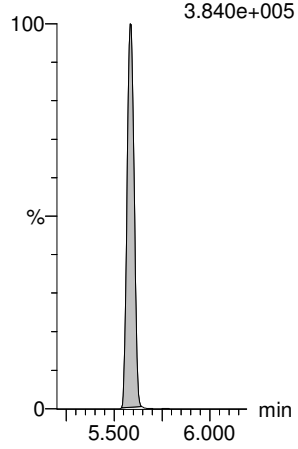
13C2-PFUdA-RSD
F55:MRM of 1 channel,ES-
565 > 519.8
3.795e+005



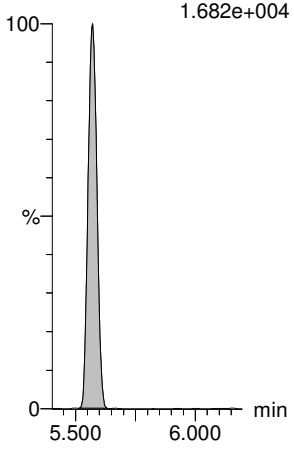
d5-N-EtFOSAA-RSD
F60:MRM of 1 channel,ES-
589.3 > 419
1.062e+005



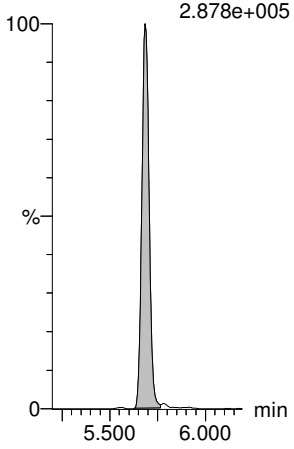
13C2-PFDoA-RSD
F63:MRM of 1 channel,ES-
614.7 > 569.7
3.840e+005



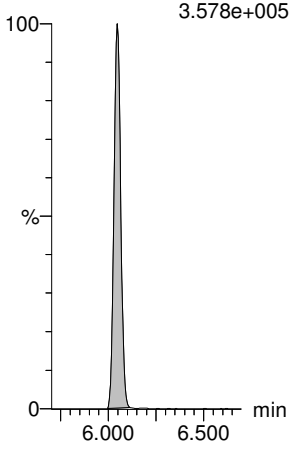
13C2-10:2 FTS-RSD
F69:MRM of 1 channel,ES-
632.9 > 80.0
1.682e+004



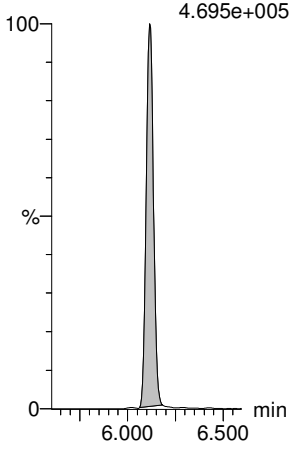
d3-N-MeFOSA-RSD
F46:MRM of 1 channel,ES-
515.2 > 168.9
2.878e+005



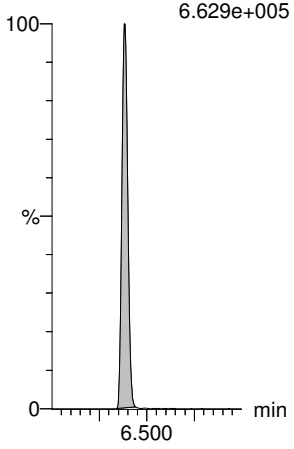
13C2-PFTeDA-RSD
F74:MRM of 2 channels,ES-
715.1 > 669.7
3.578e+005



d5-N-ETFOSA-RSD
F52:MRM of 1 channel,ES-
531.1 > 168.9
4.695e+005



13C2-PFHxDA-RSD
F76:MRM of 1 channel,ES-
815 > 769.7
6.629e+005

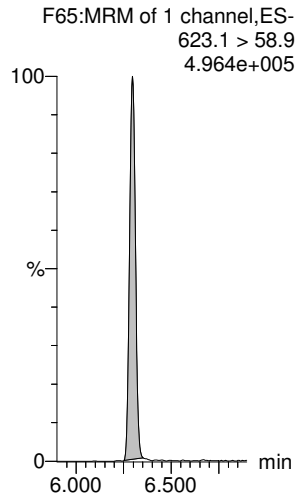


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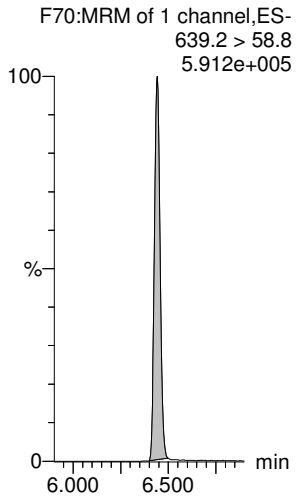
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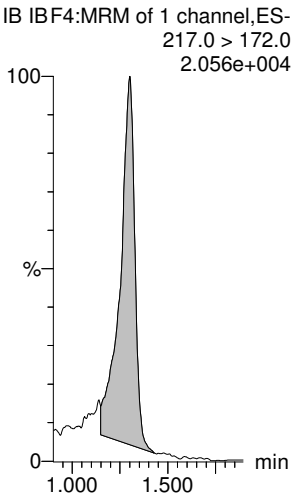
d7-N-MeFOSE-RSD



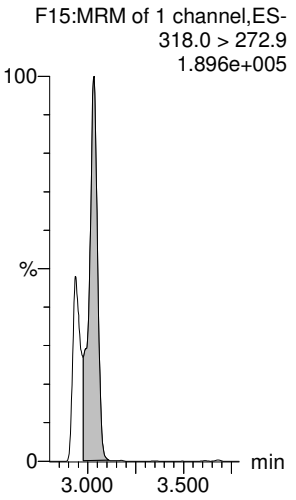
d9-N-EtFOSE-RSD



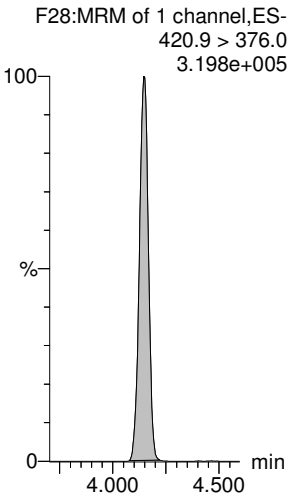
13C4-PFBA



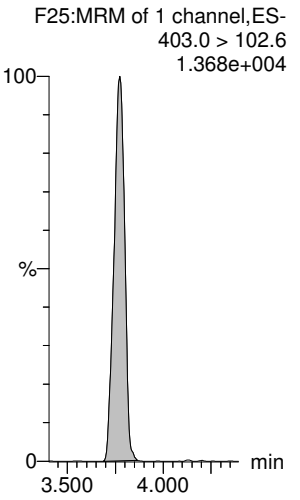
13C5-PFHxA



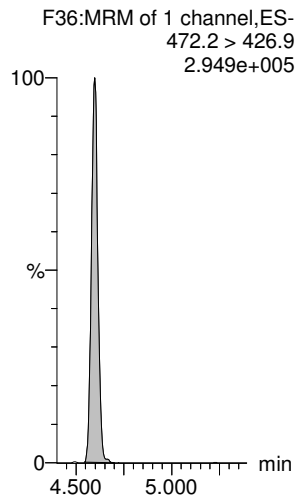
13C8-PFOA



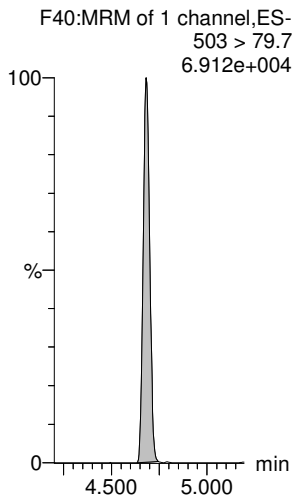
18O2-PFHxS



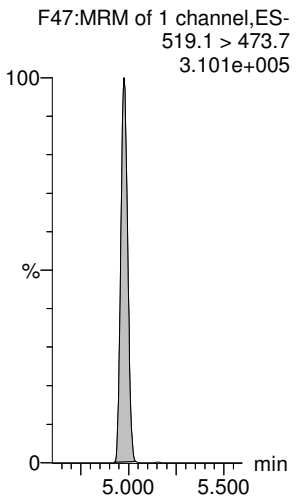
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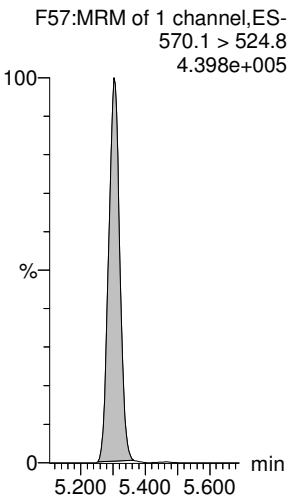
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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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	14.157	1115.262	1.00	1.34	0.159		0.0867		NO		
2	2	PFPrS	248.9 > 79.7		473.731	1.00						NO		YES
3	3	3:3 FTCA	240.9 > 176.9		3554.875	1.00						NO		YES
4	4	PFPeA	263.1 > 218.9		3554.875	1.00						NO		
5	5	PFBS	299.0 > 79.7		473.731	1.00						NO		YES
6	6	4:2 FTS	327.0 > 307		951.418	1.00						NO		YES
7	47	13C3-PFBA-EIS	216.1 > 171.8	1115.262		1.00	1.30	1115.262	12.500	3.20	25.6	YES		
8	51	13C3-PFBS-EIS	302.0 > 98.8	473.731		1.00	2.51	473.731	12.500	6.34	50.8	NO		
9	49	13C3-PFPeA-EIS	266.0 > 221.8	3554.875		1.00	2.23	3554.875	12.500	5.52	44.2	YES		
10	49	13C3-PFPeA-EIS	266.0 > 221.8	3554.875		1.00	2.23	3554.875	12.500	5.52	44.2	YES		
11	51	13C3-PFBS-EIS	302.0 > 98.8	473.731		1.00	2.51	473.731	12.500	6.34	50.8	NO		
12	55	13C2-4:2 FTS-EIS	329.0 >79.7	951.418		1.00	2.95	951.418	12.500	8.16	65.3	NO		
13	-1													
14	7	PFHxA	313.0 > 269.0	21.225	9208.006	1.00	3.08	0.029				NO		YES
15	8	PFPeS	349.>79.7		473.731	1.00						NO		YES
16	9	HFPO-DA	285.1 > 168.9		2012.123	1.00						NO		YES
17	10	5:3 FTCA	340.9 > 236.9		8097.259	1.00						NO		YES
18	11	PFHpA	363.0 > 318.9	18.369	8097.259	1.00	3.67	0.028				NO		YES
19	12	ADONA	376.8 > 250.9	30.956	8097.259	1.00	3.70	0.048				NO		YES
20	57	13C2-PFHxA-EIS	315.0 > 270.0	9208.006		1.00	3.03	9208.006	12.500	8.06	64.5	NO		
21	51	13C3-PFBS-EIS	302.0 > 98.8	473.731		1.00	2.51	473.731	12.500	6.34	50.8	NO		
22	53	13C3-HFPO-DA-EIS	287.0 > 168.9	2012.123		1.00	3.25	2012.123	12.500	7.05	56.4	NO		
23	59	13C4-PFHpA-EIS	367.2 > 321.8	8097.259		1.00	3.64	8097.259	12.500	12.5	99.6	NO		
24	59	13C4-PFHpA-EIS	367.2 > 321.8	8097.259		1.00	3.64	8097.259	12.500	12.5	99.6	NO		
25	59	13C4-PFHpA-EIS	367.2 > 321.8	8097.259		1.00	3.64	8097.259	12.500	12.5	99.6	NO		
26	-1													
27	13	L-PFHxS	398.9 > 79.7	8.996	1915.874	1.00	3.79	0.059		0.186		NO		YES
28	15	6:2 FTS	427.0 > 407		1221.489	1.00						NO		YES
29	16	L-PFOA	412.8 > 368.9	77.457	12178.052	1.00	4.13	0.080				NO	10.197	YES
30	18	PFecHS	460.8 > 381.0		12178.052	1.00						NO		YES
31	19	PFHpS	449.0 > 79.7		2456.501	1.00						NO		YES
32	20	7:3 FTCA	440.9 > 336.9		10870.944	1.00						NO		YES
33	61	13C3-PFHxS-EIS	401.8 > 79.7	1915.874		1.00	3.78	1915.874	12.500	11.3	90.4	NO		
34	63	13C2-6:2 FTS-EIS	429.0 >79.7	1221.489		1.00	4.09	1221.489	12.500	13.2	105.3	NO		
35	69	13C2-PFOA-EIS	414.9 > 369.7	12178.052		1.00	4.15	12178.052	12.500	11.9	95.5	NO		
36	69	13C2-PFOA-EIS	414.9 > 369.7	12178.052		1.00	4.15	12178.052	12.500	11.9	95.5	NO		

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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	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
38	65	13C5-PFNA-EIS	468.2 > 422.9	10870.944		1.00	4.60	10870.944	12.500	11.7	93.7	NO		
39	-1													
40	21	PFNA	463.0 > 418.8	16.738	10870.944	1.00	4.57	0.019				NO		YES
41	22	PFOSA	497.9 > 77.9	13.824	3299.818	1.00	4.64	0.052		0.0121		NO		YES
42	23	L-PFOS	498.9 > 79.7		2456.501	1.00						NO		YES
43	25	9Cl-PF30NS	530.7 > 350.8		2456.501	1.00						NO		YES
44	26	PFDA	513 > 468.8	58.675	11710.319	1.00	4.98	0.063				NO		YES
45	27	8:2 FTS	526.9 > 507		1127.206	1.00						NO		YES
46	65	13C5-PFNA-EIS	468.2 > 422.9	10870.944		1.00	4.60	10870.944	12.500	11.7	93.7	NO		
47	67	13C8-PFOSA-EIS	506 > 78	3299.818		1.00	4.65	3299.818	12.500	11.2	89.5	NO		
48	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
49	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
50	73	13C2-PFDA-EIS	515.1 > 469.9	11710.319		1.00	4.98	11710.319	12.500	11.8	94.6	NO		
51	75	13C2-8:2 FTS-EIS	529 > 79.7	1127.206		1.00	4.95	1127.206	12.500	13.4	106.8	NO		
52	-1													
53	28	PFNS	549.1 > 79.7		2456.501	1.00						NO		YES
54	29	L-MeFOSAA	570 > 419		3341.979	1.00						NO		YES
55	31	L-EtFOSAA	584.1 > 419	8.949	4420.043	1.00	5.26	0.025		0.0476		NO		YES
56	33	PFUdA	563.0 > 518.9		14715.999	1.00						NO		YES
57	34	PFDS	598.8 > 79.7		2456.501	1.00						NO		YES
58	35	11Cl-PF30UdS	630.9 > 450.9	10.712	15840.331	1.00	5.50	0.008				NO		YES
59	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
60	77	d3-N-MeFOSAA-EIS	573.3 > 419	3341.979		1.00	5.13	3341.979	12.500	11.7	93.5	NO		
61	81	d5-N-EtFOSAA-EIS	589.3 > 419	4420.043		1.00	5.28	4420.043	12.500	11.7	93.9	NO		
62	79	13C2-PFUdA-EIS	565 > 519.8	14715.999		1.00	5.31	14715.999	12.500	11.8	94.3	NO		
63	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
64	83	13C2-PFDoA-EIS	614.7 > 569.7	15840.331		1.00	5.58	15840.331	12.500	11.3	90.4	NO		
65	-1													
66	36	10:2 FTS	626.9 > 607		710.394	1.00						NO		YES
67	37	PFDoA	612.9 > 569.0	164.316	15840.331	1.00	5.70	0.130		0.0957		NO		YES
68	38	N-MeFOSA	512.1 > 168.9		12609.581	1.00						NO		YES
69	39	PFTrDA	662.9 > 618.9	58.097	15840.331	1.00	5.82	0.046				NO		YES
70	40	PFDoS	698.8 > 79.7		14604.578	1.00						NO		YES
71	41	PFTeDA	713.0 > 669.0	93.868	14604.578	1.00	6.03	0.080		0.0588		NO		YES
72	85	13C2-10:2 FTS-EIS	632.9 > 80.0	710.394		1.00	5.57	710.394	12.500	10.9	87.3	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	614.7 > 569.7	15840.331		1.00	5.58	15840.331	12.500	11.3	90.4	NO		
74	87	d3-N-MeFOSA-EIS	515.2 > 168.9	12609.581		1.00	5.69	12609.581	149.200	139	93.4	NO		
75	83	13C2-PFDoA-EIS	614.7 > 569.7	15840.331		1.00	5.58	15840.331	12.500	11.3	90.4	NO		
76	89	13C2-PFTeDA-EIS	715.1 > 669.7	14604.578		1.00	6.05	14604.578	12.500	11.5	91.9	NO		
77	89	13C2-PFTeDA-EIS	715.1 > 669.7	14604.578		1.00	6.05	14604.578	12.500	11.5	91.9	NO		
78	-1													
79	42	N-EtFOSA	526.1 > 168.9	8.454	20283.383	1.00	6.06	0.062				NO	0.465	YES
80	43	PFHxDA	813.1 > 768.6	241.646	22783.920	1.00	6.39	0.133				NO		YES
81	44	PFODA	913.1 > 868.8	94.619	22783.920	1.00	6.62	0.052				NO		
82	45	N-MeFOSE	616.1 > 58.9	26.283	17286.043	1.00	6.28	0.227				NO		
83	46	N-EtFOSE	630.1 > 58.9	39.785	19829.824	1.00	6.43	0.299				NO		
84	91	d5-N-ETFOSA-EIS	531.1 > 168.9	20283.383		1.00	6.11	20283.383	149.200	137	91.9	NO		
85	93	13C2-PFHxDA-EIS	815 > 769.7	22783.920		1.00	6.38	22783.920	12.500	11.7	93.5	NO		
86	93	13C2-PFHxDA-EIS	815 > 769.7	22783.920		1.00	6.38	22783.920	12.500	11.7	93.5	NO		
87	95	d7-N-MeFOSE-EIS	623.1 > 58.9	17286.043		1.00	6.29	17286.043	149.200	139	92.9	NO		
88	97	d9-N-EtFOSE-EIS	639.2 > 58.8	19829.824		1.00	6.44	19829.824	149.200	135	90.4	NO		
89	71	13C8-PFOS-EIS	507.0 > 79.7	2456.501		1.00	4.68	2456.501	12.500	12.5	100.2	NO		
90	-1													
91	48	13C3-PFBA-RSD	216.1 > 171.8	1115.262	1747.093	1.00	1.30	7.979	12.500	10.7	85.3	NO		
92	50	13C3-PFPeA-RSD	266.0 > 221.8	3554.875	9488.963	1.00	2.23	4.683	12.500	8.55	68.4	NO		
93	52	13C3-PFBS-RSD	302.0 > 98.8	473.731	868.893	1.00	2.51	6.815	12.500	6.84	54.7	NO		
94	54	13C3-HFPO-DA-RSD	287.0 > 168.9	2012.123	9488.963	1.00	3.25	2.651	12.500	11.0	88.1	NO		
95	56	13C2-4:2 FTS-RSD	329.0 >79.7	951.418	868.893	1.00	2.95	13.687	12.500	9.48	75.8	NO		
96	58	13C2-PFHxA-RSD	315.0 > 270.0	9208.006	9488.963	1.00	3.03	12.130	12.500	12.0	96.0	NO		
97	60	13C4-PFHpA-RSD	367.2 > 321.8	8097.259	9488.963	1.00	3.64	10.667	12.500	18.8	150.4	YES		
98	62	13C3-PFHxS-RSD	401.8 > 79.7	1915.874	868.893	1.00	3.78	27.562	12.500	11.6	92.7	NO		
99	64	13C2-6:2 FTS-RSD	429.0 >79.7	1221.489	2678.392	1.00	4.09	5.701	12.500	12.2	97.9	NO		
100	66	13C5-PFNA-RSD	468.2 > 422.9	10870.944	11558.146	1.00	4.60	11.757	12.500	12.3	98.8	NO		
101	68	13C8-PFOSA-RSD	506 > 78	3299.818	17157.313	1.00	4.65	2.404	12.500	11.9	95.3	NO		
102	70	13C2-PFOA-RSD	414.9 > 369.7	12178.052	15383.705	1.00	4.15	9.895	12.500	12.0	96.1	NO		
103	-1													
104	72	13C8-PFOS-RSD	507.0 > 79.7	2456.501	2678.392	1.00	4.68	11.464	12.500	11.9	95.6	NO		
105	74	13C2-PFDA-RSD	515.1 > 469.9	11710.319	12556.789	1.00	4.98	11.657	12.500	12.6	100.6	NO		
106	76	13C2-8:2 FTS-RSD	529 > 79.7	1127.206	2678.392	1.00	4.95	5.261	12.500	14.4	114.8	NO		
107	78	d3-N-MeFOSAA-RSD	573.3 > 419	3341.979	17157.313	1.00	5.13	2.435	12.500	11.3	90.8	NO		
108	80	13C2-PFUdA-RSD	565 > 519.8	14715.999	17157.313	1.00	5.31	10.721	12.500	11.2	89.8	NO		

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	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Std. Conc	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
109	82	d5-N-EtFOSAA-RSD	589.3 > 419	4420.043	17157.313	1.00	5.28	3.220	12.500	12.4	99.5	NO		
110	84	13C2-PFDoA-RSD	614.7 > 569.7	15840.331	12556.789	1.00	5.58	15.769	12.500	12.2	97.5	NO		
111	86	13C2-10:2 FTS-RSD	632.9 > 80.0	710.394	2678.392	1.00	5.57	3.315	12.500	9.91	79.3	NO		
112	88	d3-N-MeFOSA-RSD	515.2 > 168.9	12609.581	17157.313	1.00	5.69	9.187	149.200	136	91.0	NO		
113	90	13C2-PFTeDA-RSD	715.1 > 669.7	14604.578	17157.313	1.00	6.05	10.640	12.500	11.9	95.6	NO		
114	92	d5-N-ETFOSA-RSD	531.1 > 168.9	20283.383	17157.313	1.00	6.11	14.778	149.200	142	95.5	NO		
115	94	13C2-PFHxDA-RSD	815 > 769.7	22783.920	17157.313	1.00	6.38	16.599	12.500	11.4	91.4	NO		
116	-1													
117	96	d7-N-MeFOSE-RSD	623.1 > 58.9	17286.043	17157.313	1.00	6.29	12.594	149.200	140	93.5	NO		
118	98	d9-N-EtFOSE-RSD	639.2 > 58.8	19829.824	17157.313	1.00	6.44	14.447	149.200	139	93.0	NO		
119	99	13C4-PFBA	217.0 > 172.0	1747.093	1747.093	1.00	1.30	12.500	12.500	12.5	100.0	NO		
120	1...	13C5-PFHxA	318.0 > 272.9	9488.963	9488.963	1.00	3.03	12.500	12.500	12.5	100.0	NO		
121	1...	13C8-PFOA	420.9 > 376.0	15383.705	15383.705	1.00	4.15	12.500	12.500	12.5	100.0	NO		
122	1...	18O2-PFHxS	403.0 > 102.6	868.893	868.893	1.00	3.77	12.500	12.500	12.5	100.0	NO		
123	1...	13C9-PFNA	472.2 > 426.9	11558.146	11558.146	1.00	4.60	12.500	12.500	12.5	100.0	NO		
124	1...	13C4-PFOS	503 > 79.7	2678.392	2678.392	1.00	4.68	12.500	12.500	12.5	100.0	NO		
125	1...	13C6-PFDA	519.1 > 473.7	12556.789	12556.789	1.00	4.98	12.500	12.500	12.5	100.0	NO		
126	1...	13C7-PFUdA	570.1 > 524.8	17157.313	17157.313	1.00	5.30	12.500	12.500	12.5	100.0	NO		

TUNE CHECKS

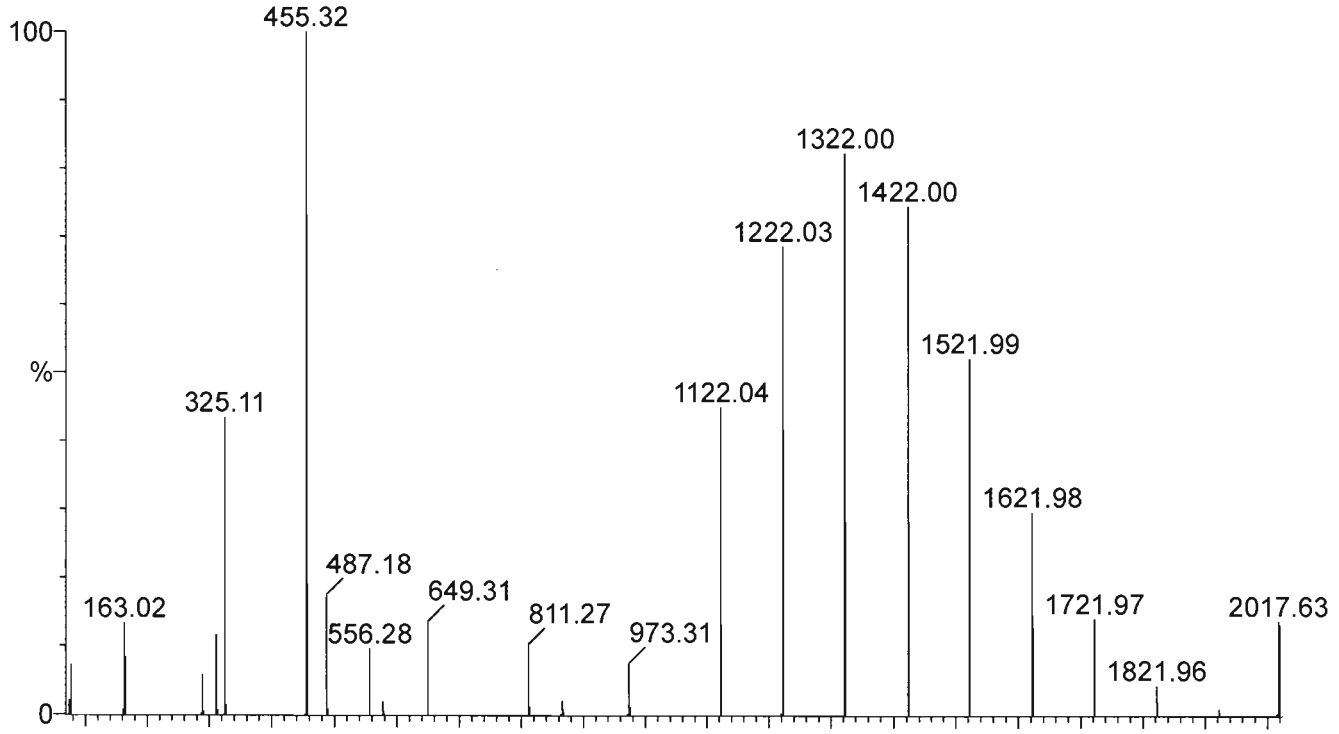
Calibration Verification Report - MS1 Static

Printed: **Tue Feb 25 16:12:27 2020**

20200207

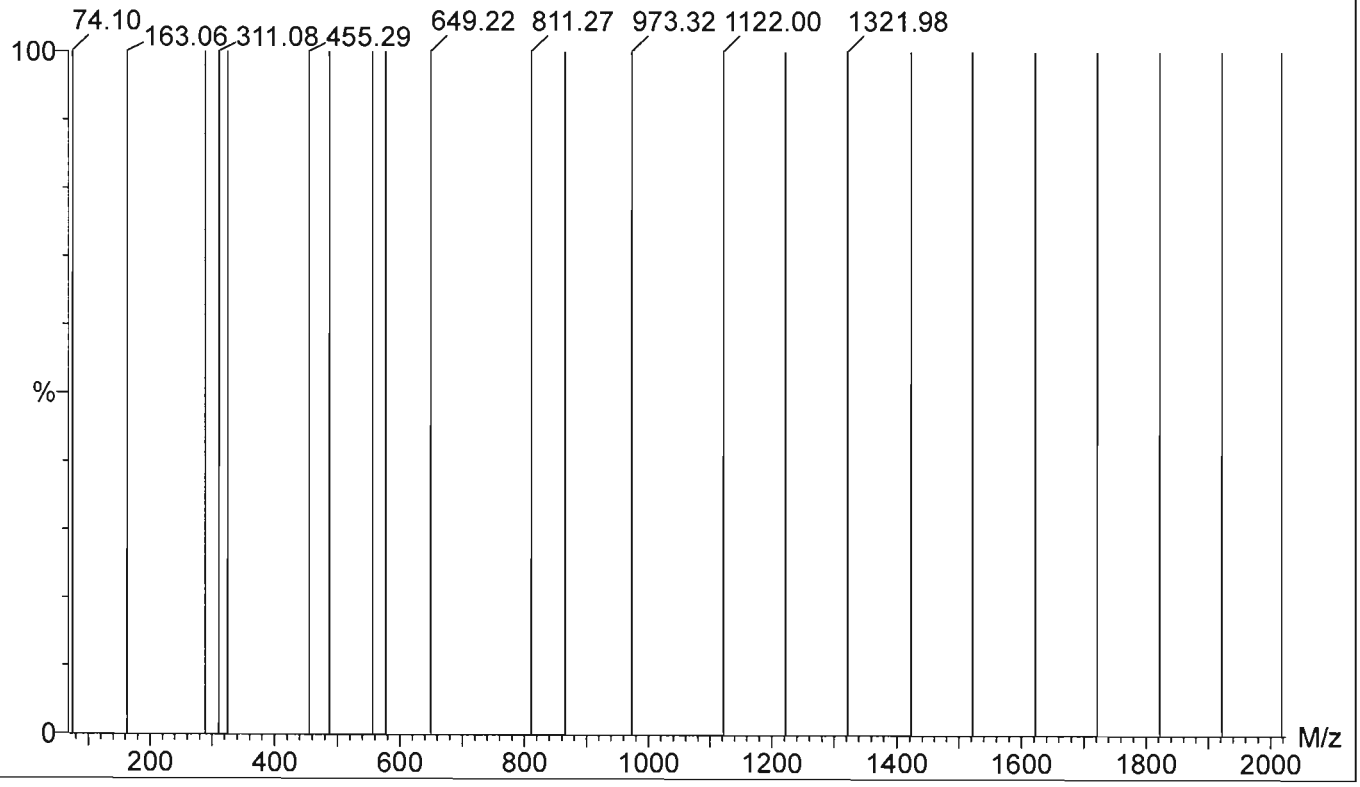
Data file: STATMS1V - Calibrated

23 matches of 23 tested references

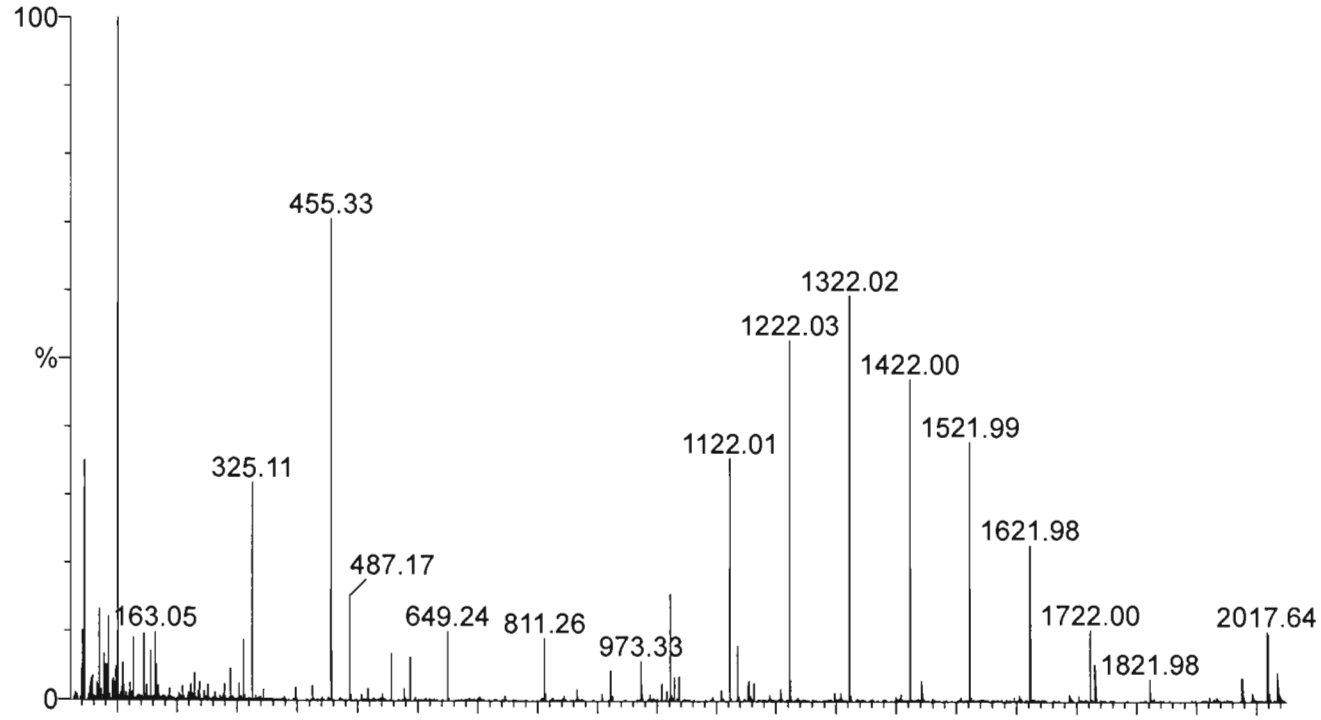


Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref

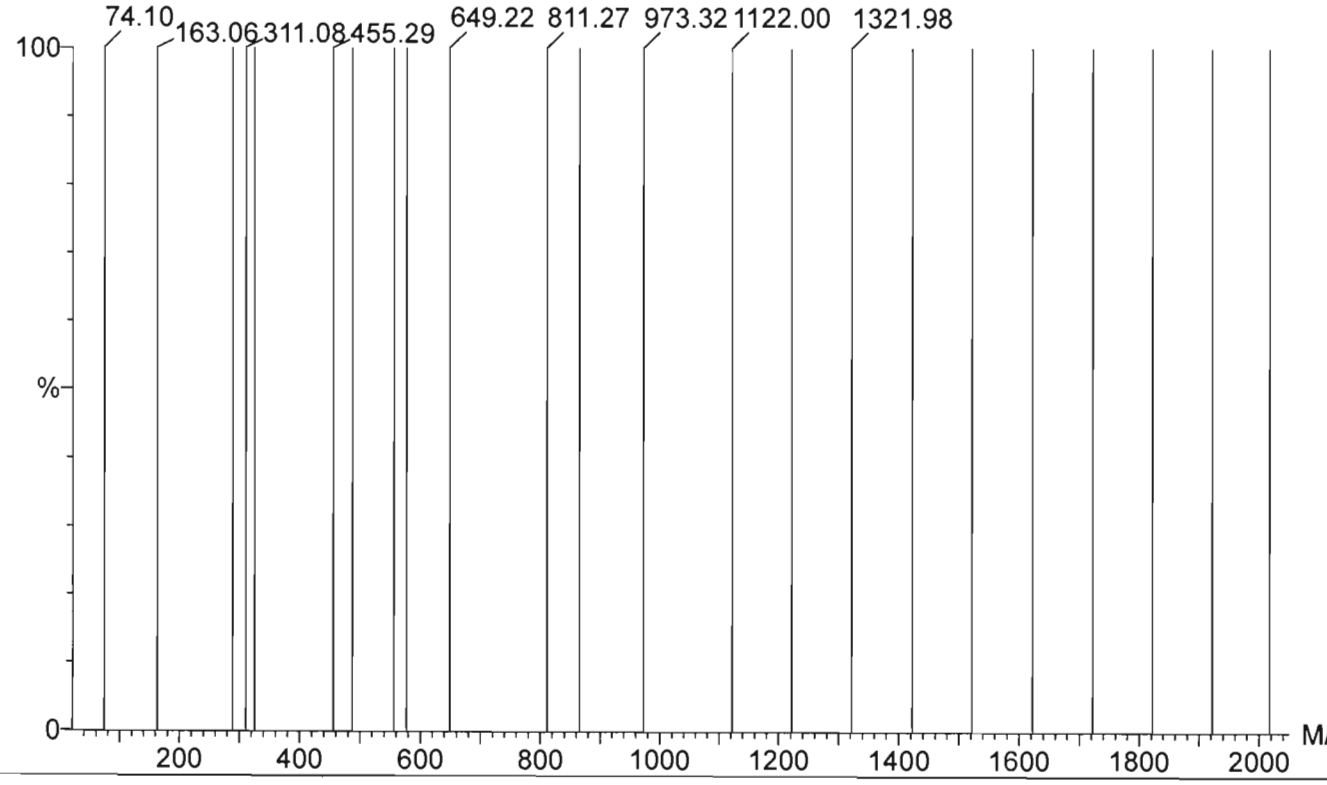
Mean residual = 0.0251 amu



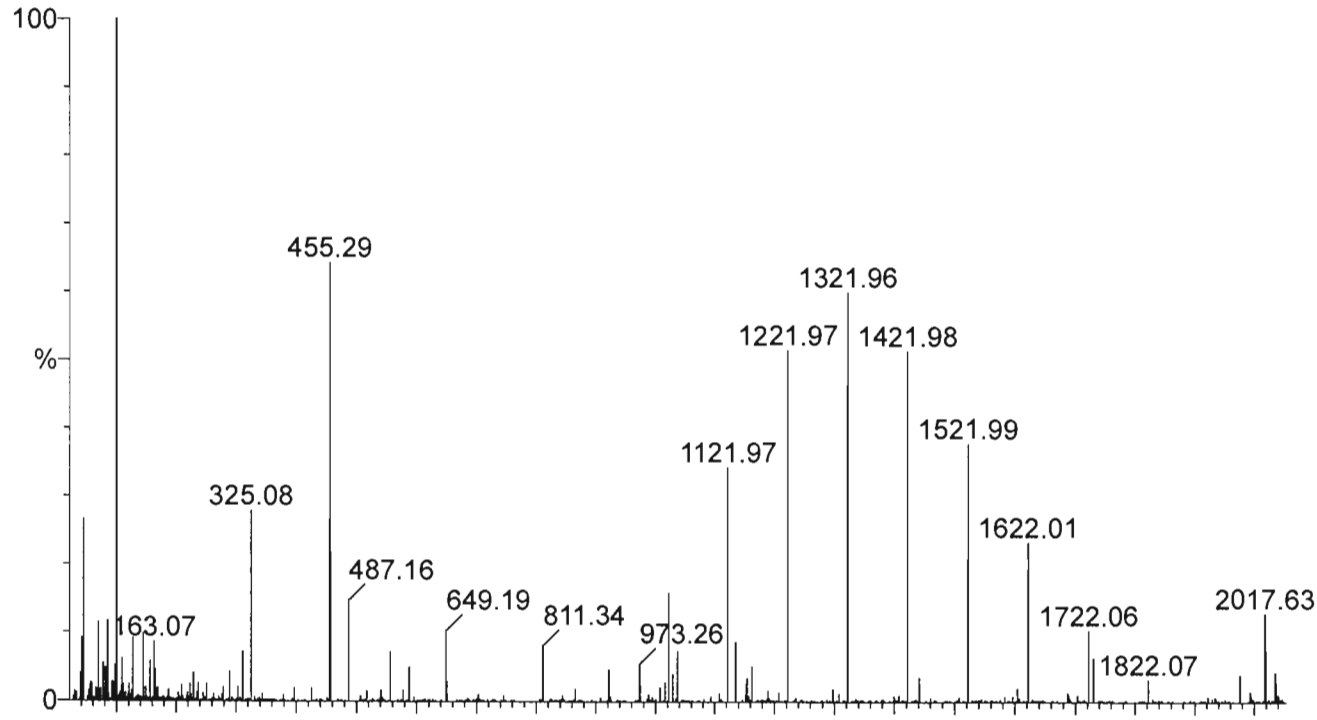
Data file: SCNMS1V - Calibrated 23 matches of 23 tested references



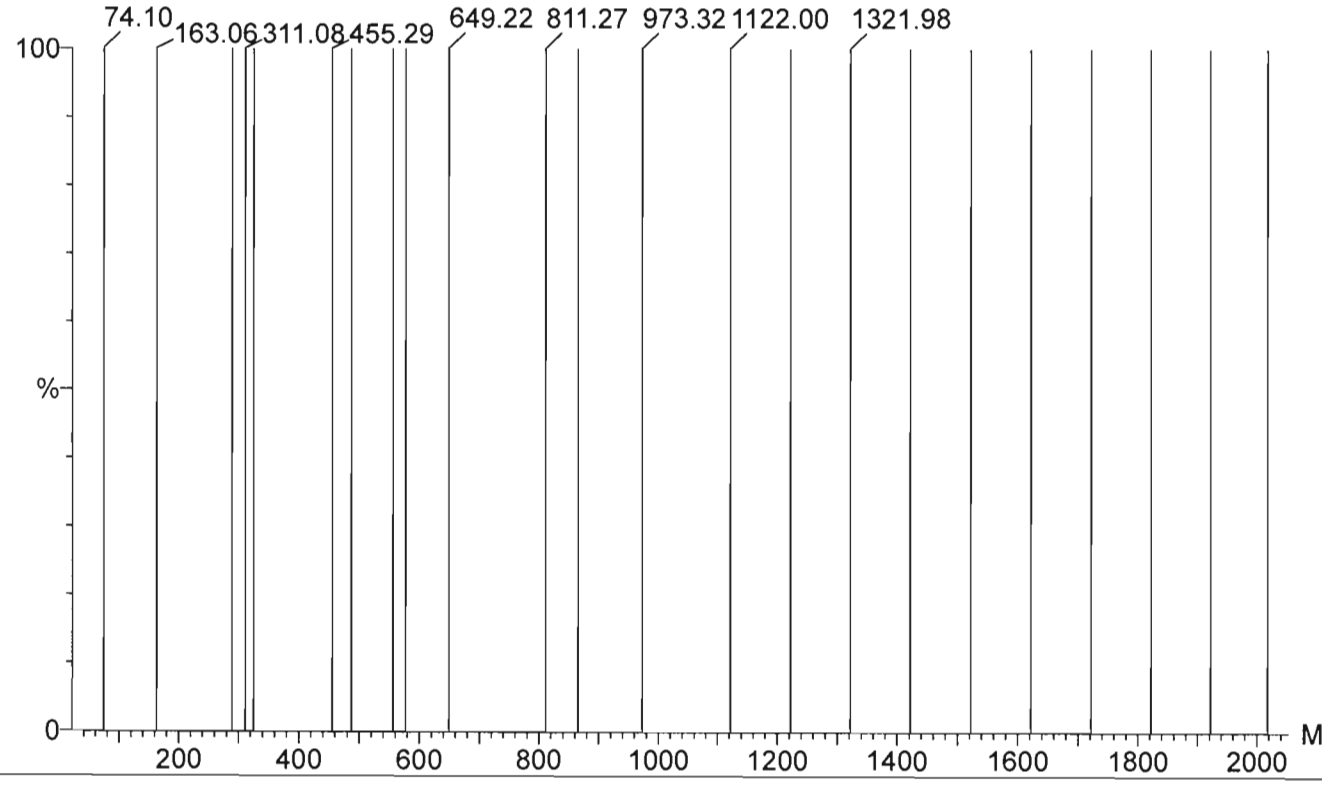
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.026 amu



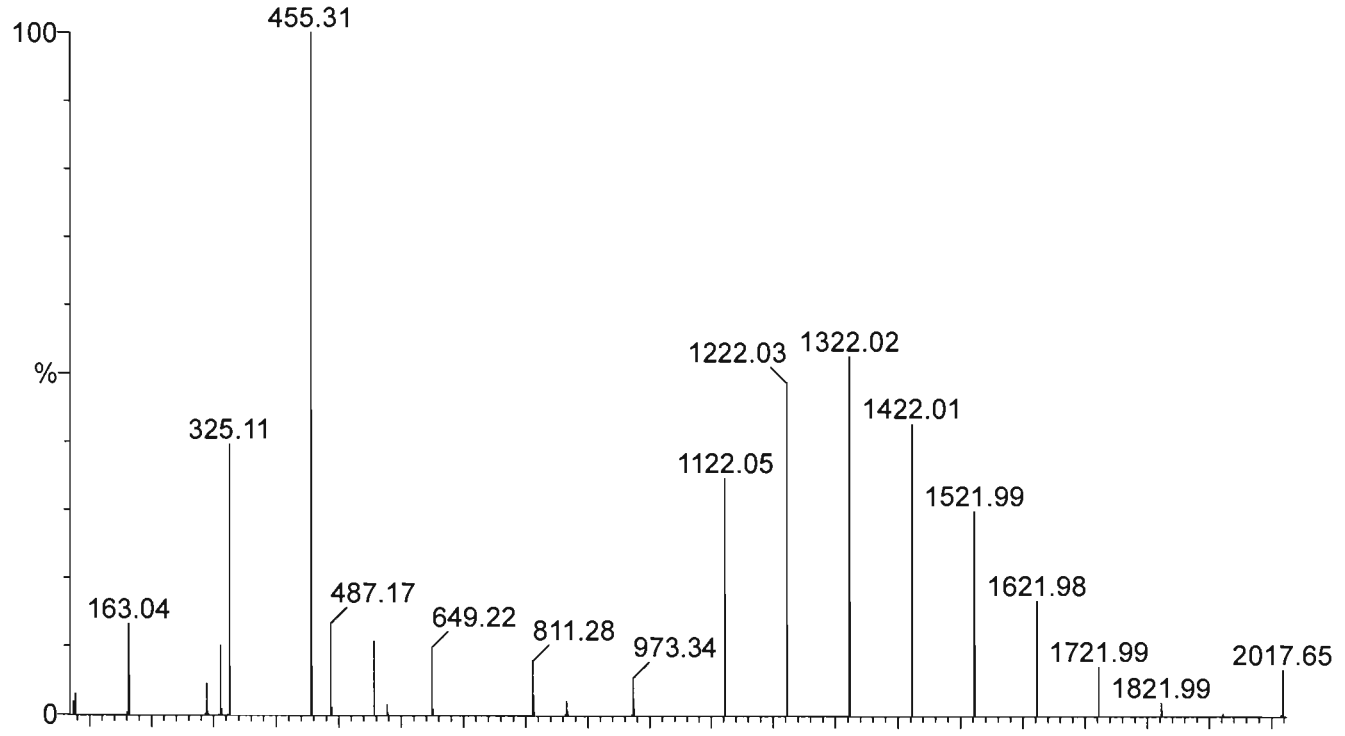
Data file: FASTMS1V - Calibrated 23 matches of 23 tested references



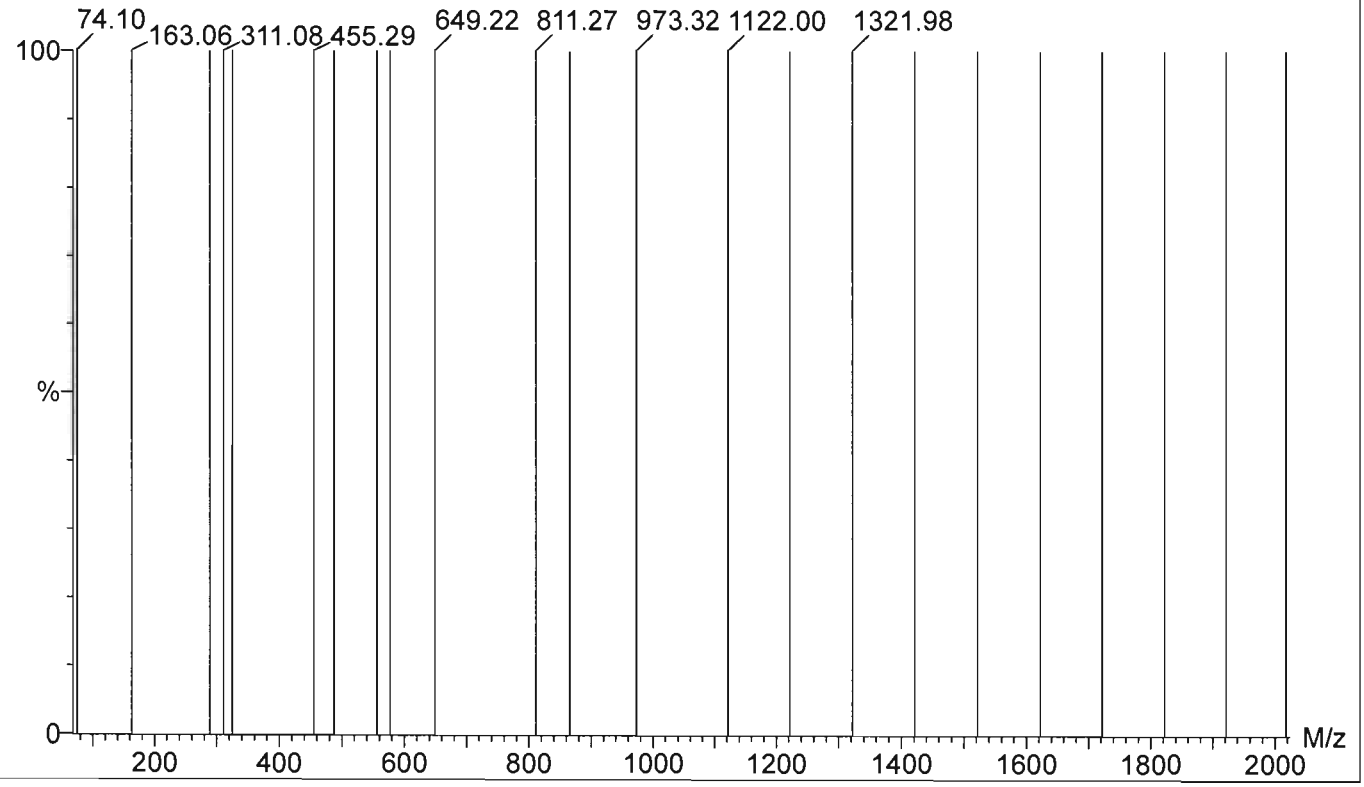
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.038 amu



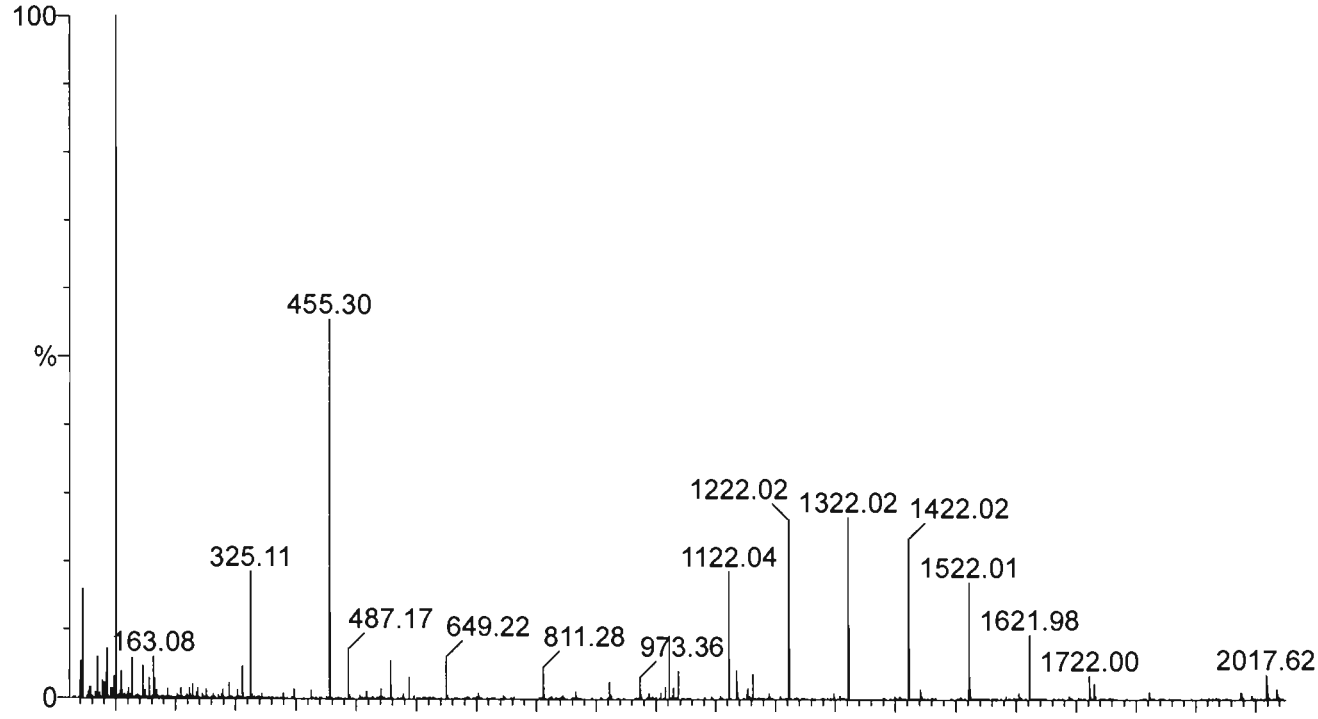
Data file: STATMS2V - Calibrated 22 matches of 23 tested references



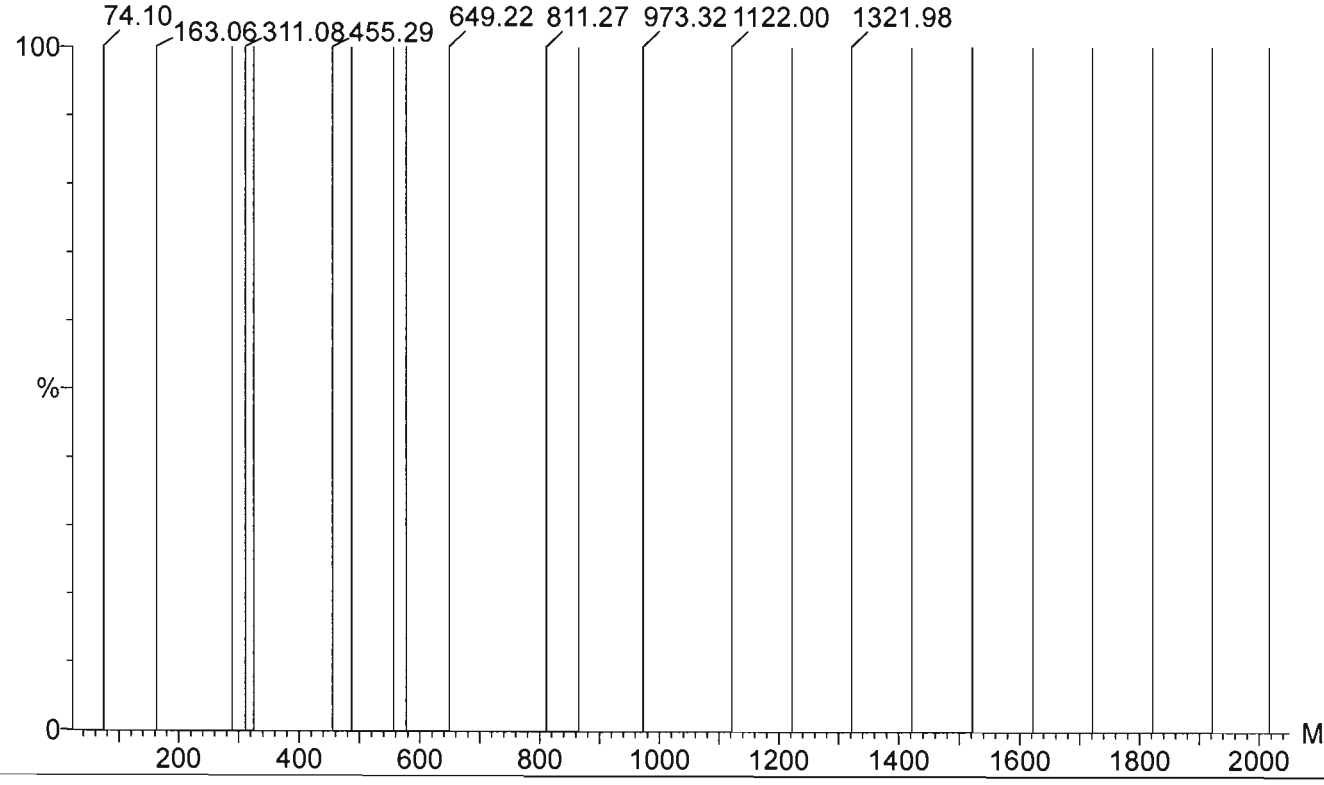
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0228 amu



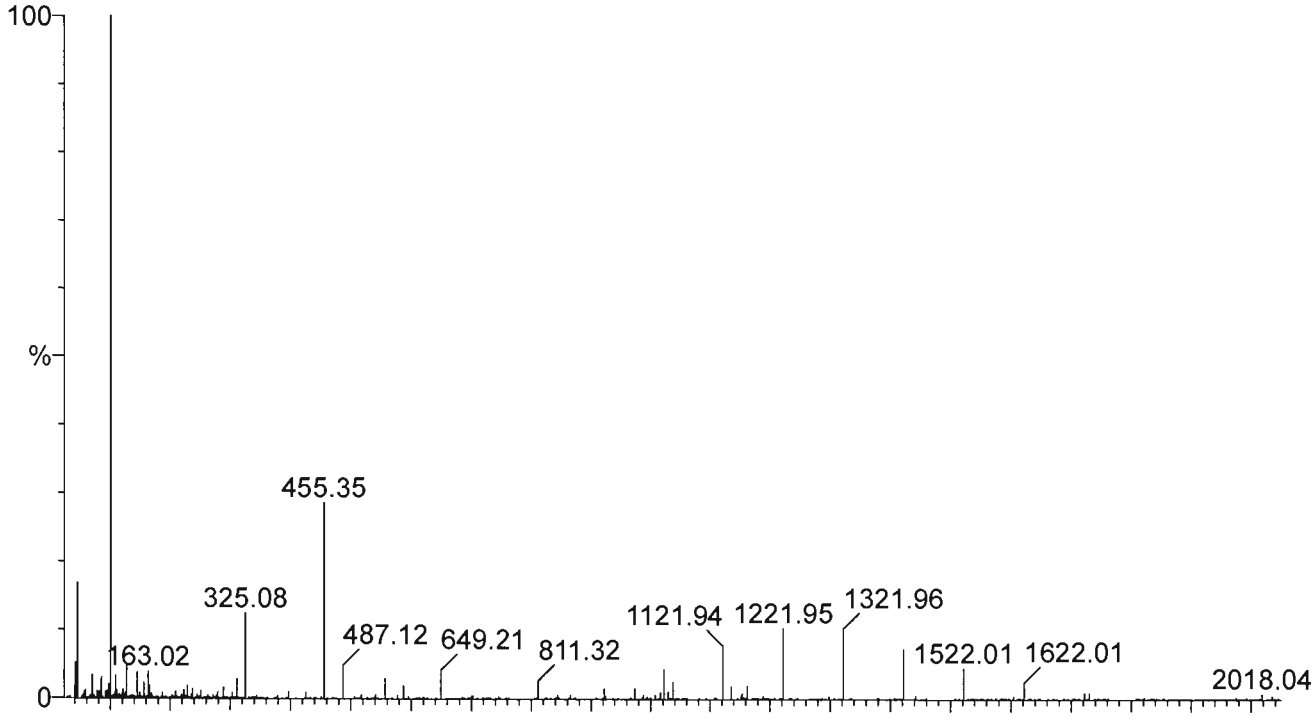
Data file: SCNMS2V - Calibrated 23 matches of 23 tested references



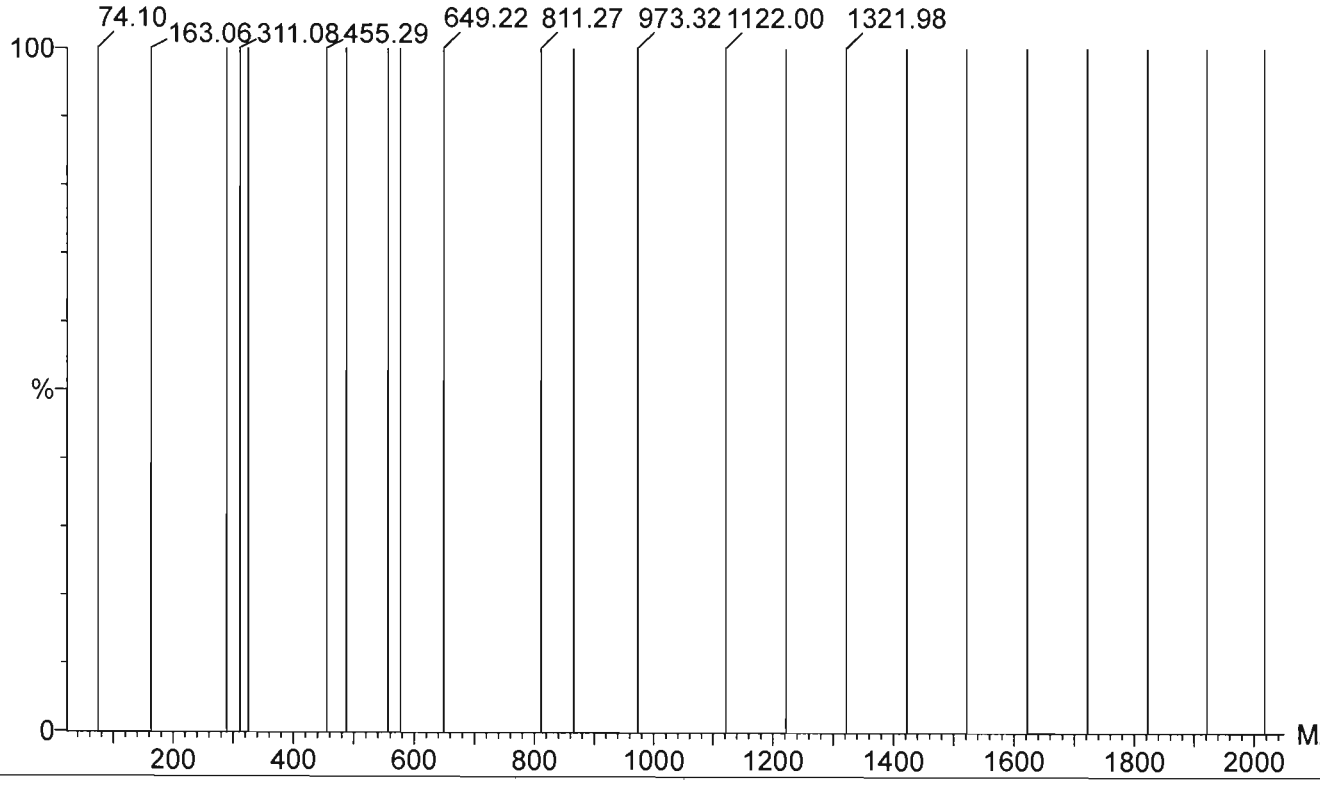
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0224 amu



Data file: FASTMS2V - Calibrated 23 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0672 amu



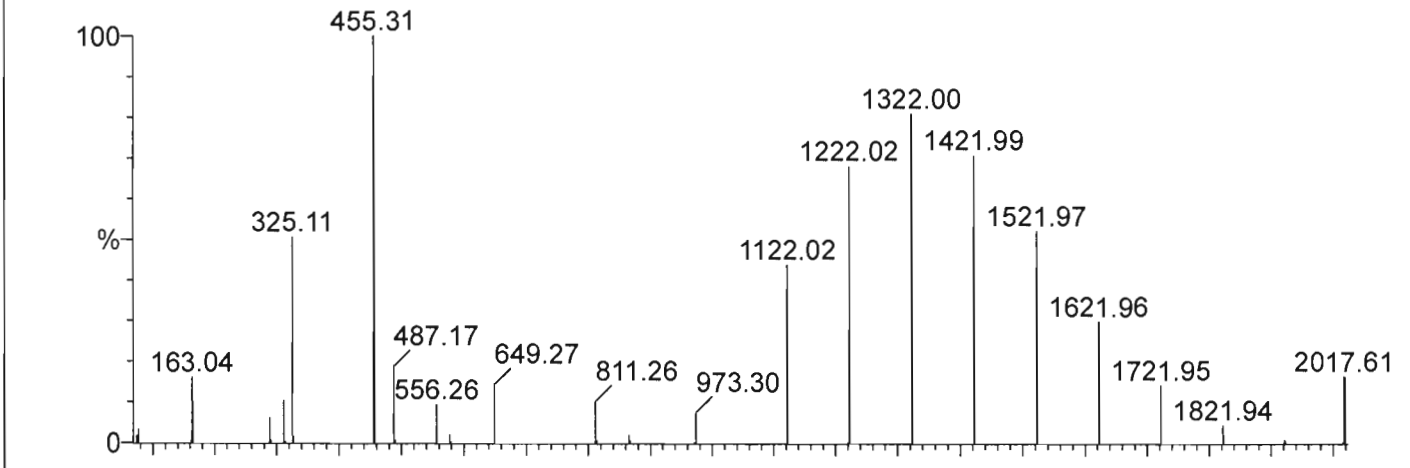
Calibration Report - MS1 Static

Printed: **Wed Feb 26 15:20:41 2020**

20200226_1

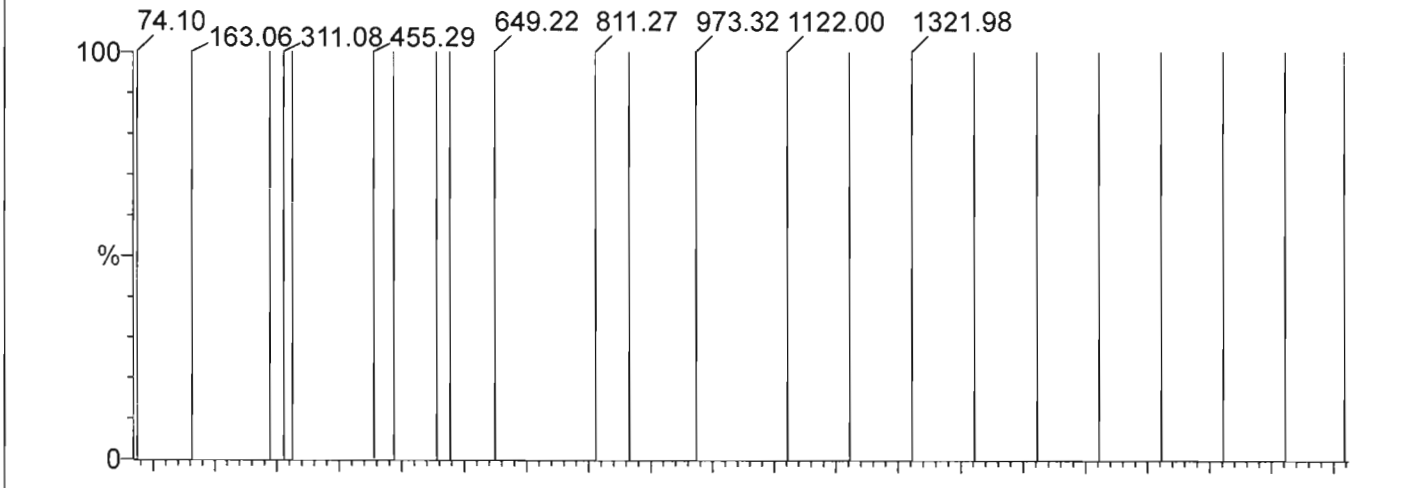
Data file: STATMS1 - Calibrated

22 matches of 23 tested references



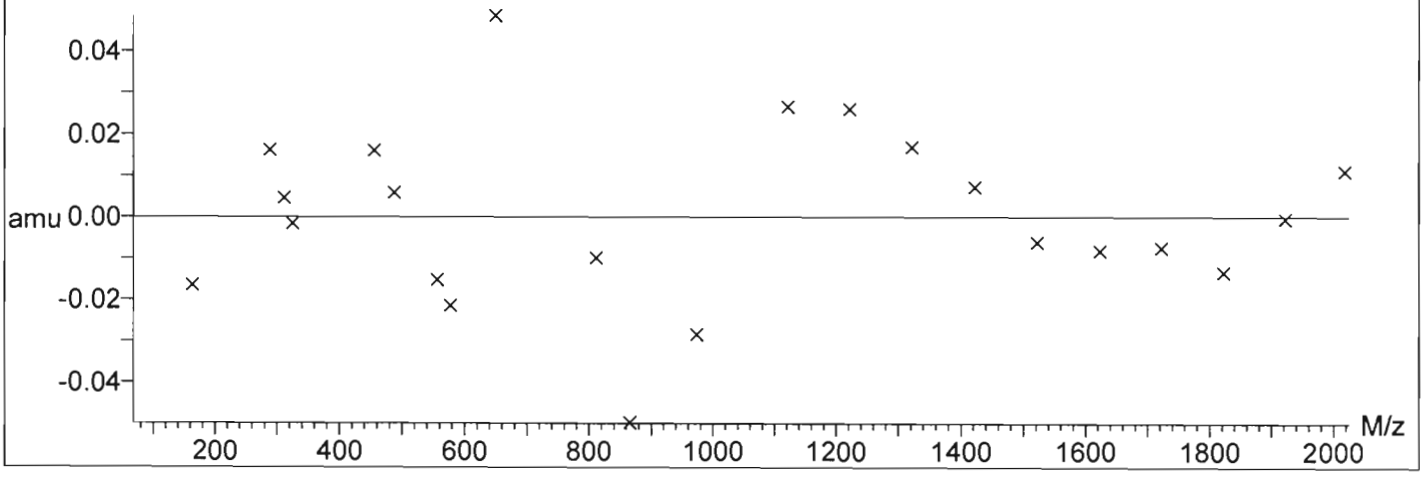
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref

Mean residual = 0.0162 amu

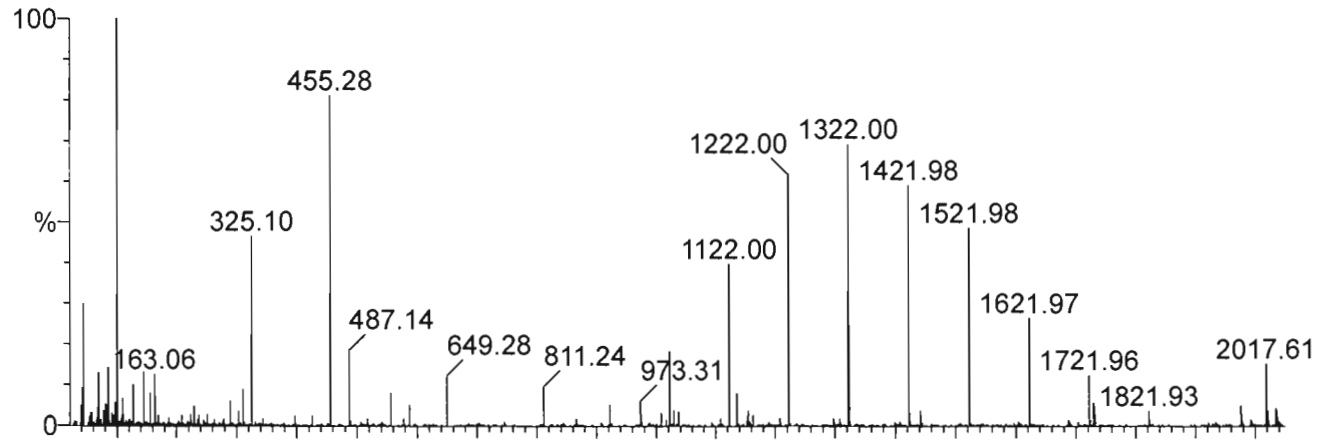


Residual Polynomial order = 4

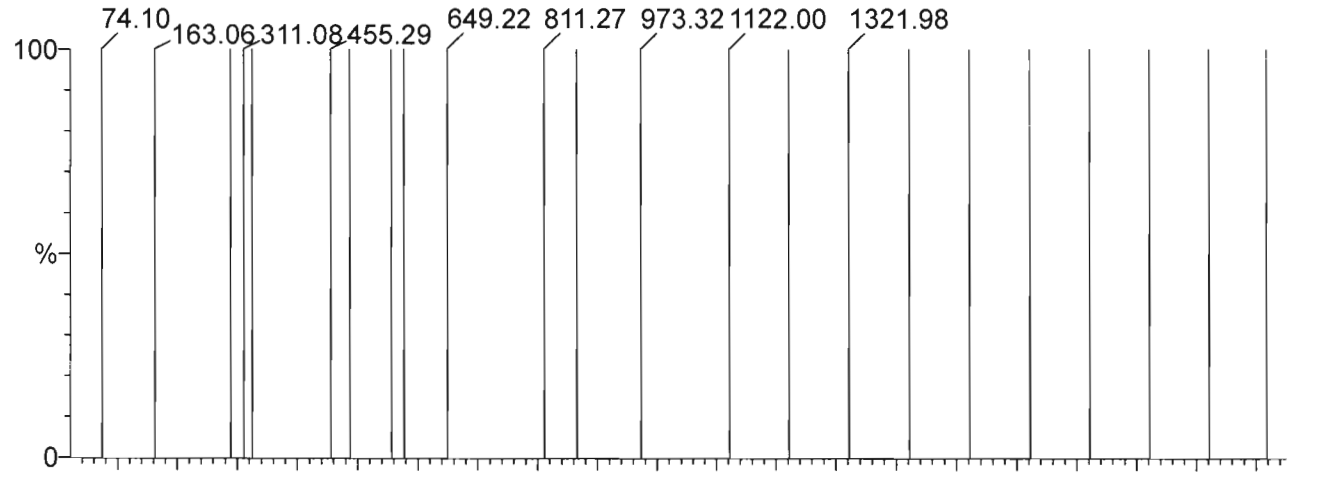
RMS residual = 0.0207 amu



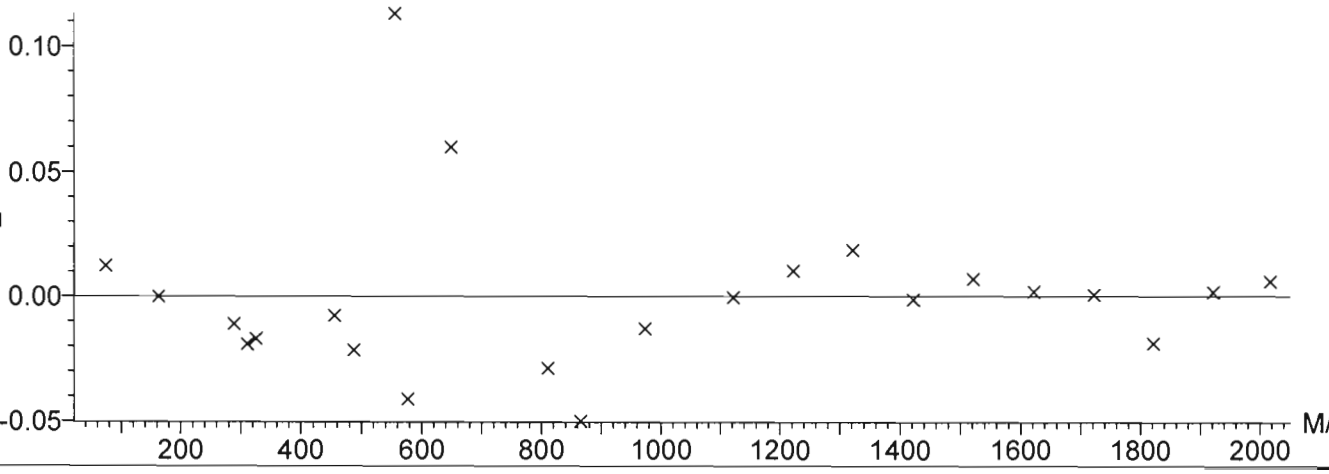
Data file: SCNMS1 - Calibrated 23 matches of 23 tested references



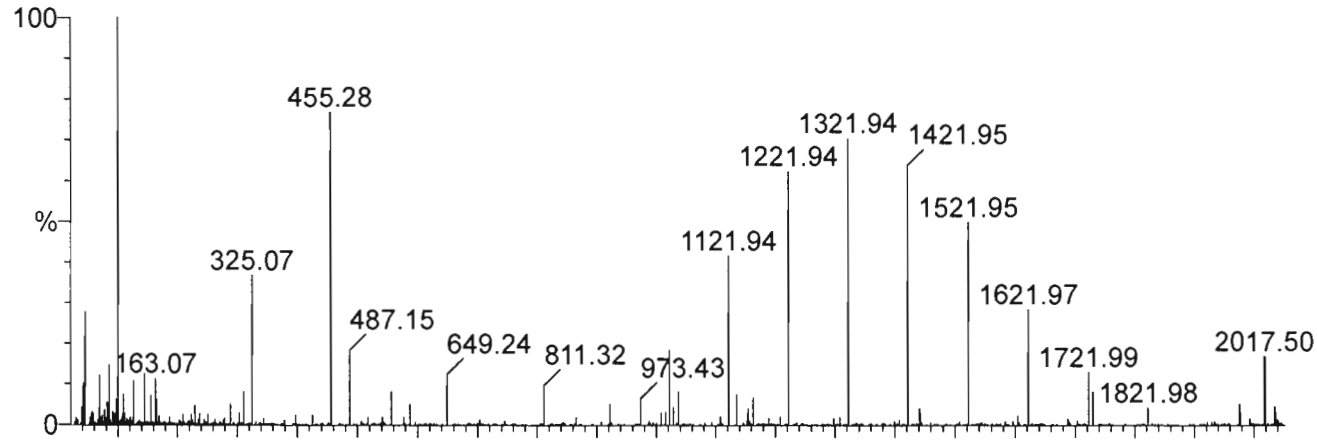
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0201 amu



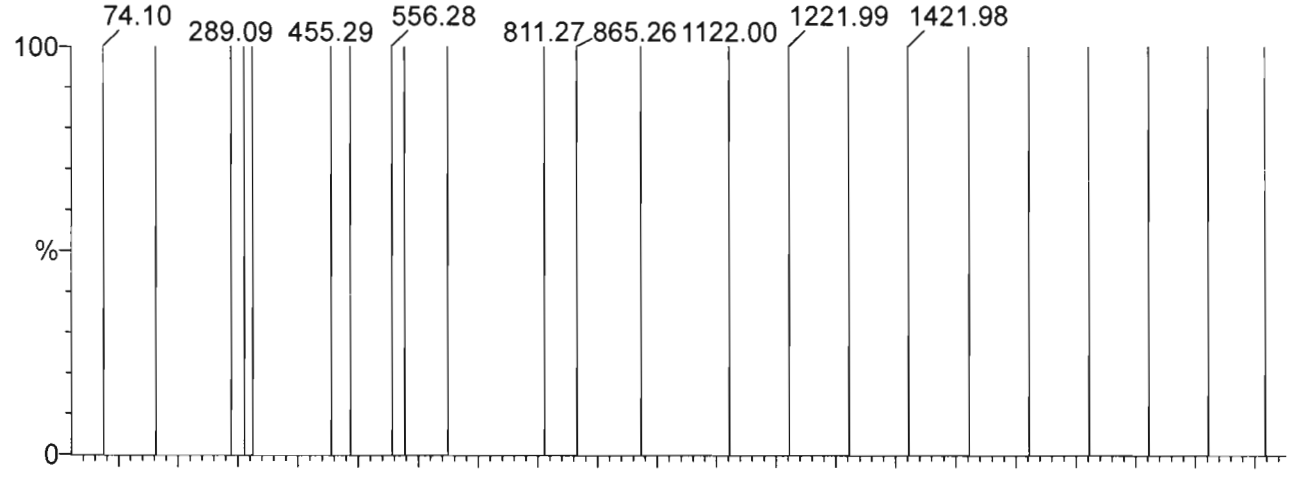
Residual Polynomial order = 4 RMS residual = 0.0322 amu



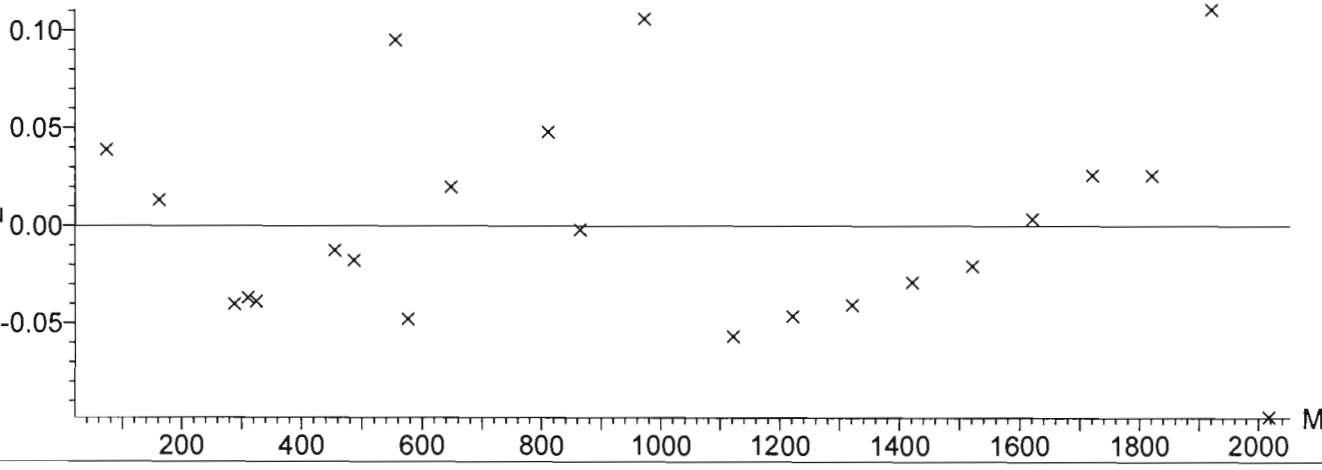
Data file: FASTMS1 - Calibrated 23 matches of 23 tested references



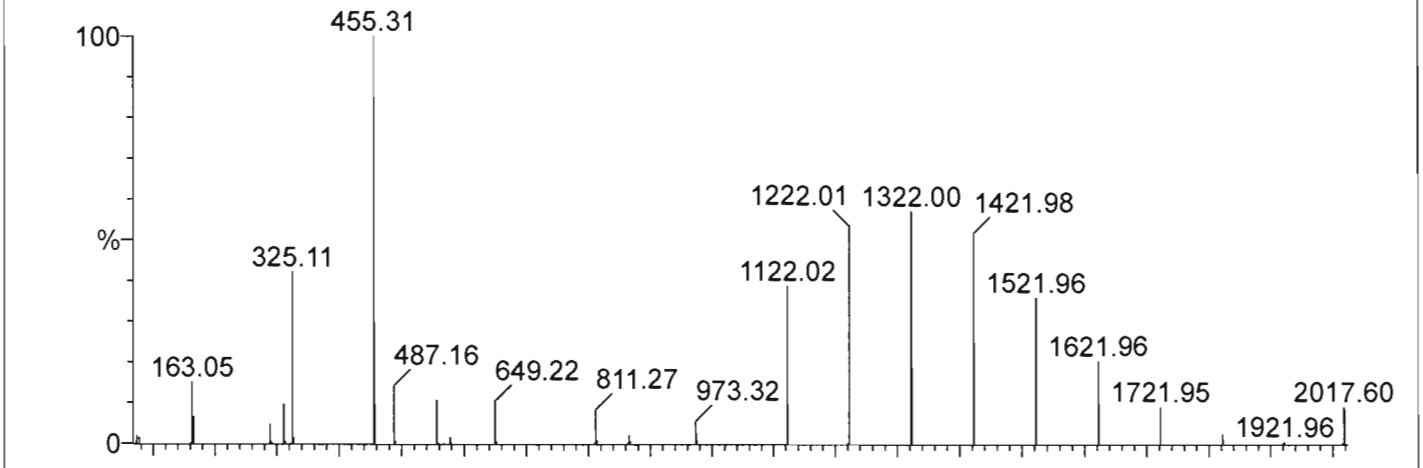
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0424 amu



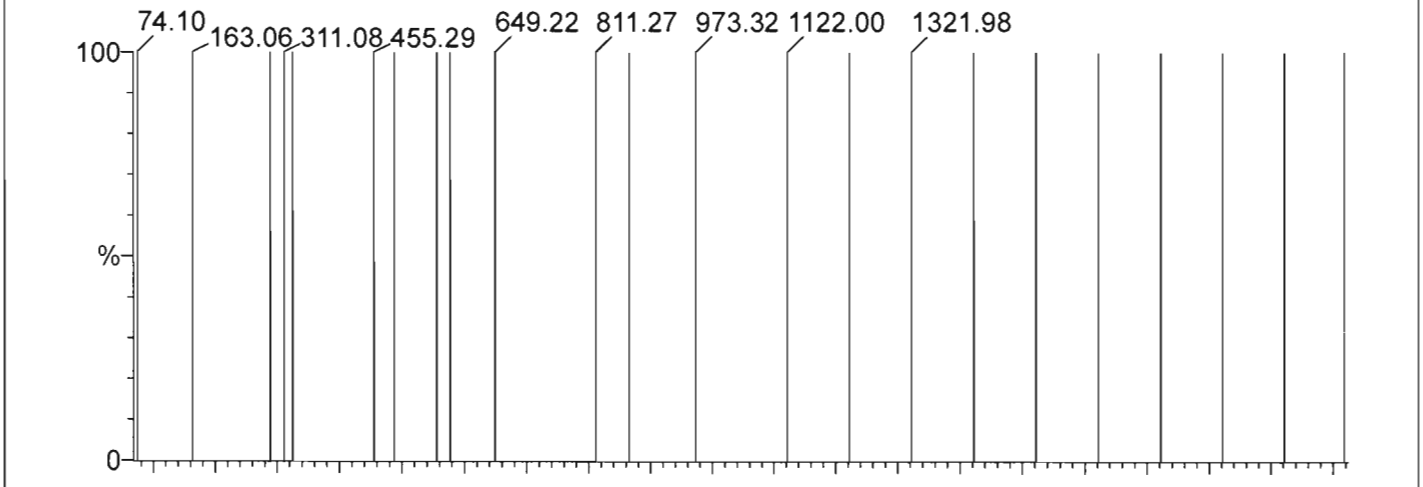
Residual Polynomial order = 4 RMS residual = 0.0526 amu



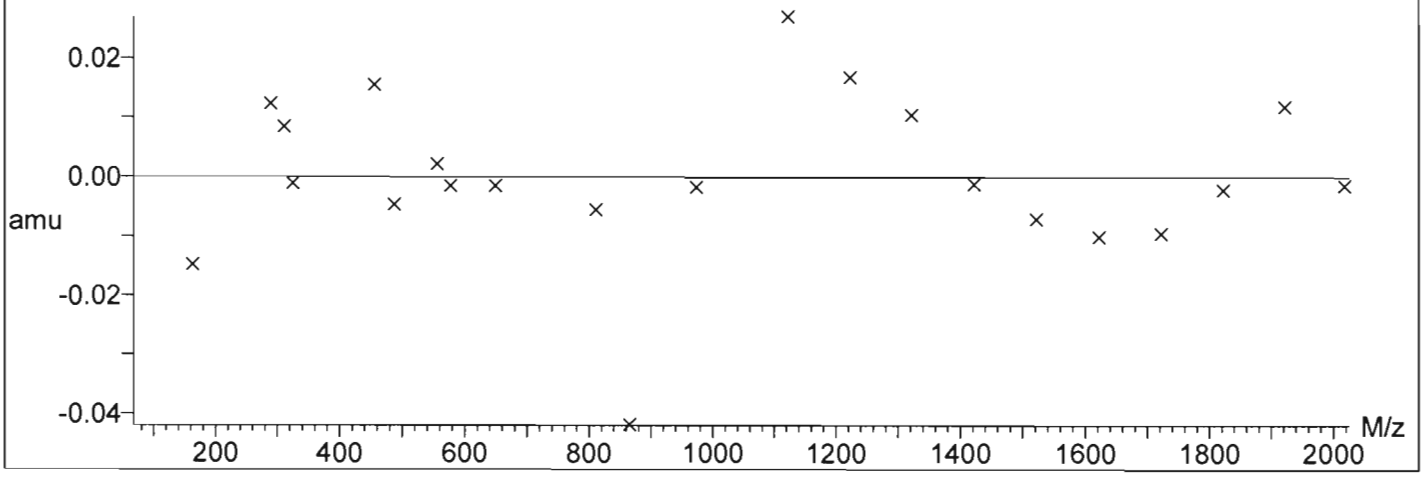
Data file: STATMS2 - Calibrated 22 matches of 23 tested references



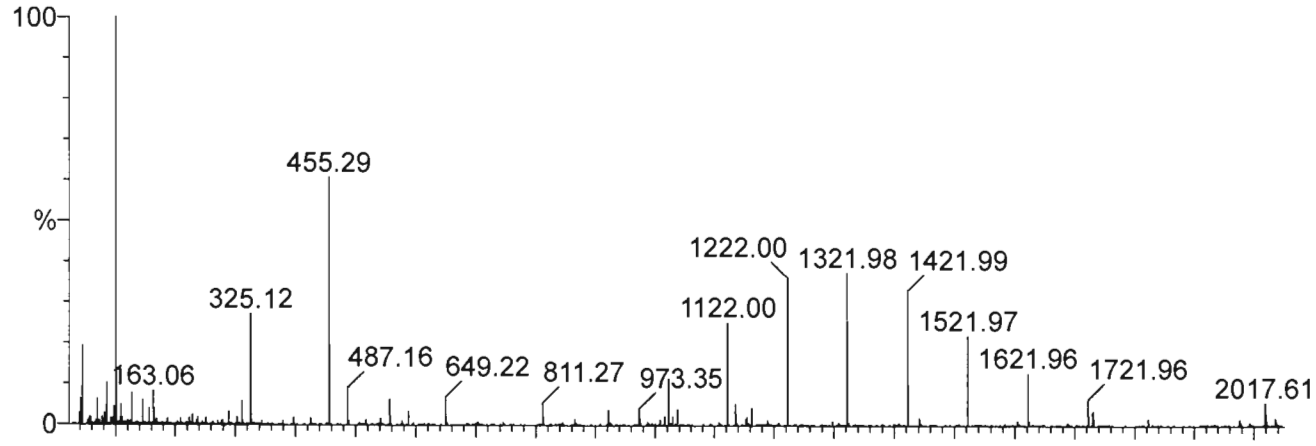
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.00948 amu



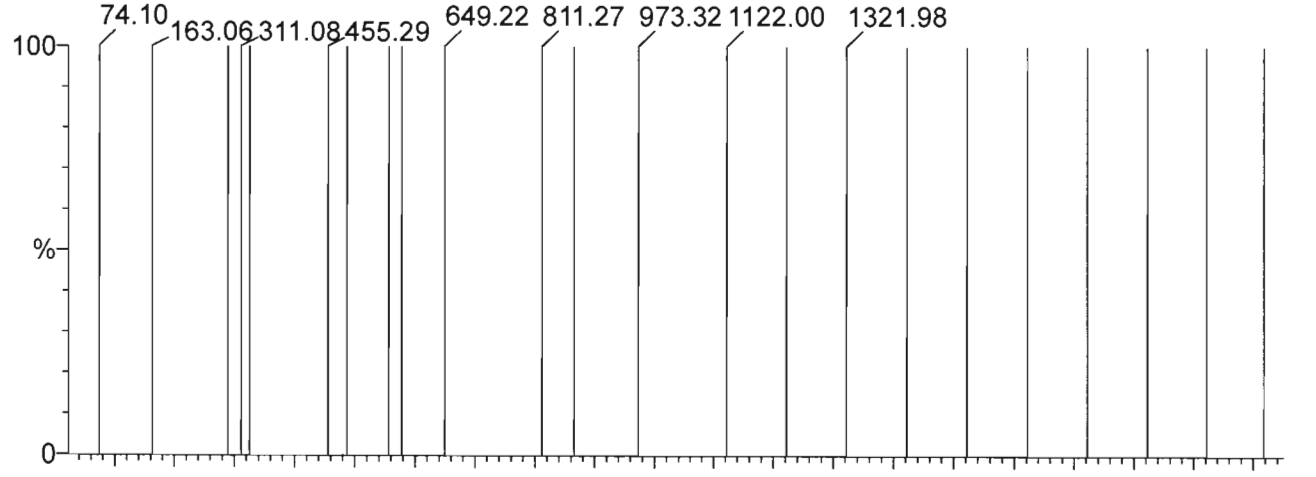
Residual Polynomial order = 4 RMS residual = 0.0135 amu



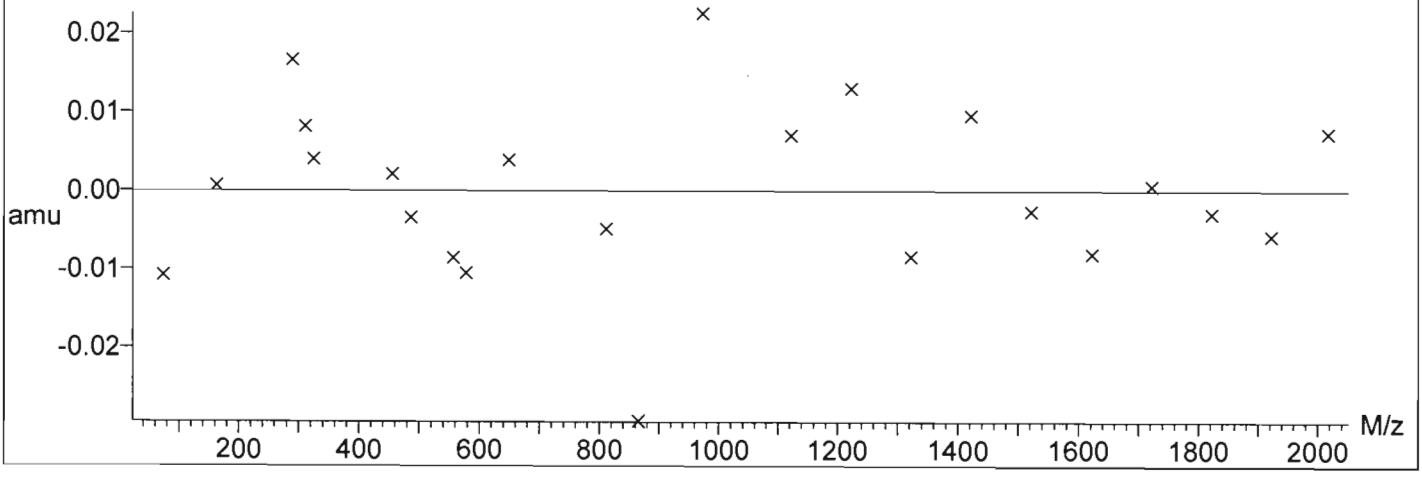
Data file: SCNMS2 - Calibrated 23 matches of 23 tested references



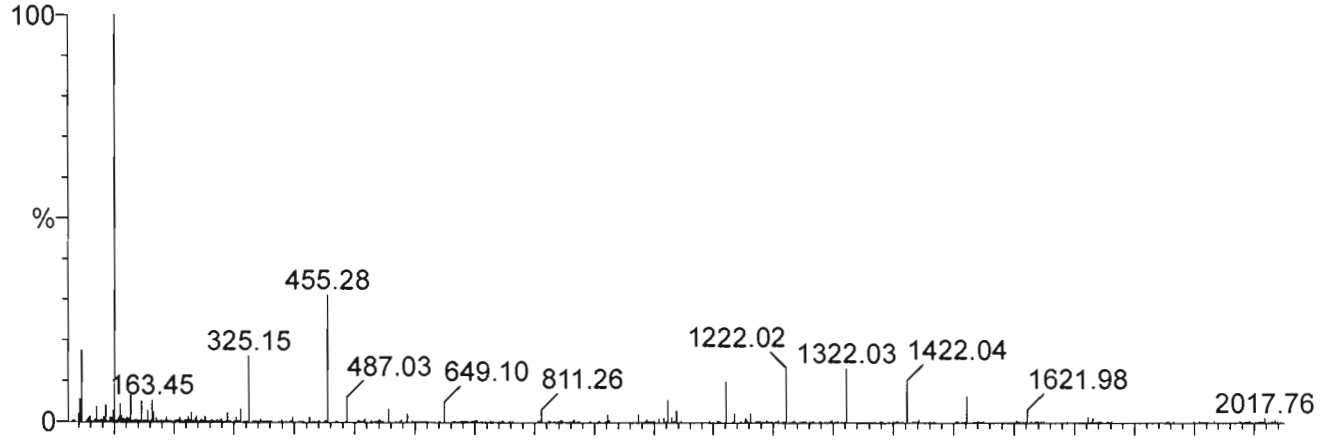
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.00829 amu



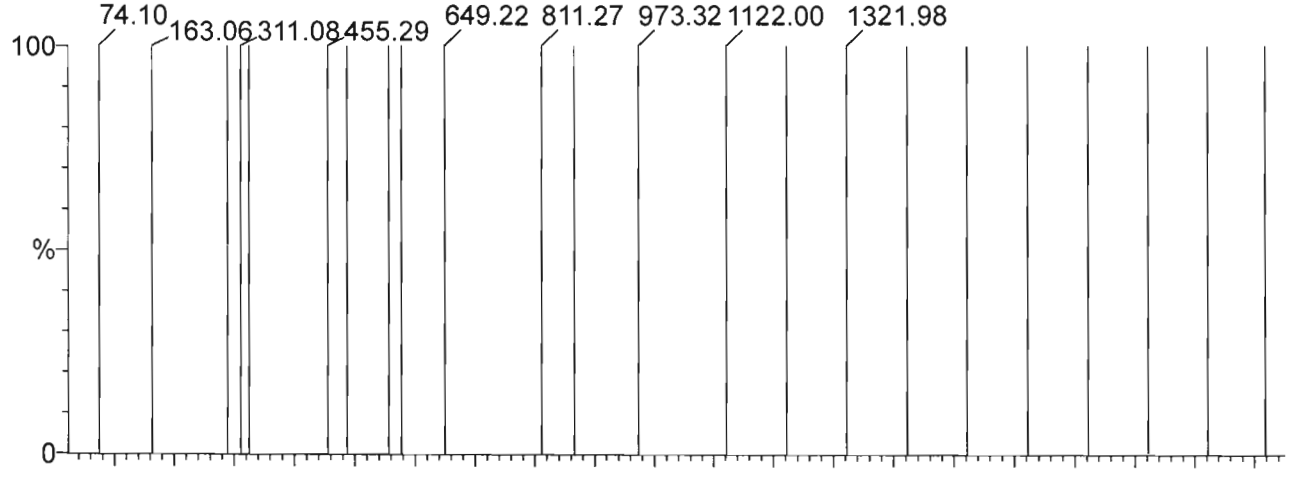
Residual Polynomial order = 4 RMS residual = 0.0107 amu



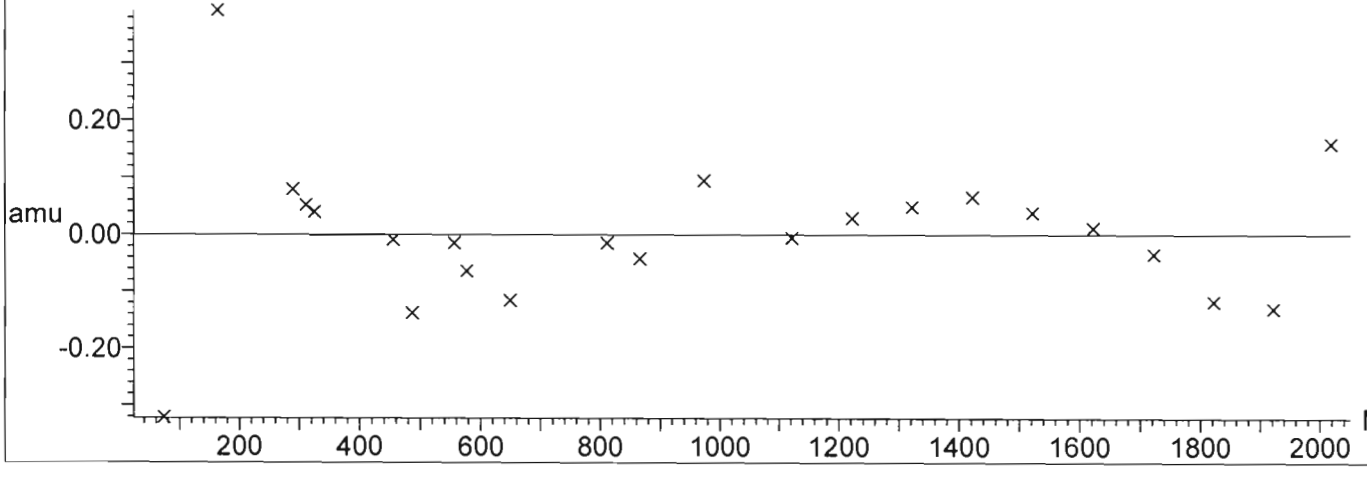
Data file: FASTMS2 - Calibrated 23 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0877 amu



Residual Polynomial order = 4 RMS residual = 0.129 amu



Q5(P)

Tune check 02/29/20

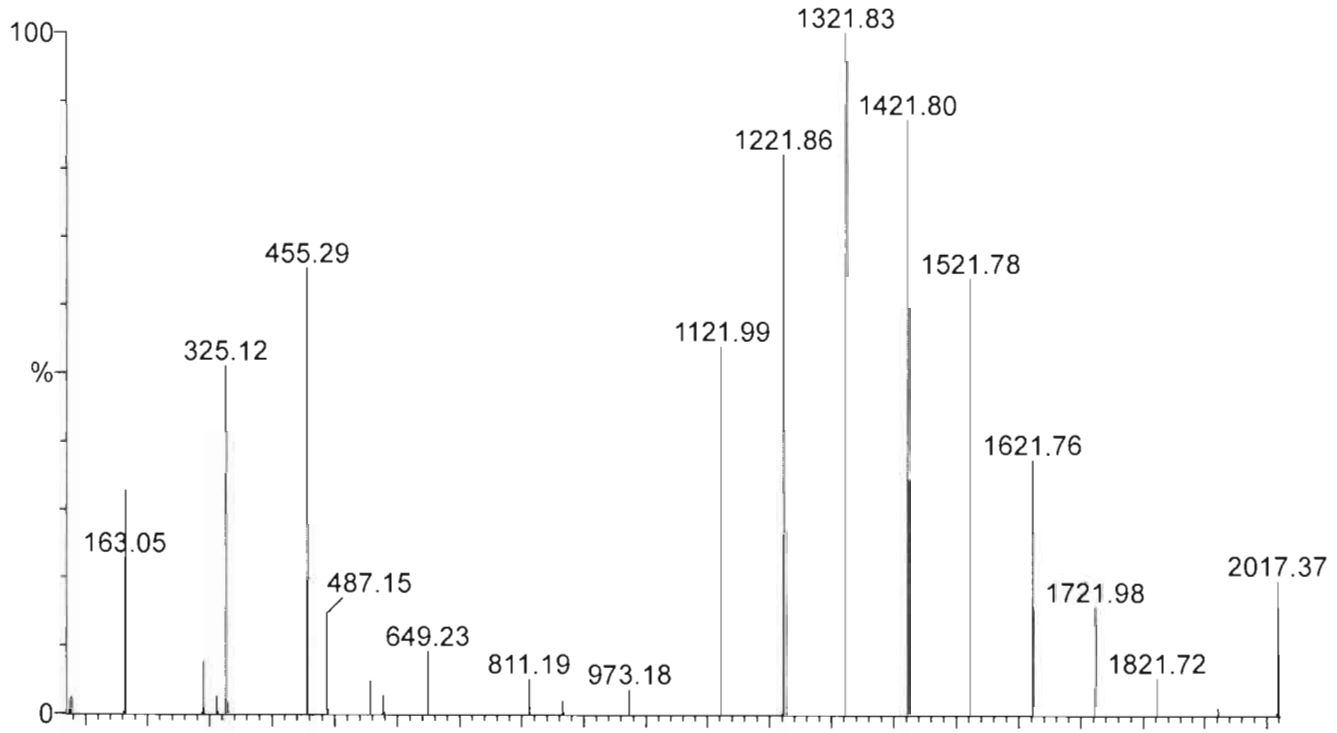
Calibration Verification Report - MS1 Static

Printed: **Sat Feb 29 14:23:58 2020**

20200228

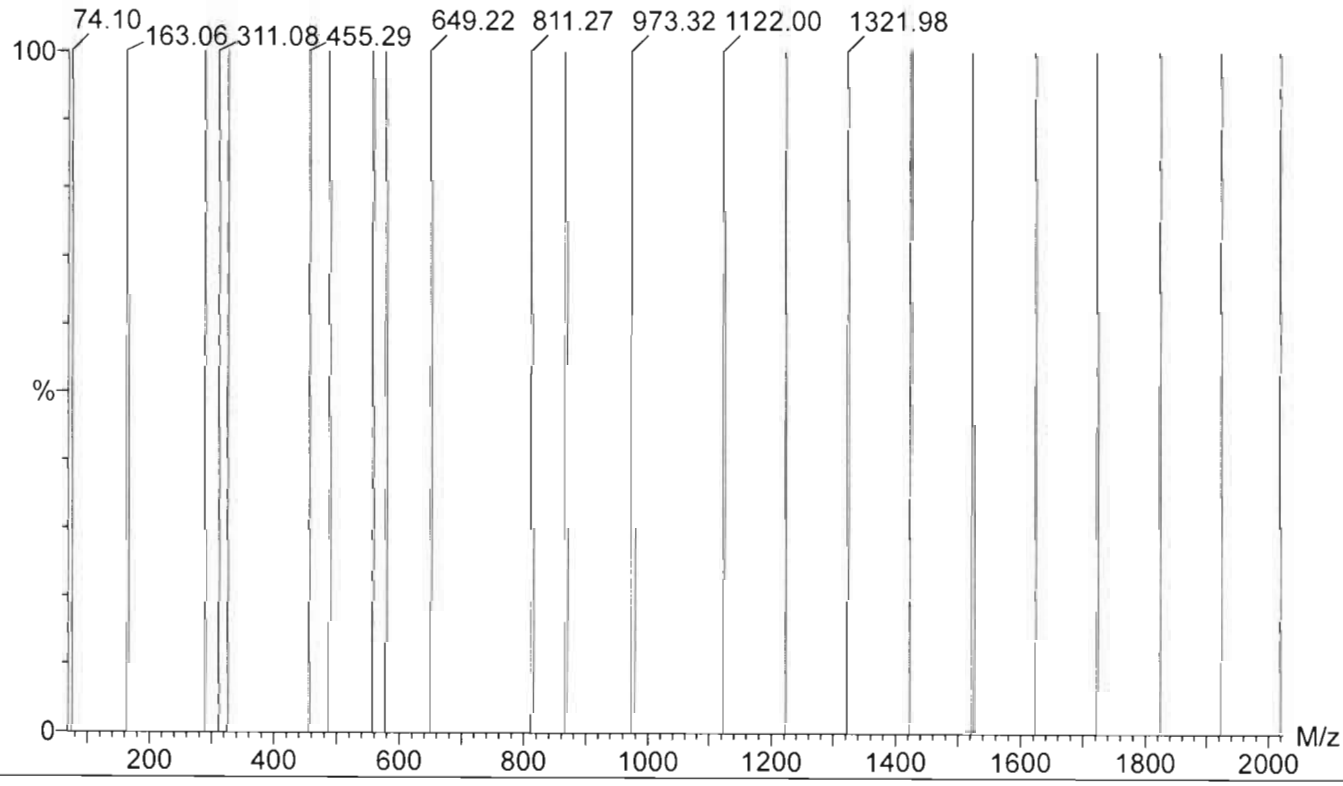
Data file: STATMS1V - Calibrated

22 matches of 23 tested references

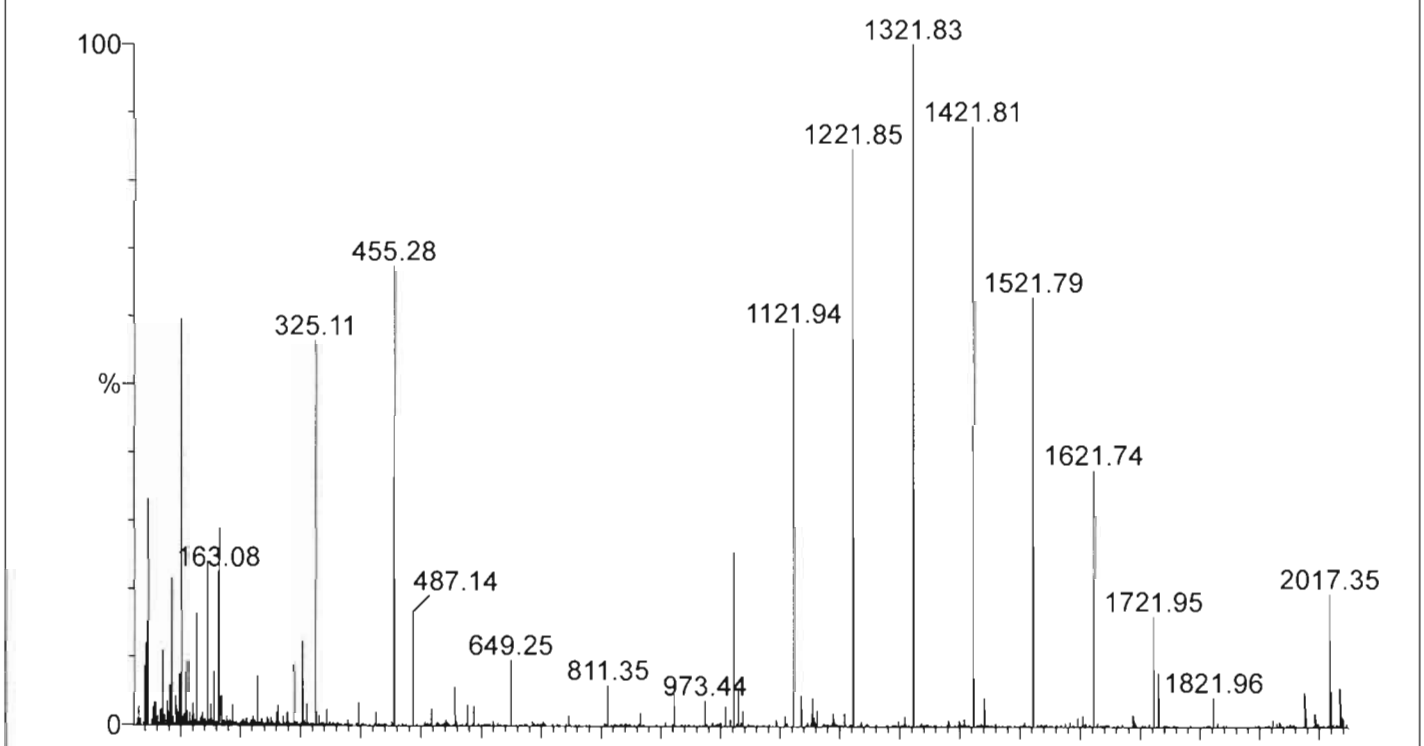


Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref

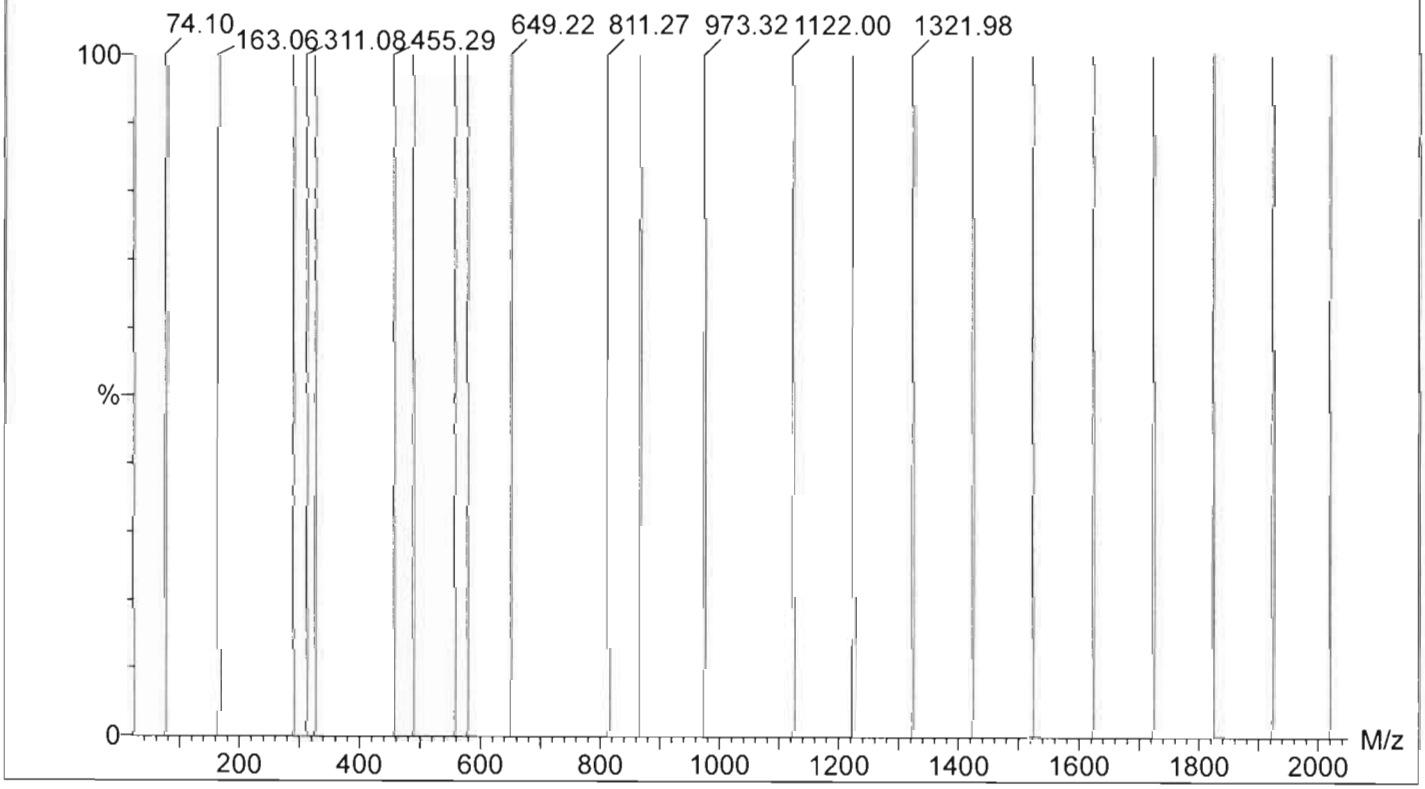
Mean residual = 0.0941 amu



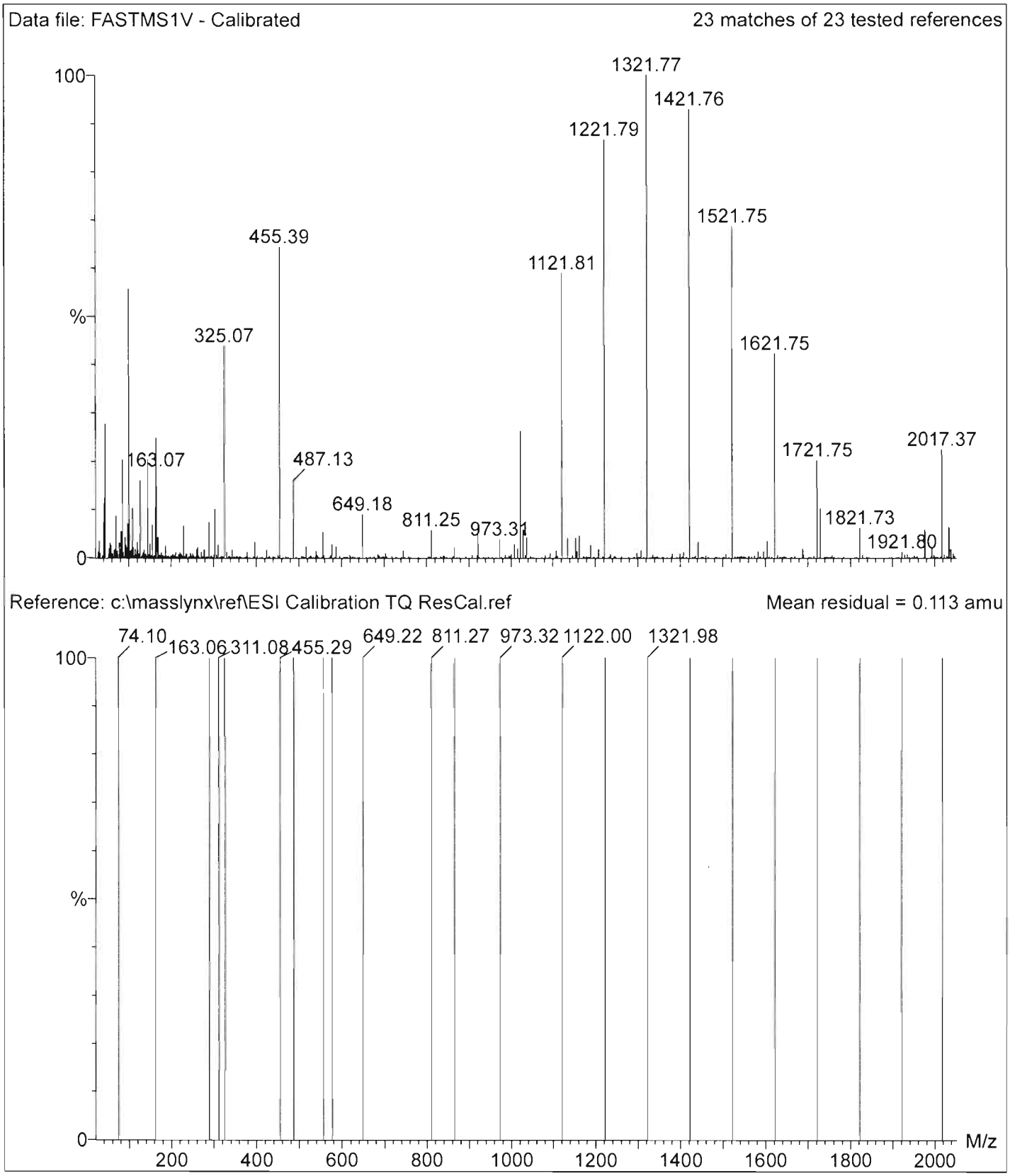
Data file: SCNMS1V - Calibrated 23 matches of 23 tested references



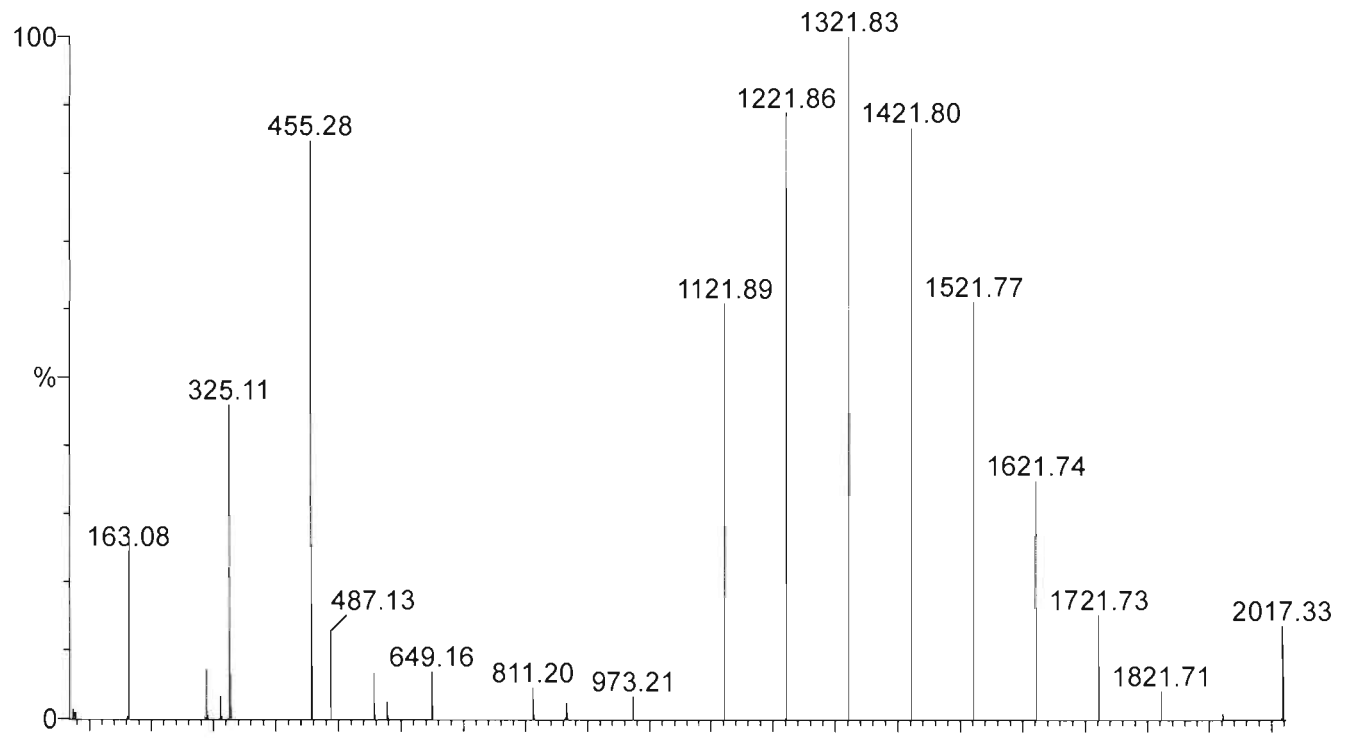
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0738 amu



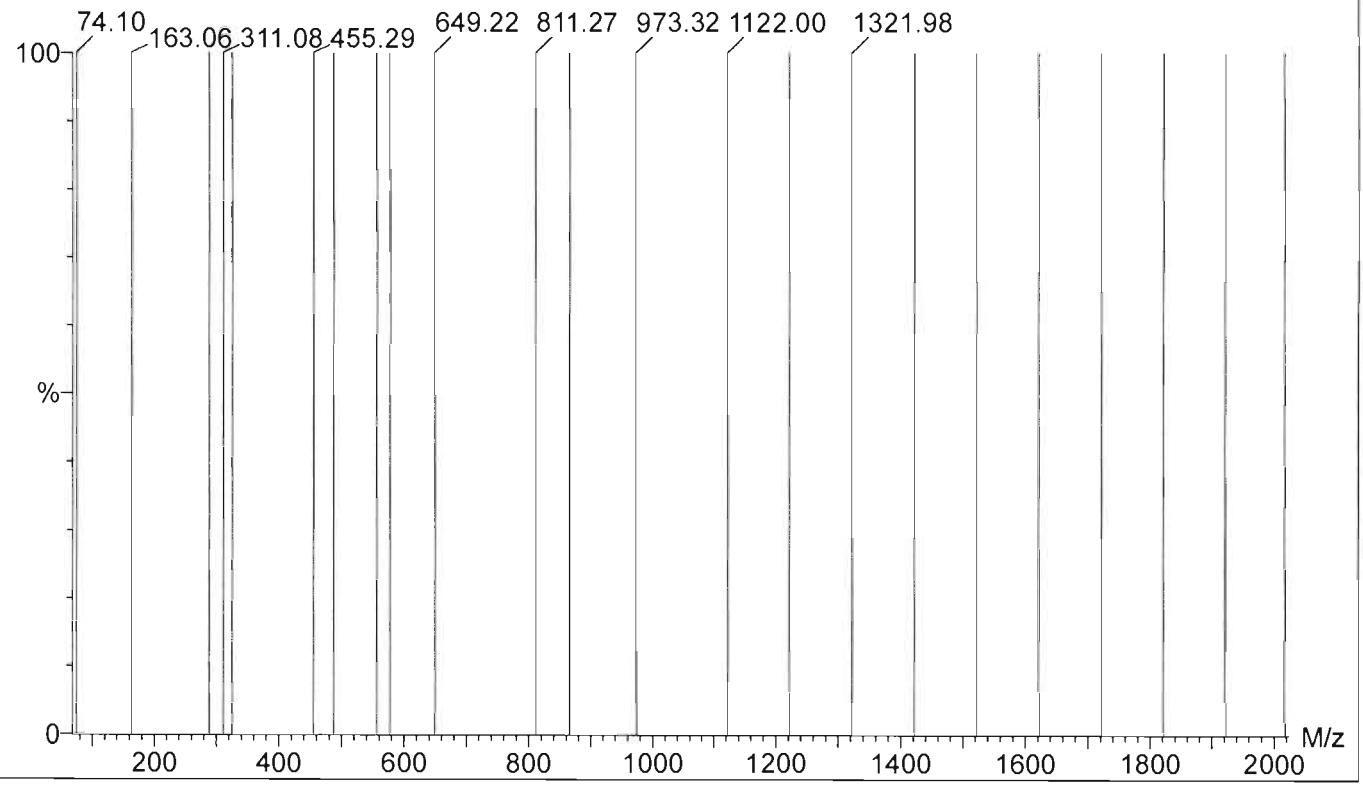
Printed: **Sat Feb 29 14:26:19 2020**



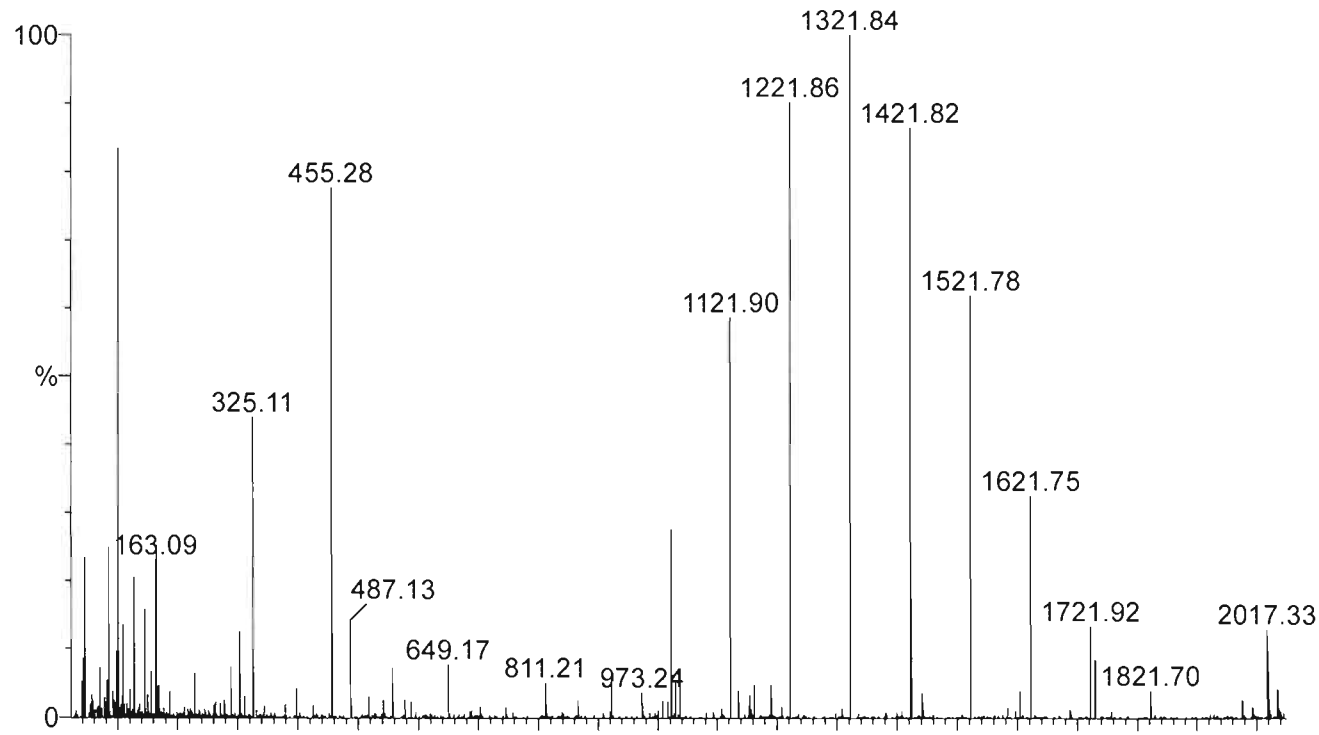
Data file: STATMS2V - Calibrated 22 matches of 23 tested references



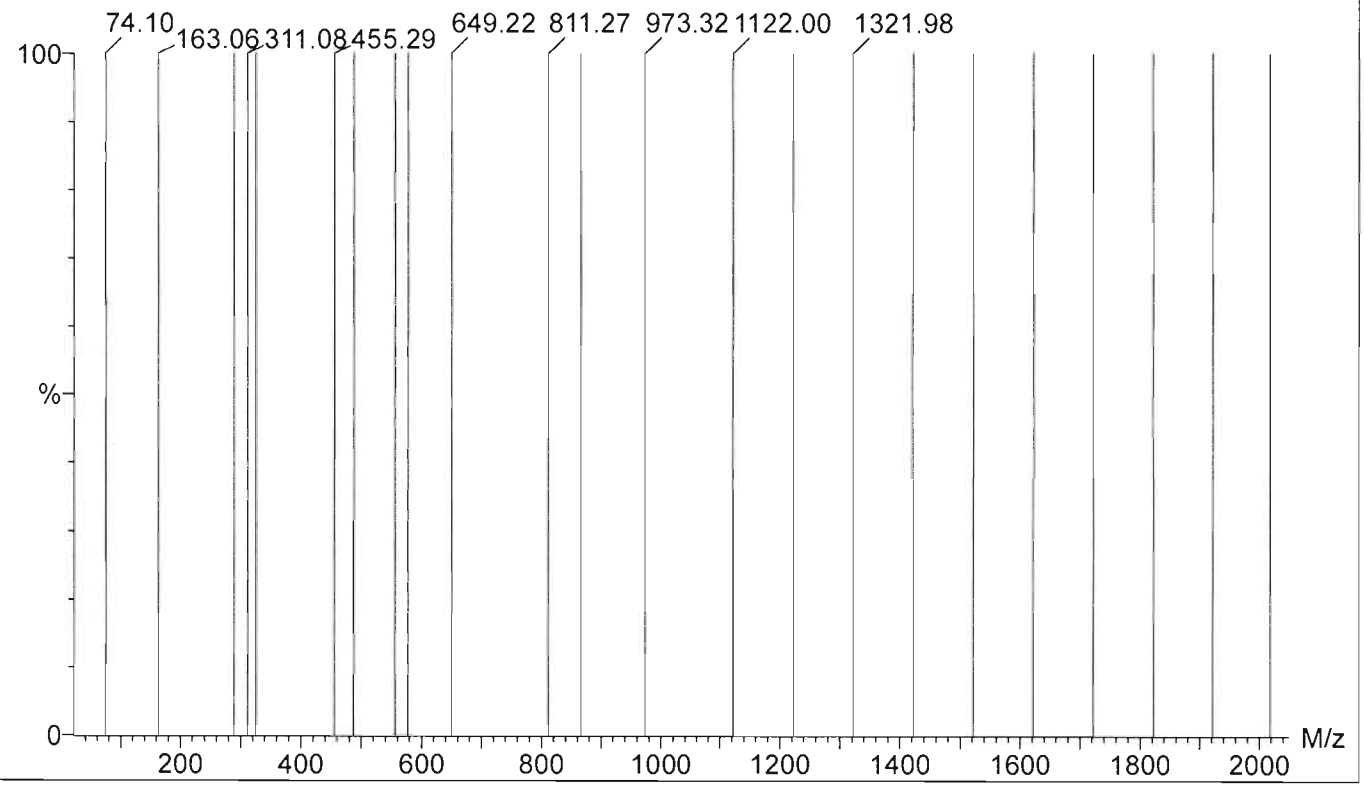
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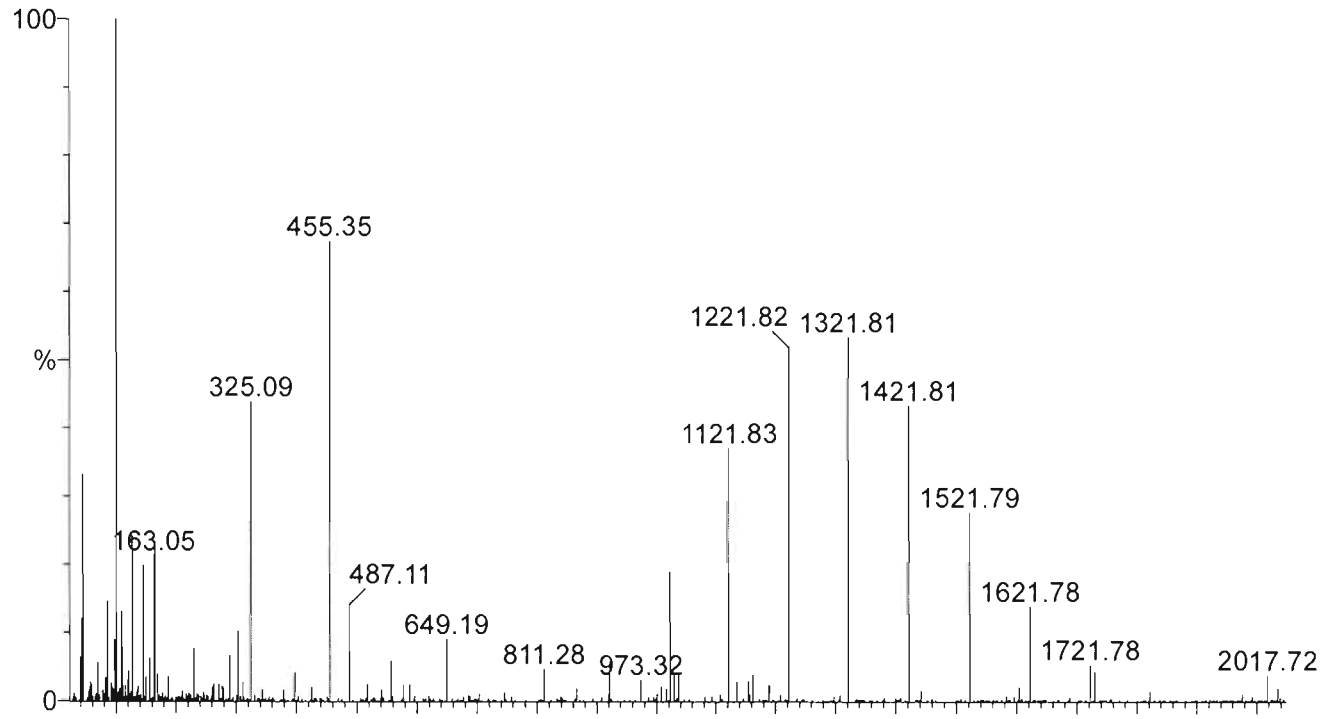
Data file: SCNMS2V - Calibrated 23 matches of 23 tested references



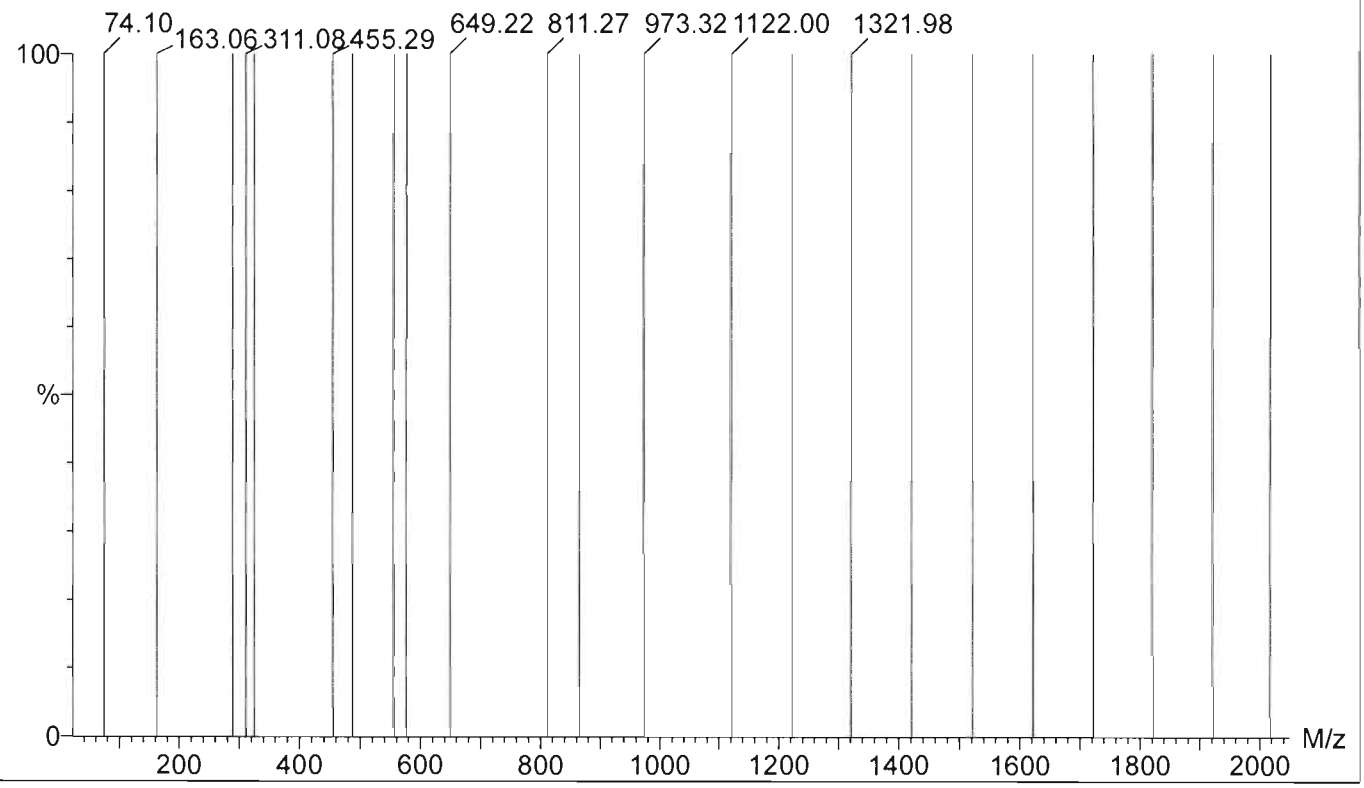
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0926 amu



Data file: FASTMS2V - Calibrated 23 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.137 amu



STANDARDS

Analytical Standard Record

Vista Analytical Laboratory

20A0801

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-PFDoA	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:	07-Jan-21
Standard Type:	Reagent	Prepared:	08-Jan-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	40	Department:	LCMS
Vials:	1	Last Edit:	23-Jan-20 14:53 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-PFDoA		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

20A0801

Description:	PFC - IS	Expires:	07-Jan-21
Standard Type:	Reagent	Prepared:	08-Jan-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	40	Department:	LCMS
Vials:	1	Last Edit:	23-Jan-20 14:53 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

19H27016

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: (Isotopic Label & Enrichment Specification)	1H,1H,2H,2H-PERFLUORODODECANE SULFONATE(10:2 FTS), 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:	≥ 98%
MW*: ** For isotopically labeled compounds, MW listed is for the fully enriched product.*	656.19
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

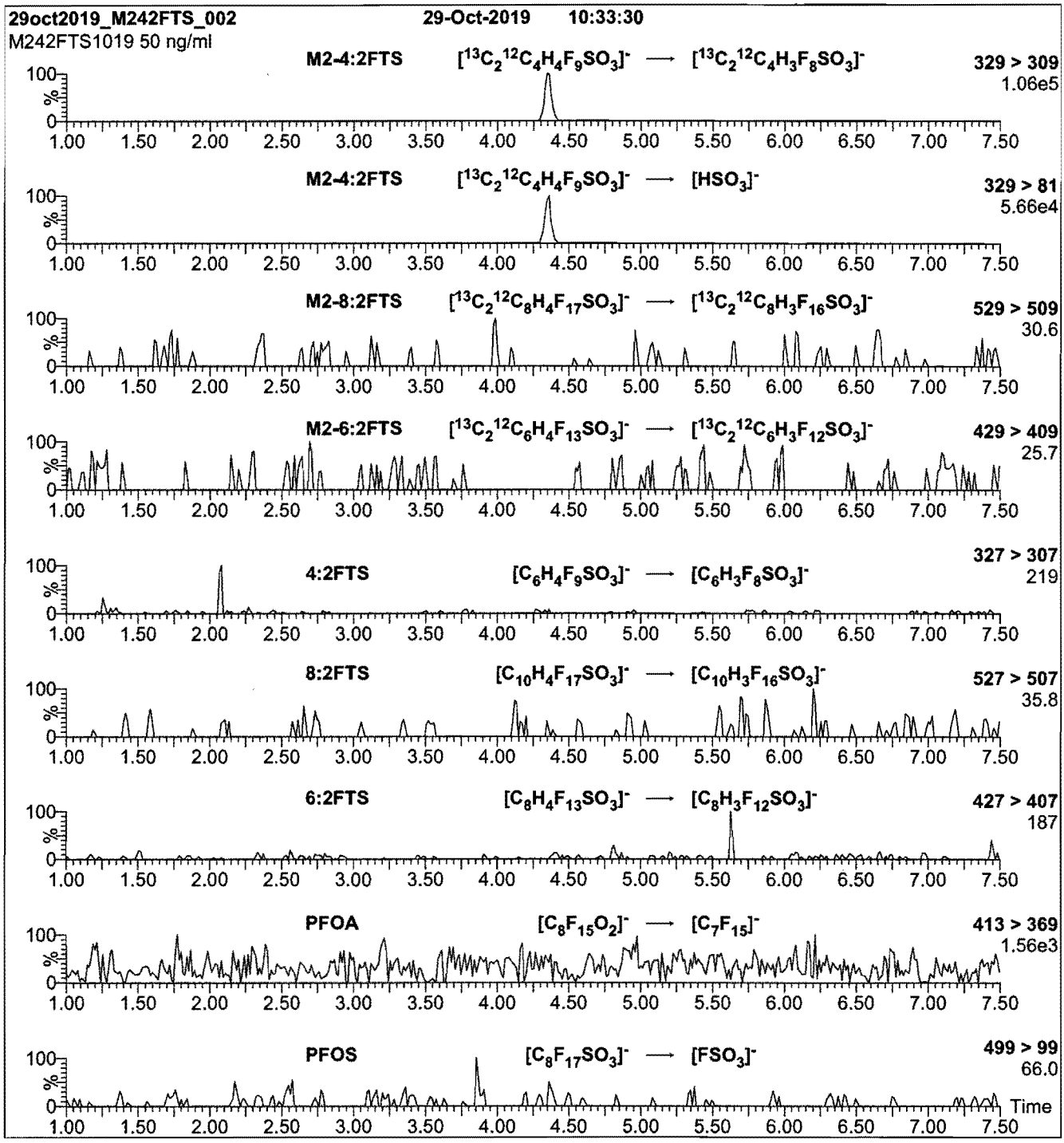
Sashi Sivendran-Basak, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	8/21/2019
Expiration Date	8/21/2024
Concentration Based on Gravimetry	50.0 ± 0.5 µg/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.

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

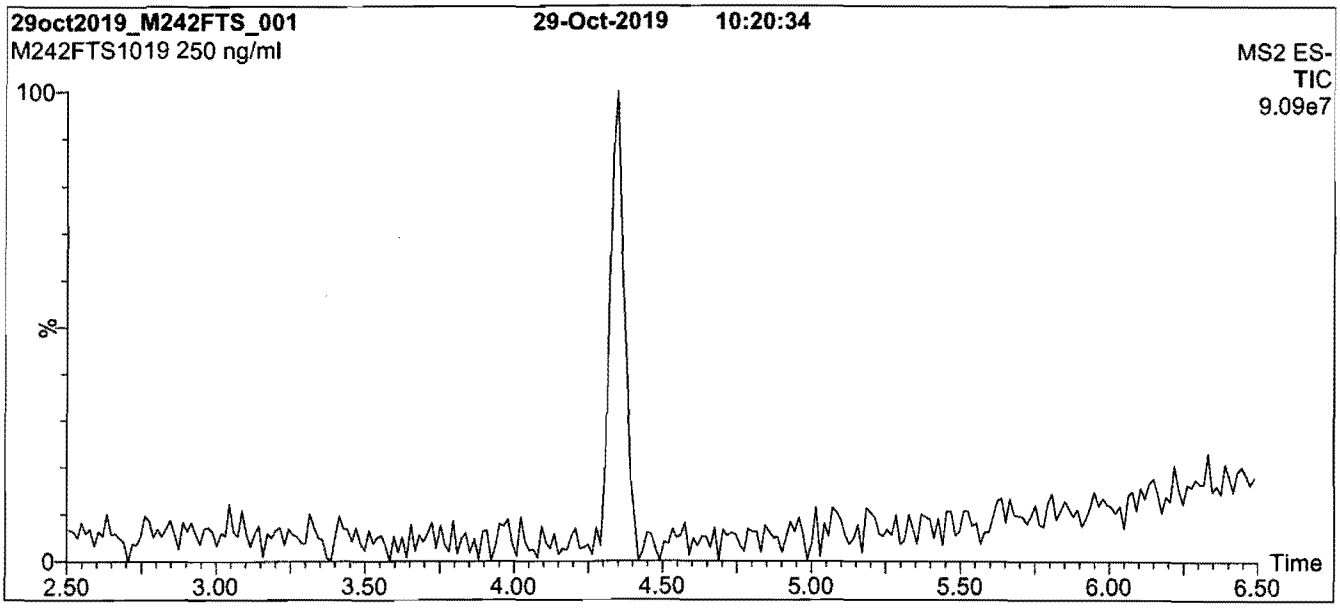
Flow: 300 µl/min

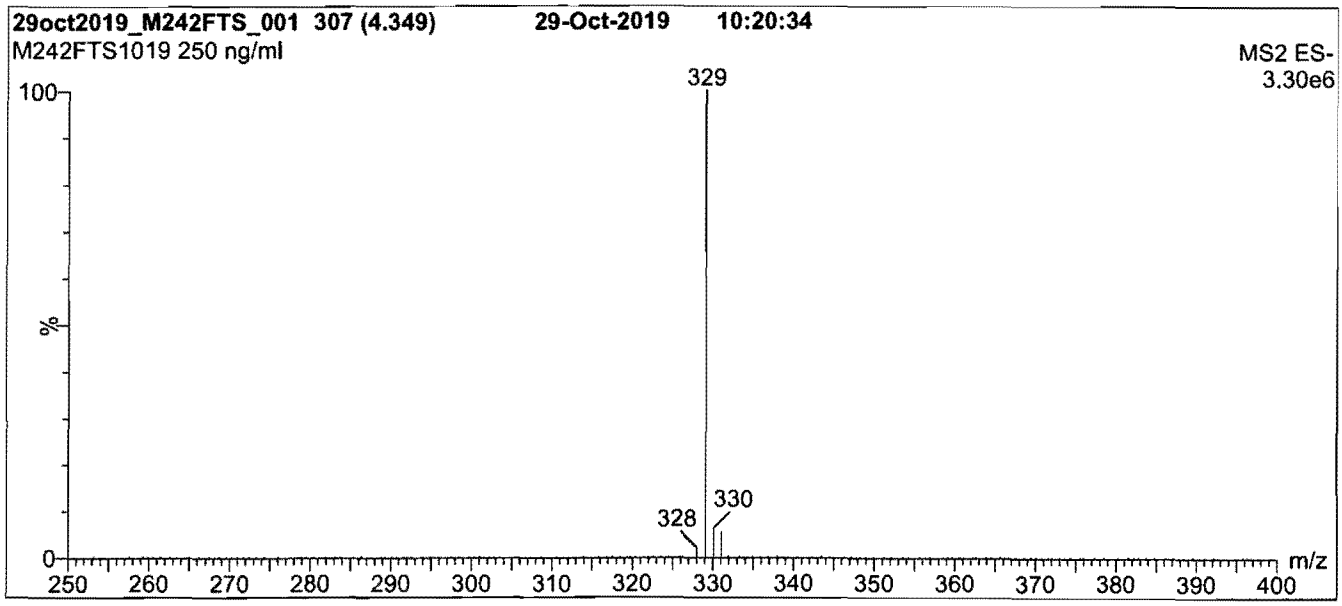
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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 $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

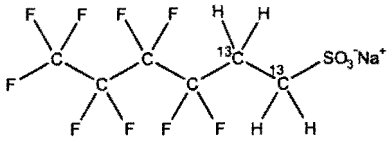
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19L0601

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2-4:2FTS	**LOT NUMBER:**	M242FTS1019
COMPOUND:	Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]hexane sulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4H_4F_9SO_3Na$	**MOLECULAR WEIGHT:**	352.12
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	46.7 ± 2.3 µg/ml (M2-4:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
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:

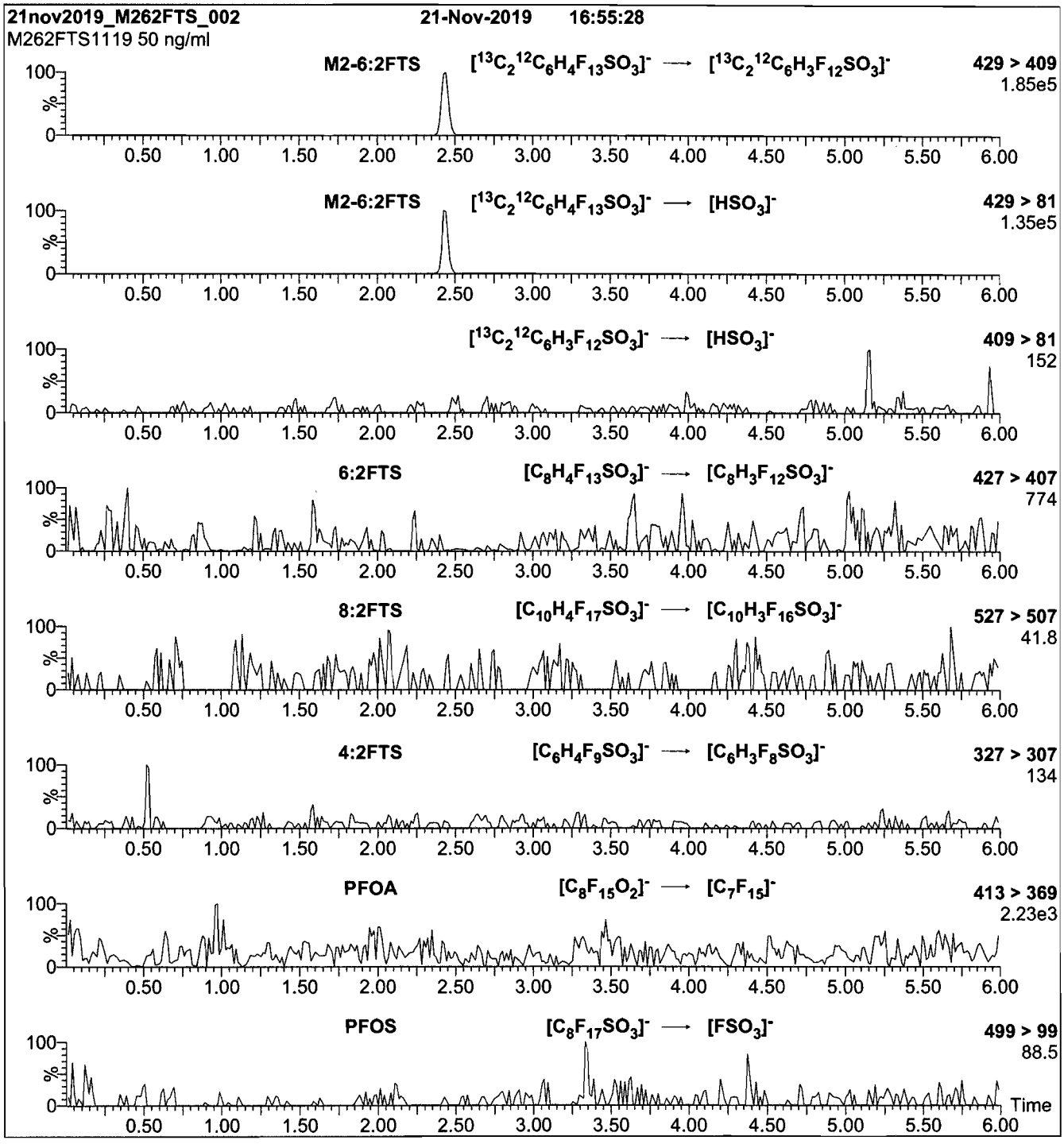
- See page 2 for further details.
- The native 4:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 4:2FTS and M2-4:2FTS will produce signals in the m/z 329 to m/z 309 channel during SRM analysis. We recommend using the m/z 329 to m/z 81 transition to monitor for 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: _____ **Date:** 11/05/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **M2-6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M2-6:2FTS)

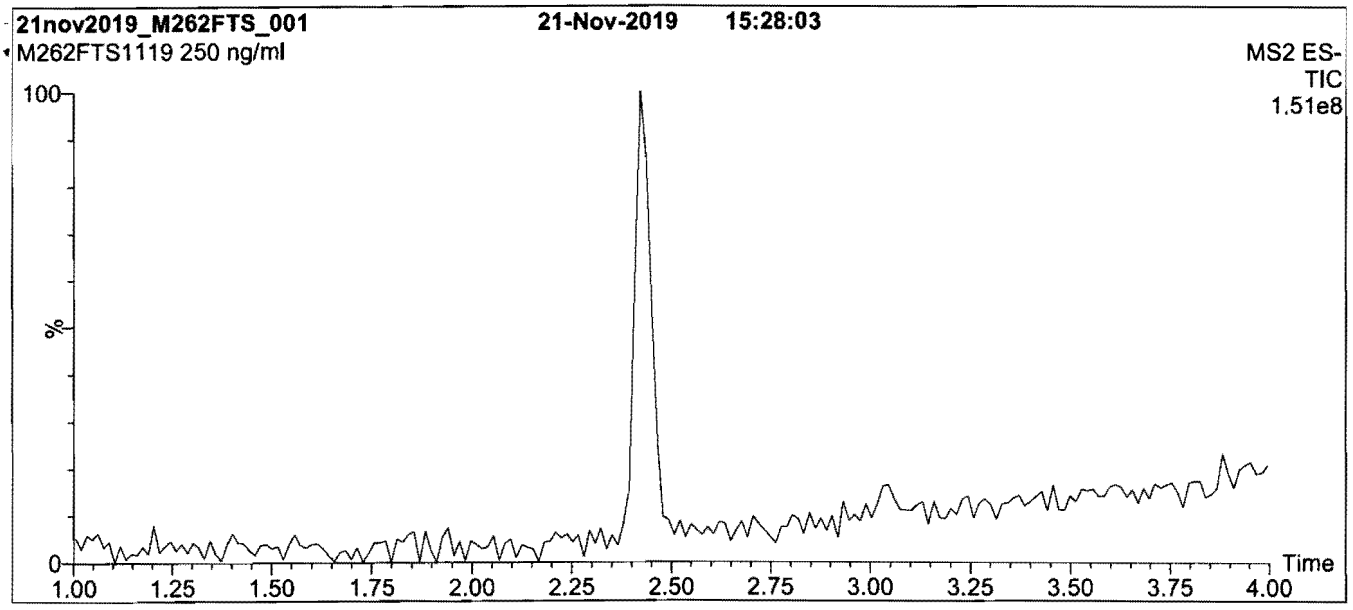
Mobile phase: Same as Figure 1

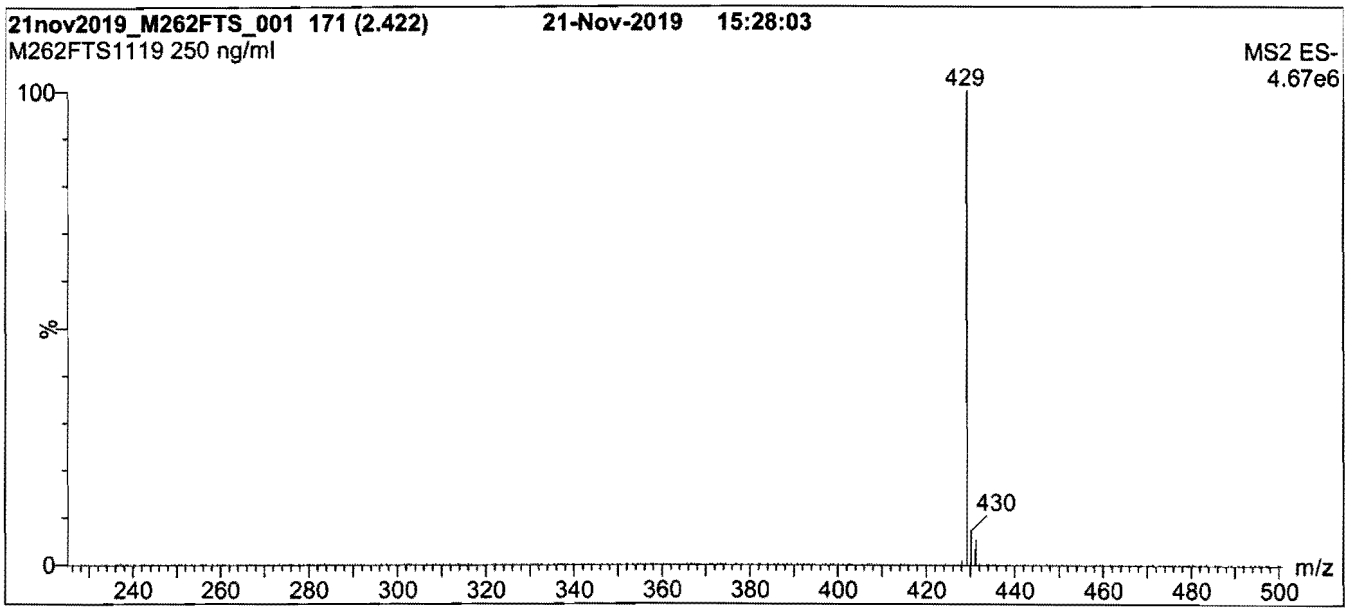
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 20

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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.

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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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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:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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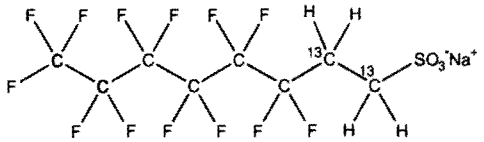
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS1119

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.5 ± 2.4 µg/ml (M2-6:2FTS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
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:

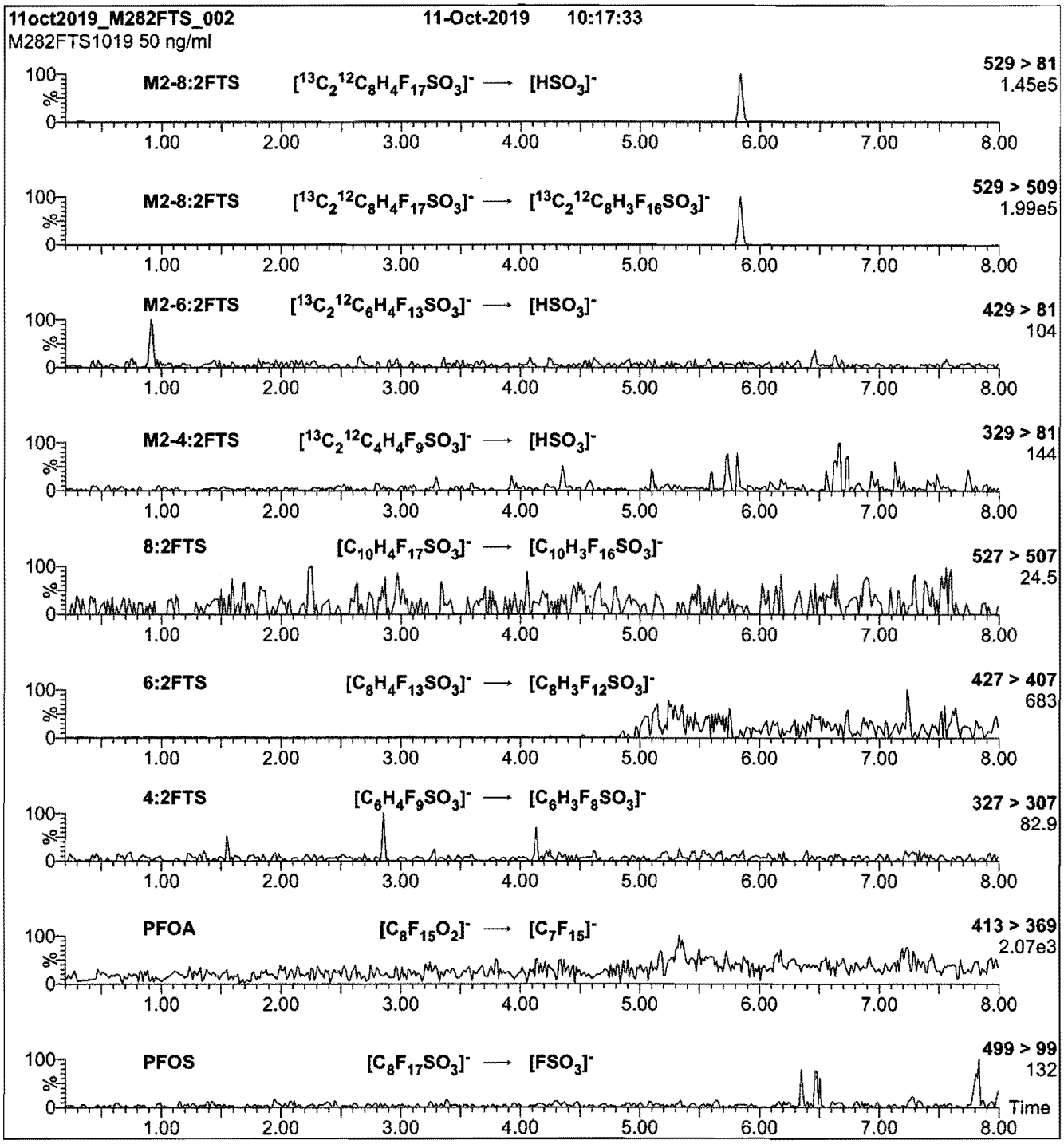
- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/25/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

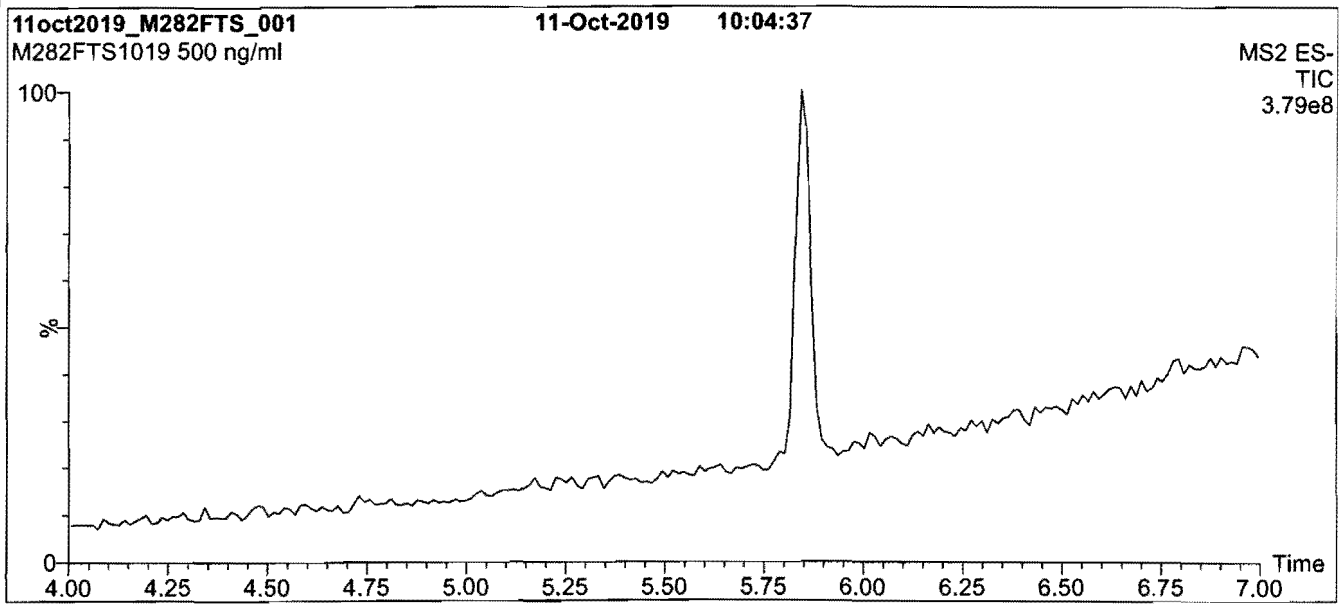
Flow: 300 µl/min

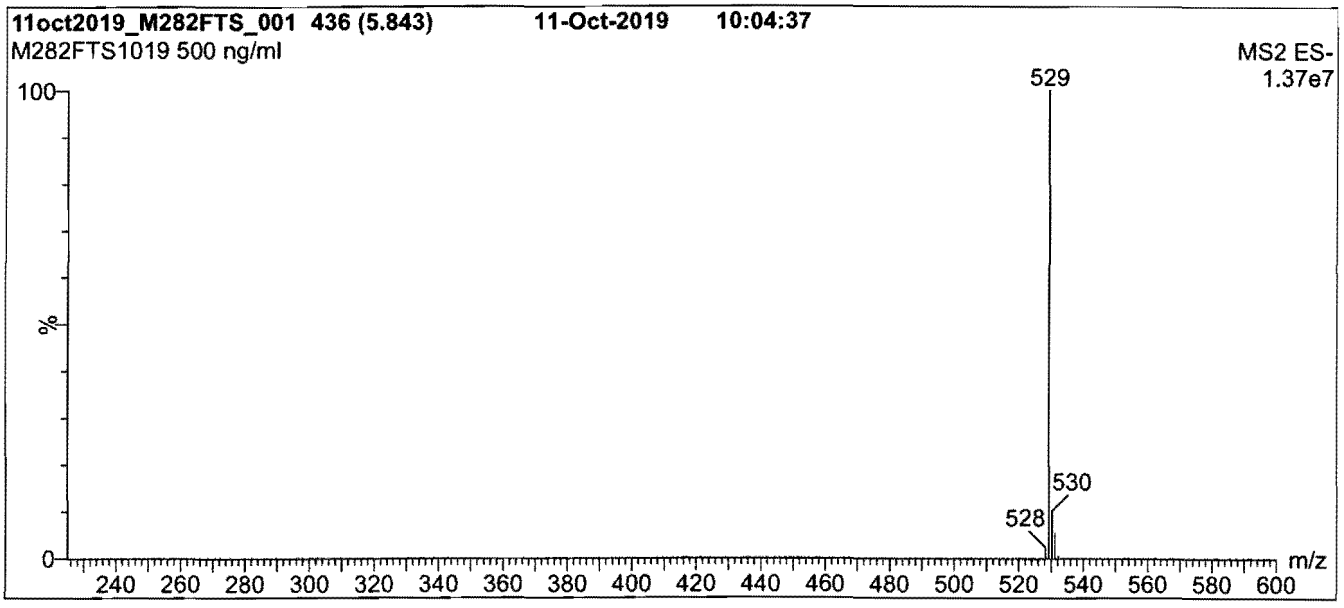
MS Parameters

Collision Gas (mbar) = 3.87e-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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0603

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where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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19L0603

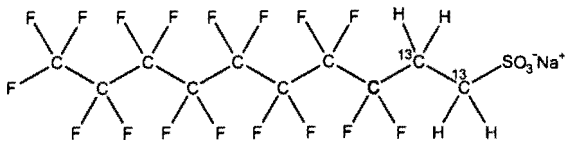
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS1019

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.9 ± 2.4 µg/ml (M2-8:2FTS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
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 ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

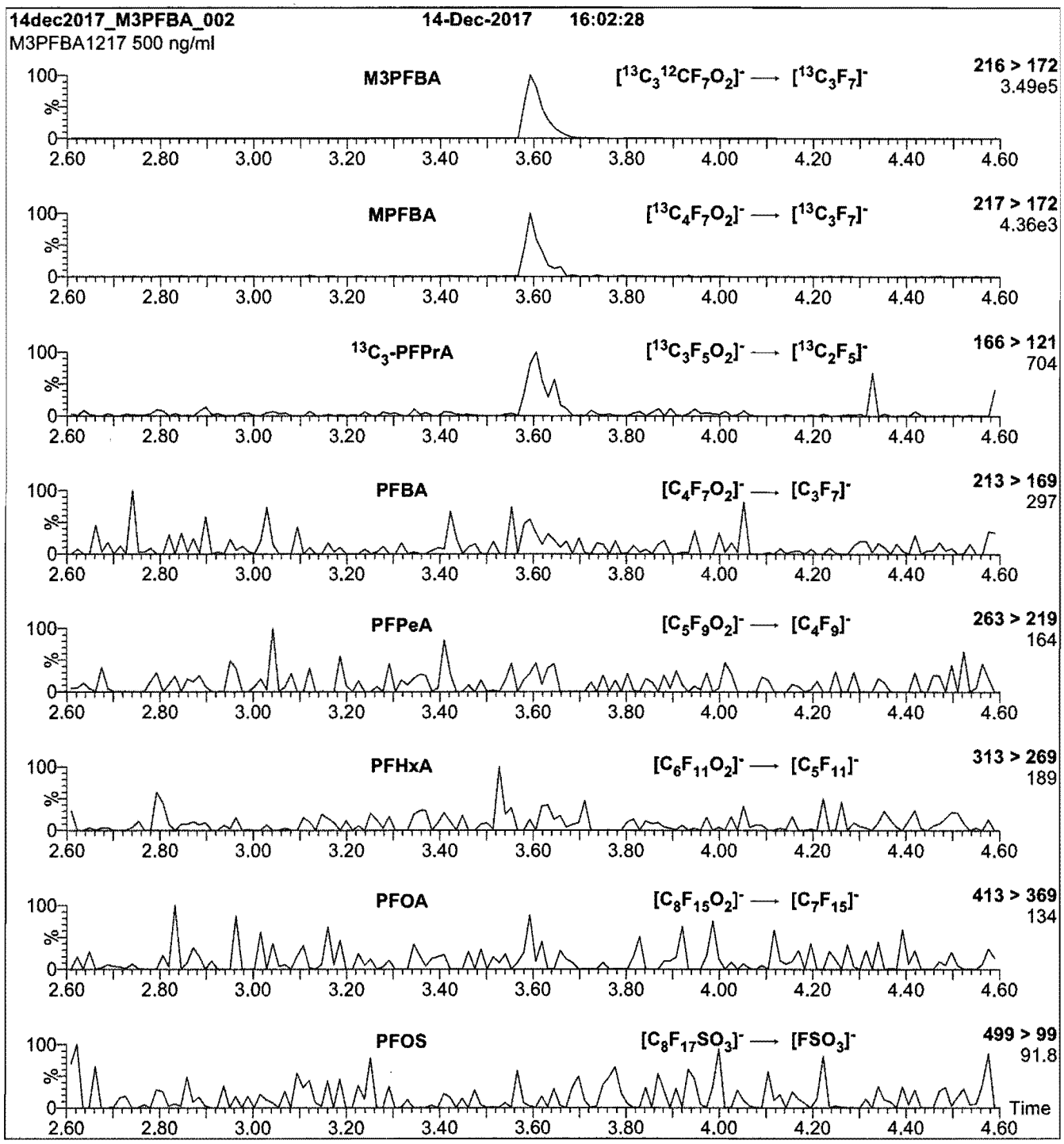
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/15/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1920604

Figure 2: **M3PFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFBA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

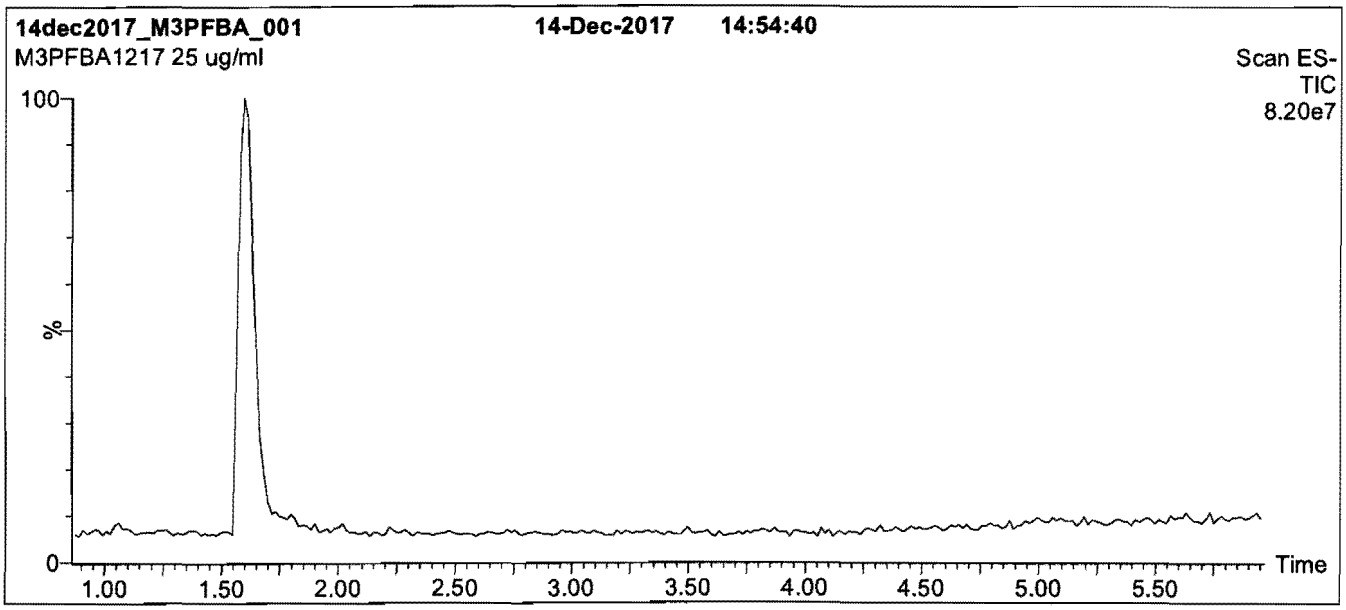
Flow: 300 µl/min

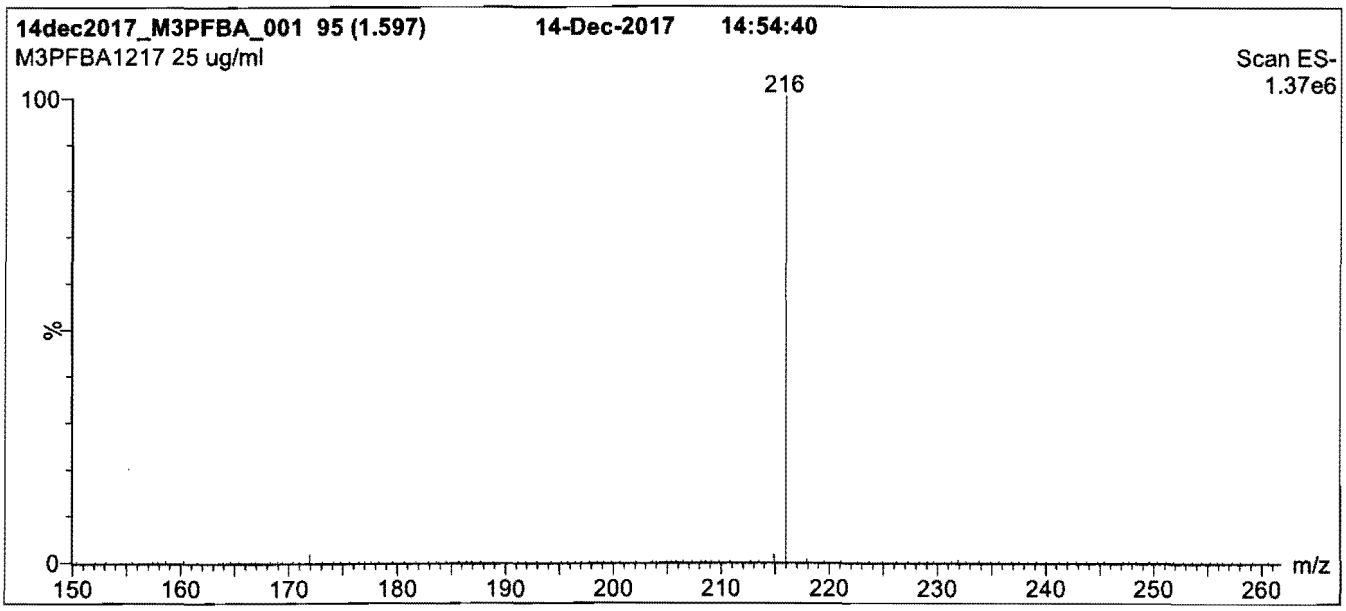
MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

19L0604

Figure 1: **M3PFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

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INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

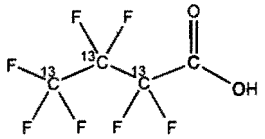
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19L0604

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M3PFBA	**LOT NUMBER:**	M3PFBA1217
COMPOUND:	Perfluoro-n-[2,3,4-$^{13}C_3$]butanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CHF_7O_2$	**MOLECULAR WEIGHT:**	217.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (2,3,4-$^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	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-[$^{13}C_3$]propanoic acid and also contains ~ 1.0% of perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid due to the naturally occurring isotopic abundance of ^{13}C in the unlabelled carbon atom.

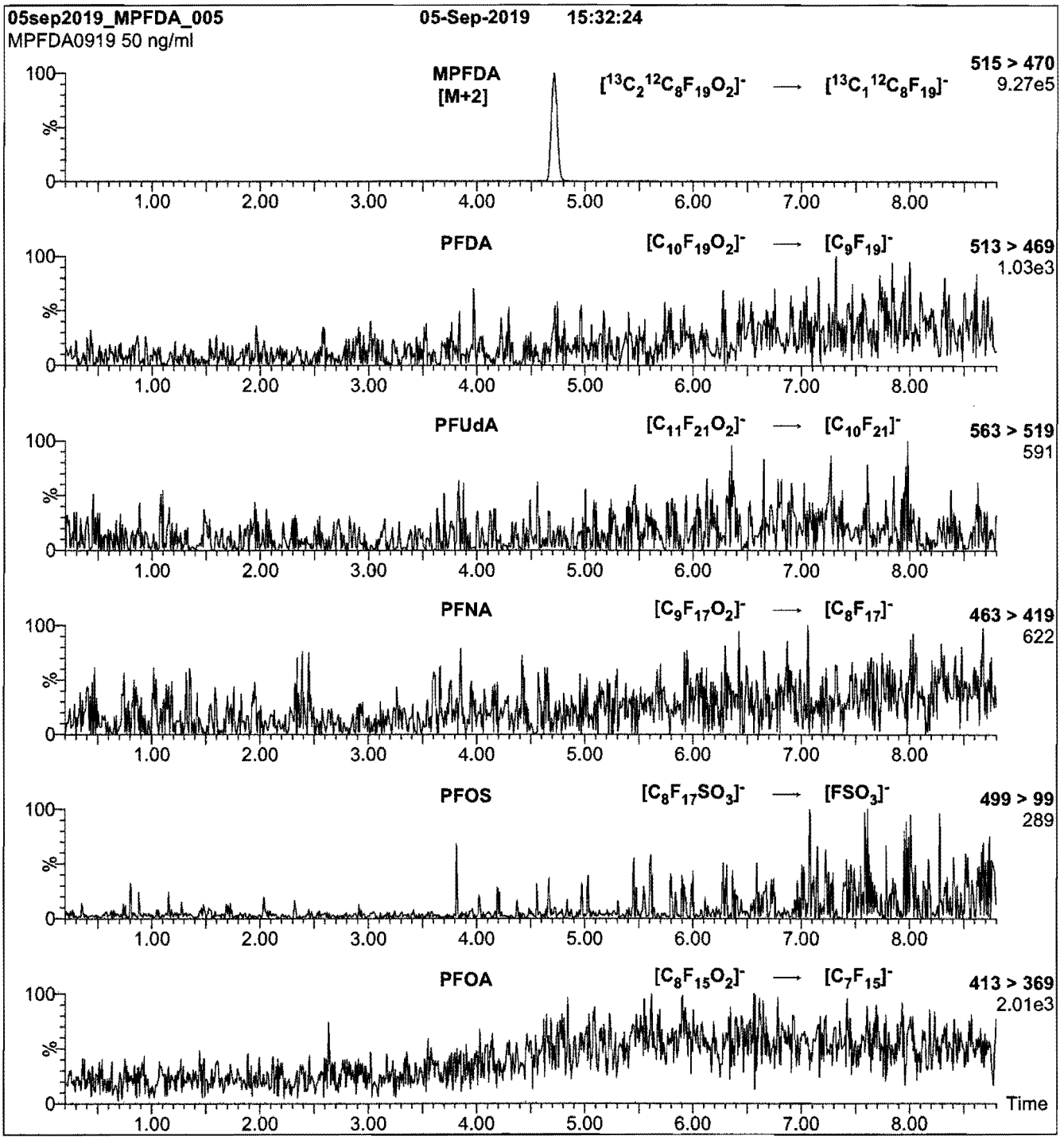
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/22/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0605

Figure 2: **MPFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFDA)

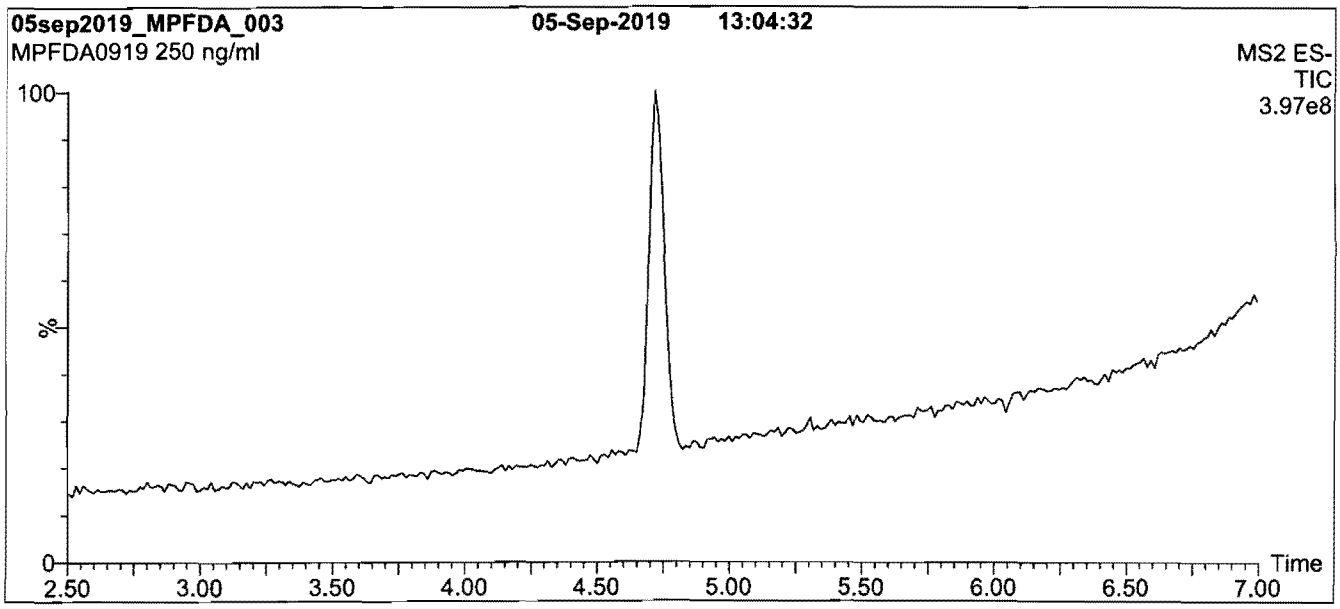
Mobile phase: Same as Figure 1

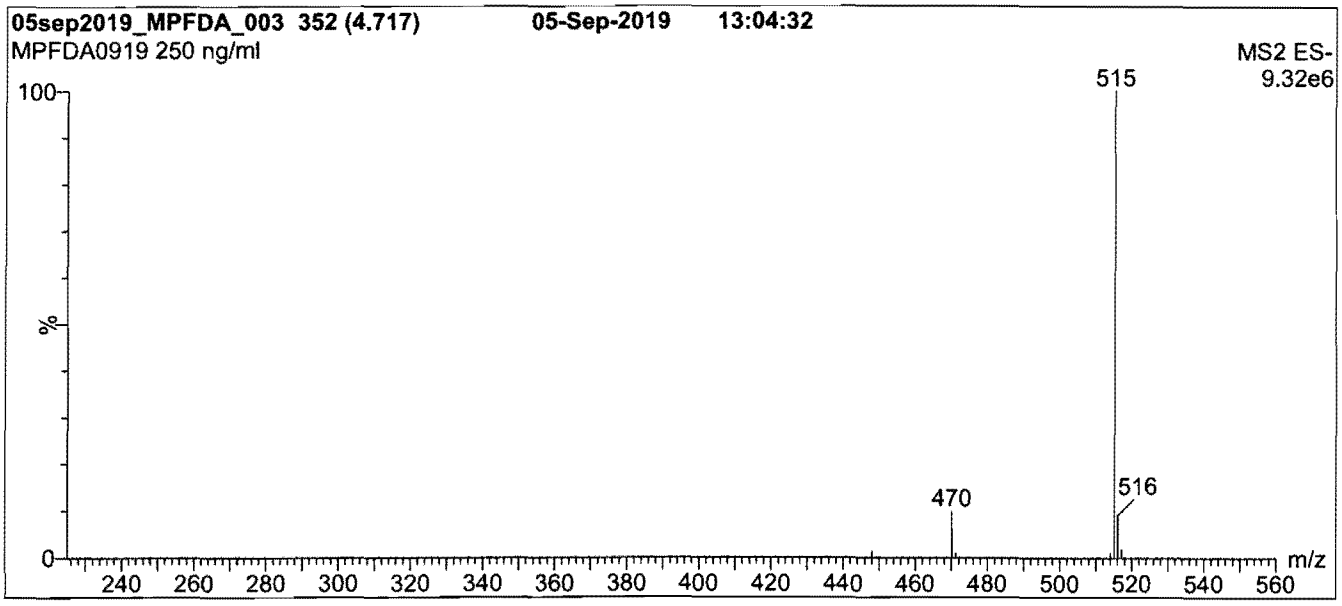
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.45e-3
Collision Energy (eV) = 10

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

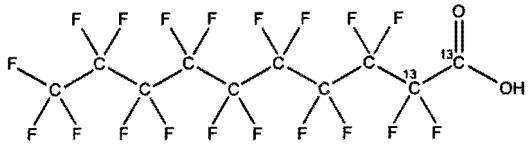
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19L0605

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFDA	**LOT NUMBER:**	MPFDA0919
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8HF_{19}O_2$	**MOLECULAR WEIGHT:**	516.07
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	09/05/2019		
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.

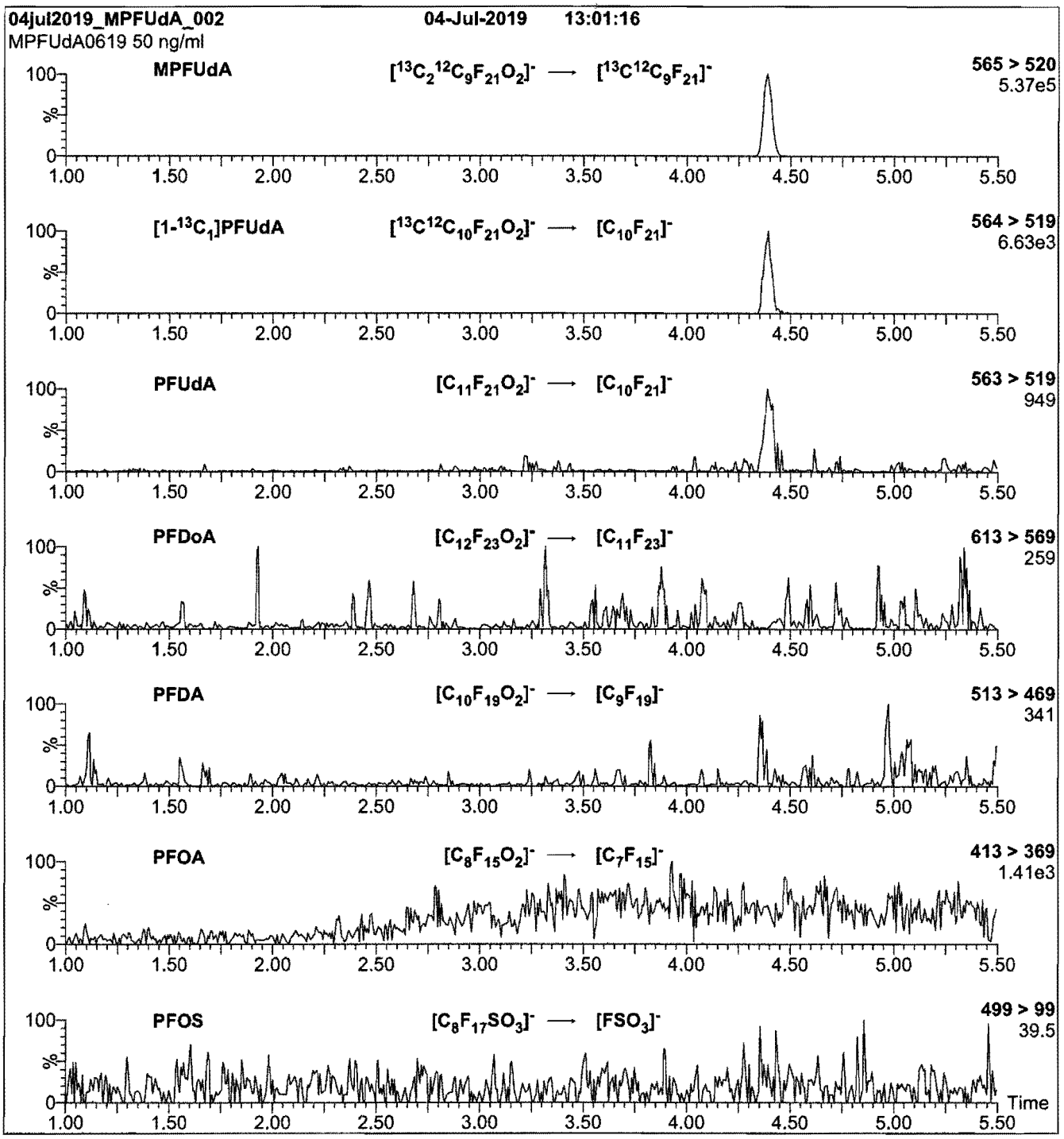
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Certified By: _____ **Date:** 09/09/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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19L06006

Figure 2: **MPFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFUdA)

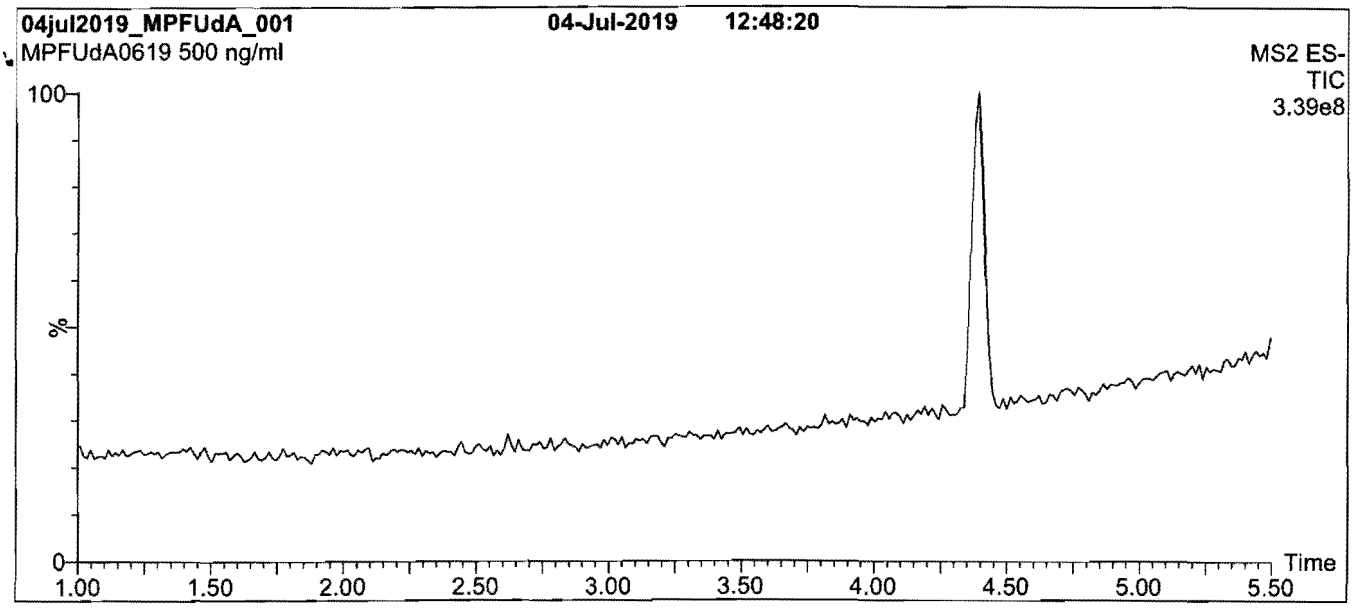
Mobile phase: Same as Figure 1

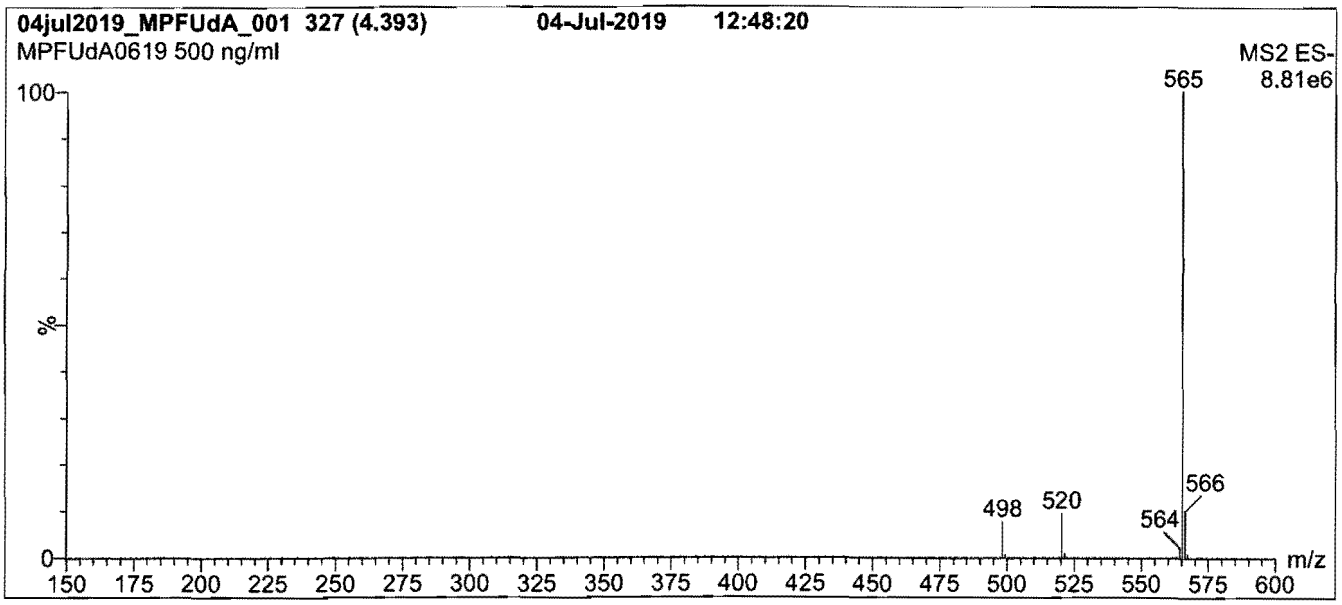
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 12

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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:

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UNCERTAINTY:

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$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

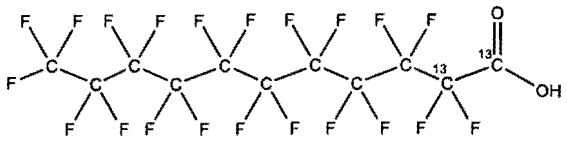
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19L0606

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFUdA	**LOT NUMBER:**	MPFUdA0619
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	**MOLECULAR WEIGHT:**	566.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	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:

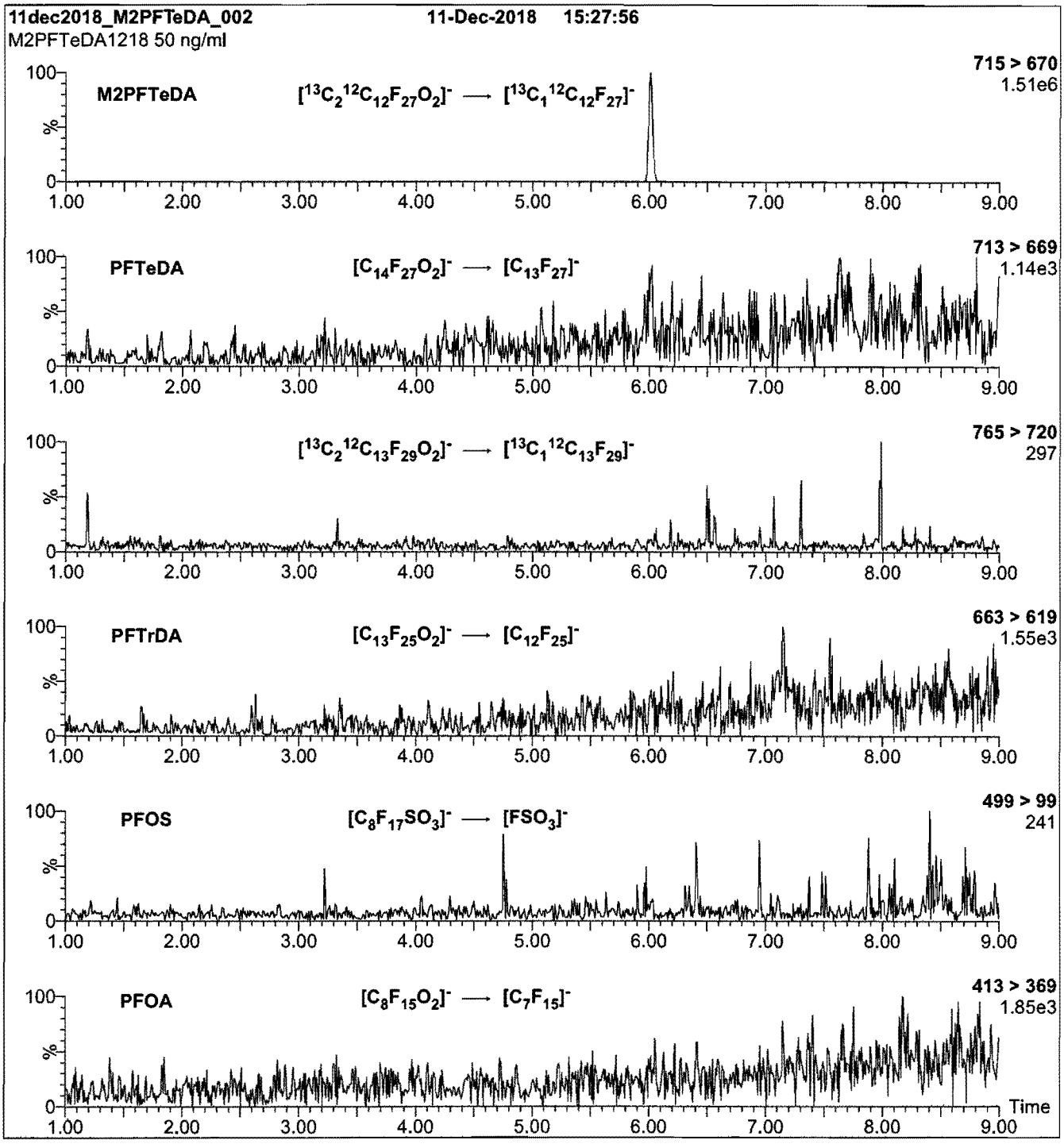
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-$^{13}C_1$-PFUdA (~1%; see Figure 2), 2-$^{13}C_1$-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/05/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **M2PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M2PFTeDA)

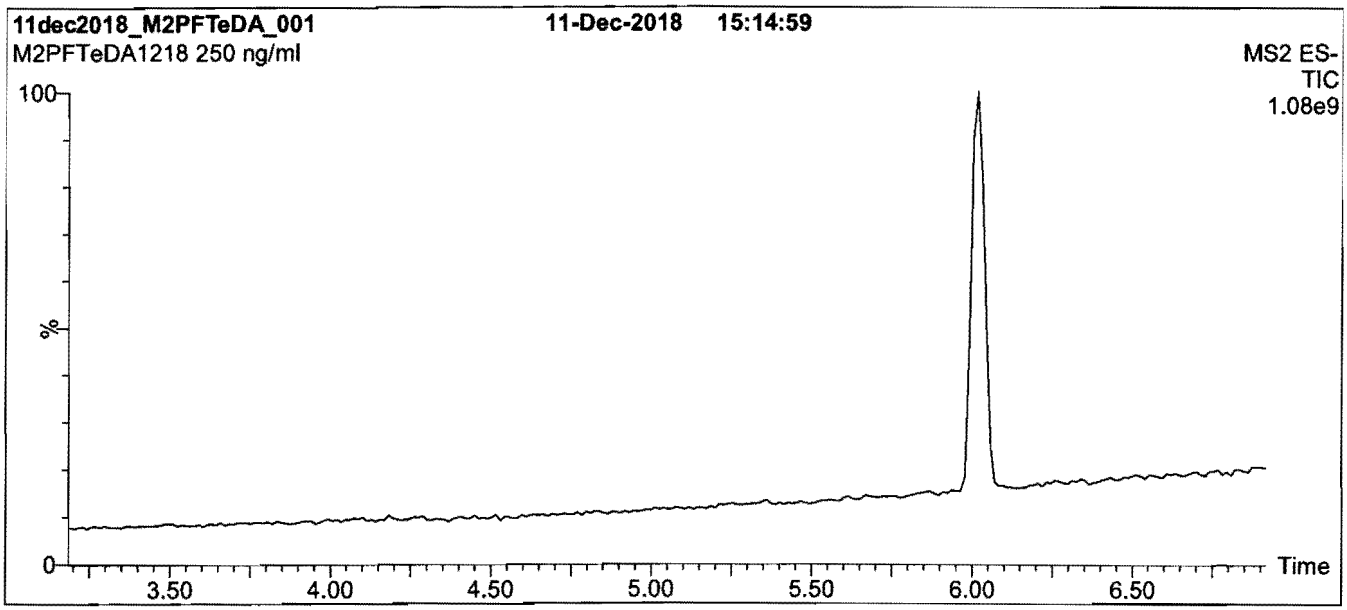
Mobile phase: Same as Figure 1

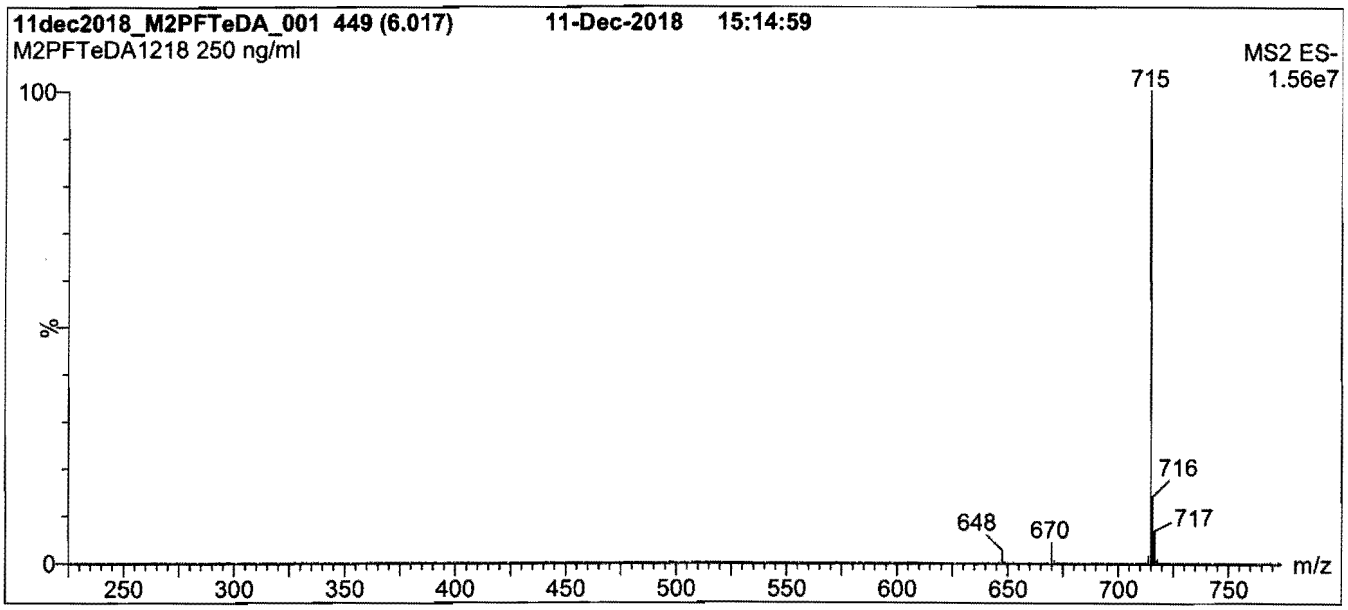
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.16e-3
Collision Energy (eV) = 14

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

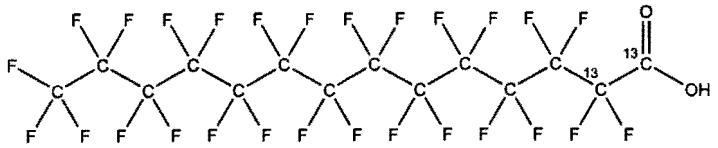
19L0607

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFTeDA
LOT NUMBER: M2PFTeDA1218
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{12}HF_{27}O_2$	**MOLECULAR WEIGHT:**	716.10
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	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.

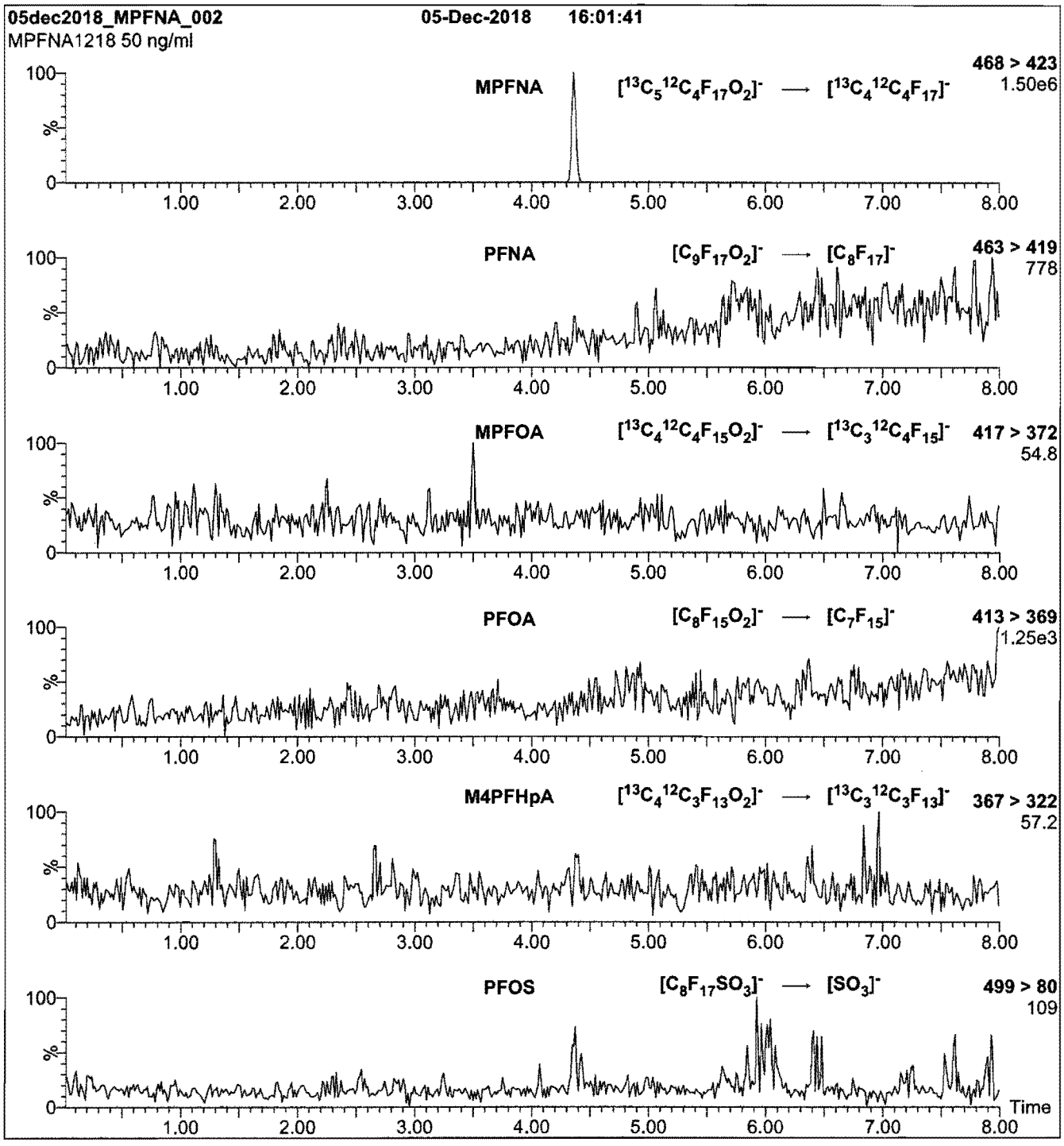
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/20/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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19L0608

Figure 2: **MPFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFNA)

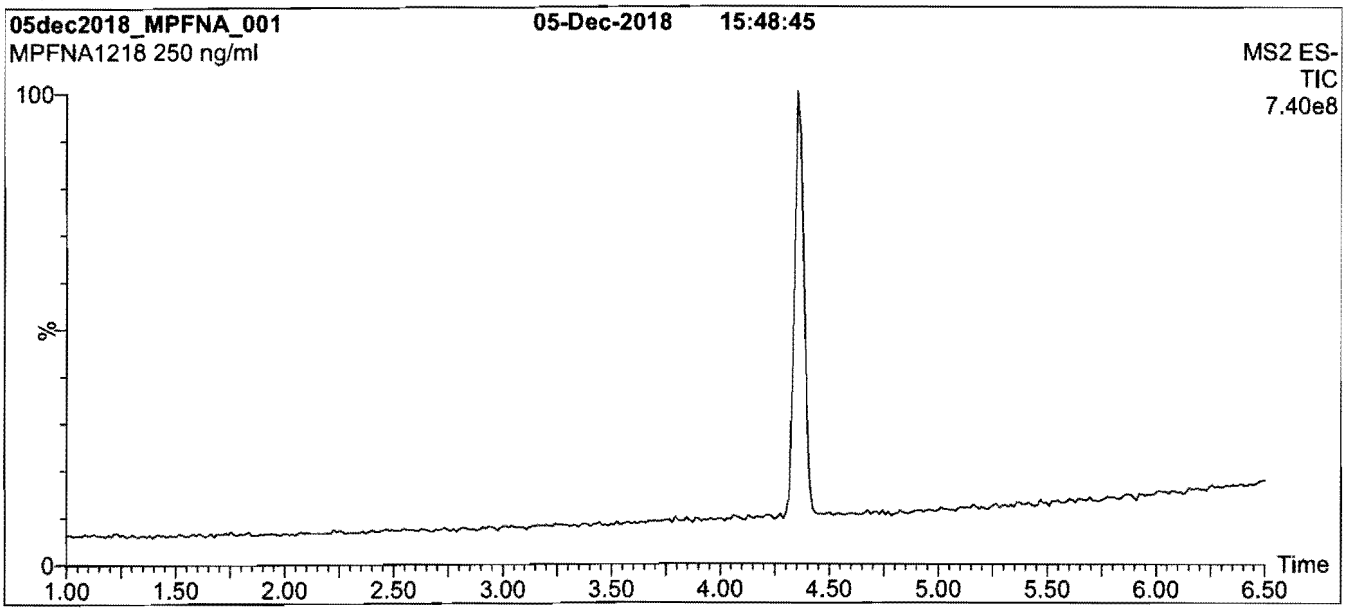
Mobile phase: Same as Figure 1

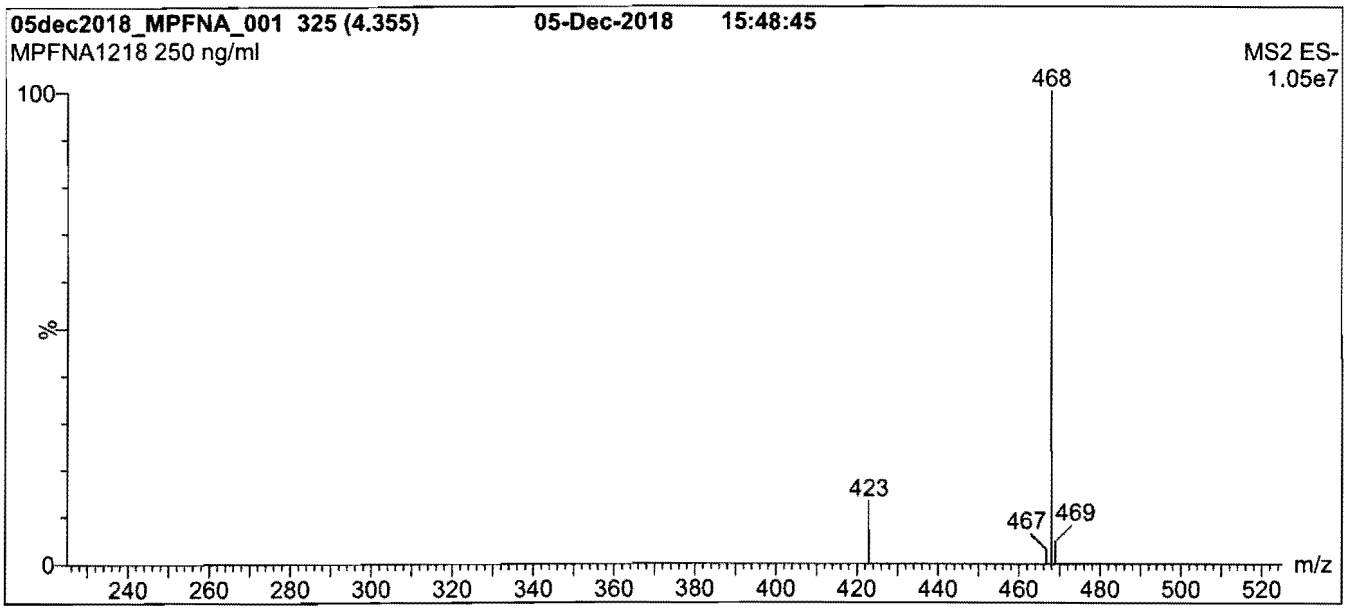
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.88e-3
Collision Energy (eV) = 10

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

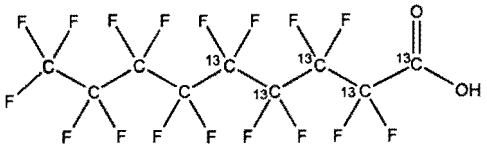
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19L0608

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFNA	**LOT NUMBER:**	MPFNA1218
COMPOUND:	Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_5{}^{12}C_4HF_{17}O_2$	**MOLECULAR WEIGHT:**	469.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99%^{13}C (1,2,3,4,5-$^{13}C_5$)
LAST TESTED: (mm/dd/yyyy)	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: _____ **Date:** 12/10/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

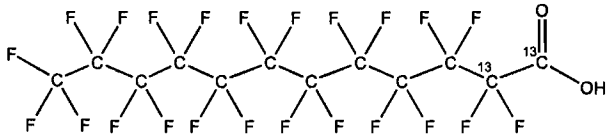
19L0609

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDoA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid
LOT NUMBER: MPFDoA1218

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{10}HF_{23}O_2$	**MOLECULAR WEIGHT:**	616.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	12/11/2018		
EXPIRY DATE: (mm/dd/yyyy)	12/11/2023		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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ADDITIONAL INFORMATION:

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19L0609

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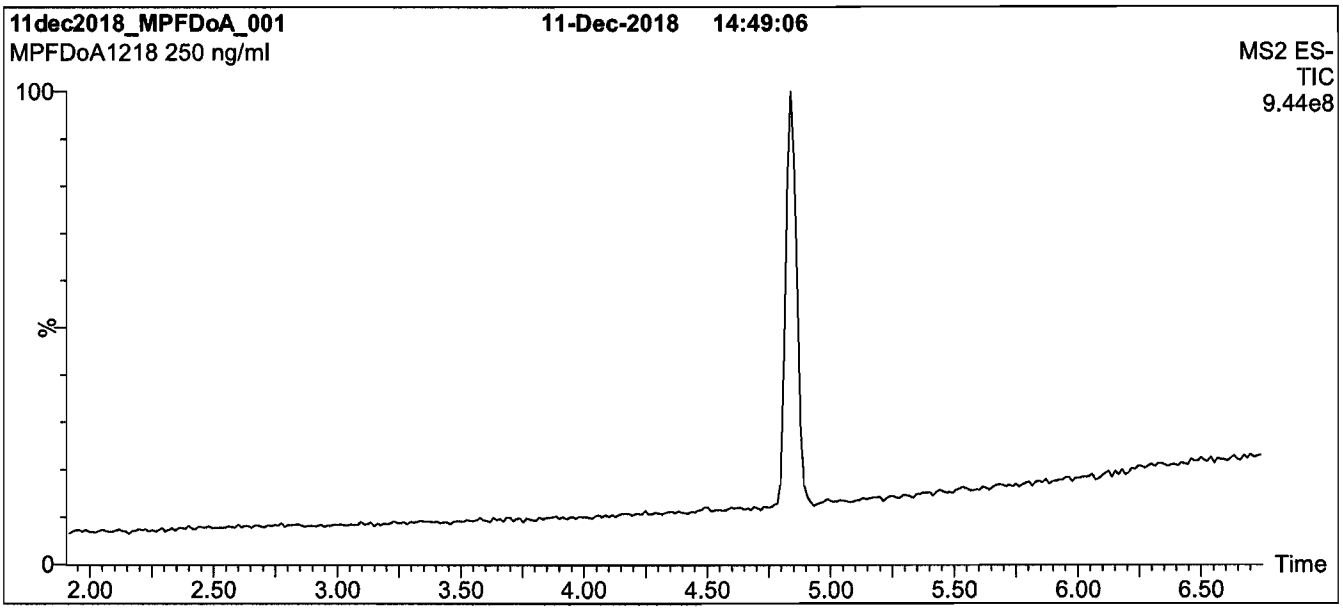
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

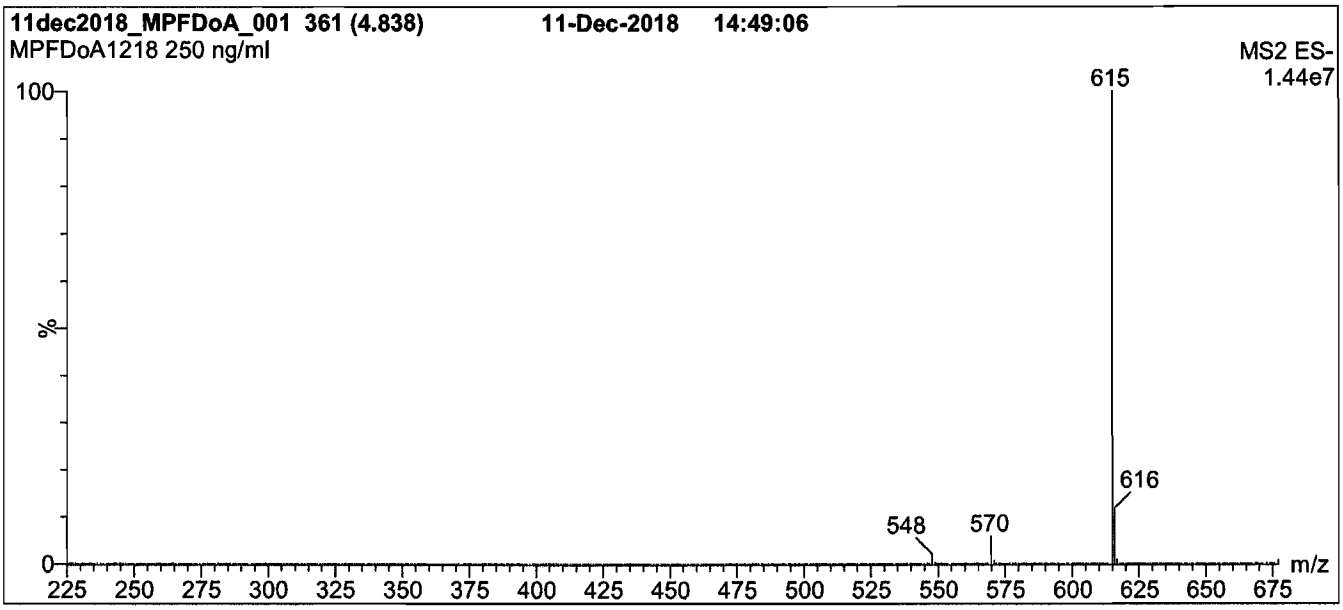
CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min before returning to initial conditions in 0.75 min.
Time: 12 min

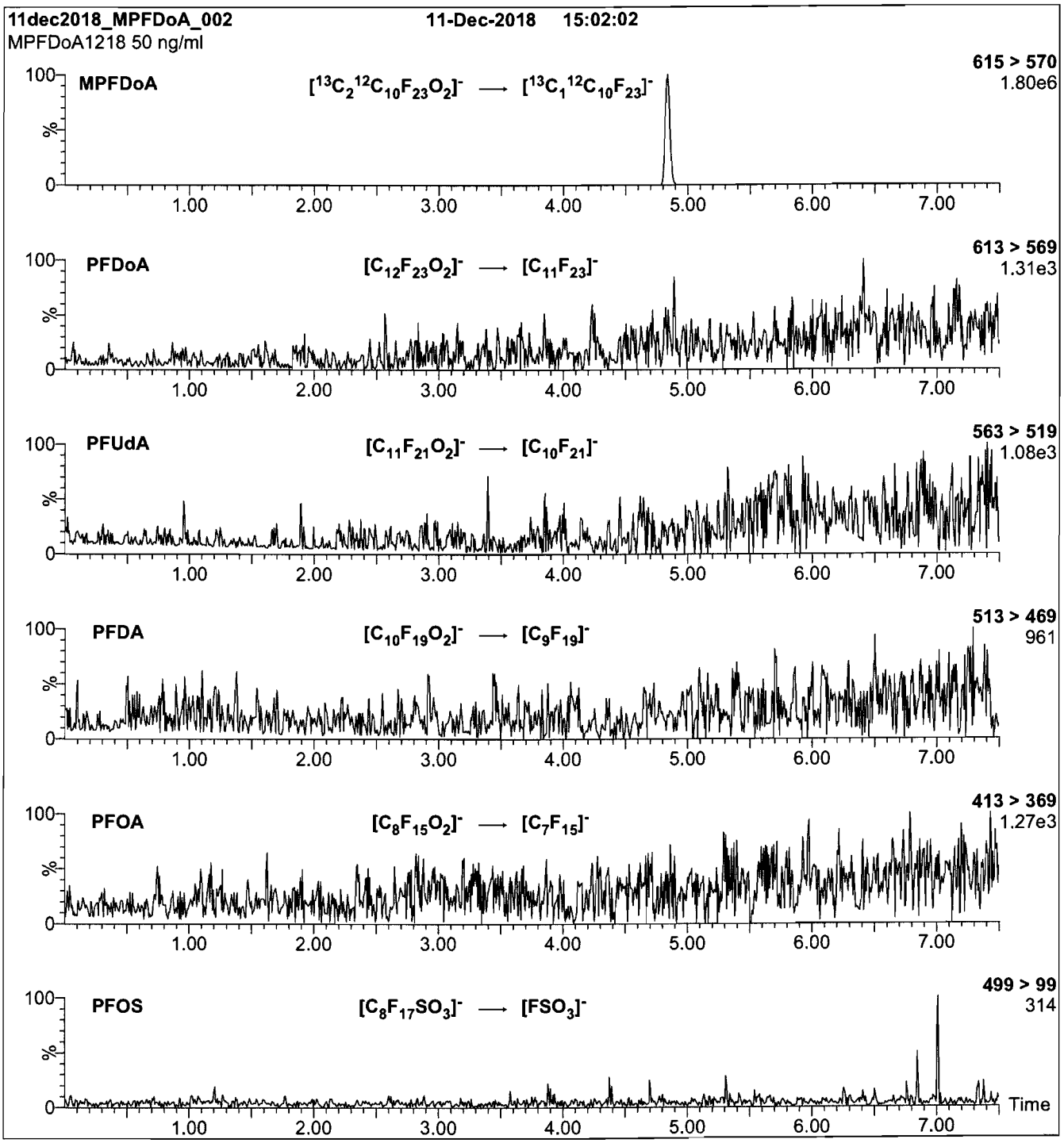
Flow: 300 µl/min

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

Figure 2: **MPFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFDoA)

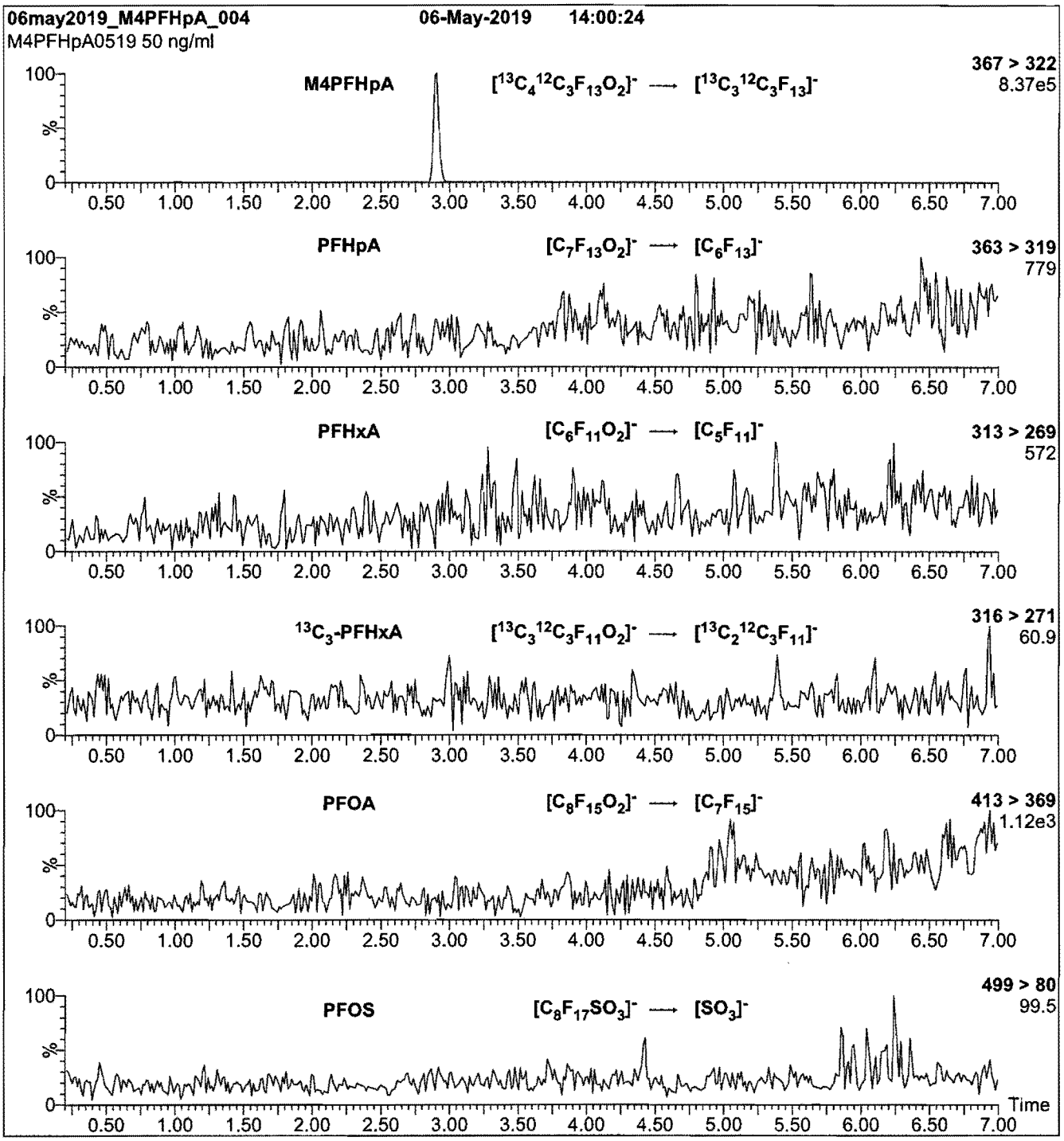
Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.16e-3
Collision Energy (eV) = 12

Figure 2: **M4PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M4PFHpA)

Mobile phase: Same as Figure 1

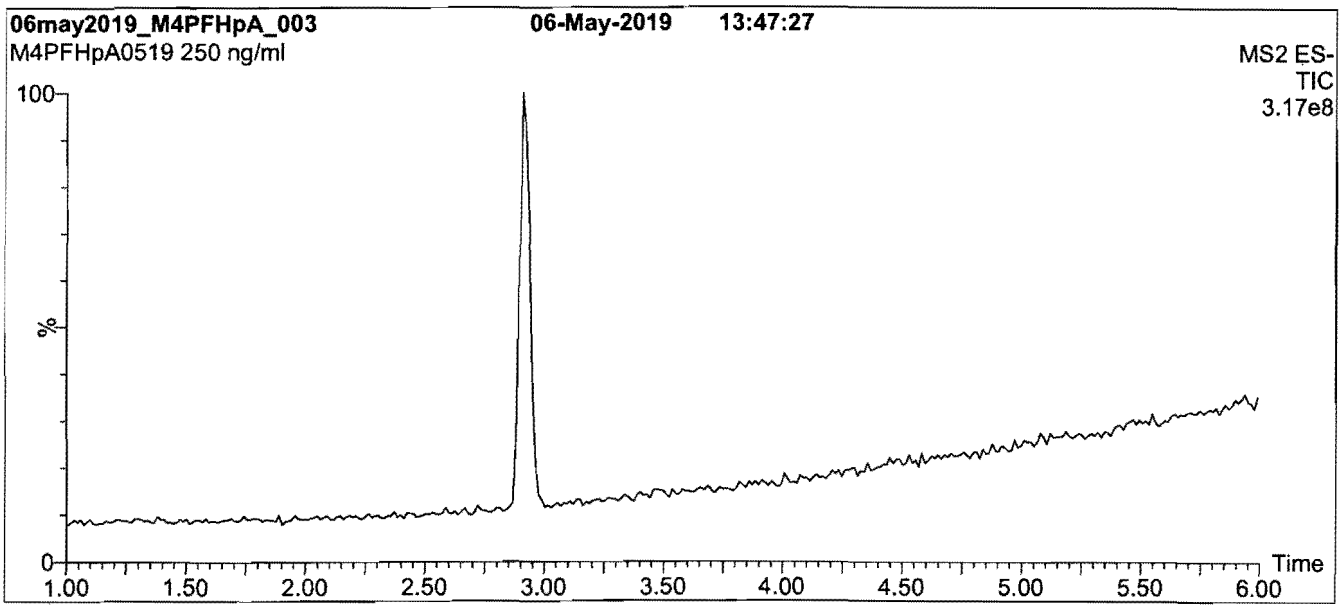
Flow: 300 µl/min

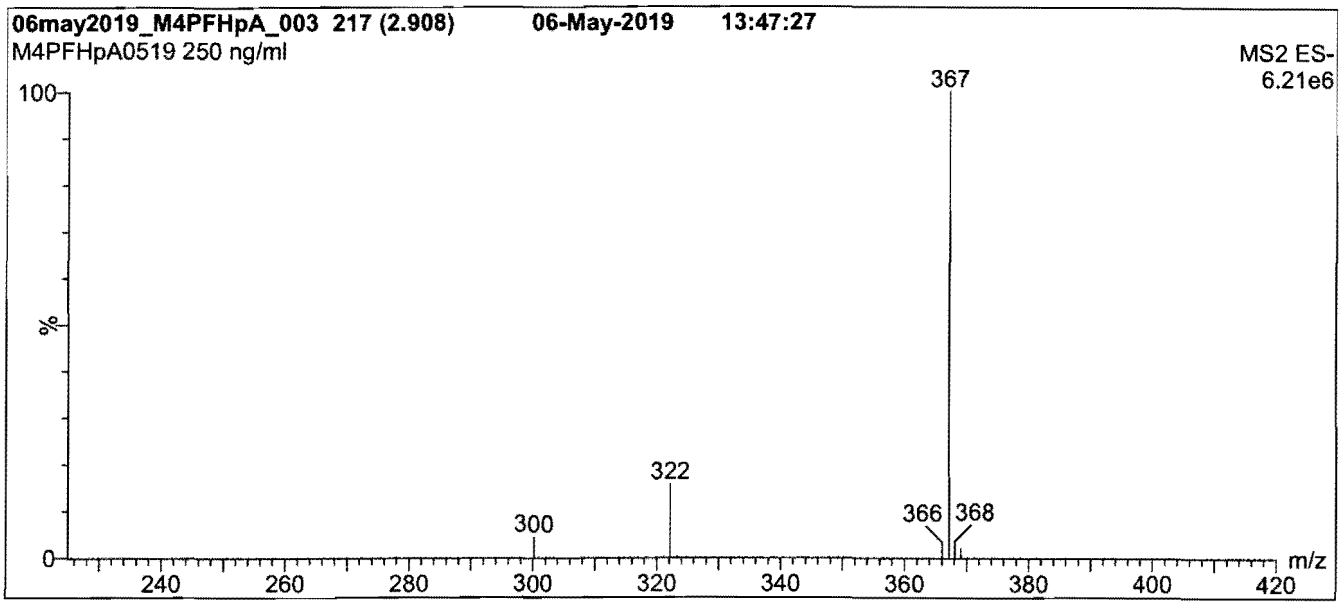
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 µl/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

19L0010

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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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

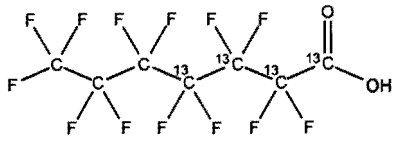
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0610

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M4PFHpA	**LOT NUMBER:**	M4PFHpA0519
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_3HF_{13}O_2$	**MOLECULAR WEIGHT:**	368.03
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)
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:

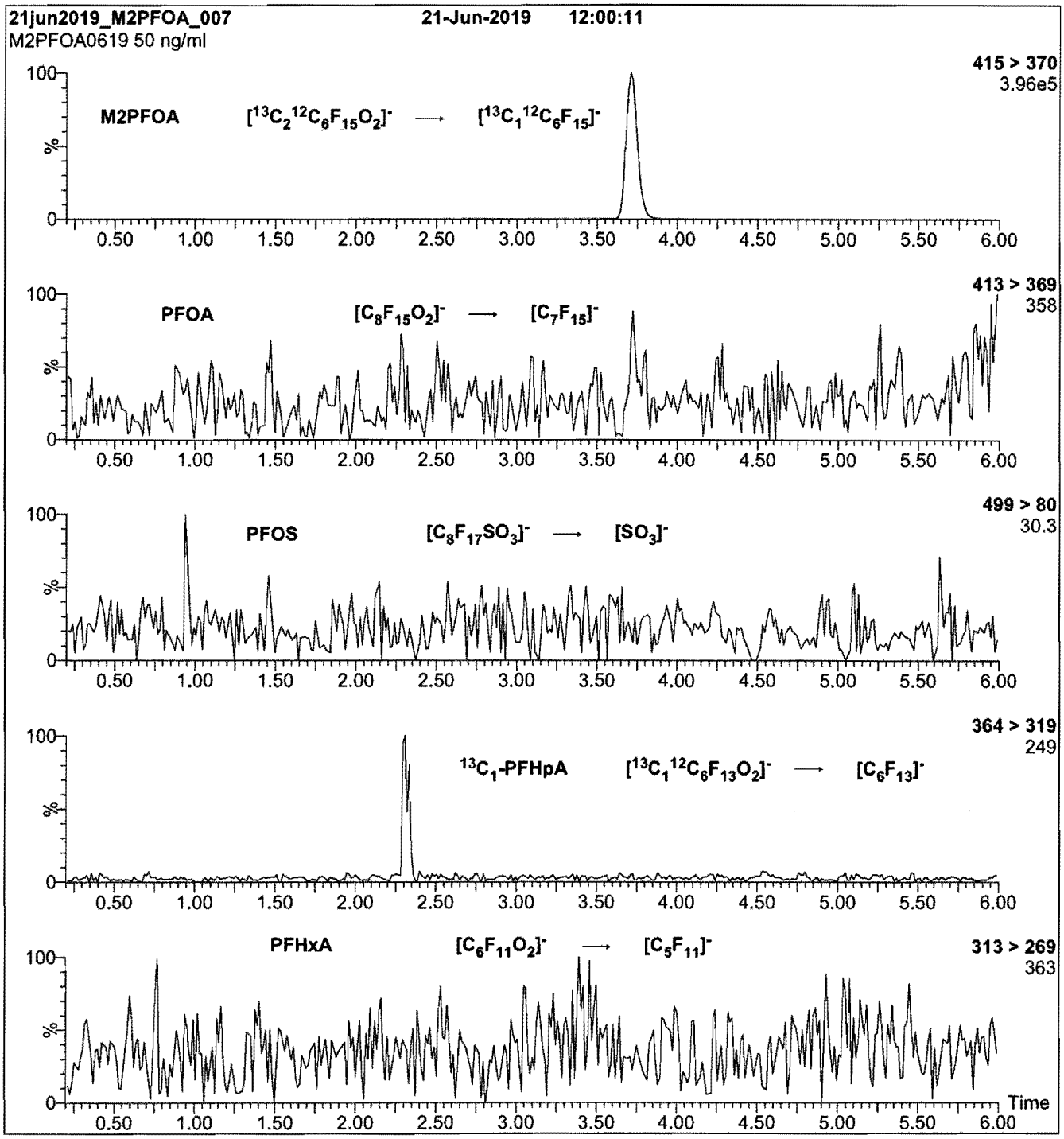
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/17/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **M2PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M2PFOA)

Mobile phase: Same as Figure 1

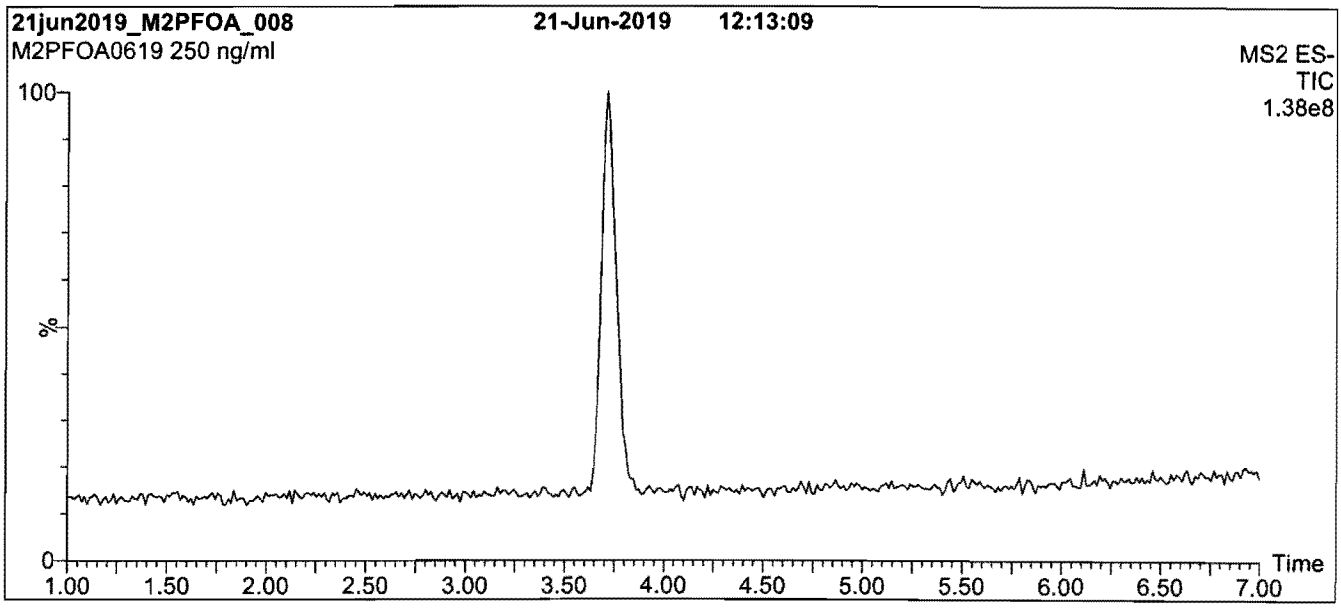
Flow: 300 µl/min

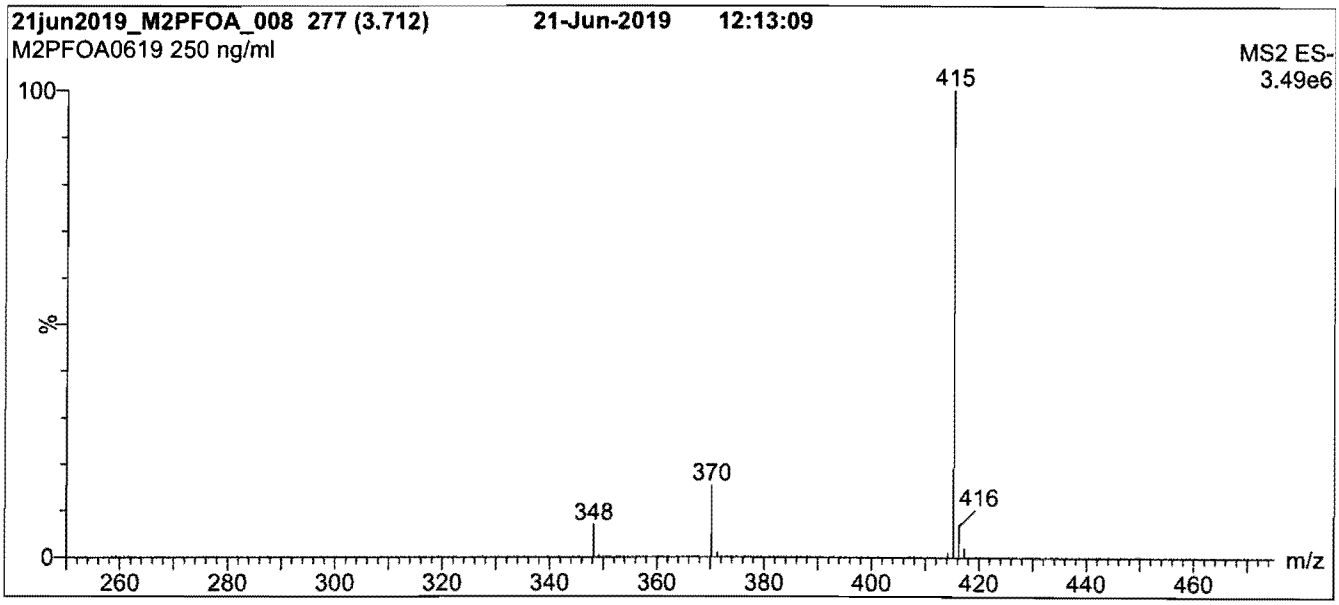
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

INTENDED USE:

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

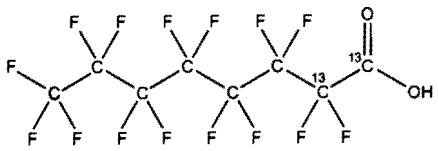
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19L 0611

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFOA	**LOT NUMBER:**	M2PFOA0619
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6HF_{15}O_2$	**MOLECULAR WEIGHT:**	416.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	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-[$^{13}C_1$]heptanoic acid ($^{13}C_1$-PFHpA).

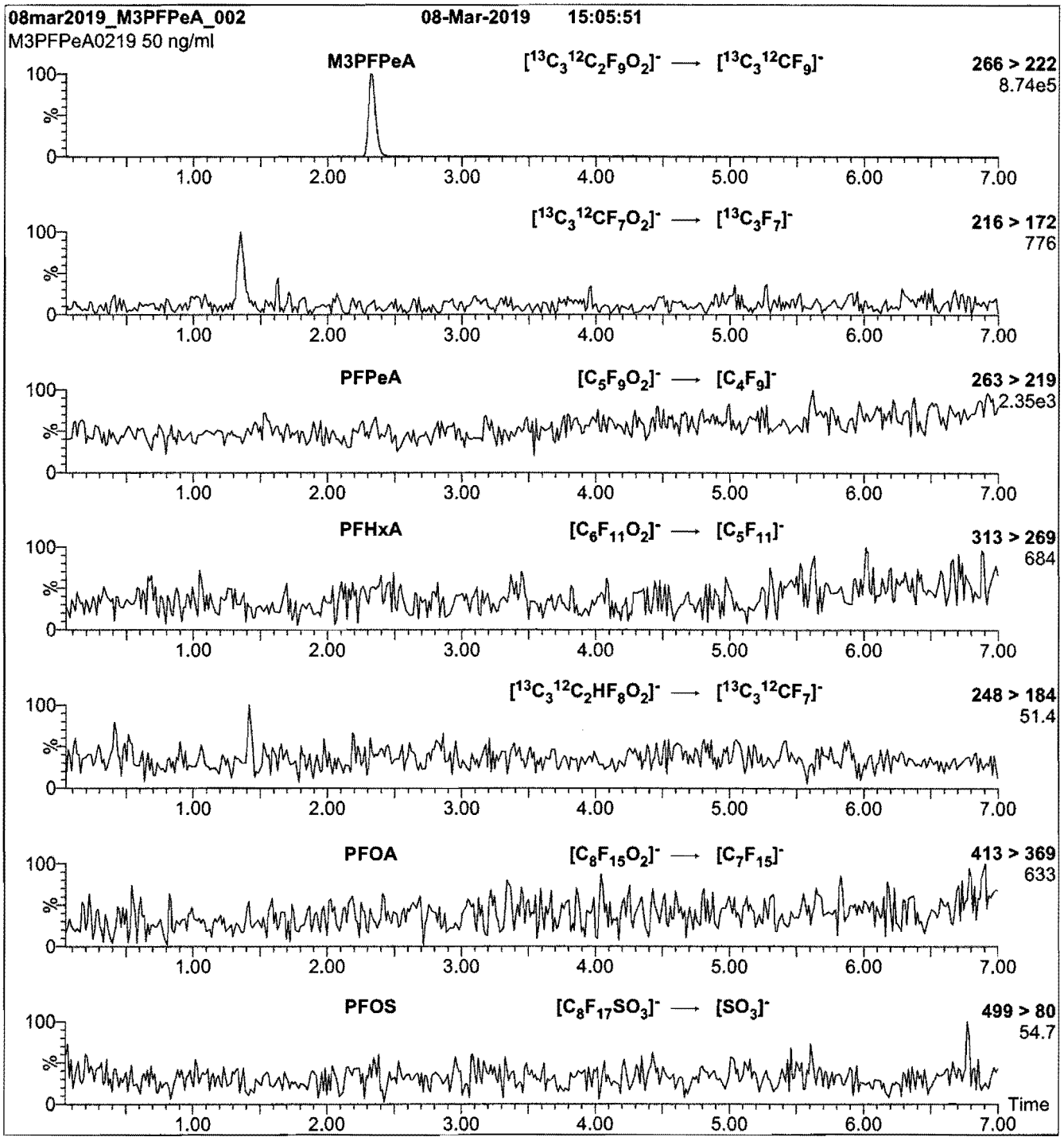
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/21/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

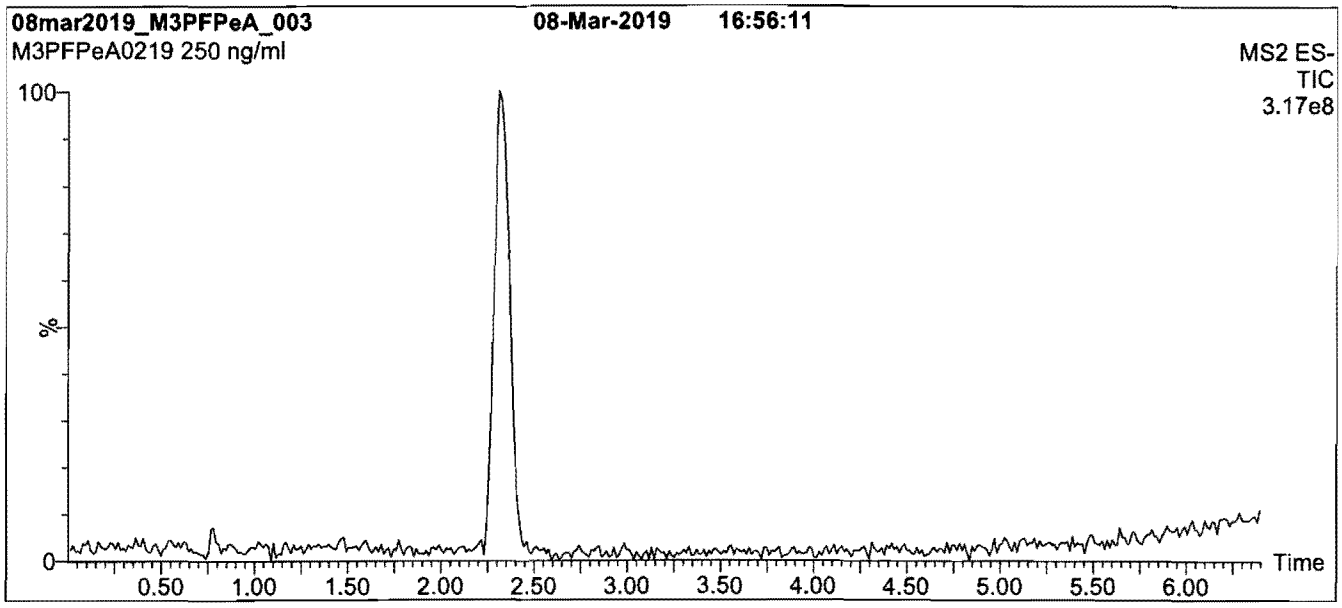
Flow: 300 µl/min

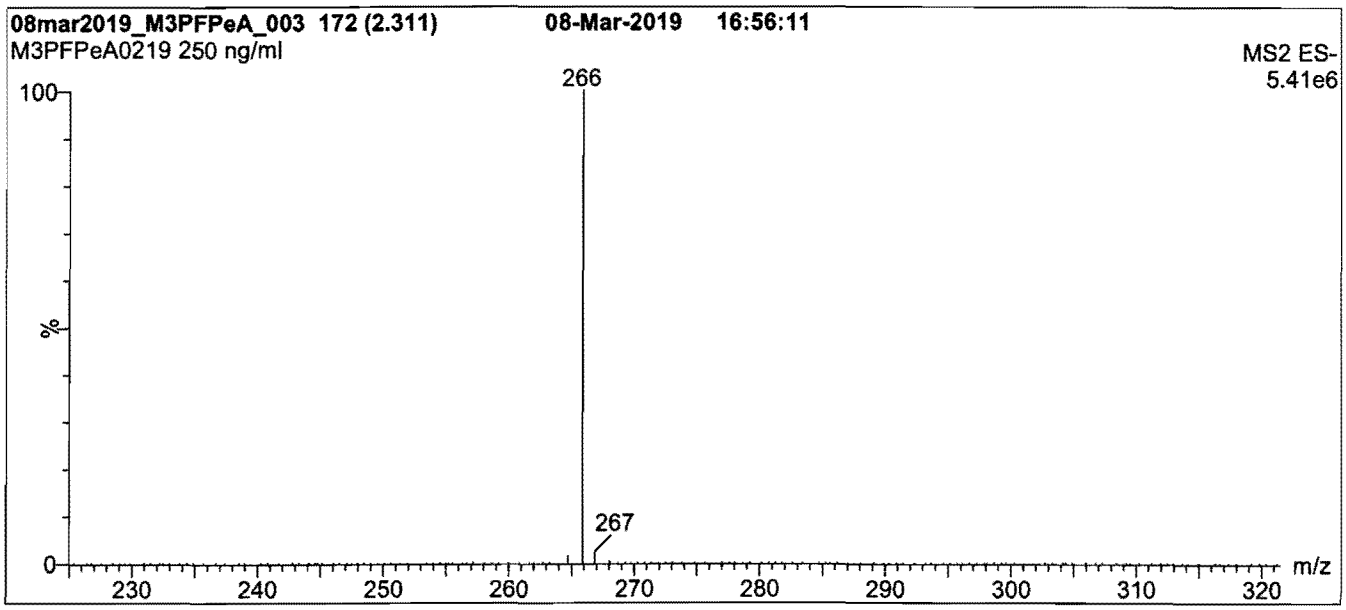
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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19L0612

WELLINGTON LABORATORIES

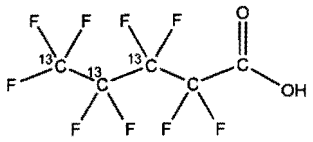
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M3PFPeA
COMPOUND: Perfluoro-n-[3,4,5-$^{13}C_3$]pentanoic acid

LOT NUMBER: M3PFPeA0219

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_2HF_9O_2$	**MOLECULAR WEIGHT:**	267.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($3,4,5$-$^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	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:

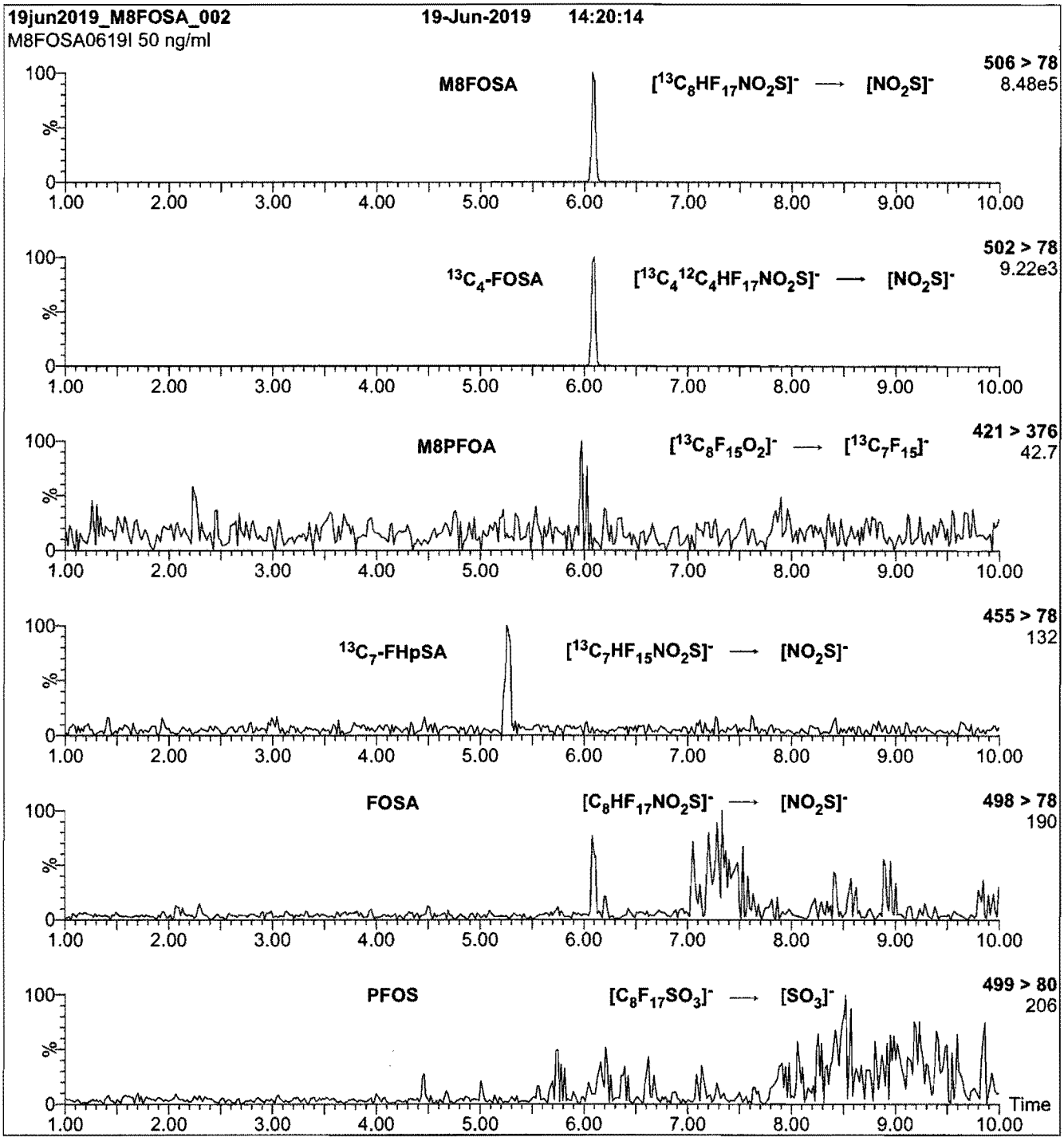
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.95% of perfluoro-n-[$^{13}C_3$]butanoic acid and 0.05% of perfluoro-1-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/19/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **M8FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M8FOSA-I)

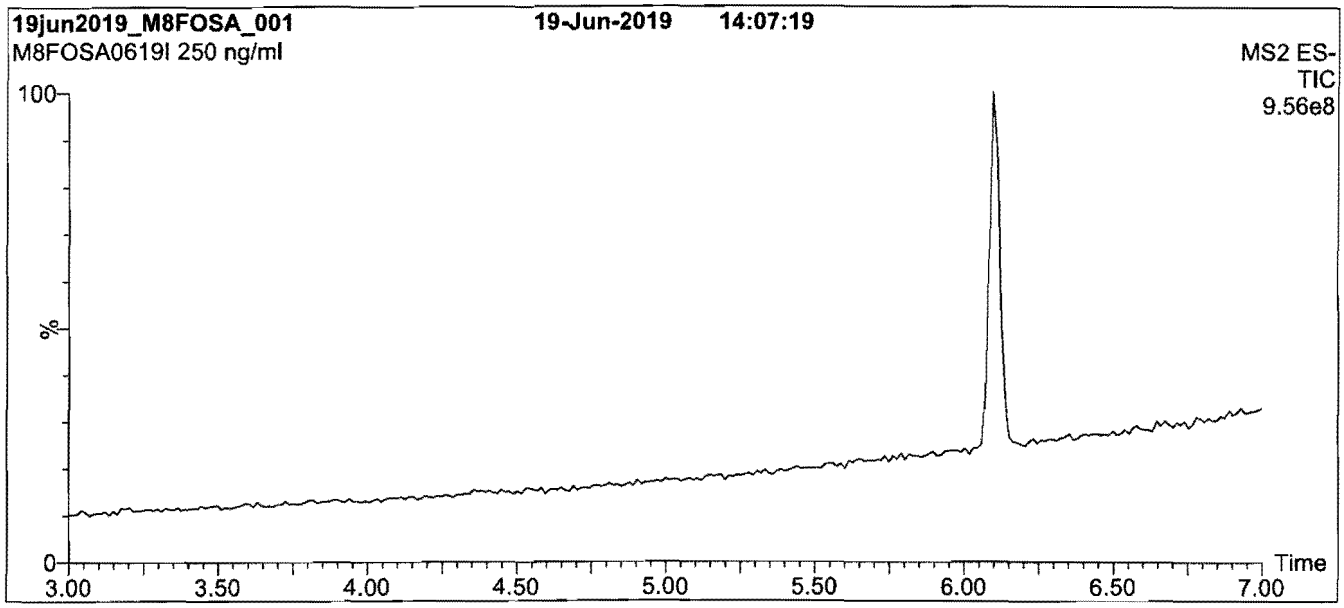
Mobile phase: Same as Figure 1

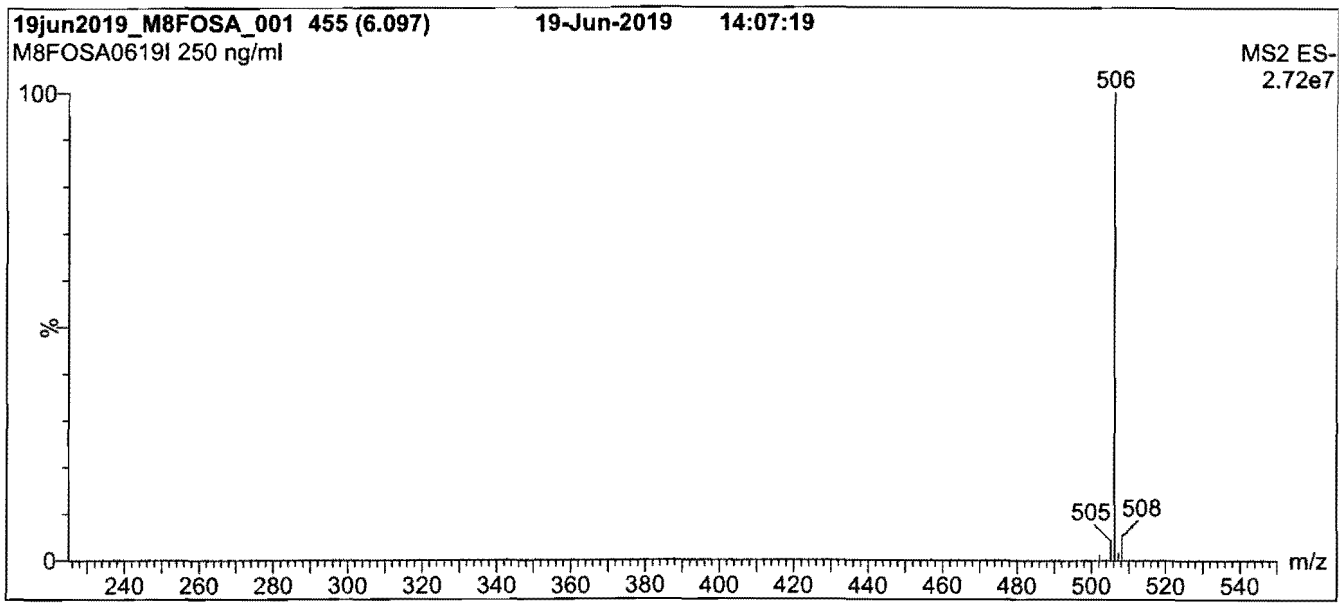
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.94e-3
Collision Energy (eV) = 30

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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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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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0613

WELLINGTON LABORATORIES

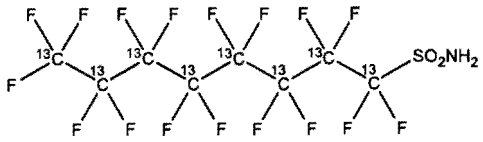
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA0619I

STRUCTURE:

CAS #: 1365803-60-6



MOLECULAR FORMULA:	$^{13}C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	507.09
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	06/19/2019		
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-[$^{13}C_4$]octanesulfonamide and ~ 0.02% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/21/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0614

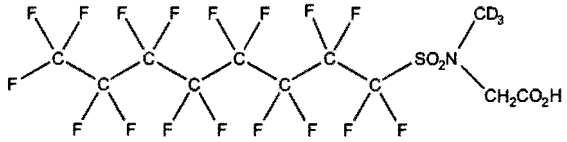
WELLINGTON LABORATORIES

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:	$C_{11}D_3H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	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: _____ **Date:** 07/26/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19LC064

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:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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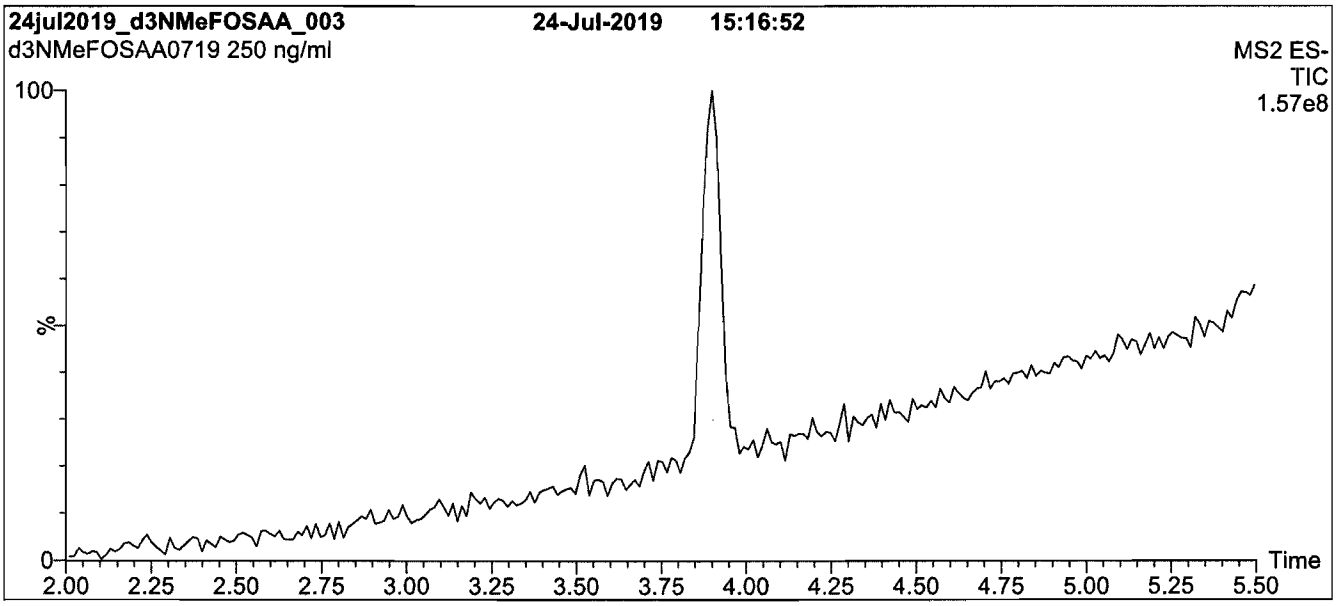
CALA Testing Accreditation No. A1226

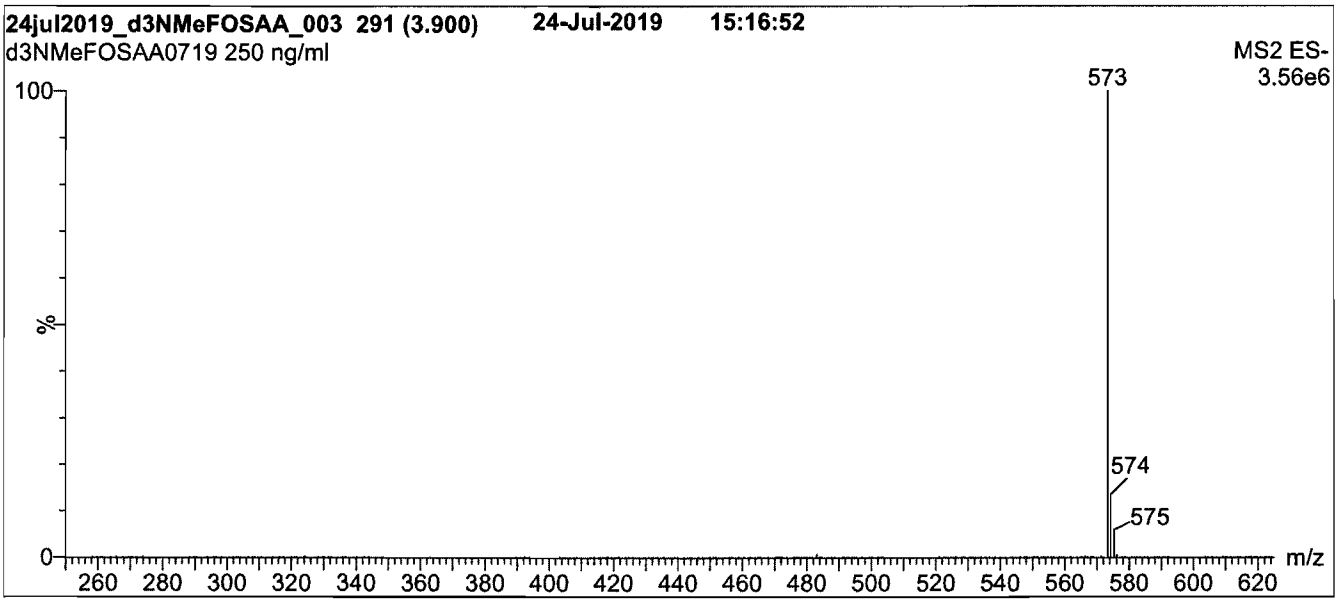
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

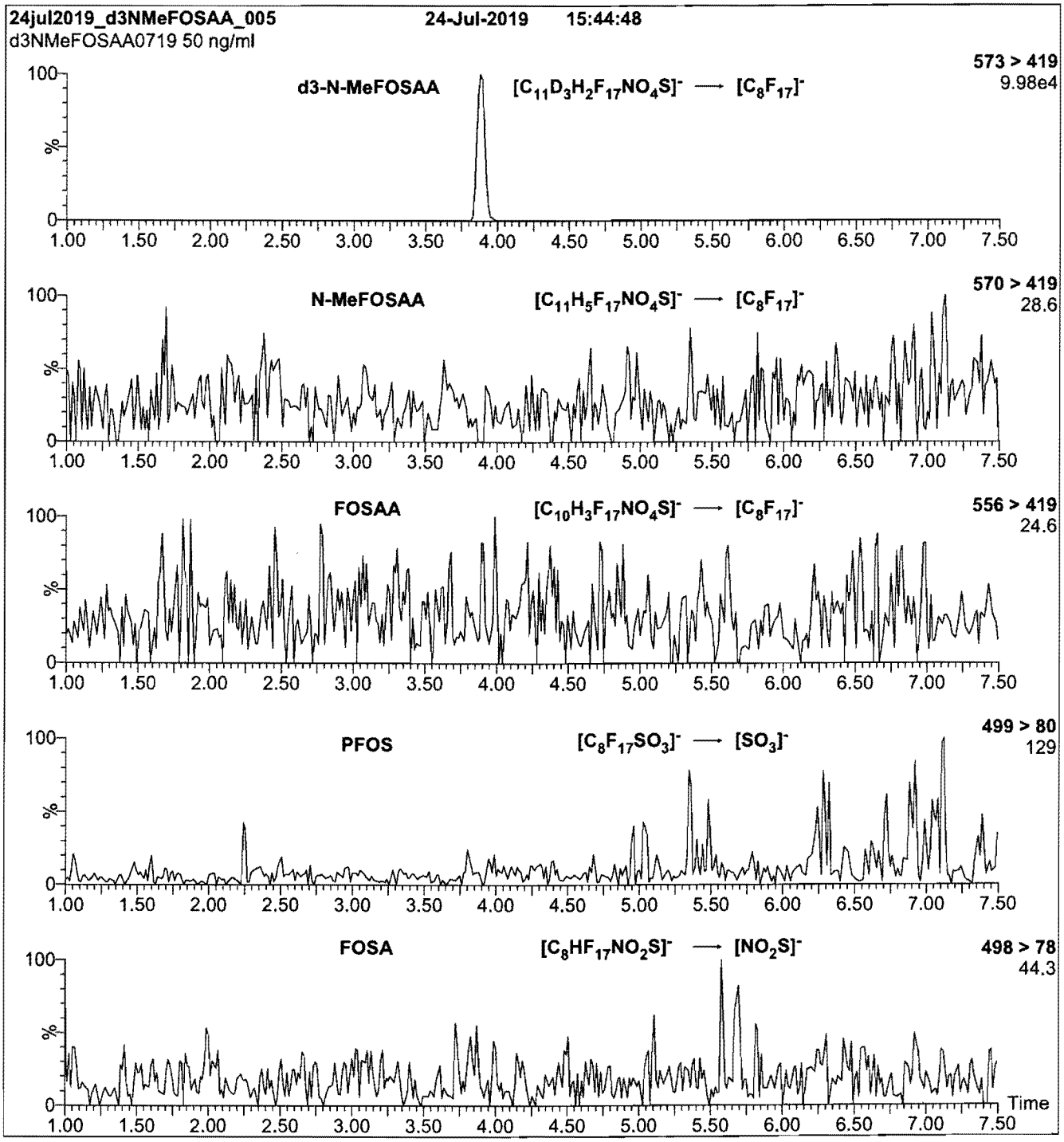
Flow: 300 µl/min

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

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

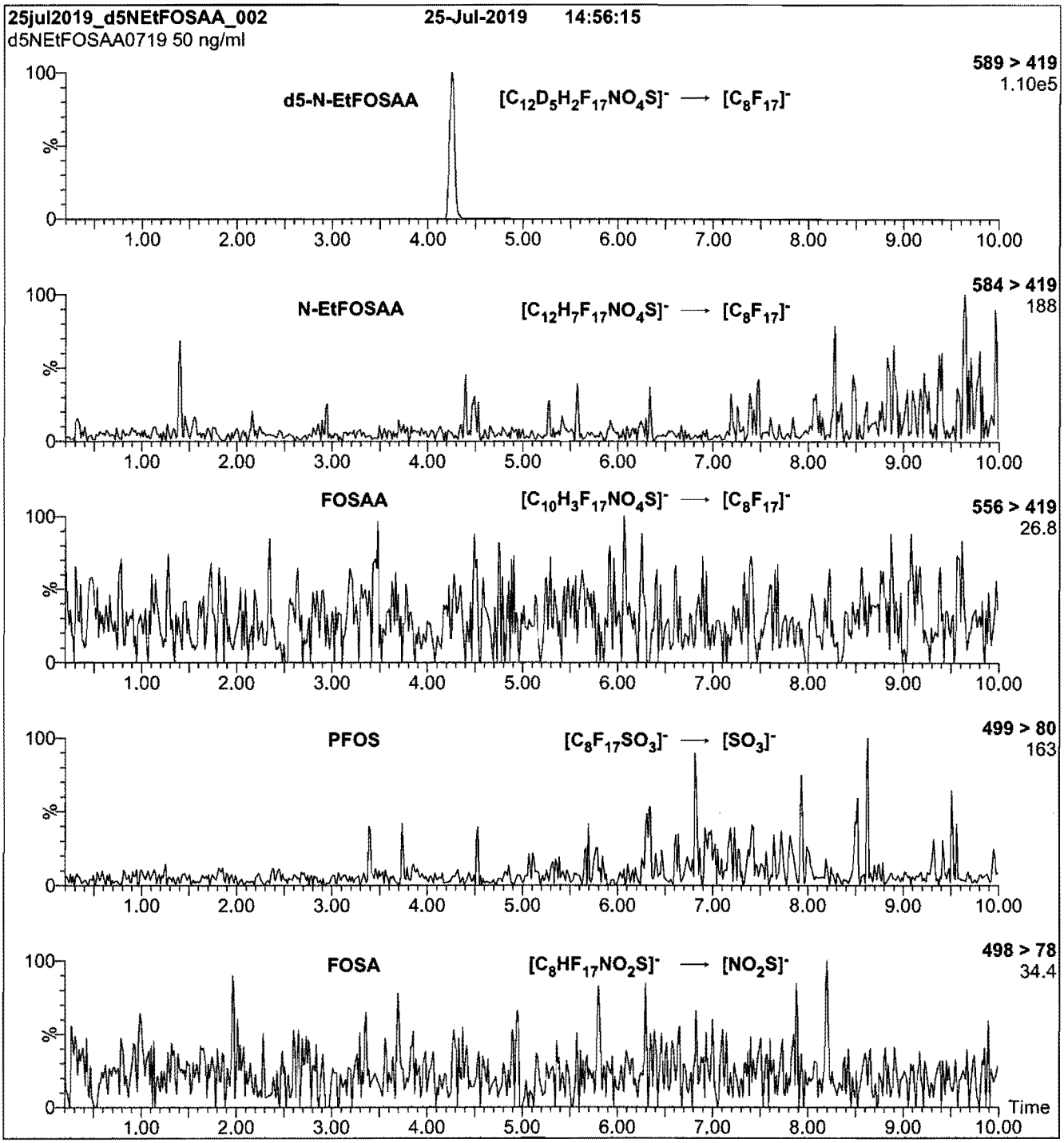
Flow: 300 µl/min

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

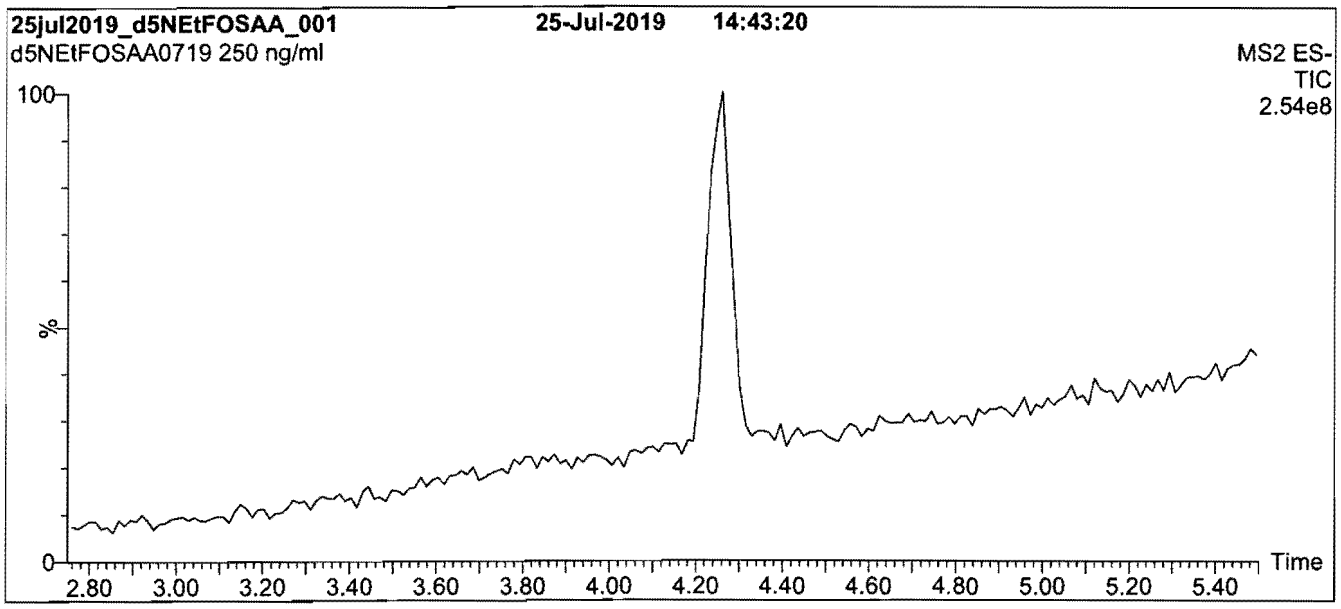
Flow: 300 µl/min

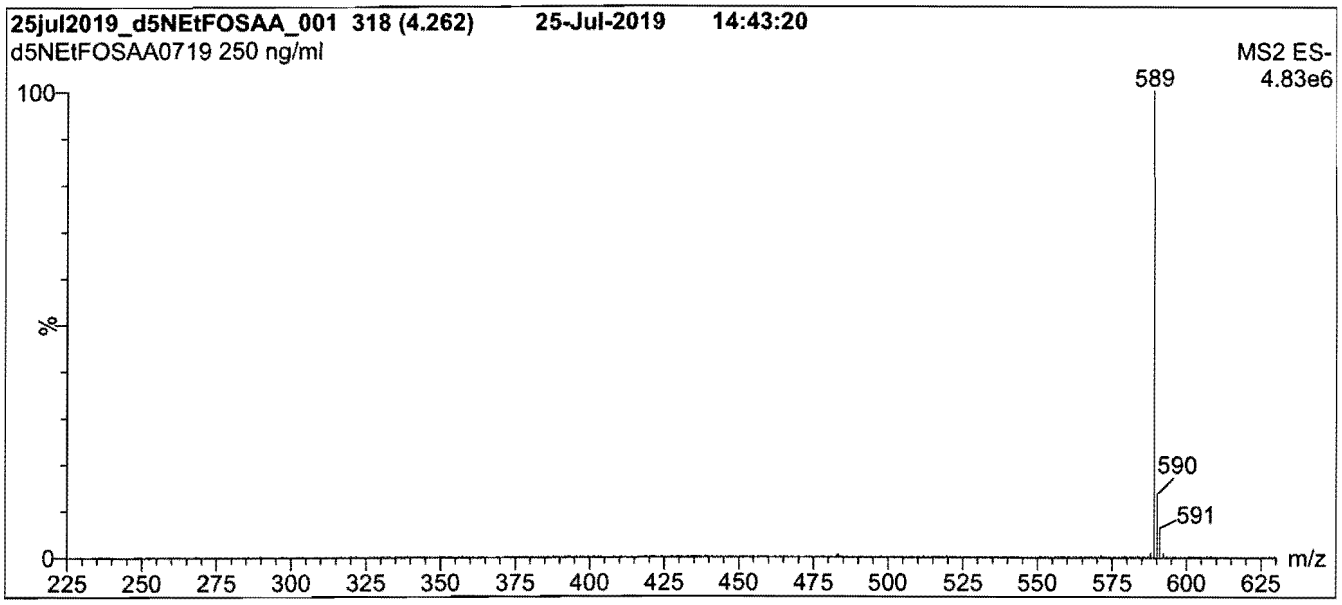
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0615

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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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1910615

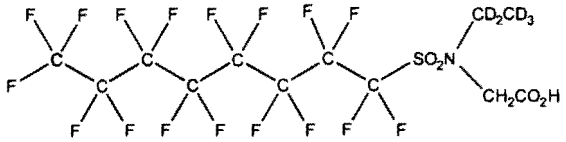
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA0719

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_5H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	590.26
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	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:

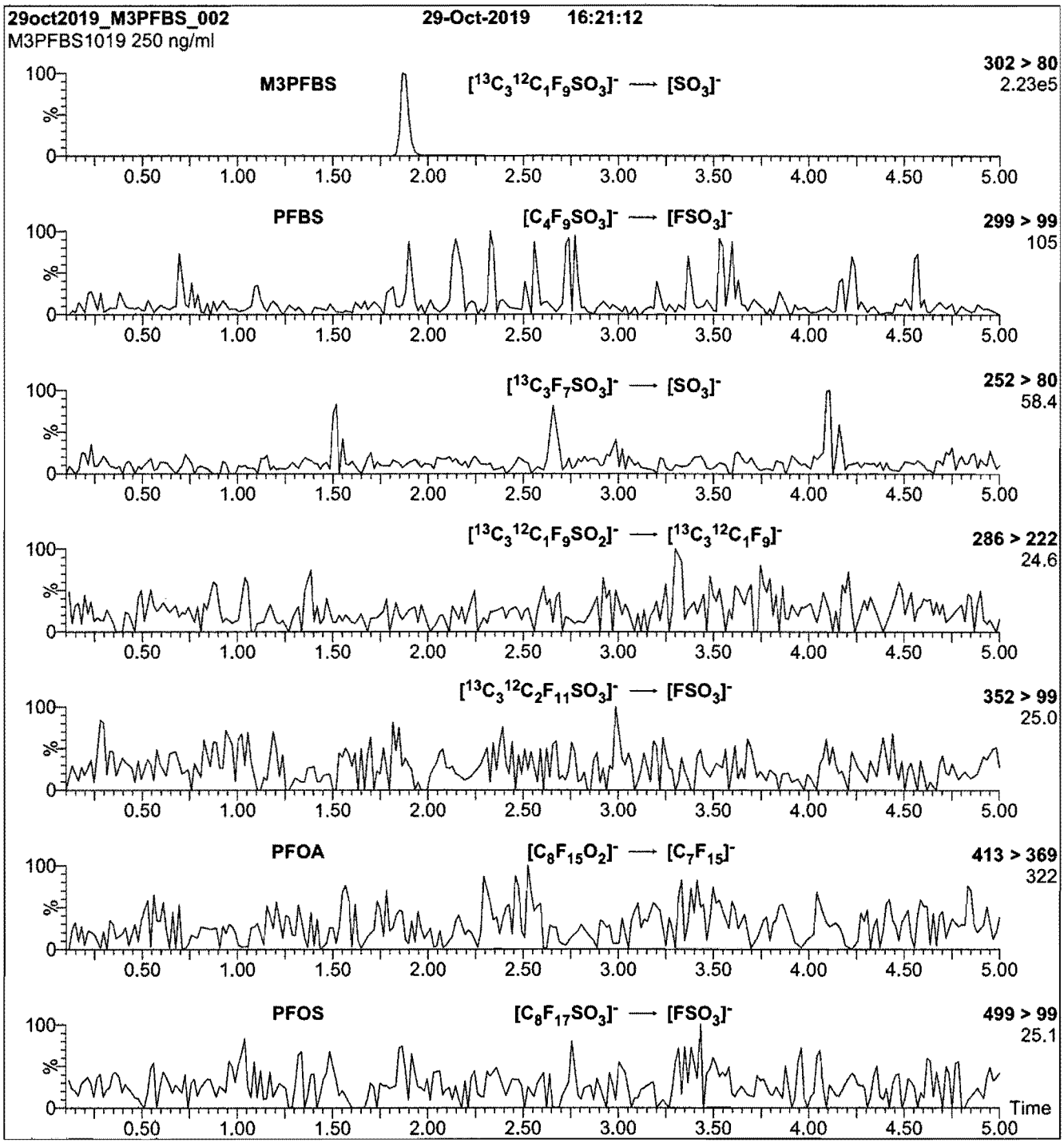
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/26/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **M3PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M3PFBS)

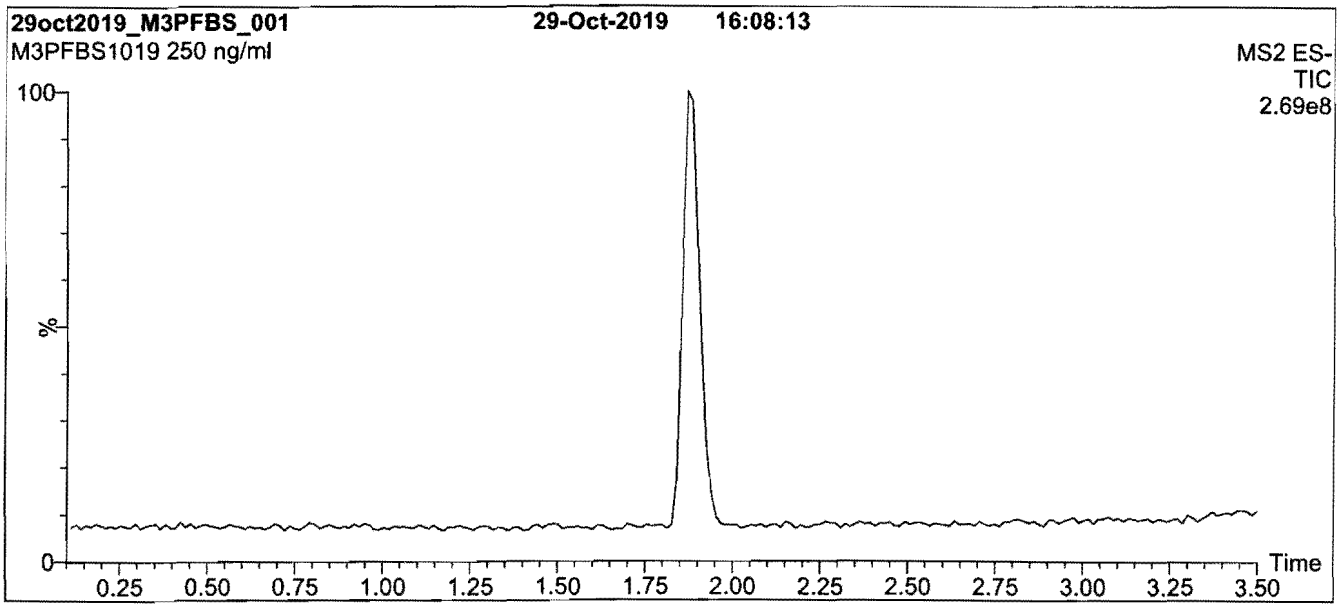
Mobile phase: Same as Figure 1

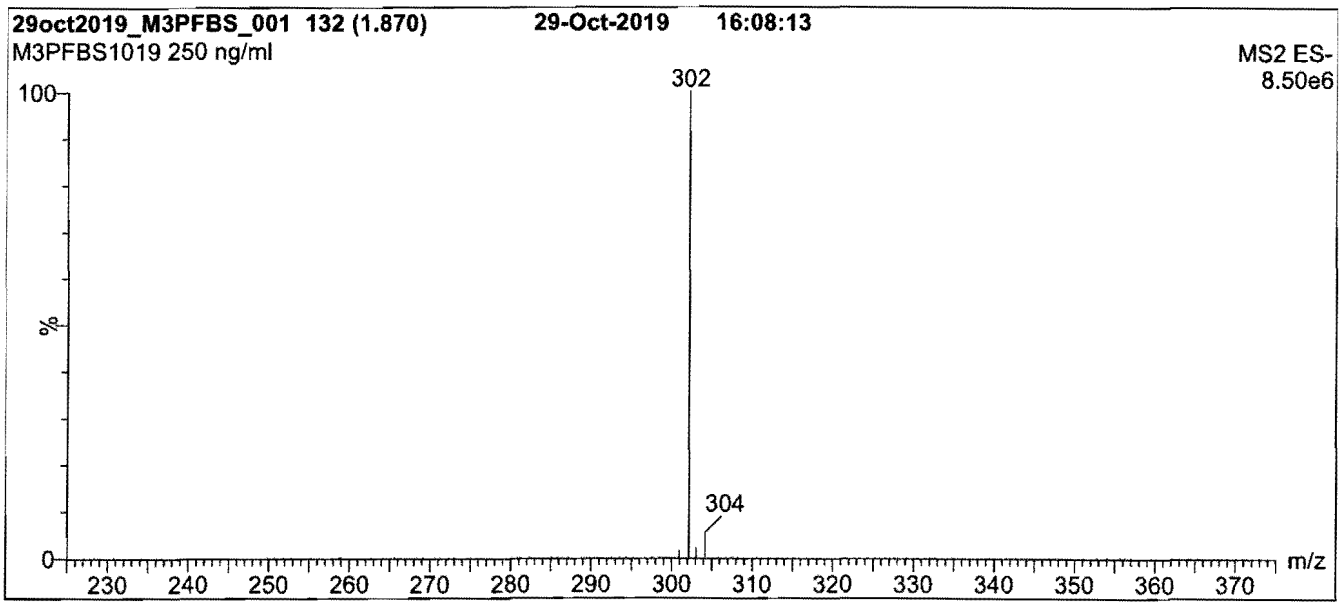
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.57e-3
Collision Energy (eV) = 30

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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:

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HANDLING:

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EXPIRY DATE / PERIOD OF VALIDITY:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

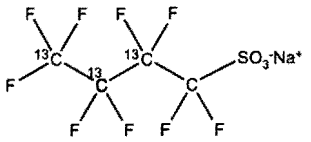
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19L0616

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M3PFBS	**LOT NUMBER:**	M3PFBS1019
COMPOUND:	Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CF_9SO_3Na$	**MOLECULAR WEIGHT:**	325.06
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.5 ± 2.3 µg/ml (M3PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	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-butanesulfonate.

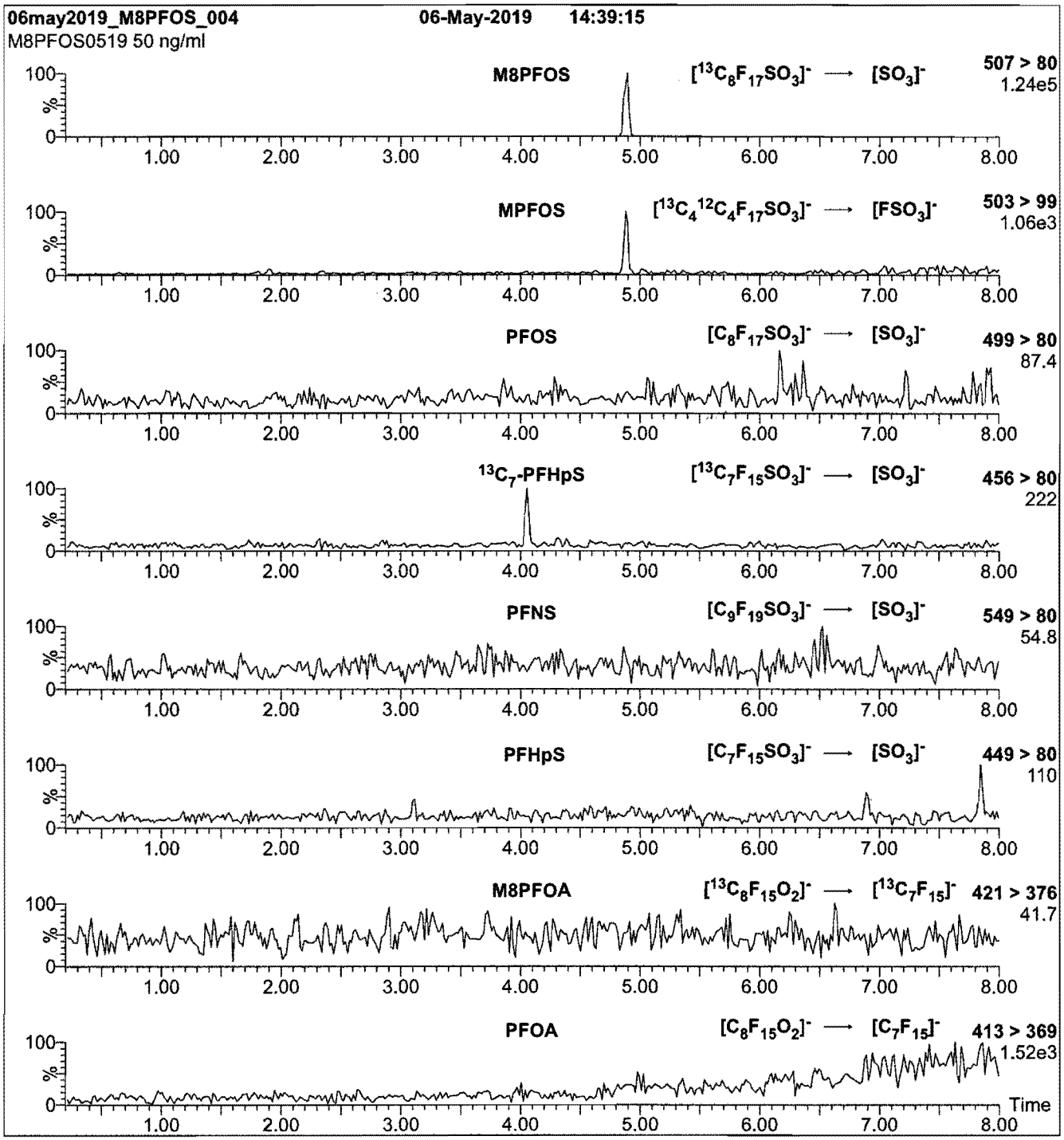
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/08/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

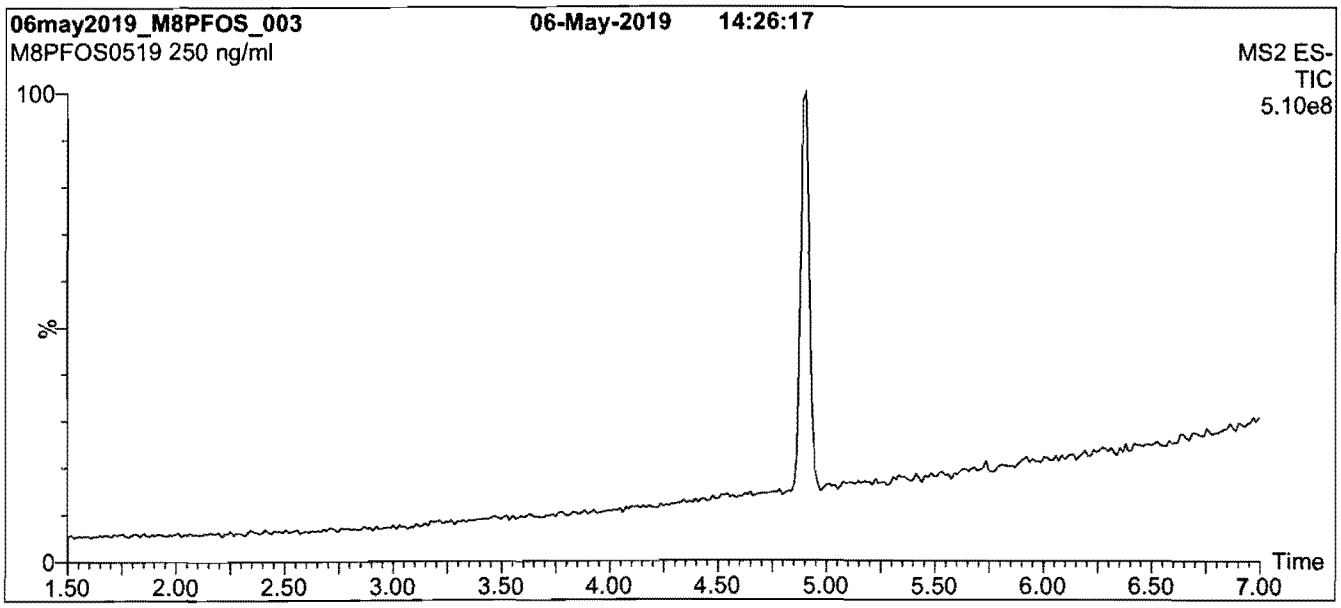
Flow: 300 µl/min

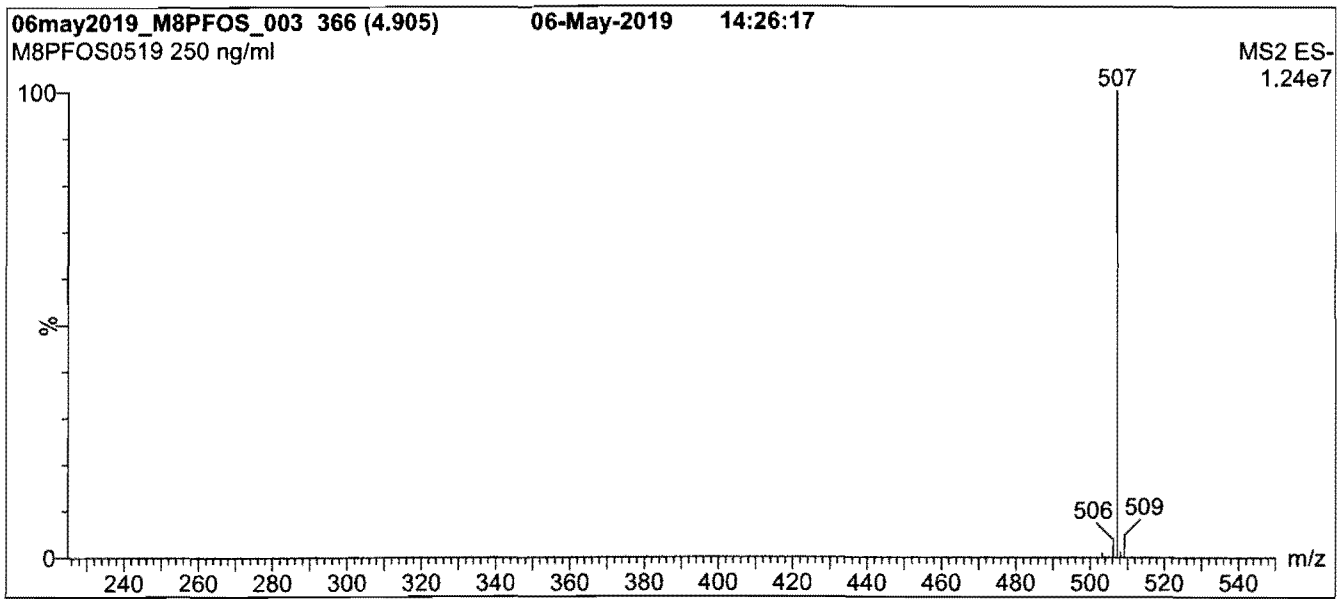
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 µl/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

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

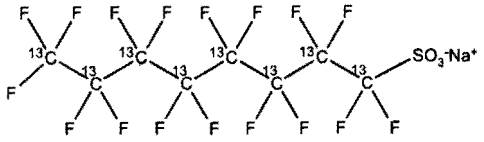
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19L0617

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M8PFOS	**LOT NUMBER:**	M8PFOS0519
COMPOUND:	Sodium perfluoro-1-[$^{13}C_8$]octanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_8F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	530.05
CONCENTRATION:	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% ^{13}C ($^{13}C_8$)
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:

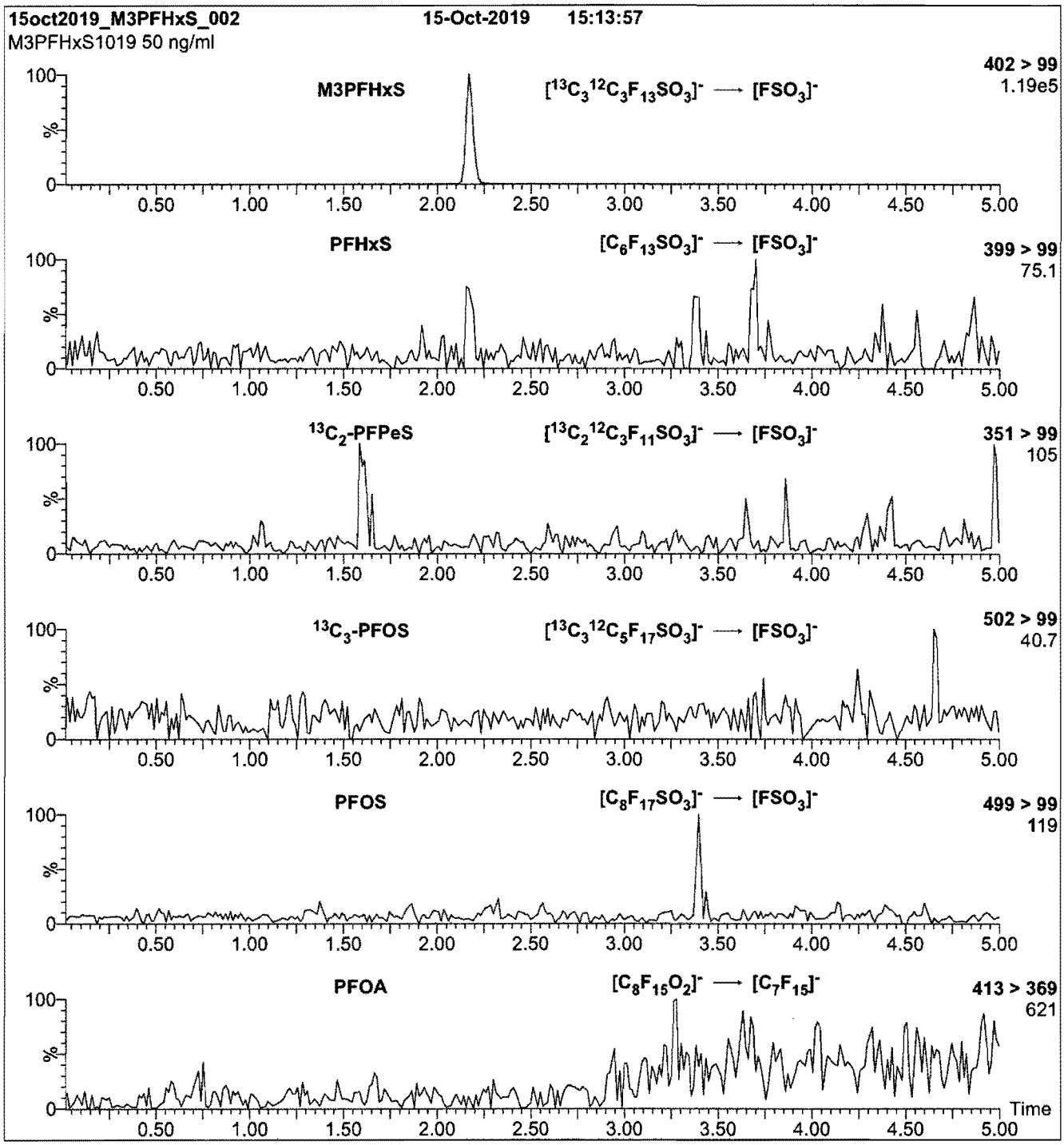
- See page 2 for further details.
- Contains ~ 0.2% of sodium perfluoro-1-[$^{13}C_7$]heptanesulfonate ($^{13}C_7$-PFHpS) and ~ 1.0% of sodium perfluoro-1-[$^{13}C_4$]octanesulfonate (MPFOS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/23/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **M3PFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M3PFHxS)

Mobile phase: Same as Figure 1

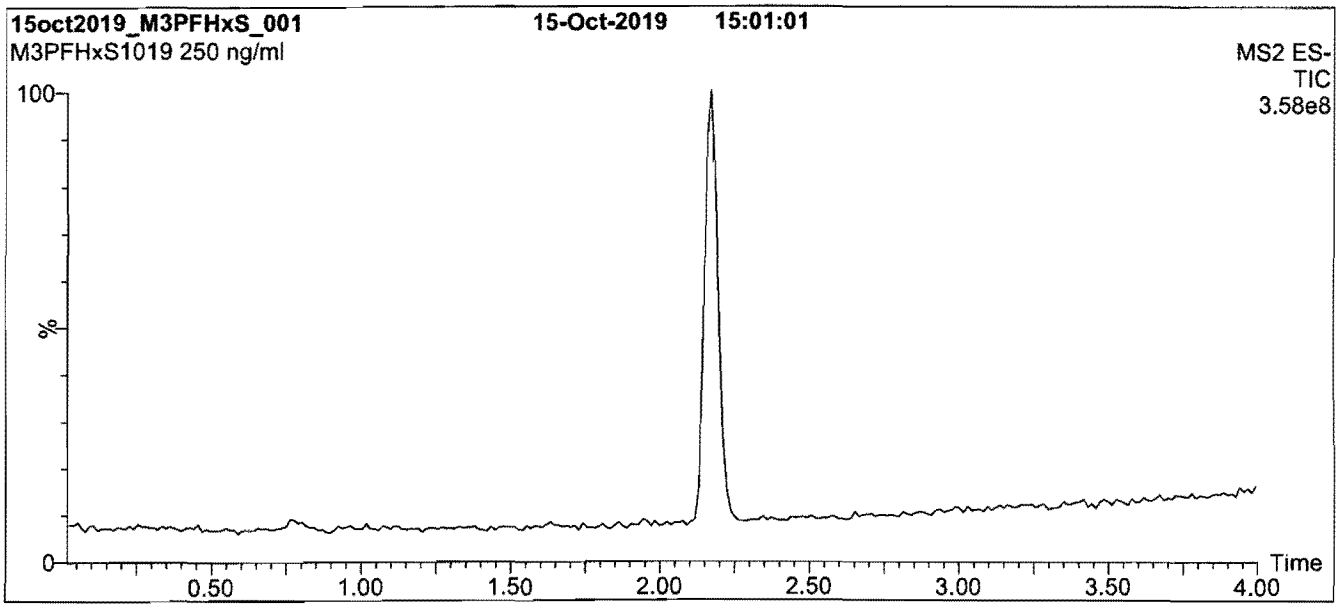
Flow: 300 µl/min

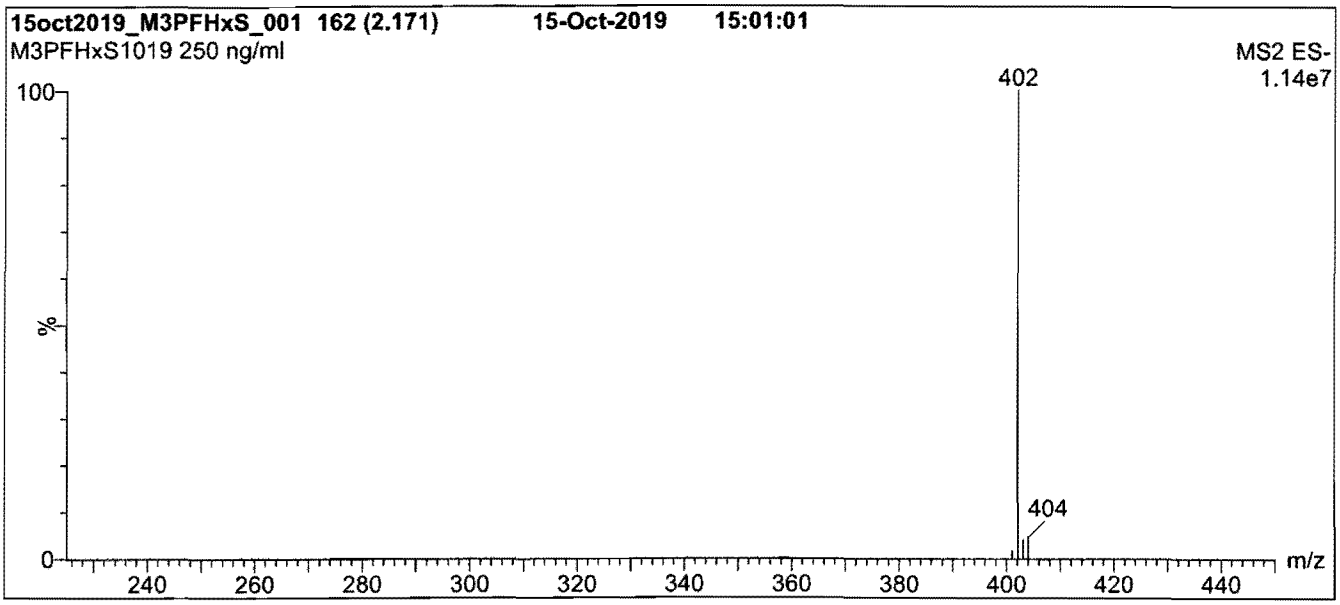
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0618

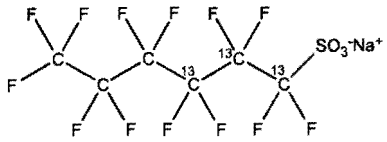
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFHxS **LOT NUMBER:** M3PFHxS1019

COMPOUND: Sodium perfluoro-1-[1,2,3-$^{13}C_3$]hexanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	425.07
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.3 ± 2.4 µg/ml (M3PFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3$-$^{13}C_3$)
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-$^{13}C_2$]pentanesulfonate, ~ 0.1% perfluoro-1-octanesulfonate, and ~ 0.05% of perfluoro-1-hexanesulfonate.

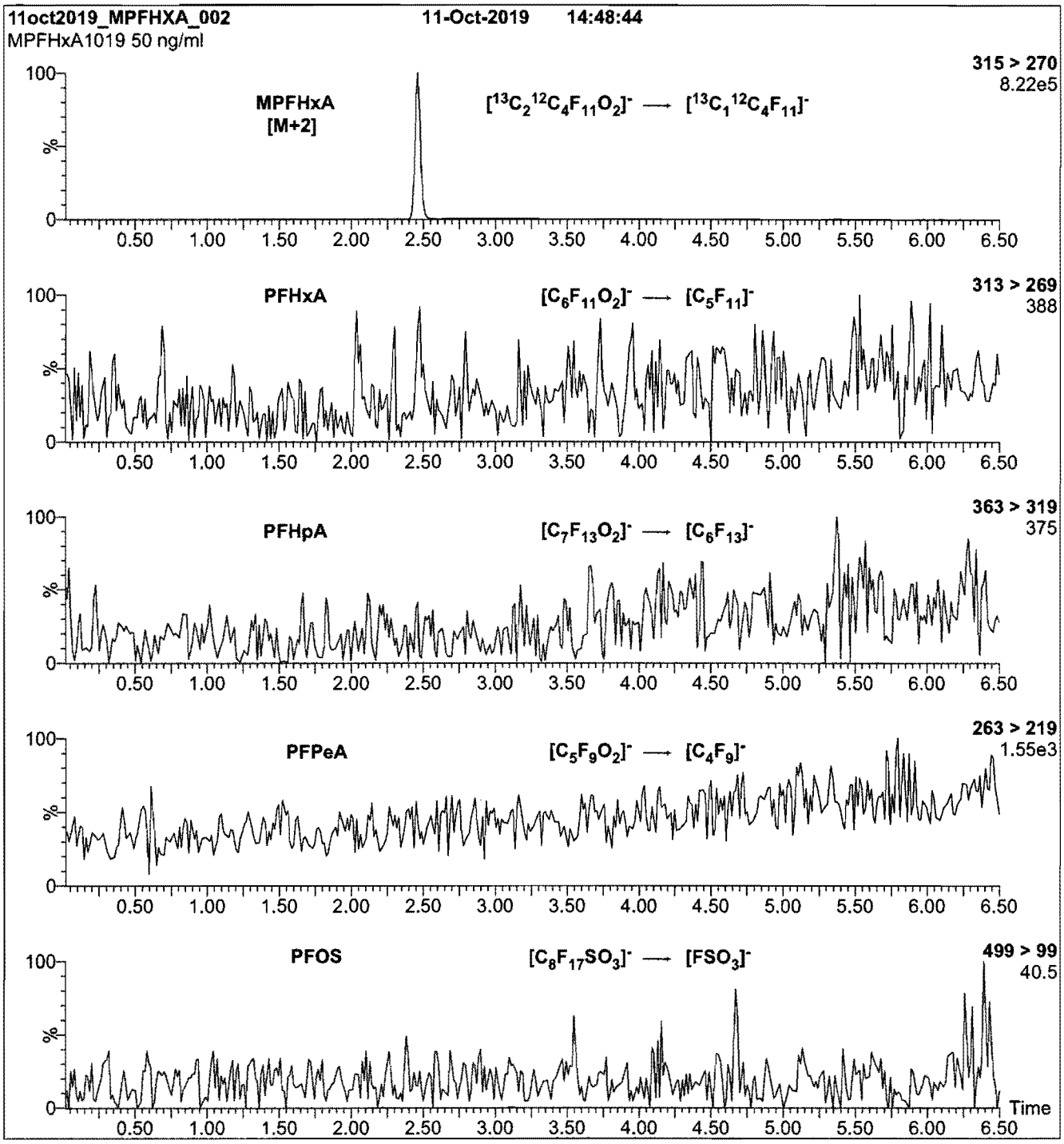
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Certified By: _____ **Date:** 10/16/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

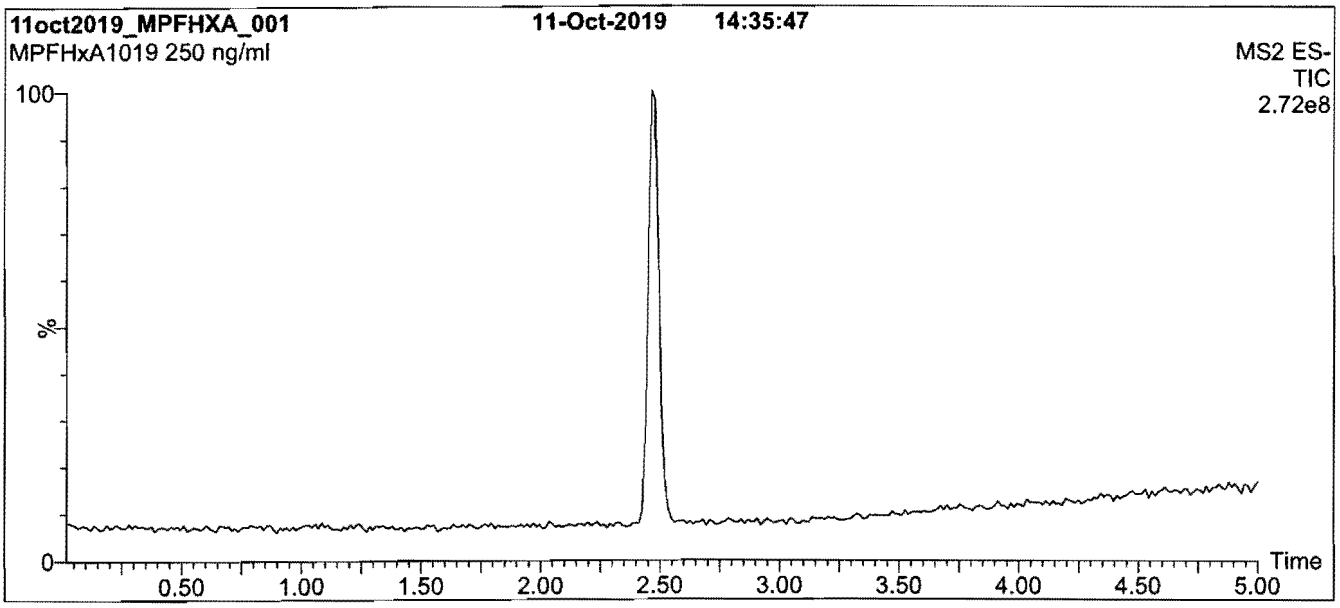
Flow: 300 µl/min

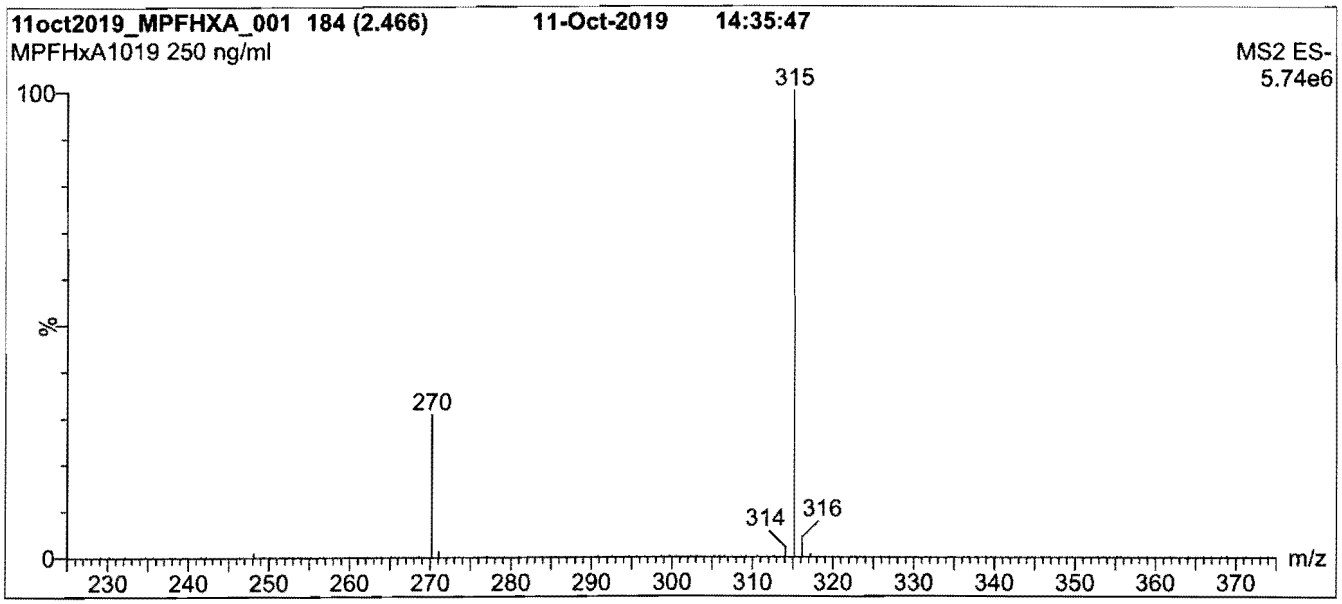
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

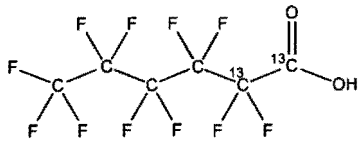
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19L0619

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFHxA	**LOT NUMBER:**	MPFHxA1019
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4HF_{11}O_2$	**MOLECULAR WEIGHT:**	316.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	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.

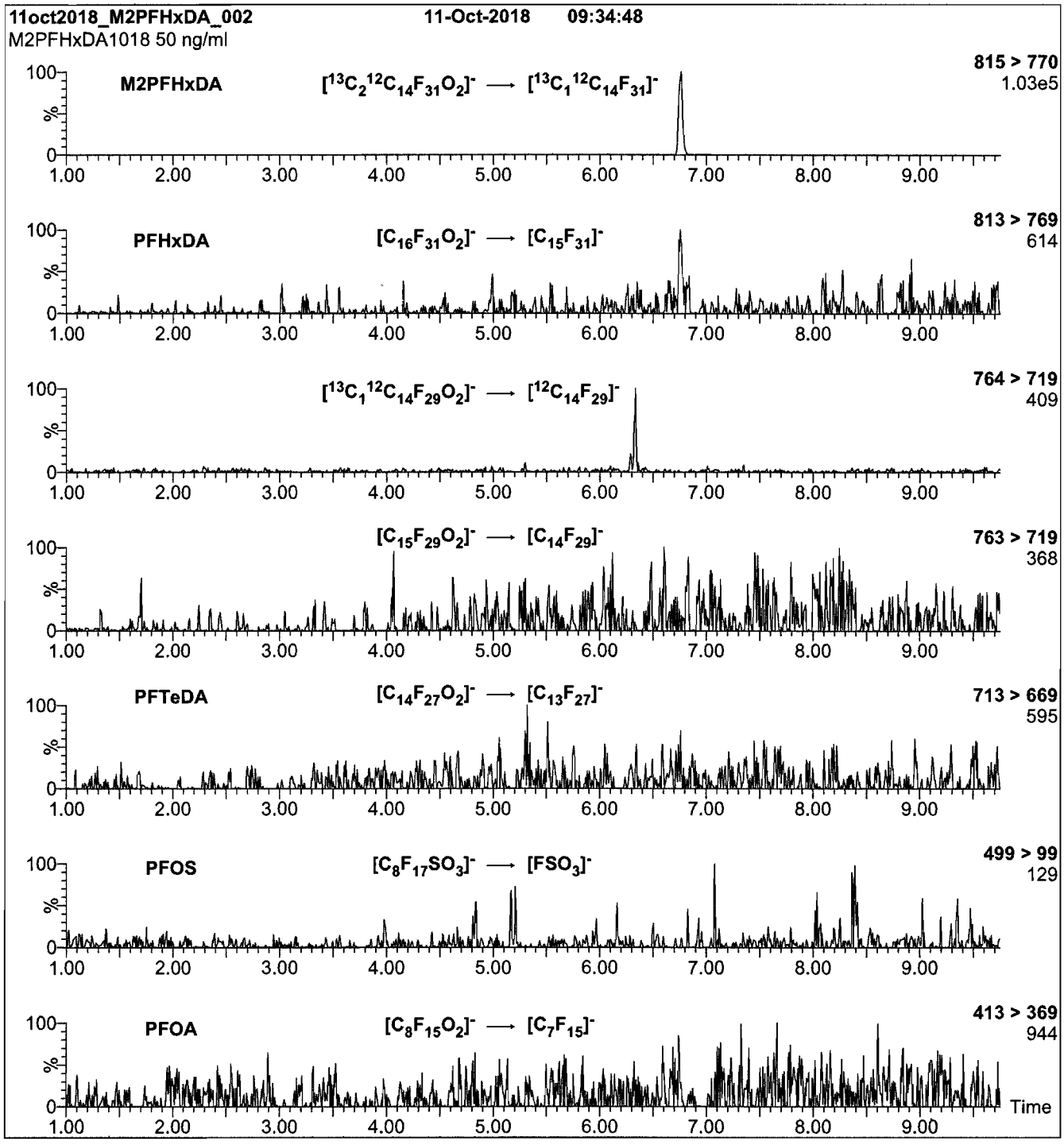
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/22/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

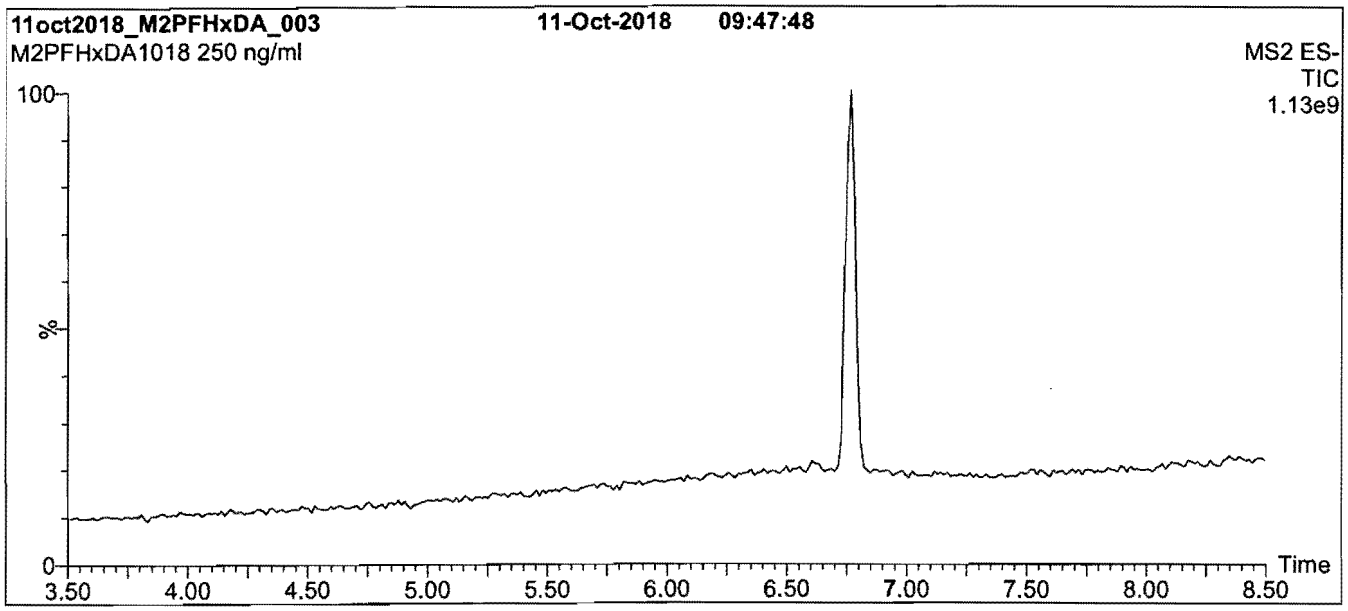
Flow: 300 µl/min

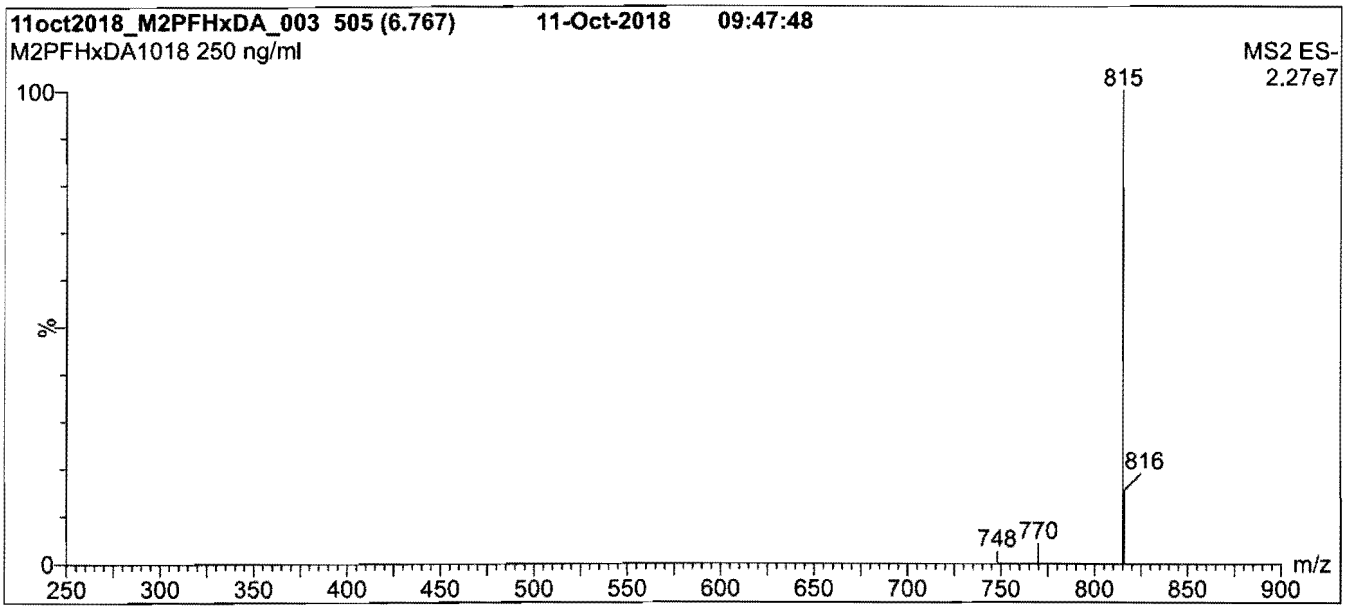
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED 9001 REFERENCE MATERIAL PRODUCER

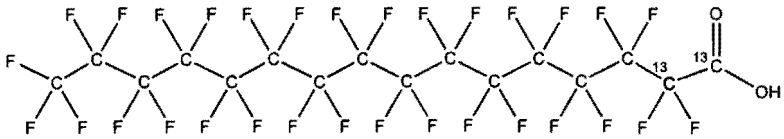
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0620

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFHxDA	**LOT NUMBER:**	M2PFHxDA1018
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]hexadecanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{14}HF_{31}O_2$	**MOLECULAR WEIGHT:**	816.11
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	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:

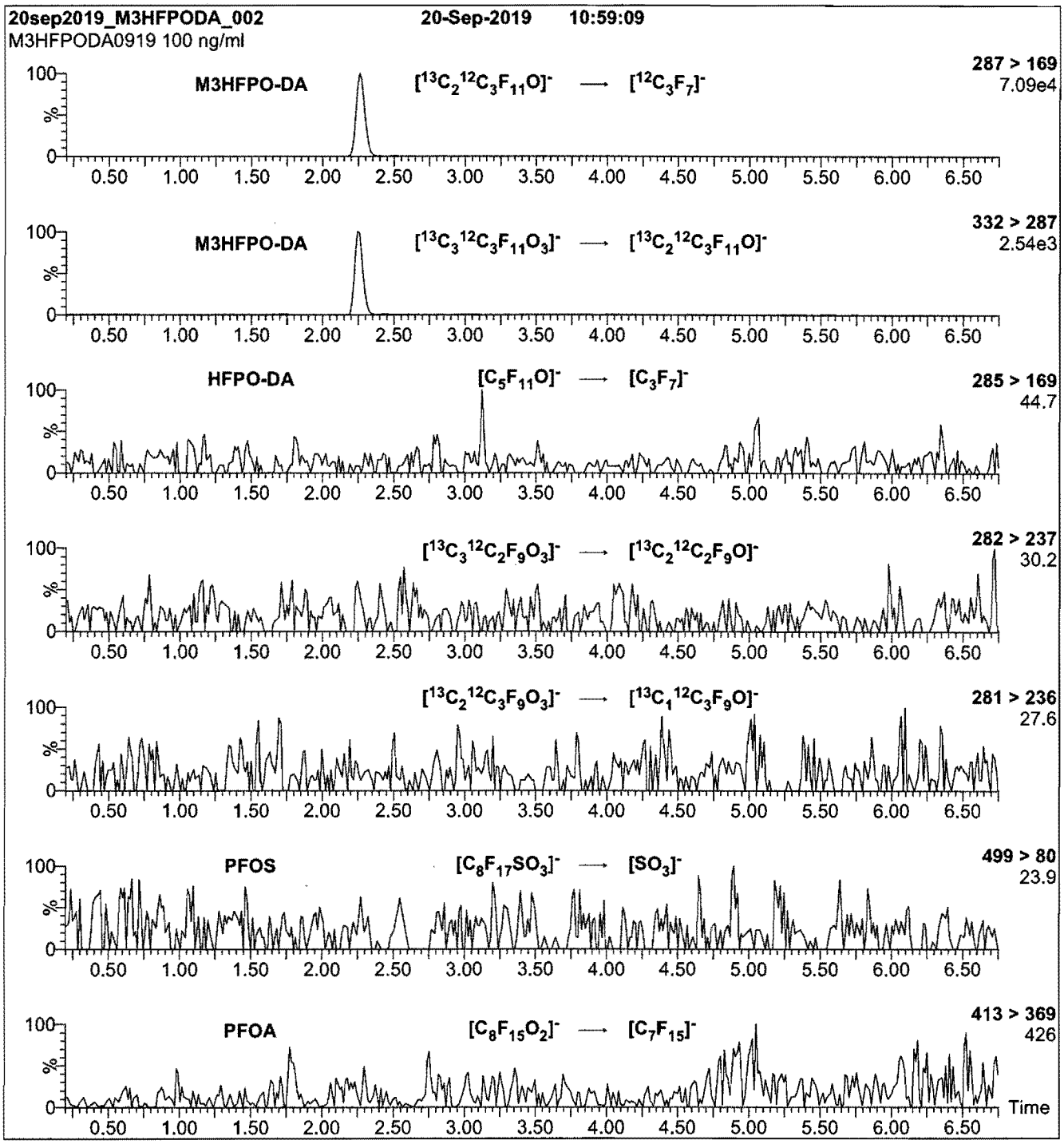
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of native perfluoro-n-hexadecanoic acid and ~ 0.2% of perfluoro-n-[$^{13}C_1$]pentadecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/19/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **M3HFPO-DA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M3HFPO-DA)

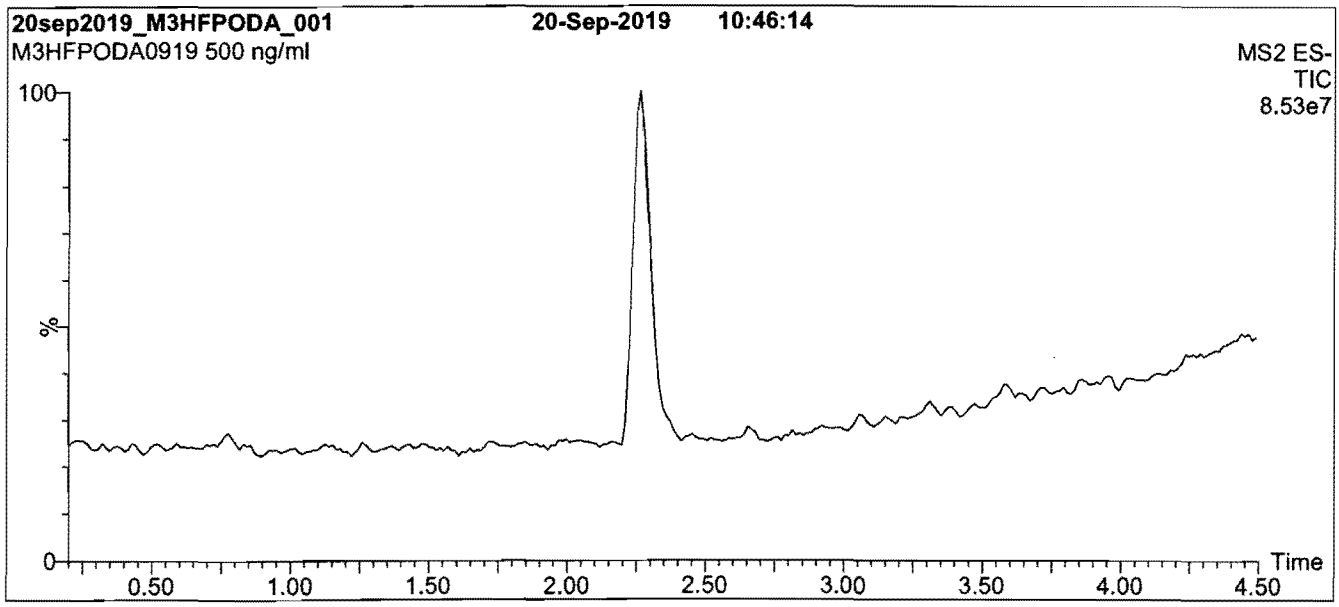
Mobile phase: Same as Figure 1

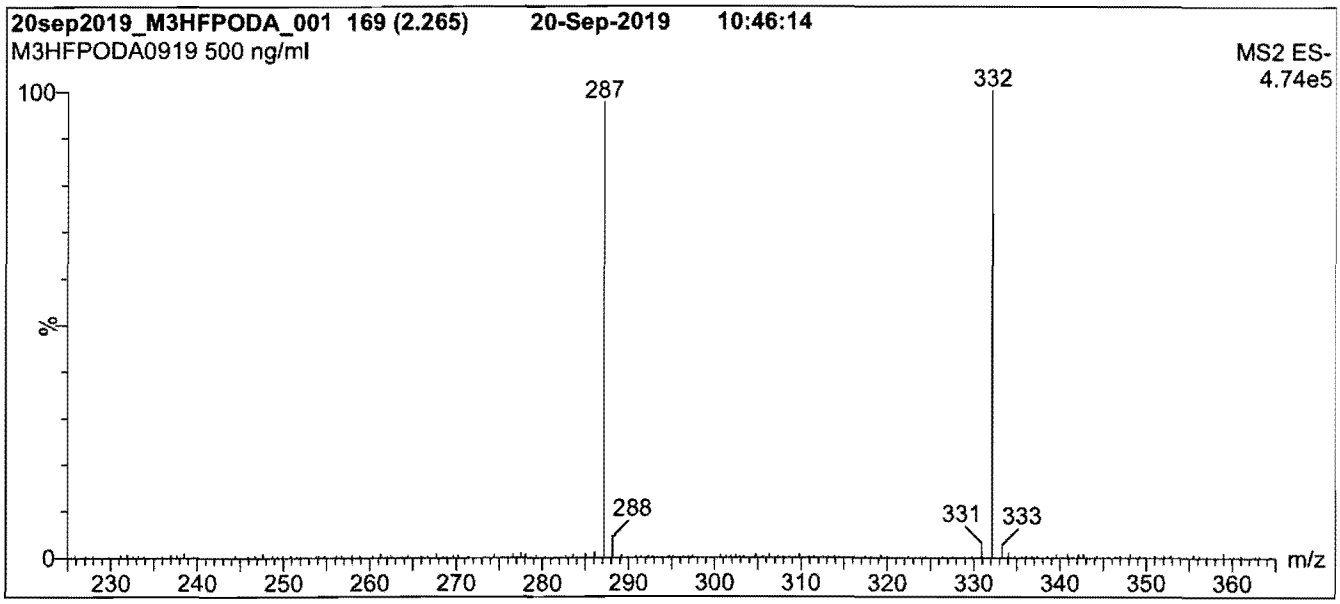
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.60e-3
Collision Energy (eV) = 8

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (l/hr) = 1000

19L0621

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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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0621

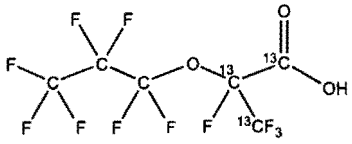
WELLINGTON LABORATORIES

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)-$^{13}C_3$-propanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3HF_{11}O_3$	**MOLECULAR WEIGHT:**	333.03
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_3$)
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.
- 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: _____ **Date:** 09/30/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Analytical Standard Record

Vista Analytical Laboratory

20A0803

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
19L0635	PFDoA	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	PFHxA	06-Dec-19	** Vendor **	08-Aug-24	0.4
19L0639	PFDA	06-Dec-19	** Vendor **	01-May-24	0.4
19L0640	PFUdA	06-Dec-19	** Vendor **	19-Mar-24	0.4
19L0641	PFTrDA	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	PFHxDA	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-PFHxSK	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-PFPrS	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

20A0803

Description:	PFC NS Stock	Expires:	07-Jan-21
Standard Type:	Analyte Spike	Prepared:	08-Jan-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	08-Jan-20 14:18 by BML

Analyte	CAS Number	Concentration	Units
L-PFHpA		1	ug/mL
L-PFOS		0.789	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-PFDoA		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
10:2 FTS	120226-60-0	1	ug/mL
L-PFDoS		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-PFOSA		1	ug/mL
EtFOSA	4151-50-2	5	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

20A0803

Description:	PFC NS Stock	Expires:	07-Jan-21
Standard Type:	Analyte Spike	Prepared:	08-Jan-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	08-Jan-20 14:18 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
L-PFODA		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
PFPrS	423-41-6	1	ug/mL
PFTeDA	376-06-7	1	ug/mL
PFNS	68259-12-1	1	ug/mL
PFUnA	2058-94-8	1	ug/mL
PFNA	375-95-1	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
PFTrDA	72629-94-8	1	ug/mL
PFDA	335-76-2	1	ug/mL
L-PFPeA		1	ug/mL
L-PFPeS	2706-91-4	1	ug/mL
L-PFTeDA		1	ug/mL
L-PFTrDA		1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

20A0803

Description:	PFC NS Stock	Expires:	07-Jan-21
Standard Type:	Analyte Spike	Prepared:	08-Jan-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	08-Jan-20 14:18 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
PFOA	335-67-1	1	ug/mL
PFBS	375-73-5	1	ug/mL
trans-PFECHS		0.335	ug/mL
PFDoA	307-55-1	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
PFHxS	355-46-4	1	ug/mL
PFBA	375-22-4	1	ug/mL

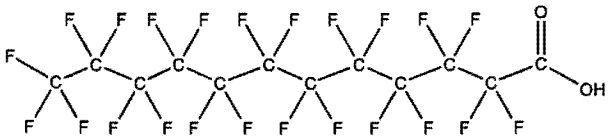
19L0635

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid
LOT NUMBER: PFDoA0119

STRUCTURE:
CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
MOLECULAR WEIGHT: 614.10
CONCENTRATION: 50 ± 2.5 µg/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: _____ **Date:** 01/30/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0635

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

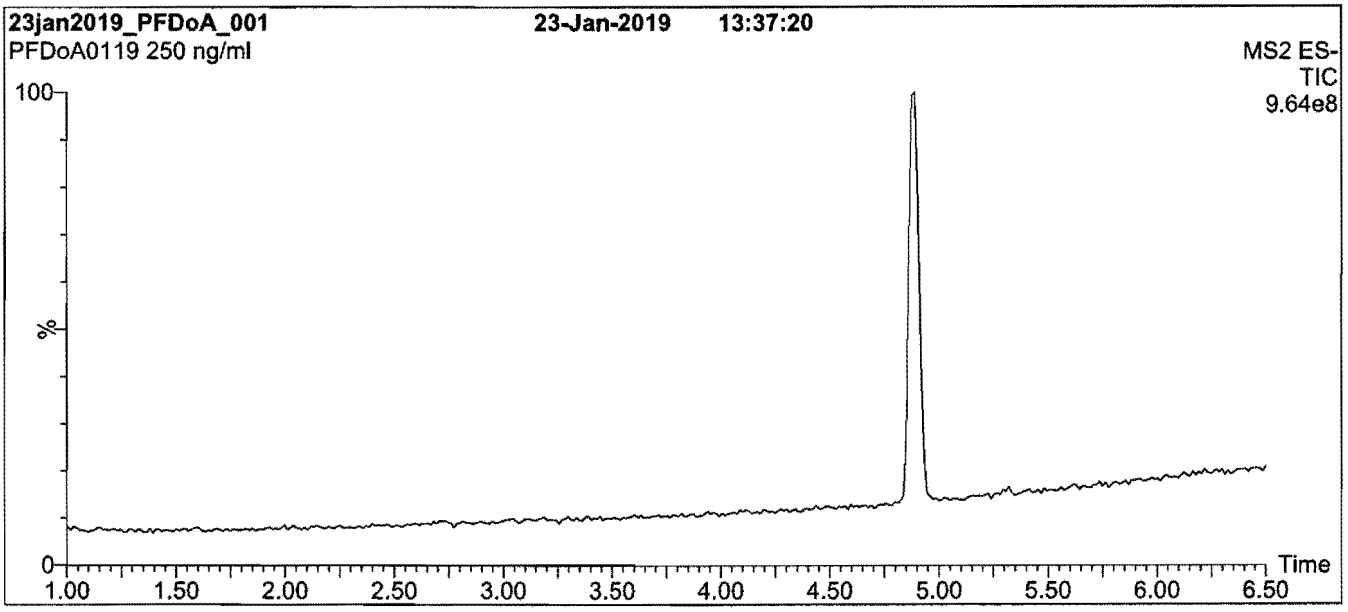
CALA Testing Accreditation No. A 1326

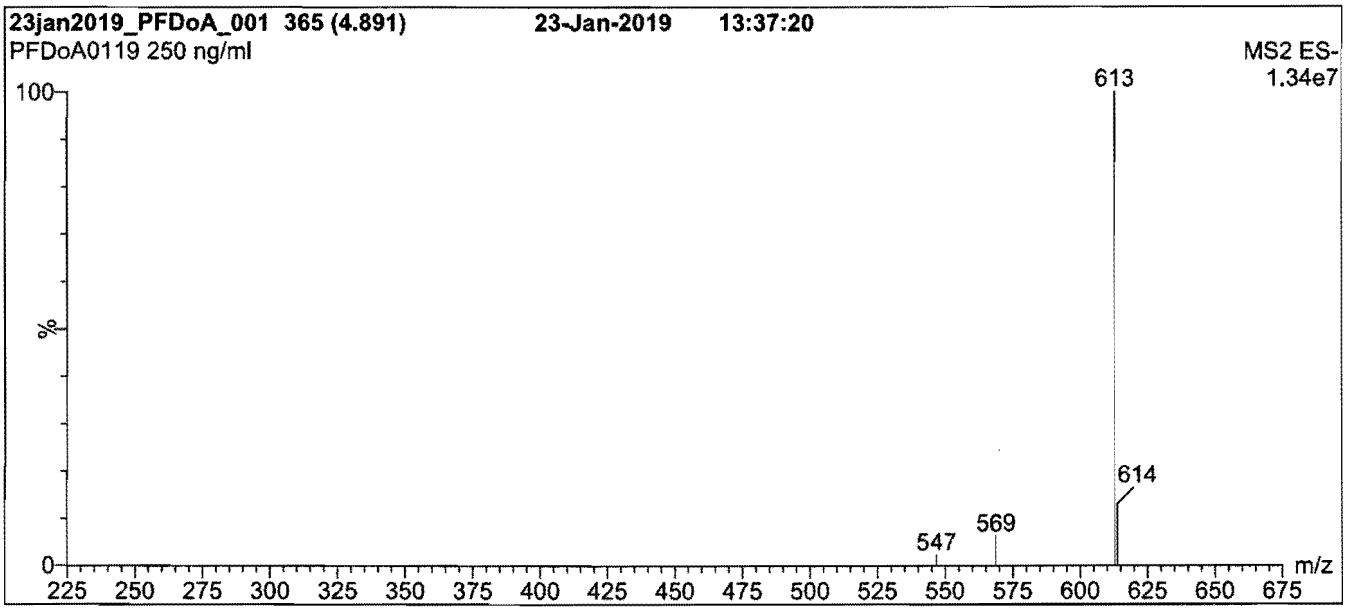
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0635

- **Figure 1:** **PFDoA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

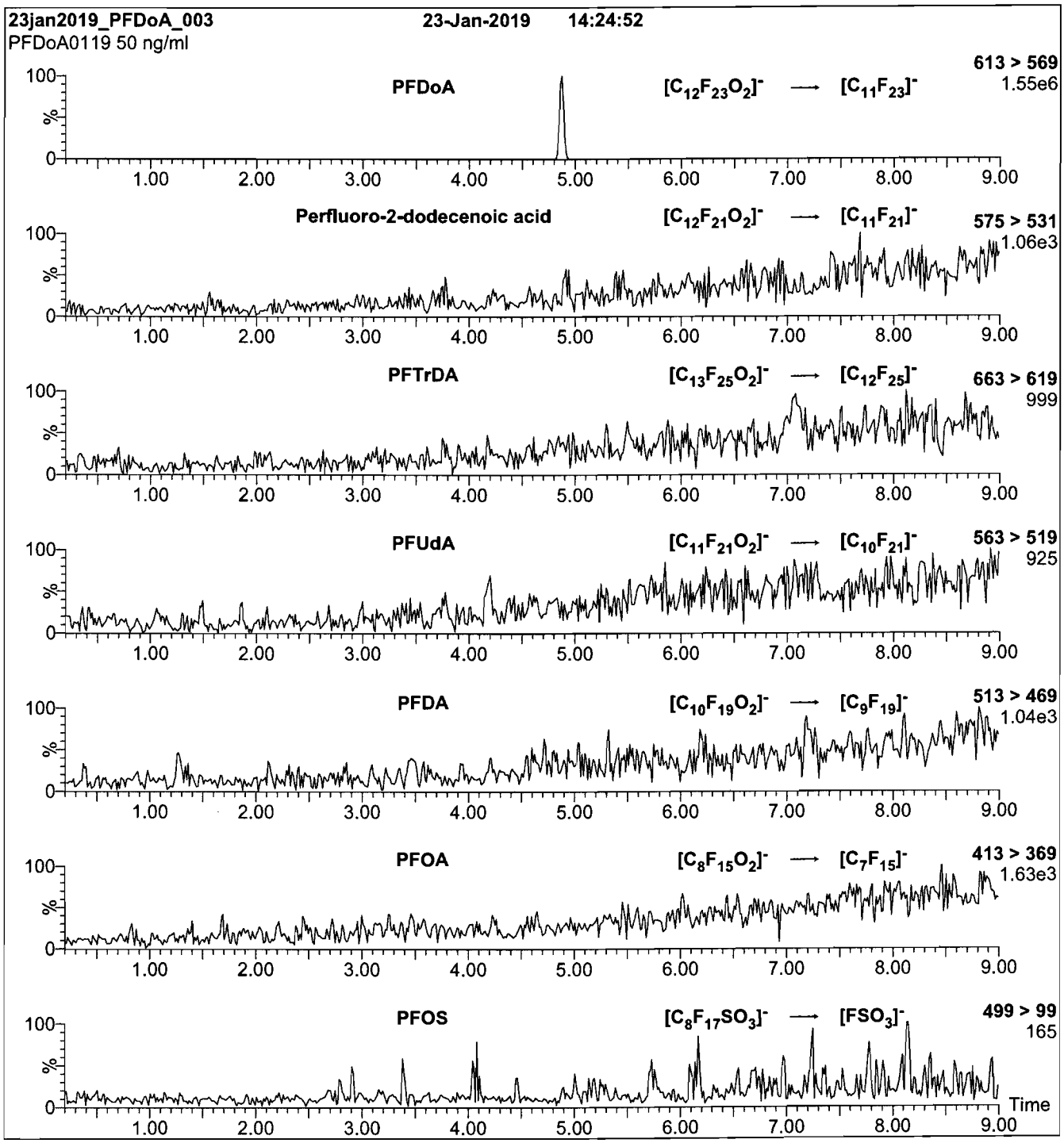
MS Parameters

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

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Figure 2: **PFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFDoA)

Mobile phase: Same as Figure 1

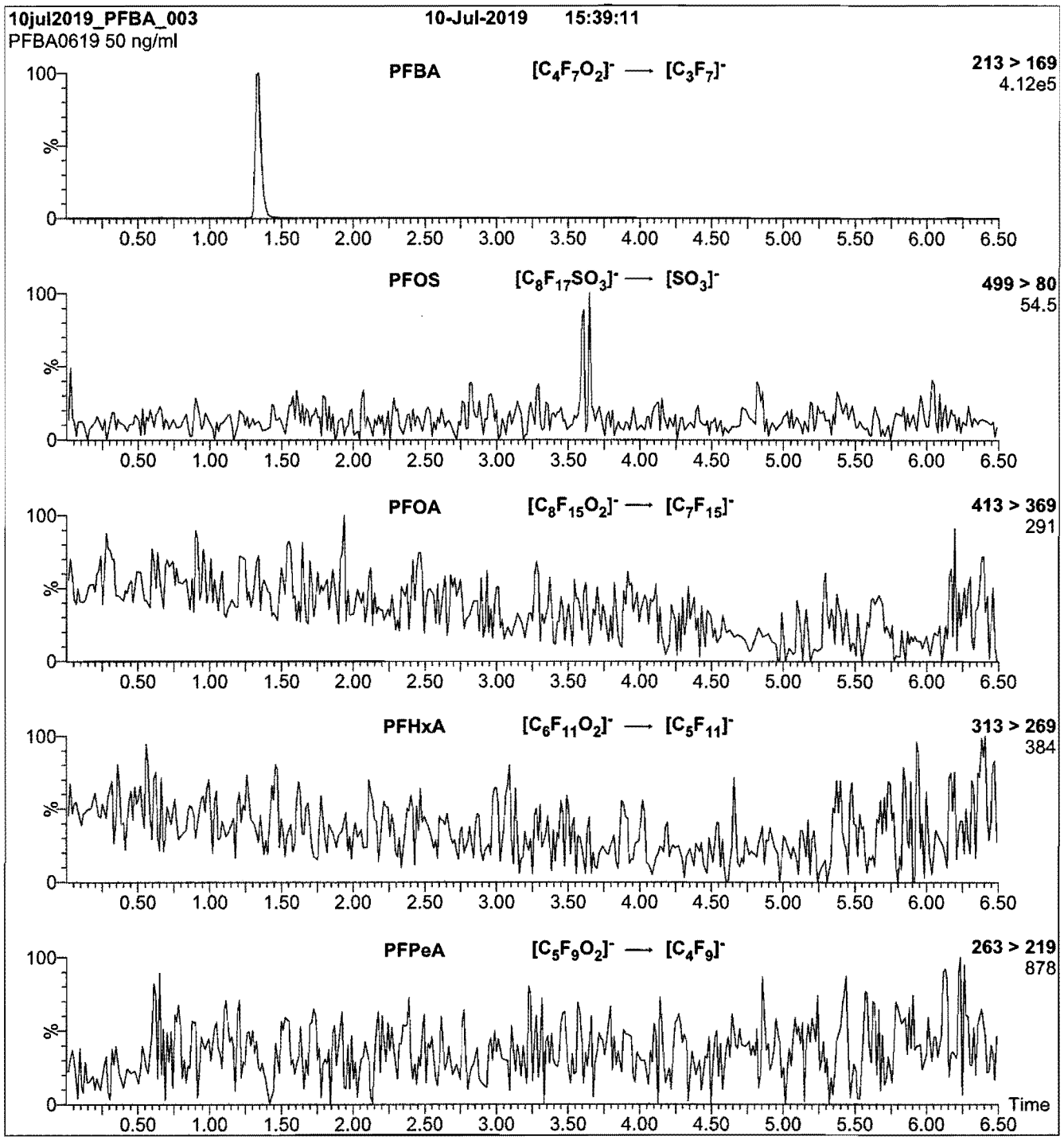
Flow: 300 µl/min

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

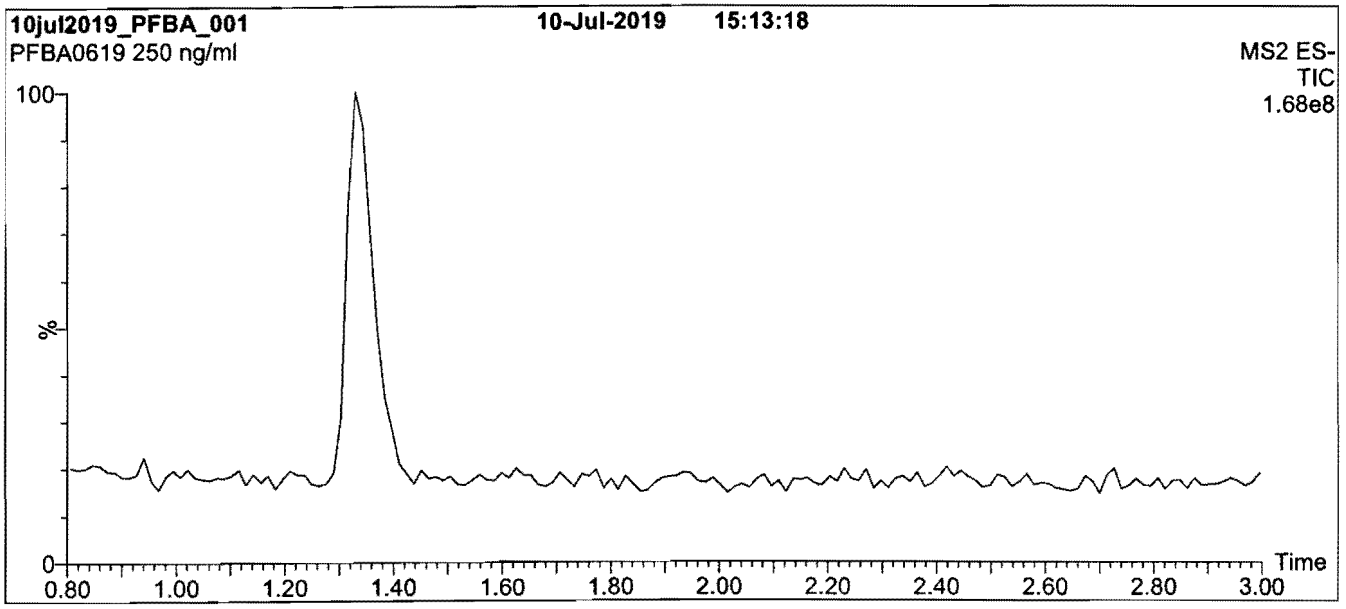
Flow: 300 µl/min

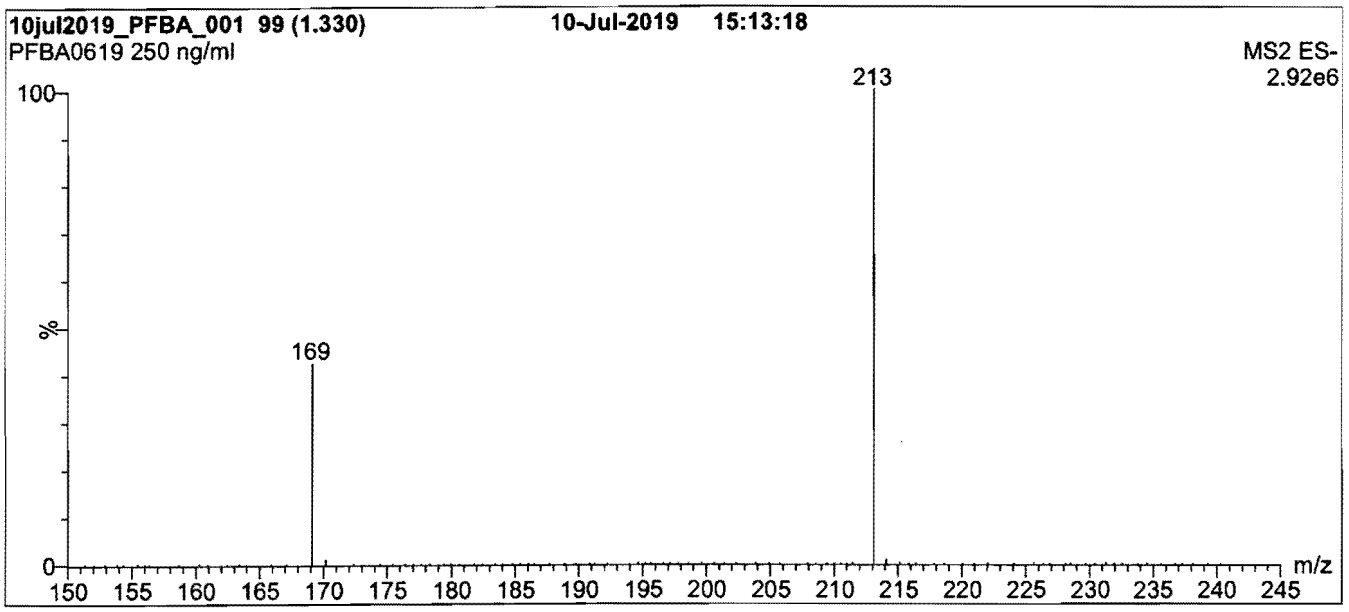
MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 8

1910636

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 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 µl/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

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LIMITED WARRANTY:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

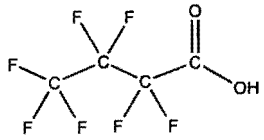
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0636

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFBA	**LOT NUMBER:**	PFBA0619
COMPOUND:	Perfluoro-n-butanoic acid		
STRUCTURE:		**CAS #:**	375-22-4



MOLECULAR FORMULA:	$C_4HF_7O_2$	**MOLECULAR WEIGHT:**	214.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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.

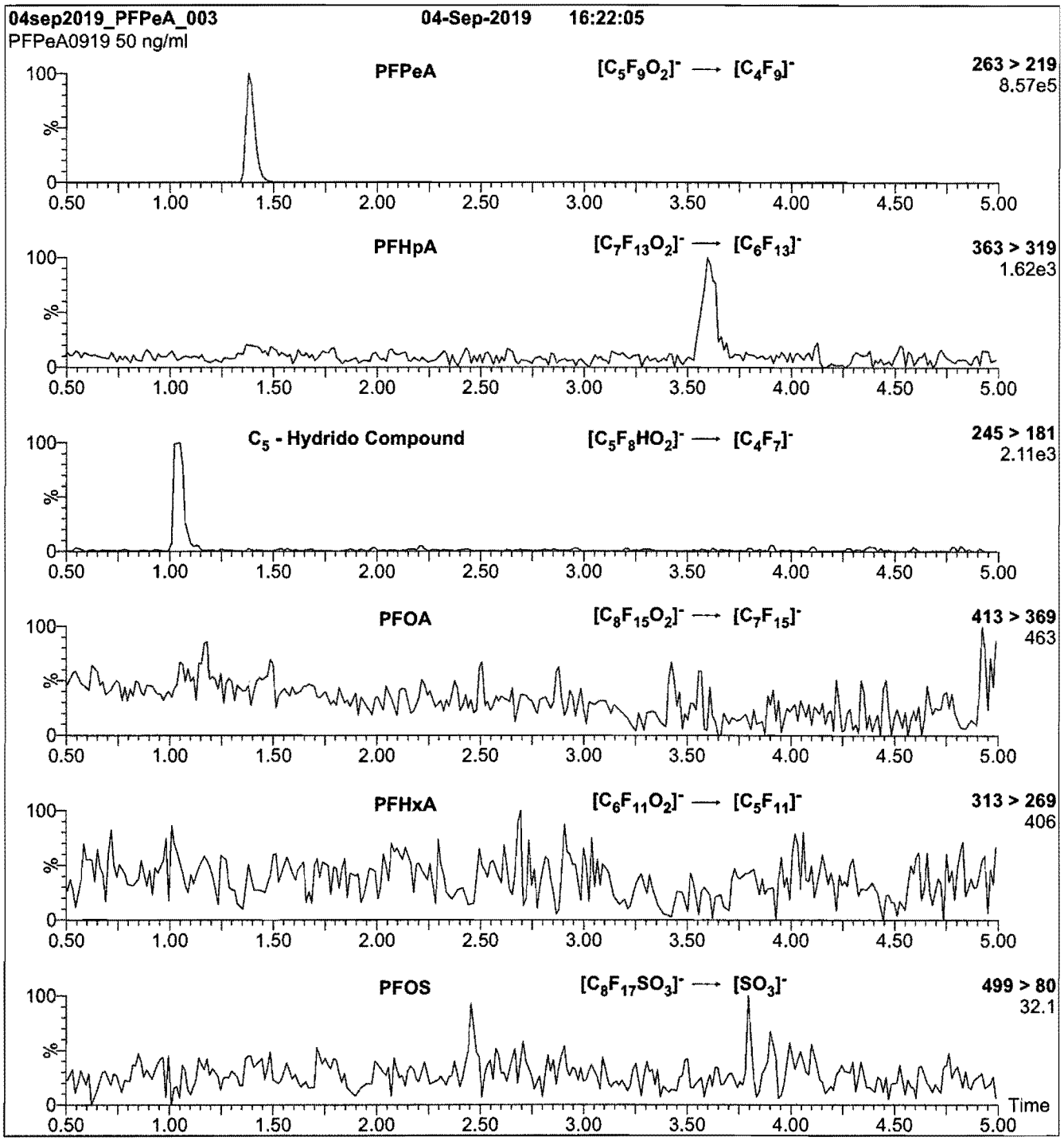
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/22/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1920637

Figure 2: **PFPeA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFPeA)

Mobile phase: Same as Figure 1

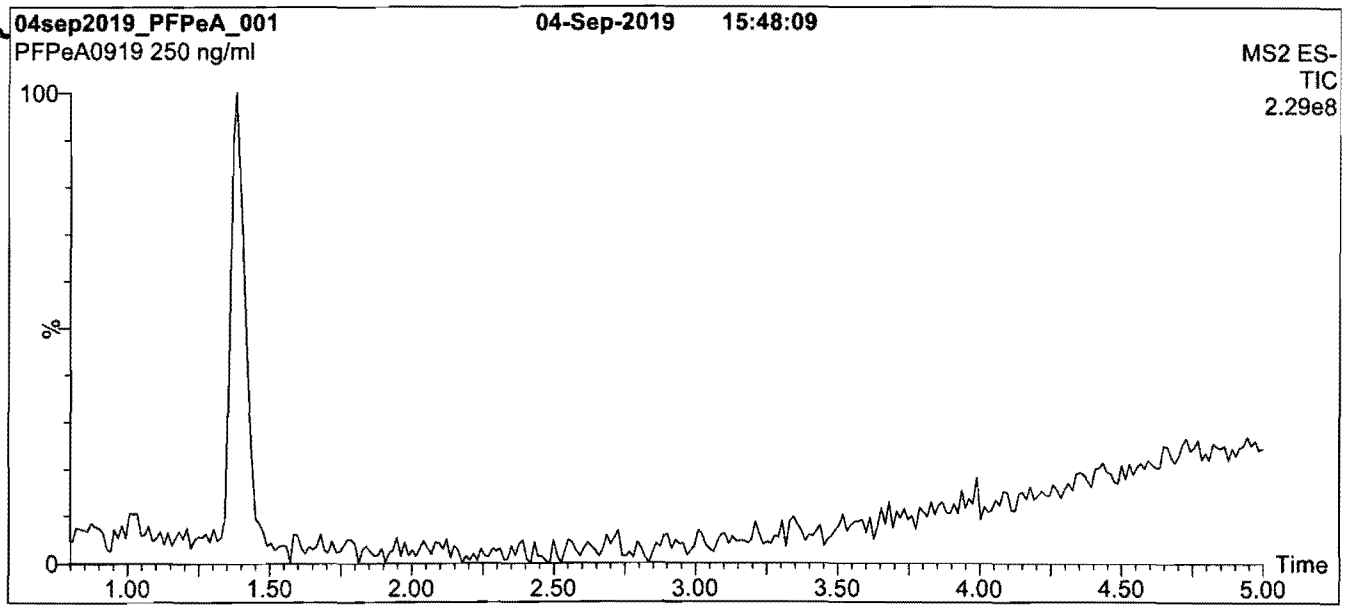
Flow: 300 µl/min

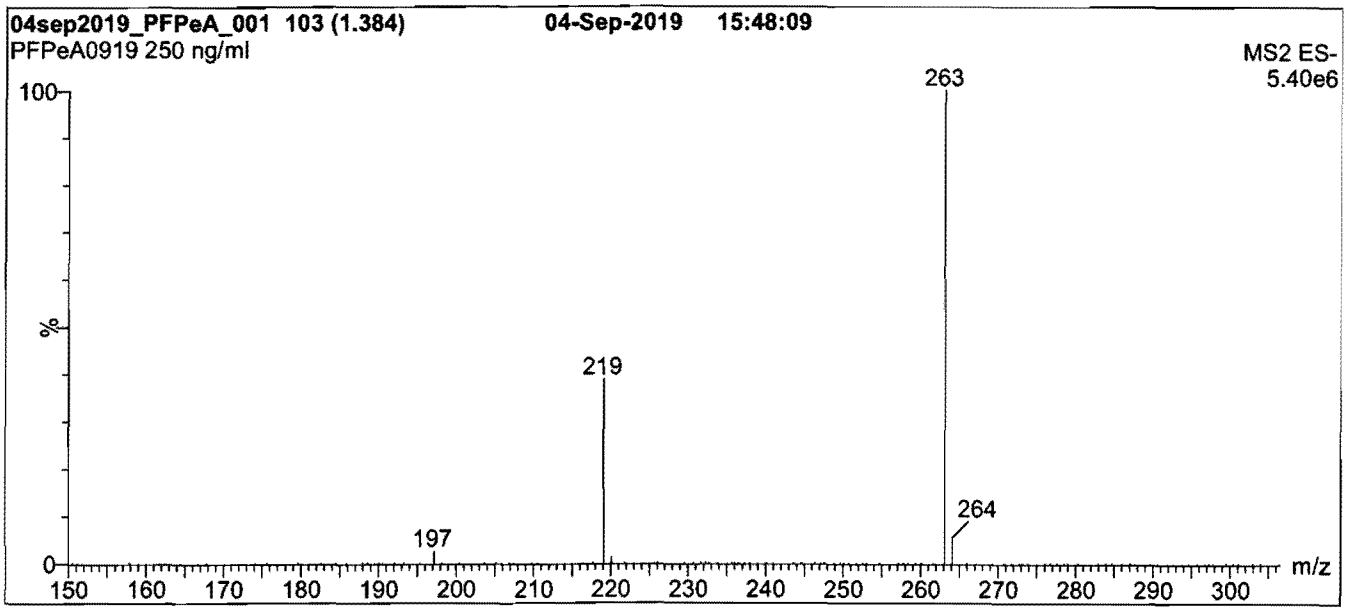
MS Parameters

Collision Gas (mbar) = 3.51e-3
Collision Energy (eV) = 8

1920637

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

1926637

INTENDED USE:

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HANDLING:

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SYNTHESIS / CHARACTERIZATION:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

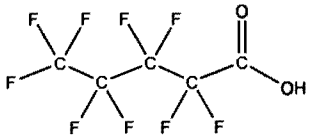
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0637

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFPeA	**LOT NUMBER:**	PFPeA0919
COMPOUND:	Perfluoro-n-pentanoic acid		
STRUCTURE:		**CAS #:**	2706-90-3



MOLECULAR FORMULA:	$C_5HF_9O_2$	**MOLECULAR WEIGHT:**	264.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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:

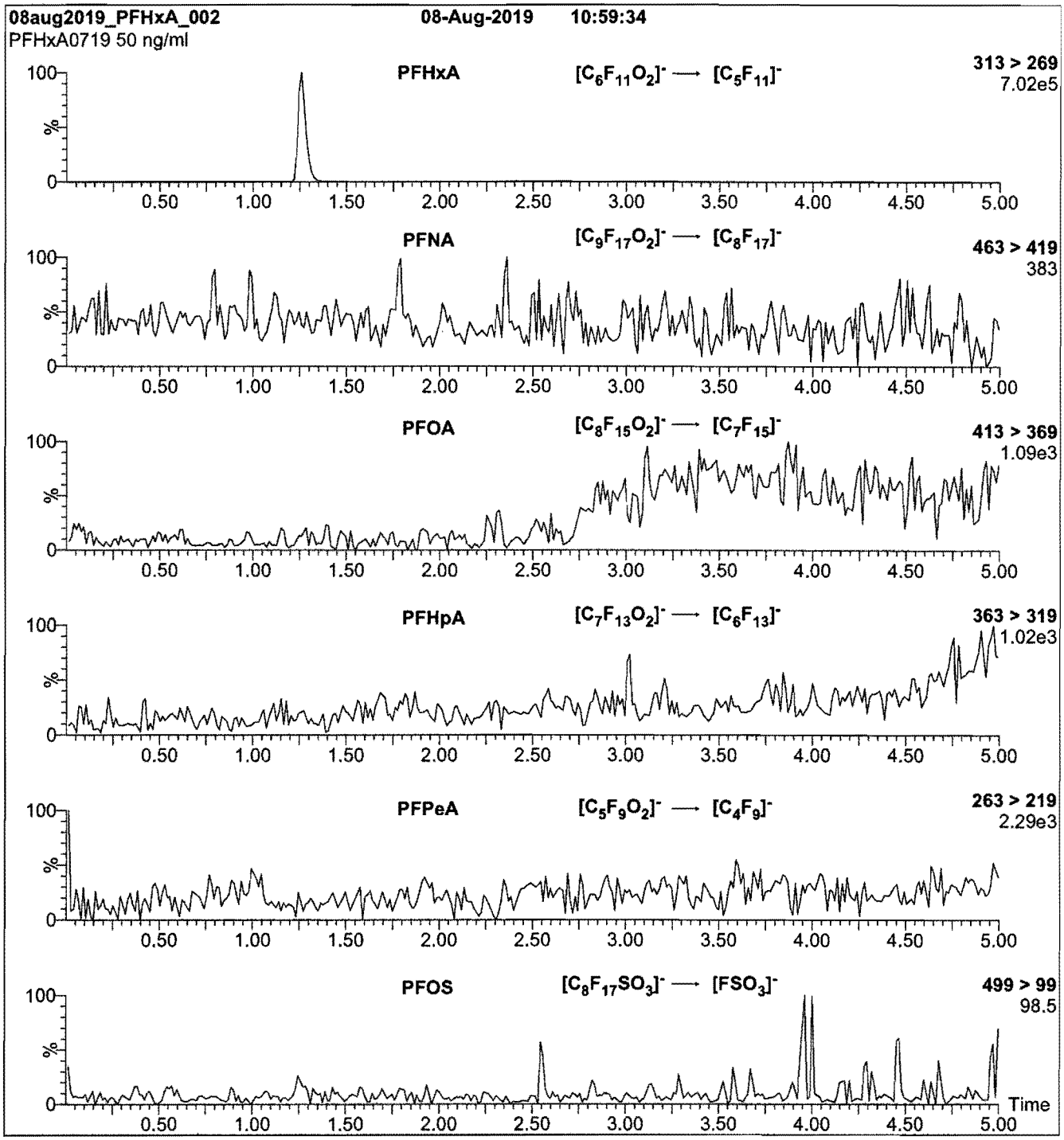
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_5H_2F_8O_2$ (hydrido - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/05/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFHxA)

Mobile phase: Same as Figure 1

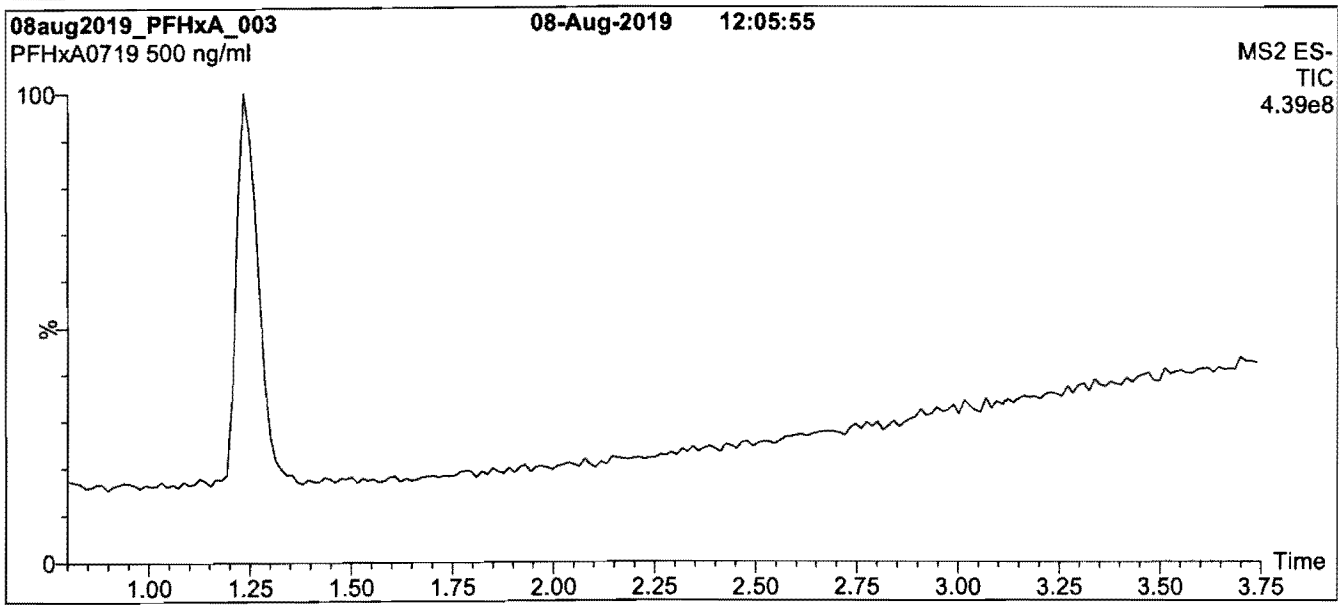
Flow: 300 µl/min

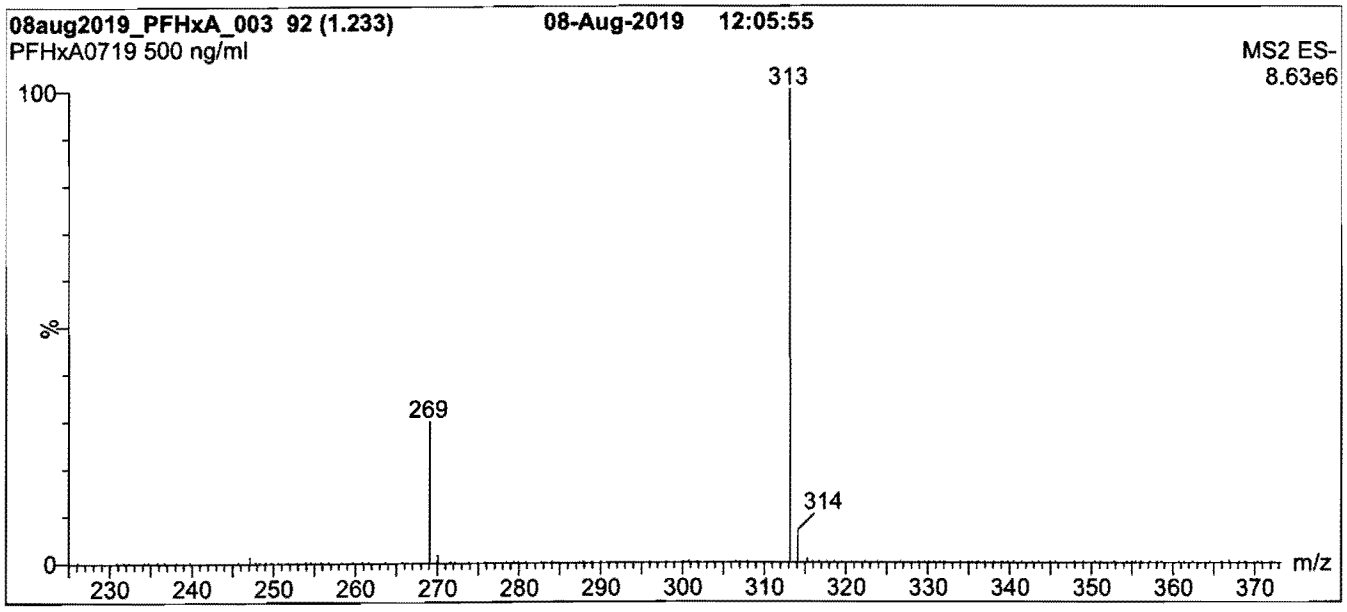
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0638

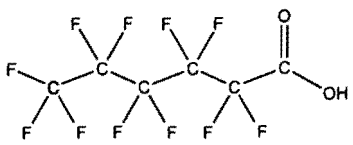
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxA
LOT NUMBER: PFHxA0719
COMPOUND: Perfluoro-n-hexanoic acid

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$
MOLECULAR WEIGHT: 314.05
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 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: _____ **Date:** 08/15/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

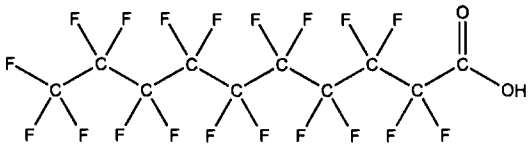
19L0639

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDA
COMPOUND: Perfluoro-n-decanoic acid
LOT NUMBER: PFDA0419

STRUCTURE:
CAS #: 335-76-2



MOLECULAR FORMULA: $C_{10}HF_{19}O_2$
MOLECULAR WEIGHT: 514.08
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/01/2019
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: _____ **Date:** 05/02/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0639

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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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:

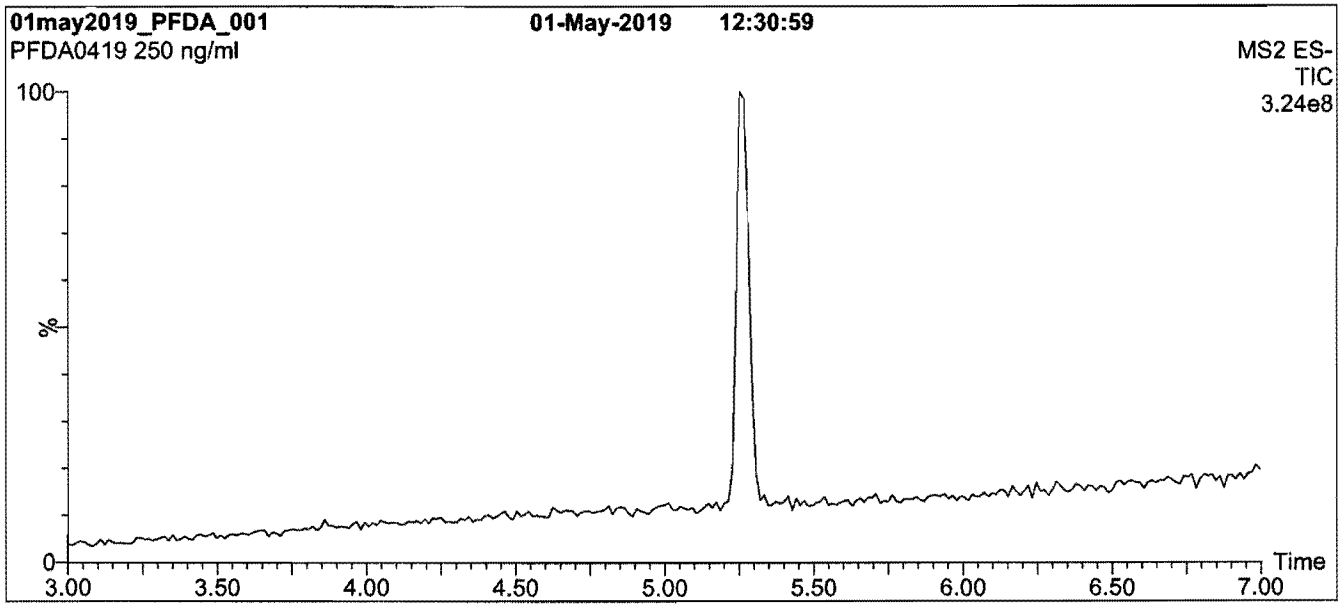
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

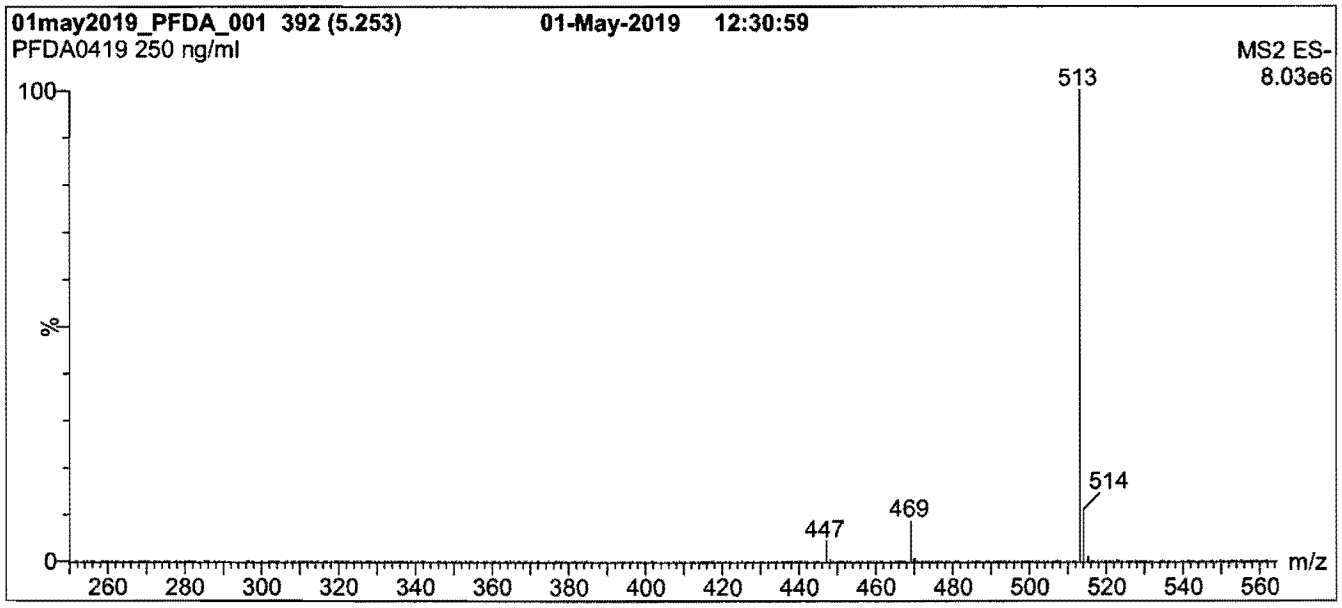
CALA Testing Accreditation No. A 1226

ANAB ACCREDITED 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 µl/min

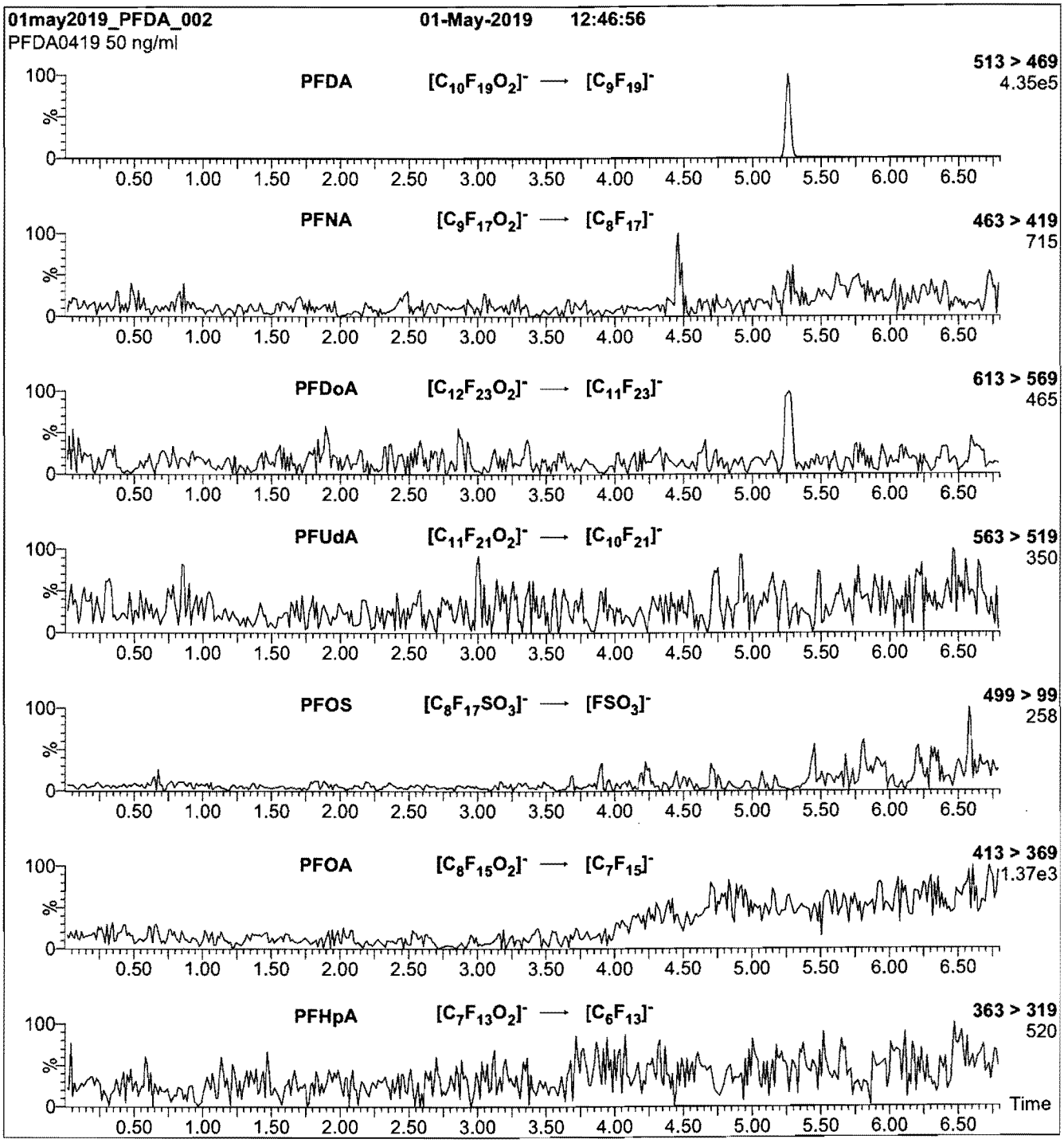
MS Parameters

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)

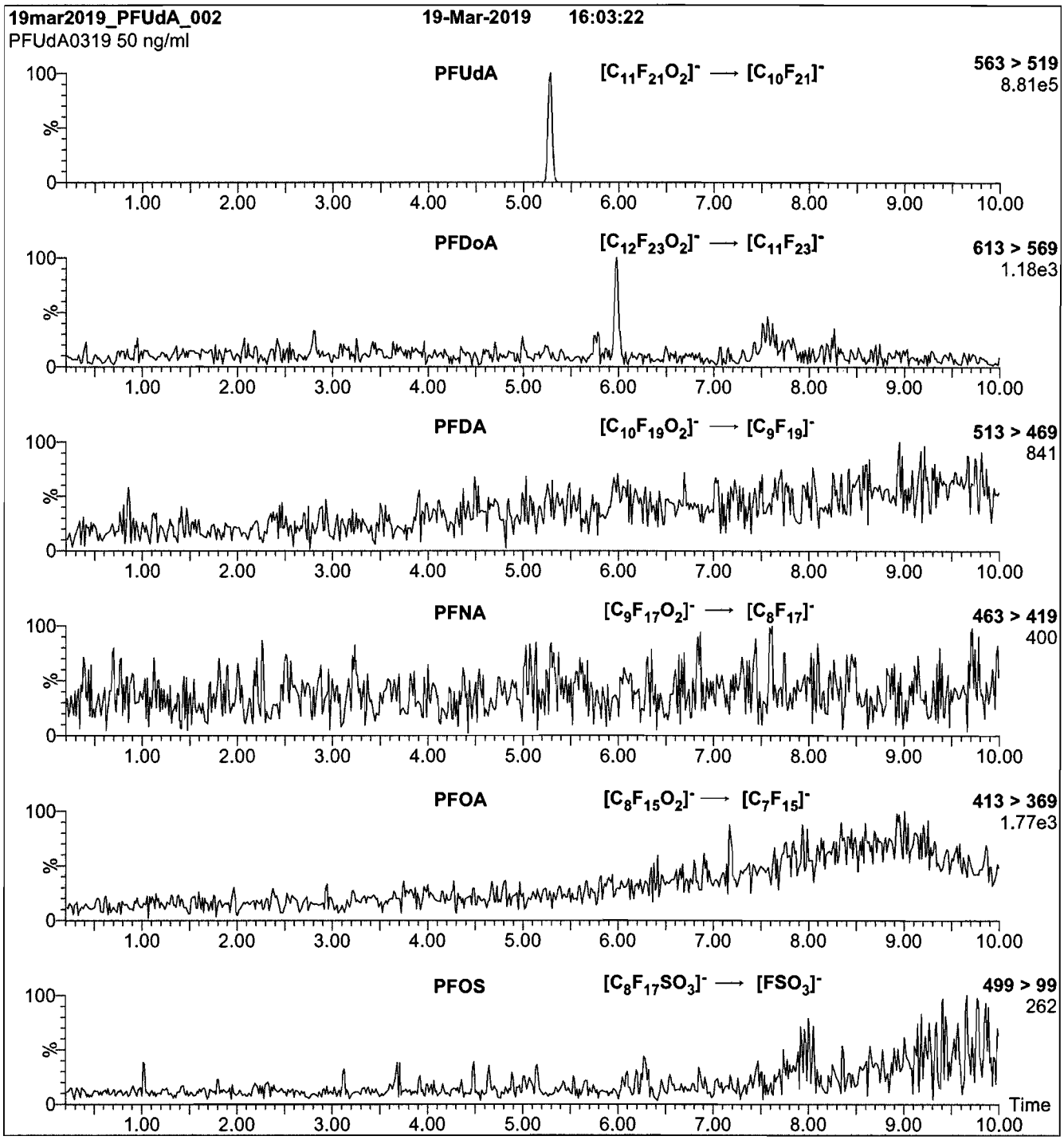
Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.88e-3
Collision Energy (eV) = 10

Figure 2: **PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFUdA)

Mobile phase: Same as Figure 1

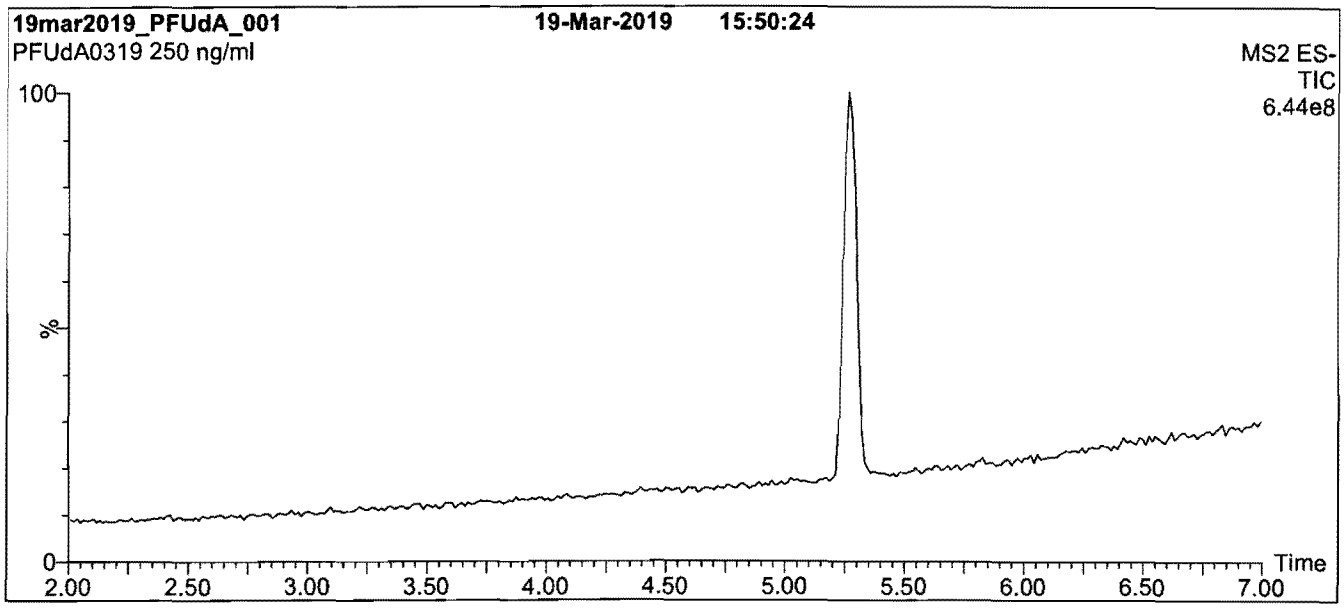
Flow: 300 µl/min

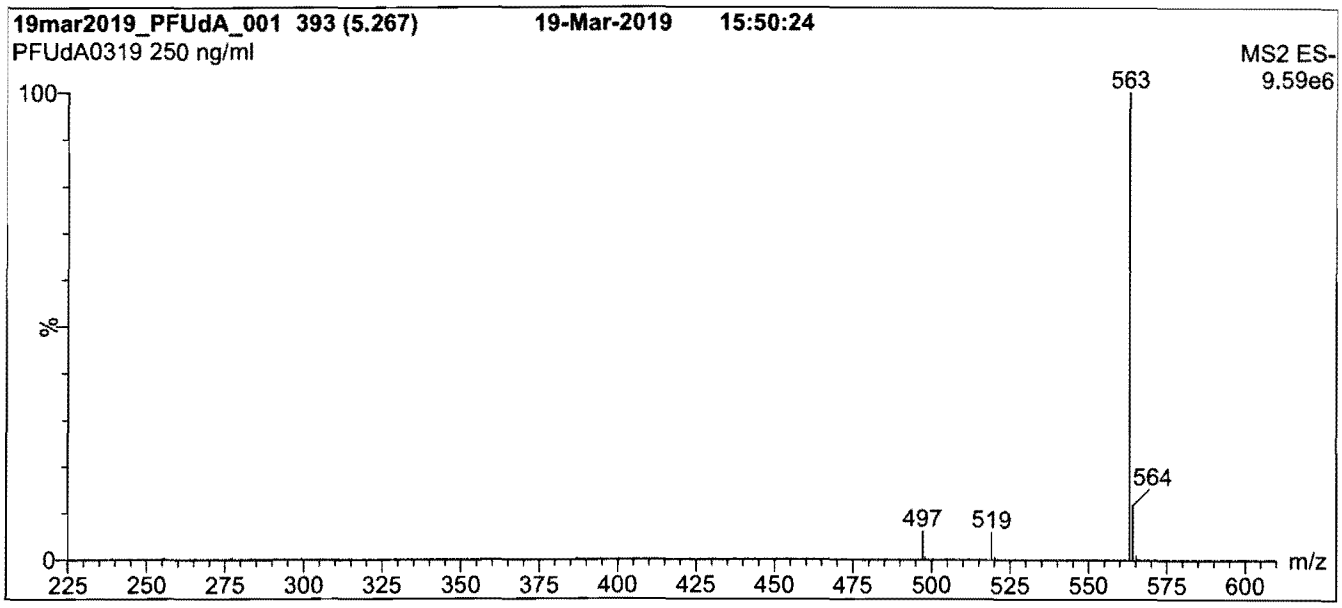
MS Parameters

Collision Gas (mbar) = 3.04e-3
Collision Energy (eV) = 12

19L0690

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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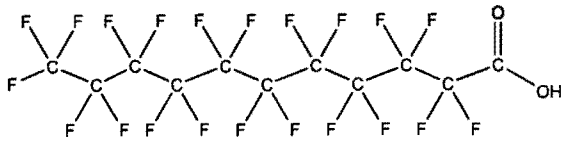
19L0640

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid
LOT NUMBER: PFUdA0319

STRUCTURE:
CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
MOLECULAR WEIGHT: 564.09
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 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 pefluoro-n-dodecanoic acid (PFDoA).

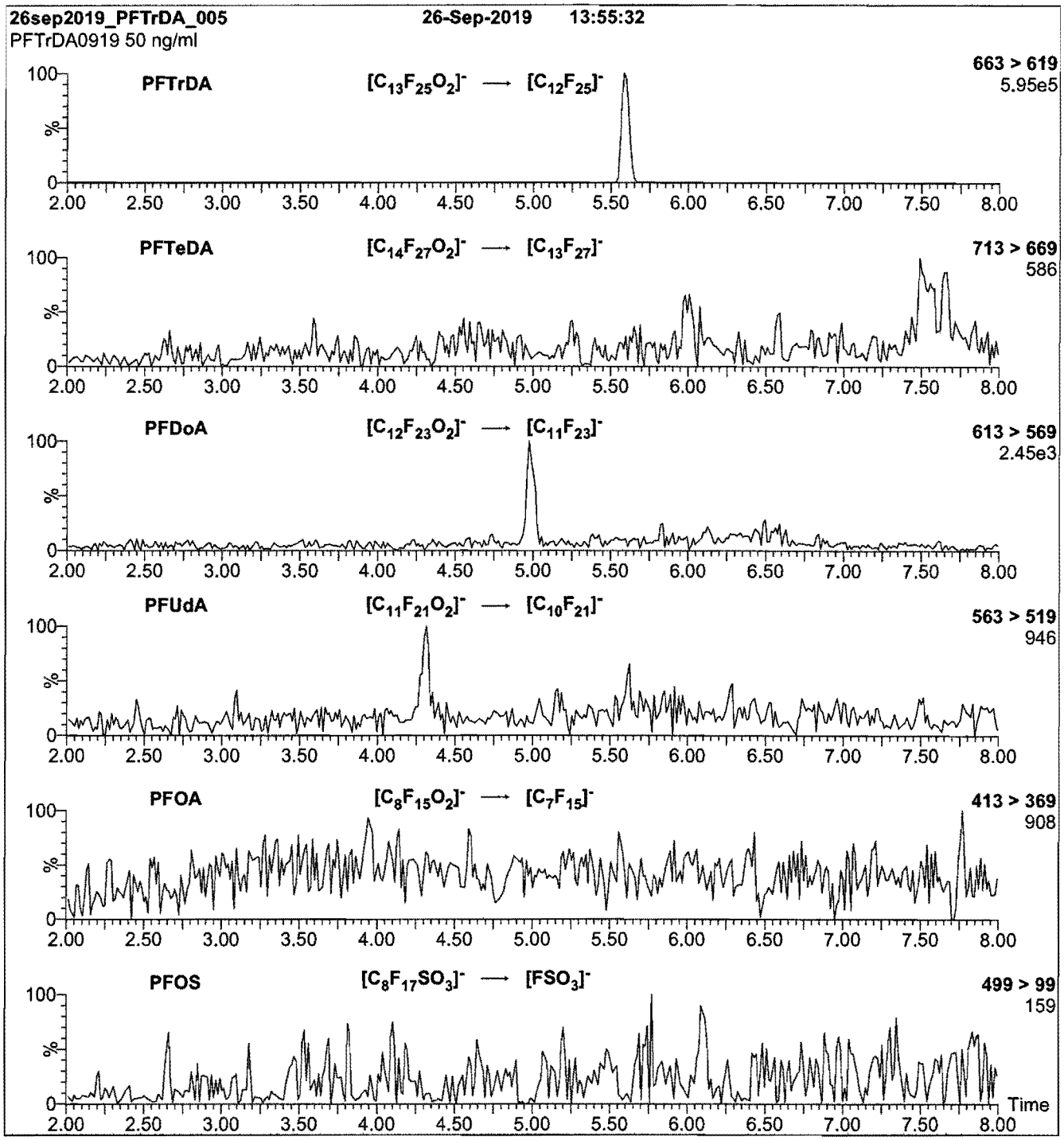
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/21/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0641

Figure 2: **PFTrDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFTrDA)

Mobile phase: Same as Figure 1

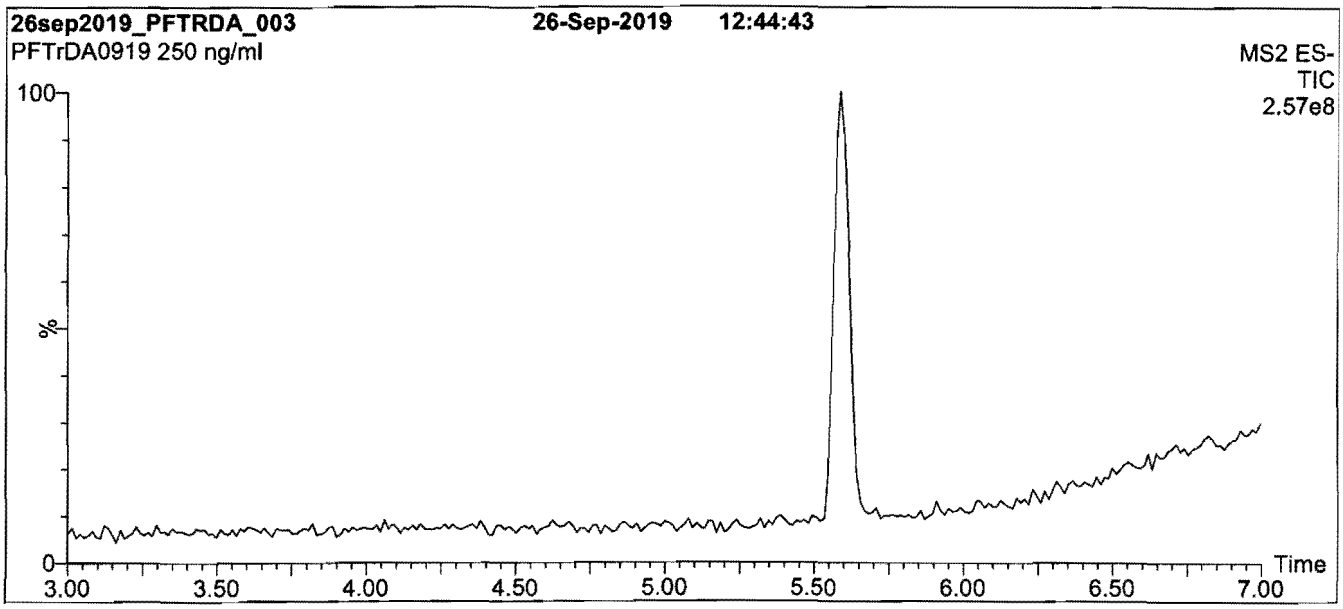
Flow: 300 µl/min

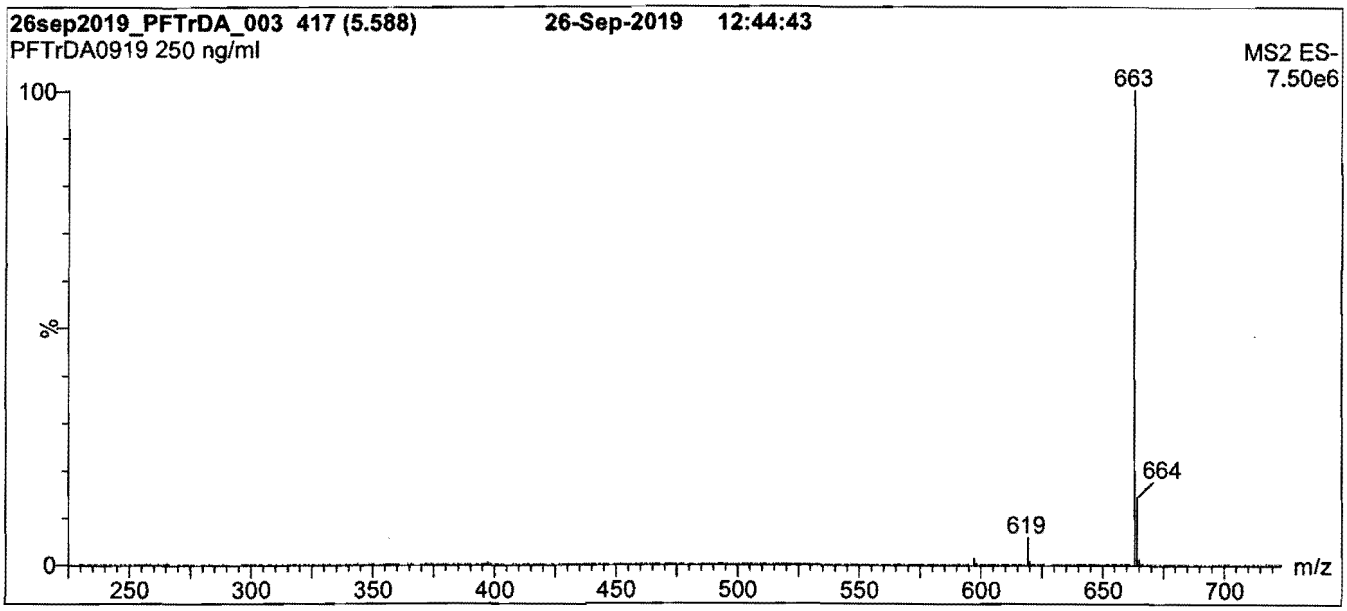
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

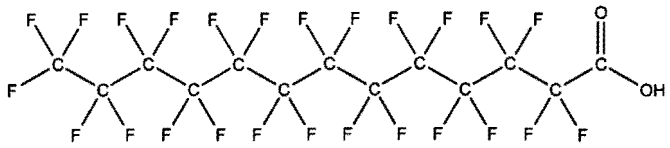
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19L0691

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFTrDA	**LOT NUMBER:**	PFTrDA0919
COMPOUND:	Perfluoro-n-tridecanoic acid		
STRUCTURE:		**CAS #:**	72629-94-8



MOLECULAR FORMULA:	$C_{13}HF_{25}O_2$	**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 ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

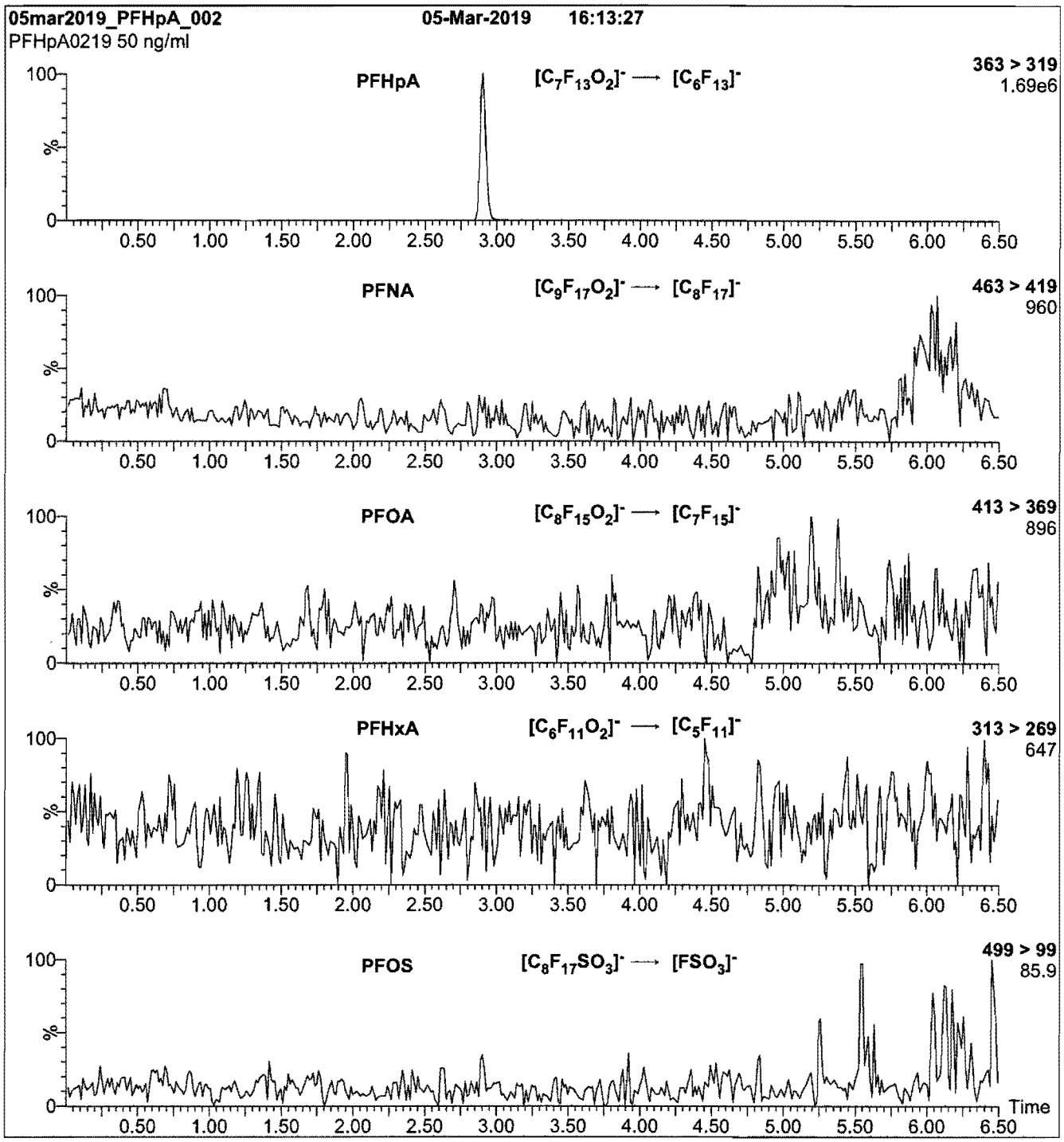
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/03/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

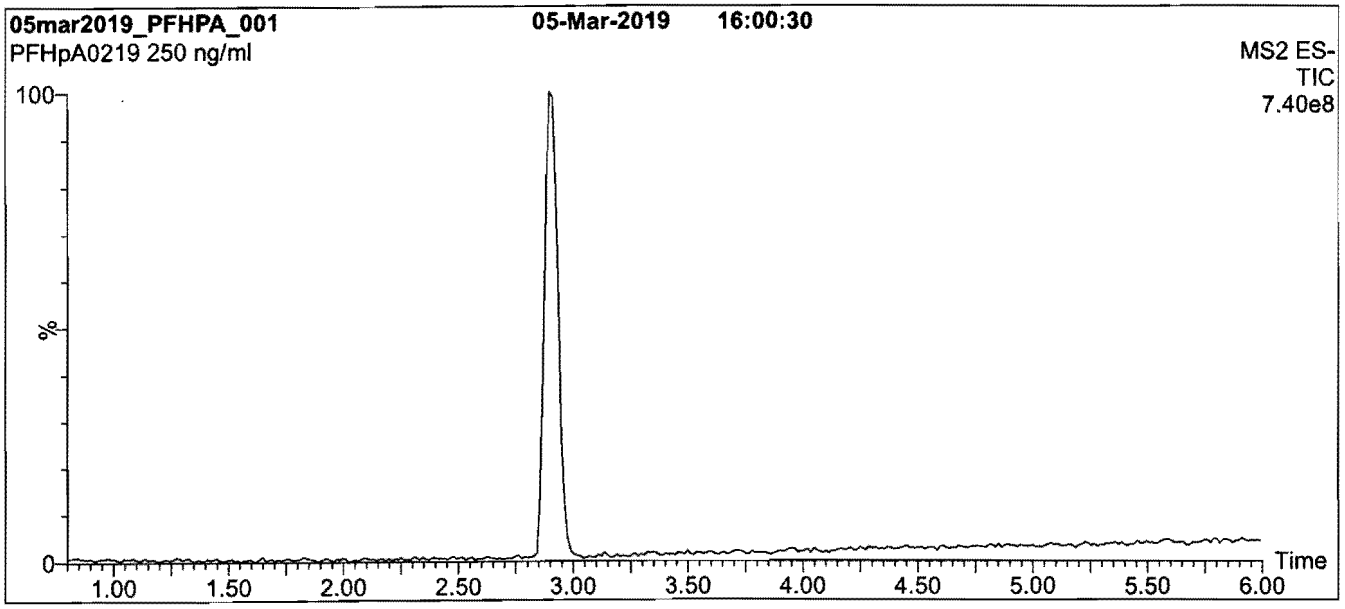
Flow: 300 µl/min

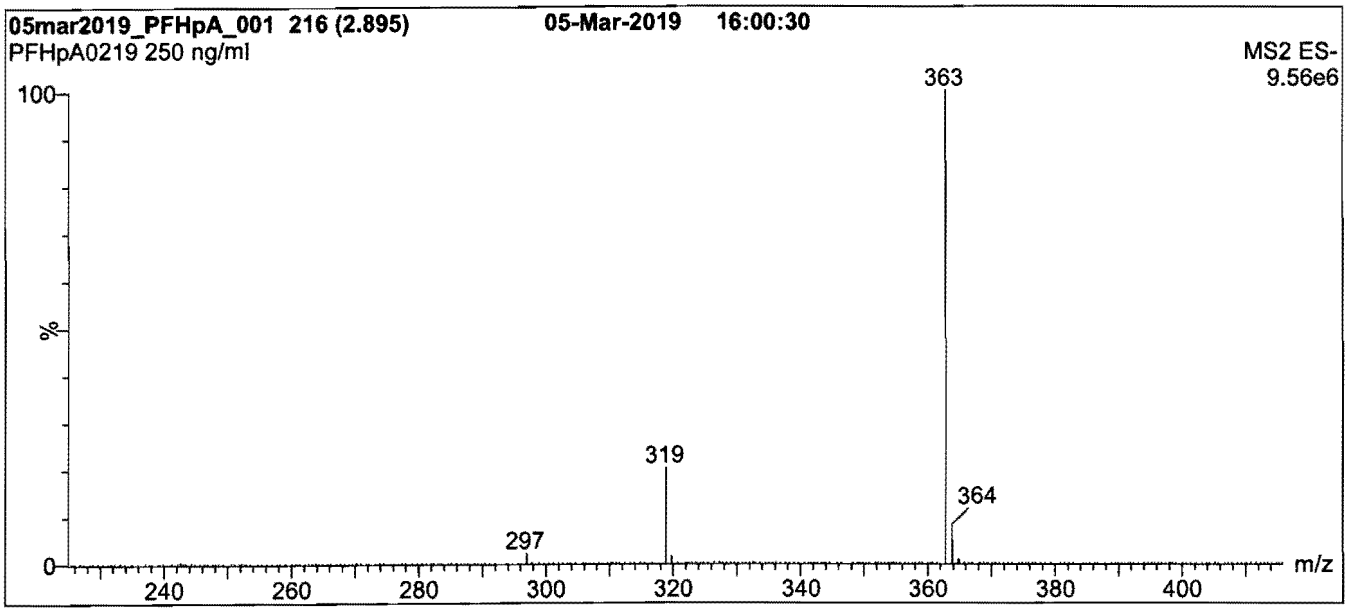
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

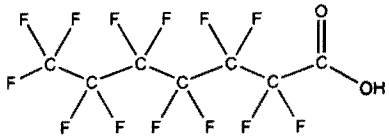
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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFHpA	**LOT NUMBER:**	PFHpA0219
COMPOUND:	Perfluoro-n-heptanoic acid		
STRUCTURE:		**CAS #:**	375-85-9



MOLECULAR FORMULA:	$C_7HF_{13}O_2$	**MOLECULAR WEIGHT:**	364.06
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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.

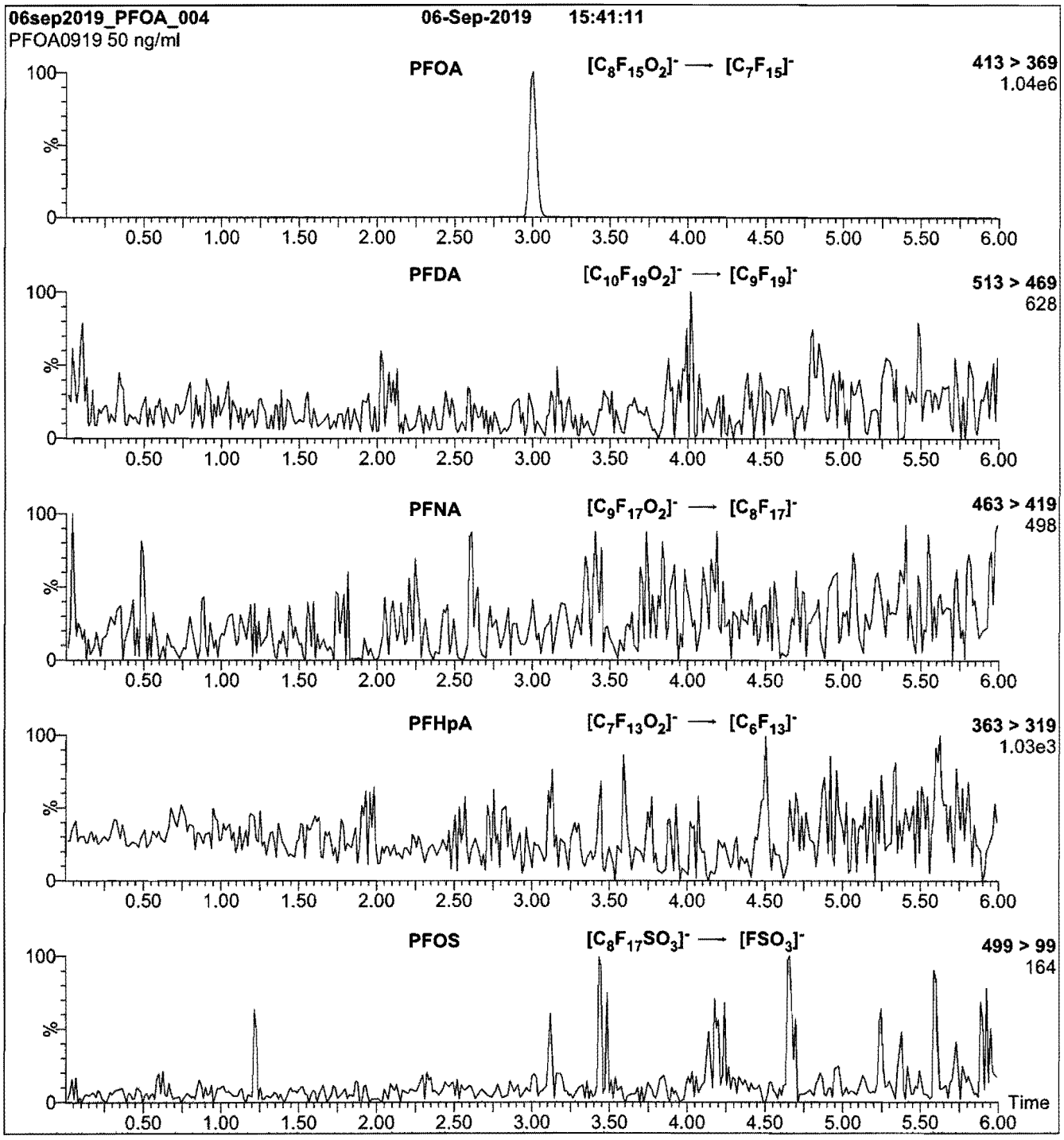
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/18/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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19L0643

Figure 2: **PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFOA)

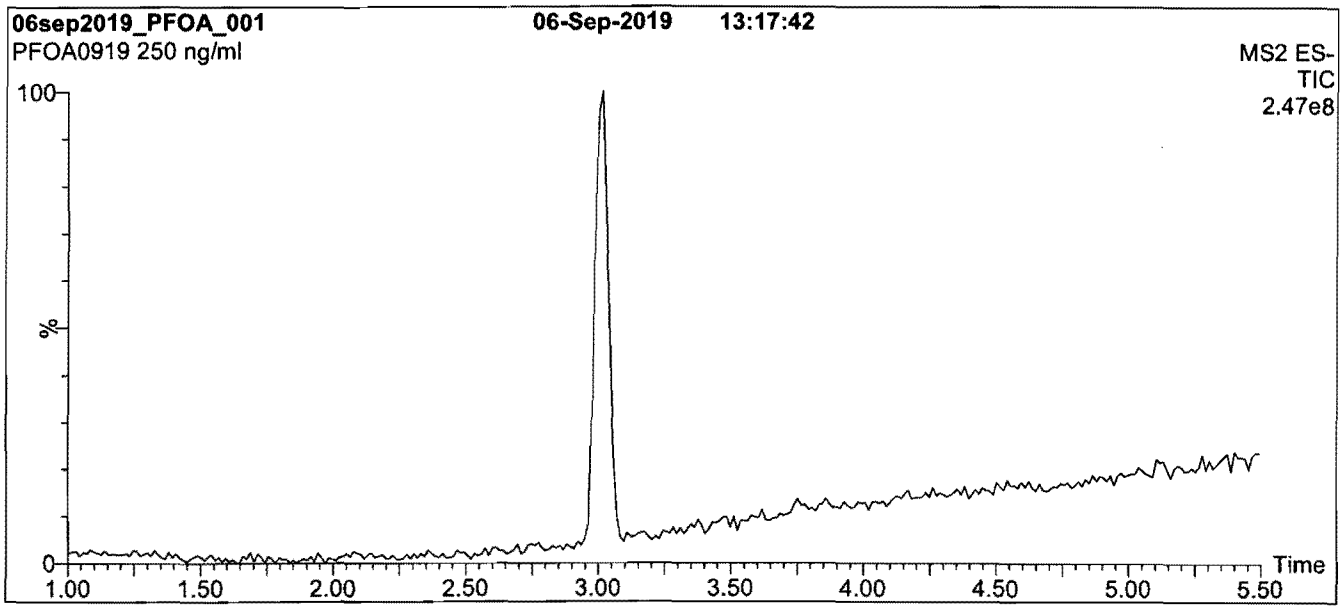
Mobile phase: Same as Figure 1

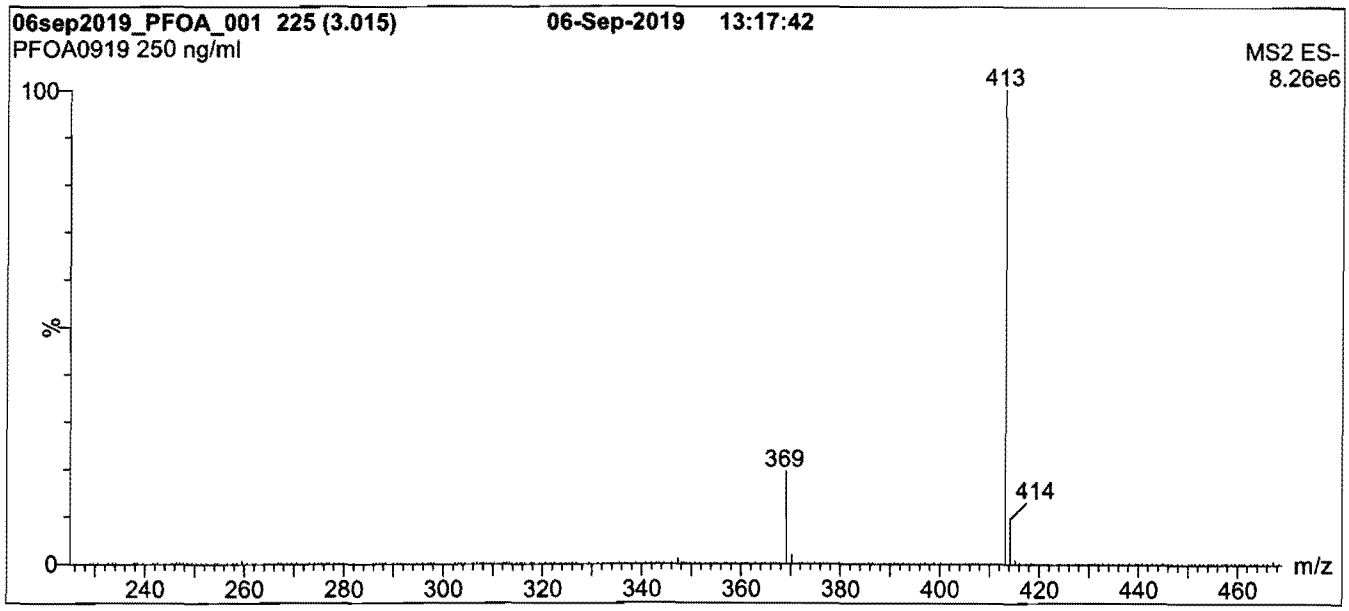
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.49e-3
Collision Energy (eV) = 8

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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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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:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

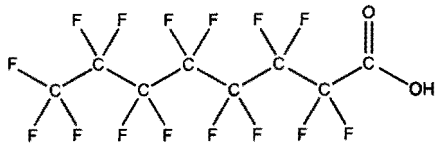
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19L0643

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFOA	**LOT NUMBER:**	PFOA0919
COMPOUND:	Perfluoro-n-octanoic acid		
STRUCTURE:		**CAS #:**	335-67-1



MOLECULAR FORMULA:	$C_8HF_{15}O_2$	**MOLECULAR WEIGHT:**	414.07
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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.

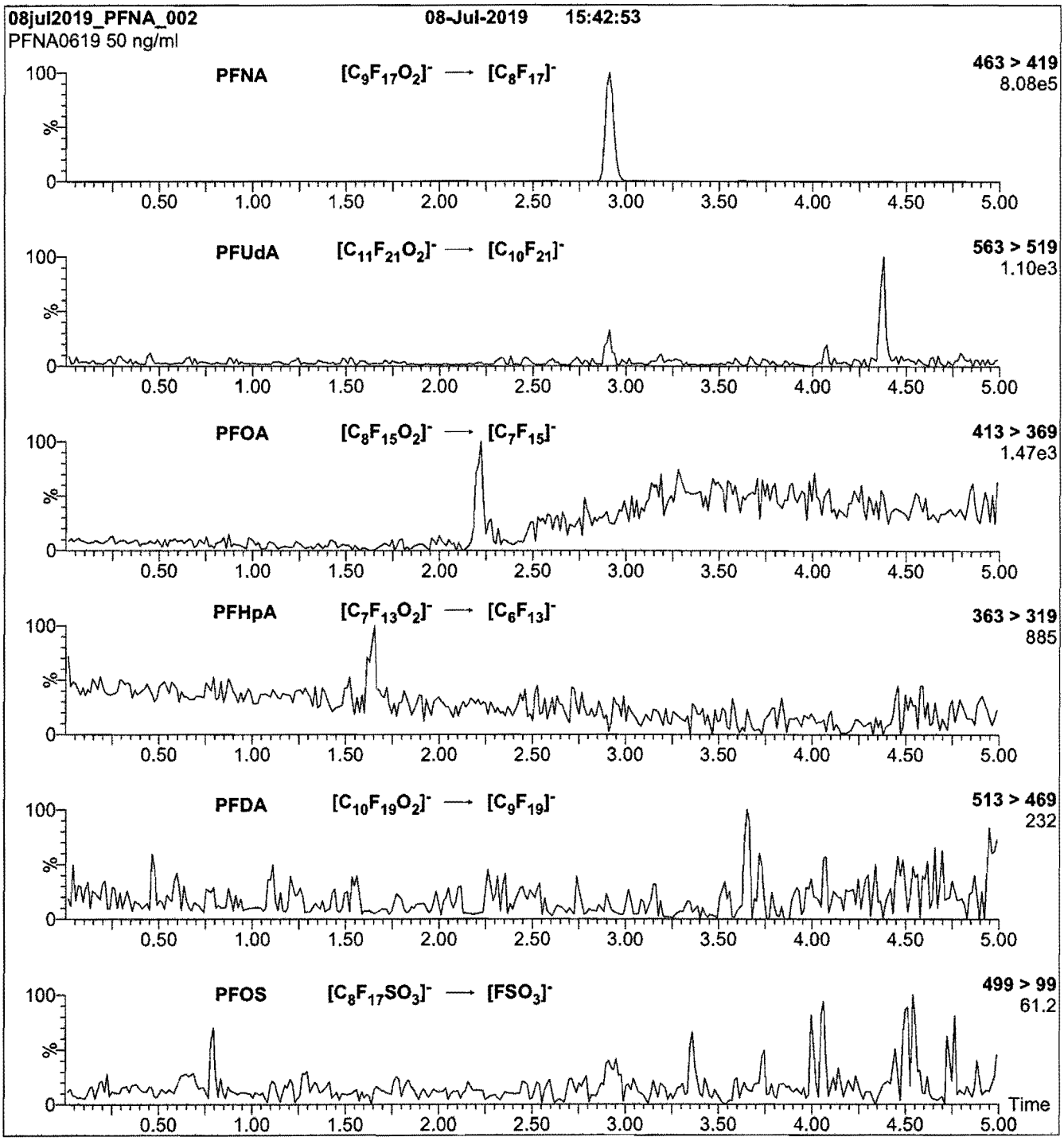
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Certified By: _____ **Date:** 09/09/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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19L0644

Figure 2: **PFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFNA)

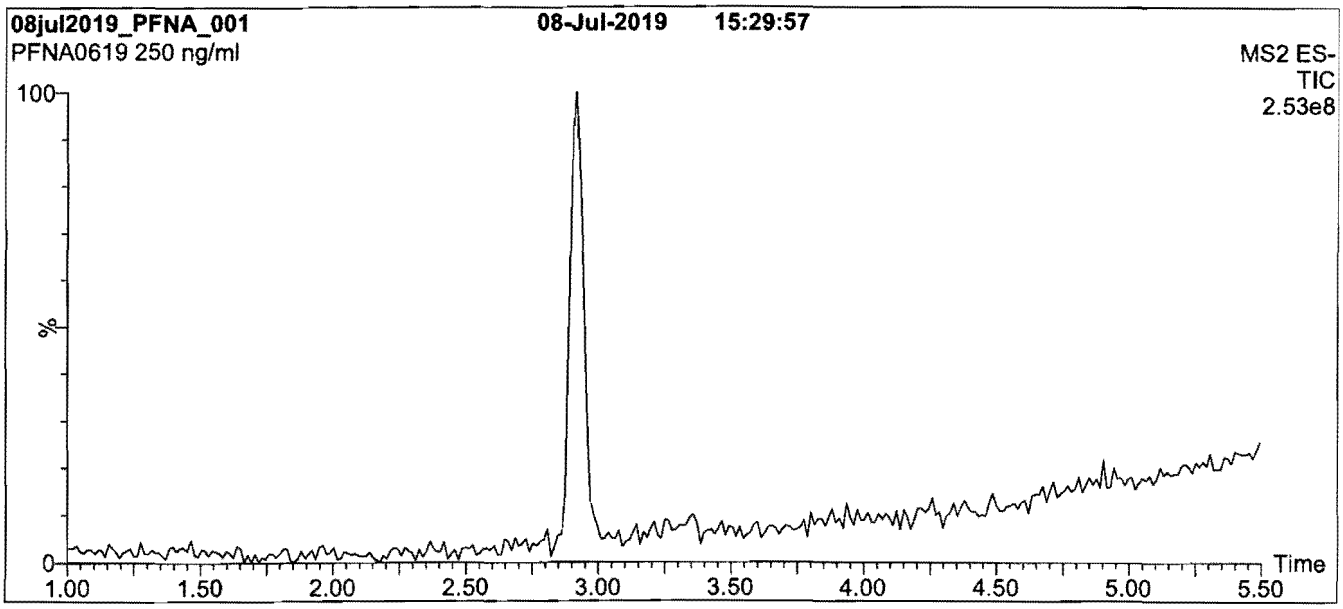
Mobile phase: Same as Figure 1

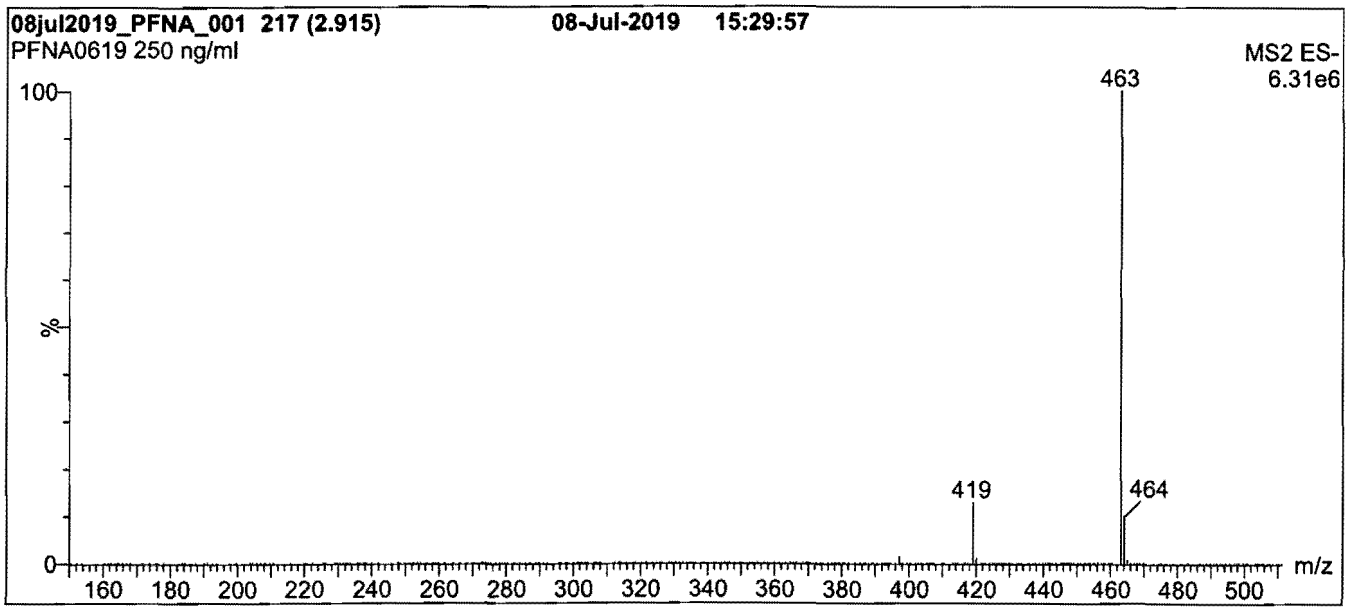
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 10

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0644

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

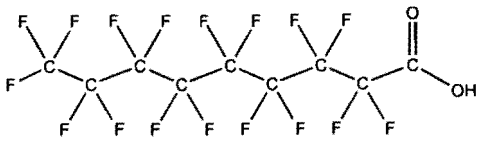
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19L0644

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFNA
LOT NUMBER: PFNA0619
COMPOUND: Perfluoro-n-nonanoic acid
STRUCTURE:
CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$
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).

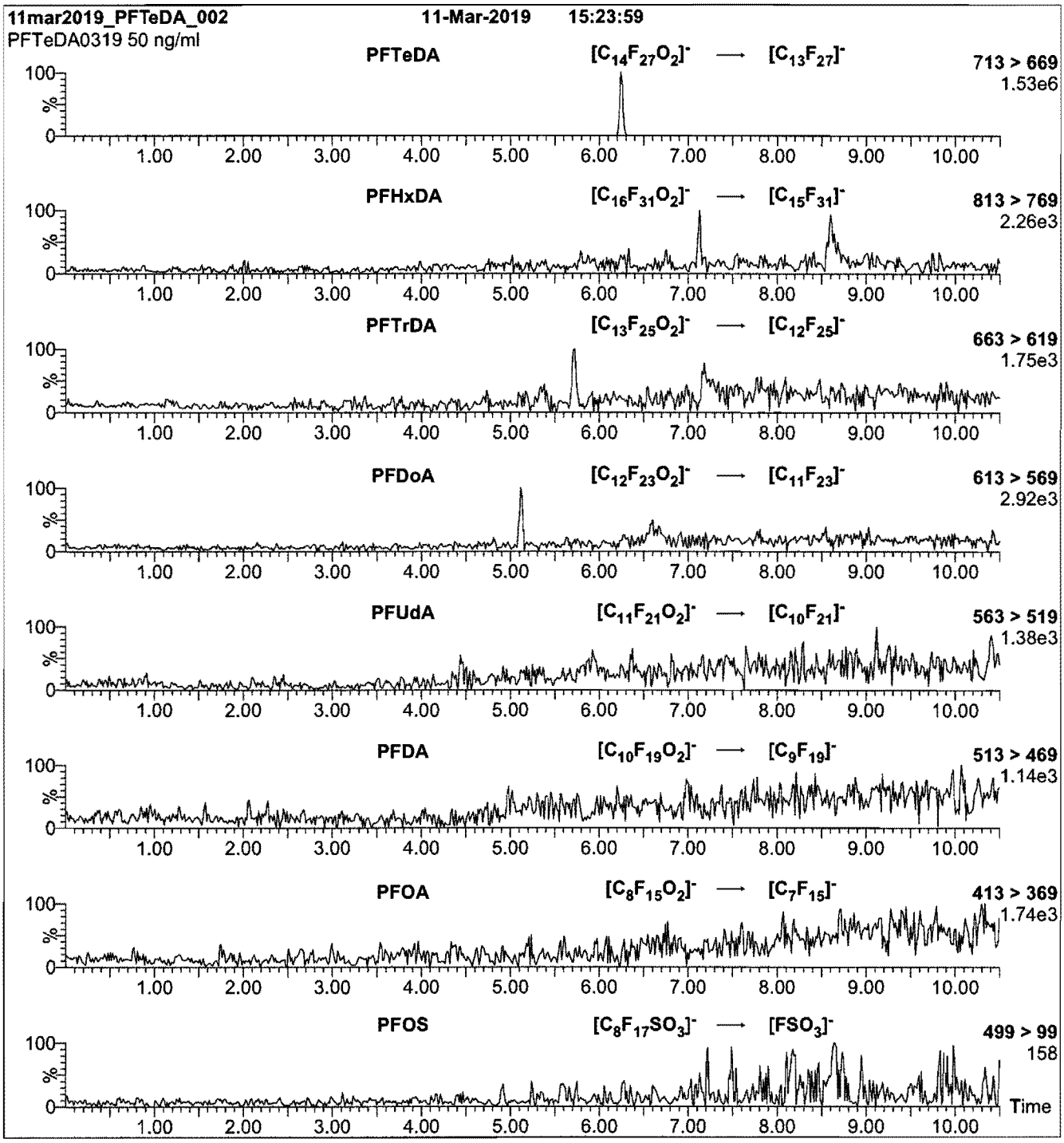
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/11/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1920645

Figure 2: **PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFTeDA)

Mobile phase: Same as Figure 1

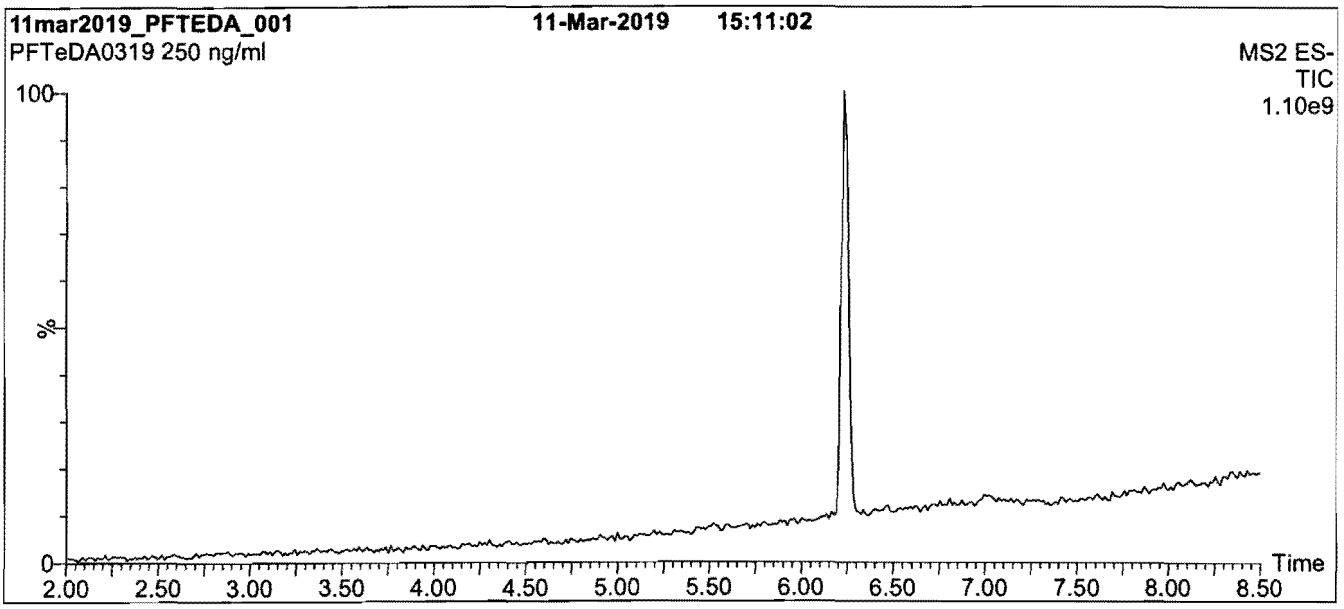
Flow: 300 µl/min

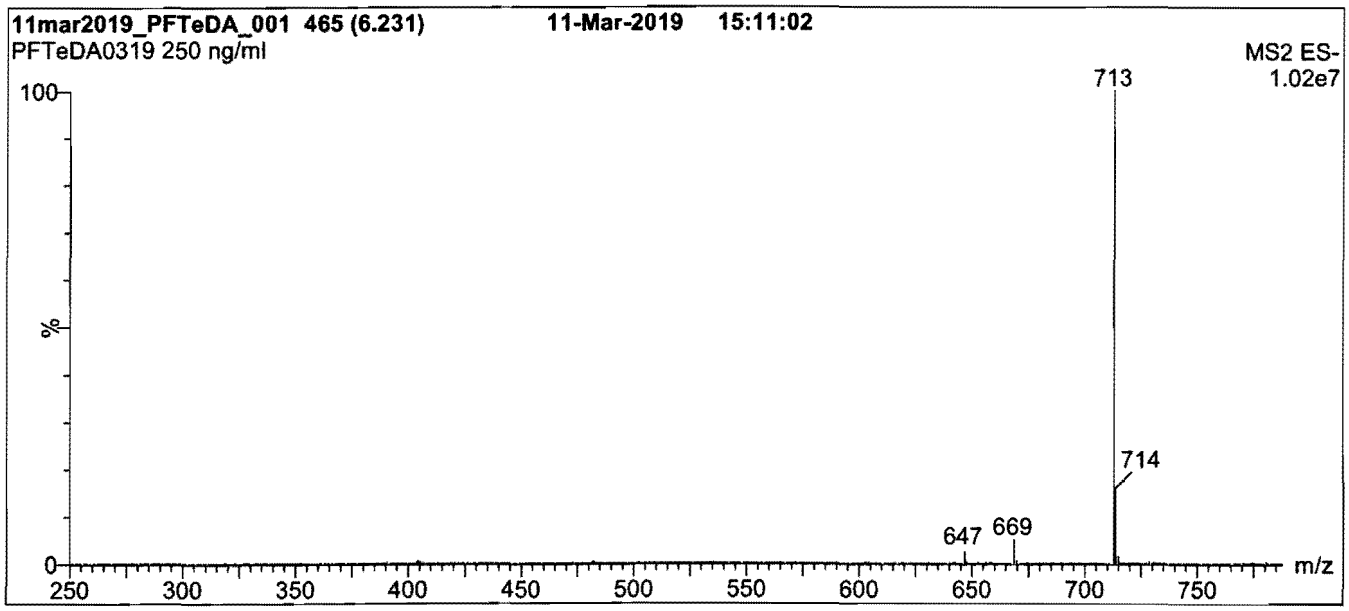
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

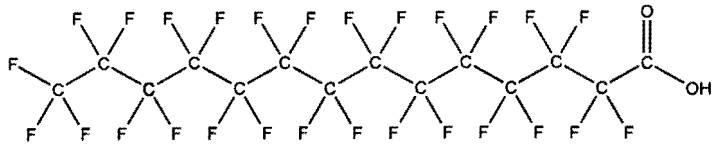
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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 ± 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.
- Contains ~ 0.3% of PFDoA ($C_{12}HF_{23}O_2$), ~ 0.1% of PFTrDA ($C_{13}HF_{25}O_2$), and ~ 0.1% of PFHxDA ($C_{16}HF_{31}O_2$).

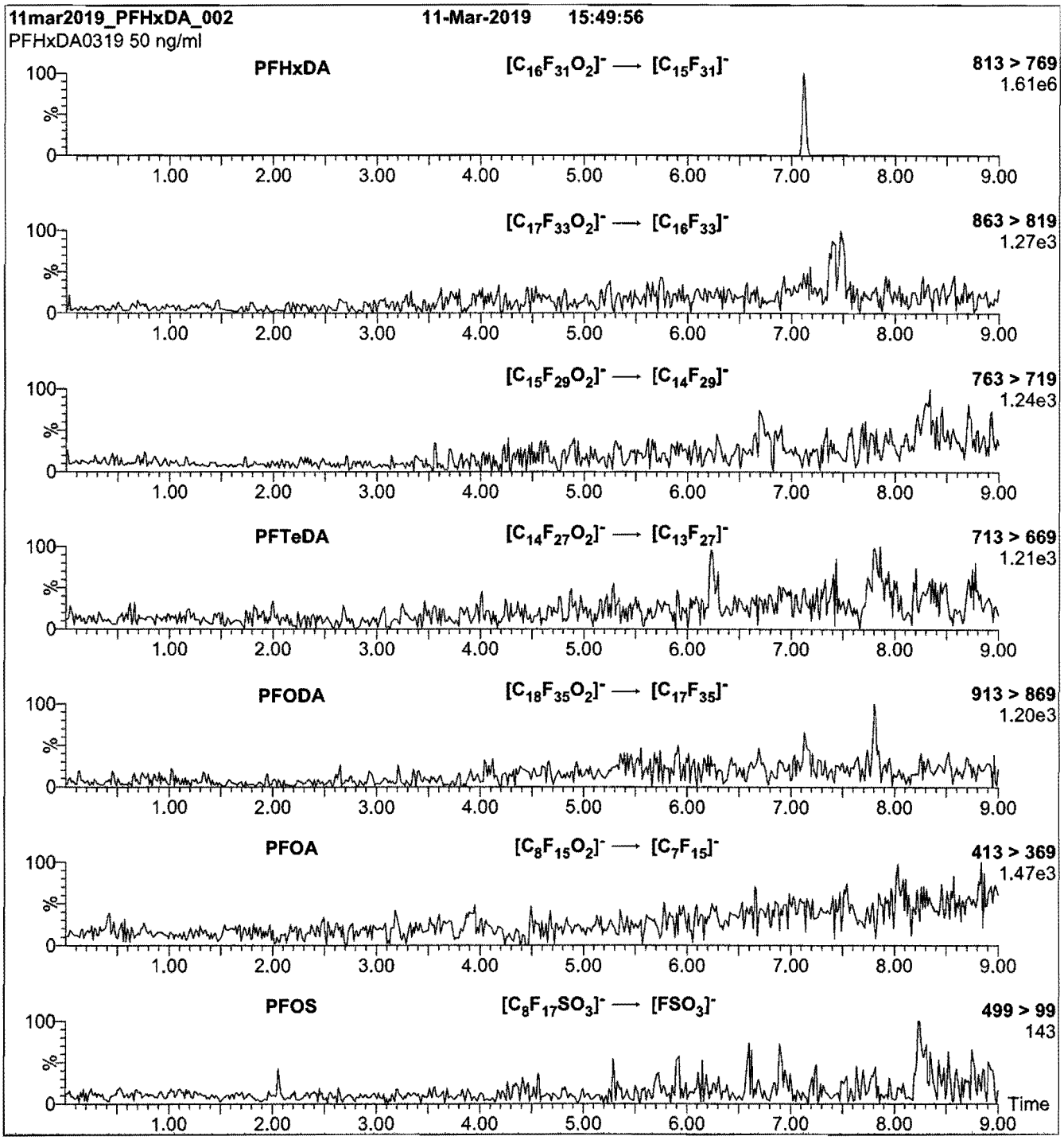
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/28/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

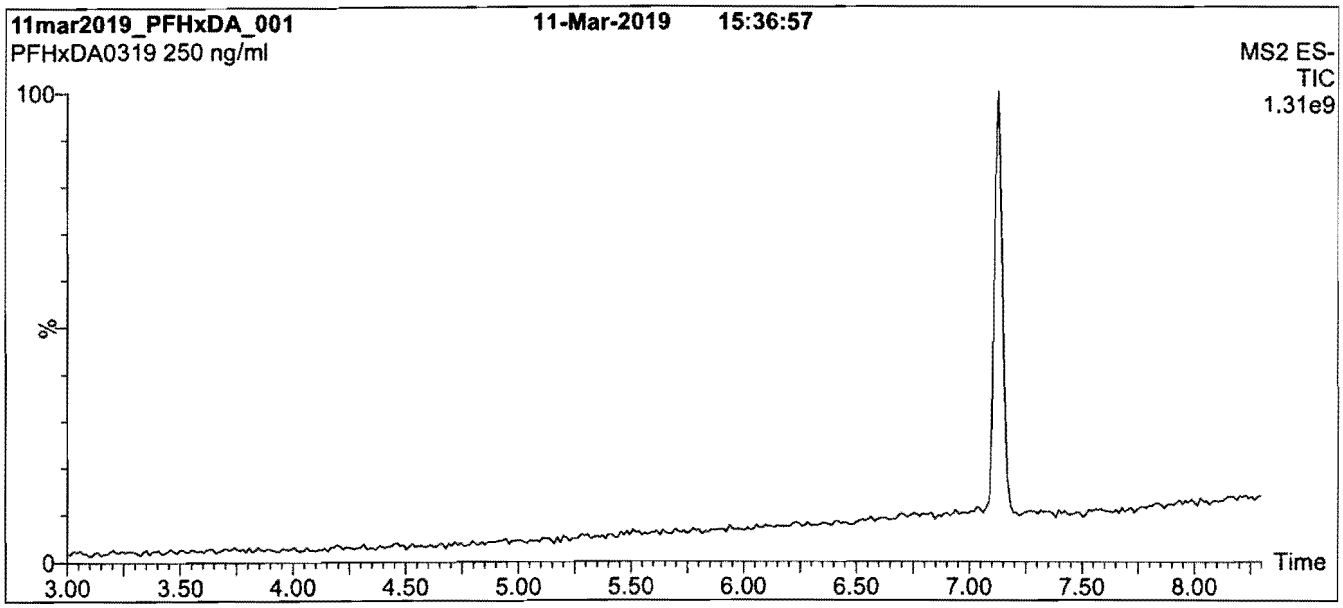
Flow: 300 µl/min

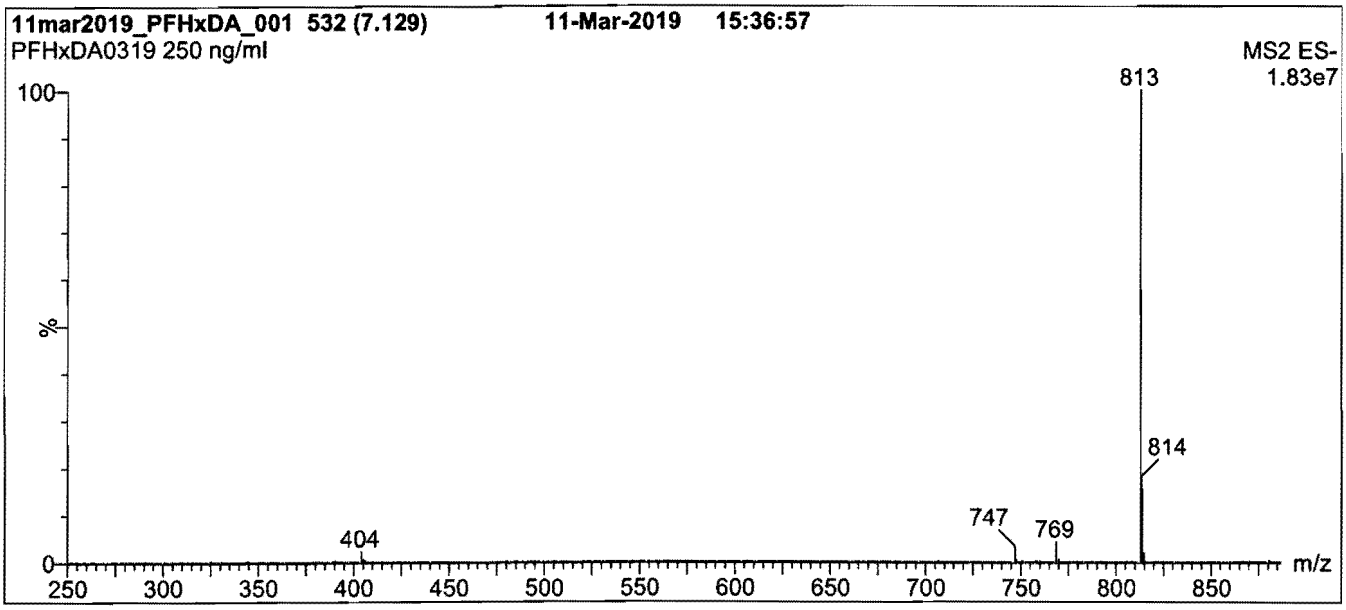
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0646

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SYNTHESIS / CHARACTERIZATION:

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UNCERTAINTY:

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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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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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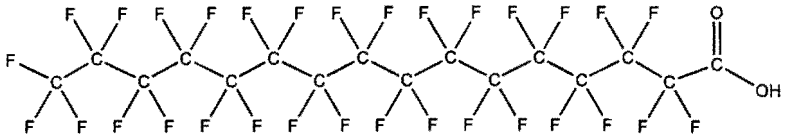
19L0646

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxDA
LOT NUMBER: PFHxDA0319
COMPOUND: Perfluoro-n-hexadecanoic acid

STRUCTURE:
CAS #: 67905-19-5



MOLECULAR FORMULA: $C_{16}HF_{31}O_2$
MOLECULAR WEIGHT: 814.13
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 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.

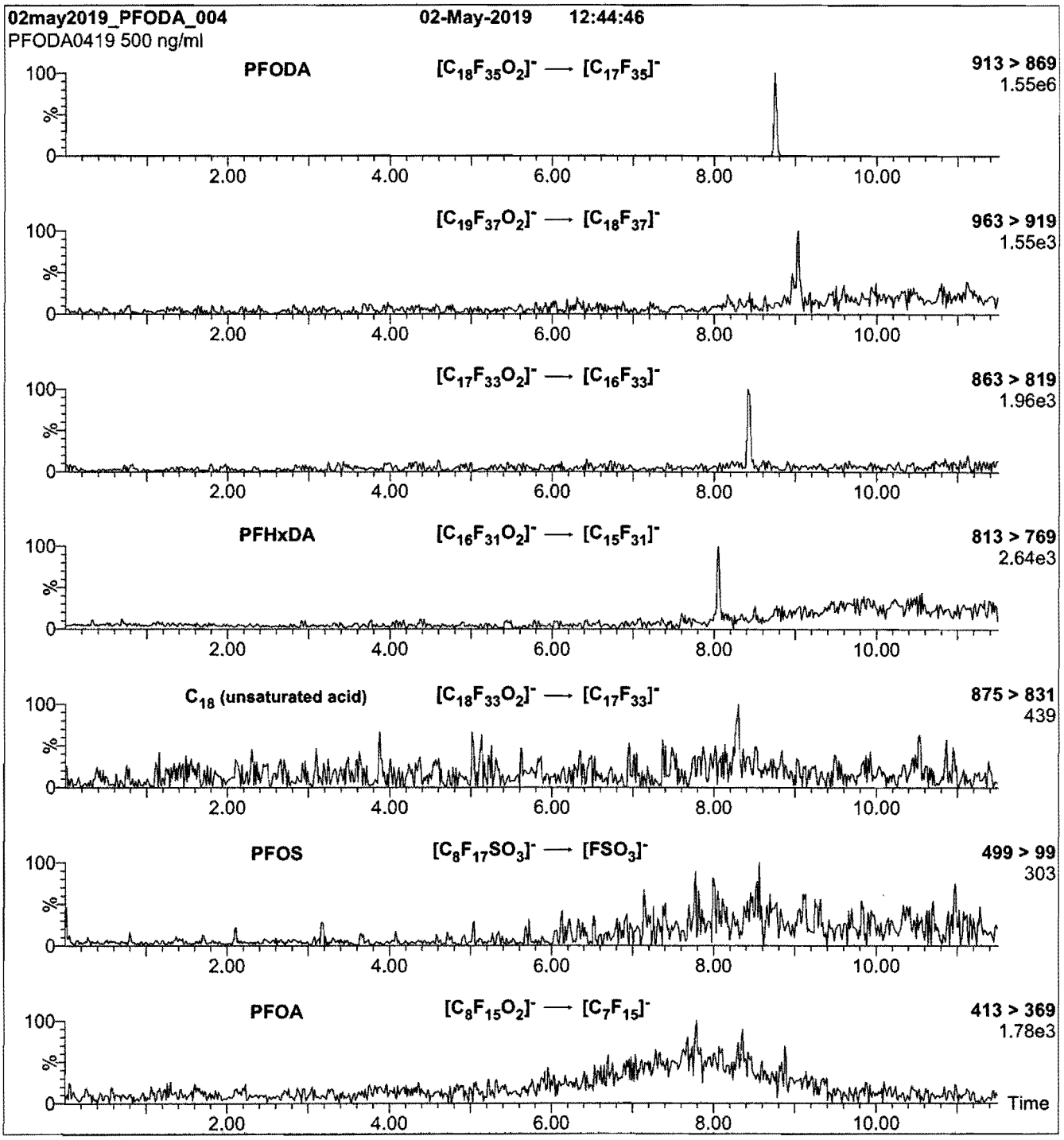
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/28/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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19L0647

Figure 2: **PFODA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFODA)

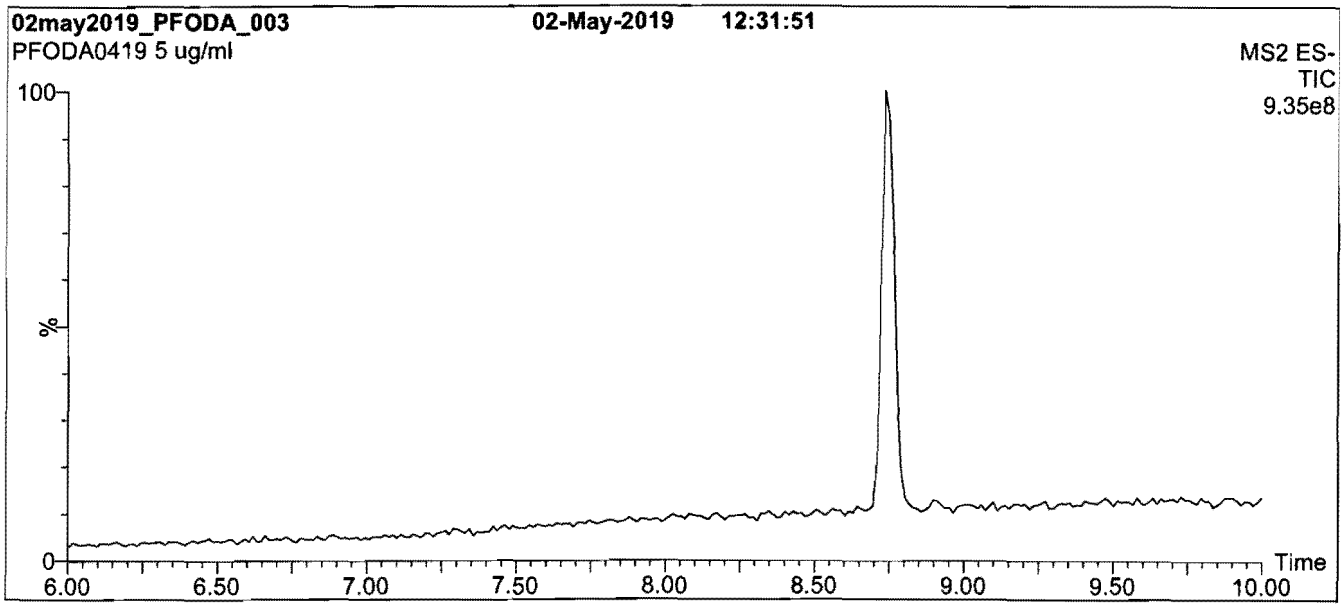
Mobile phase: Same as Figure 1

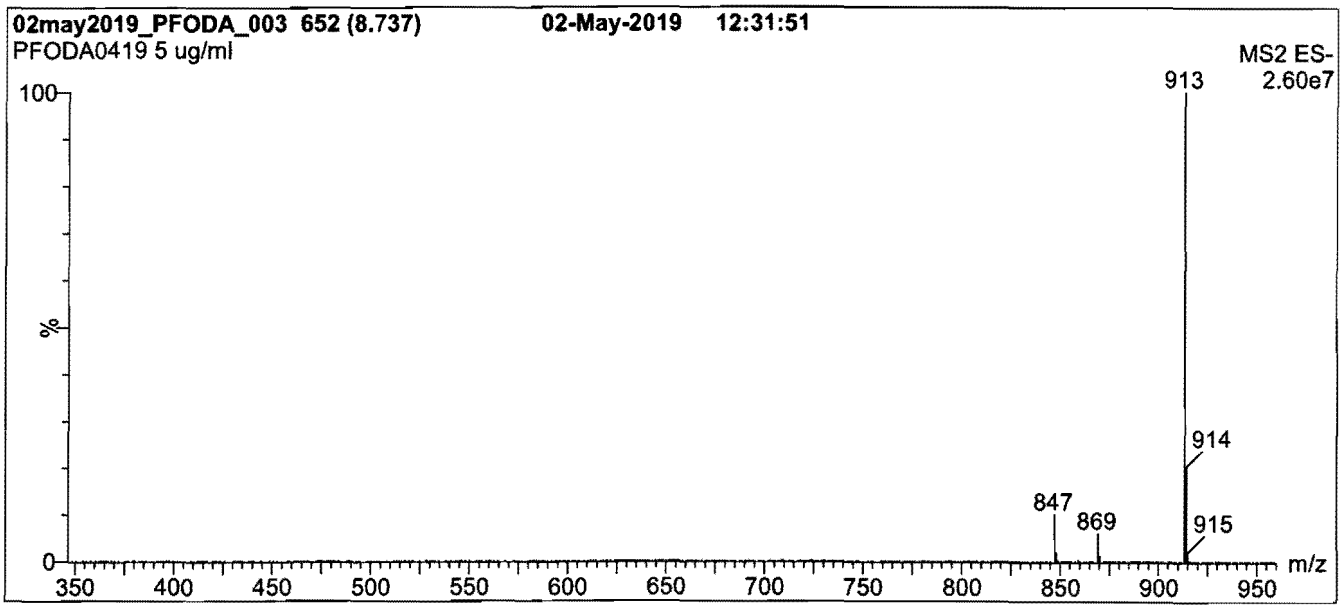
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.92e-3
Collision Energy (eV) = 15

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 µl/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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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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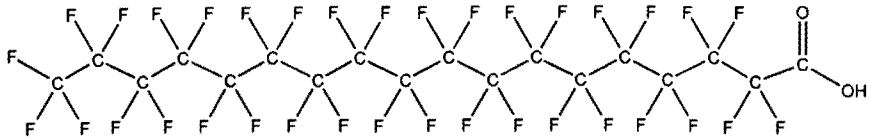
19L0647

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFODA
COMPOUND: Perfluoro-n-octadecanoic acid
LOT NUMBER: PFODA0419

STRUCTURE:
CAS #: 16517-11-6



MOLECULAR FORMULA: $C_{18}HF_{35}O_2$
MOLECULAR WEIGHT: 914.14
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 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 ($C_{17}HF_{33}O_2$)

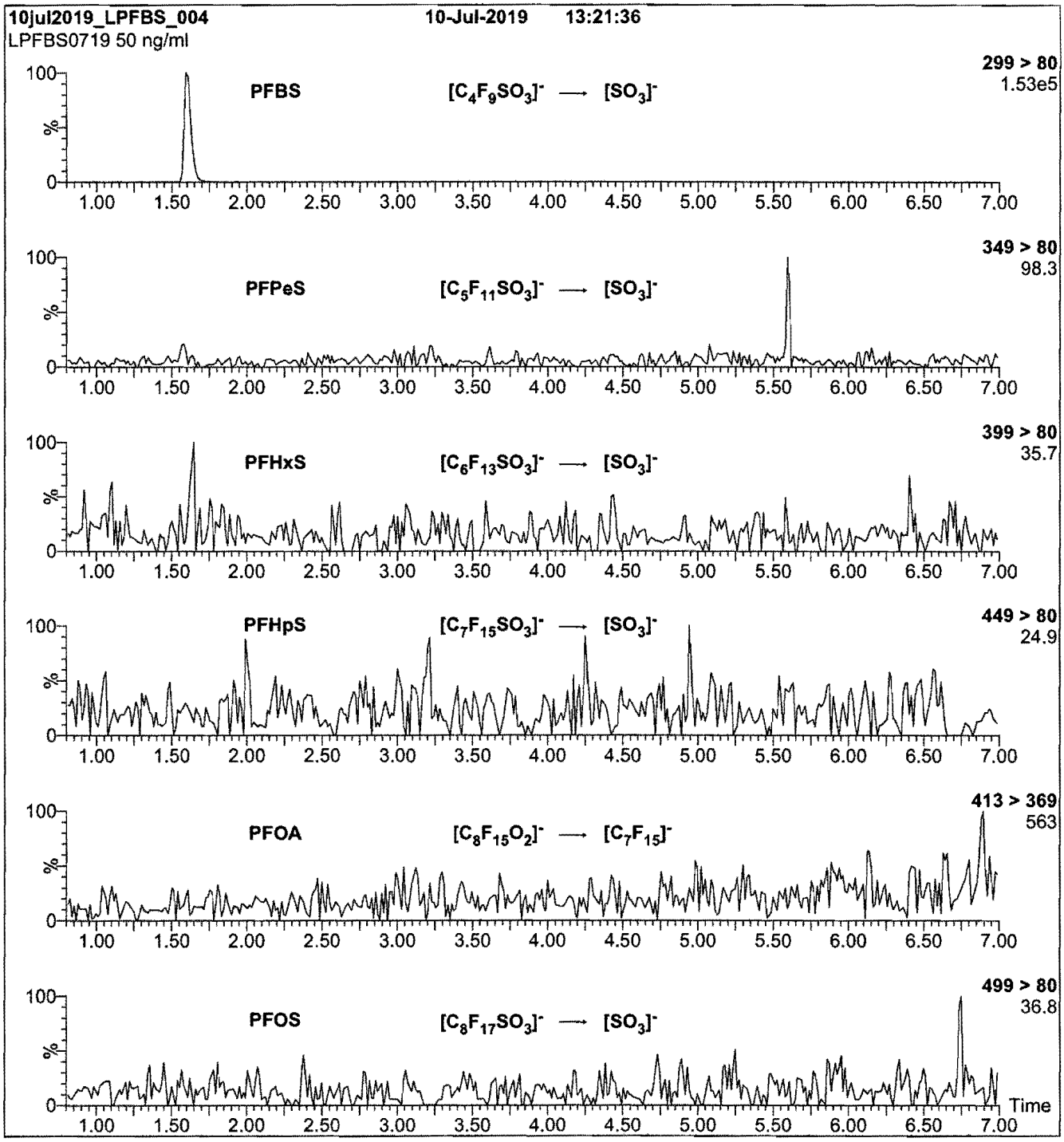
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Certified By: _____ **Date:** 05/16/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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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)

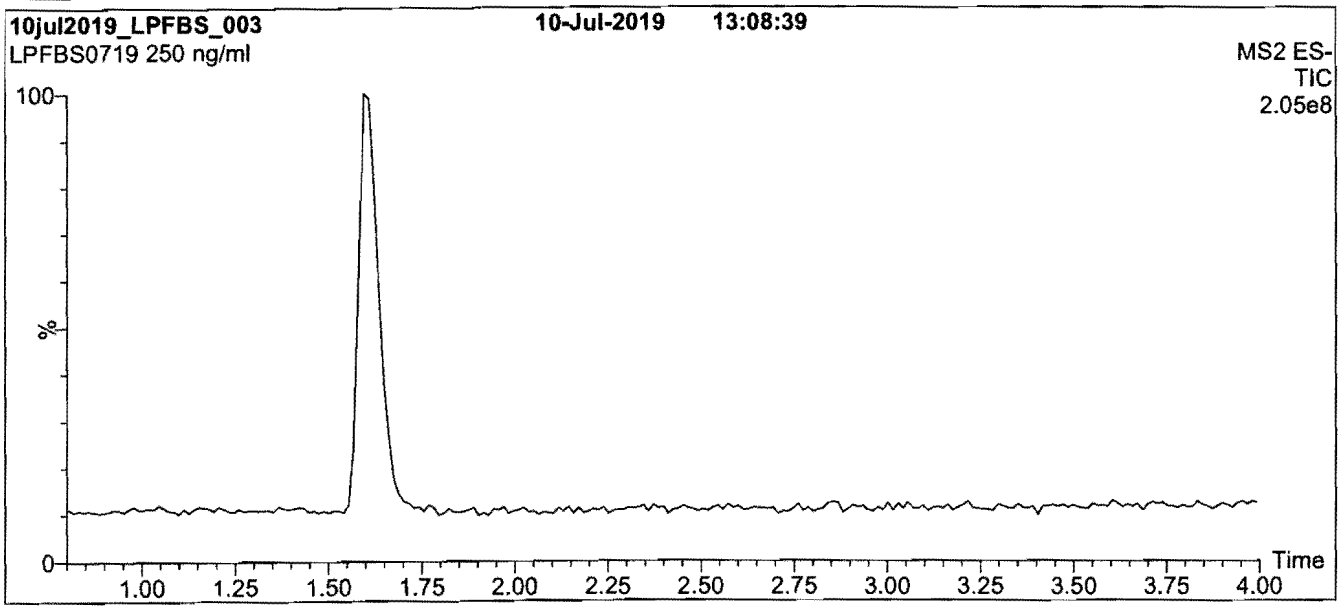
Mobile phase: Same as Figure 1

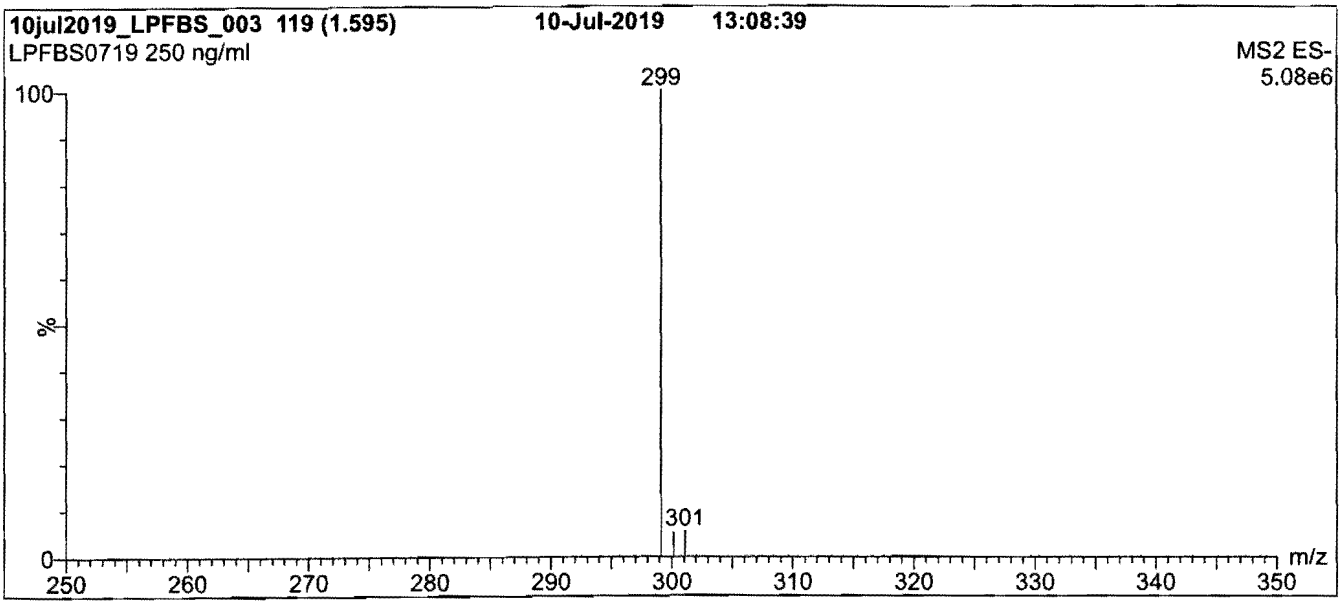
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.25e-3
Collision Energy (eV) = 30

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 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 µl/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:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

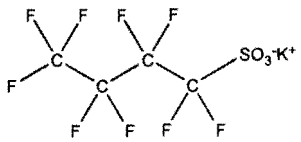
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0648

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	L-PFBS	**LOT NUMBER:**	LPFBS0719
COMPOUND:	Potassium perfluoro-1-butanesulfonate		
STRUCTURE:		**CAS #:**	29420-49-3



MOLECULAR FORMULA:	$C_4F_9SO_3K$	**MOLECULAR WEIGHT:**	338.19
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt) 44.2 ± 2.2 µg/ml (PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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:

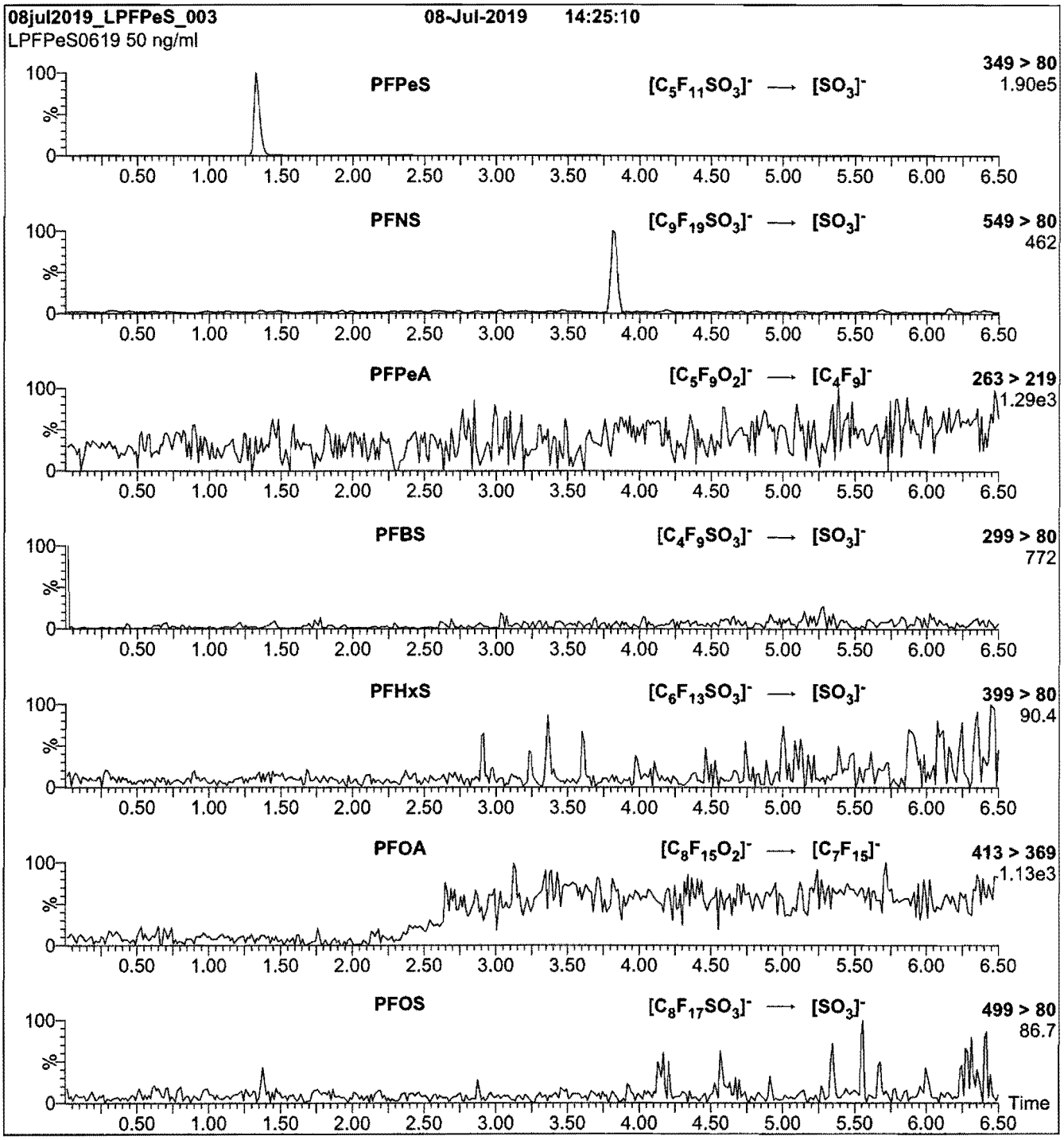
- See page 2 for further details.
- Contains ~ 0.2% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/06/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

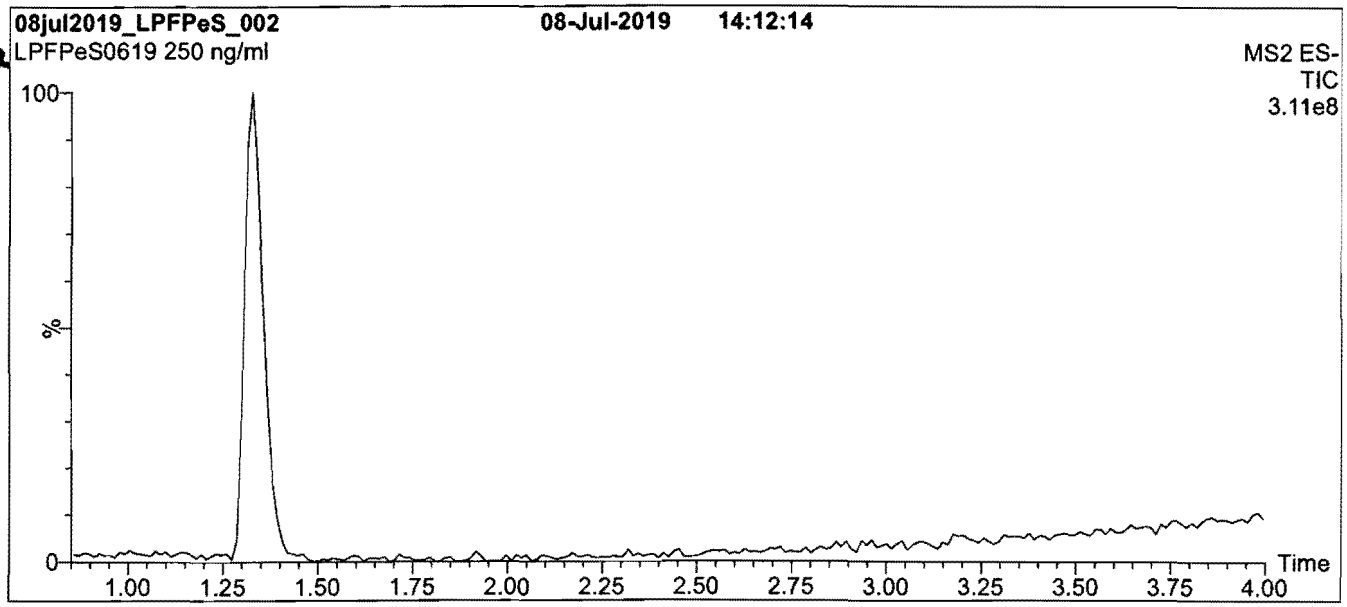
Flow: 300 µl/min

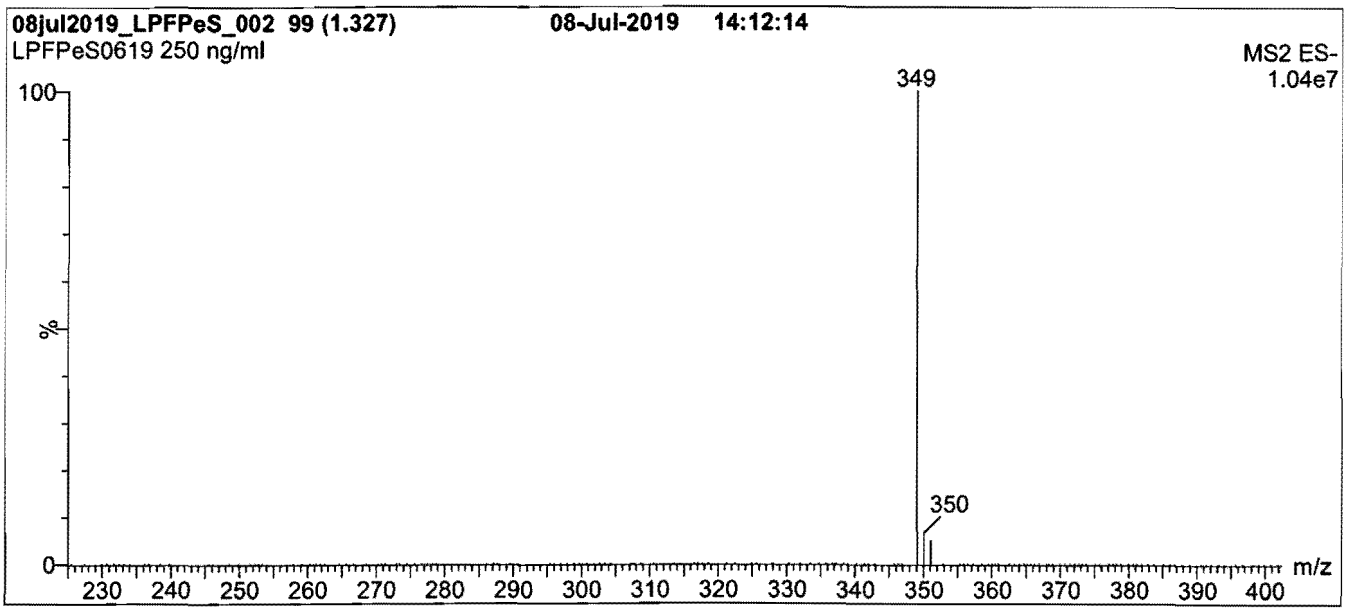
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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:

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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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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

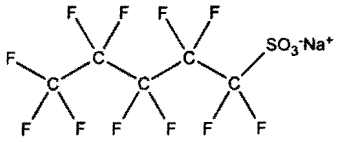
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19L0619

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:	$C_5F_{11}SO_3Na$	**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:

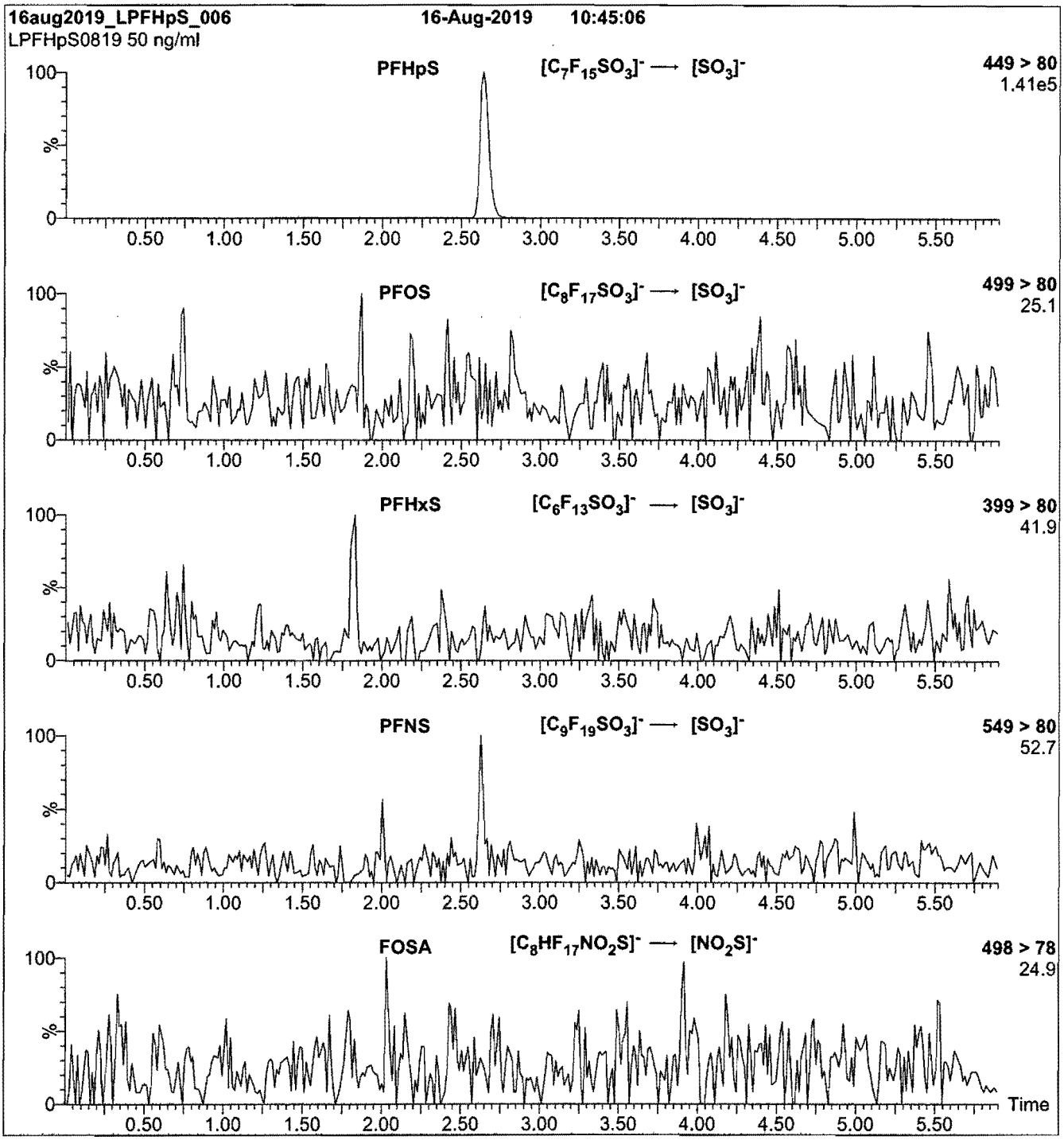
- See page 2 for further details.
- Contains ~ 0.3% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/11/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **L-PFHpS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

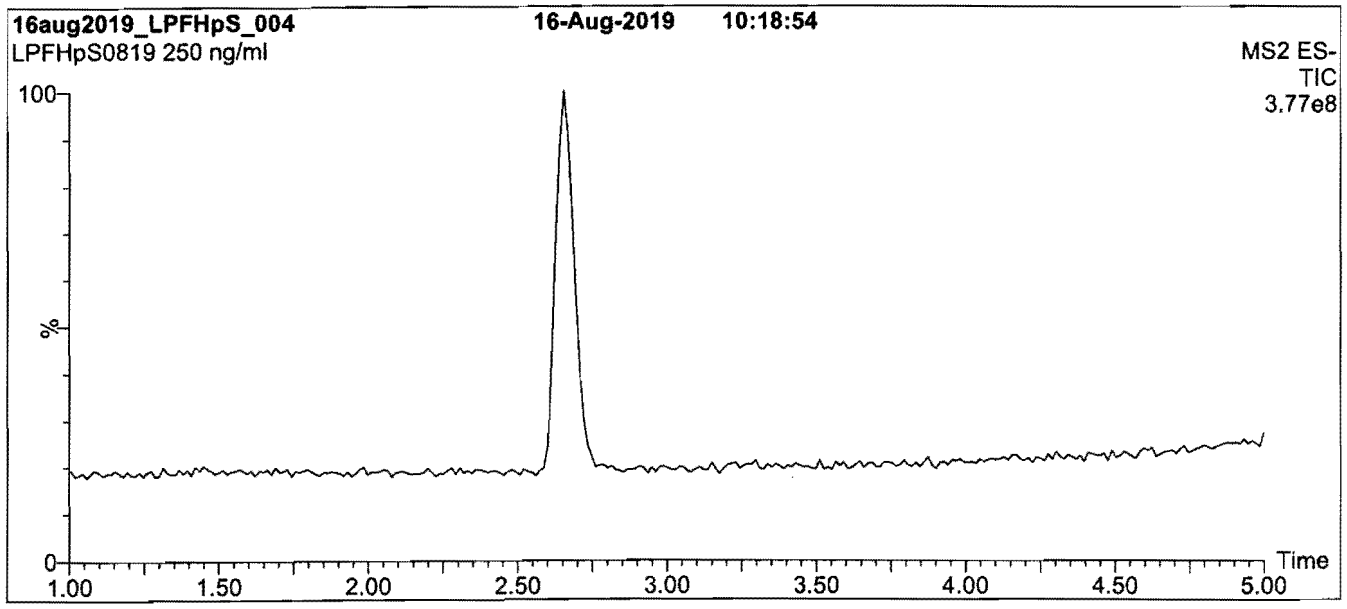
Injection: On-column (L-PFHpS)

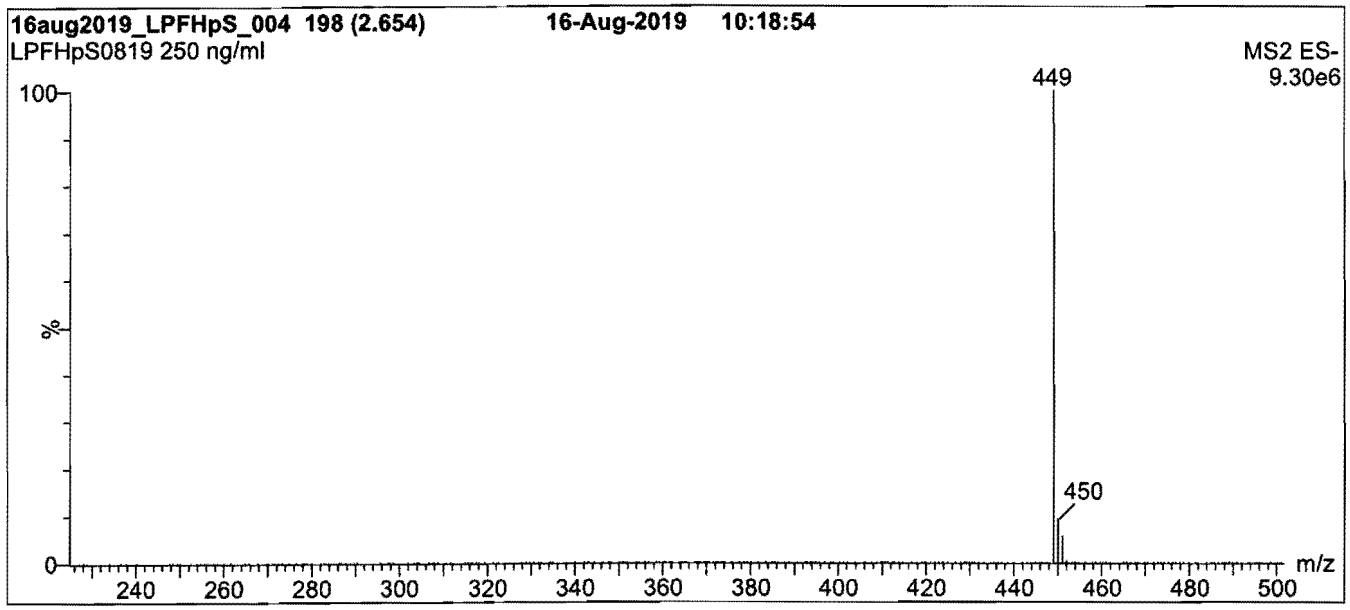
Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters
Collision Gas (mbar) = 3.61e-3
Collision Energy (eV) = 42

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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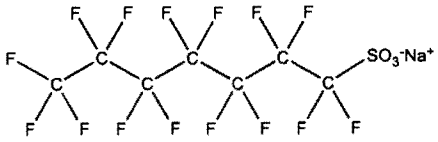
19L0650

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS
COMPOUND: Sodium perfluoro-1-heptanesulfonate
LOT NUMBER: LPFHpS0819

STRUCTURE:
CAS #: 21934-50-9



MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$	**MOLECULAR WEIGHT:**	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.6 ± 2.4 µg/ml (PFHpS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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:

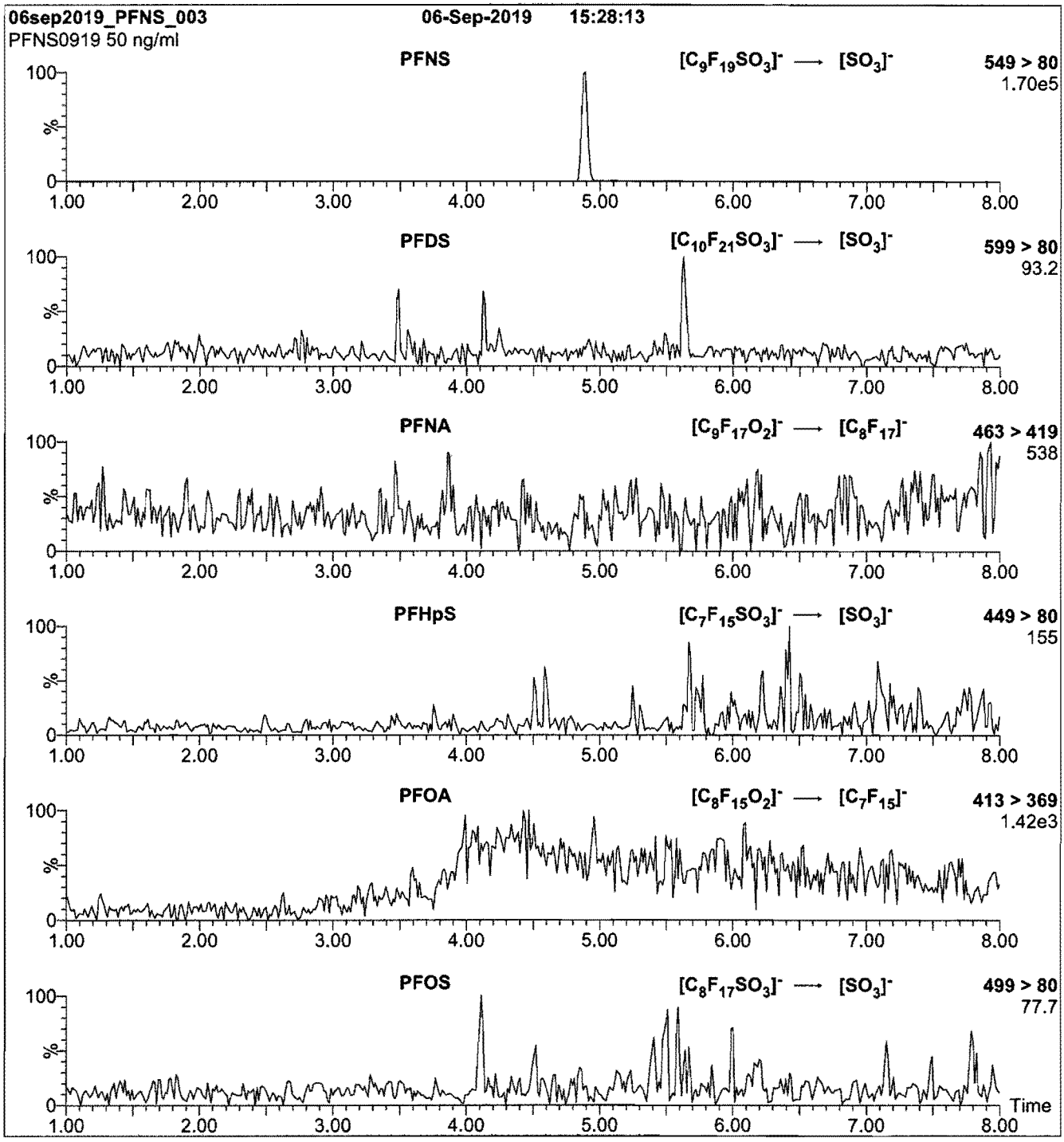
- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/29/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **L-PFNS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (L-PFNS)

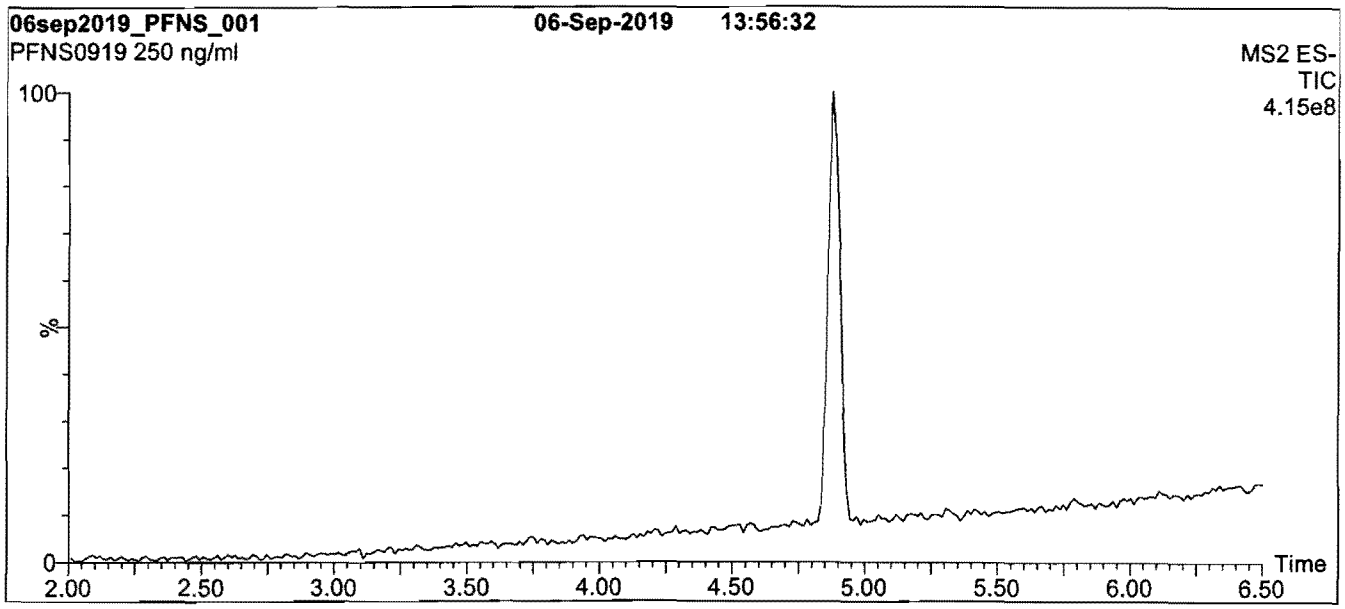
Mobile phase: Same as Figure 1

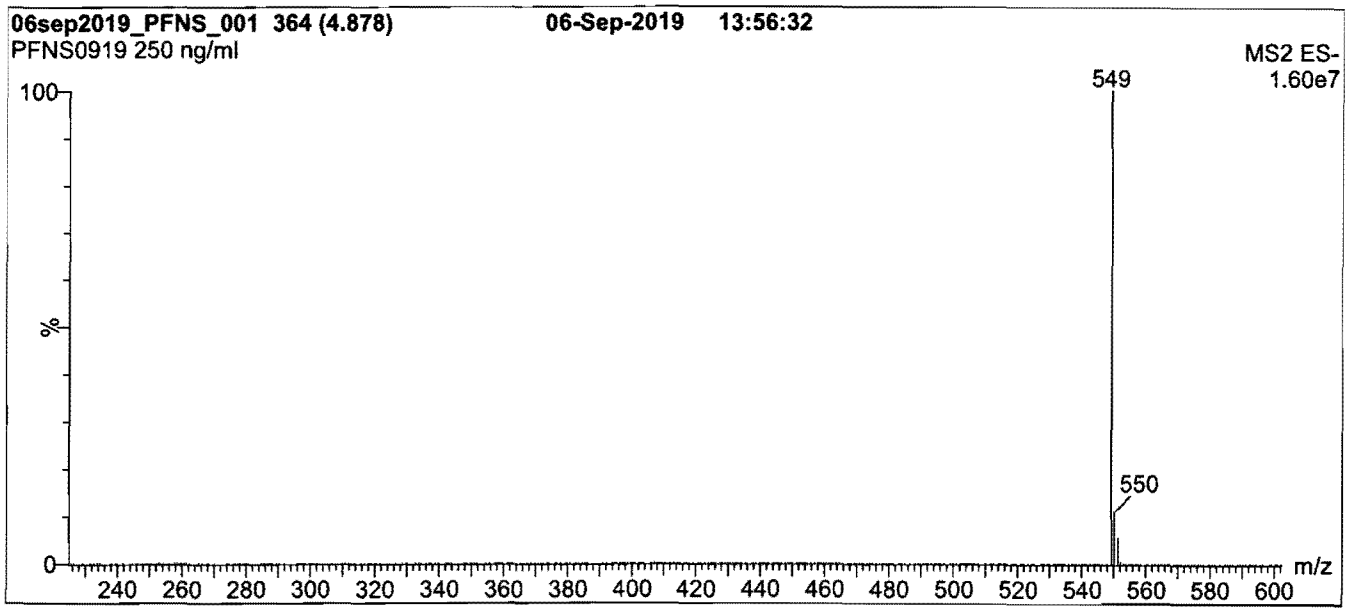
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.49e-3
Collision Energy (eV) = 64

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
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Desolvation Temperature (°C) = 500
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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

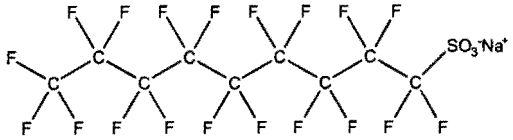
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1910651

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:	$C_9F_{19}SO_3Na$	**MOLECULAR WEIGHT:**	572.12
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.0 ± 2.4 µg/ml (PFNS anion)	**SOLVENT(S):**	Methanol
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.

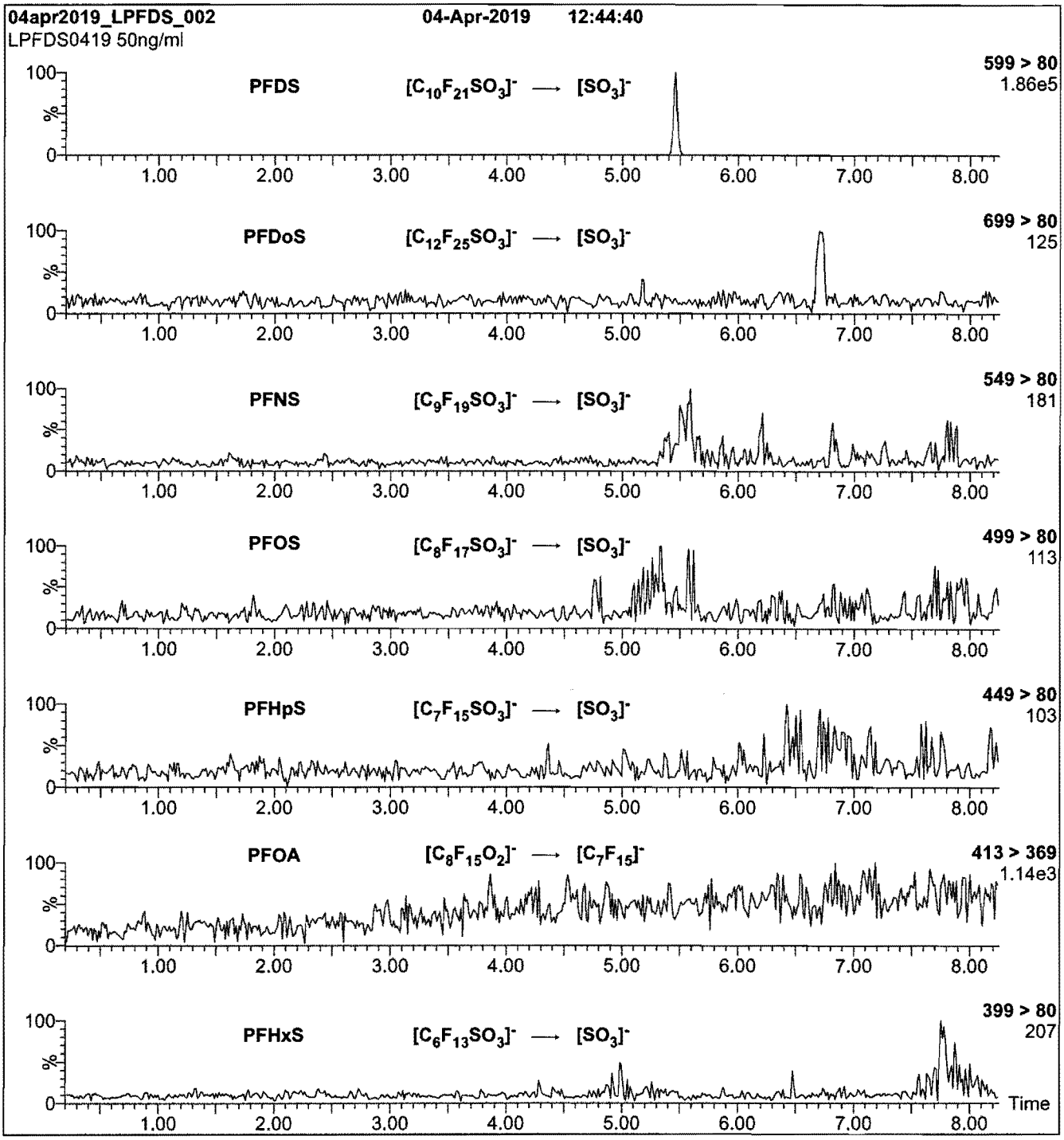
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/09/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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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

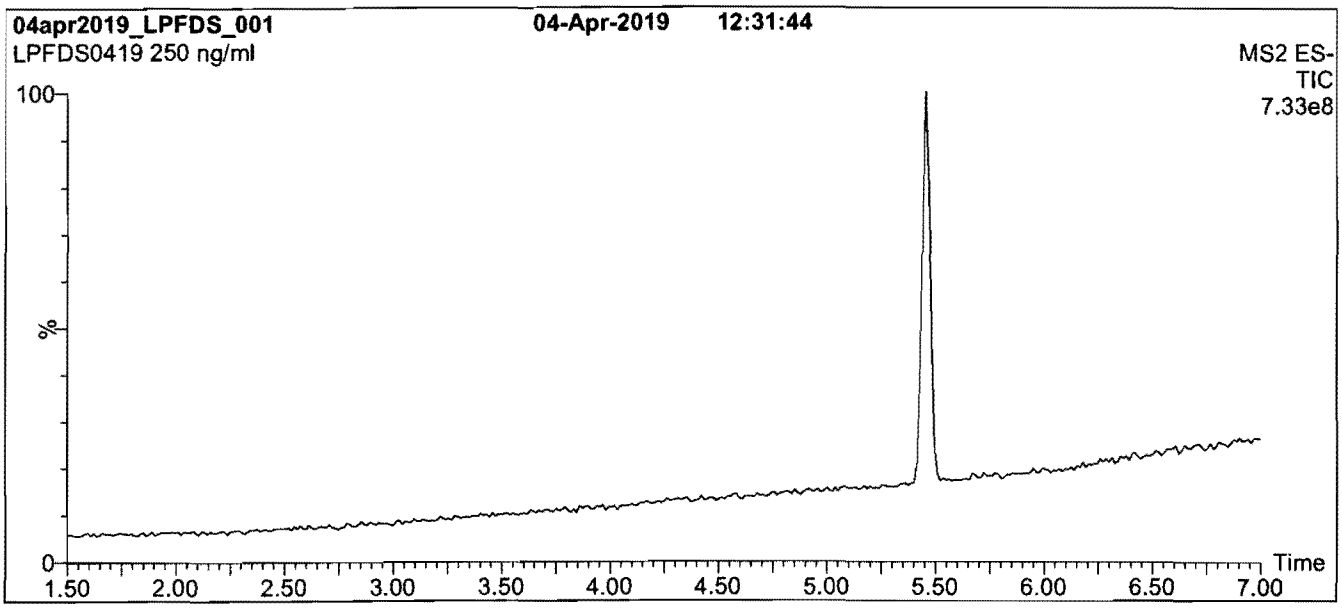
Flow: 300 µl/min

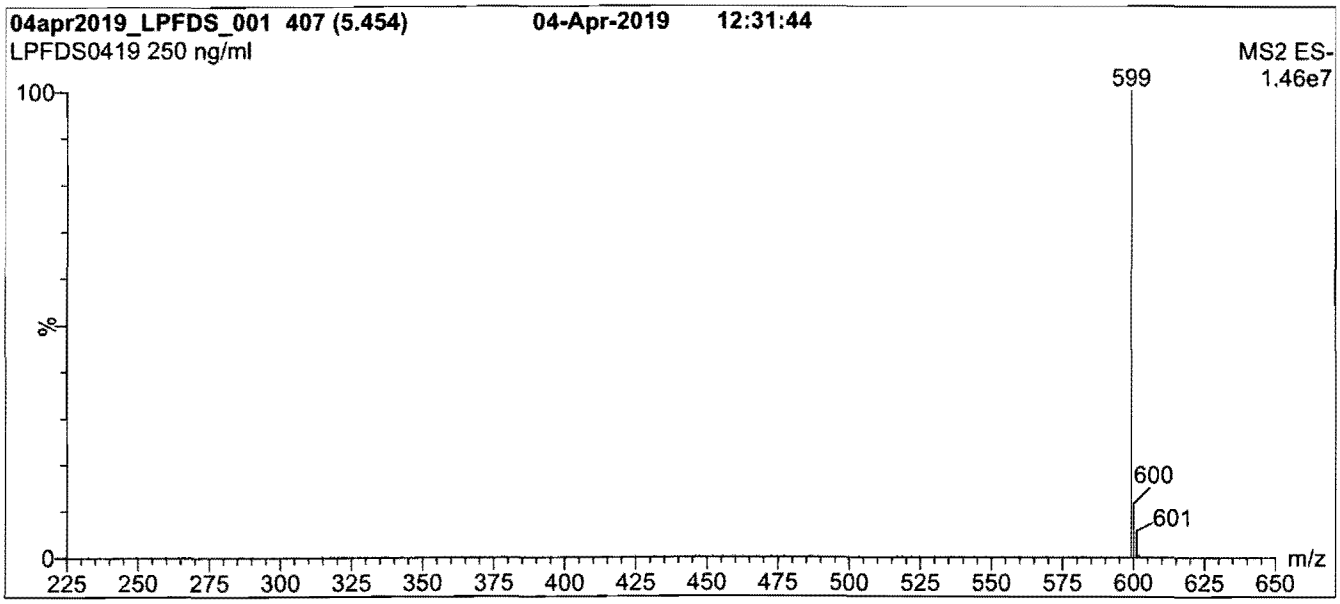
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

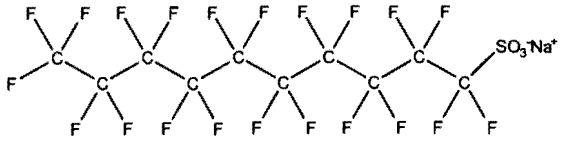
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19L0652

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:	$C_{10}F_{21}SO_3Na$	**MOLECULAR WEIGHT:**	622.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.2 ± 2.4 µg/ml (PFDS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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:

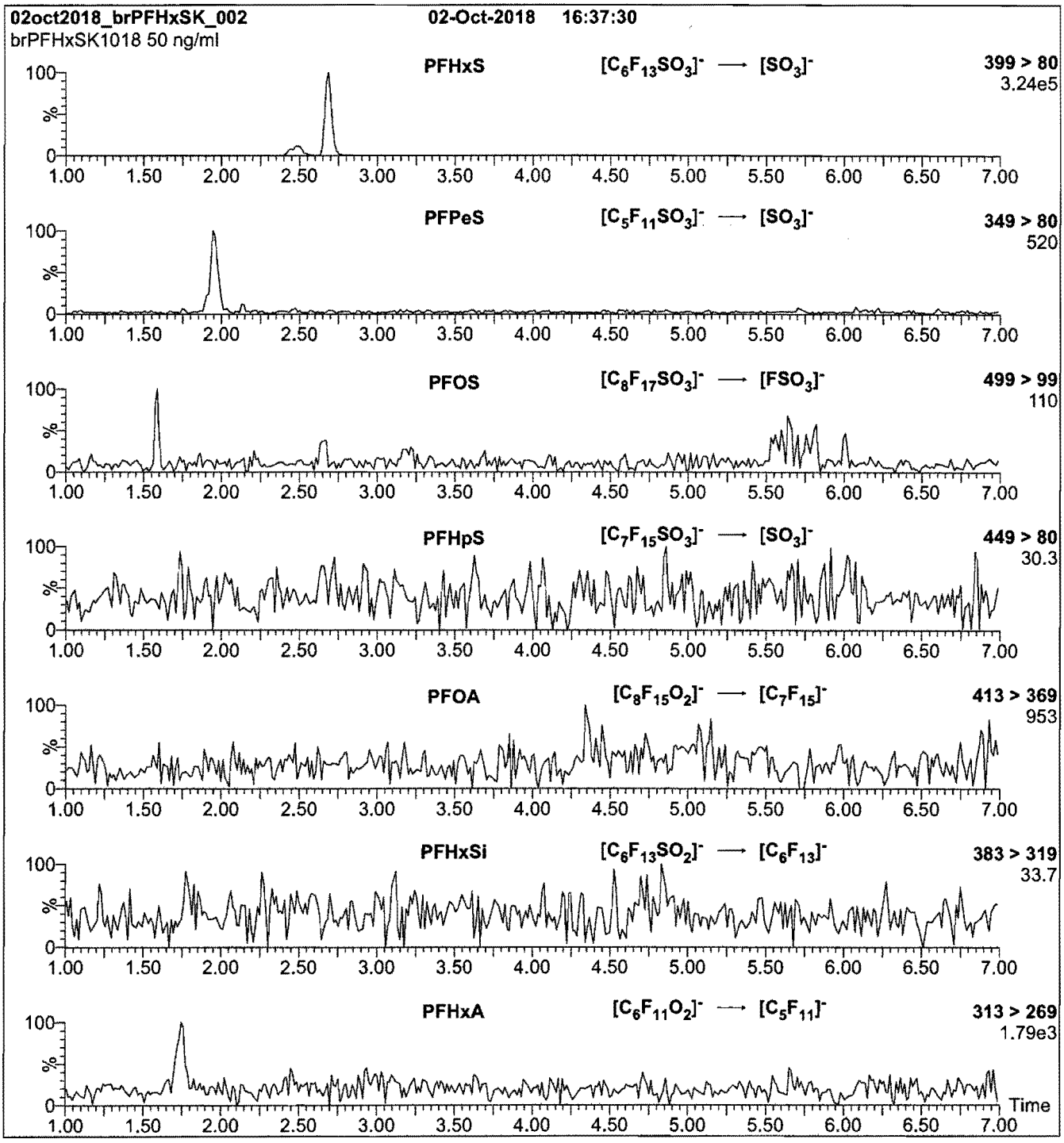
- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/30/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

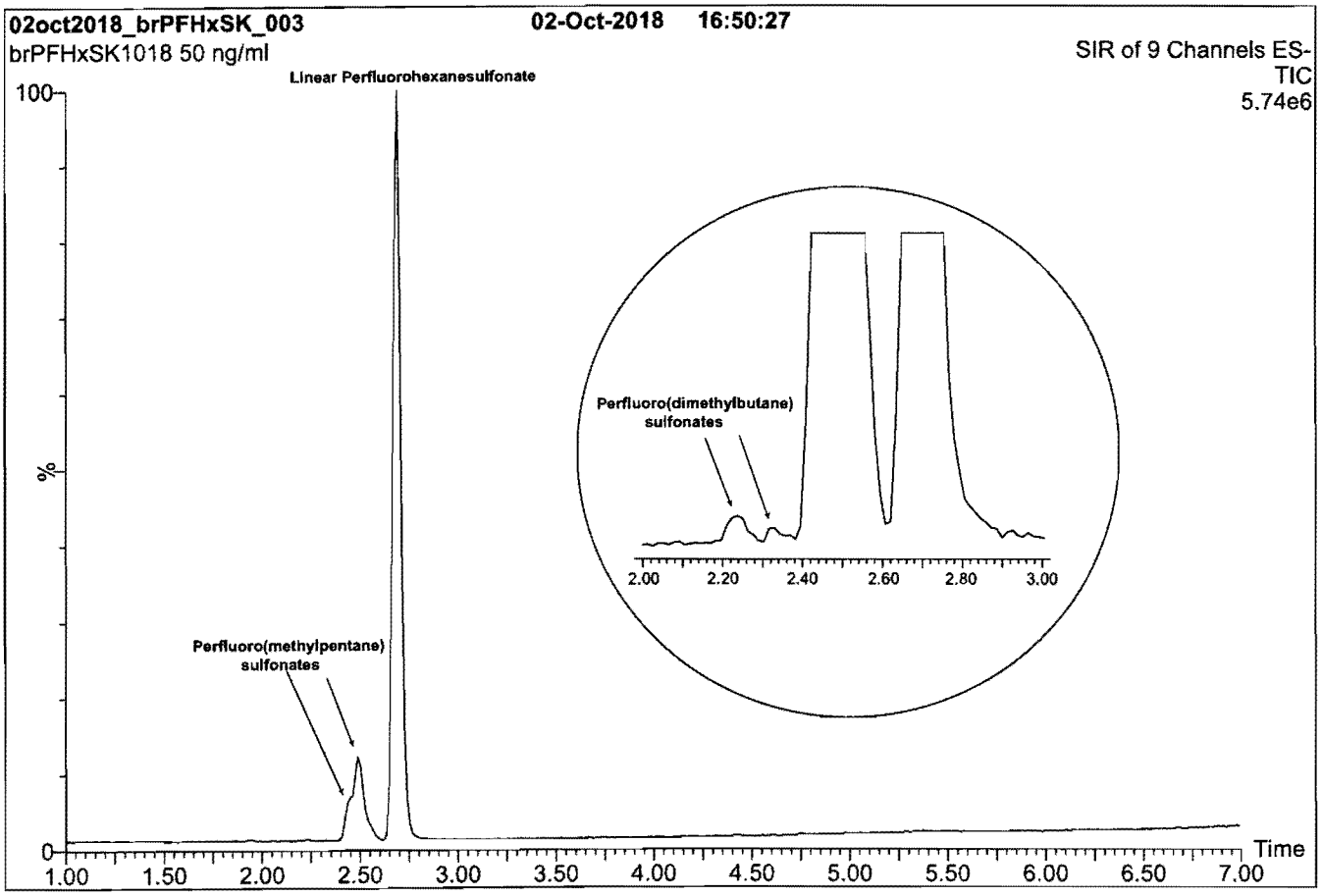
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.87e-3
Collision Energy (eV) = 42

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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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min. Hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

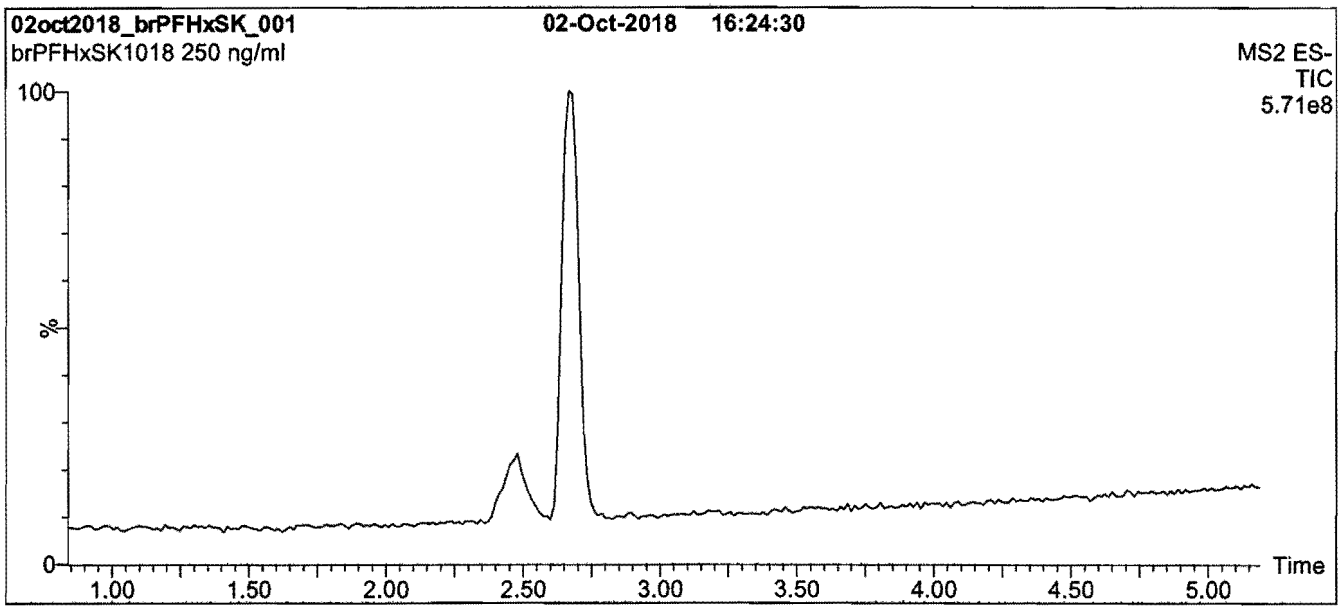
MS Parameters

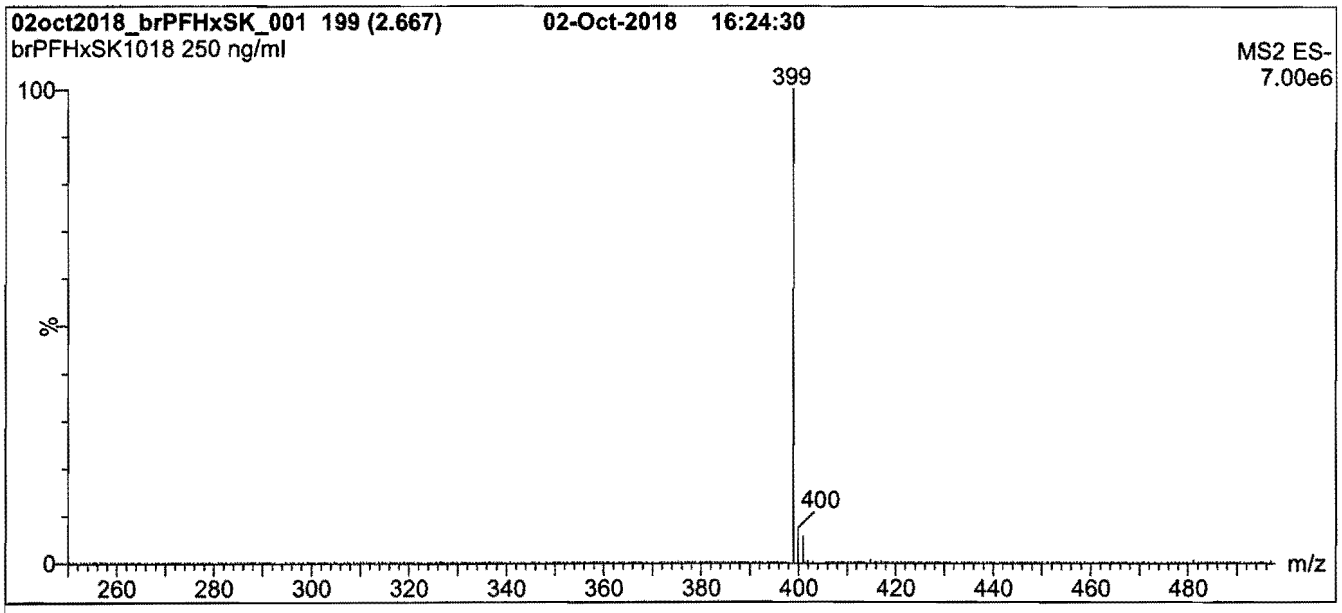
Experiment: SIR (9 channels)

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min. Hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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 ^{19}F-NMR)***

Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)_2CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: _____ **Date:** 10/05/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0653

WELLINGTON LABORATORIES

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 ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

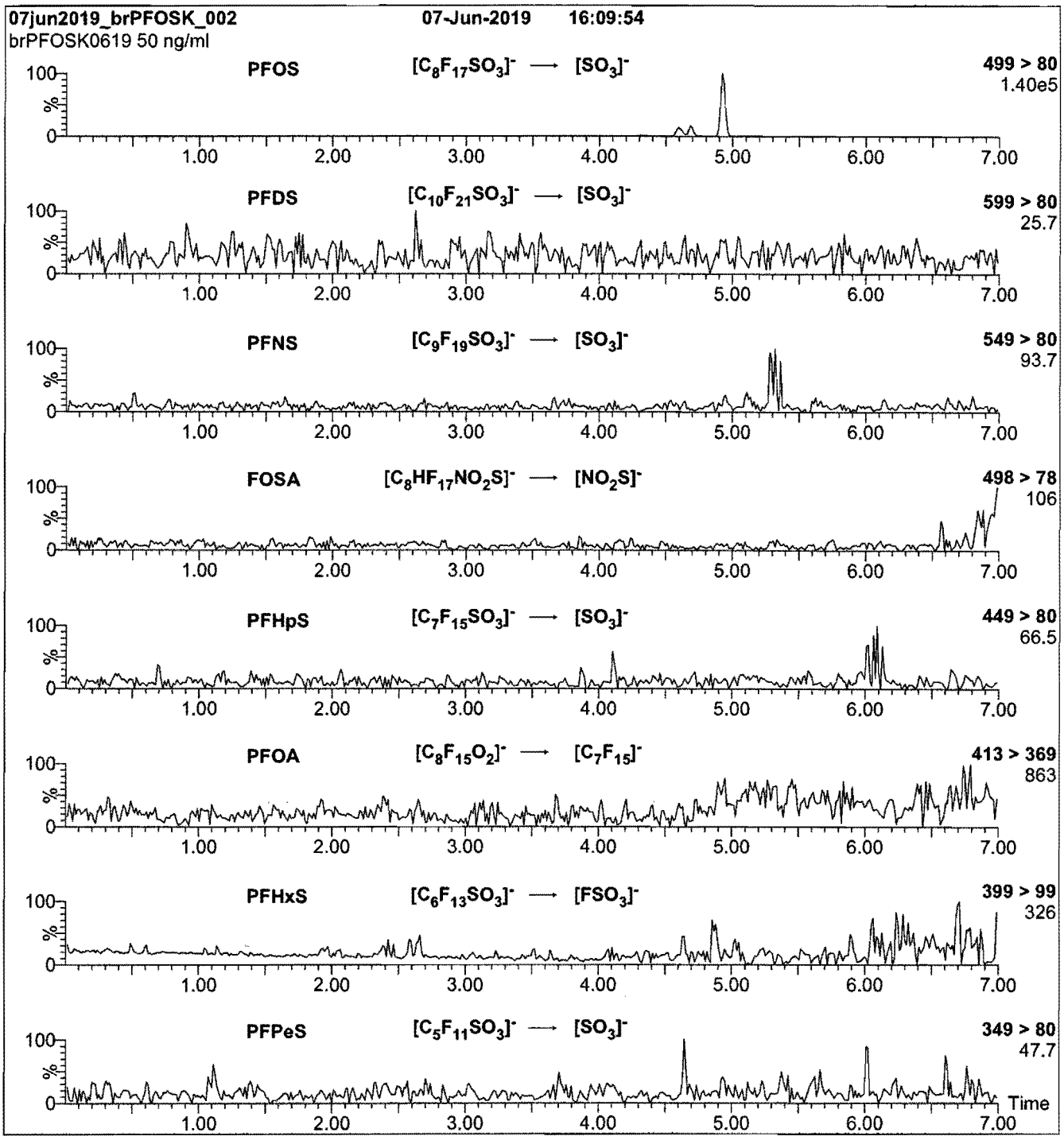
- See page 2 for further details.
- Contains ~ 0.3% of perfluoro-n-hexanoic acid and ~ 0.15% of perfluoro-1-pentanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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Figure 3: **br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column (br-PFOSK)

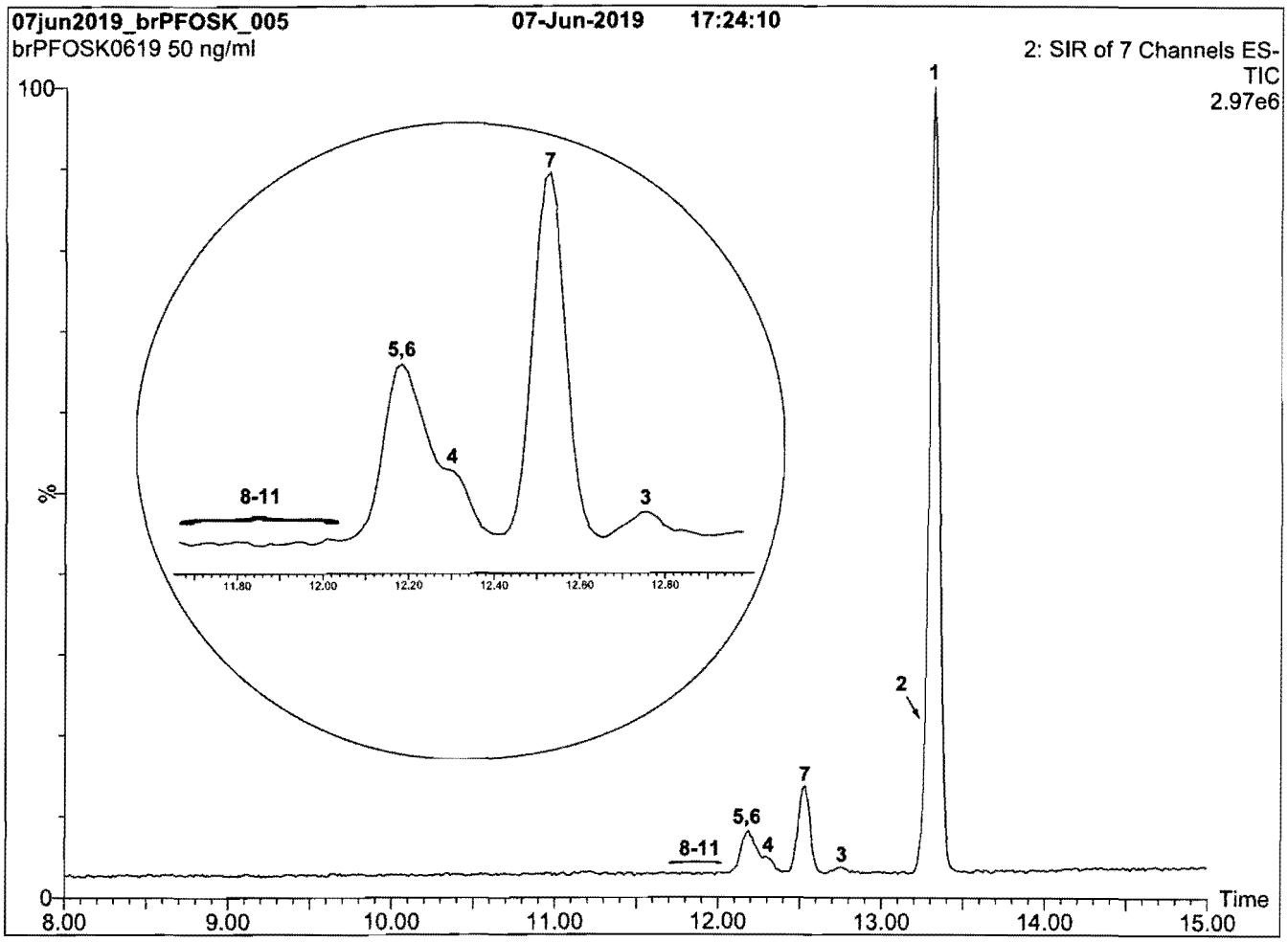
Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 64

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 RP_{18} (1.7 µm, 2.1 x 100 mm)

Injection: 50 ng/ml of br-PFOSK

Mobile Phase: Gradient
50% (80:20 MeOH:ACN) / 50% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min.
Return to initial conditions over 0.75 min.
Time: 12 min

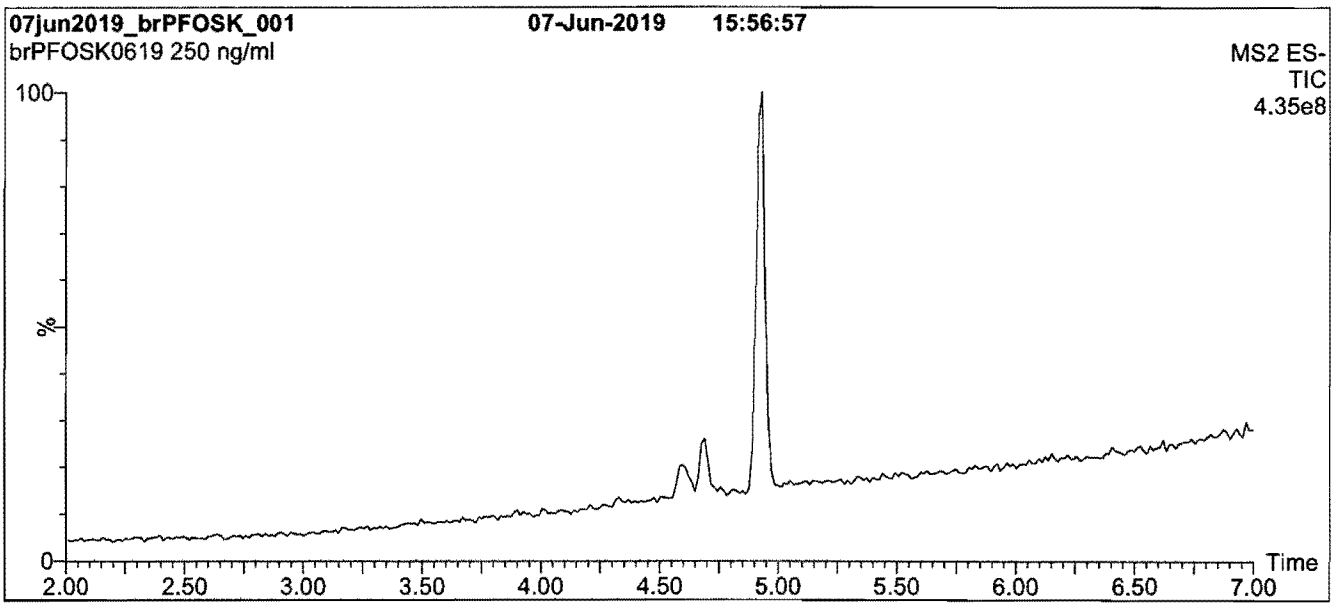
Flow: 300 µl/min

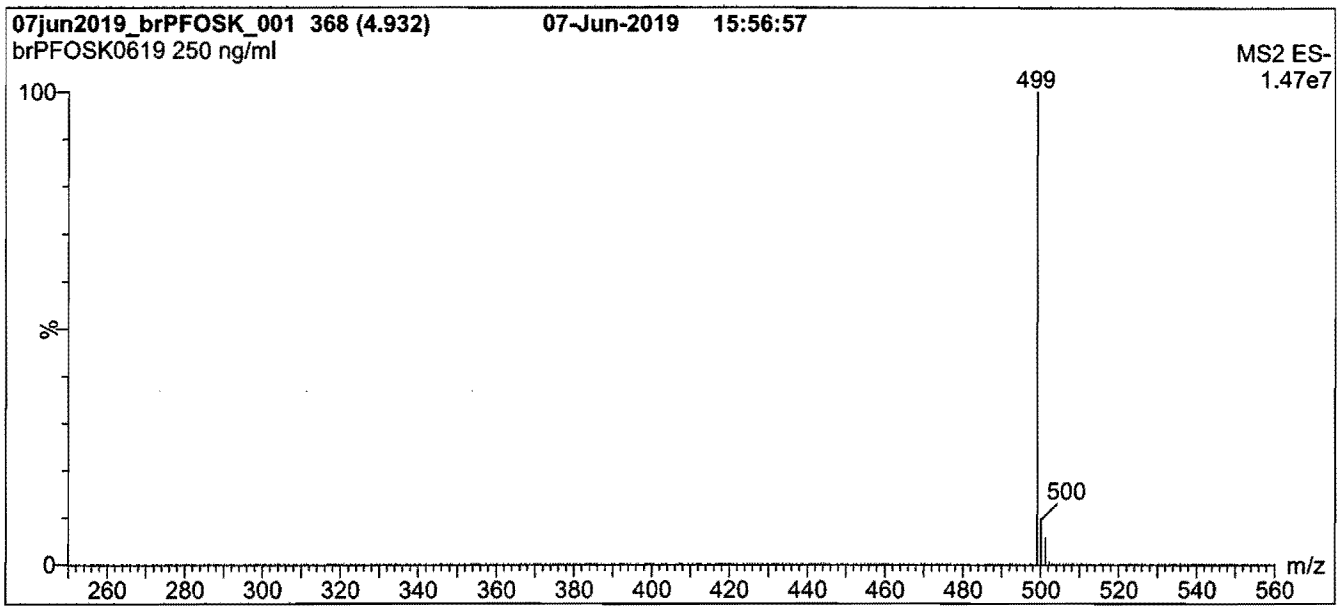
MS Conditions:

SIR (ES^-)
Source = 120 °C
Desolvation = 500 °C
Cone Voltage = 2.00V

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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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min.
Return to initial conditions over 0.75 min.
Time: 12 min

Flow: 300 µl/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 ^{19}F-NMR)***

Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3C(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2C(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: _____ **Date:** 06/17/2019 (mm/dd/yyyy)

B.G. Chittim, General Manager

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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19L0654

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK0619
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	06/03/2019
LAST TESTED: (mm/dd/yyyy)	06/07/2019
EXPIRY DATE: (mm/dd/yyyy)	06/07/2024
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

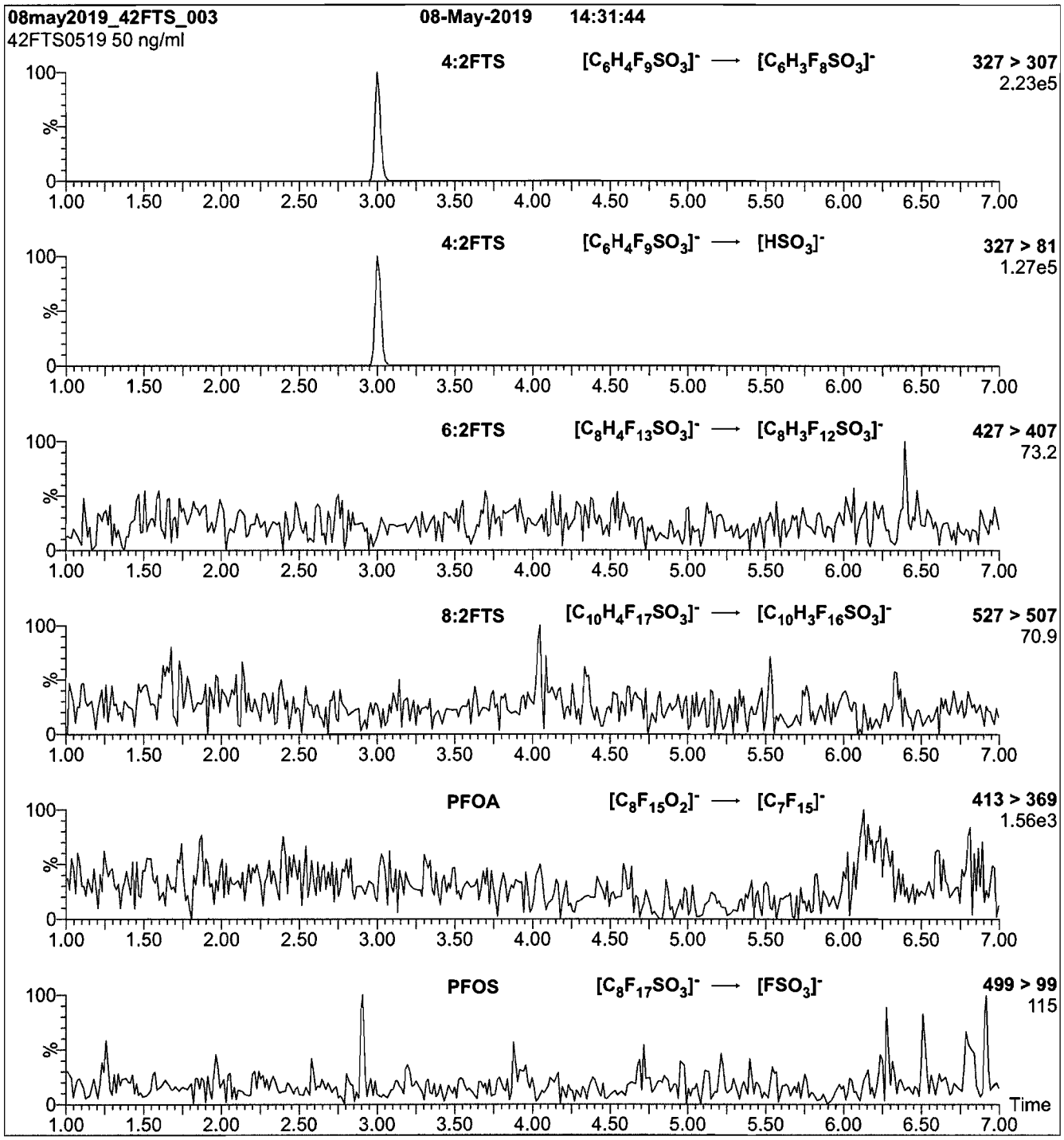
ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

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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 µl/min

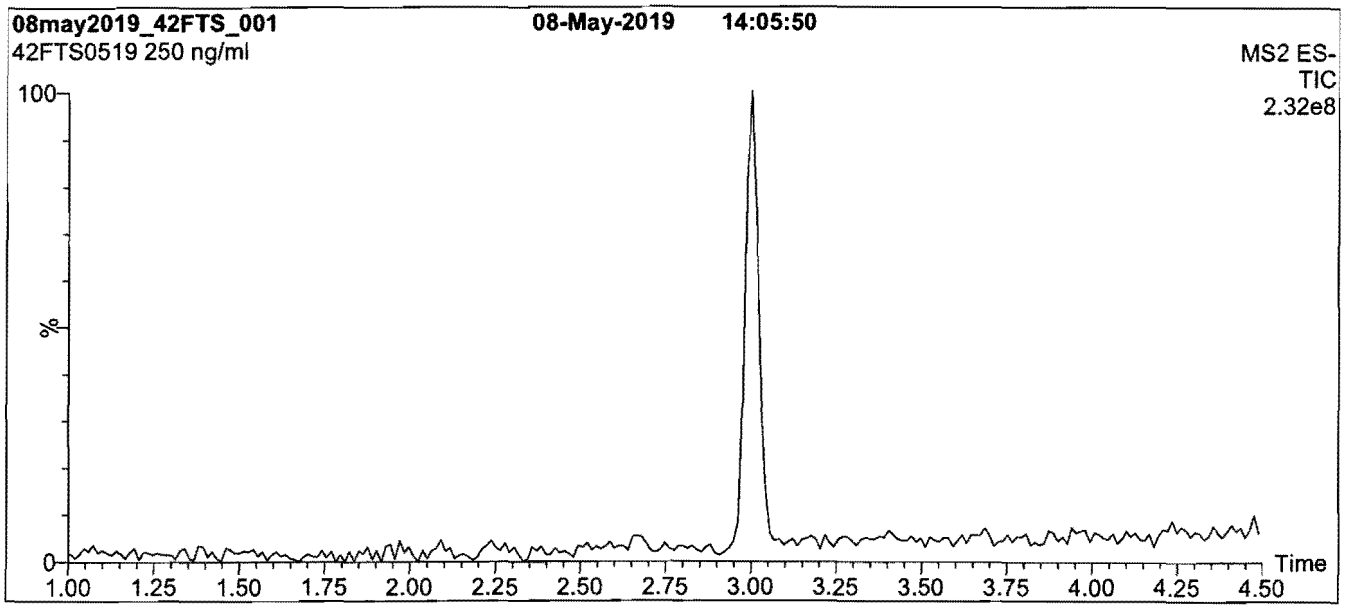
MS Parameters

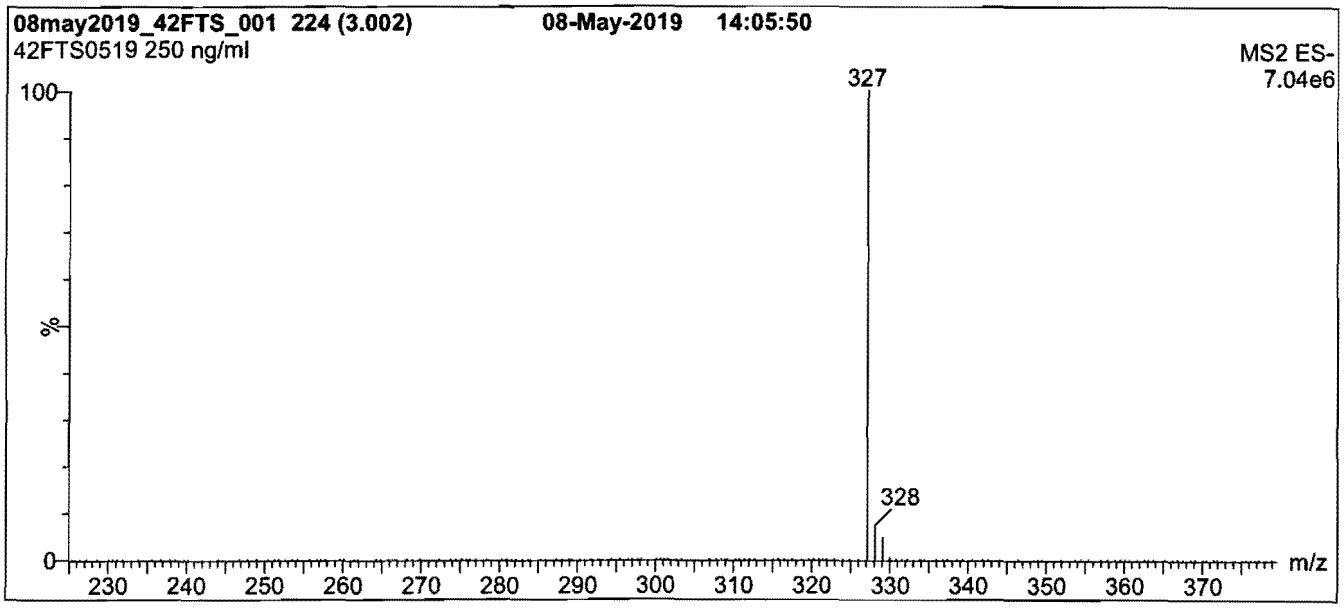
Collision Gas (mbar) = 3.07e-3

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 µl/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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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

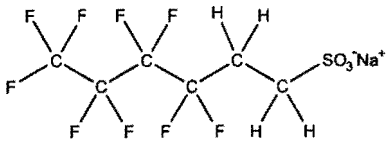
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19L0655

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.

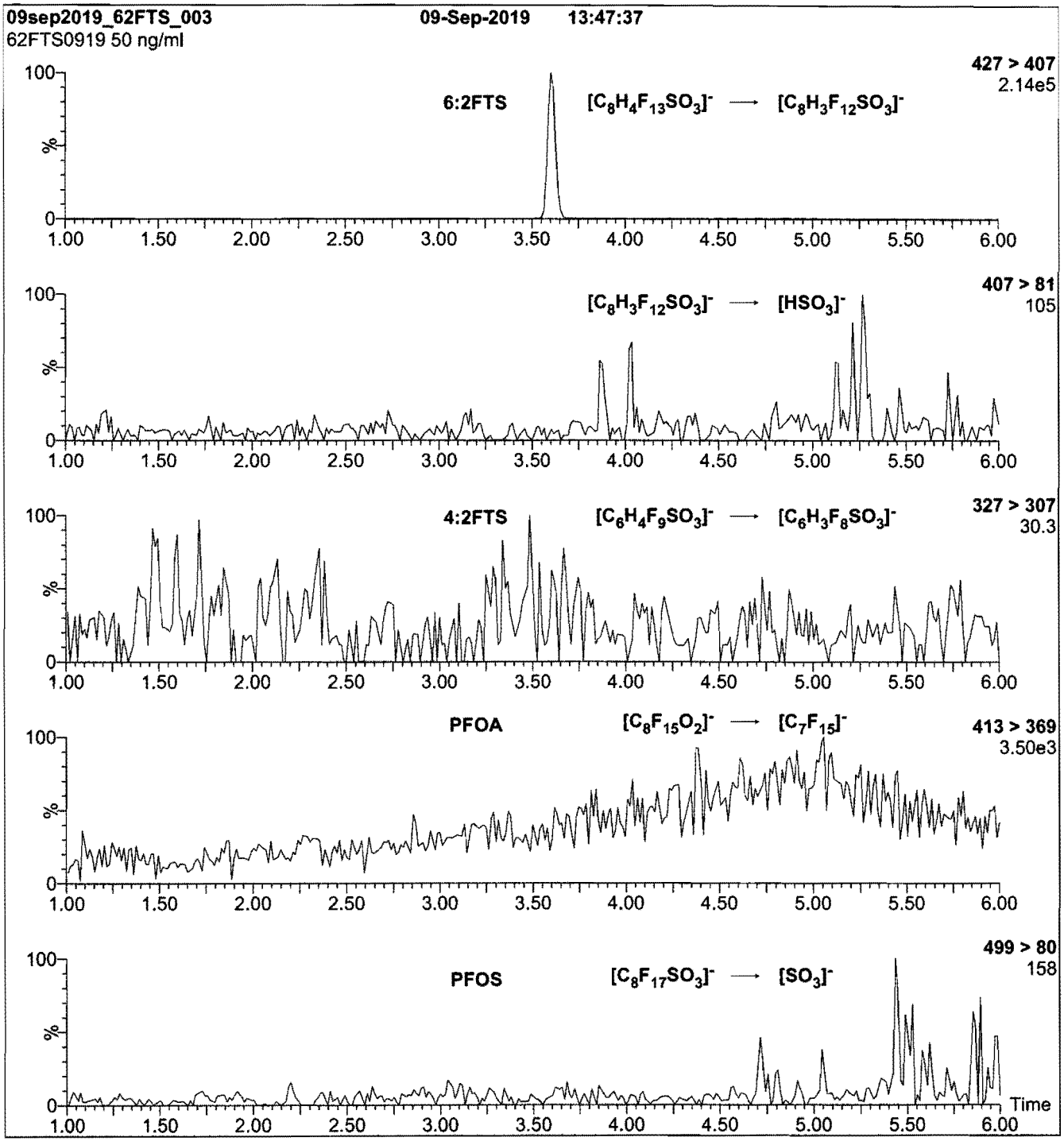
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Certified By: _____ **Date:** 05/09/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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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

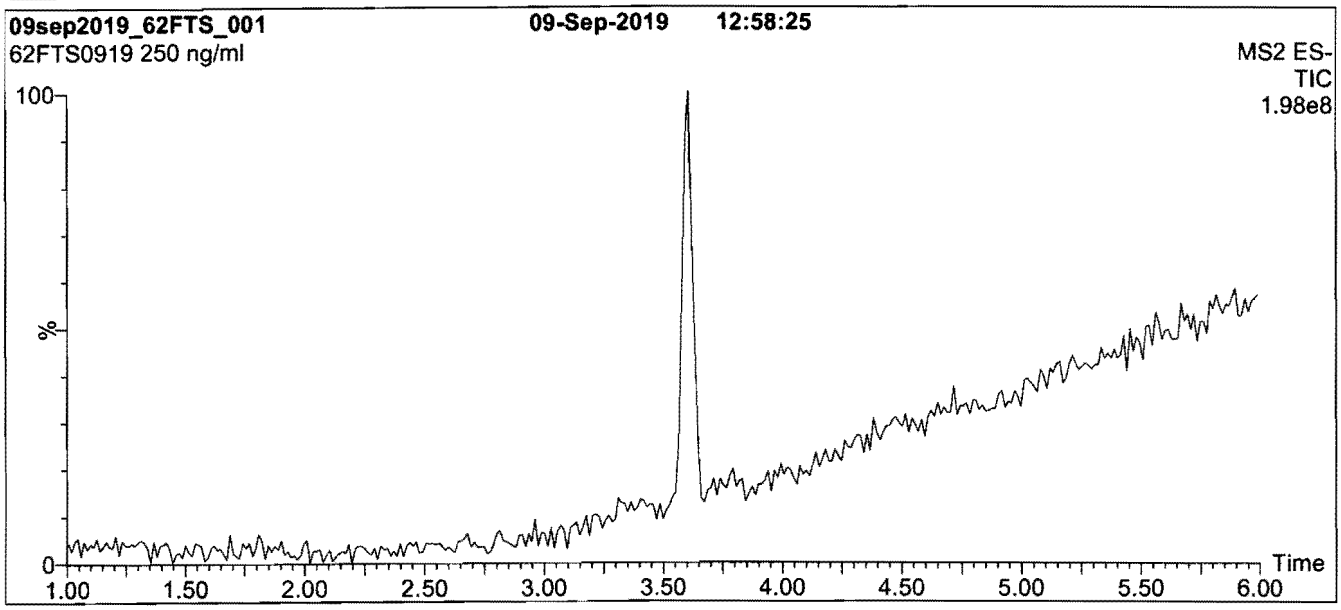
Flow: 300 µl/min

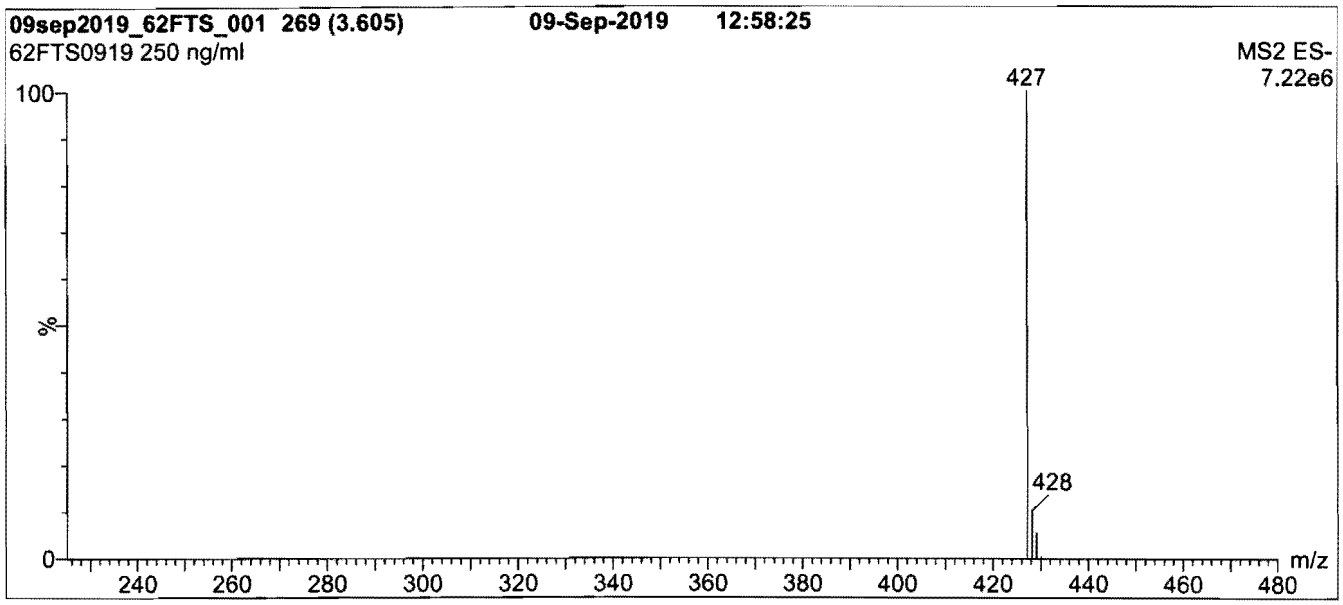
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

1906S6

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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19L0656

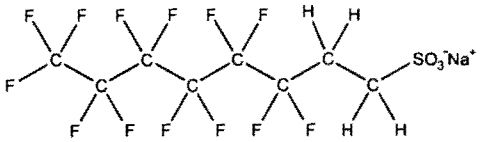
WELLINGTON LABORATORIES

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:

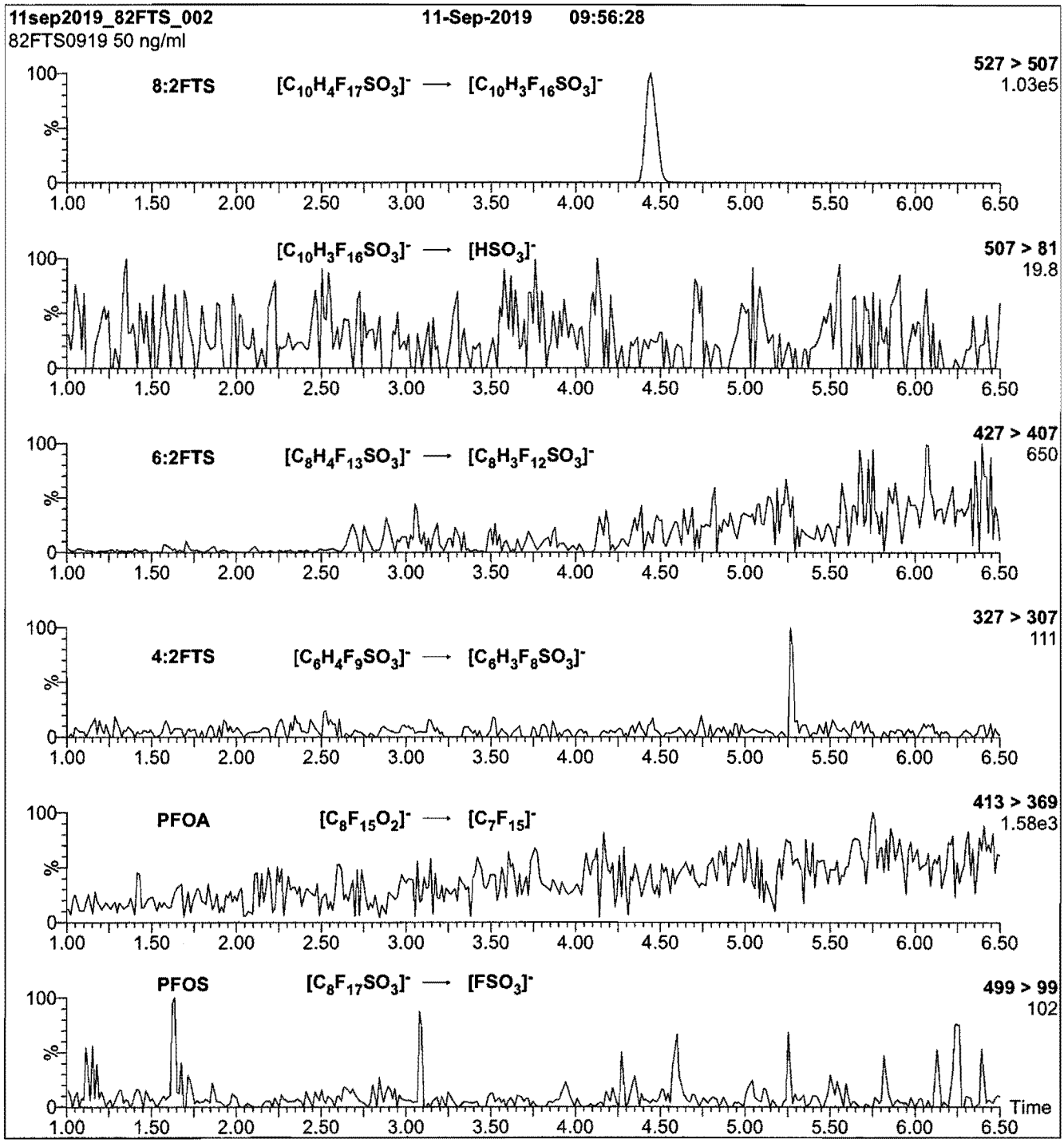
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Certified By: _____ **Date:** 09/09/2019
(mm/dd/yyyy)
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Figure 2: **8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (8:2FTS)

Mobile phase: Same as Figure 1

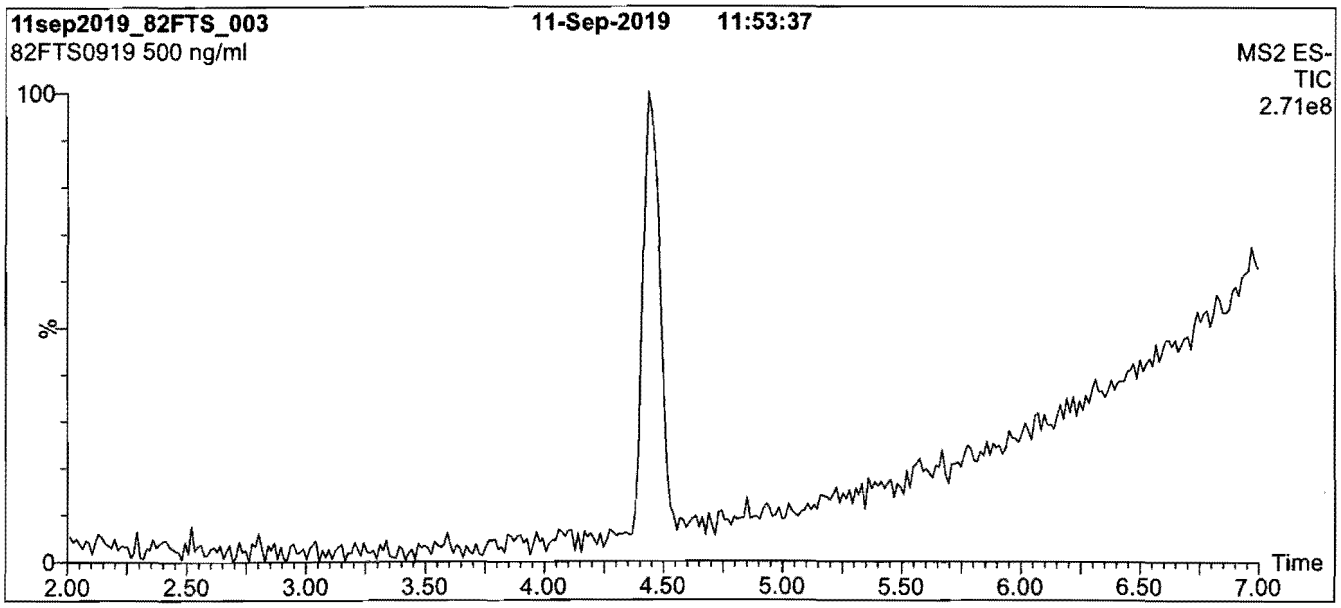
Flow: 300 µl/min

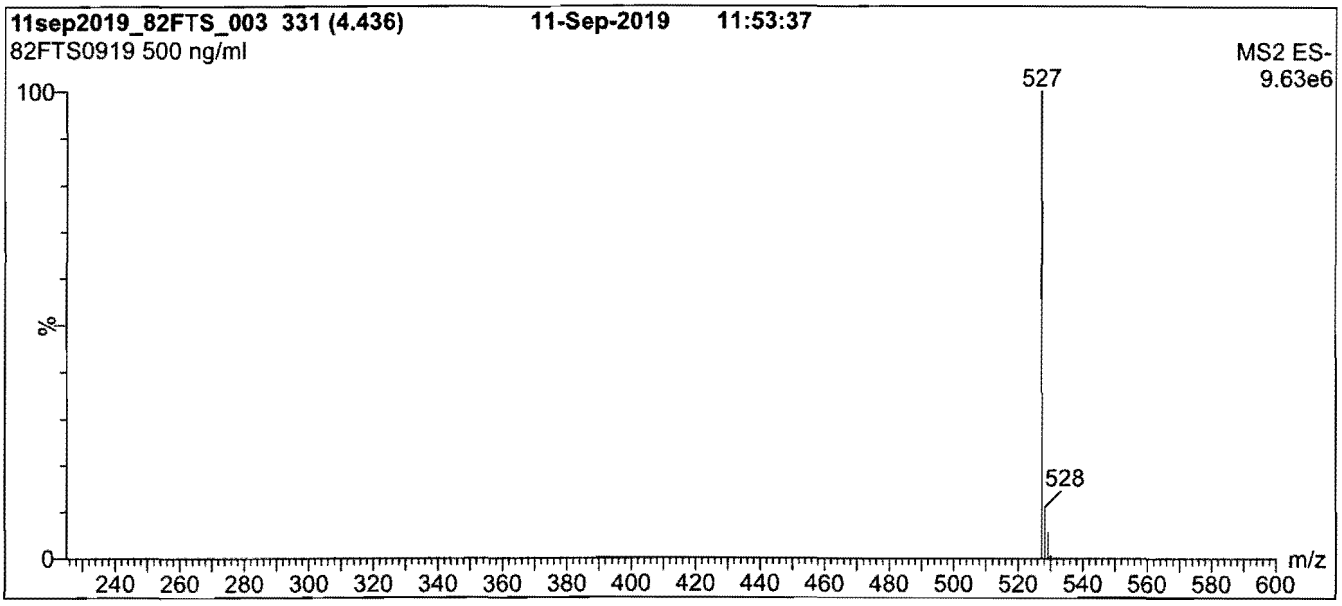
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
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Time: 12 min

Flow: 300 µl/min

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Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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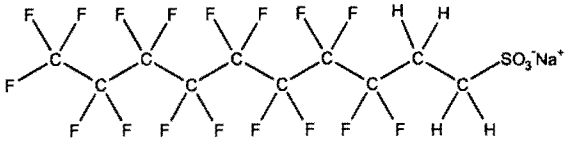
19L0657

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 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml	(8:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	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.

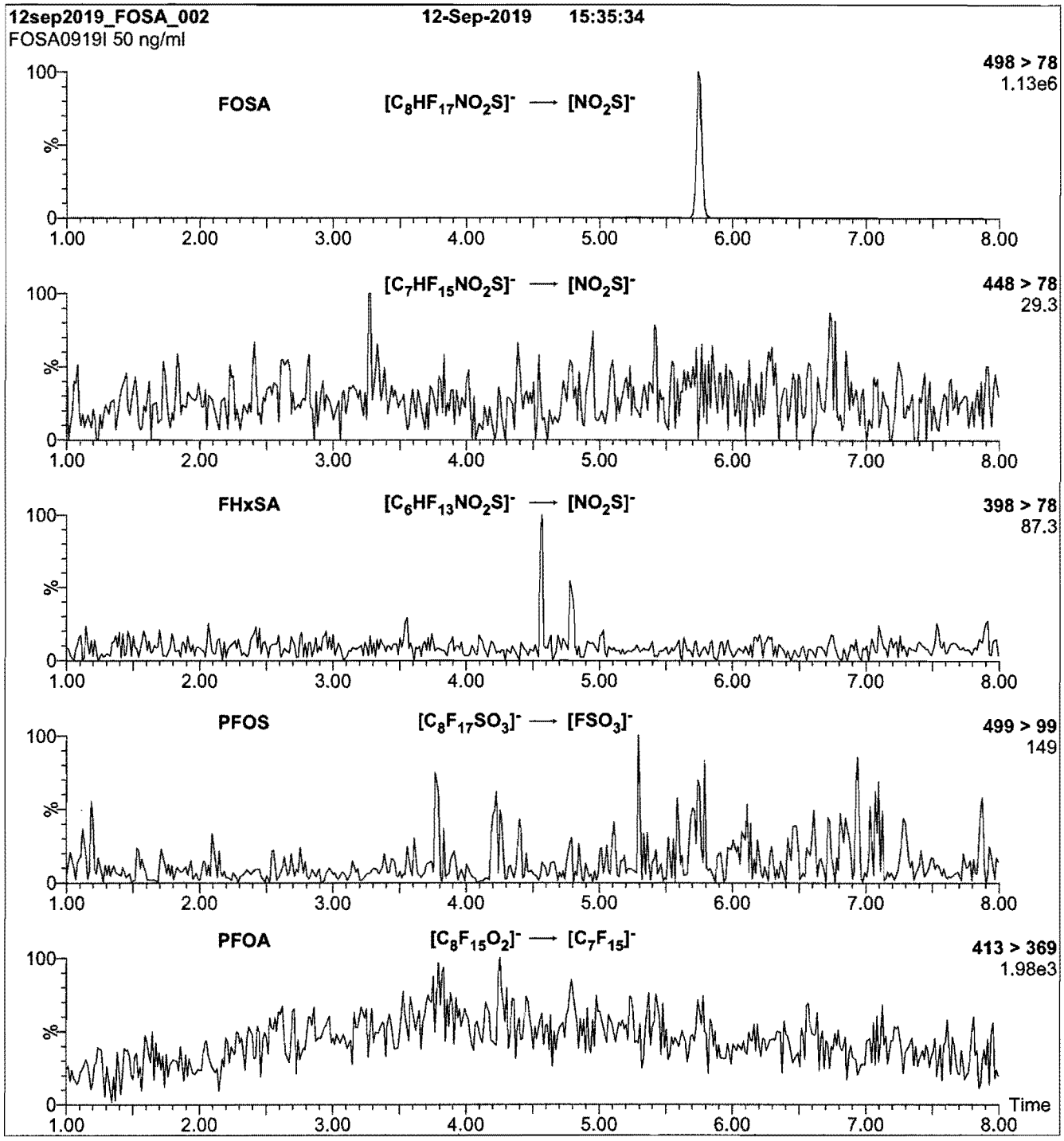
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/11/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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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 µl/min

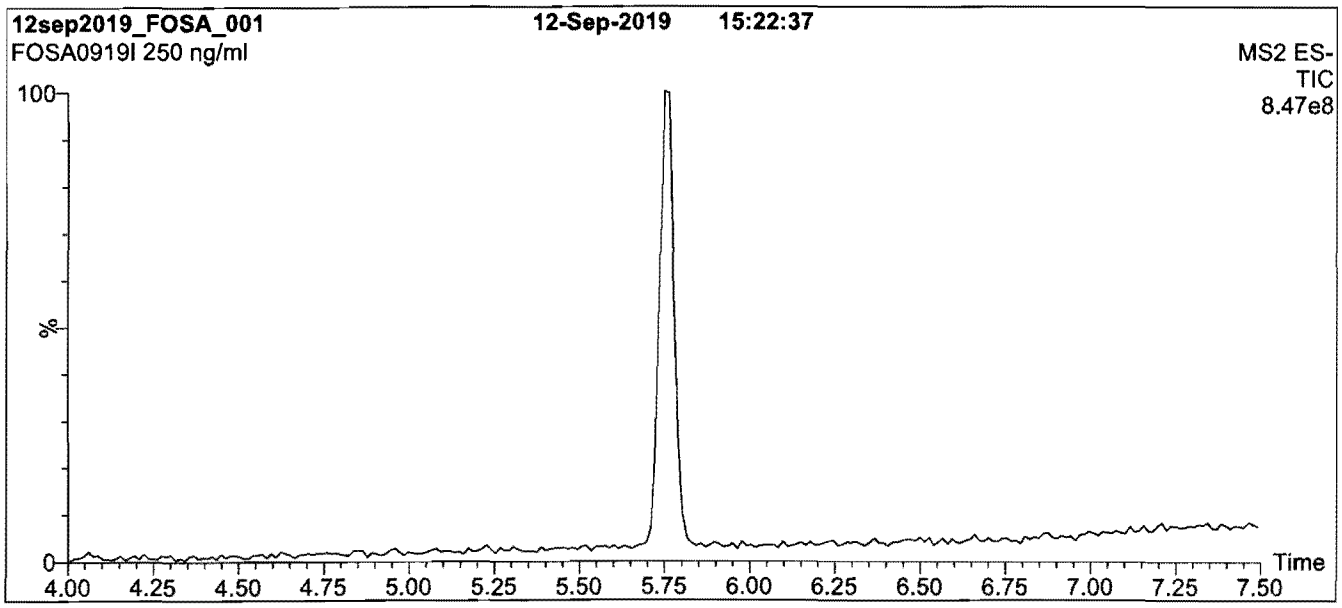
MS Parameters

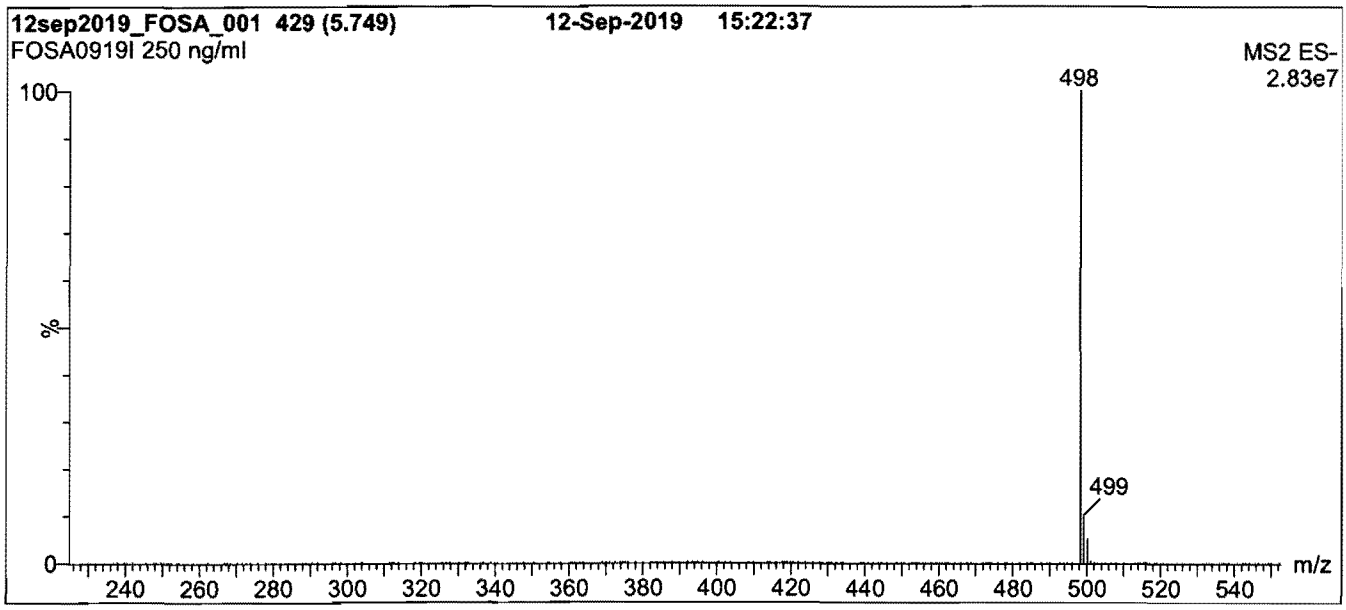
Collision Gas (mbar) = 3.57e-3

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 3 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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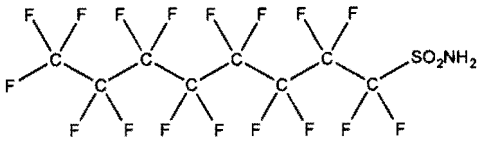
19L0658

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide
LOT NUMBER: FOSA0919I

STRUCTURE:
CAS #: 754-91-6



MOLECULAR FORMULA:	$C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	499.14
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	09/12/2019		
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:

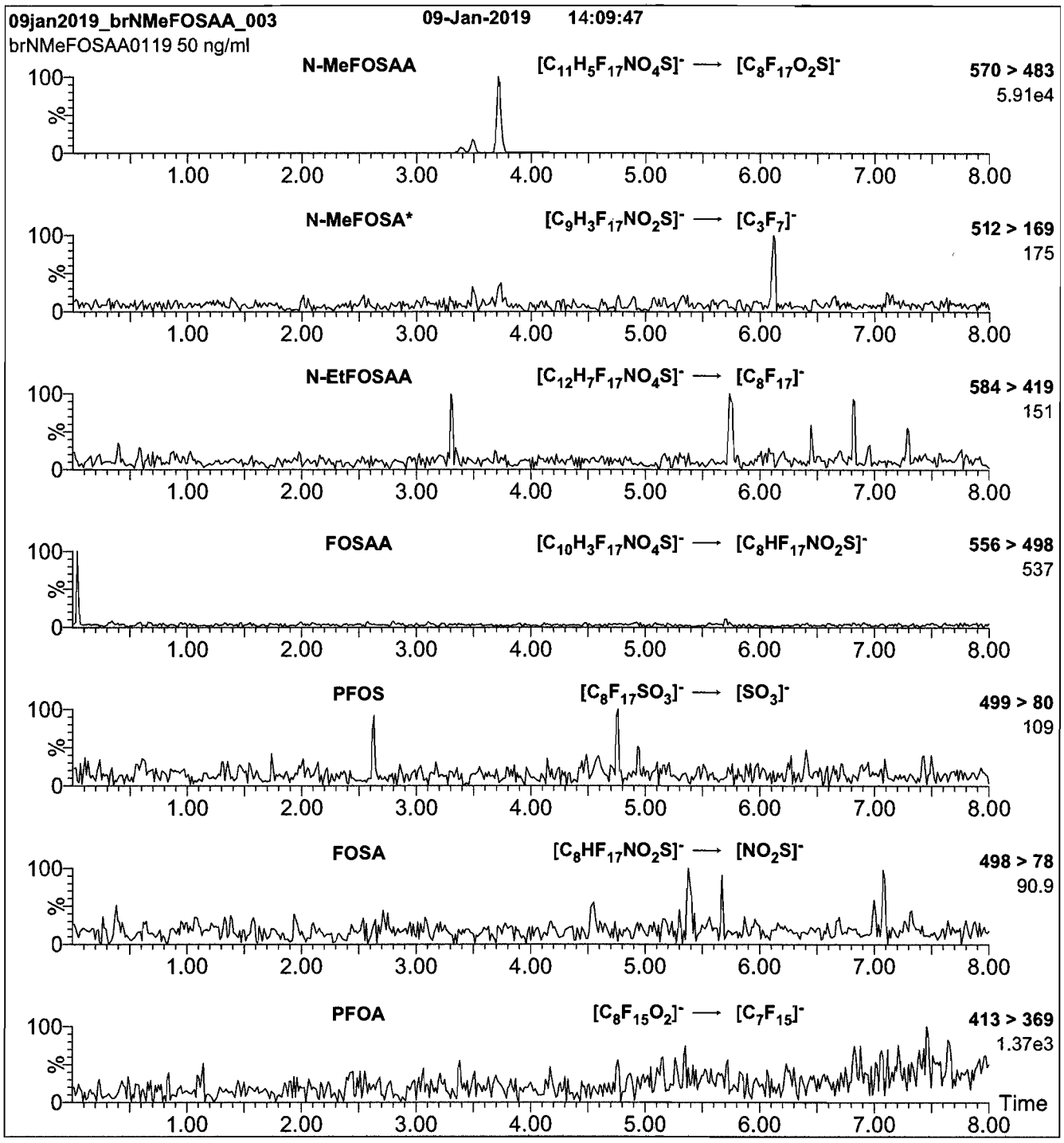
- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/13/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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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)

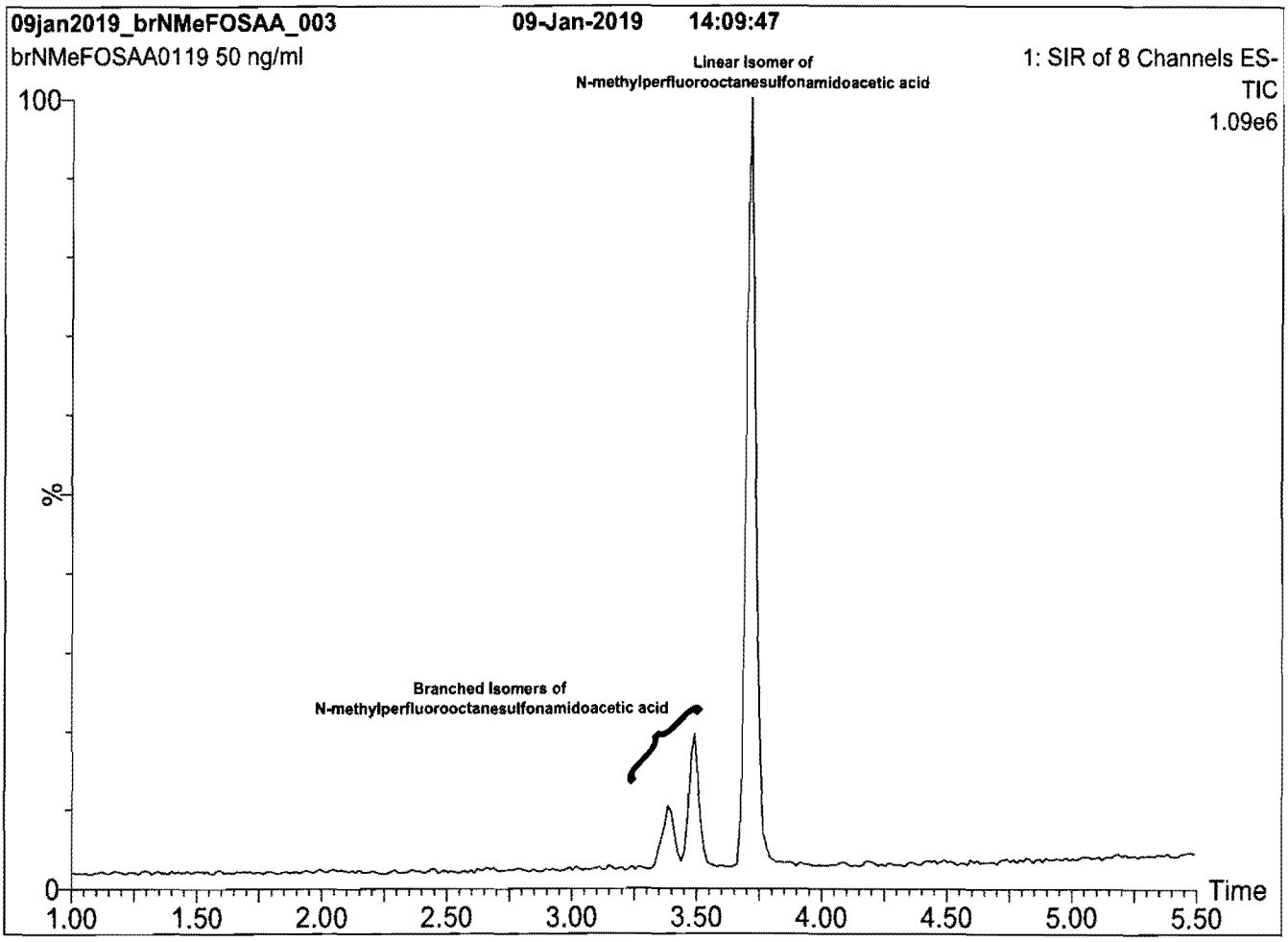
Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.79e-3
Collision Energy (eV) = 16

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

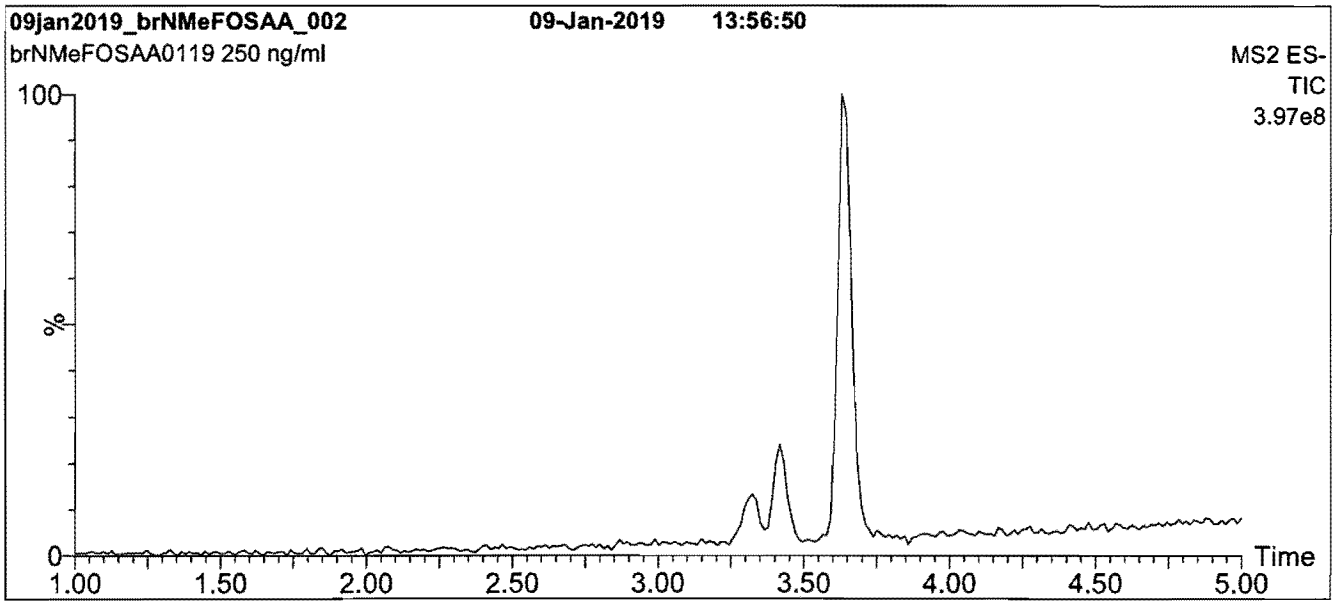
Flow: 300 µl/min

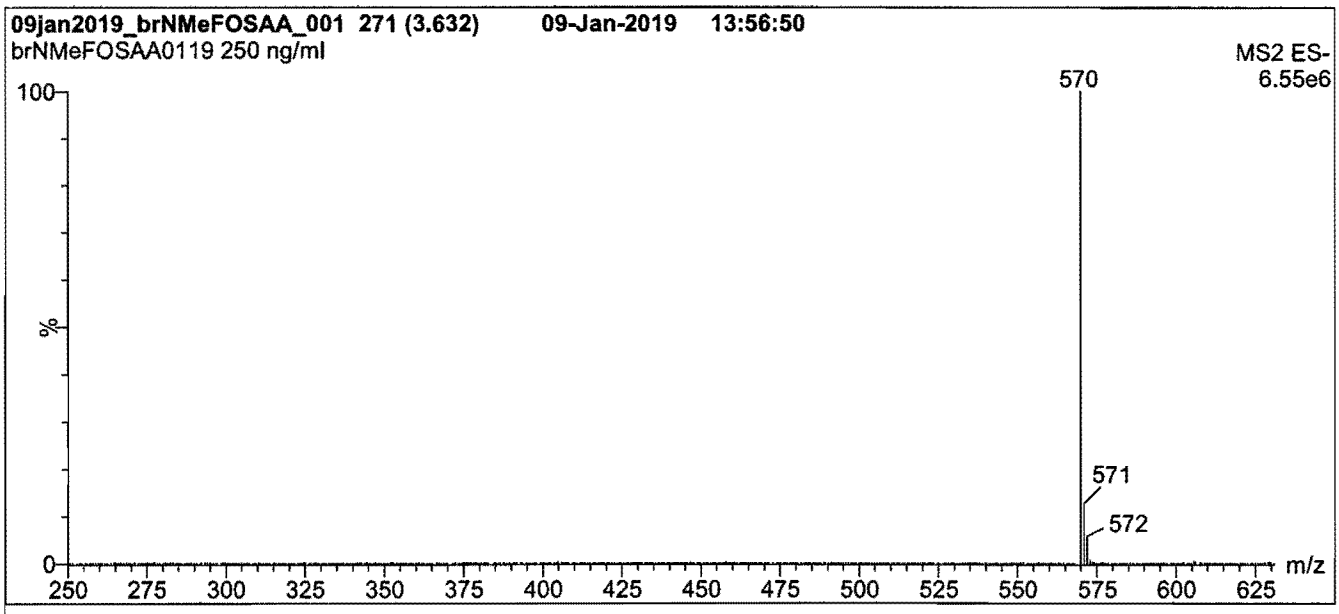
MS Parameters

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

Figure 1: **br-NMeFOSAA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

Table A: **br-NMeFOSAA; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(CH_3)CH_2CO_2H$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(CH_3)CH_2CO_2H$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2CF(CF_3)(CF_2)_3SO_2N(CH_3)CH_2CO_2H$	2.0
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2CF(CF_3)(CF_2)_4SO_2N(CH_3)CH_2CO_2H$	6.0
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3CF(CF_3)(CF_2)_5SO_2N(CH_3)CH_2CO_2H$	14.0
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3C(CF_3)_2(CF_2)_4SO_2N(CH_3)CH_2CO_2H$	0.2
7	Other Unidentified Isomers		1.1

* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: _____ **Date:** 01/16/2019 (mm/dd/yyyy)

B.G. Chittim, General Manager

19L0659

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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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19L0659

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NMeFOSAA

N-Methylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NMeFOSAA
LOT NUMBER:	brNMeFOSAA0119
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	01/02/2019
LAST TESTED: (mm/dd/yyyy)	01/09/2019
EXPIRY DATE: (mm/dd/yyyy)	01/09/2024
RECOMMENDED STORAGE:	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 ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

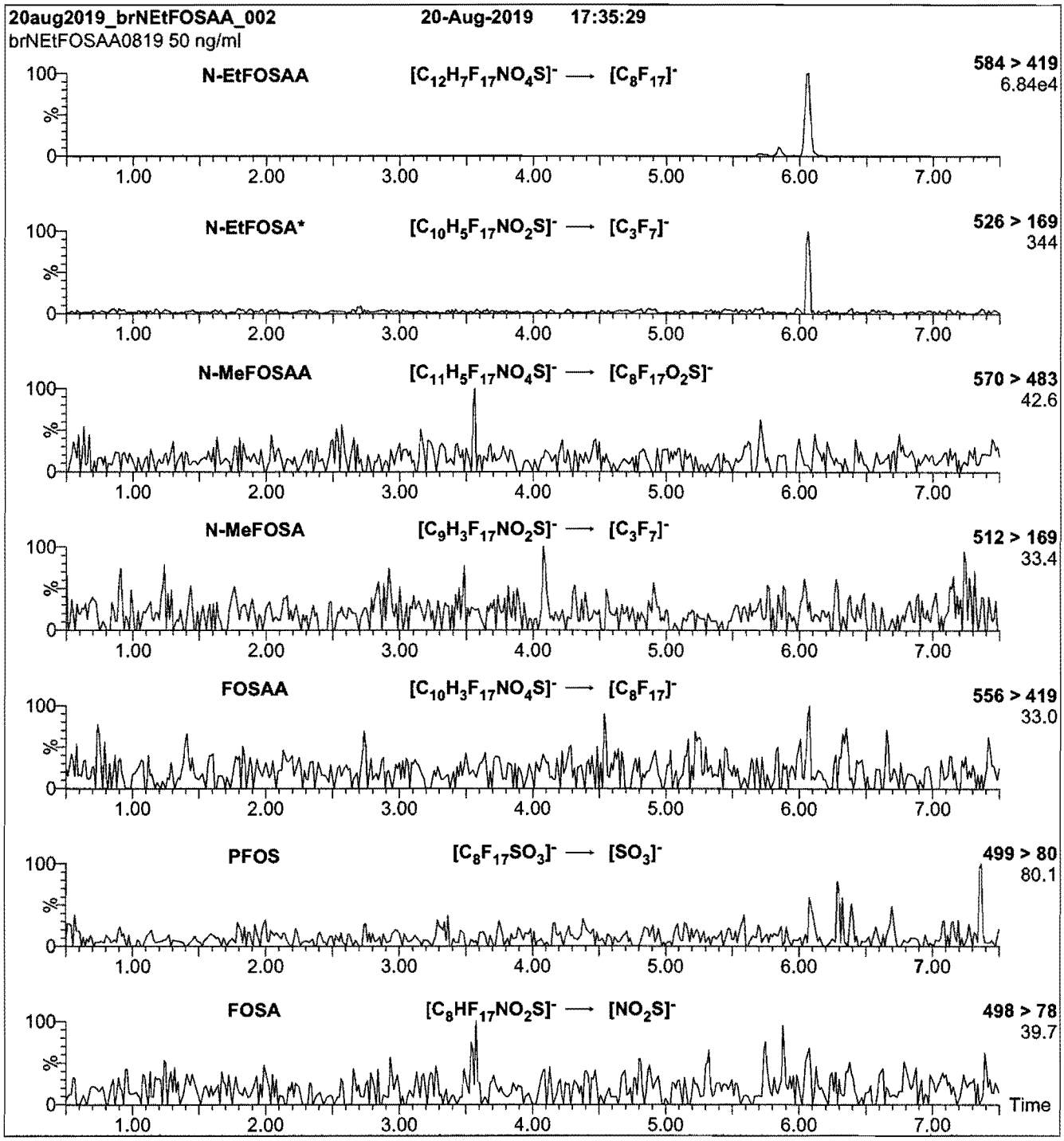
ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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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)

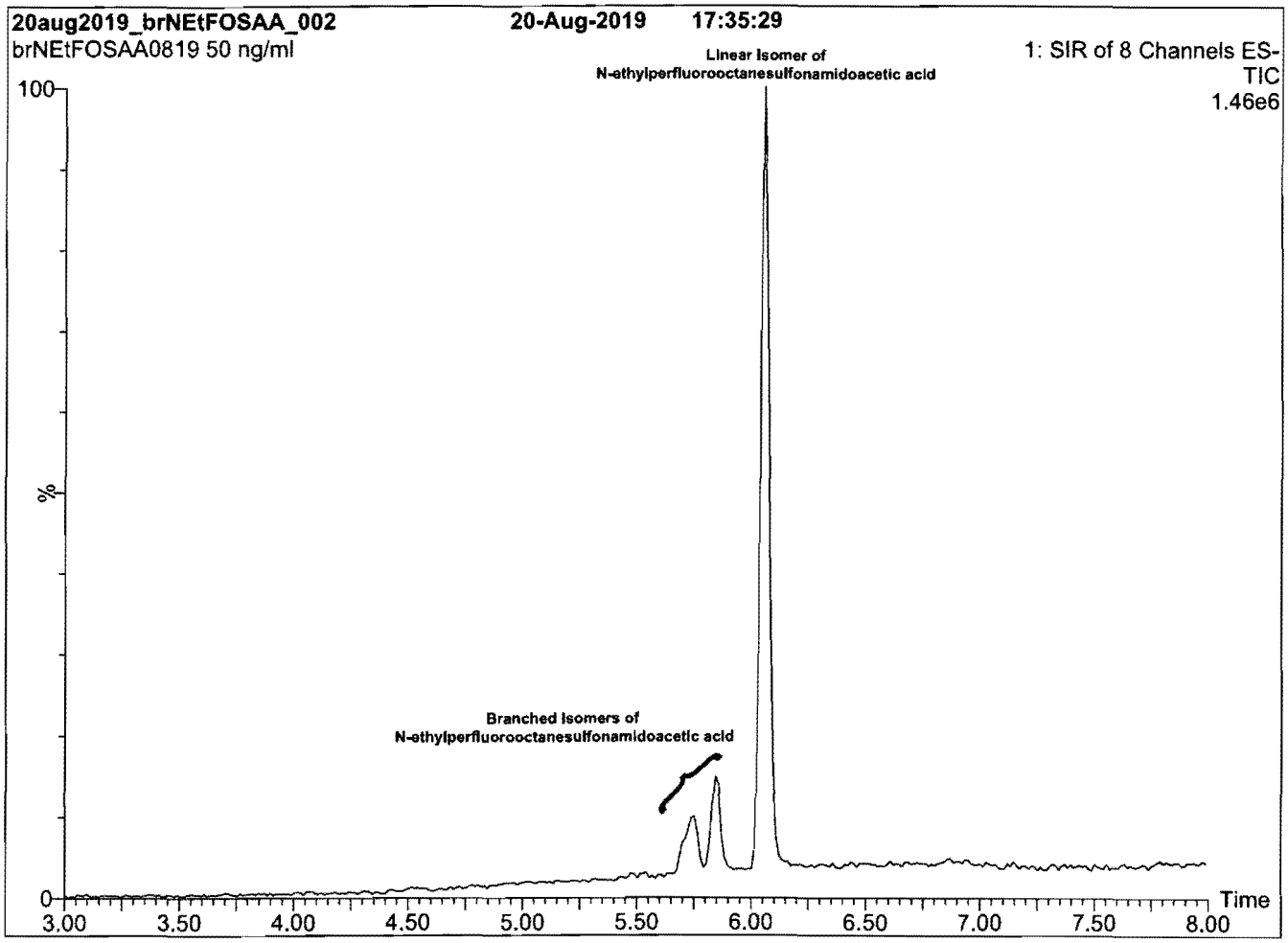
Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.53e-3
Collision Energy (eV) = 18

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

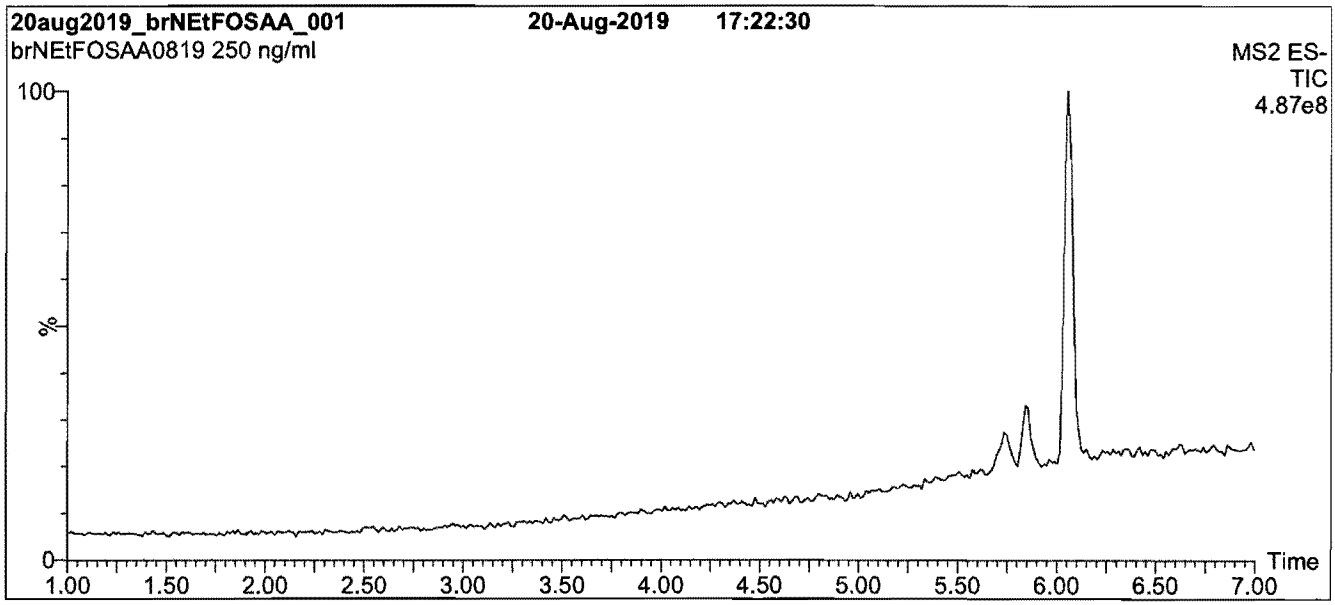
MS Parameters

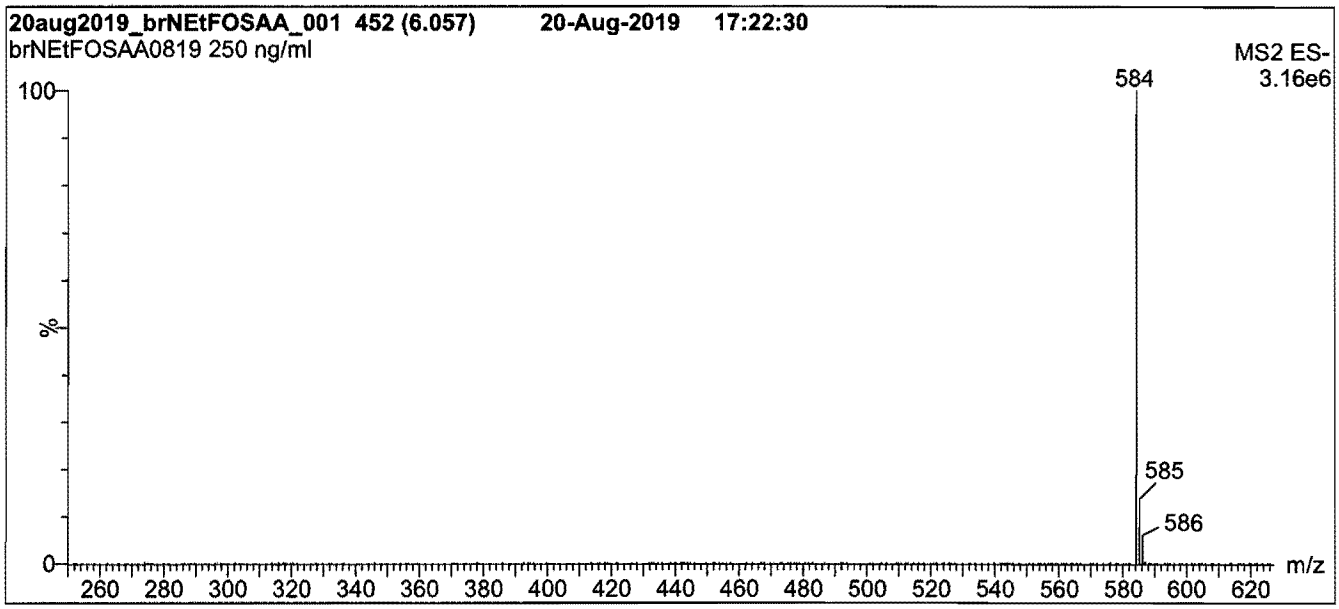
Experiment: SIR (8 channels)

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

Table A: **br-NEtFOSAA; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(C_2H_5)CH_2CO_2H$	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	2.3
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2CF(CF_3)(CF_2)_3SO_2N(C_2H_5)CH_2CO_2H$	2.2
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2CF(CF_3)(CF_2)_4SO_2N(C_2H_5)CH_2CO_2H$	5.4
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3CF(CF_3)(CF_2)_5SO_2N(C_2H_5)CH_2CO_2H$	10.4
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3C(CF_3)_2(CF_2)_4SO_2N(C_2H_5)CH_2CO_2H$	0.3
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$CF_3CF(CF_3)CF(CF_2)_3SO_2N(C_2H_5)CH_2CO_2H$	0.3
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$CF_3CF(CF_3)CF_2CF(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	0.3
9	Other Unidentified Isomers		1.3

* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: _____ **Date:** 08/29/2019
(mm/dd/yyyy)

B.G. Chittim, General Manager

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NEtFOSAA

N-Ethylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NEtFOSAA
LOT NUMBER:	brNEtFOSAA0819
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	08/20/2019
LAST TESTED: (mm/dd/yyyy)	08/20/2019
EXPIRY DATE: (mm/dd/yyyy)	08/20/2024
RECOMMENDED STORAGE:	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 ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

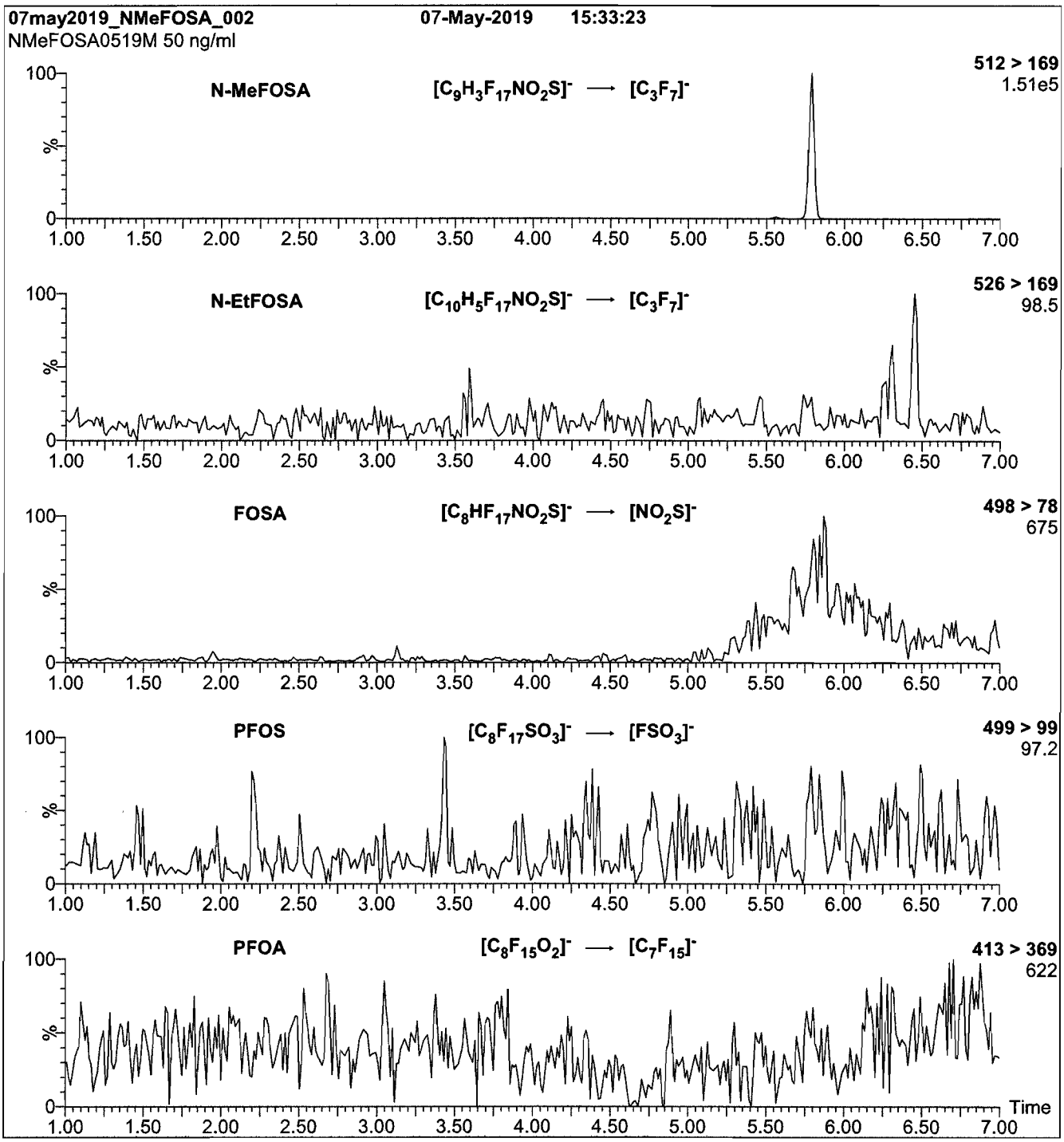
ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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

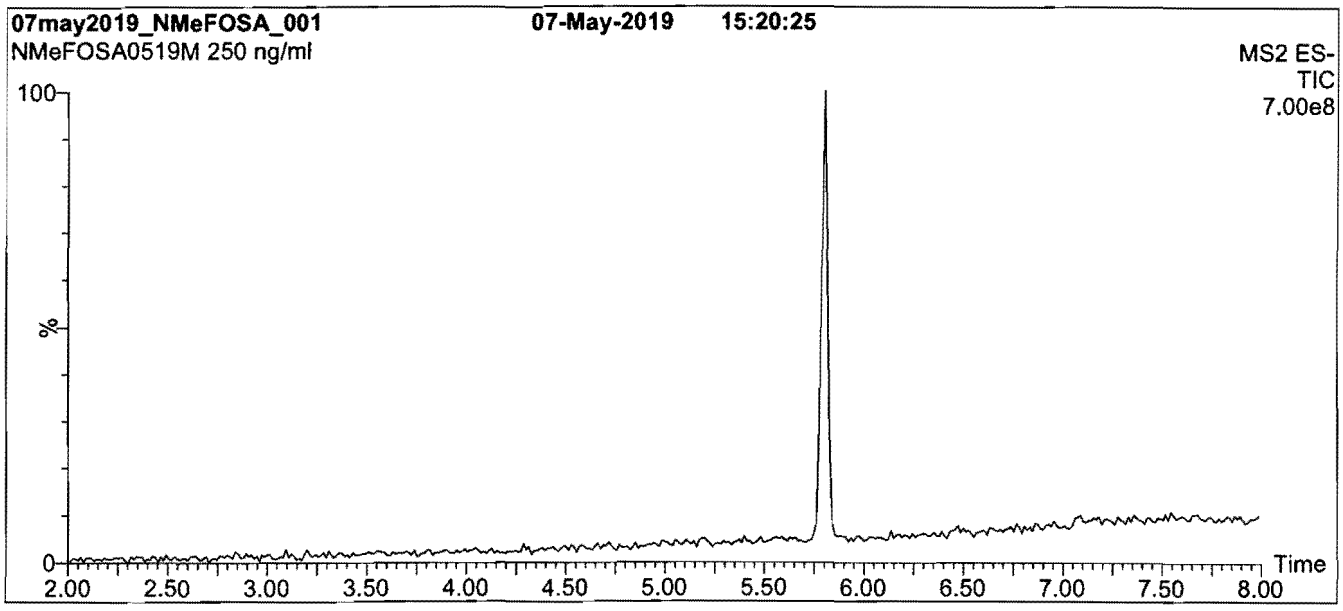
Flow: 300 µl/min

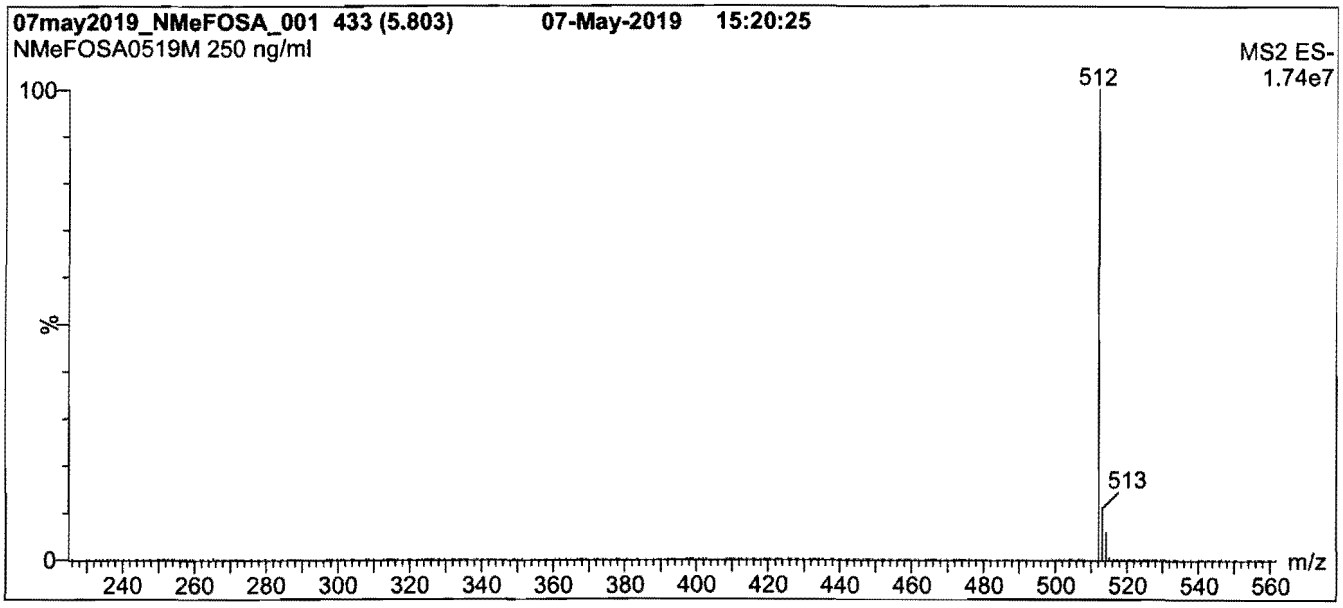
MS Parameters

Collision Gas (mbar) = 2.99e-3
Collision Energy (eV) = 24

19L0661

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 µl/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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UNCERTAINTY:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

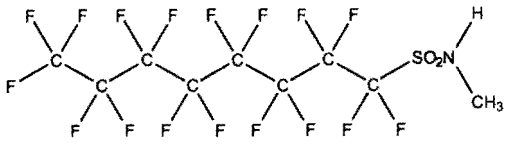
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19L0661

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	N-MeFOSA-M	**LOT NUMBER:**	NMeFOSA0519M
COMPOUND:	N-methylperfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	31506-32-8



MOLECULAR FORMULA:	$C_9H_4F_{17}NO_2S$	**MOLECULAR WEIGHT:**	513.17
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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:

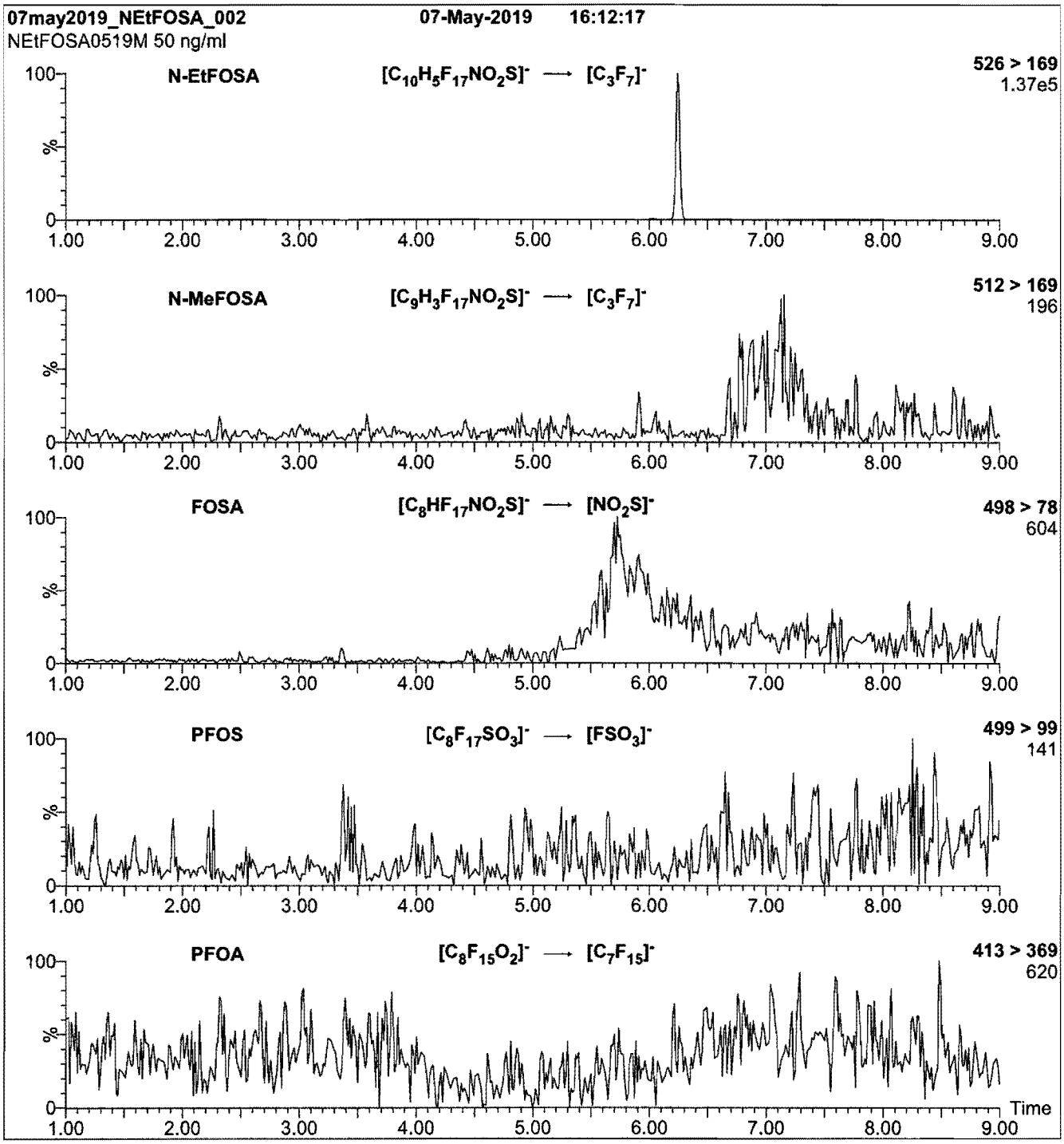
- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/09/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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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

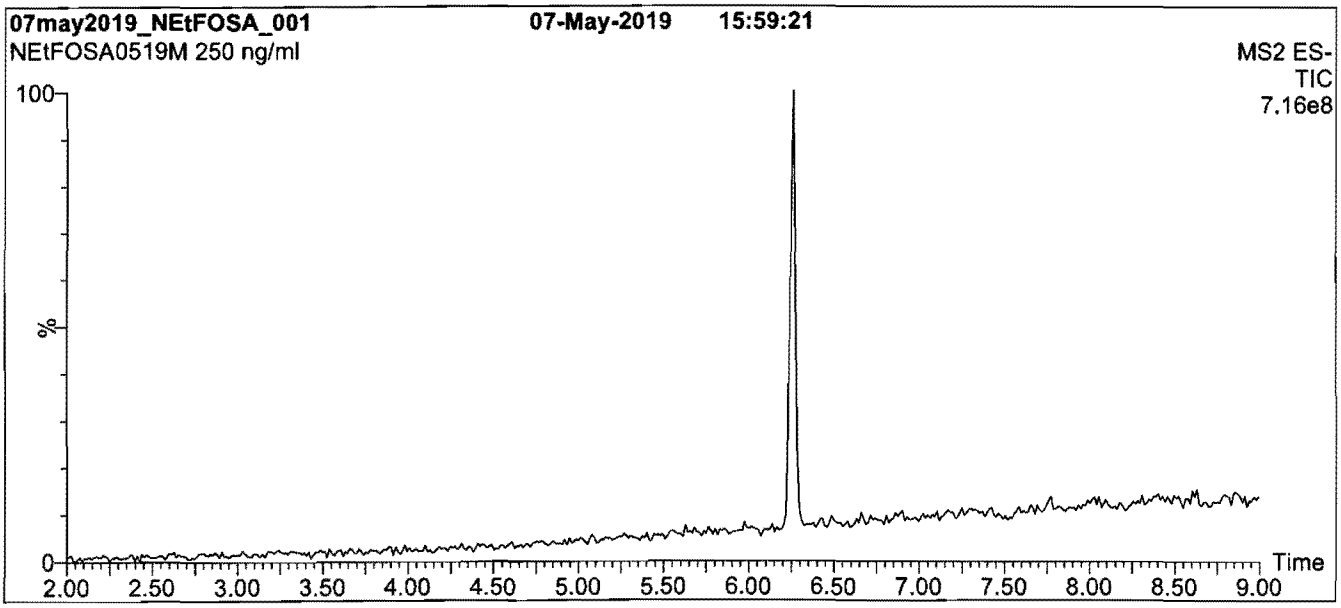
Flow: 300 µl/min

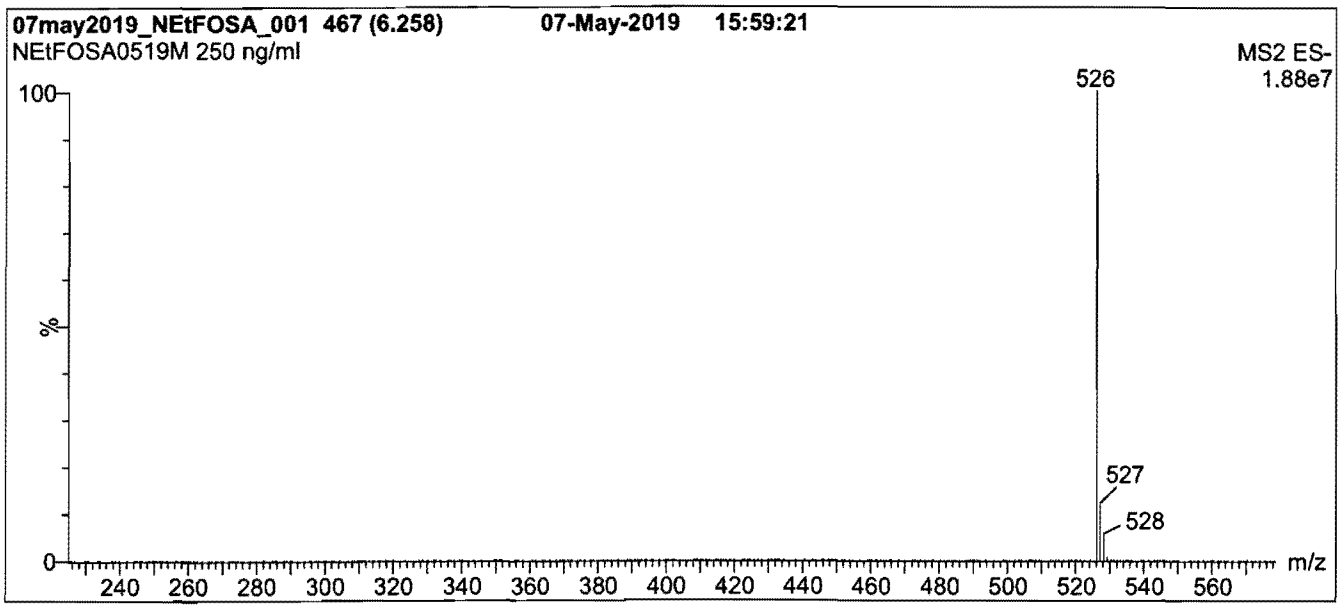
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 11 min

Flow: 300 µl/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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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

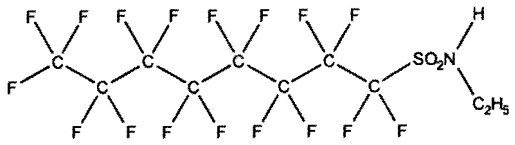
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19L0662

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	N-EtFOSA-M	**LOT NUMBER:**	NEtFOSA0519M
COMPOUND:	N-ethylperfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	4151-50-2



MOLECULAR FORMULA:	$C_{10}H_6F_{17}NO_2S$	**MOLECULAR WEIGHT:**	527.20
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	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.

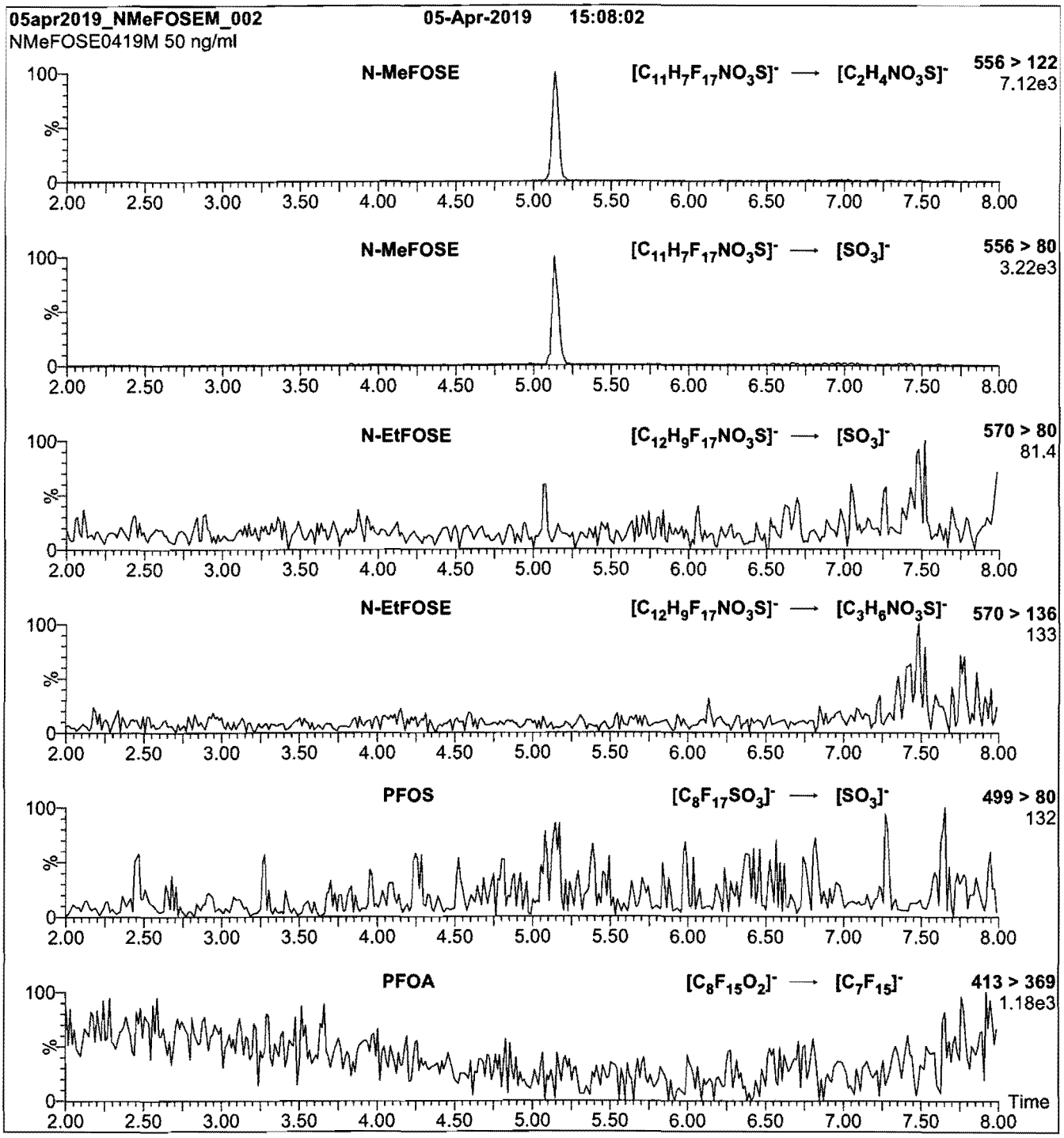
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Certified By: _____ **Date:** 05/09/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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19L 0663

Figure 3: **N-MeFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column (N-MeFOSE-M)

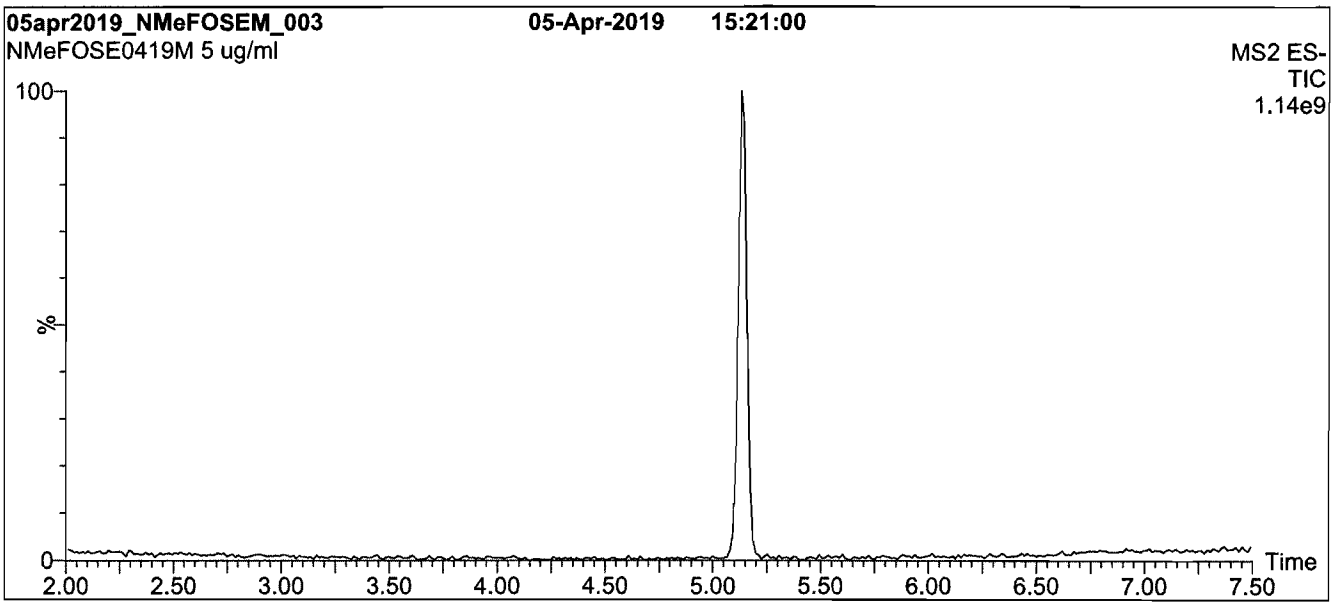
Mobile phase: Same as Figure 2

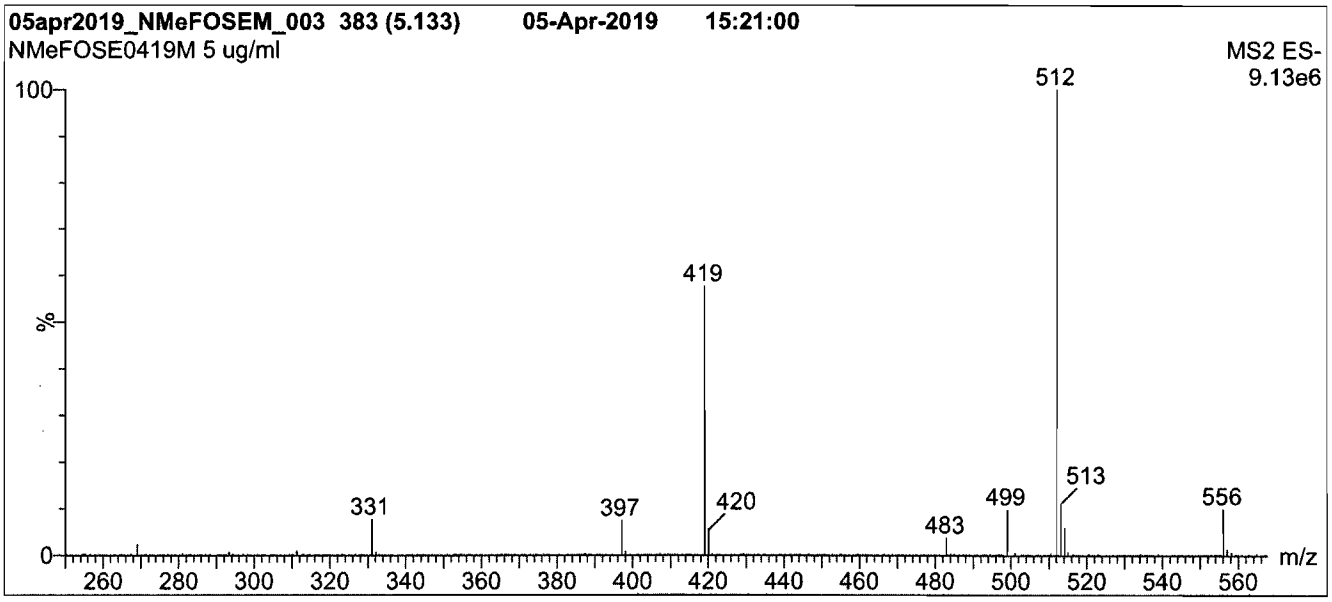
Flow: 300 µl/min

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% MeOH / 35% H_2O
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

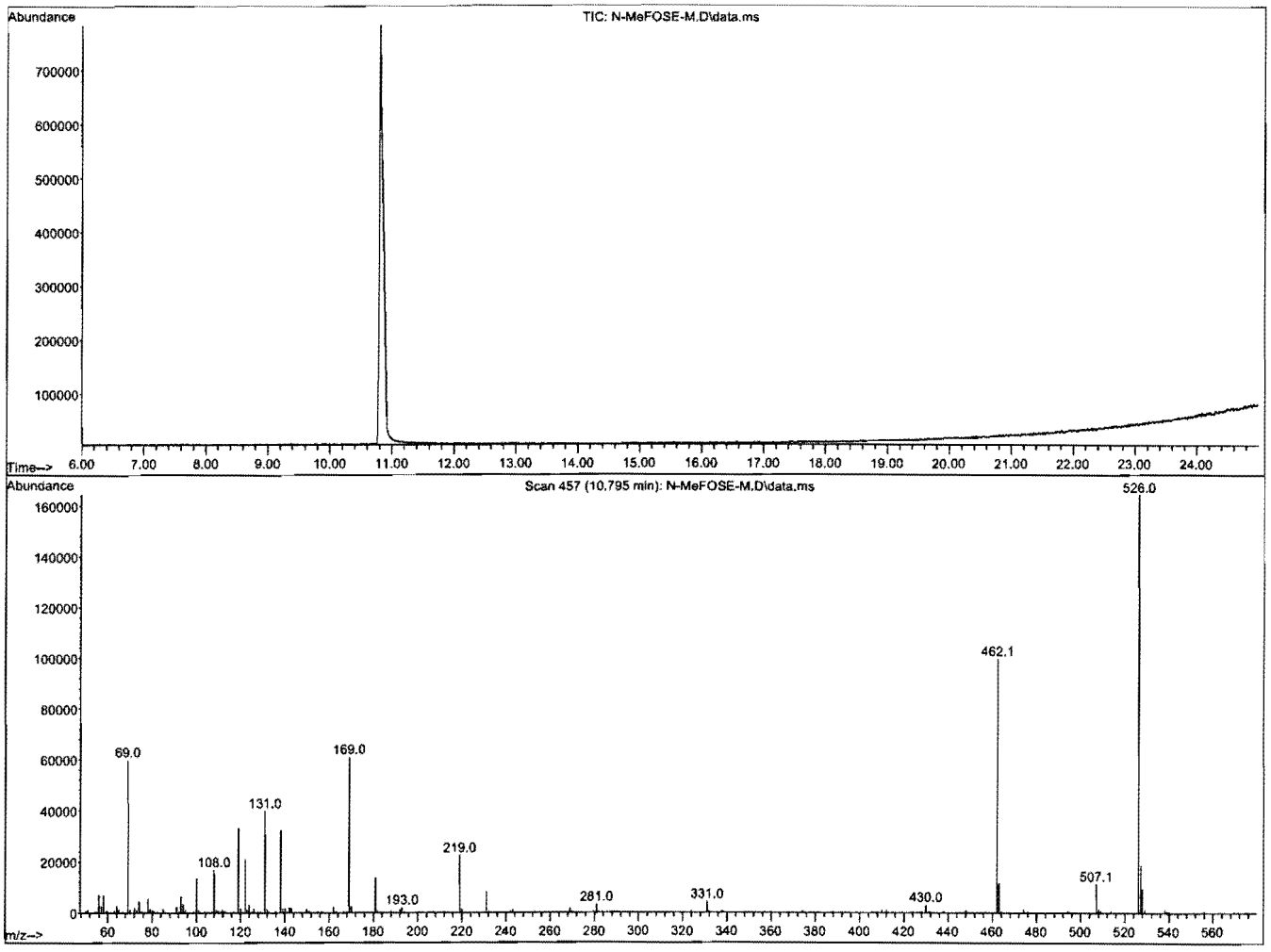
Flow: 300 µl/min

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

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)

19L0663

INTENDED USE:

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HANDLING:

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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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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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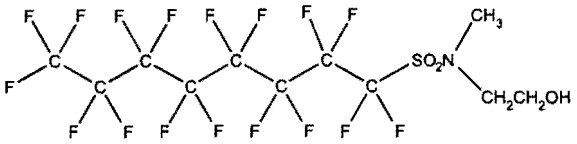
1910663

WELLINGTON LABORATORIES

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:	$C_{11}H_8F_{17}NO_3S$	**MOLECULAR WEIGHT:**	557.22
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/08/2019 (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:

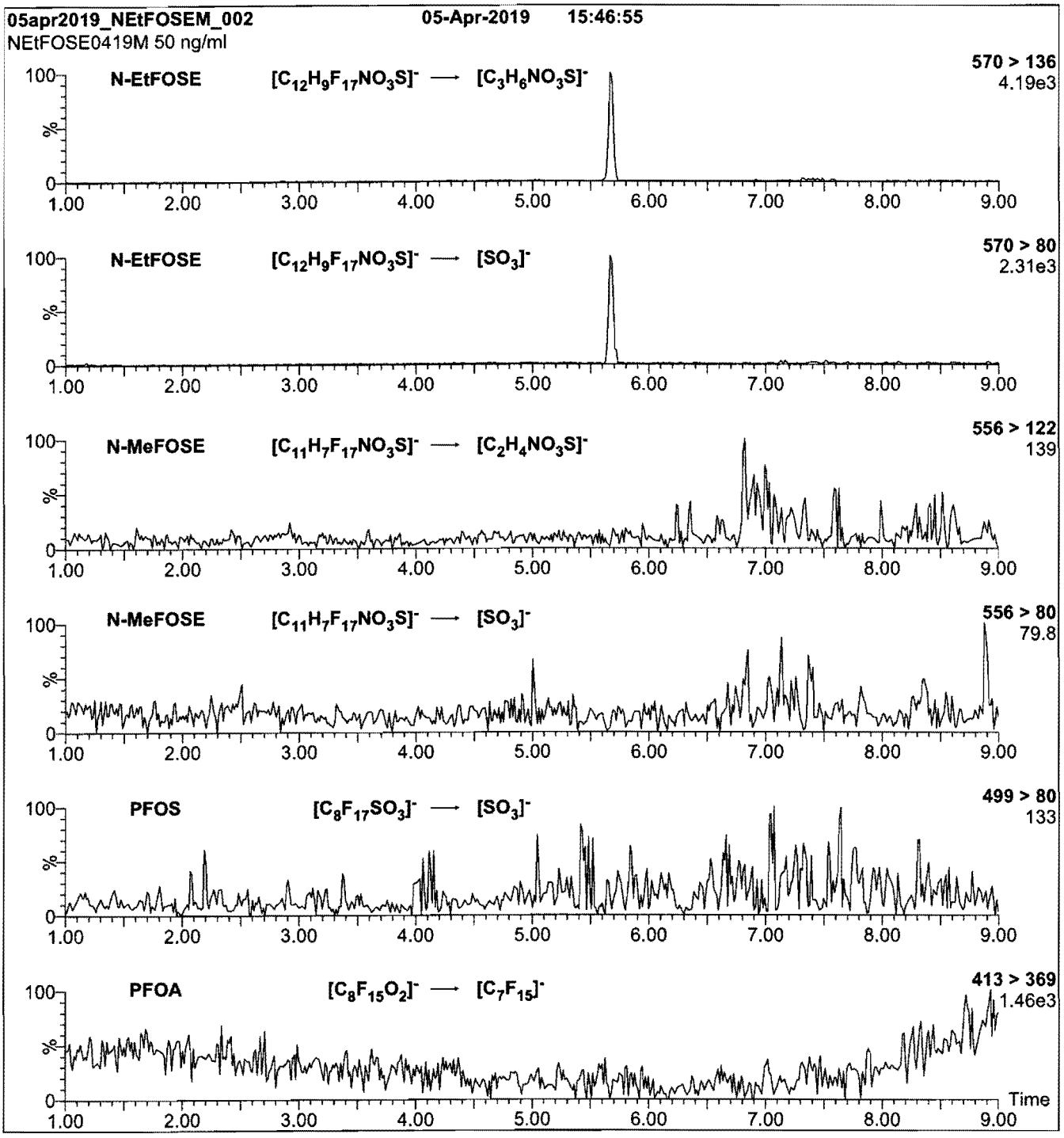
- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/12/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

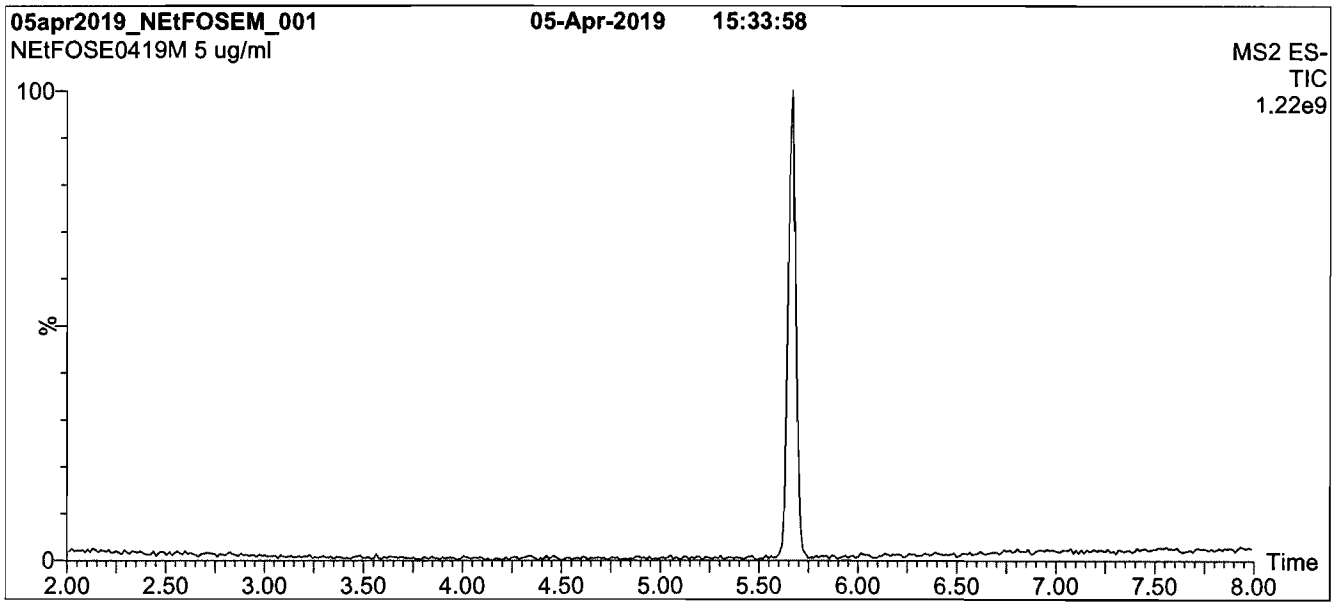
Flow: 300 µl/min

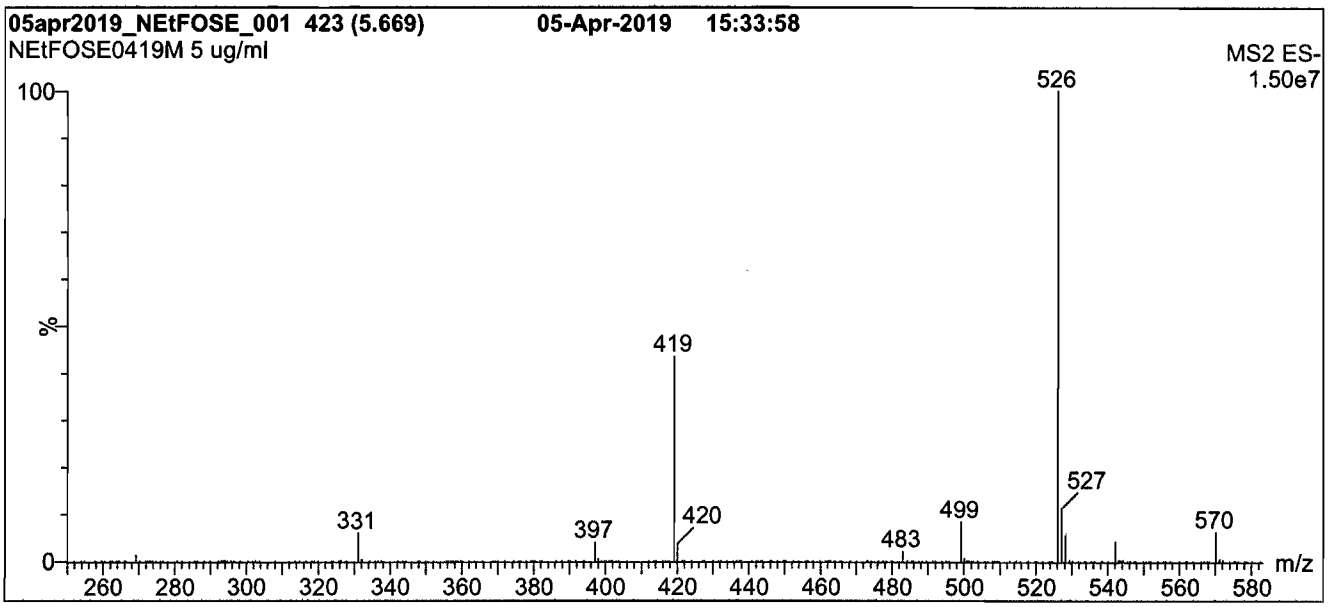
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% MeOH / 35% H_2O
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

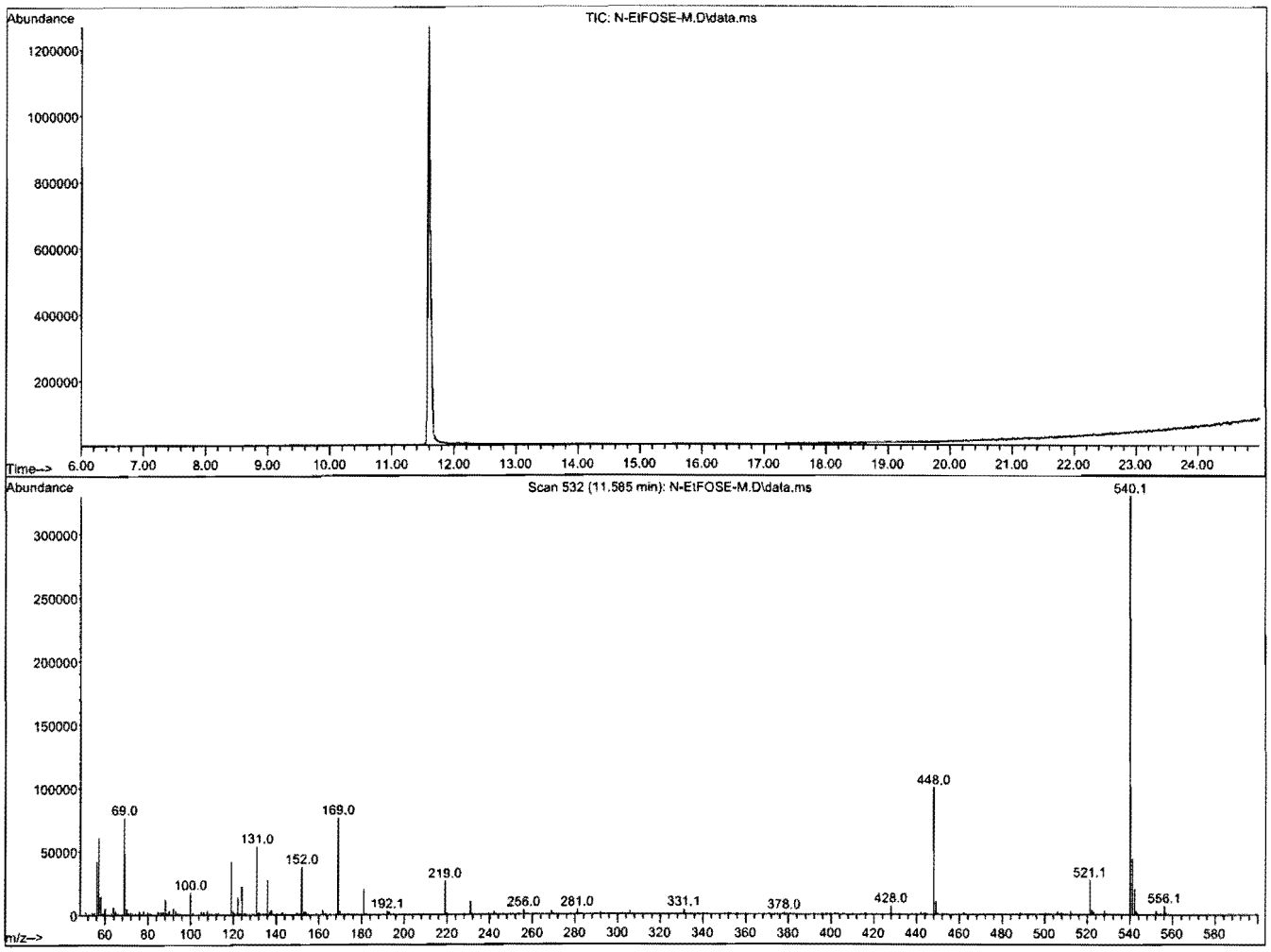
Flow: 300 µl/min

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

Figure 1: **N-EtFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



HRGC/LRMS:

Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min)
	10 °C/min to 325 °C
	325 °C (20 min)
Ionization:	EI+
Detector:	250 °C
	Full Scan (50-1000 amu)

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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.

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HOMOGENEITY:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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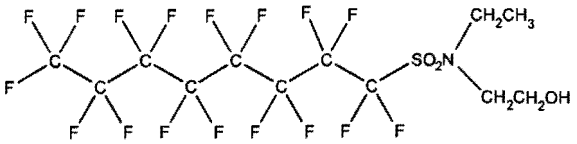
WELLINGTON LABORATORIES

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:	$C_{12}H_{10}F_{17}NO_3S$	**MOLECULAR WEIGHT:**	571.25
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/08/2019 (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:

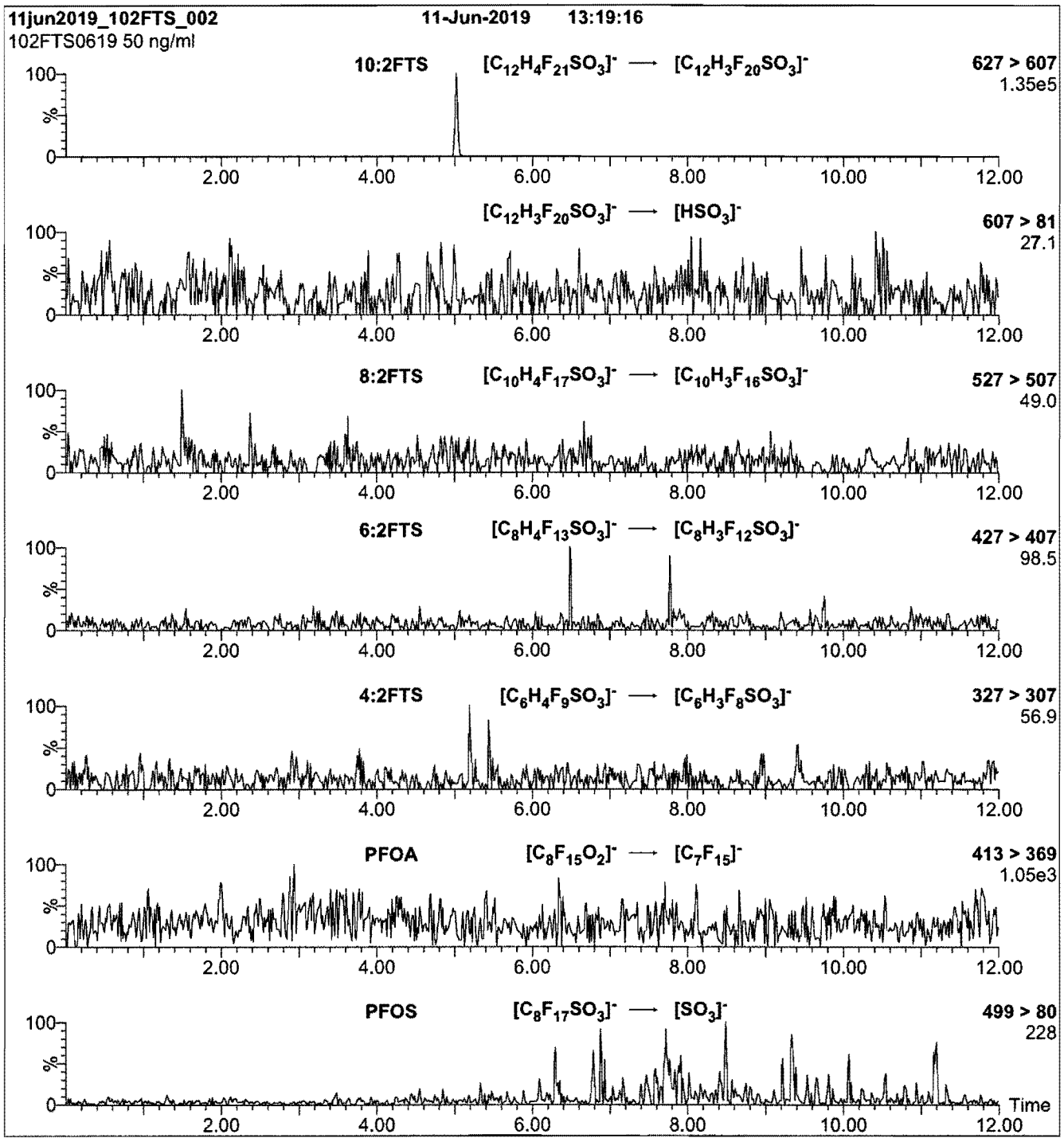
- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

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Certified By: _____ **Date:** 04/15/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

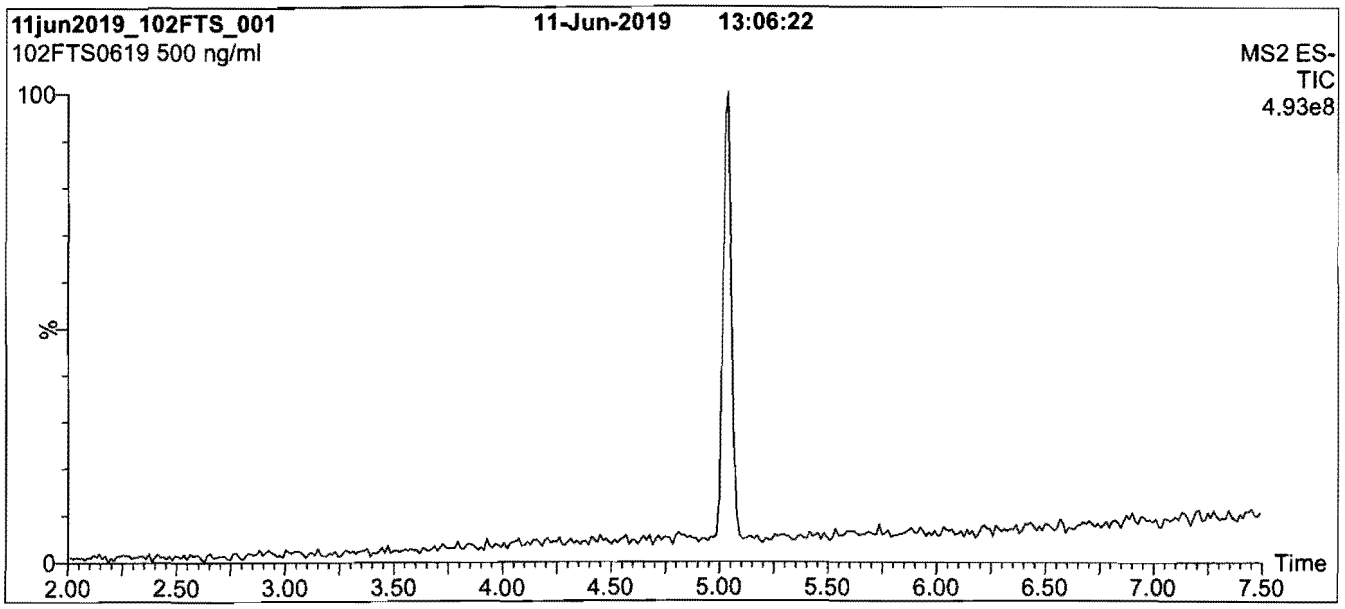
Flow: 300 µl/min

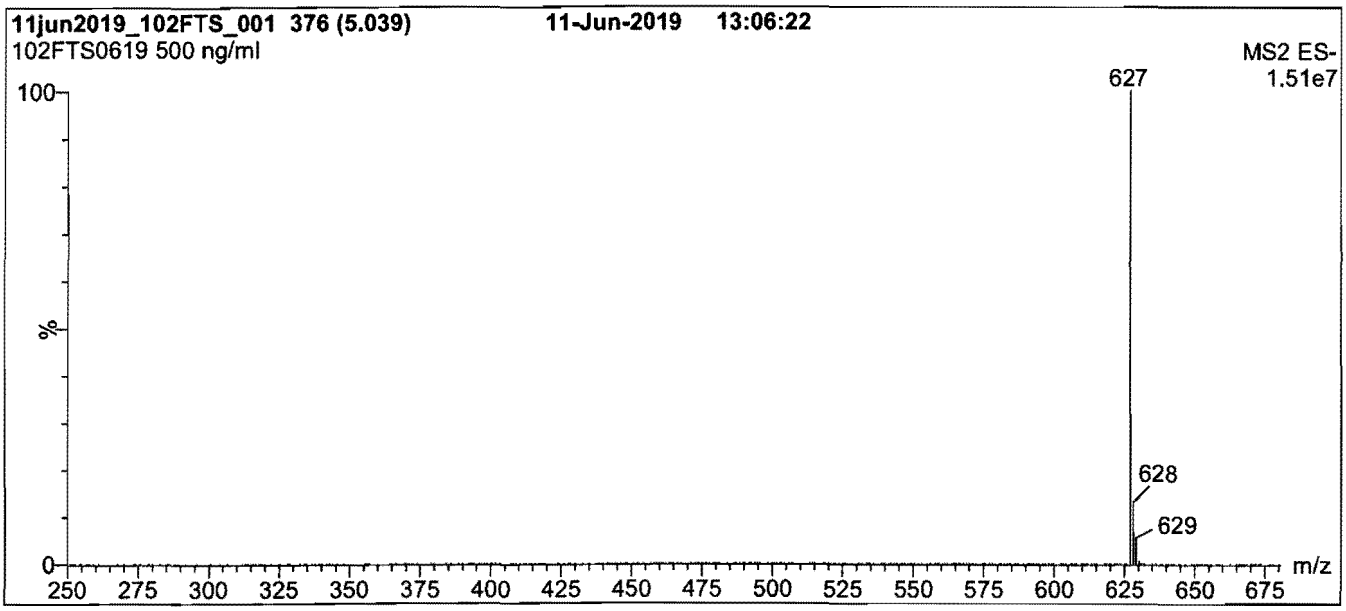
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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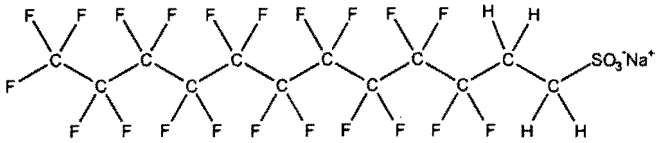
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WELLINGTON LABORATORIES

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 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	48.2 ± 2.4 µg/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:

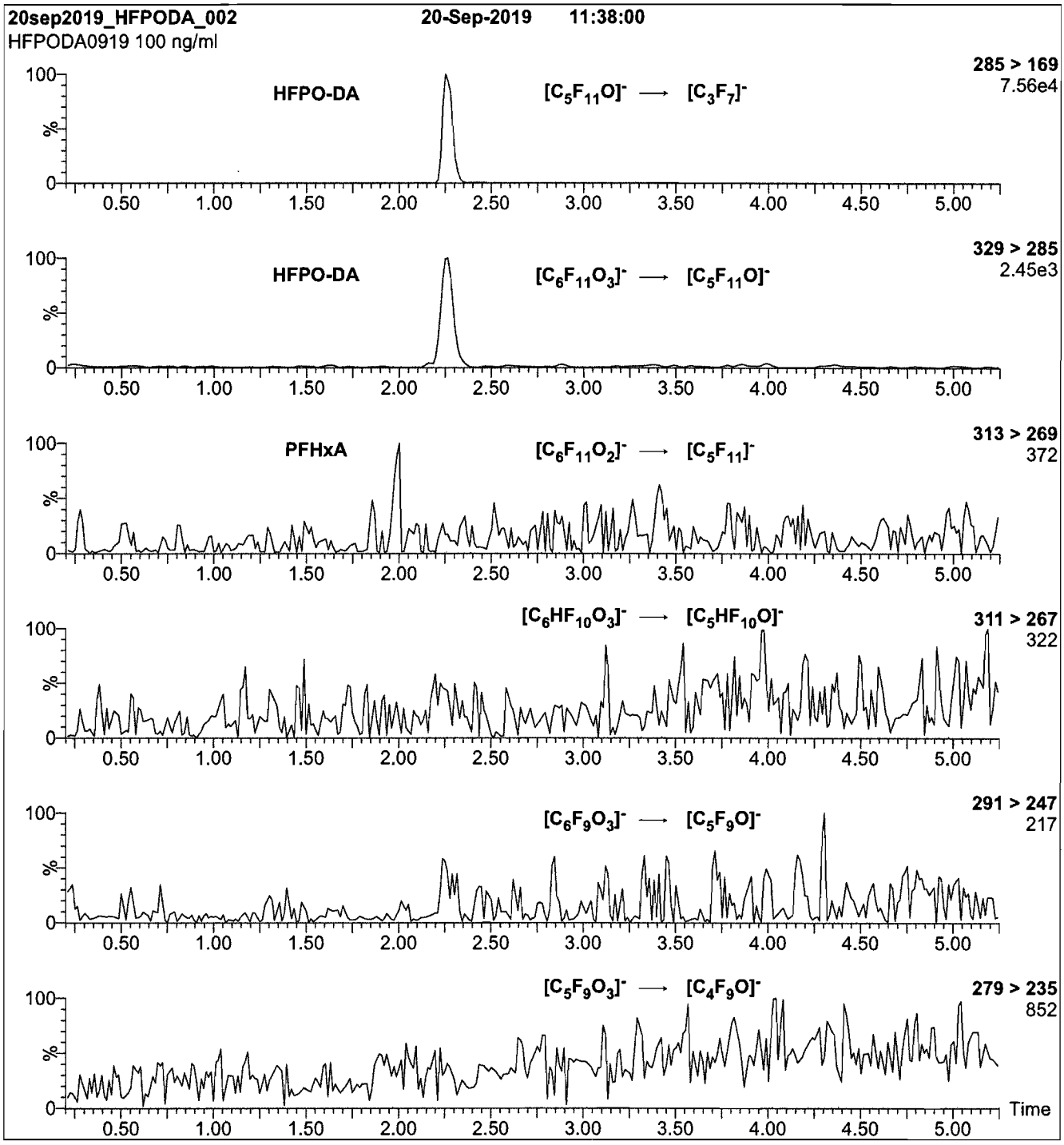
- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/18/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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

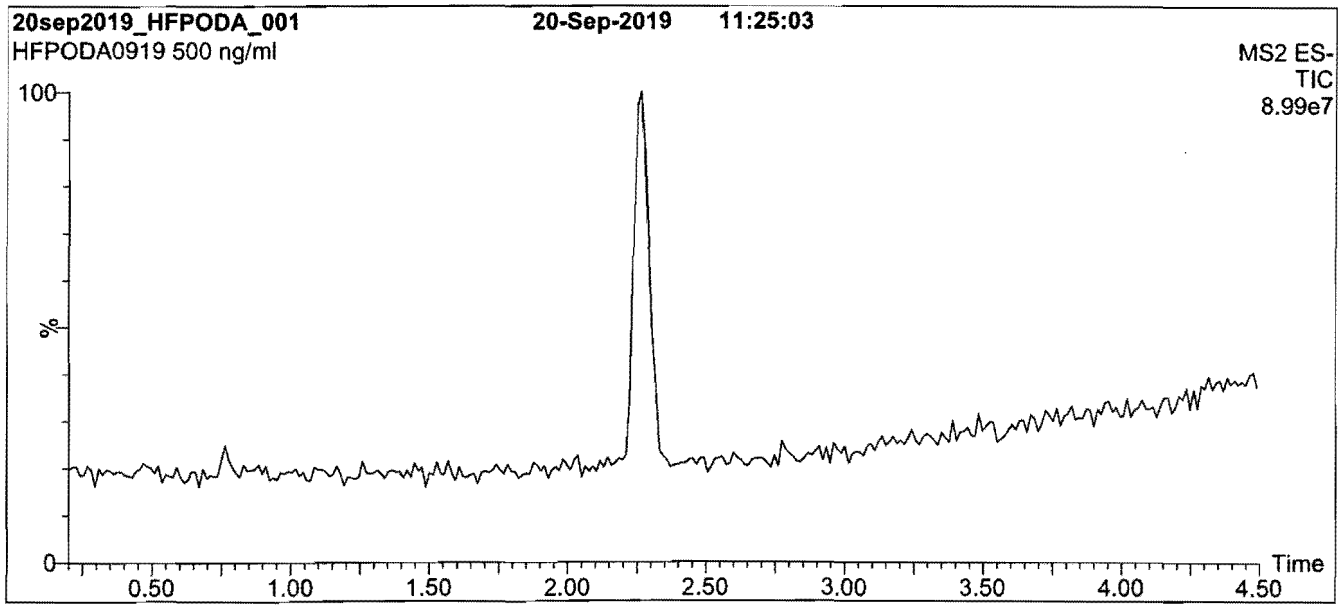
Flow: 300 µl/min

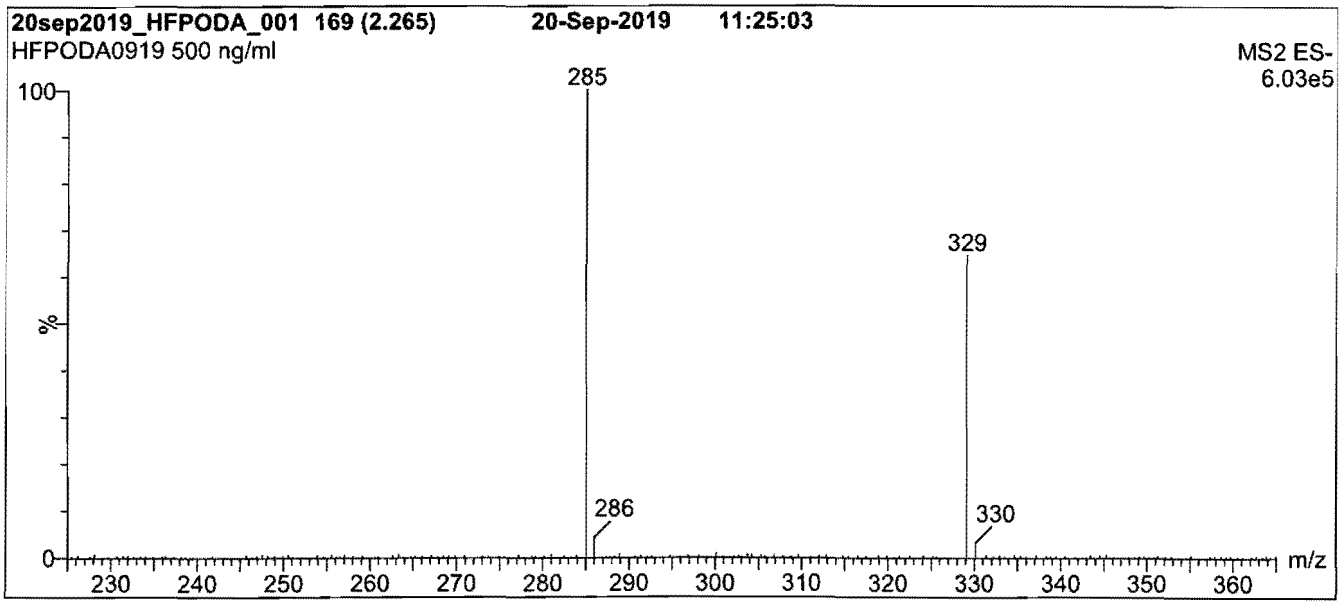
MS Parameters

Collision Gas (mbar) = 3.60e-3
Collision Energy (eV) = 8

1910666

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (l/hr) = 1000

19L 0666

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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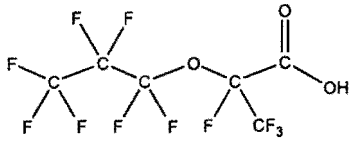
WELLINGTON LABORATORIES

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: $C_6HF_{11}O_3$ **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.

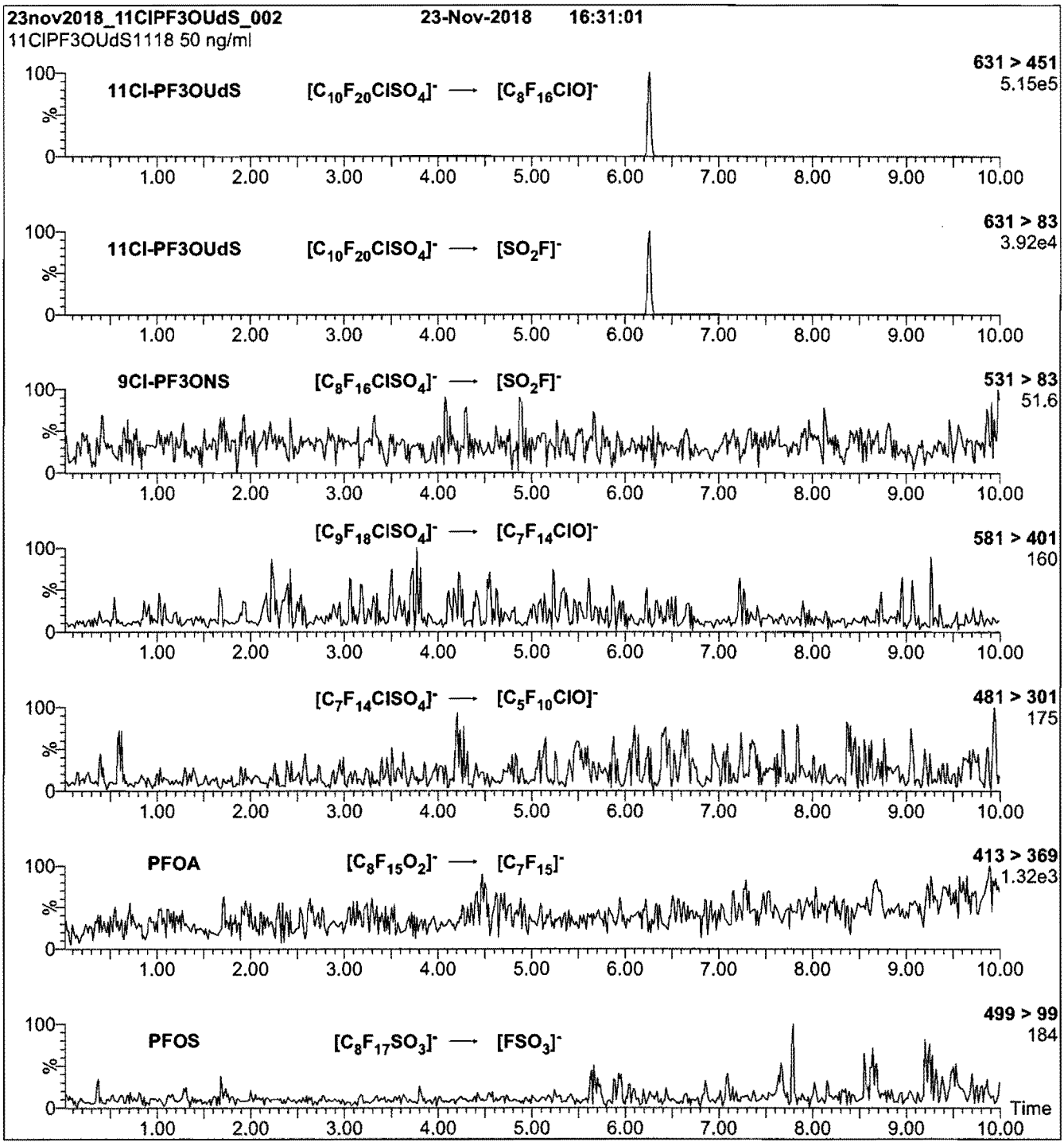
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/30/2019 (mm/dd/yyyy)

B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Figure 2: **11Cl-PF3OUdS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (11Cl-PF3OUdS)

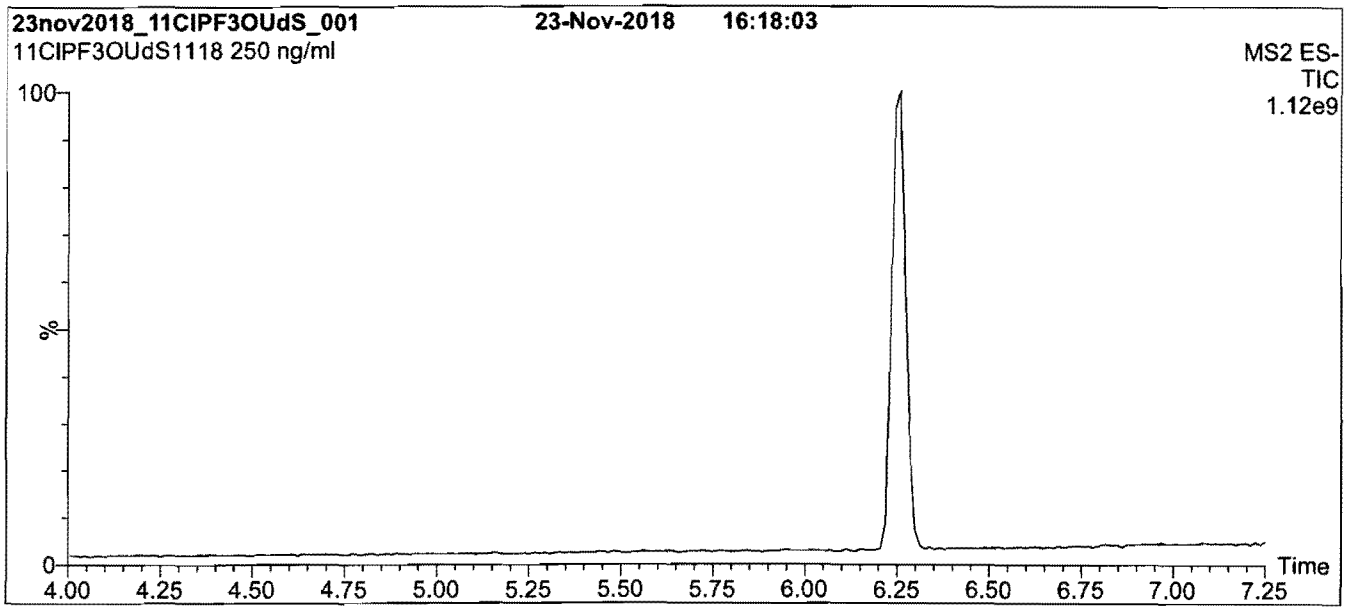
Mobile phase: Same as Figure 1

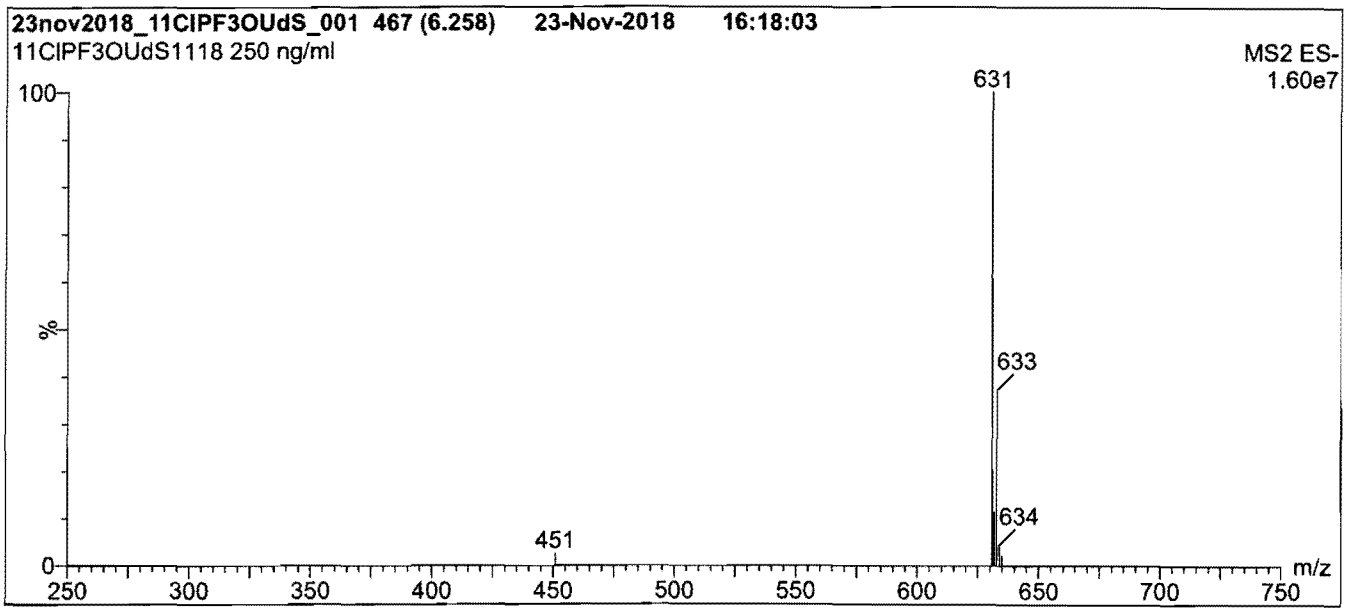
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.84e-3
Collision Energy (eV) = 24

Figure 1: **11Cl-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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

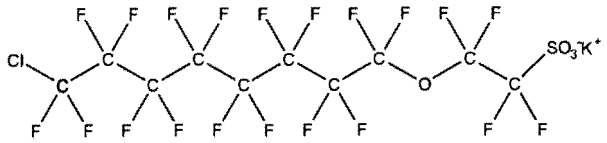
19L0667

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 11Cl-PF3OUdS **LOT NUMBER:** 11ClPF3OUdS1118
COMPOUND: Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate

STRUCTURE: **CAS #:** 83329-89-9



MOLECULAR FORMULA:	$C_{10}F_{20}ClSO_4K$	**MOLECULAR WEIGHT:**	670.69
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt)	**SOLVENT(S):**	Methanol
	47.1 ± 2.4 µg/ml (11Cl-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.

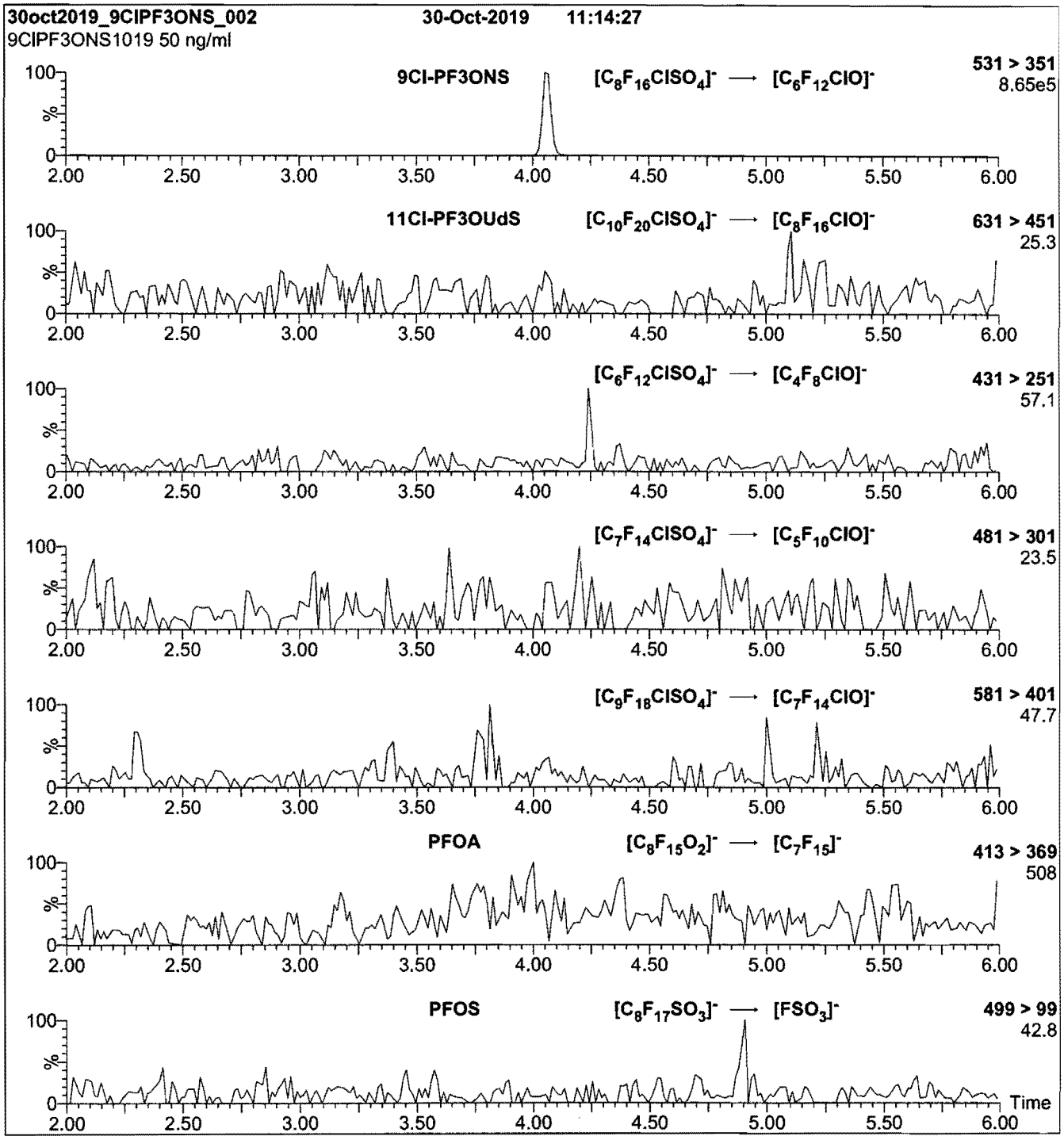
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Certified By: _____ **Date:** 11/28/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

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1910668

Figure 2: **9Cl-PF3ONS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (9Cl-PF3ONS)

Mobile phase: Same as Figure 1

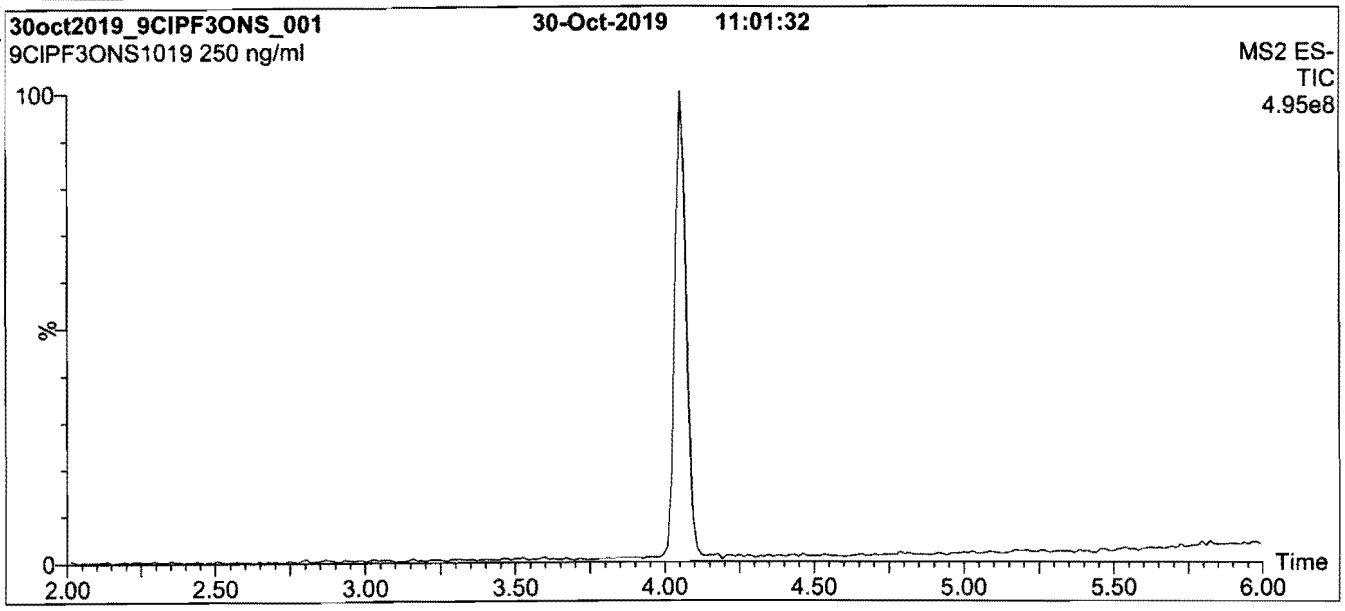
Flow: 300 µl/min

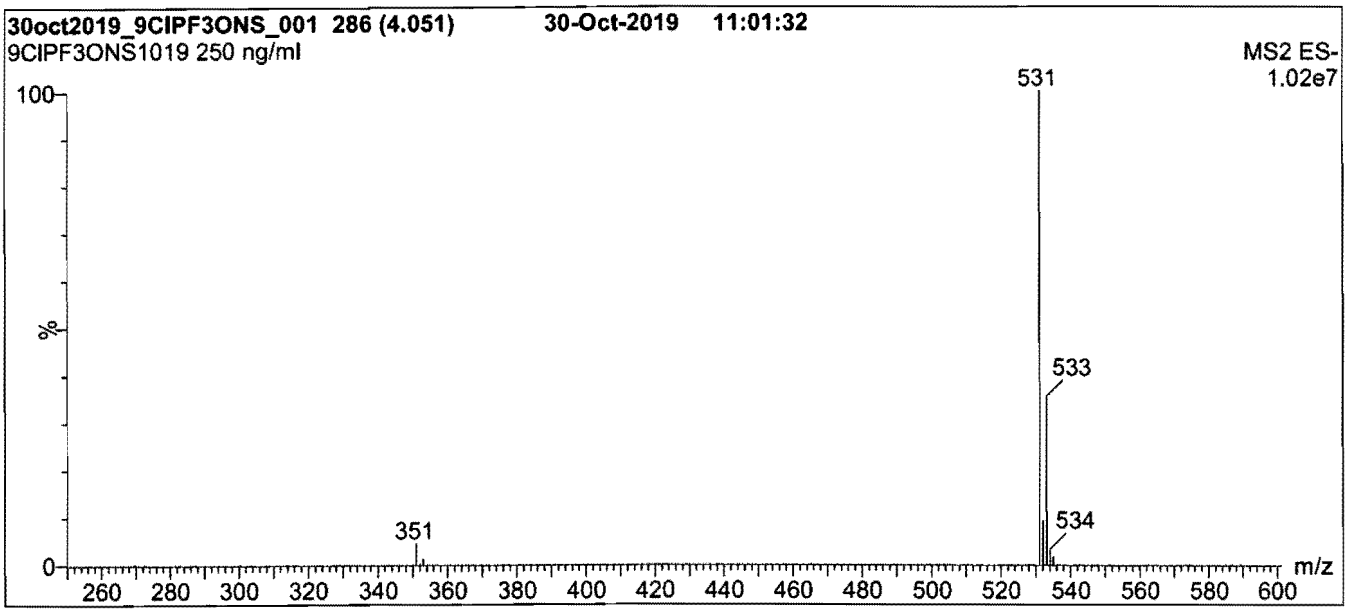
MS Parameters

Collision Gas (mbar) = 3.25e-3
Collision Energy (eV) = 20

19L0668

Figure 1: **9Cl-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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

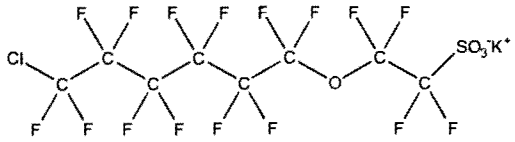
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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	9Cl-PF3ONS	**LOT NUMBER:**	9ClPF3ONS1019
COMPOUND:	Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate		
STRUCTURE:		**CAS #:**	73606-19-6



MOLECULAR FORMULA:	$C_8F_{16}ClSO_4K$	**MOLECULAR WEIGHT:**	570.67
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt) 46.6 ± 2.3 µg/ml (9Cl-PF3ONS anion)	**SOLVENT(S):**	Methanol
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.

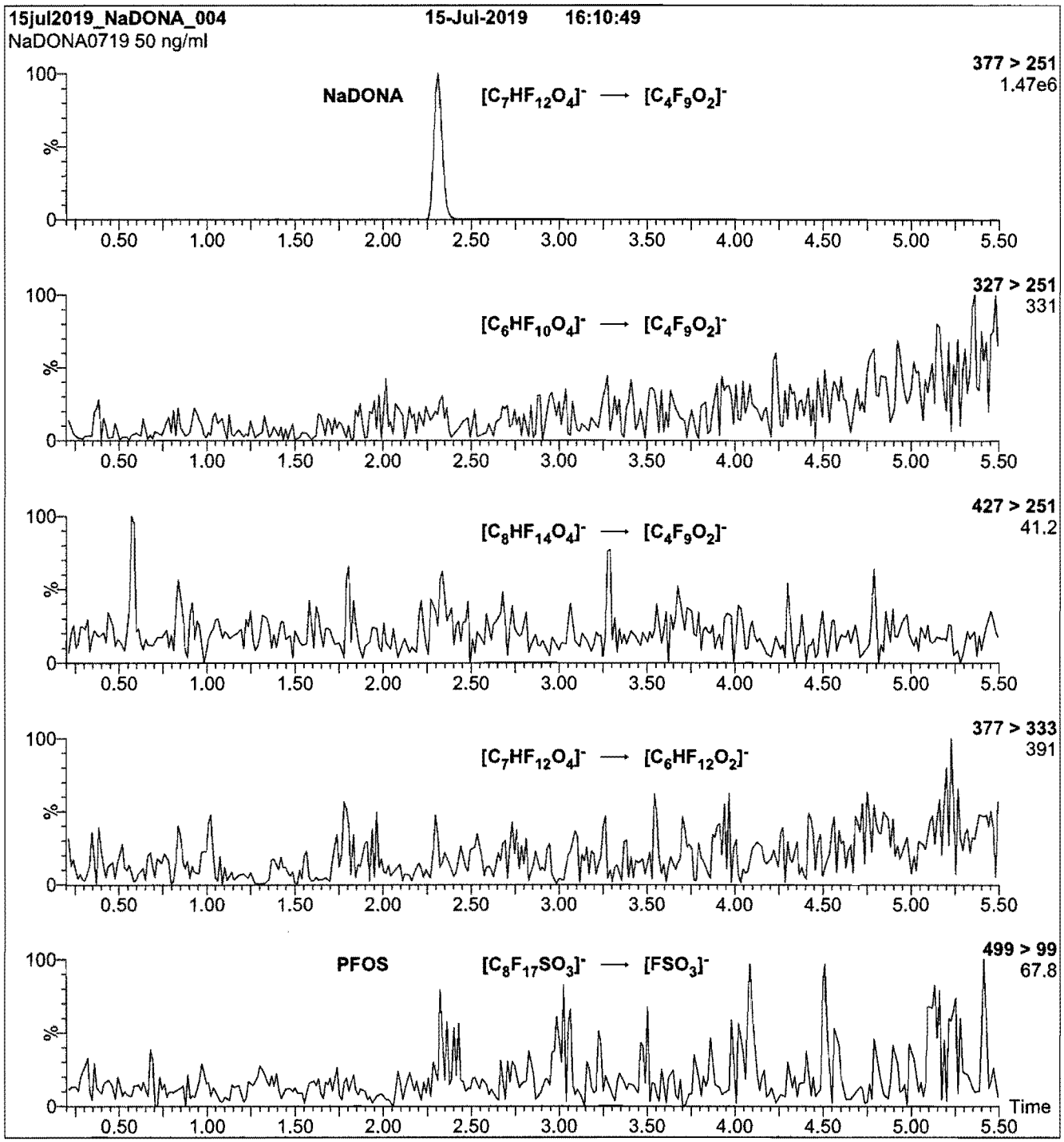
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Certified By: _____ **Date:** 11/04/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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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

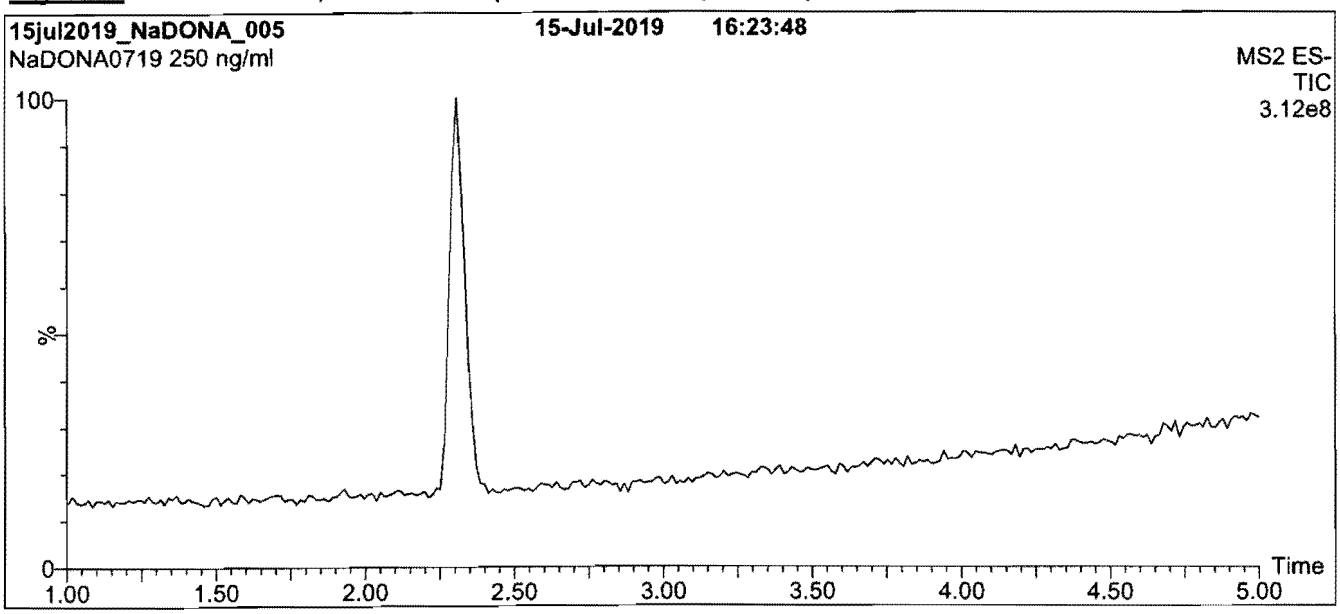
Flow: 300 µl/min

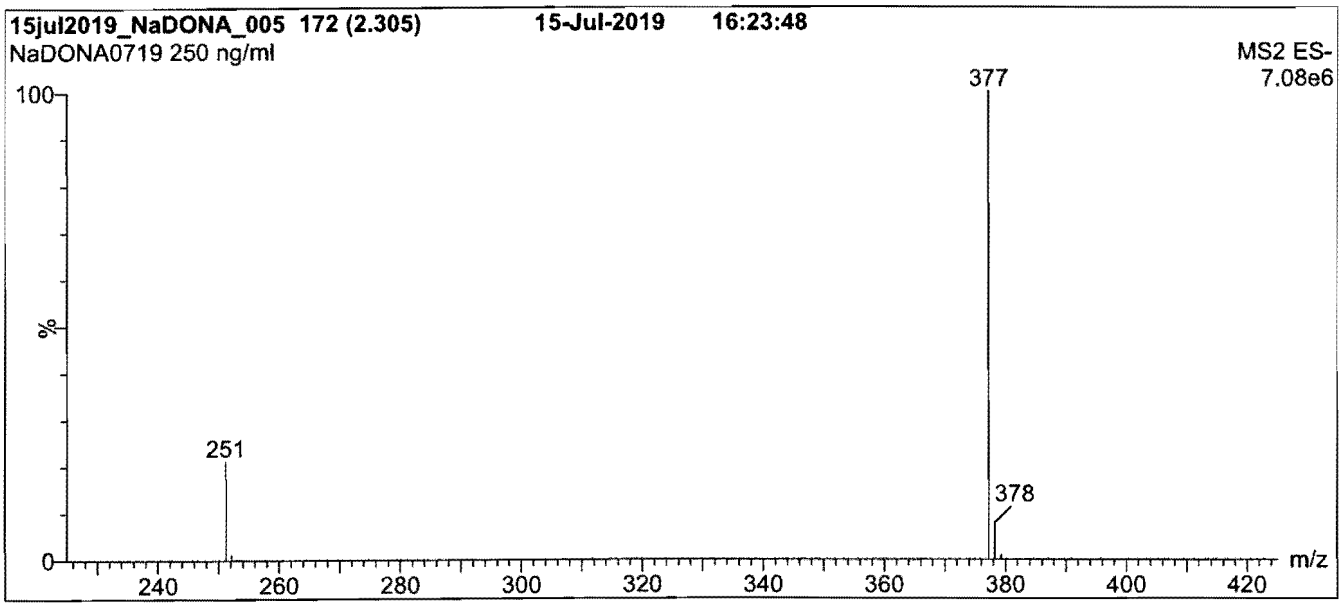
MS Parameters

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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.

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:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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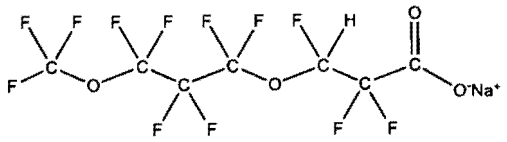
19L0669

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NaDONA
LOT NUMBER: NaDONA0719
COMPOUND: Sodium dodecafluoro-3H-4,8-dioxanonanoate

STRUCTURE:



CAS #: 958445-44-8 (ammonium salt)

MOLECULAR FORMULA:	$C_7HF_{12}O_4Na$	**MOLECULAR WEIGHT:**	400.05
CONCENTRATION:	50 ± 2.5 µg/ml (Na Salt)	**SOLVENT(S):**	Methanol
	47.1 ± 2.4 µg/ml (NaDONA anion)		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.

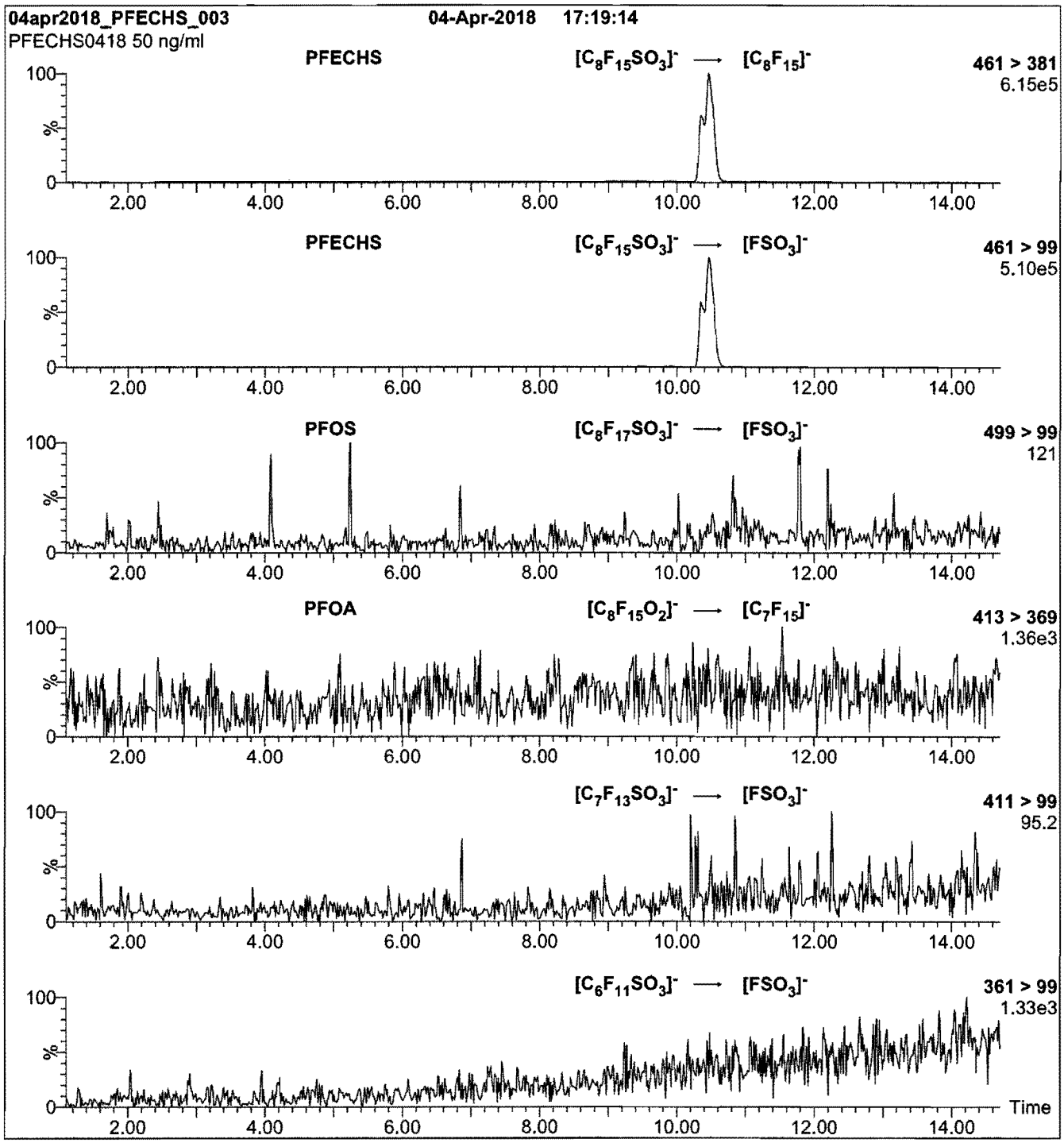
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Certified By: _____ **Date:** 07/25/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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1910670

Figure 2: **PFECHS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFECHS)

Mobile phase: Same as Figure 1

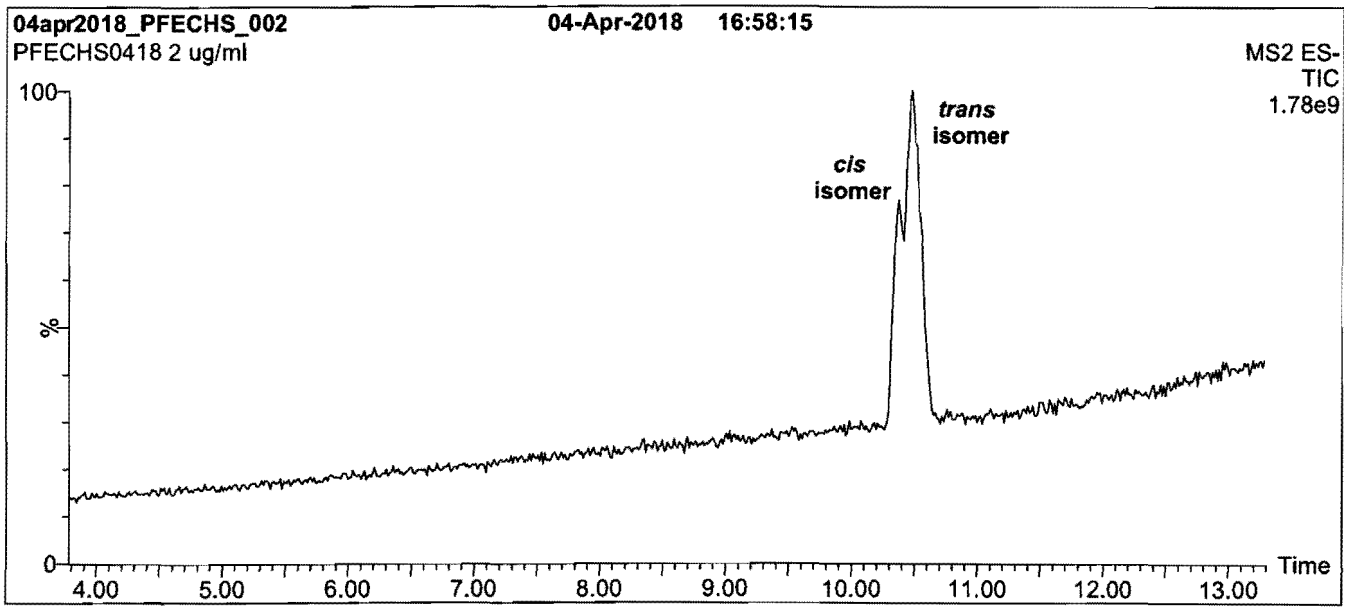
Flow: 300 µl/min

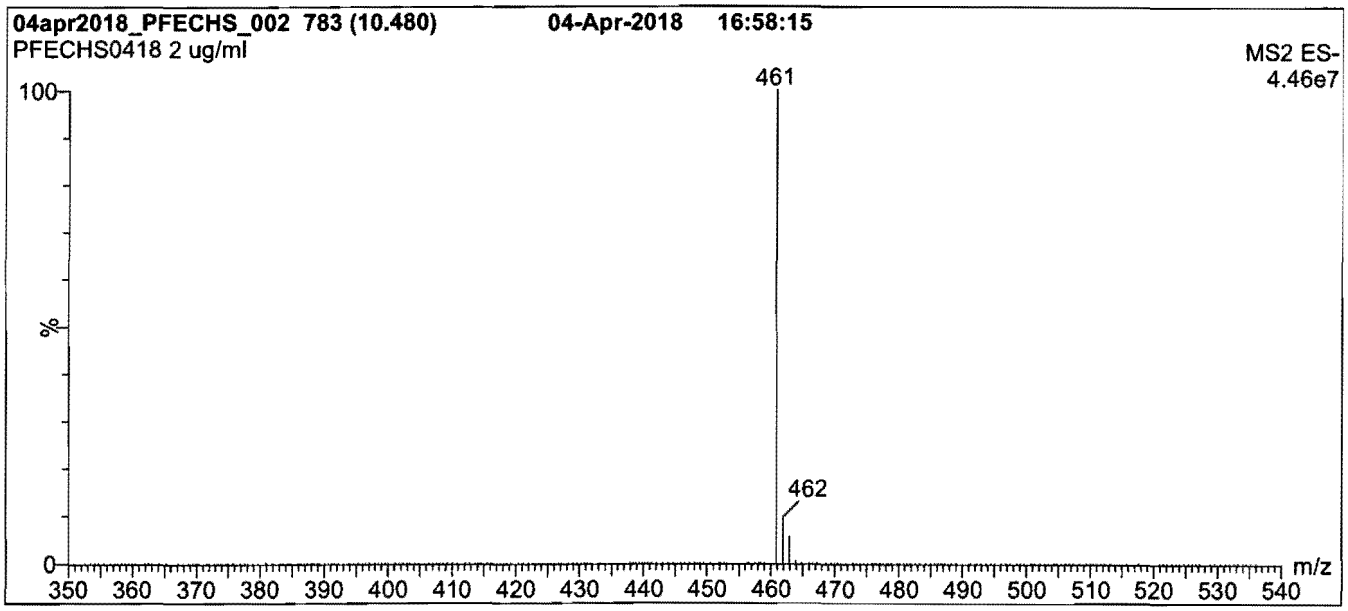
MS Parameters

Collision Gas (mbar) = 3.37e-3
Collision Energy (eV) = 24

1910670

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 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 25% (80:20 MeOH:ACN) / 75% H_2O
(both with 10 mM NH_4OAc 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 µl/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

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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

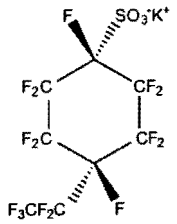
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

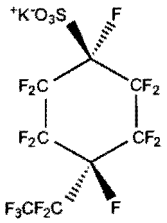
PRODUCT CODE: PFECHS **LOT NUMBER:** PFECHS0418

COMPOUND: Potassium perfluoro-4-ethylcyclohexanesulfonate (isomeric mixture)

STRUCTURE:



cis-isomer



trans-isomer

CAS #: 67584-42-3

MOLECULAR FORMULA:	$C_8F_{15}SO_3K$	**MOLECULAR WEIGHT:**	500.22
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt) 46.1 ± 2.3 µg/ml (PFECHS anion)	**SOLVENT(S):**	Methanol
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.

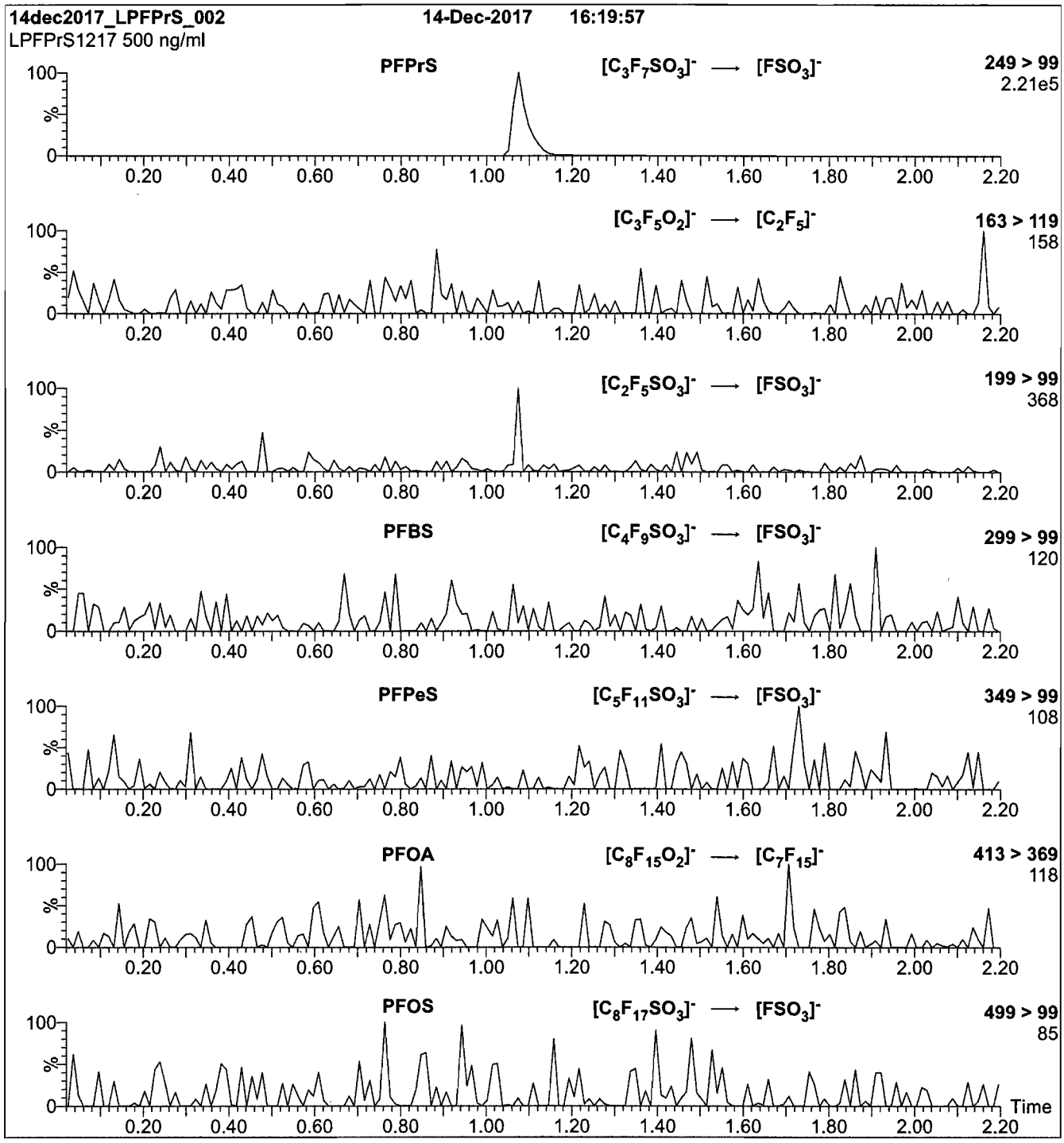
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/09/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **L-PFPrS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFPrS)

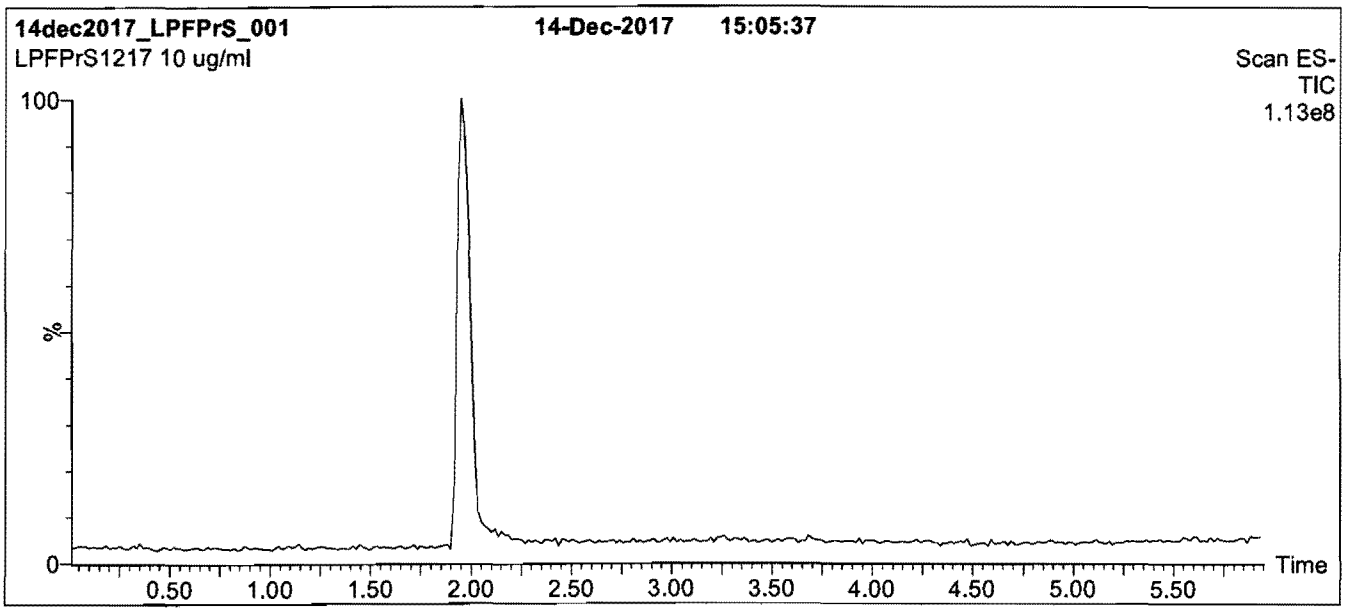
Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

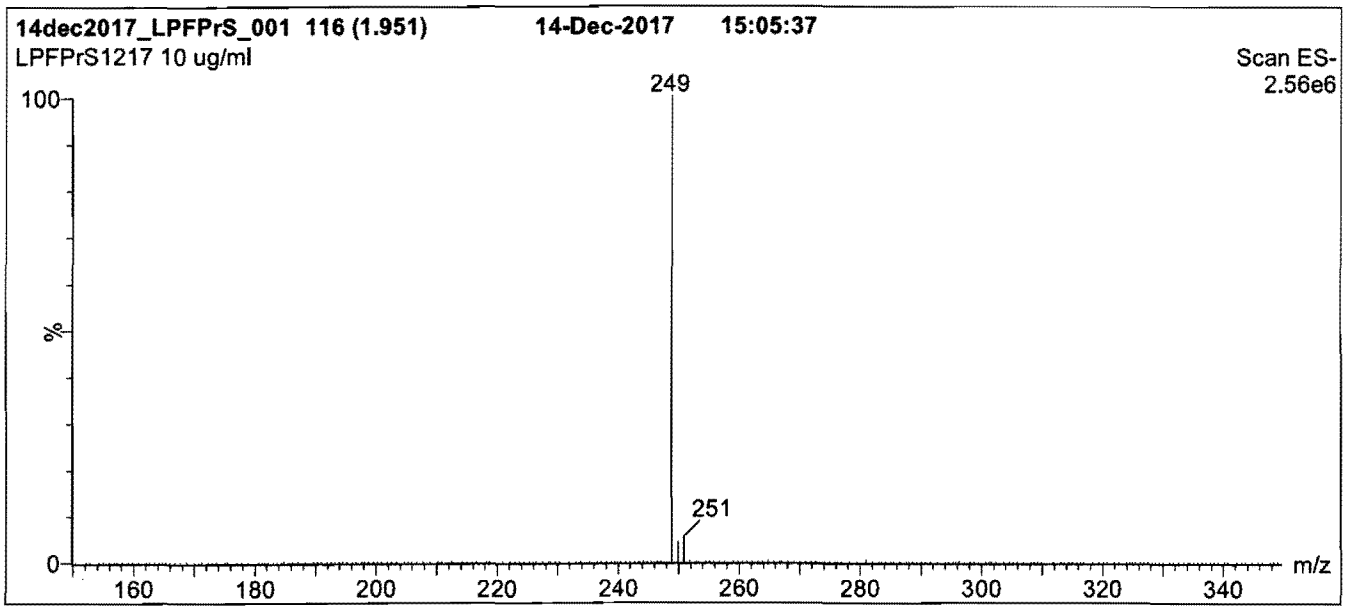
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 25

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions over 0.5 min.
Time: 10 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

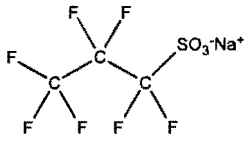
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1L0671

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	L-PFPrS	**LOT NUMBER:**	LPFPrS1217
COMPOUND:	Sodium perfluoro-1-propanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_3F_7SO_3Na$	**MOLECULAR WEIGHT:**	272.07
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 45.8 ± 2.3 µg/ml (PFPrS anion)	**SOLVENT(S):**	Methanol
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: _____ **Date:** 12/18/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

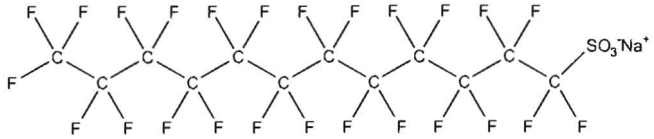
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	48.4 ± 2.4 µg/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:

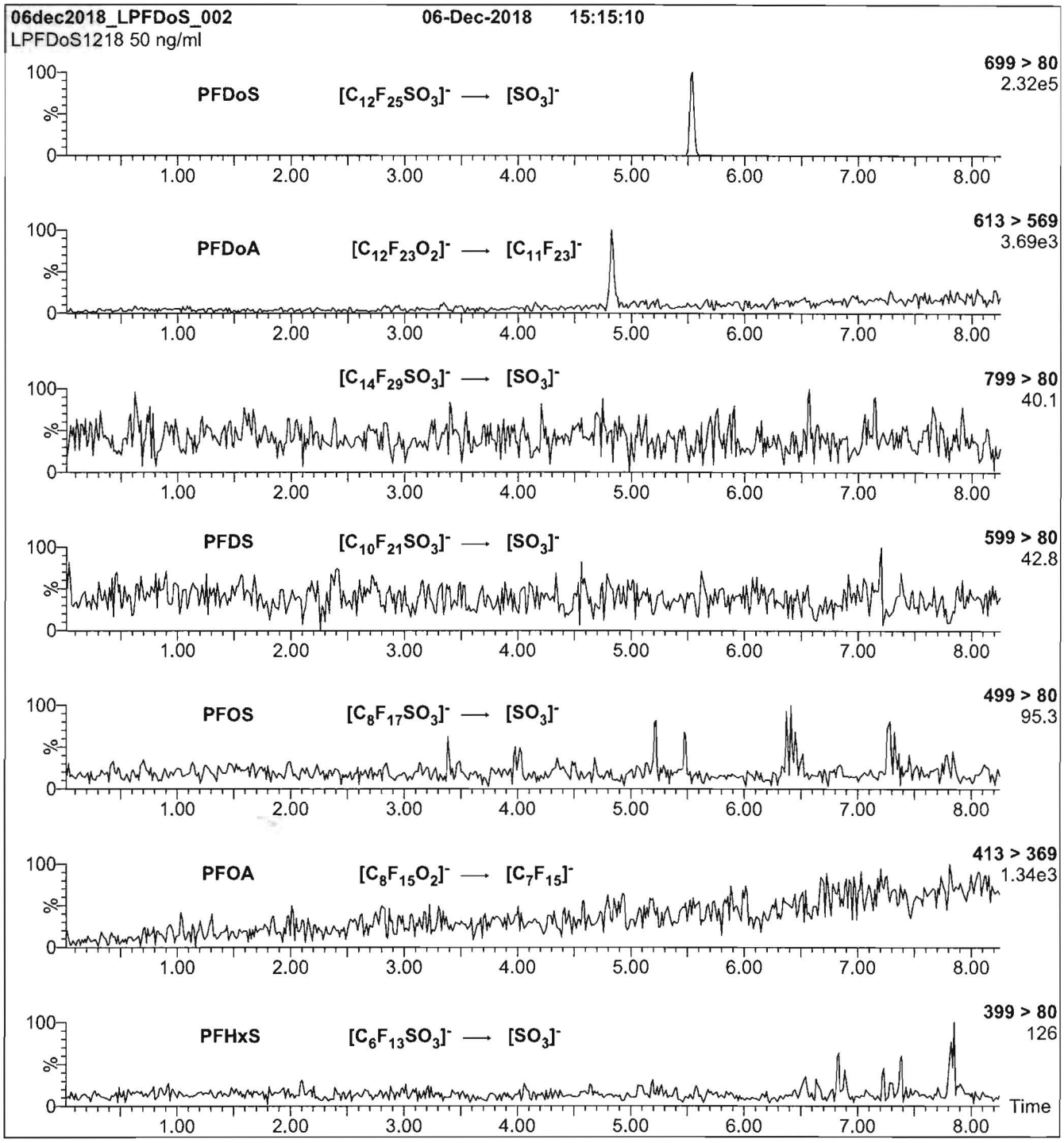
- See page 2 for further details.
- Contains ~ 0.2% of perfluoro-n-dodecanoic acid (PFDoA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/20/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Figure 2: **L-PFDoS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (L-PFDoS)

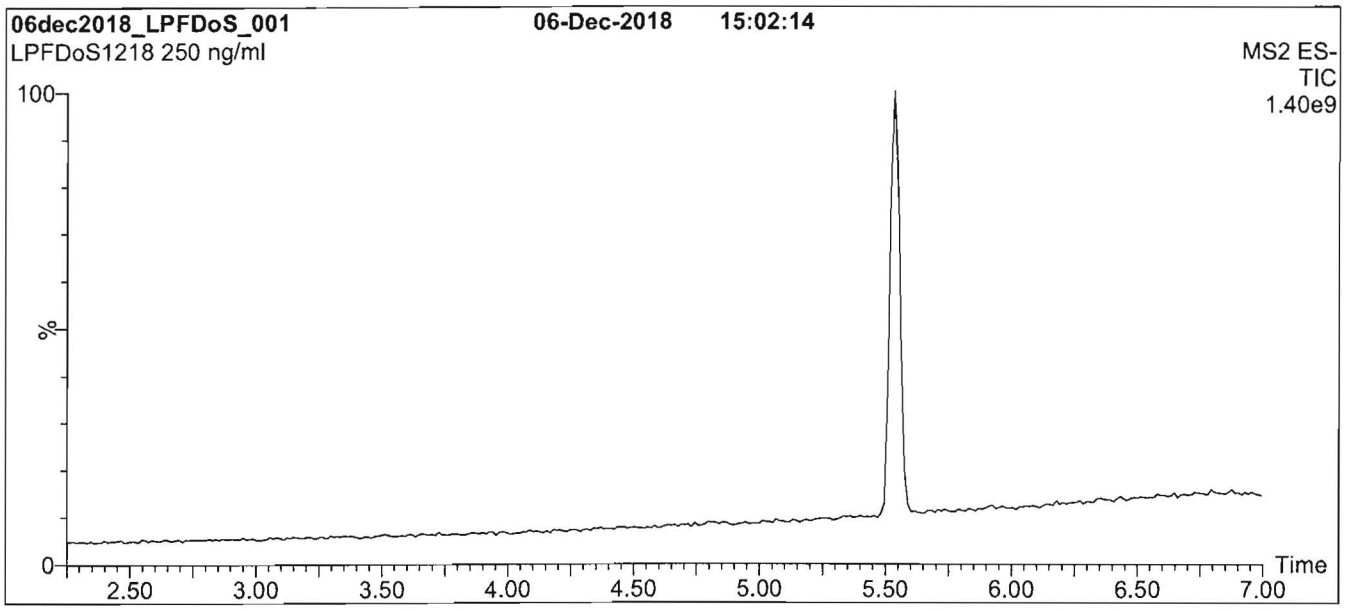
Mobile phase: Same as Figure 1

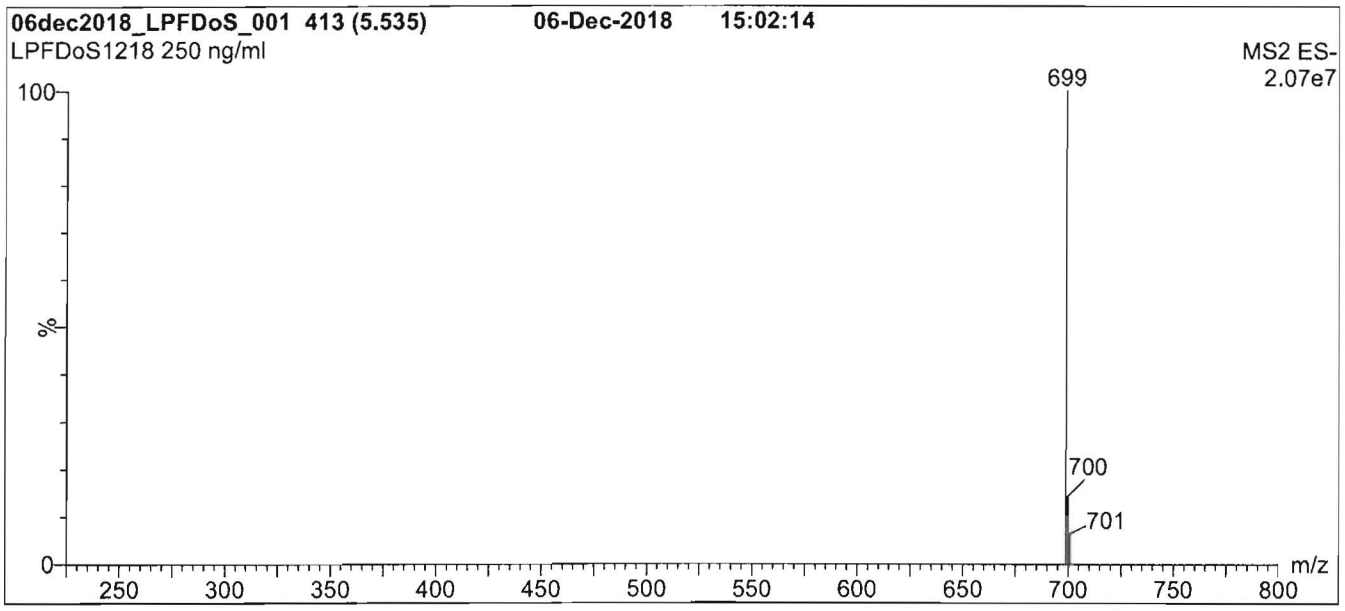
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.27e-3
Collision Energy (eV) = 60

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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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:

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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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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Analytical Standard Record

Vista Analytical Laboratory

20A0804

Parent Standards used in this standard:

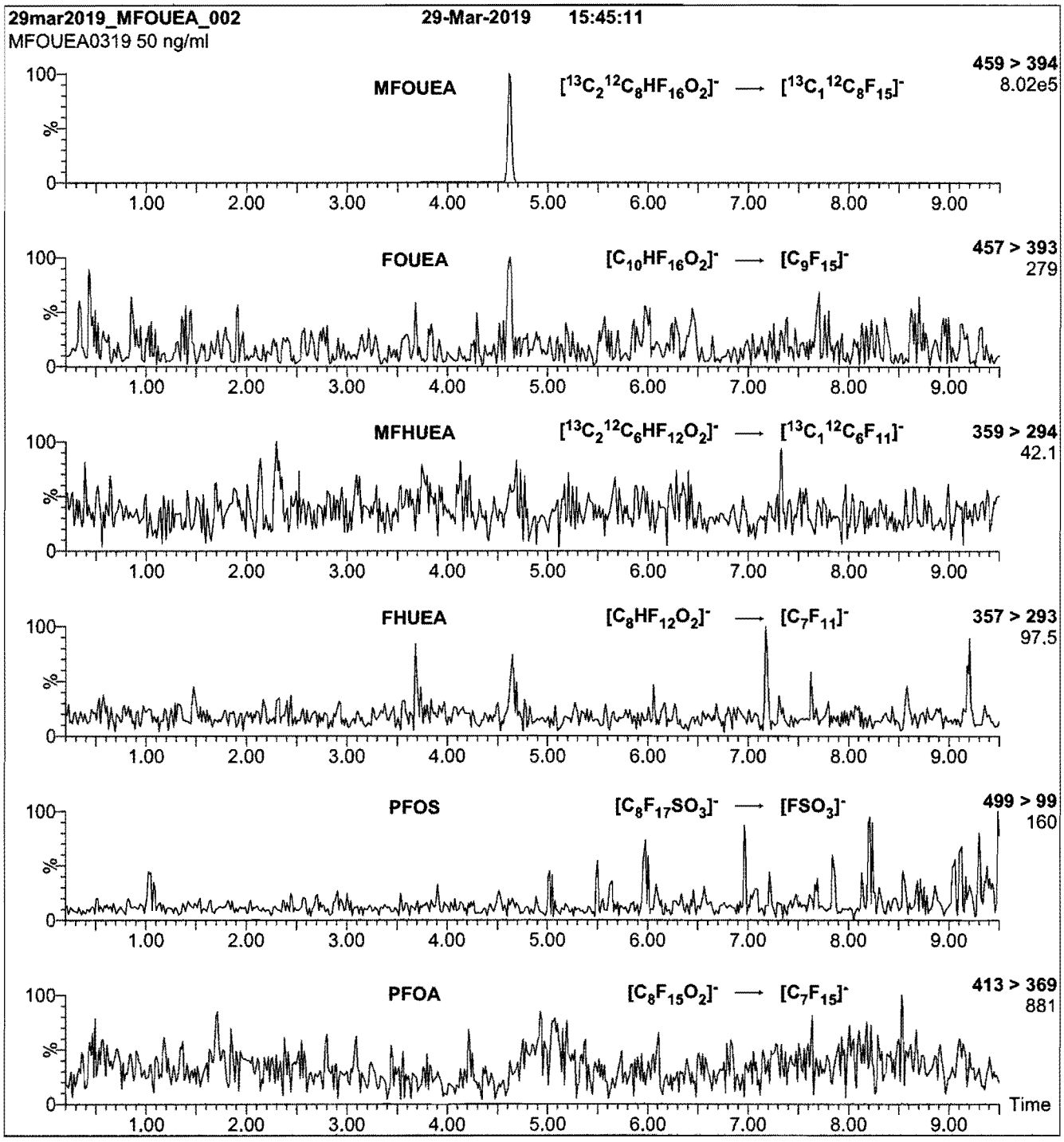
Standard	Description	Prepared	Prepared By	Expires	(mls)
19L0626	13C2-FOUEA	06-Dec-19	** Vendor **	29-Mar-21	1
19L0627	13C4-PFBA	06-Dec-19	** Vendor **	15-Nov-24	1
19L0628	13C6-PFDA	06-Dec-19	** Vendor **	25-Jul-24	1
19L0629	13C9-PFNA	06-Dec-19	** Vendor **	08-Sep-23	1
19L0630	13C7-PFUdA	06-Dec-19	** Vendor **	22-Jul-24	1
19L0631	13C5-PFHxA	06-Dec-19	** Vendor **	27-Sep-23	1
19L0632	18O2-PFHxS	06-Dec-19	** Vendor **	10-Jan-24	1.06
19L0633	13C4-PFOS	06-Dec-19	** Vendor **	01-Nov-24	1.05
19L0634	13C8-PFOA	06-Dec-19	** Vendor **	05-Mar-24	1.02

Description:	PFC-RS	Expires:	09-Jan-21
Standard Type:	Reagent	Prepared:	08-Jan-20
Solvent:	MeOH	Prepared By:	Brittany M. Lamb
Final Volume (mls):	40	Department:	LCMS
Vials:	1	Last Edit:	08-Jan-20 12:43 by BML

10 uL spike

Analyte	CAS Number	Concentration	Units
18O2-PFHxS		1.25	ug/mL
13C9-PFNA		1.25	ug/mL
13C8-PFOA		1.25	ug/mL
13C7-PFUnA		1.25	ug/mL
13C6-PFDA		1.25	ug/mL
13C5-PFHxA		1.25	ug/mL
13C4-PFOS		1.25	ug/mL
13C4-PFBA		1.25	ug/mL
13C2-FOUEA		1.25	ug/mL

Figure 2: **MFOUEA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MFOUEA)

Mobile phase: Same as Figure 1

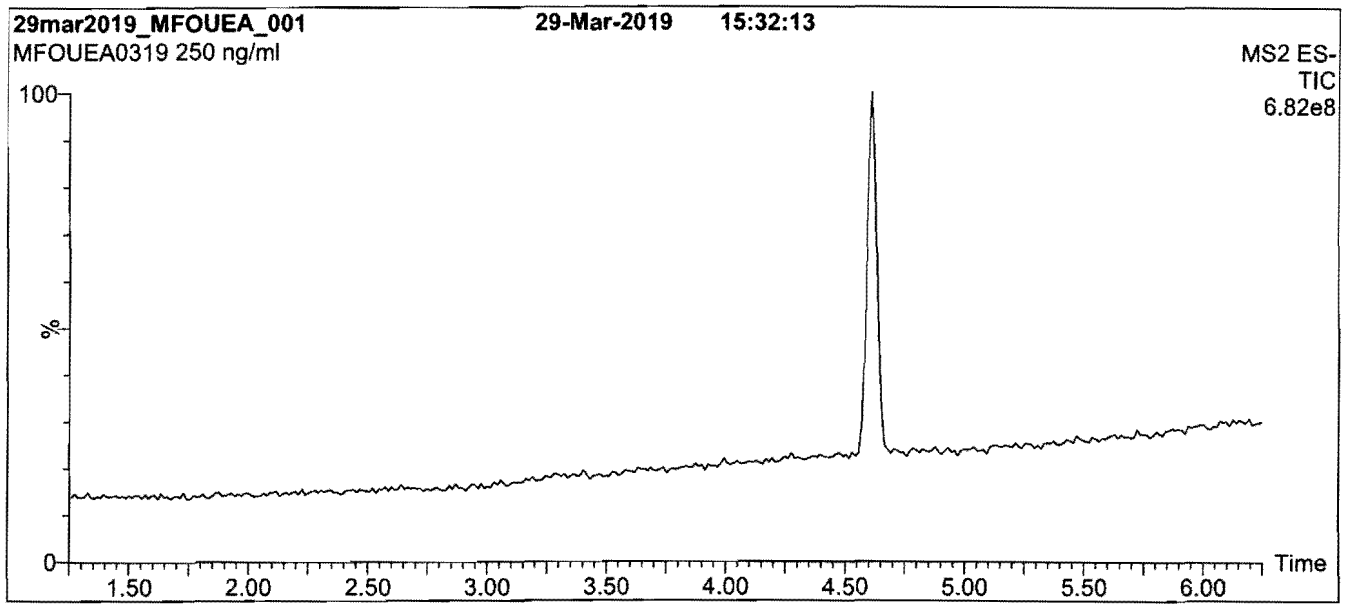
Flow: 300 µl/min

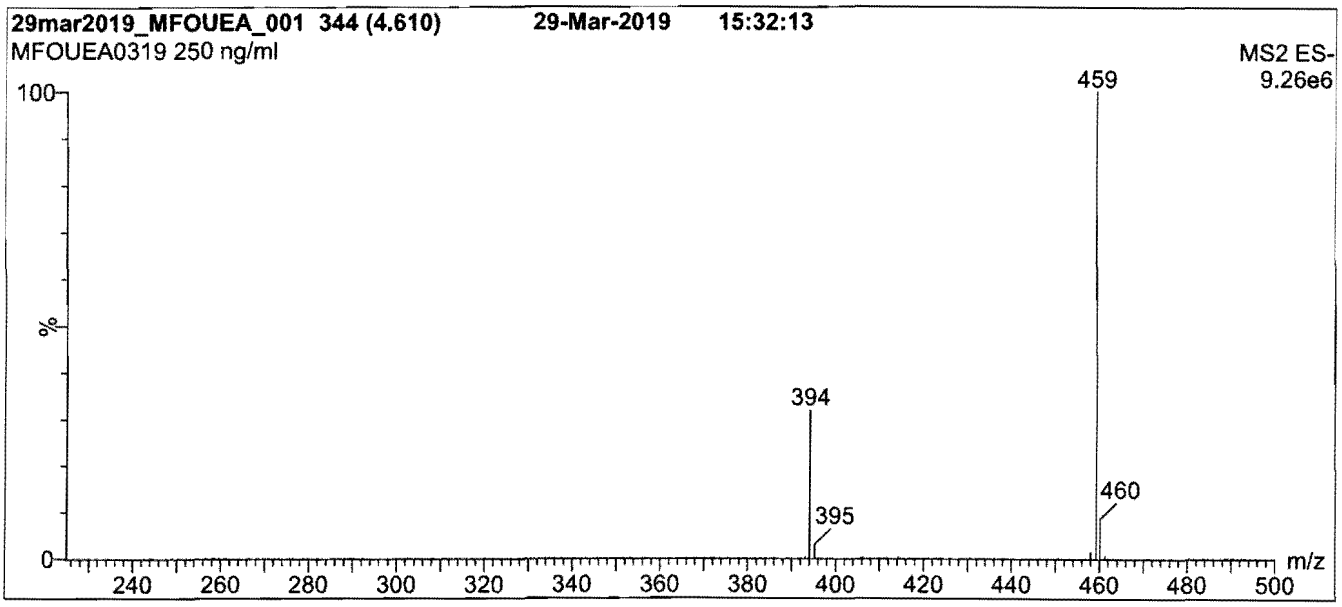
MS Parameters

Collision Gas (mbar) = 2.84e-3
Collision Energy (eV) = 10

19L0626

Figure 1: **MFOUEA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.70
Cone Voltage (V) = 28.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

19L0626

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

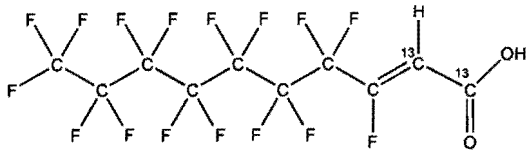
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0626

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MFOUEA	**LOT NUMBER:**	MFOUEA0319
COMPOUND:	2H-Perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_2F_{16}O_2$	**MOLECULAR WEIGHT:**	460.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Anhydrous Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	03/29/2019		
EXPIRY DATE: (mm/dd/yyyy)	03/29/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

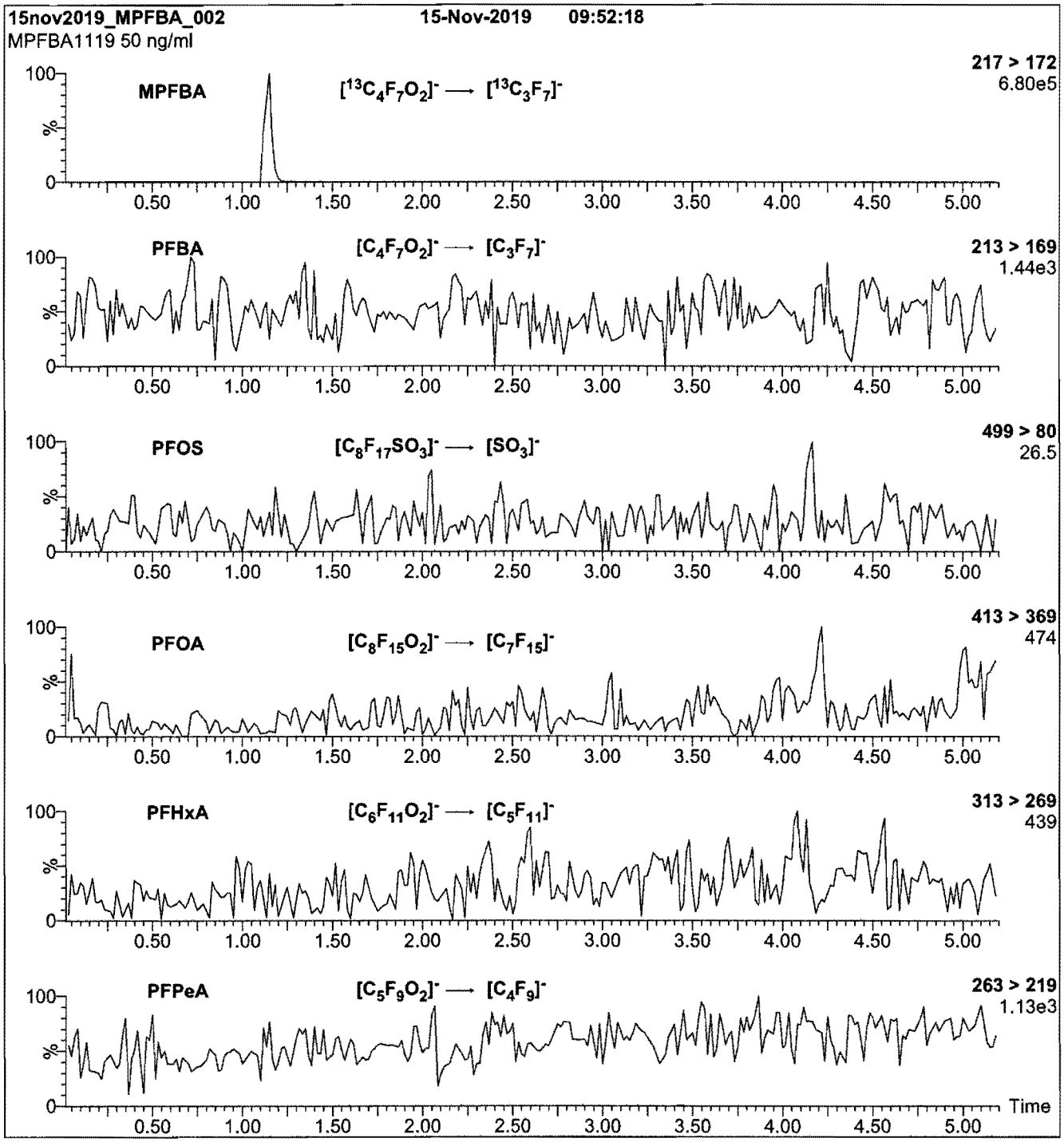
- See page 2 for further details.
- Dilution of this standard in methanol may lead to the formation of 2H-3-methoxy-perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid. This reaction can be catalyzed by the presence of acid or base. All dilutions should be routinely checked for degradation.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/15/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **MPFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFBA)

Mobile phase: Same as Figure 1

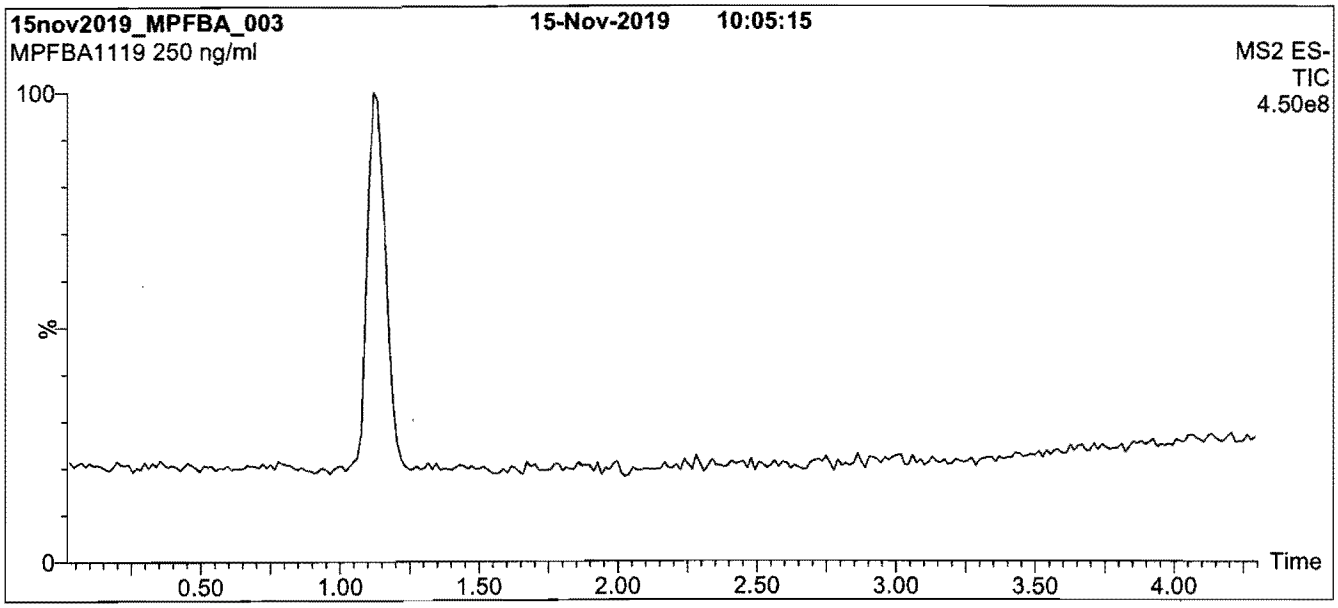
Flow: 300 µl/min

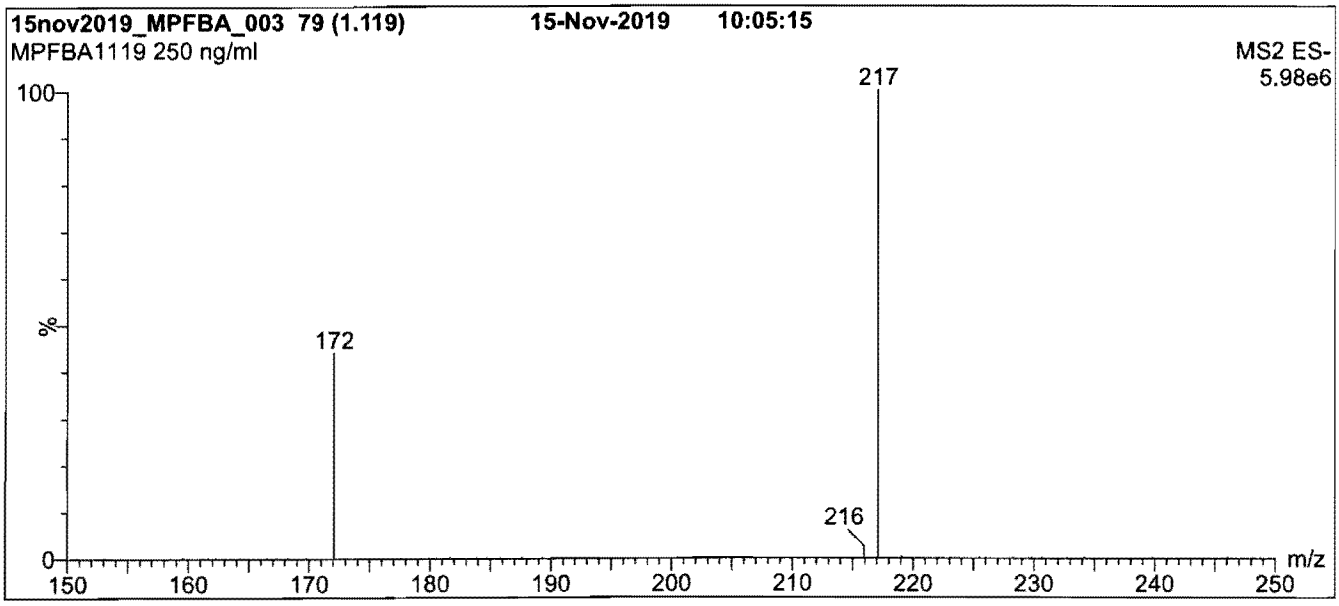
MS Parameters

Collision Gas (mbar) = 3.33e-3
Collision Energy (eV) = 8

19L0627

Figure 1: **MPFBA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0627

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:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

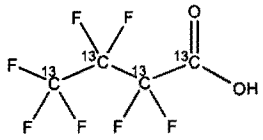
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0627

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFBA	**LOT NUMBER:**	MPFBA1119
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4HF_7O_2$	**MOLECULAR WEIGHT:**	218.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	11/15/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/15/2024		
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 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

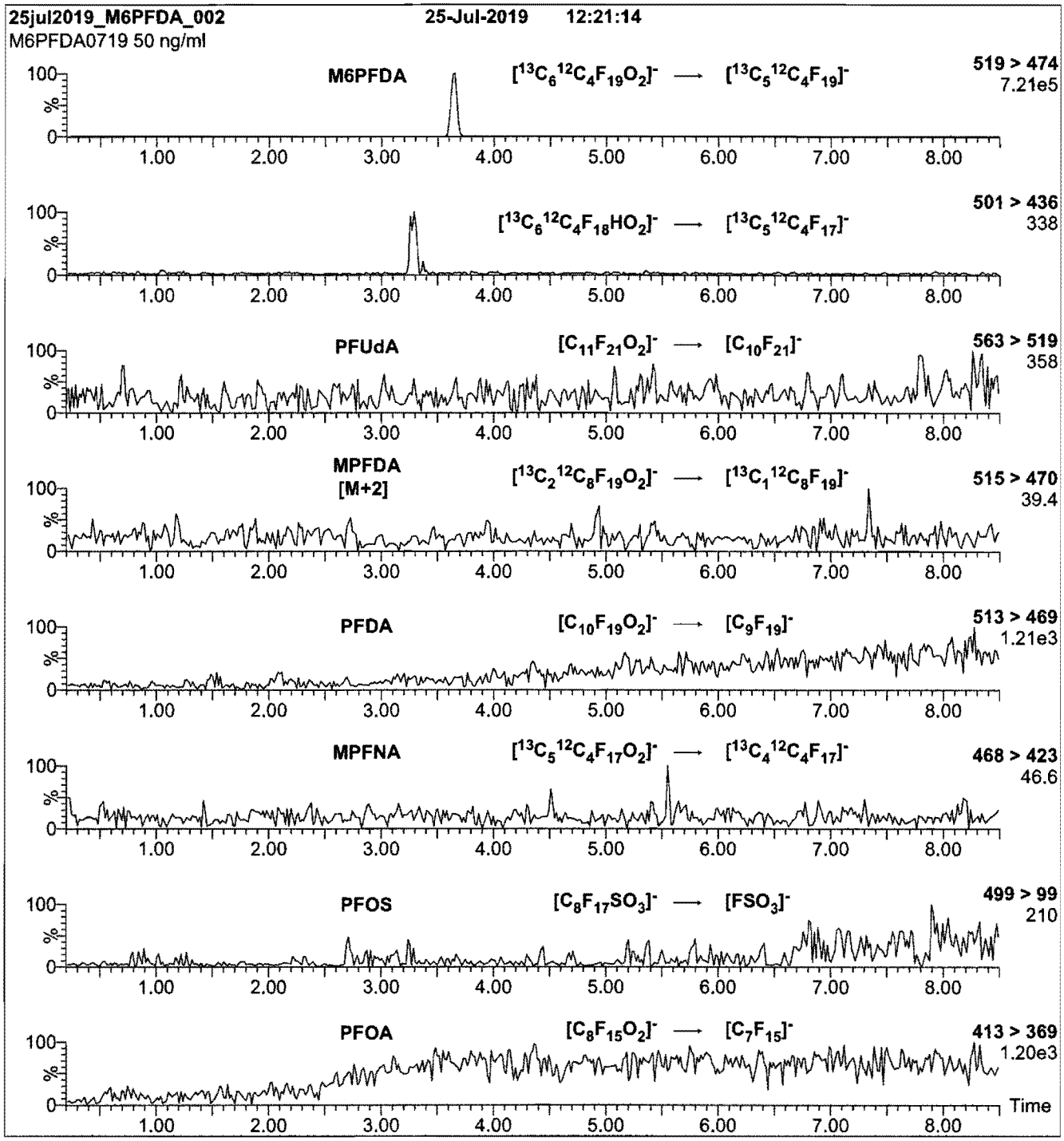
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/15/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0628

Figure 2: **M6PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M6PFDA)

Mobile phase: Same as Figure 1

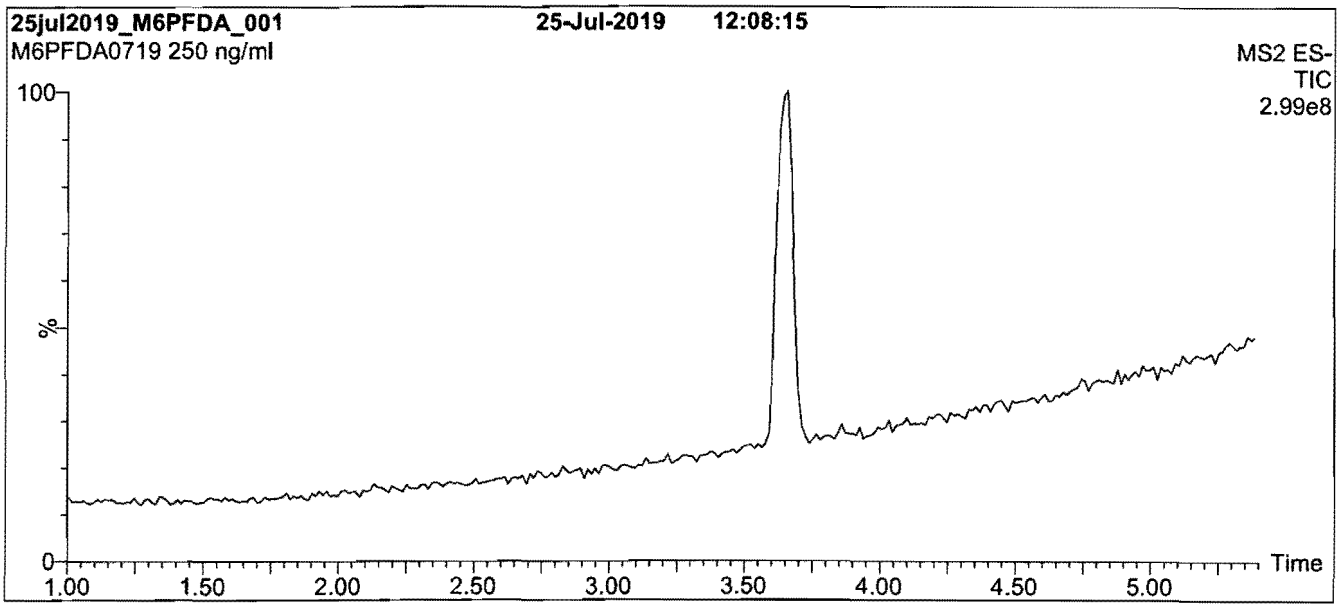
Flow: 300 µl/min

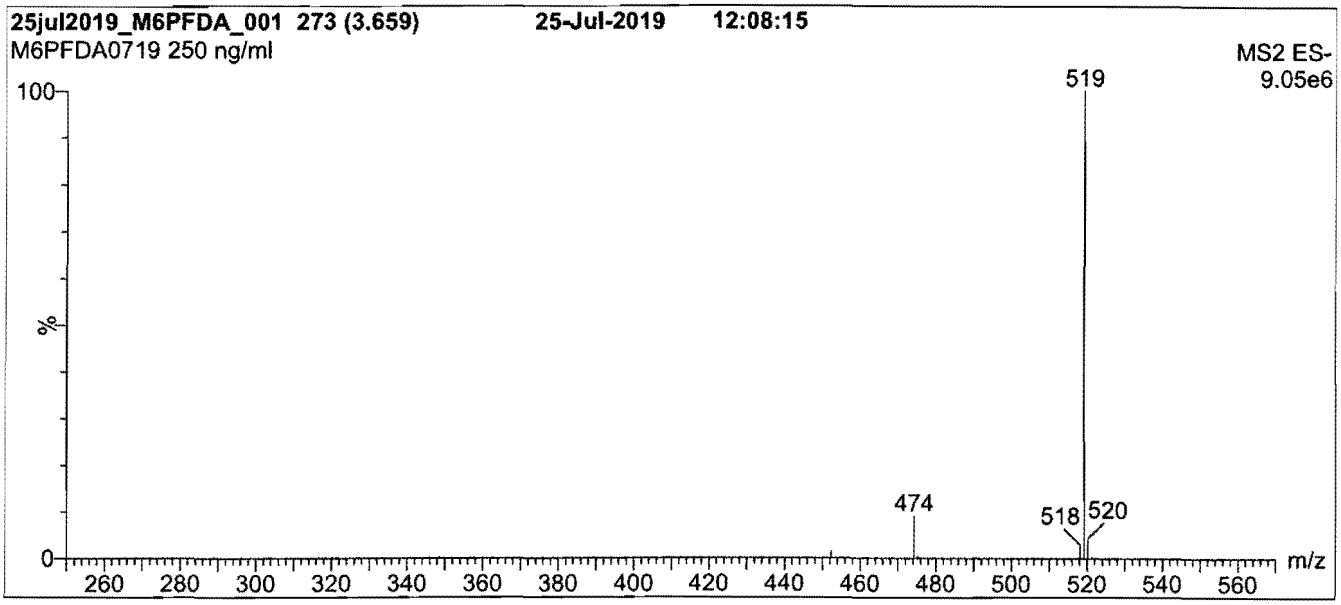
MS Parameters

Collision Gas (mbar) = 3.33e-3
Collision Energy (eV) = 10

19L0628

Figure 1: **M6PFDA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0628

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.

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$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

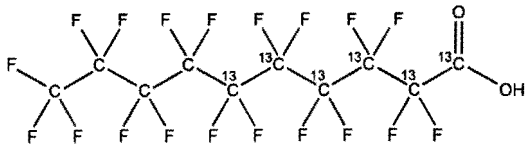
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19L0628

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M6PFDA	**LOT NUMBER:**	M6PFDA0719
COMPOUND:	Perfluoro-n-[1,2,3,4,5,6-$^{13}C_6$]decanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_6{}^{12}C_4HF_{19}O_2$	**MOLECULAR WEIGHT:**	520.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4,5,6$-$^{13}C_6$)
LAST TESTED: (mm/dd/yyyy)	07/25/2019		
EXPIRY DATE: (mm/dd/yyyy)	07/25/2024		
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.

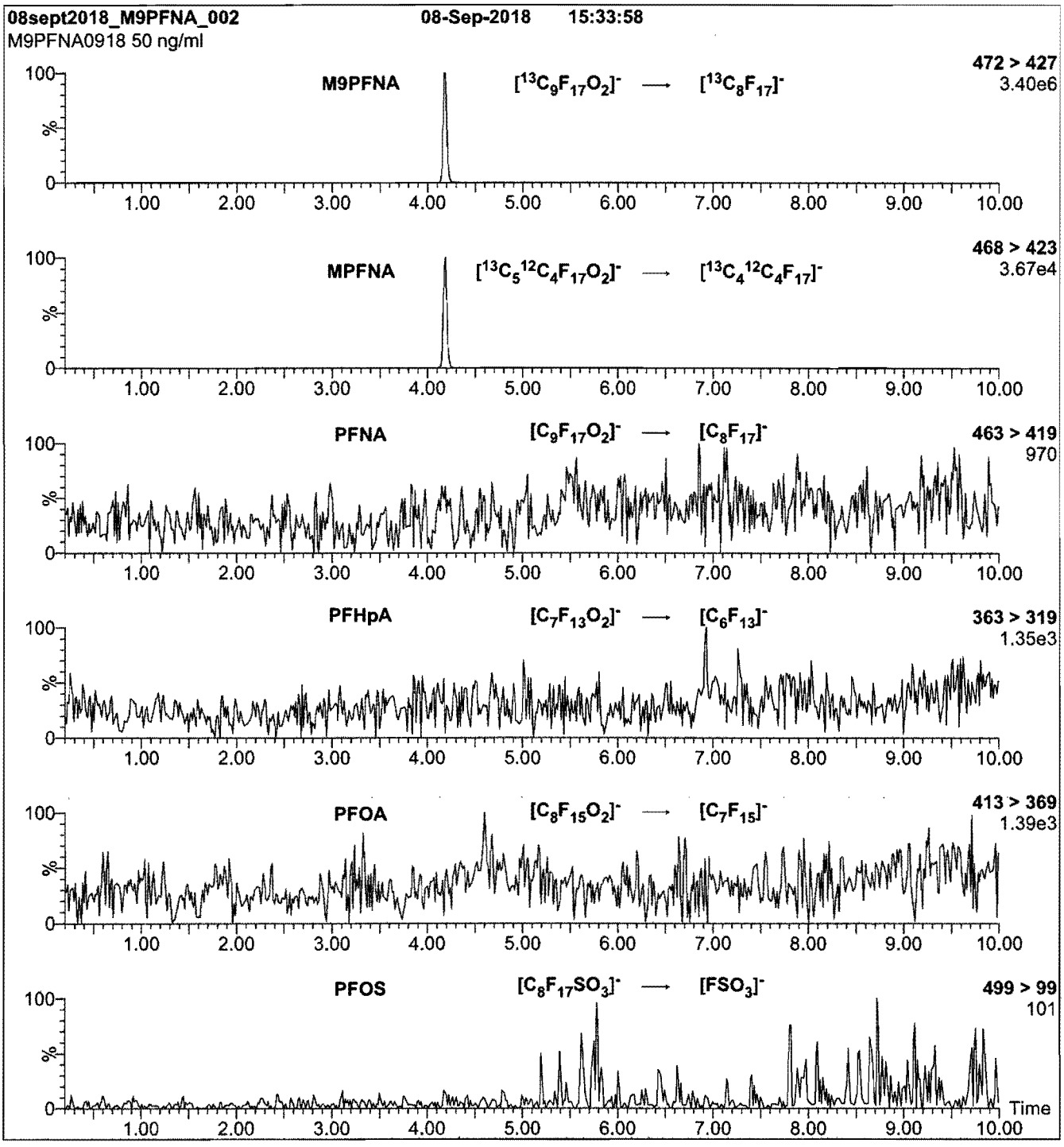
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/26/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0629

Figure 2: **M9PFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M9PFNA)

Mobile phase: Same as Figure 1

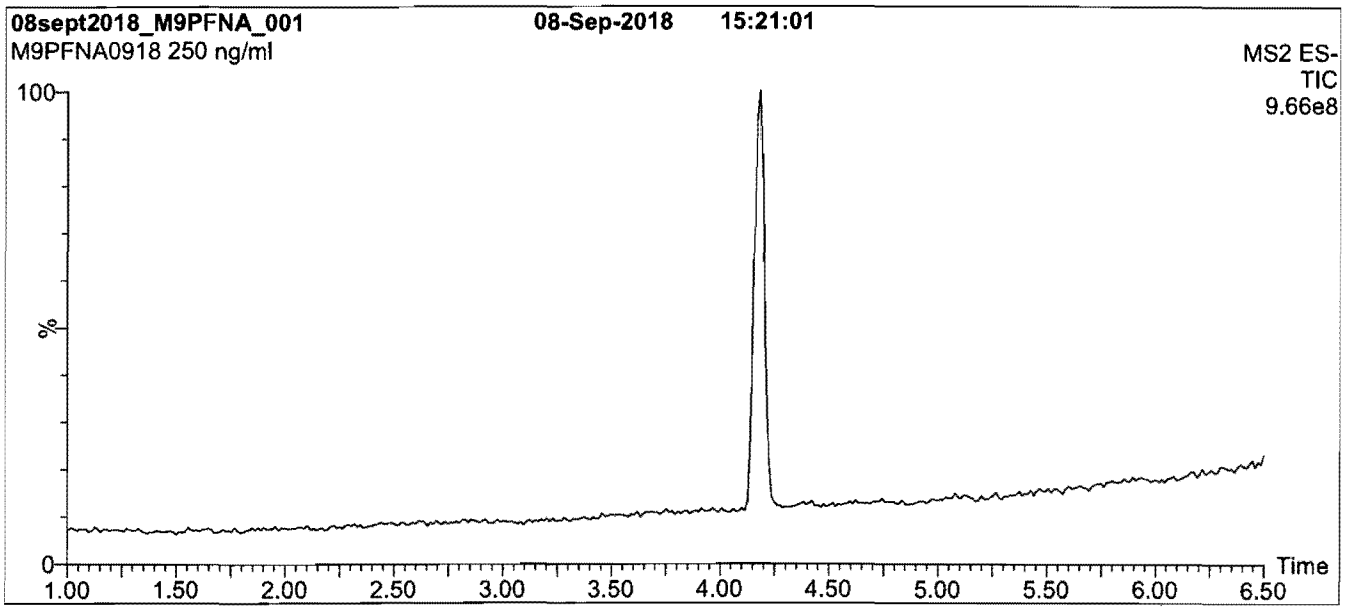
Flow: 300 µl/min

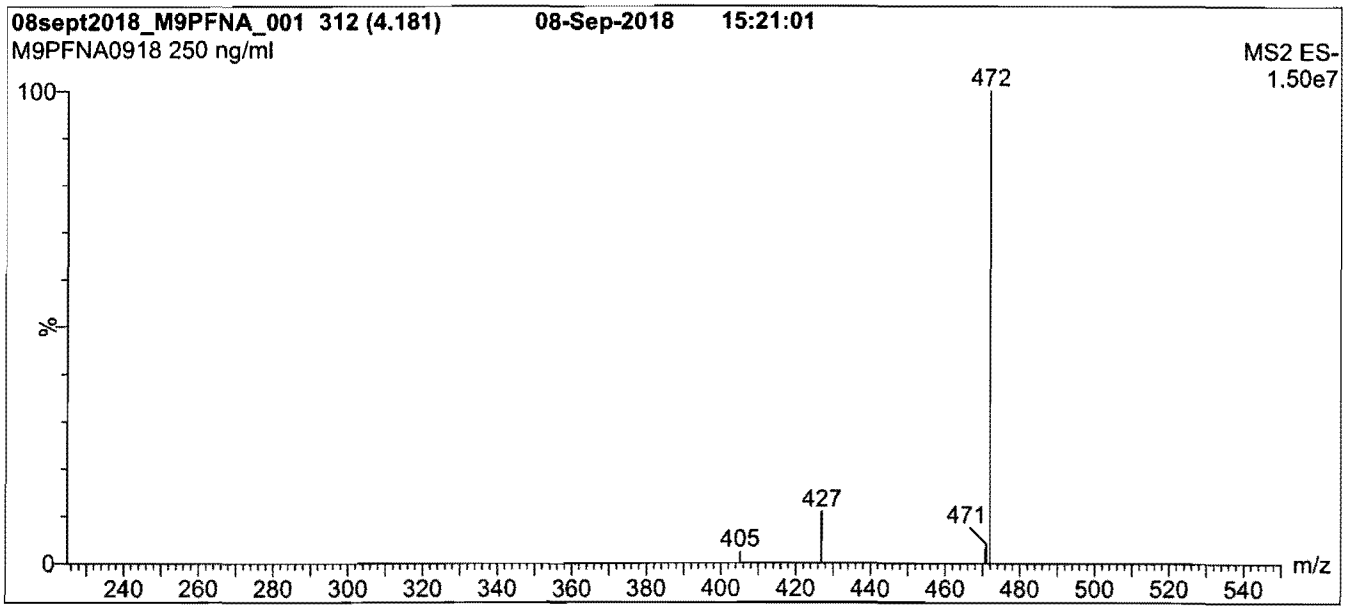
MS Parameters

Collision Gas (mbar) = 2.95e-3
Collision Energy (eV) = 10

19L0629

Figure 1: **M9PFNA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

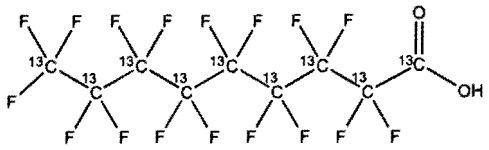
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19L0629

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M9PFNA	**LOT NUMBER:**	M9PFNA0918
COMPOUND:	Perfluoro-n-[$^{13}C_9$]nonanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_9HF_{17}O_2$	**MOLECULAR WEIGHT:**	473.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_9$)
LAST TESTED: (mm/dd/yyyy)	09/08/2018		
EXPIRY DATE: (mm/dd/yyyy)	09/08/2023		
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 ~ 1.0% of $^{13}C_5{}^{12}C_4HF_{17}O_2$ (MPFNA).

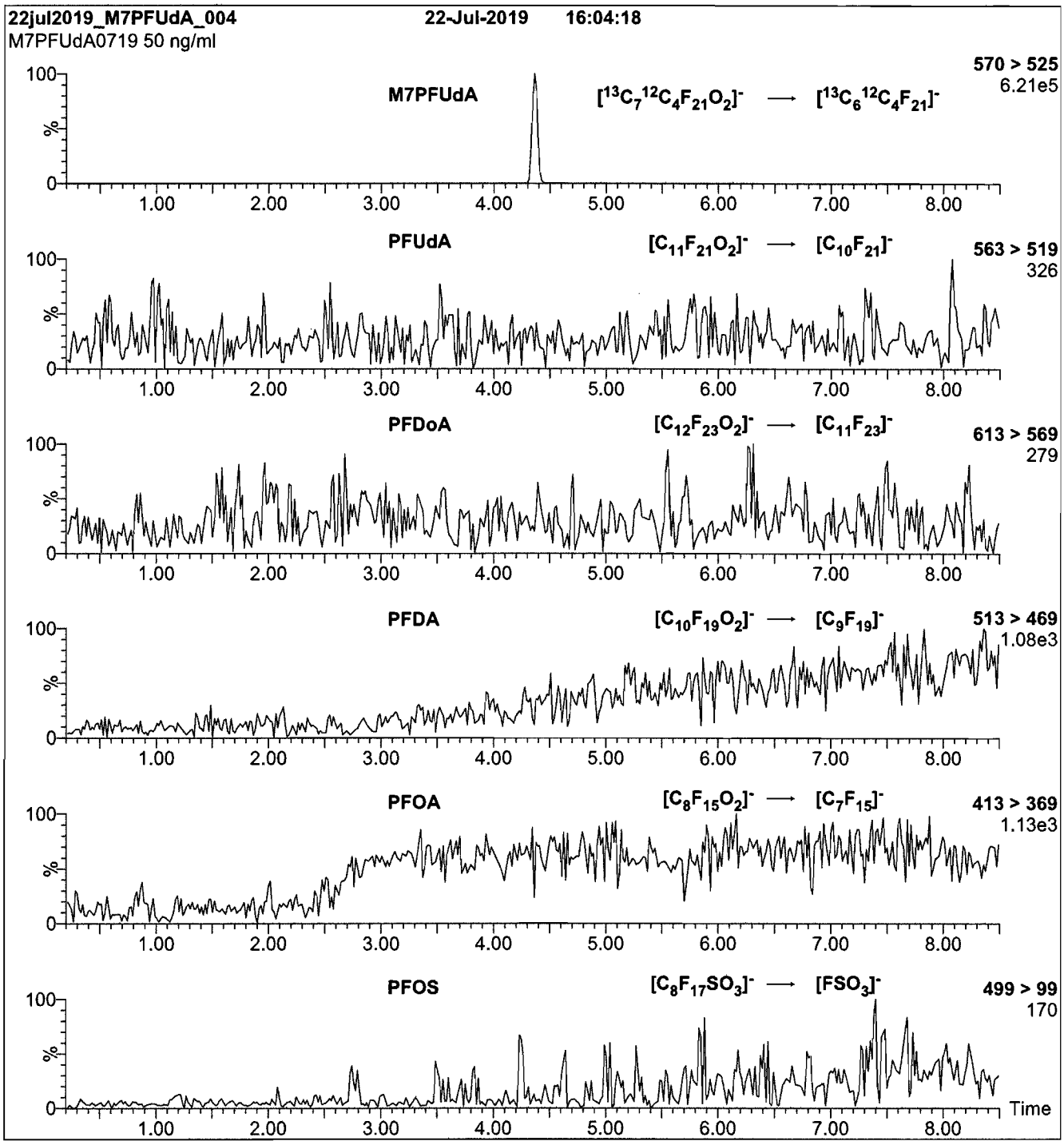
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/19/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0630

Figure 2: **M7PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M7PFUdA)

Mobile phase: Same as Figure 1

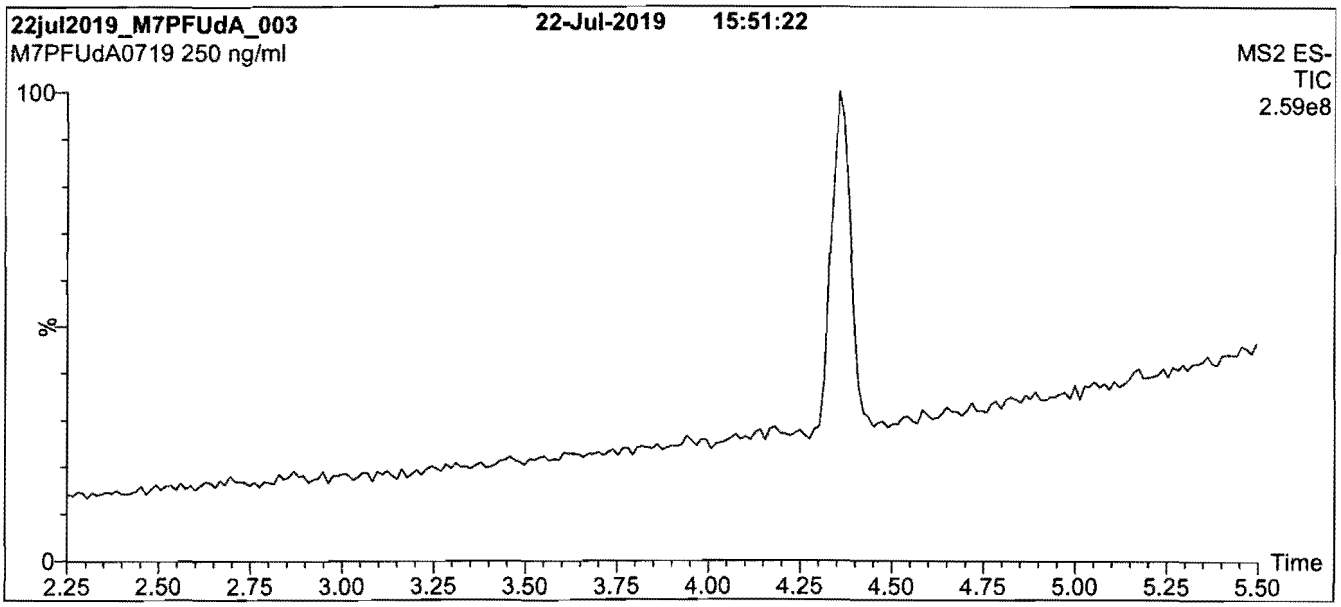
Flow: 300 µl/min

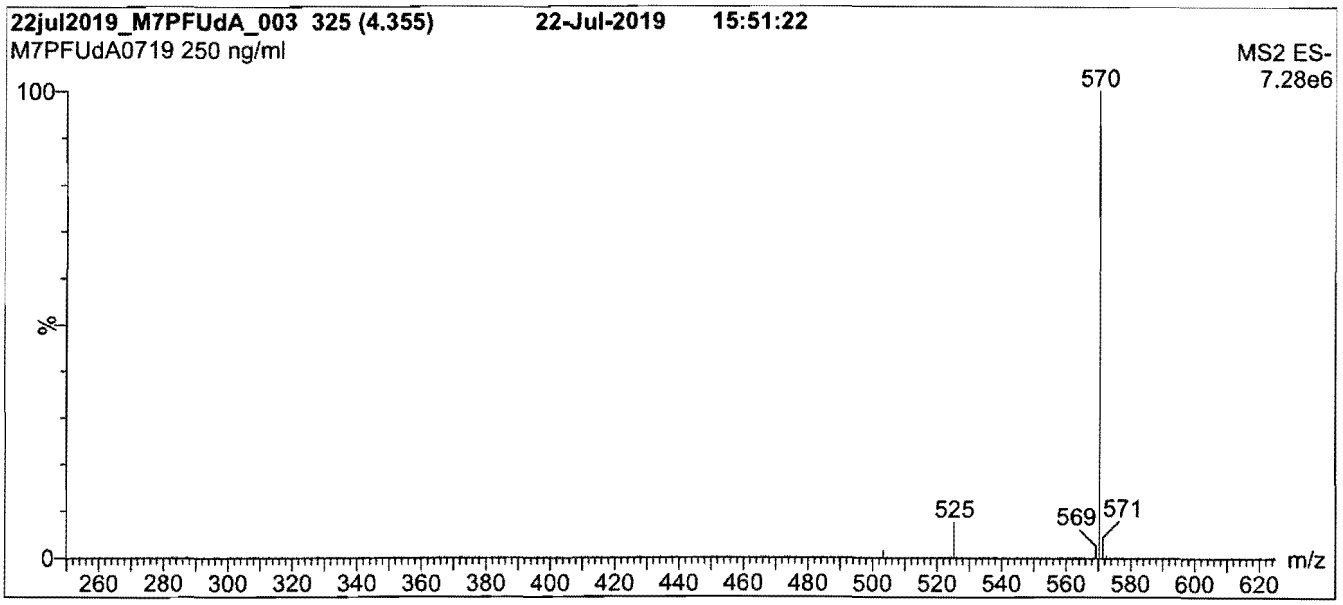
MS Parameters

Collision Gas (mbar) = 3.41e-3
Collision Energy (eV) = 12

19L0630

Figure 1: **M7PFUdA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0630

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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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

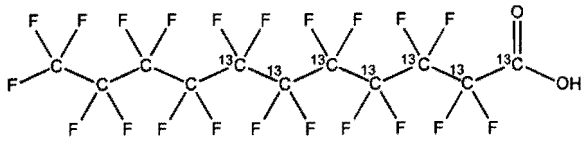
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19L0630

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M7PFUdA	**LOT NUMBER:**	M7PFUdA0719
COMPOUND:	Perfluoro-n-[1,2,3,4,5,6,7-$^{13}C_7$]undecanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_7{}^{12}C_4HF_{21}O_2$	**MOLECULAR WEIGHT:**	571.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	07/22/2019		(1,2,3,4,5,6,7-$^{13}C_7$)
EXPIRY DATE: (mm/dd/yyyy)	07/22/2024		
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.

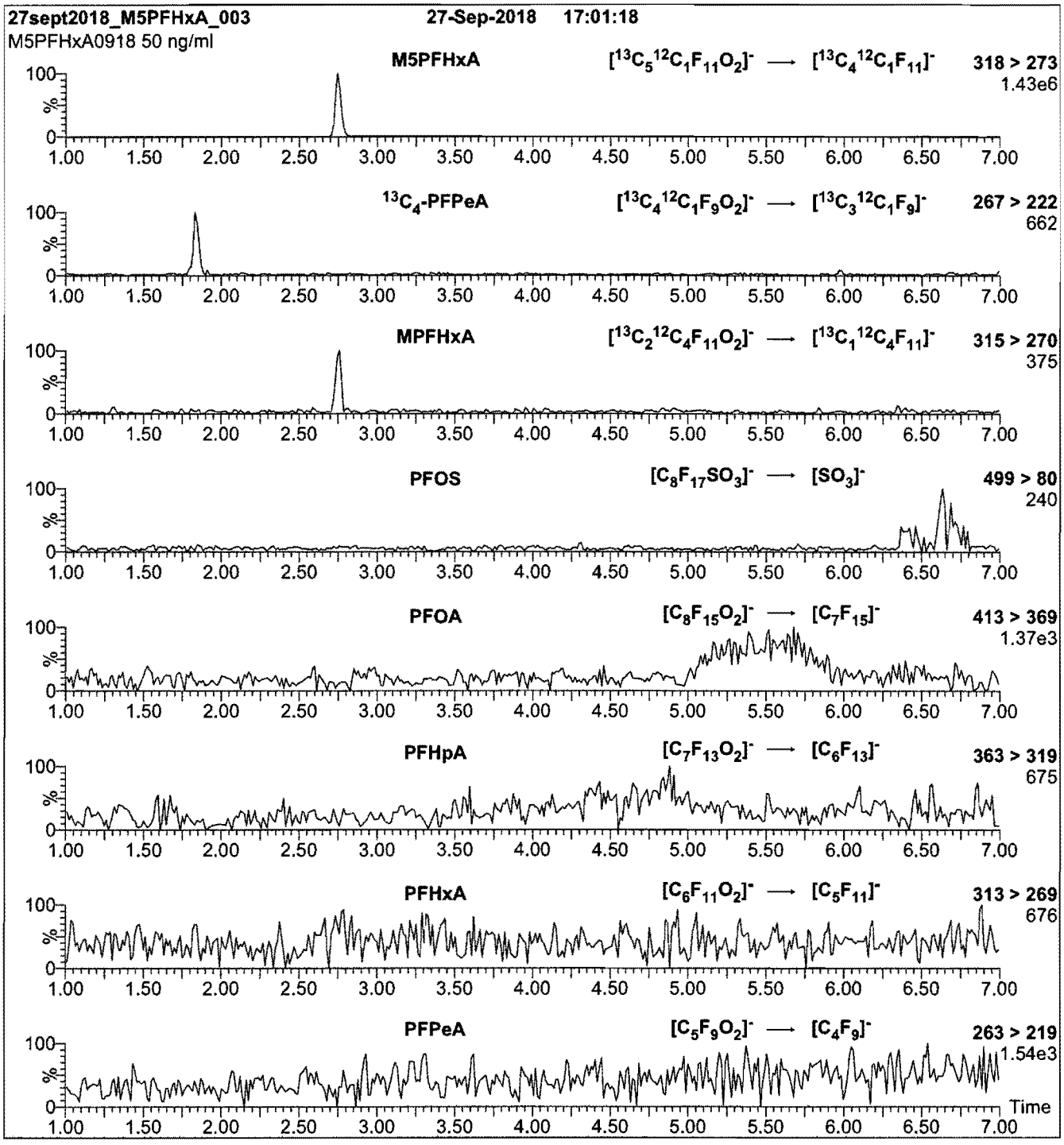
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/12/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

19L0631

Figure 2: **M5PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M5PFHxA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

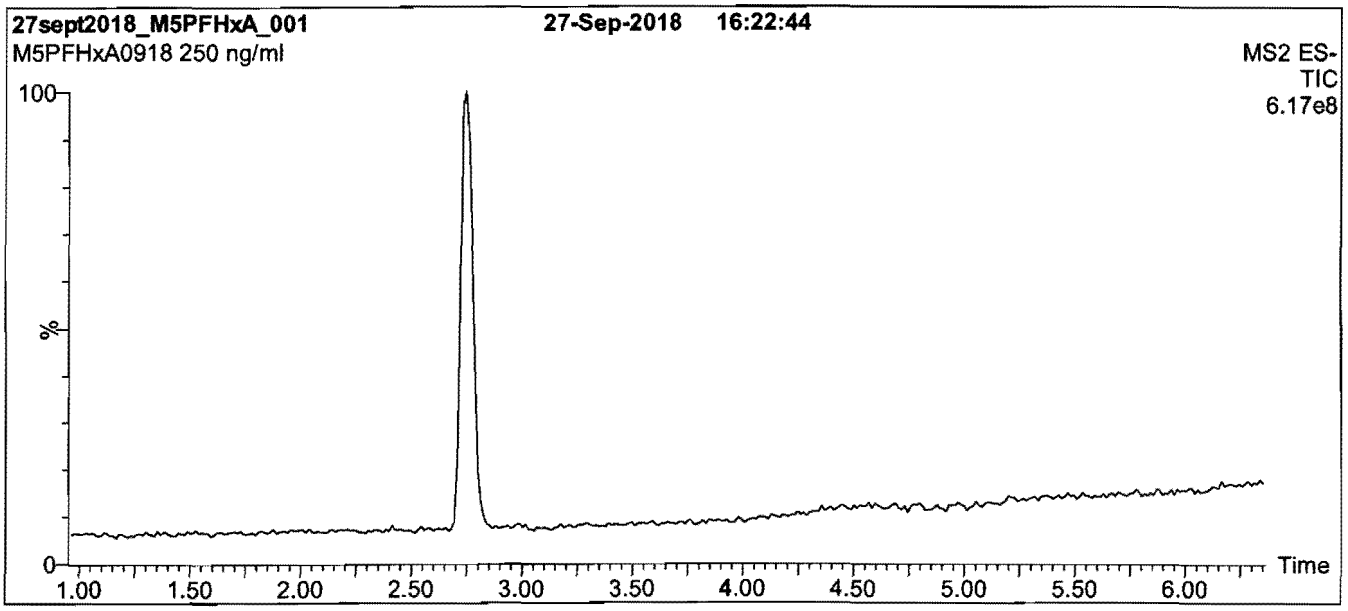
MS Parameters

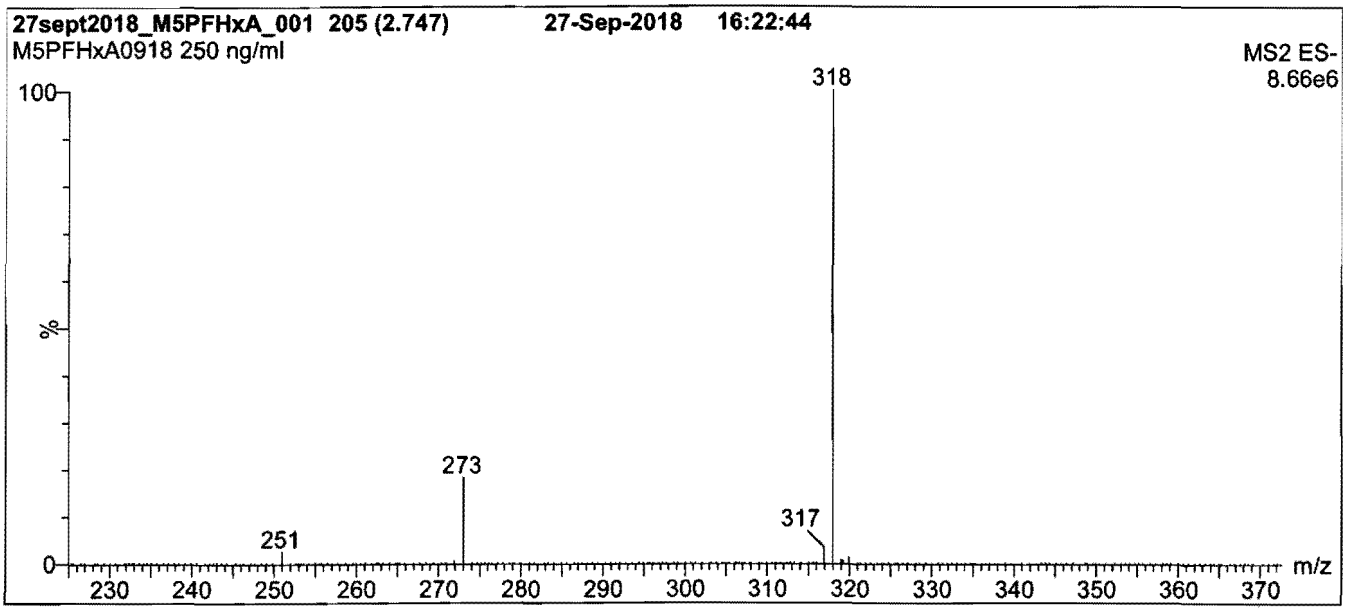
Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 8

Form#:27, Issued 2004-11-10
Revision#:6, Revised 2018-08-14

19L0631

Figure 1: **M5PFHxA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0631

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:

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HOMOGENEITY:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

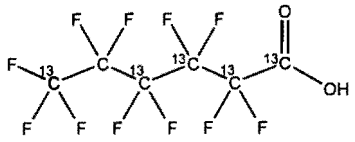
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19L0631

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M5PFHxA	**LOT NUMBER:**	M5PFHxA0918
COMPOUND:	Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_5{}^{12}C_1HF_{11}O_2$	**MOLECULAR WEIGHT:**	319.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4,6\text{-}^{13}C_5$)
LAST TESTED: (mm/dd/yyyy)	09/27/2018		
EXPIRY DATE: (mm/dd/yyyy)	09/27/2023		
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:

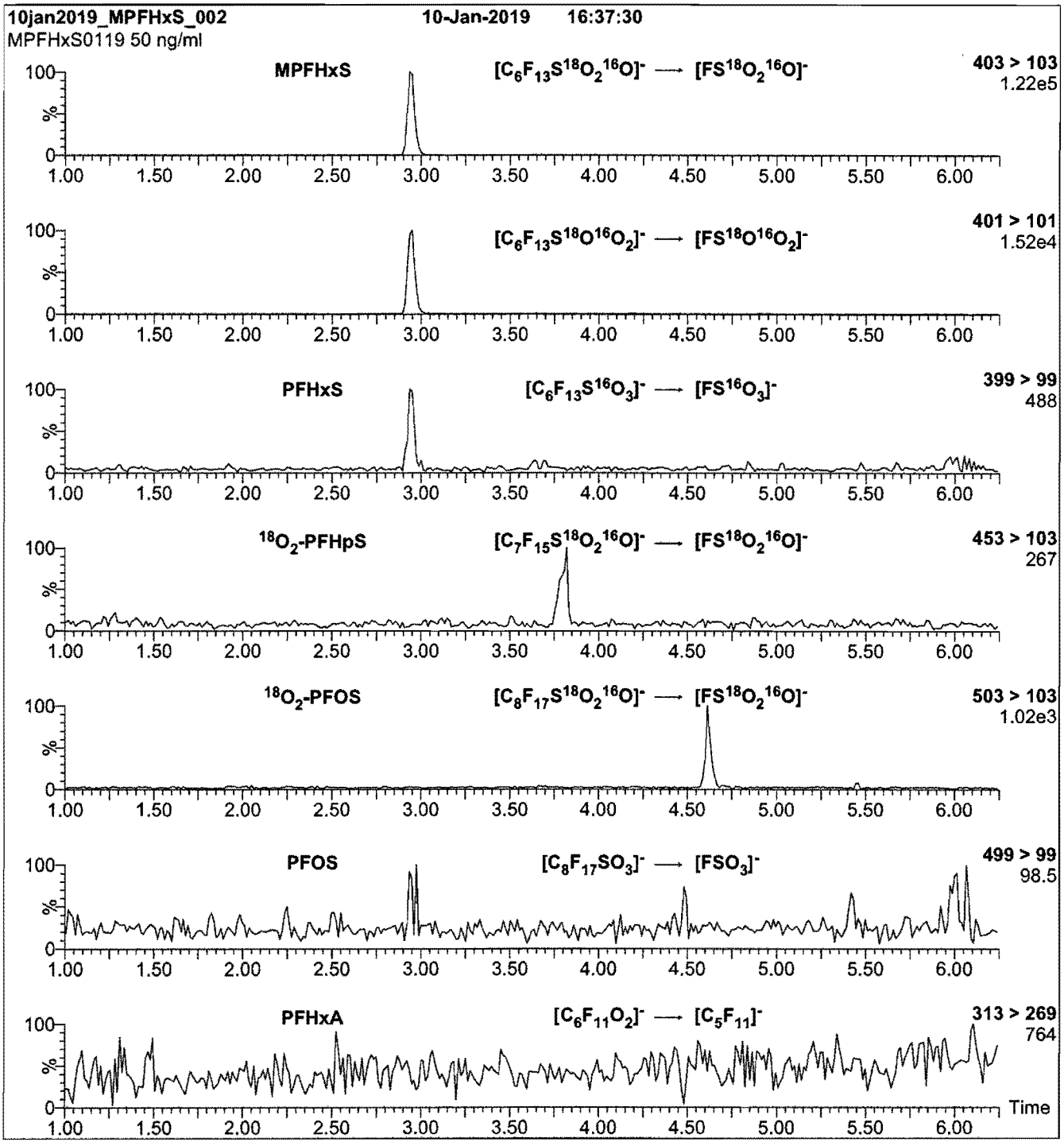
- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/01/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **MPFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFHxS)

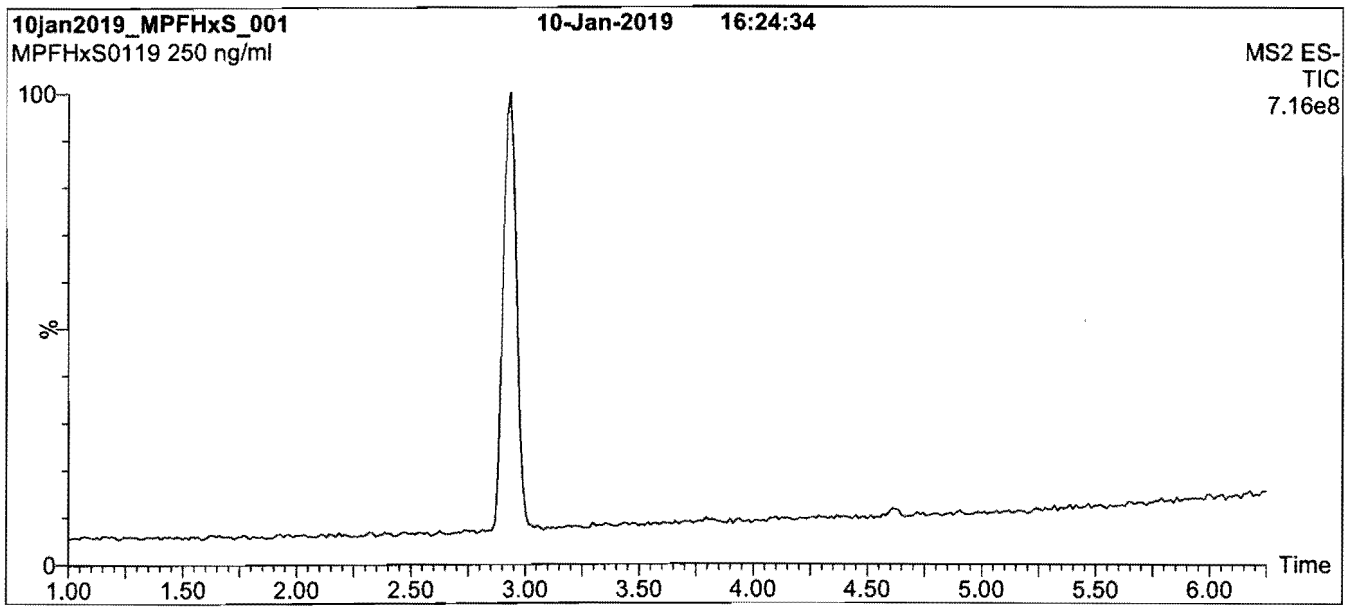
Mobile phase: Same as Figure 1

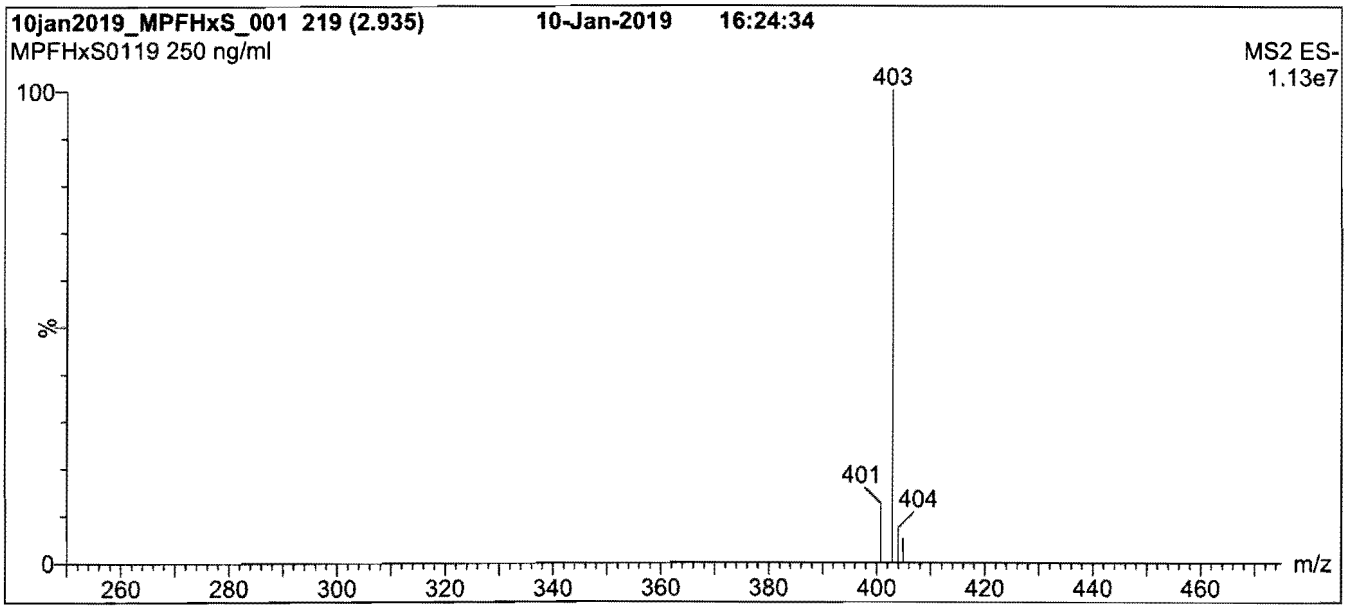
Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.88e-3
Collision Energy (eV) = 32

Figure 1: **MPFHxS; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

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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).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

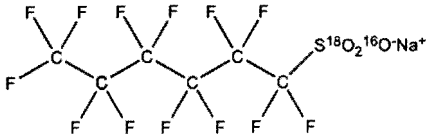
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19L0632

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFHxS	**LOT NUMBER:**	MPFHxS0119
COMPOUND:	Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate		
STRUCTURE:		**CAS #:**	1585941-14-5



MOLECULAR FORMULA:	$C_6F_{13}S^{16}O_2{}^{18}ONa$	**MOLECULAR WEIGHT:**	426.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.3 ± 2.4 µg/ml (MPFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>94% ($^{18}O_2$)
LAST TESTED: (mm/dd/yyyy)	01/10/2019		
EXPIRY DATE: (mm/dd/yyyy)	01/10/2024		
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:

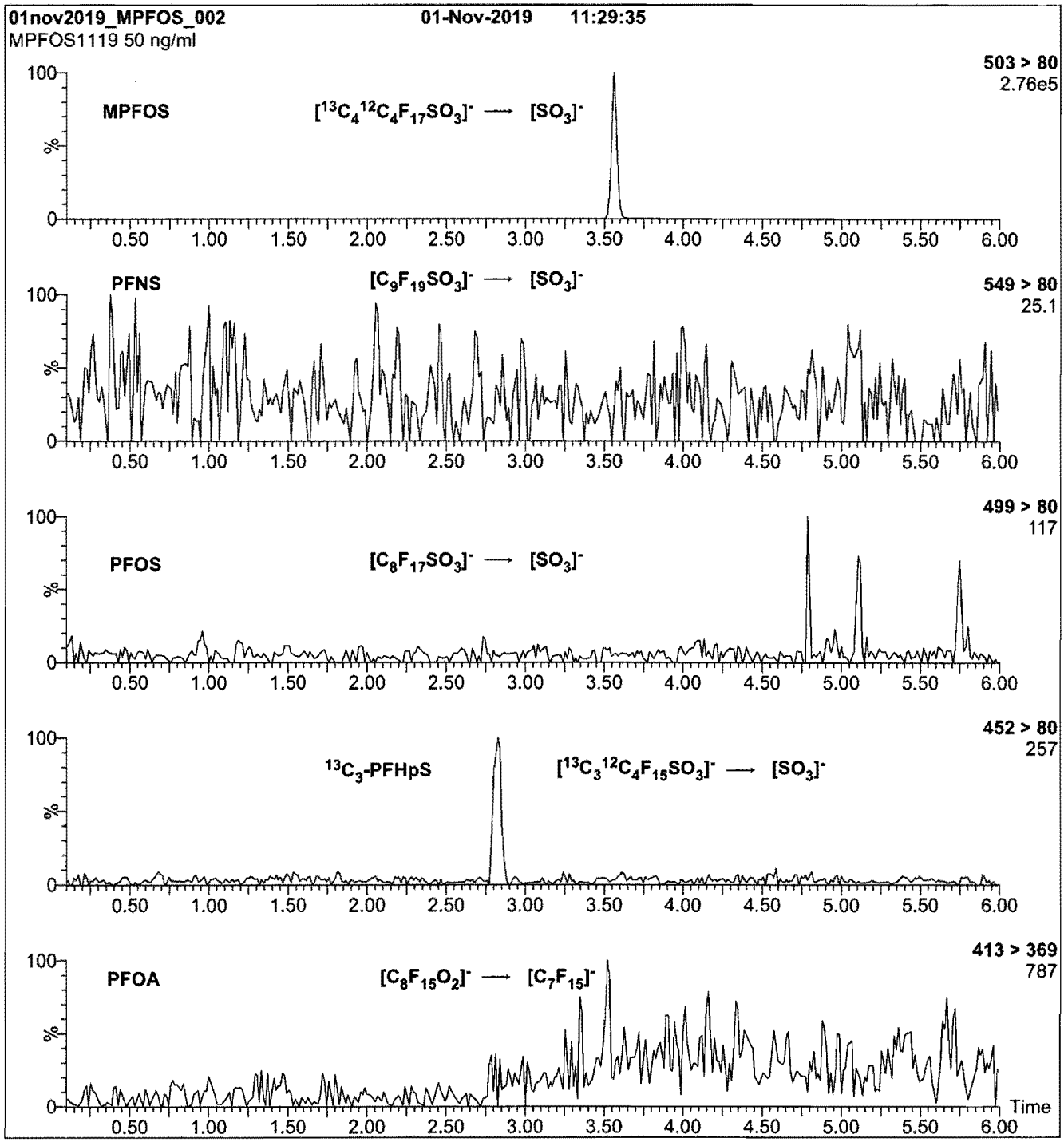
- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{16}O_2{}^{18}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 0.6% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS) and ~ 0.2% of sodium perfluoro-1-heptane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFHpS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 01/21/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Figure 2: **MPFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFOS)

Mobile phase: Same as Figure 1

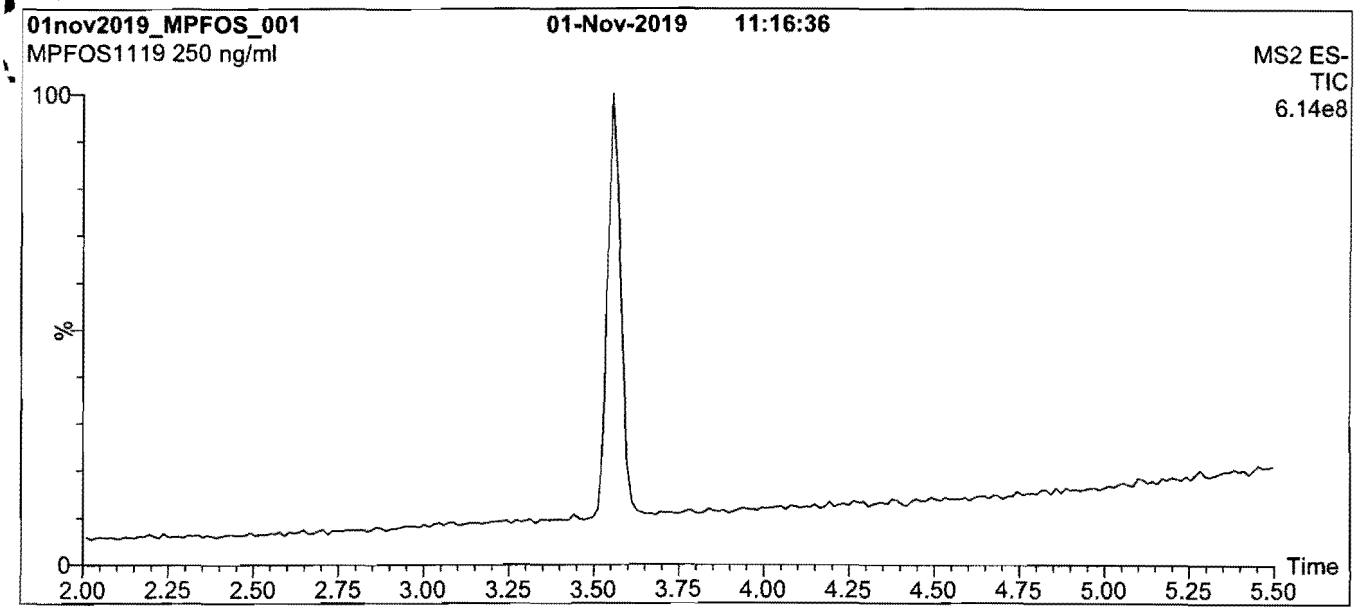
Flow: 300 µl/min

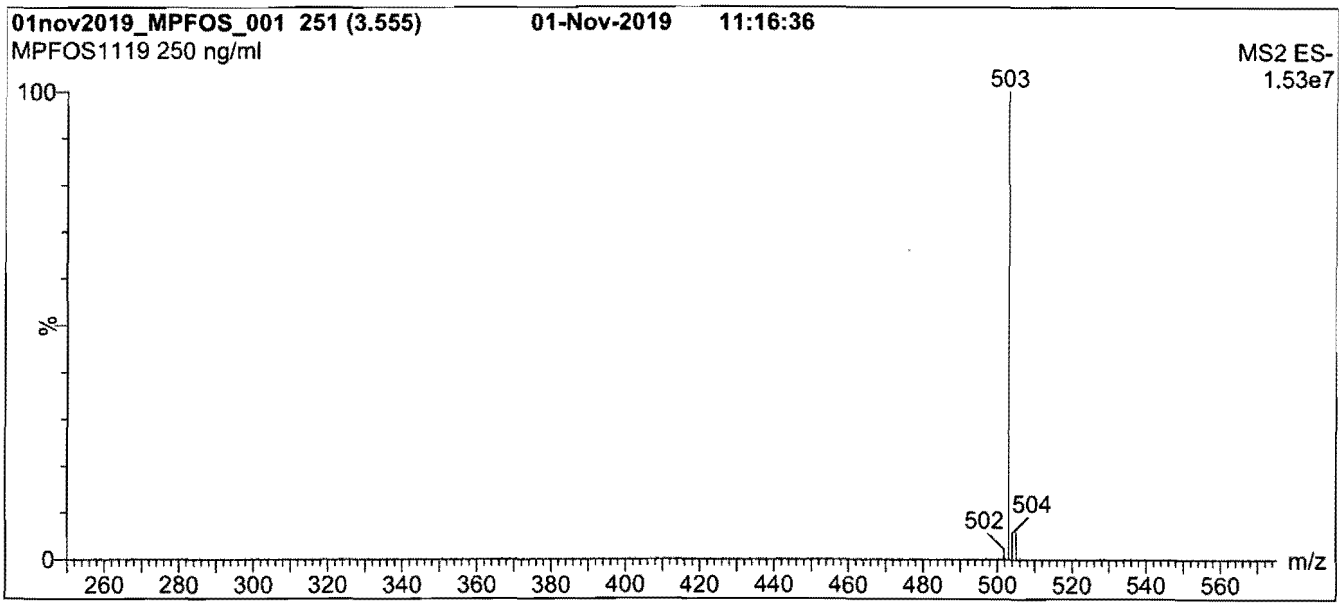
MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 42

19L0633

Figure 1: **MPFOS; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0633

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,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly 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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CALA Testing Accreditation No. A1226

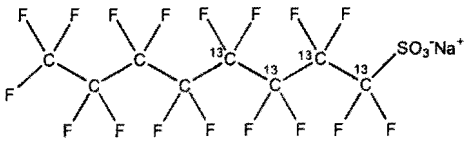
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFOS	**LOT NUMBER:**	MPFOS1119
COMPOUND:	Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate		
STRUCTURE:		**CAS #:**	960315-53-1



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	11/01/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/01/2024		
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 ~ 0.3% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

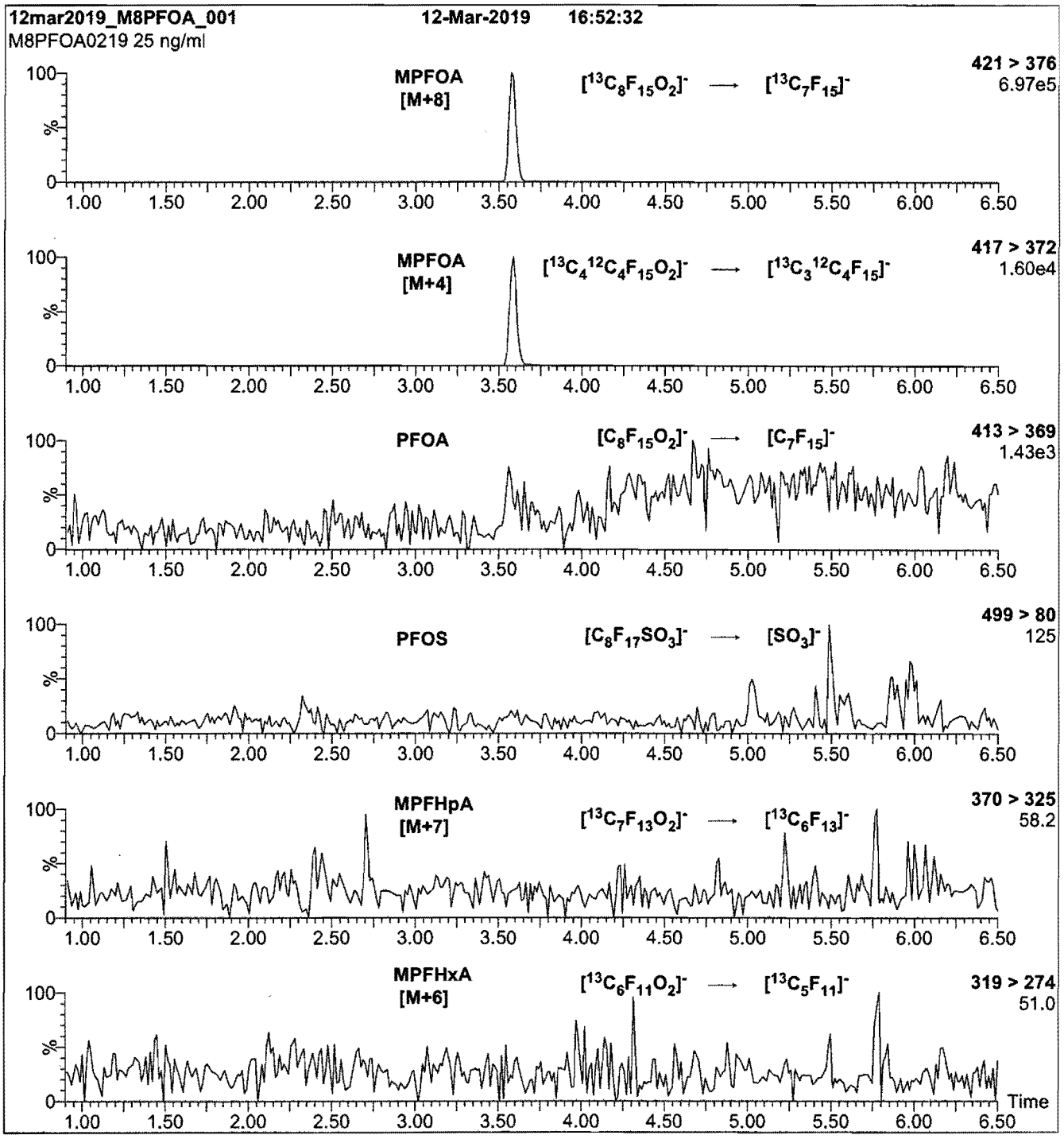
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/05/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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19L0634

Figure 2: **M8PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M8PFOA)

Mobile phase: Same as Figure 1

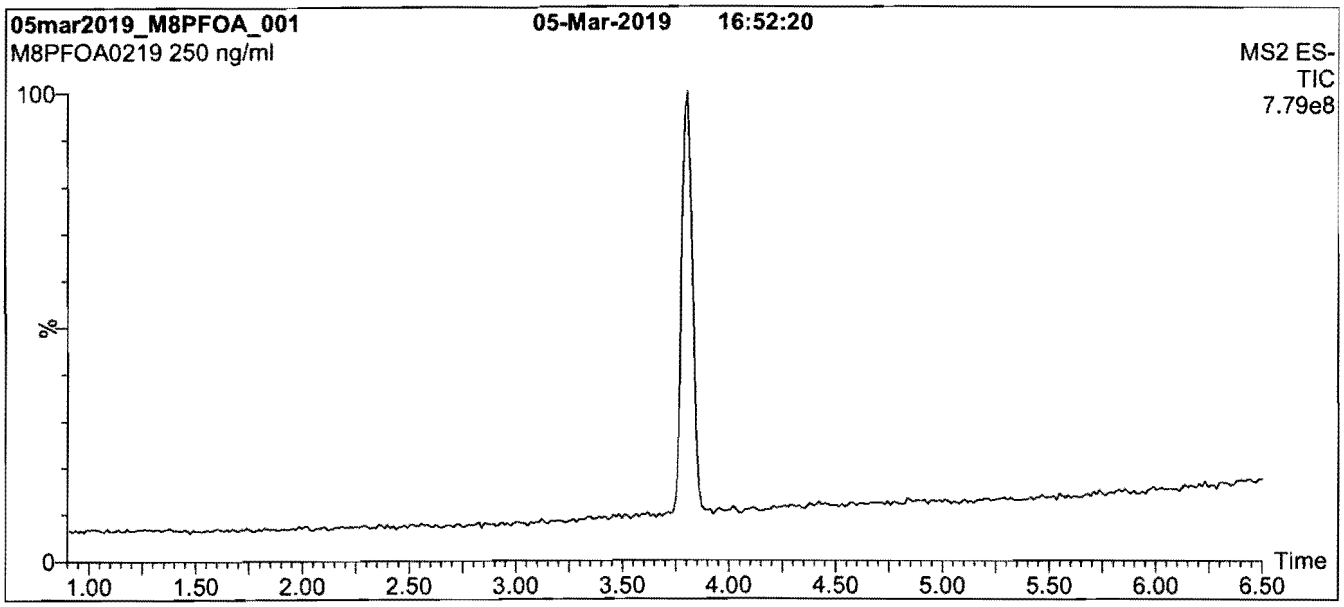
Flow: 300 µl/min

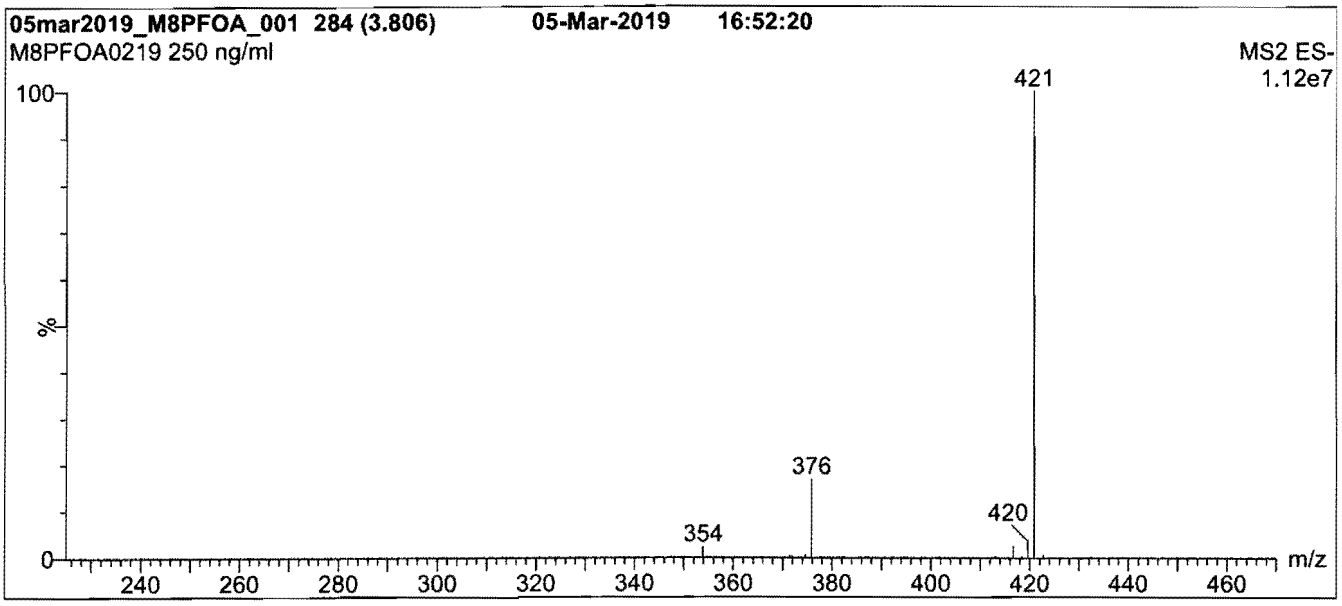
MS Parameters

Collision Gas (mbar) = 2.74e-3
Collision Energy (eV) = 8

19L0634

Figure 1: **M8PFOA; 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 RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/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

19L0634

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

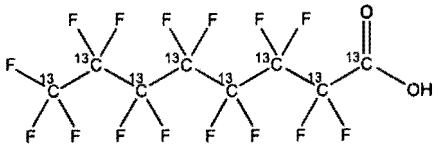
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19L0634

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M8PFOA	**LOT NUMBER:**	M8PFOA0219
COMPOUND:	Perfluoro-n-[$^{13}C_8$]octanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_8HF_{15}O_2$	**MOLECULAR WEIGHT:**	422.01
CONCENTRATION:	48.9 ± 2.4 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	97.8% (M8PFOA) 2.2% (MPFOA [M+4])	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
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.
- Contains < 0.1% of native perfluoro-n-octanoic acid (PFOA) and ~ 2.2% of [M+4] perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/07/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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"I013WMW02SR-20200213","537_MOD","02/27/20","00:30","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","65.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","65.6","65.6","","","","","","50","150","","","","",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","375-73-5","PFBS","0.0644","","TRG","Yes","Y","","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.247","","TRG","Yes","Y","","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","","","TRG","Yes","N","U","Y","0.00242","0.00301","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0901","","TRG","Yes","Y","","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","0.221","","TRG","Yes","Y","","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.881","","TRG","Yes","Y","","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.00329","","TRG","Yes","Y","J","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","1763-23-1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION","0.134","","TRG","Yes","Y","","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","756426-58-1","9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","2058-94-

8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","763051-92-9","11-
CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-
PF3OUdS)","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00137","0.00201","0.00401","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C3-PFBS","13C3-
PFBS","91.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","91.6","91.6","","","","","","50","150","","
","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C3-HFPO-DA","13C3-HFPO-
DA","69.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.9","69.9","","","","","","50","150","","
","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C2-PFHxA","13C2-
PFHxA","77.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","77.2","77.2","","","","","","50","150","
","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C4-PFHpA","13C4-
PFHpA","79.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.9","79.9","","","","","","50","150","
","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C3-PFHxS","13C3-
PFHxS","99.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","99.1","99.1","","","","","","50","150","
","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C5-PFNA","13C5-
PFNA","93.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","93.4","93.4","","","","","","50","150","
","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C2-PFOA","13C2-
PFOA","79.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.3","79.3","","","","","","50","150","
","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C8-PFOS","13C8-
PFOS","84.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","84.4","84.4","","","","","","50","150","","
","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C2-PFDA","13C2-
PFDA","71.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","71.3","71.3","","","","","","50","150","
","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","81.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","81.2","81.2","","","","","","50","15
0","","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C2-PFUnA","13C2-
PFUnA","76.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","76.9","76.9","","","","","","50","150","
","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","64.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.2","64.2","","","","","","50","150
","","","","","
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C2-PFDoA","13C2-

PFDoA","59.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","59.9","59.9","","","","","","50","150","
","","","",""
"IS72MW17S-20200213","537_MOD","02/27/20","00:41","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","64.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.5","64.5","","","","","","50","150"
,"","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","375-73-
5","PFBS","0.0131","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","307-24-4","PERFLUOROHEXANOIC
ACID
(PFHXA)","0.0570","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","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","","","","","","","","","","","","
","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","375-85-9","PERFLUOROHEPTANOIC
ACID
(PFHPA)","0.0176","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","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","","","","","","","","","","
","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","0.0306","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","335-67-1","PERFLUOROOCTANOIC
ACID
(PFOA)","0.370","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","375-95-1","PERFLUORONONANOIC
ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.0740","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","","
","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","756426-58-1","9-
CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-
PF3ONS)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","335-76-2","PERFLUORODECANOIC
ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","
","","","","","","","","","",""

"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","

"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","13C2-PFDoA","13C2-PFDoA","50.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","50.4","50.4","","","","","","50","150","","","","",""
"I012MW01SR-20200213","537_MOD","02/27/20","00:51","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","64.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.5","64.5","","","","","","50","150","","","","",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","375-73-5","PFBS","0.0340","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.0765","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","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",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0213","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","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",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","0.140","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.591","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","1763-23-1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION","0.0327","","TRG","Yes","Y","","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","756426-58-1","9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L",""
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","","","","","","","","","","

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"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","763051-92-9","11-
CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-
PF3OUdS)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","307-55-
1","PERFLURODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00138","0.00202","0.00403","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C3-PFBS","13C3-
PFBS","88.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.8","88.8","","","","","","50","150","","
","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C3-HFPO-DA","13C3-HFPO-
DA","69.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.0","69.0","","","","","","50","150","","
","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C2-PFHxA","13C2-
PFHxA","72.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.8","72.8","","","","","","50","150","
","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C4-PFHpA","13C4-
PFHpA","80.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","80.3","80.3","","","","","","50","150","
","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C3-PFHxS","13C3-
PFHxS","86.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","86.8","86.8","","","","","","50","150","
","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C5-PFNA","13C5-
PFNA","92.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","92.6","92.6","","","","","","50","150","
","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C2-PFOA","13C2-
PFOA","79.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.9","79.9","","","","","","50","150","
","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C8-PFOS","13C8-
PFOS","95.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.7","95.7","","","","","","50","150","","
","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C2-PFDA","13C2-
PFDA","69.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.7","69.7","","","","","","50","150","
","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","87.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.9","87.9","","","","","","50","15
0","","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C2-PFUnA","13C2-
PFUnA","68.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","68.8","68.8","","","","","","50","150","
","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","71.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","71.8","71.8","","","","","","50","150

","","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C2-PFDoA","13C2-PFDoA","64.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.7","64.7","","","","","","50","150","","","","","
"I012MW10S-20200213","537_MOD","02/27/20","01:02","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","65.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","65.9","65.9","","","","","","50","150","","","","",""
"I012MW11S-20200213","537_MOD","02/27/20","01:44","N","NA","000","375-73-5","PFBS","0.467","","TRG","Yes","Y","","Y","0.00135","0.00197","0.00394","UG_L","UG_L","","","","","","

6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00135","0.00197","0.00394","UG_L","UG_L","","","

EtFOSAA","65.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","65.0","65.0","","","","","","50","150
","","","","",""
"I012MW11S-20200213","537_MOD","02/27/20","01:44","N","NA","000","13C2-PFDoA","13C2-
PFDoA","53.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","53.7","53.7","","","","","","50","150","
","","","",""
"I012MW11S-20200213","537_MOD","02/27/20","01:44","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","62.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","62.8","62.8","","","","","","50","150"
,"","","","",""
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","375-73-
5","PFBS","0.179","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","307-24-4","PERFLUOROHEXANOIC
ACID
(PFHXA)","0.908","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","13252-13-
6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-
DA)","","","TRG","Yes","N","U","Y","0.00241","0.00300","0.00399","UG_L","UG_L","","","","","","","","","","","","
","","","","","",""
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","375-85-9","PERFLUOROHEPTANOIC
ACID
(PFHPA)","0.200","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","919005-14-4","4,8-DIOXA-3H-
PERFLUORONONANOIC ACID
(ADONA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","0.526","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","335-67-1","PERFLUOROOCTANOIC
ACID
(PFOA)","0.312","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","
","","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","375-95-1","PERFLUORONONANOIC
ACID
(PFNA)","0.00292","","TRG","Yes","Y","J","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","
","","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.109","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","","","
","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","756426-58-1","9-
CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-
PF3ONS)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","","
","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","335-76-2","PERFLUORODECANOIC
ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","","
","","","","","","","","
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","","","","","","","
","","","","","","","","","","

"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00399","UG_L","UG_L","","","

"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","d5-EtFOSAA","d5-EtFOSAA","63.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","63.1","63.1","","","","","","50","150","","","","",""
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","13C2-PFDoA","13C2-PFDoA","51.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","51.0","51.0","","","","","","50","150","","","","",""
"I012MW15S-20200213","537_MOD","02/27/20","02:05","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","58.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","58.9","58.9","","","","","","50","150","","","","",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","375-73-5","PFBS","0.181","","TRG","Yes","Y","","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.881","","TRG","Yes","Y","","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","","","TRG","Yes","N","U","Y","0.00244","0.00304","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.191","","TRG","Yes","Y","","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","0.505","","TRG","Yes","Y","","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.306","","TRG","Yes","Y","","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.00251","","TRG","Yes","Y","J","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","1763-23-1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION","0.112","","TRG","Yes","Y","","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","756426-58-1","9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00406","UG_L","UG_L",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC

ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00406","UG_L","UG_L","","","

PFDoA","60.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","60.1","60.1","","","","","","50","150","
","","","",""
"DUP02-20200213","537_MOD","02/27/20","02:15","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","65.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","65.7","65.7","","","","","","50","150"
,"","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","375-73-
5","PFBS","2.11","","TRG","Yes","Y","D","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","307-24-4","PERFLUOROHEXANOIC
ACID
(PFHXA)","7.20","","TRG","Yes","Y","D","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","13252-13-
6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-
DA)","","","TRG","Yes","N","UD","Y","0.0120","0.0149","0.0199","UG_L","UG_L","","","","","","","","","","","","","
","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","375-85-9","PERFLUOROHEPTANOIC
ACID
(PFHPA)","1.55","","TRG","Yes","Y","D","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","919005-14-4","4,8-DIOXA-3H-
PERFLUORONONANOIC ACID
(ADONA)","","","TRG","Yes","N","UD","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/29/20","18:02","N","NA","DL1","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","23.9","","TRG","Yes","Y","D","Y","0.0273","0.0398","0.0797","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/29/20","18:02","N","NA","DL1","335-67-1","PERFLUOROOCTANOIC
ACID
(PFOA)","14.1","","TRG","Yes","Y","D","Y","0.0273","0.0398","0.0797","UG_L","UG_L","","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","375-95-1","PERFLUORONONANOIC
ACID
(PFNA)","0.0344","","TRG","Yes","Y","D","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/27/20","02:26","N","NA","DL1","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","7.97","","TRG","Yes","Y","D","Y","0.0136","0.0199","0.0398","UG_L","UG_L","","","","","","","","","","","","","
","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","756426-58-1","9-
CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-
PF3ONS)","","","TRG","Yes","N","UD","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","335-76-2","PERFLUORODECANOIC
ACID
(PFDA)","","","TRG","Yes","N","UD","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","","
","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","2355-31-
9","MeFOSAA","","","TRG","Yes","N","UD","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","2991-50-
6","EtFOSAA","","","TRG","Yes","N","UD","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","","",""

"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","","","TRG","Yes","N","UD","Y","0.00682","0.00996","0.0199","UG_L","UG_L","","","

"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","13C2-PFDoA","13C2-PFDoA","63.0","","IS","Yes","Y","D","Y","","","","PCT_REC","","","","","100","63.0","63.0","","","","","","50","150","","","","",""
"I003MW01S-20200213","537_MOD","02/26/20","02:54","N","NA","DL1","13C2-PFTeDA","13C2-PFTeDA","73.5","","IS","Yes","Y","D","Y","","","","PCT_REC","","","","","100","73.5","73.5","","","","","","50","150","","","","",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","375-73-5","PFBS","0.390","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/26/20","03:25","N","NA","DL1","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","2.47","","TRG","Yes","Y","D","Y","0.00698","0.0102","0.0204","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","","","TRG","Yes","N","U","Y","0.00246","0.00306","0.00408","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.562","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/26/20","03:25","N","NA","DL1","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","2.36","","TRG","Yes","Y","D","Y","0.00698","0.0102","0.0204","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/26/20","03:25","N","NA","DL1","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","4.92","","TRG","Yes","Y","D","Y","0.00698","0.0102","0.0204","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.0299","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/26/20","03:25","N","NA","DL1","1763-23-1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION","2.42","","TRG","Yes","Y","D","Y","0.00698","0.0102","0.0204","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","756426-58-1","9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","0.00840","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","2355-31-9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L",""
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","2991-50-6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L",""

"","","","

","","","","","","
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","13C2-PFDoA","13C2-PFDoA","56.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","56.8","56.8","","","","","","50","150","","","","","
"I003MW15S-20200213","537_MOD","02/27/20","02:36","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","70.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.9","70.9","","","","","","50","150","","","","",""
"I003MW02S-20200213","537_MOD","02/27/20","02:57","N","NA","000","375-73-5","PFBS","0.360","","TRG","Yes","Y","","Y","0.00139","0.00202","0.00405","UG_L","UG_L","","","","","","

6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00139","0.00202","0.00405","UG_L","UG_L","","","

EtFOSAA","69.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.8","69.8","","","","","","50","150
","","","","",""
"I003MW02S-20200213","537_MOD","02/27/20","02:57","N","NA","000","13C2-PFDoA","13C2-
PFDoA","63.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","63.6","63.6","","","","","","50","150","
","","","","",""
"I003MW02S-20200213","537_MOD","02/27/20","02:57","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","69.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.4","69.4","","","","","","50","150"
,"","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID
(PFHXA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","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","","","","","","","","","","","
","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID
(PFHPA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","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","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC
ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","","","","
","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","756426-58-1","9-
CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-
PF3ONS)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","
","","","","","","","","","",""
"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC
ACID

(PFUNA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","

"B0B0127-BLK1","537_MOD","02/26/20","00:48","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","58.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","58.8","58.8","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","375-73-5","PFBS","0.0396","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0396","99.0","","","","","","","72","130","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.0428","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0428","107","","","","","","","72","129","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","0.0427","","TRG","Yes","Y","","Y","0.00241","0.00300","0.00400","UG_L","UG_L","","","","0.0400","0.0427","107","","","","","","","70","130","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0384","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0384","95.9","","","","","","","72","130","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","0.0377","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0377","94.3","","","","","","","70","130","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","0.0406","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0406","101","","","","","","","68","131","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.0406","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0406","102","","","","","","","71","133","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.0409","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0409","102","","","","","","","69","130","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","1763-23-1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION","0.0342","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0342","85.6","","","","","","","65","140","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","756426-58-1","9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","0.0366","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0366","91.5","","","","","","","70","130","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","0.0400","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0400","100","","","","","","","71","129","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","2355-31-9","MeFOSAA","0.0365","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0365","91.4","","","","","","","65","136","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","2991-50-6","EtFOSAA","0.0398","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0398","99.5","","","","","","","61","135","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","0.0423","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0423","106","","","","","","","69","133","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","763051-92-9","11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-PF3OUdS)","0.0491","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0491","123","","","","","","","70","130","","","","",""

"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","0.0419","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0419","105","","","","","","72","134","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","72629-94-8","PFTrDA","0.0431","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0431","108","","","","","","","65","144","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","376-06-7","PFTeDA","0.0414","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0414","104","","","","","","","71","132","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C3-PFBS","13C3-PFBS","83.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.5","83.5","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C3-HFPO-DA","13C3-HFPO-DA","73.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.4","73.4","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C2-PFHxA","13C2-PFHxA","79.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.5","79.5","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C4-PFHpA","13C4-PFHpA","76.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","76.2","76.2","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C3-PFHxS","13C3-PFHxS","78.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","78.5","78.5","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C5-PFNA","13C5-PFNA","80.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","80.5","80.5","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C2-PFOA","13C2-PFOA","78.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","78.6","78.6","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C8-PFOS","13C8-PFOS","84.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","84.0","84.0","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C2-PFDA","13C2-PFDA","79.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.2","79.2","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","d3-MeFOSAA","d3-MeFOSAA","73.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.6","73.6","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C2-PFUnA","13C2-PFUnA","85.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","85.3","85.3","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","d5-EtFOSAA","d5-EtFOSAA","74.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.7","74.7","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C2-PFDoA","13C2-PFDoA","62.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","62.6","62.6","","","","","","50","150","","","","",""
"B0B0127-BS1","537_MOD","02/26/20","00:58","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","66.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","66.6","66.6","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","375-73-5","PFBS","0.113","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","0.0644","0.0396","0.113","122","","","","","","72","130","","","",""

"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.315","","TRG","Yes","Y","H","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","0.247","0.0396","0.315","171","","","","","","72","129","","+","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","0.0421","","TRG","Yes","Y","","Y","0.00239","0.00298","0.00396","UG_L","UG_L","","","","0.0396","0.0421","106","","","","","","70","130","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.133","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","0.0901","0.0396","0.133","108","","","","","","72","130","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","919005-14-4","4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)","0.0352","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0352","88.8","","","","","","70","130","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID (PFHXS)","0.297","","TRG","Yes","Y","H","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","0.221","0.0396","0.297","191","","","","","","68","131","","+","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","1.05","","TRG","Yes","Y","H","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","0.881","0.0396","1.05","419","","","","","","71","133","","+","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.0474","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","0.00329","0.0396","0.0474","111","","","","","","69","130","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","1763-23-1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION","0.175","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","0.134","0.0396","0.175","103","","","","","","65","140","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","756426-58-1","9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-PF3ONS)","0.0378","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0378","95.5","","","","","","70","130","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","0.0435","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0435","109","","","","","","71","129","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","2355-31-9","MeFOSAA","0.0390","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0390","98.5","","","","","","65","136","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","2991-50-6","EtFOSAA","0.0438","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0438","111","","","","","","61","135","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","0.0398","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0398","100","","","","","","69","133","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","763051-92-9","11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-PF3OUdS)","0.0493","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0493","125","","","","","","70","130","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","0.0445","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0445","112","","","","","","72","134","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","72629-94-8","PFTrDA","0.0438","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0438","111","","","","","","65","144","","","",""

"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","376-06-7","PFTeDA","0.0436","","TRG","Yes","Y","","Y","0.00136","0.00198","0.00396","UG_L","UG_L","","","","0.0396","0.0436","110","","","","","","71","132","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C3-PFBS","13C3-PFBS","87.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.6","87.6","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C3-HFPO-DA","13C3-HFPO-DA","74.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.8","74.8","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C2-PFHxA","13C2-PFHxA","70.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.7","70.7","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C4-PFHpA","13C4-PFHpA","79.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.9","79.9","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C3-PFHxS","13C3-PFHxS","85.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","85.7","85.7","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C5-PFNA","13C5-PFNA","81.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","81.9","81.9","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C2-PFOA","13C2-PFOA","72.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.7","72.7","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C8-PFOS","13C8-PFOS","88.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.2","88.2","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C2-PFDA","13C2-PFDA","78.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","78.6","78.6","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","d3-MeFOSAA","d3-MeFOSAA","82.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","82.8","82.8","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C2-PFUnA","13C2-PFUnA","78.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","78.0","78.0","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","d5-EtFOSAA","d5-EtFOSAA","70.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.2","70.2","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C2-PFDoA","13C2-PFDoA","59.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","59.3","59.3","","","","","","50","150","","","","",""
"B0B0127-MS1","537_MOD","02/27/20","00:09","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","65.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","65.8","65.8","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","375-73-5","PFBS","0.111","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","0.0644","0.0408","0.111","113","0.113","0.0408","0.111","113","7.66","72","130","30","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.306","","TRG","Yes","Y","H","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","0.247","0.0408","0.306","145","0.315","0.0408","0.306","145","16.5","72","129","30","","*","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13252-13-6","HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)","0.0416","","TRG","Yes","Y","","Y","0.00246","0.00306","0.00408","UG_L","UG_L","","","","0.0408","0.0416

","102","0.0421","0.0408","0.0416","102","3.85","70","130","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID
(PFHPA)","0.136","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","0.0901","0.040
8","0.136","114","0.133","0.0408","0.136","114","5.41","72","130","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","919005-14-4","4,8-DIOXA-3H-
PERFLUORONONANOIC ACID
(ADONA)","0.0398","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408","0
.0398","97.5","0.0352","0.0408","0.0398","97.5","9.34","70","130","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC
ACID
(PFHXS)","0.286","","TRG","Yes","Y","H","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","0.221","0.040
8","0.286","158","0.297","0.0408","0.286","158","18.9","68","131","30","","*",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","0.973","","TRG","Yes","Y","H","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","0.881","0.0408
","0.973","225","1.05","0.0408","0.973","225","60.2","71","133","30","","*","*"
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","0.0493","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","0.00329","0.04
08","0.0493","113","0.0474","0.0408","0.0493","113","1.79","69","130","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.184","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","0.134","0.0408","0.184",
"120","0.175","0.0408","0.184","120","15.2","65","140","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","756426-58-1","9-
CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID (9Cl-
PF3ONS)","0.0352","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408","0.
0352","86.2","0.0378","0.0408","0.0352","86.2","10.2","70","130","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","0.0470","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408","0.0
470","115","0.0435","0.0408","0.0470","115","5.36","71","129","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","2355-31-
9","MeFOSAA","0.0429","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.040
8","0.0429","105","0.0390","0.0408","0.0429","105","6.39","65","136","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","2991-50-
6","EtFOSAA","0.0458","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408
","0.0458","112","0.0438","0.0408","0.0458","112","0.897","61","135","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC
ACID
(PFUNA)","0.0418","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408","0.
0418","102","0.0398","0.0408","0.0418","102","1.98","69","133","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","763051-92-9","11-CHLOROEICOSAFLUORO-
3-OXAUNDECANE-1-SULFONIC ACID (11Cl-
PF3OUdS)","0.0486","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408","
0.0486","119","0.0493","0.0408","0.0486","119","4.92","70","130","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","307-55-1","PERFLUORODODECANOIC
ACID
(PFDOA)","0.0441","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408","0.
0441","108","0.0445","0.0408","0.0441","108","3.64","72","134","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","72629-94-
8","PFTrDA","0.0451","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408",
"0.0451","111","0.0438","0.0408","0.0451","111","0","65","144","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","376-06-
7","PFTeDA","0.0481","","TRG","Yes","Y","","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","0.0408",
"0.0481","118","0.0436","0.0408","0.0481","118","7.02","71","132","30","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C3-PFBS","13C3-

PFBS","89.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","89.0","89.0","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C3-HFPO-DA","13C3-HFPO-DA","78.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","78.5","78.5","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C2-PFHxA","13C2-PFHxA","70.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.5","70.5","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C4-PFHpA","13C4-PFHpA","76.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","76.7","76.7","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C3-PFHxS","13C3-PFHxS","79.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.1","79.1","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C5-PFNA","13C5-PFNA","79.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.2","79.2","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C2-PFOA","13C2-PFOA","73.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.5","73.5","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C8-PFOS","13C8-PFOS","78.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","78.9","78.9","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C2-PFDA","13C2-PFDA","64.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.4","64.4","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","d3-MeFOSAA","d3-MeFOSAA","74.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.4","74.4","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C2-PFUnA","13C2-PFUnA","67.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","67.8","67.8","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","d5-EtFOSAA","d5-EtFOSAA","64.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.5","64.5","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C2-PFDoA","13C2-PFDoA","55.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","55.0","55.0","","","","","","50","150","","","","",""
"B0B0127-MSD1","537_MOD","02/27/20","00:20","N","NA","000","13C2-PFTeDA","13C2-PFTeDA","63.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","63.6","63.6","","","","","","50","150","","","","",""

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. March 20, 2020
7376 SW Durham Road
Portland, OR 97224
Attn: Ms. Kimberly Shiroodi
Kimberly.Shiroodi@woodplc.com

SUBJECT: MCAS El Toro & Tustin PFAs, Data Validation

Dear Ms. Shiroodi,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on March 11, 2020. Attachment 1 is a summary of the samples that were reviewed for analysis.

LDC Project #47508:

SDG #	**Fraction**
2000314,2000321,2000330 2000356,2000372,2000390	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 for Per- and Polyfluoroalkyl Substances in Groundwater in Carve -Outs 2, 5, 6 & 9 and Groundwater and Surface Water Near Operable Unit 3, Former Marine Corps Air Station Tustin, Tustin, California, with Addendum #02 to Final Sampling and Analysis Plan for Per- and Polyfluoroalkyl Substances Sampling for Groundwater Remedial Action at Operable Unit 3, Installation Restoration Program Site 1, February 2020
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.3, 2019
- DoD General Validation Guidelines, February 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
Pgeng@lab-data.com
Project Manager/Senior Chemist

6,538 pages-ADV (100% Stage 4 for this job)

Attachment 1

Client Select / Stage 2B/4

LDC #47508 (Wood/KMEA - National City, CA / MCAS El Toro & Tustin PFAs)

PO001184

LDC	SDG#	DATE REC'D	(2) DATE DUE	PFAs (537M/ QSM 5.3)																															
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	2000314	03/11/20	03/25/20	13	0																														
B	2000321	03/11/20	03/25/20	10	0																														
C	2000330	03/11/20	03/25/20	4	0																														
D	2000356	03/11/20	03/25/20	9	0																														
E	2000372	03/11/20	03/25/20	7	0																														
F	2000390	03/11/20	03/25/20	4	0																														
Total	J/PG			47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

L:\Wood Environmental\El Toro\47508ST.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro and Tustin PFAS

LDC Report Date: March 19, 2020

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 2000314

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
I006MW03SR-20200212	2000314-03	Water	02/12/20
I006MW05SR-20200212	2000314-04	Water	02/12/20
DUP01-20200212	2000314-05	Water	02/12/20
I006MW01S-20200212	2000314-06	Water	02/12/20
I006MW08S-20200212	2000314-07	Water	02/12/20
BMW07S-20200212	2000314-08	Water	02/12/20
I005MW01SR-20200212	2000314-09	Water	02/12/20
DUP05-20200212	2000314-10	Water	02/12/20
IS72MW15S-20200212	2000314-11	Water	02/12/20
IS72MW18SR-20200212	2000314-12	Water	02/12/20
222MW02S-20200212	2000314-13	Water	02/12/20
DUP03-20200212	2000314-14	Water	02/12/20
A000MW42S-20200212	2000314-15	Water	02/12/20
I006MW03SR-20200212MS	2000314-03MS	Water	02/12/20
I006MW03SR-20200212MSD	2000314-03MSD	Water	02/12/20

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 for Per- and Polyfluoroalkyl Substances in Groundwater in Carve-Outs 2, 5, 6, and 9 and Groundwater and Surface Water Near Operable Unit 3, Former Marine Corps Air Station Tustin, Tustin, California, with Addendum #02 to Final Sampling and Analysis Plan for Per- and Polyfluoroalkyl Substances Sampling for Groundwater Remedial Action at Operable Unit 3, Installation Restoration Program Site 1 (February 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).

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 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 EB01-20200212 was identified as an equipment blank. No contaminants were found.

Sample SB01-20200212 was identified as a source 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. For I006MW03SR-20200212MS/MSD, no data were qualified for perfluorohexane sulfonic acid (PFHxS) percent recoveries (%R) and Perfluorohexanoic acid (PFHxA) and Perfluoroheptanoic acid (PFHpA) relative percent differences (RPD) outside the QC limits since the parent sample results were greater than 4X the spike concentration. All other relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

Samples I006MW05SR-20200212 and DUP01-20200212, samples I005MW01SR-20200212 and DUP05-20200212, and samples 222MW02S-20200212 and DUP03-20200212 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
	I006MW05SR-20200212	DUP01-20200212				
Perfluorobutanesulfonic acid (PFBS)	0.0509	0.0556	9 (≤30)	-	-	-
Perfluorohexanoic acid (PFHxA)	0.129	0.130	1 (≤30)	-	-	-
Perfluoroheptanoic acid (PFHpA)	0.0436	0.0468	7 (≤30)	-	-	-
Perfluorohexanesulfonic acid (PFHxS)	0.215	0.205	5 (≤30)	-	-	-
Perfluorooctanoic acid (PFOA)	0.0464	0.0441	5 (≤30)	-	-	-
Perfluorooctanesulfonic acid (PFOS)	0.0182	0.0226	22 (≤30)	-	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
	I005MW01SR-20200212	DUP05-20200212				
Perfluorobutanesulfonic acid (PFBS)	0.501	0.525	5 (≤30)	-	-	-
Perfluorohexanoic acid (PFHxA)	1.52	1.51	1 (≤30)	-	-	-
Perfluoroheptanoic acid (PFHpA)	0.395	0.411	4 (≤30)	-	-	-
Perfluorohexanesulfonic acid (PFHxS)	2.62	2.84	8 (≤30)	-	-	-
Perfluorooctanoic acid (PFOA)	3.76	4.15	10 (≤30)	-	-	-
Perfluorononanoic acid (PFNA)	0.0245	0.0267	9 (≤30)	-	-	-
Perfluorooctanesulfonic acid (PFOS)	1.08	1.11	3 (≤30)	-	-	-
Perfluorodecanoic acid (PFDA)	0.00196U	0.00176	-	0.0002 (≤0.00396)	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
	222MW02S-20200212	DUP03-20200212				
Perfluorobutanesulfonic acid (PFBS)	0.00456	0.00587	-	0.00131 (≤0.00409)	-	-
Perfluorohexanesulfonic acid (PFHxS)	0.0145	0.0166	-	0.0021 (≤0.00409)	-	-
Perfluorooctanesulfonic acid (PFOS)	0.00624	0.00544	-	0.0008 (≤0.00409)	-	-

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
IS72MW15S-20200212	13C2-PFTeDA	34.4 (50-150)	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
BMW07S-20200212	Perfluorodecanoic acid (PFDA)	50.940 (4.8175-14.4525)	J (all detects)	A
DUP03-20200212	Perfluorooctanesulfonic acid (PFOS)	3.412 (1.12-3.36)	J (all detects)	A
A000MW42S-20200212	Perfluorooctanesulfonic acid (PFOS)	9.108 (1.12-3.36)	J (all detects)	A
DUP05-20200212	Perfluorodecanoic acid (PFDA)	14.922 (4.8175-14.4525)	J (all detects)	A

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 four 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 2000314

Sample	Compound	Flag	A or P	Reason
BMW07S-20200212	Perfluorodecanoic acid (PFDA)	J (all detects)	A	Target compound identification (ion abundance ratio)
DUP03-20200212	Perfluorooctanesulfonic acid (PFOS)	J (all detects)	A	Target compound identification (ion abundance ratio)
A000MW42S-20200212	Perfluorooctanesulfonic acid (PFOS)	J (all detects)	A	Target compound identification (ion abundance ratio)
DUP05-20200212	Perfluorodecanoic acid (PFDA)	J (all detects)	A	Target compound identification (ion abundance ratio)

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 2000314

No Sample Data Qualified in this SDG

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 2000314

No Sample Data Qualified in this SDG

LDC #: 47508A96 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/26/20

SDG #: 2000314 Stage 4 Page: 1 of 2

Laboratory: Vista Analytical Laboratory Reviewer: 2nd Reviewer:

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M DOD QSM 5.3)

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	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	RSD≤20% .Y² True /ICV≤30%
IV.	Continuing calibration/ISC	A	CCV/ISC≤30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	EB=2. SB=1
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	
X.	Labeled Compounds	SW	D=4+5. 13+14. 9+10
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~~	~~SB01-20200212~~	~~2000314-01~~	~~Water~~	~~02/12/20~~
~~2~~	~~EB01-20200212~~	~~2000314-02~~	~~Water~~	~~02/12/20~~
3	I006MW03SR-20200212	2000314-03	Water	02/12/20
4	I006MW05SR-20200212	2000314-04	Water	02/12/20
5	DUP01-20200212	2000314-05	Water	02/12/20
6	I006MW01S-20200212	2000314-06	Water	02/12/20
7	I006MW08S-20200212	2000314-07	Water	02/12/20
8	BMW07S-20200212	2000314-08	Water	02/12/20
9	I005MW01SR-20200212	2000314-09	Water	02/12/20
10	DUP05-20200212	2000314-10	Water	02/12/20
11	IS72MW15S-20200212	2000314-11	Water	02/12/20
12	IS72MW18SR-20200212	2000314-12	Water	02/12/20
13	222MW02S-20200212	2000314-13	Water	02/12/20
14	DUP03-20200212	2000314-14	Water	02/12/20
15	A000MW42S-20200212	2000314-15	Water	02/12/20

LDC #: 47508A96 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/13/20
SDG #: 2000314 Stage 4 Page: 2 of 2
Laboratory: Vista Analytical Laboratory Reviewer:
2nd Reviewer: JW

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M DOD QSM 5.3)

16	I006MW03SR-20200212MS	2000314-03MS	Water	02/12/20
17	I006MW03SR-20200212MSD	2000314-03MSD	Water	02/12/20
18				
19				
20				

Notes:

	B0B0118-BK1						

LDC #: 47528A86

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: CF
2nd Reviewer: JM

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?	✓			
Was 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) ≤ 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) ≤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 standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) of the initial calibration verification ≤ 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 ≤ 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 ≤ 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?		✓		
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?		✓		

LDC #: 47508A 46

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: [illegible]
2nd Reviewer: JVG

Validation Area	Yes	No	NA	Findings/Comments
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.				

TARGET COMPOUND WORKSHEET

METHOD: PFOS/PFOAs

A. Perfluorohexanoic acid (PFHxA)			
B. Perfluoroheptanoic acid (PFHpA)			
C. Perfluorooctanoic acid (PFOA)			
D. Perfluorononanoic acid (PFNA)			
E. Perfluorodecanoic acid (PFDA)			
F. Perfluoroundecanoic acid (PFUnA)			
G. Perfluorododecanoic acid (PFDoA)			
H. Perfluorotridecanoic acid (PFTriDA)			
I. Perfluorotetradecanoic acid (PFTeDA)			
J. Perfluorobutanesulfonic acid (PFBS)			
K. Perfluorohexanesulfonic acid (PFHxS)			
L. Perfluoroheptanesulfonic acid (PFHpS)			
M. Perfluorooctanesulfonic acid (PFOS)			
N.Perfluorodecanesulfonic acid (PFDS)			
O. Perfluorooctane Sulfonamide (FOSA)			
P. Perfluorobutanoic acid (PFBA)			
Q. Perfluoropentanoic acis (PFPeA)			
R. 1H, 1H, 2H, 2H-perfluorooctane sulfonate (6:2FTS)			
S. 1H, 1H, 2H, 2H-perfluorodecane sulfonate (8:2 FTS)			
T. N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)			
U. N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)			
V. 1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)			

LDC #: 47508A96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: 0
2nd Reviewer: JVG

METHOD: LC/MS PFAS (EPA Method 537M)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) or duplicate sample analyzed for each matrix in this SDG?

(Y) N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y (N) N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		16/17	~~PFHxS~~	172 (68-131)	132 (68-131)	( )	3	No Qual (>4x)
			~~PFHxA~~	( )	( )	46.4 (≤30)		
			~~PFHpA~~	( )	( )	41.7 (↓)		↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC#: 47508A96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: Q
2nd Reviewer: JM6

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Compound	Concentration (ug/L)		(≤30) RPD	Difference (≤LOQ)	Limits	Qual
	4	5				
PFBS	0.0509	0.0556	9			
PFHxA	0.129	0.130	1			
PFHpA	0.0436	0.0468	7			
PFHxS	0.215	0.205	5			
PFOA	0.0464	0.0441	5			
PFOS	0.0182	0.0226	22			

Compound	Concentration (ug/L)		(≤30) RPD	Difference (≤LOQ)	Limits	Qual
	9	10				
PFBS	0.501	0.525	5			
PFHxA	1.52	1.51	1			
PFHpA	0.395	0.411	4			
PFHxS	2.62	2.84	8			
PFOA	3.76	4.15	10			
PFNA	0.0245	0.0267	9			
PFOS	1.08	1.11	3			
PFDA	0.00196U	0.00176		0.0002	≤0.00396	

Compound	Concentration (ug/L)		(≤30) RPD	Difference (≤LOQ)	Limits	Qual
	13	14				
PFBS	0.00456	0.00587		0.00131	≤0.00409	
PFHxS	0.0145	0.0166		0.0021	≤0.00409	
PFOS	0.00624	0.00544		0.0008	≤0.00409	

LDC #: 47503A96

VALIDATION FINDINGS WORKSHEET
Labeled Compounds

Reviewer: 9
2nd Reviewer: JK

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3
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
		11 (NO)	13C2-PFTeDA	34.4	(50-150)	J (all detects) (PFTeDA)
					( )	
					( )	
					( )	
					( )	
					( )	
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LDC #: 47508A96

VALIDATION FINDINGS WORKSHEET
Target Compound Identification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: SM

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.1.1

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

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 between 50-150%?

#	Date	Sample ID	Associated Samples	Ion Ratio ~~70~~ 50-150% Finding	Qualifications
		8	PFDA	50.946 (4.815*5-14.455)	J det/A
		14	PFOS	3.412 (1.12-3.36)	
		15	PFOS	9.108 ✓	
		10	PFDA	14.922 (4.815*5-14.455)	✓

LDC#: 47508896

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: JM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/20/2020	MQ4	PFBS	1	0.778438094	0.250
			2	1.089880137	0.500
			3	2.682696141	1.000
			4	4.958188677	2.000
			5	12.64820119	5.000
			6	25.44695127	10.000
			7	117.4792844	50.000
			8	238.0977354	100.000
			9	566.0823864	250.000
			10	1133.899995	500.000

Regression Output		*Reported*
Constant	*2.209556*	*0.162081*
Std Err of Y Est		
R Squared	*0.999907*	*0.999487*
Degrees of Freedom		
X Coefficient(s)	*2.265108*	*2.287390*
Std Err of Coef.		
Correlation Coefficient	*0.999953*	
Coefficient of Determination (r^2)	*0.999907*	*0.999487*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/20/2020	MQ4	PFHxA	1	0.284890588	0.250
			2	0.446339310	0.500
			3	0.984796904	1.000
			4	2.021324537	2.000
			5	5.003588711	5.000
			6	9.977193119	10.000
			7	47.15559216	50.000
			8	92.60790279	100.000
			9	225.8014014	250.000
			10	431.1547913	500.000

Regression Output		***Reported***
Constant	*1.829494*	*0.066967*
Std Err of Y Est		
R Squared	*0.999430*	*0.998785*
Degrees of Freedom		
X Coefficient(s)	*0.867639*	*0.886822*
Std Err of Coef.		
Correlation Coefficient	*0.999715*	
Coefficient of Determination (r^2)	*0.999430*	*0.998785*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/25/2020	MQ4	PFHxA	1	0.248125134	0.250
			2	0.539146786	0.500
			3	1.168615070	1.000
			4	2.008352724	2.000
			5	5.175495037	5.000
			6	10.07310758	10.000
			7	47.12403550	50.000
			8	93.66908582	100.000
			9	221.5552772	250.000
			10	439.8474496	500.000

Regression Output		***Reported***
Constant	*1.341585*	*0.084469*
Std Err of Y Est		
R Squared	*0.999839*	*0.999064*
Degrees of Freedom		
X Coefficient(s)	*0.879448*	*0.893131*
Std Err of Coef.		
Correlation Coefficient	*0.999919*	
Coefficient of Determination (r^2)	*0.999839*	*0.999064*

LDC #: 47508A96

Validation Findings Worksheet
Initial Calibration Calculation Verification

Reviewer: CA
2nd Reviewer: JM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	Instrument	Compound	Standard	(Y) Response	(X) Conc.	(X^2) Conc.
2/25/2020	MQ4	PFOS	1	0.170391718	0.250	0.0625
			2	0.424665941	0.500	0.25
			3	0.885487794	1.000	1
			4	2.19426531	2.000	4
			5	5.106805482	5.000	25
			6	10.73537158	10.000	100
			7	43.83599873	50.000	2500
			8	96.62892738	100.000	10000
			9	229.6765896	250.000	62500
			10	466.5084977	500.000	250000

Regression Output	Calculated		*Reported*	
Constant	c	0.40720		-0.00626015
Std Err of Y Est				
R Squared		0.9998589		0.9992040
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	0.917505066	2.81034E-05	0.936367	-0.00001248
Std Err of Coef.				
Correlation Coefficient		0.999929		
Coefficient of Determination (r^2)		0.999859		

Validation Findings Worksheet
Initial Calibration Calculation Verification

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	Instrument	Compound	Standard	(Y) Response	(X) Conc.	(X^2) Conc.
2/27/2020	MQ4	PFOA	1	0.322971593	0.250	0.0625
			2	0.664649291	0.500	0.25
			3	1.41593446	1.000	1
			4	2.504266854	2.000	4
			5	6.608790835	5.000	25
			6	12.89285388	10.000	100
			7	58.00272182	50.000	2500
			8	117.4198491	100.000	10000
			9	276.2363349	250.000	62500
			10	502.6360698	500.000	250000

Regression Output	Calculated		*Reported*	
Constant	c	0.20152		0.0799012
Std Err of Y Est				
R Squared		0.9999868		0.9998180
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.20400609	-0.000398275	1.20955	-0.000410213
Std Err of Coef.				
Correlation Coefficient		0.999993		
Coefficient of Determination (r^2)		0.999987		

LDC #: 47308A90

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: 9
2nd Reviewer: JB

METHOD: LC/MS PFAS (EPA Method 537M)

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:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF	Recalculated RRF	Reported %D	Recalculated %D
1	20022004-37	2-20-20	~~PFOA ($^{13}C_2$-PFOA)~~ PFBS	10.000	11.8	11.77	17.7	17.7
			~~PFOS ($^{13}C_8$-PFOS)~~ PFHxA	↓	10.6	10.58	5.8	5.8
2	20022004-50	2/21/20	~~PFOA ($^{13}C_2$-PFOA)~~ PFBS	10.000	10.9	10.87	8.7	8.7
			PFOS ($^{13}C_8$-PFOS) PFHxA	↓	10.7	10.66	6.6	6.6
3	20022504-53	2/26/20	~~PFOA ($^{13}C_2$-PFOA)~~ PFHxA	10.00	11.1	11.06	10.6	10.6
			PFOS ($^{13}C_8$-PFOS) PFOS	10.00	11.2	11.20	12.0	12.0
4	20022704-86	2/28/20	~~PFOA ($^{13}C_2$-PFOA)~~ PFOA	10.00	9.67	9.67	3.3	3.3
			~~PFOS ($^{13}C_8$-PFOS)~~					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: 41508A96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: 9
2nd Reviewer: JVG

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 16/17

Compound	Spike Added (µg/L)		Sample Concentration (µg/L)	Spiked Sample Concentration (µg/L)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD *	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
PFOA	0.038T	0.0395	0.303	0.350	0.349	123	121	116	116	5.86	4.22
PFOS	↓	↓	0.00993	0.0498	0.044T	103	103	88.1	88.0	15.6	15.6

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results. * Use %R to calculated RPD due to a different spike conc.

Privileged and Confidential

LDC #: 41508A96

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: 9
2nd Reviewer: JM

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: BQB0118-BS1

Compound	Spike Added (µg/L)		Spike Concentration (µg/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
PFOA	0.0400	NA	0.0355	NA	88.7	88.7				
PFOS	V	V	0.0369	V	92.2	92.2				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: 47228A96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: JVG

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 1, FBS

Conc. = $\frac{(3.5e3 \times 12.5 - 0.16208)(1)}{(2.28139)(25)}$ = 0.0513 ng/L

#	Sample ID	Compound	Reported Concentration (ng/L)	Calculated Concentration ( )	Qualification
	1	FBS	0.0513		

Privileged and Confidential

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro and Tustin PFAS

LDC Report Date: March 19, 2020

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 2000321

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
EB02-20200213	2000321-01	Water	02/13/20
I013WMW02SR-20200213	2000321-02	Water	02/13/20
IS72MW17S-20200213	2000321-03	Water	02/13/20
I012MW01SR-20200213	2000321-04	Water	02/13/20
I012MW10S-20200213	2000321-05	Water	02/13/20
I012MW11S-20200213	2000321-06	Water	02/13/20
I012MW15S-20200213	2000321-07	Water	02/13/20
DUP02-20200213	2000321-08	Water	02/13/20
I003MW01S-20200213	2000321-09	Water	02/13/20
I003MW15S-20200213	2000321-10	Water	02/13/20
I003MW02S-20200213	2000321-11	Water	02/13/20
IS72MW17S-20200213MS	2000321-03MS	Water	02/13/20
IS72MW17S-20200213MSD	2000321-03MSD	Water	02/13/20

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 for Per- and Polyfluoroalkyl Substances in Groundwater in Carve-Outs 2, 5, 6, and 9 and Groundwater and Surface Water Near Operable Unit 3, Former Marine Corps Air Station Tustin, Tustin, California, with Addendum #02 to Final Sampling and Analysis Plan for Per- and Polyfluoroalkyl Substances Sampling for Groundwater Remedial Action at Operable Unit 3, Installation Restoration Program Site 1 (February 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).

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 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 EB02-20200213 was identified as an equipment blank. No contaminants were found.

Sample SB01-20200212 (from SDG 2000314) was identified as a source 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. For IS72MW17S-20200213MS/MSD, no data were qualified for perfluorohexanoic acid (PFHxA), perfluorohexanesulfonic acid (PFHxS), and perfluorooctanoic acid (PFOA) percent recoveries (%R) and perfluorooctanoic acid (PFOA), relative percent differences (RPD) outside the QC limits since the parent sample results were greater than 4X the spike concentration. All other relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

Samples I012MW15S-20200213 and DUP02-20200213 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
	I012MW15S-20200213	DUP02-20200213				
Perfluorobutanesulfonic acid (PFBS)	0.179	0.181	1 (≤30)	-	-	-
Perfluorohexanoic acid (PFHxA)	0.908	0.881	3 (≤30)	-	-	-
Perfluoroheptanoic acid (PFHpA)	0.200	0.191	5 (≤30)	-	-	-
Perfluorohexanesulfonic acid (PFHxS)	0.526	0.505	4 (≤30)	-	-	-
Perfluorooctanoic acid (PFOA)	0.312	0.306	2 (≤30)	-	-	-
Perfluorononanoic acid (PFNA)	0.00292	0.00251	-	0.0004 (≤0.00406)	-	-
Perfluorooctanesulfonic acid (PFOS)	0.109	0.112	3 (≤30)	-	-	-

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
I013WMW02SR-20200213	Perfluorooctanesulfonic acid (PFOS)	4.901 (1.304-3.912)	J (all detects)	A

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 2000321

Sample	Compound	Flag	A or P	Reason
I013WMW02SR-20200213	Perfluorooctanesulfonic acid (PFOS)	J (all detects)	A	Target compound identification (ion abundance ratio)

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 2000321

No Sample Data Qualified in this SDG

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 2000321

No Sample Data Qualified in this SDG

LDC #: 47508B96 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/16/20
SDG #: 2000321 Stage 4 Page: 1 of 1
Laboratory: Vista Analytical Laboratory Reviewer: 8
2nd Reviewer: JM

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M DOD QSM 5.3)

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	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A A	RSD ≤ 20% . r^2 TMe/ICV ≤ 30%
IV.	Continuing calibration/ISC	A	CCV/ISC ≤ 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	EB=1. SB=SB01-20200212 (2000314)
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D=T+8
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~~	~~EB02-20200213~~	~~2000321-01~~	~~Water~~	~~02/13/20~~
2	I013WMW02SR-20200213	2000321-02	Water	02/13/20
3	IS72MW17S-20200213	2000321-03	Water	02/13/20
4	I012MW01SR-20200213	2000321-04	Water	02/13/20
5	I012MW10S-20200213	2000321-05	Water	02/13/20
6	I012MW11S-20200213	2000321-06	Water	02/13/20
7	I012MW15S-20200213	2000321-07	Water	02/13/20
8	DUP02-20200213	2000321-08	Water	02/13/20
9	I003MW01S-20200213	2000321-09	Water	02/13/20
10	I003MW15S-20200213	2000321-10	Water	02/13/20
11	I003MW02S-20200213	2000321-11	Water	02/13/20
12	IS72MW17S-20200213MS	2000321-03MS	Water	02/13/20
13	IS72MW17S-20200213MSD	2000321-03MSD	Water	02/13/20
14				
15	BOBO12T-BK1			

LDC #: 47508B9S

VALIDATION FINDINGS CHECKLIST

Reviewer: Q
2nd Reviewer: JM

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?	✓			
Was 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) ≤ 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) ≤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 standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) of the initial calibration verification ≤ 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 ≤ 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 ≤ 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?		✓		
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?		✓		

LDC #: 47528B96

VALIDATION FINDINGS CHECKLIST

Reviewer: 9
2nd Reviewer: JM

Validation Area	Yes	No	NA	Findings/Comments
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.	✓			

TARGET COMPOUND WORKSHEET

METHOD: PFOS/PFOAs

A. Perfluorohexanoic acid (PFHxA)			
B. Perfluoroheptanoic acid (PFHpA)			
C. Perfluorooctanoic acid (PFOA)			
D. Perfluorononanoic acid (PFNA)			
E. Perfluorodecanoic acid (PFDA)			
F. Perfluoroundecanoic acid (PFUnA)			
G. Perfluorododecanoic acid (PFDoA)			
H. Perfluorotridecanoic acid (PFTriDA)			
I. Perfluorotetradecanoic acid (PFTeDA)			
J. Perfluorobutanesulfonic acid (PFBS)			
K. Perfluorohexanesulfonic acid (PFHxS)			
L. Perfluoroheptanesulfonic acid (PFHpS)			
M. Perfluorooctanesulfonic acid (PFOS)			
N.Perfluorodecanesulfonic acid (PFDS)			
O. Perfluorooctane Sulfonamide (FOSA)			
P. Perfluorobutanoic acid (PFBA)			
Q. Perfluoropentanoic acis (PFPeA)			
R. 1H, 1H, 2H, 2H-perfluorooctane sulfonate (6:2FTS)			
S. 1H, 1H, 2H, 2H-perfluorodecane sulfonate (8:2 FTS)			
T. N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)			
U. N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)			
V. 1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)			

LDC #: 47308B96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: 9+
2nd Reviewer: SV6

METHOD: LC/MS PFAS (EPA Method 537M)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) or duplicate sample analyzed for each matrix in this SDG?
Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?
Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		12/13	PFHxA	101 (72-129)	145 (72-129)	( )	3	No Qual >4x
			PFHxS	191 (68-131)	158 (68-131)	( )		↓
			PFOA	419 (71-133)	225 (71-133)	( )		
			PFOA	( )	( )	60.2 (≤30)		✓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )	

LDC#: 47508B96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: 9
2nd Reviewer: JV4

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Compound	Concentration (ug/L)		(≤30) RPD	Difference (≤LOQ)	Limits	Qual
	7	8				
PFBS	0.179	0.181	1			
PFHxA	0.908	0.881	3			
PFHpA	0.200	0.191	5			
PFHxS	0.526	0.505	4			
PFOA	0.312	0.306	2			
PFNA	0.00292	0.00251		0.0004	≤0.00406	
PFOS	0.109	0.112	3			

V:\FIELD DUPLICATES\Field Duplicates\FD_Organics\2020\47508B96_WOOD.wpd

LDC #: 47008B96

VALIDATION FINDINGS WORKSHEET
Labeled Compounds

Page: 1 of 1
Reviewer: 9
2nd Reviewer: AM

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3
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
		9	$^{13}C_3$-PFHxS	35.2	(50-150)	No Qual (20x)
			$^{13}C_8$-PFOS	156	(↓)	↓ (10x)
					( )	
					( )	
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LDC #: 47508B96

VALIDATION FINDINGS WORKSHEET
Target Compound Identification

Reviewer: 9
2nd Reviewer: JM6

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.1.1

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

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 between 50-150%?

#	Date	Sample ID	Associated Samples	Finding (Ion Ratio (50-150%))	Qualifications
		2	PFOS	4.901 (1.304 - 3.913)	Lots/J

LDC#: 47508B96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: SV

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/25/2020	MQ4	PFHxA	1	0.248125134	0.250
			2	0.539146786	0.500
			3	1.168615070	1.000
			4	2.008352724	2.000
			5	5.175495037	5.000
			6	10.07310758	10.000
			7	47.12403550	50.000
			8	93.66908582	100.000
			9	221.5552772	250.000
			10	439.8474496	500.000

Regression Output		***Reported***
Constant	*1.341585*	*0.084469*
Std Err of Y Est		
R Squared	*0.999839*	*0.999064*
Degrees of Freedom		
X Coefficient(s)	*0.879448*	*0.893131*
Std Err of Coef.		
Correlation Coefficient	*0.999919*	
Coefficient of Determination (r^2)	*0.999839*	*0.999064*

LDC #: 47528B96

Validation Findings Worksheet
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: SM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	Instrument	Compound	Standard	(Y) Response	(X) Conc.	(X^2) Conc.
2/25/2020	MQ4	PFOS	1	0.170391718	0.250	0.0625
			2	0.424665941	0.500	0.25
			3	0.885487794	1.000	1
			4	2.19426531	2.000	4
			5	5.106805482	5.000	25
			6	10.73537158	10.000	100
			7	43.83599873	50.000	2500
			8	96.62892738	100.000	10000
			9	229.6765896	250.000	62500
			10	466.5084977	500.000	250000

Regression Output	Calculated		*Reported*	
Constant	c	0.40720		-0.00626015
Std Err of Y Est				
R Squared		0.9998589		0.9992040
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	0.917505066	2.81034E-05	0.936367	-0.00001248
Std Err of Coef.				
Correlation Coefficient		0.999929		
Coefficient of Determination (r^2)		0.999859		

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/20/2020	MQ4	PFBS	1	0.218140541	0.250
			2	0.476012601	0.500
			3	0.98083487	1.000
			4	2.429106694	2.000
			5	6.071180012	5.000
			6	11.56255063	10.000
			7	59.02012306	50.000
			8	115.8441307	100.000
			9	268.6755383	250.000
			10	533.3780838	500.000

Regression Output		***Reported***
Constant	*1.855723*	*0.000349*
Std Err of Y Est		
R Squared	*0.999682*	*0.998678*
Degrees of Freedom		
X Coefficient(s)	*1.066774*	*1.087170*
Std Err of Coef.		
Correlation Coefficient	*0.999841*	
Coefficient of Determination (r^2)	*0.999682*	*0.998678*

LDC #: 47288B46

Validation Findings Worksheet
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: JM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	Instrument	Compound	Standard	(Y) Response	(X) Conc.	(X^2) Conc.
2/26/2020	MQ4	PFOA	1	0.364321782	0.250	0.0625
			2	0.719574409	0.500	0.25
			3	1.352100428	1.000	1
			4	2.401378426	2.000	4
			5	6.039297964	5.000	25
			6	11.76681779	10.000	100
			7	54.54803356	50.000	2500
			8	115.7280924	100.000	10000
			9	272.0486296	250.000	62500
			10	521.2496897	500.000	250000

Regression Output	Calculated		*Reported*	
Constant	c	0.18709		0.120191
Std Err of Y Est				
R Squared		0.9999340		0.9997660
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.143310231	-0.000203208	1.14636	-0.000209775
Std Err of Coef.				
Correlation Coefficient		0.999967		
Coefficient of Determination (r^2)		0.999934		

LDC #: 45088B96

Validation Findings Worksheet
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: DM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	Instrument	Compound	Standard	(Y) Response	(X) Conc.	(X^2) Conc.
2/29/2020	MQ4	PFHxS	1	0.090312611	0.250	0.0625
			2	0.554619134	0.500	0.25
			3	0.879094479	1.000	1
			4	1.88339845	2.000	4
			5	5.243644386	5.000	25
			6	11.85984225	10.000	100
			7	50.53408586	50.000	2500
			8	102.9247442	100.000	10000
			9	270.4999765	250.000	62500
			10	481.5067366	500.000	250000

Regression Output	Calculated		*Reported*	
Constant	c	-1.40260		-0.145925
Std Err of Y Est				
R Squared		0.9994316		0.9986790
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.155909744	-0.000375202	1.09858	-0.000251852
Std Err of Coef.				
Correlation Coefficient		0.999716		
Coefficient of Determination (r^2)		0.999432		

LDC #: 47503B96

Validation Findings Worksheet
Initial Calibration Calculation Verification

Reviewer: A
2nd Reviewer: JVG

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	Instrument	Compound	Standard	(Y) Response	(X) Conc.	(X^2) Conc.
2/29/2020	MQ4	PFOA	1	0.341872059	0.250	0.0625
			2	0.833811058	0.500	0.25
			3	1.310270348	1.000	1
			4	2.523838971	2.000	4
			5	6.966030299	5.000	25
			6	13.0191009	10.000	100
			7	62.65294692	50.000	2500
			8	116.749093	100.000	10000
			9	284.132683	250.000	62500
			10	558.8260031	500.000	250000

Regression Output	Calculated		*Reported*	
Constant	c	1.01258		0.255567
Std Err of Y Est				
R Squared		0.9999339		0.9995660
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.162937577	-9.60201E-05	1.19871	-0.000173152
Std Err of Coef.				
Correlation Coefficient		0.999967		
Coefficient of Determination (r^2)		0.999934		

LDC #: 47588396

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: JV6

METHOD: LC/MS PFAS (EPA Method 537M)

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:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF	Recalculated RRF	Reported %D	Recalculated %D
1	20022501-3C	2/25/20	PFOA ($^{13}C_2$-PFOA) PFHxA	10.00	10.9	10.87	8.7	8.7
			PFOS ($^{13}C_8$-PFOS) PFOS	10.00	10.6	10.55	5.5	5.5
2	20022501-3	2/26/20	PFOA ($^{13}C_2$-PFOA) PFHxA	10.0	11.1	11.06	10.6	10.6
			PFOS ($^{13}C_8$-PFOS) PFOS	↓	11.2	11.2	12.0	12.0
3	20022601-3	2/26/20	PFOA ($^{13}C_2$-PFOA) PFBA	10.0	10.4	10.41	4.1	4.1
			PFOS ($^{13}C_8$-PFOS) PFOA	10.0	10.7	10.66	6.6	6.6
4	20022601-5	2/27/20	PFOA ($^{13}C_2$-PFOA) PFBA	10.00	10.1	10.13	1.3	1.3
			PFOS ($^{13}C_8$-PFOS) PFOA	10.00	9.56	9.56	4.4	4.4

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: 41508B46

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: 4
2nd Reviewer: JVL

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 13/13

Compound	Spike Added (µg/L)		Sample Concentration (µg/L)	Spiked Sample Concentration (µg/L)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
PFOA	0.0396	0.0408	0.881	1.05	0.973	419	417	~~60.2~~ 25	225	60.2	62.0
PFOS	↓	↓	0.134	0.175	0.184	103	103	120	122	15.2	16.9

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: 47988B96

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: JVG

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: BOB012T-BS1

Compound	Spike Added (µg/L)		Spike Concentration (µg/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
PFOA	0.0400	NA	0.0406	NA	102	102				
PFOS	↓	↓	0.0342	↓	~~85.6~~	~~85.5~~				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: 41508B96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd reviewer: JV6

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 2, PFOA:

Conc. = $\frac{(-1.1436+\sqrt{(1.1436)^2-4(-0.00020977)(-\frac{22324\times B^5}{1138e4})}+0.120191)}{(2)(-0.00020977)(245)(\quad)}$

= 0.7401 ng/L

#	Sample ID	Compound	Reported Concentration (ng/L)	Calculated Concentration ( )	Qualification
	2	PFOA	0.7401		

Privileged and Confidential

LDC Report# 47508C96

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro and Tustin PFAS

LDC Report Date: March 19, 2020

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 2000330

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
I003MW05S-20200214	2000330-02	Water	02/14/20
I003MW12S-20200214	2000330-03	Water	02/14/20
DUP04-20200214	2000330-04	Water	02/14/20
I003MW14S-20200214	2000330-05	Water	02/14/20
I003MW14S-20200214MS	2000330-05MS	Water	02/14/20
I003MW14S-20200214MSD	2000330-05MSD	Water	02/14/20

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 for Per- and Polyfluoroalkyl Substances in Groundwater in Carve-Outs 2, 5, 6, and 9 and Groundwater and Surface Water Near Operable Unit 3, Former Marine Corps Air Station Tustin, Tustin, California, with Addendum #02 to Final Sampling and Analysis Plan for Per- and Polyfluoroalkyl Substances Sampling for Groundwater Remedial Action at Operable Unit 3, Installation Restoration Program Site 1 (February 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).

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 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 EB03-20200214 was identified as an equipment blank. No contaminants were found.

Sample SB01-20200212 (from SDG 2000314) was identified as a source 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. For I003MW14S-20200214MS/MSD, no data were qualified for perfluorobutanesulfonic acid (PFBS), perfluorohexanoic acid (PFHxA), perfluoroheptanoic acid (PFHpA), and perfluorooctanoic acid (PFOA) percent outside the QC limits since the parent sample results were greater than 4X the spike concentration.

Relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	RPD (Limits)	Flag	A or P
I003MW14S-20200214MS/MSD (I003MW14S-20200214)	MeFOSAA	32.5 (≤30)	NA	-

For I003MW14S-20200214MS/MSD, no data were qualified for perfluorobutanesulfonic acid (PFBS), perfluorohexanoic acid (PFHxA), perfluoroheptanoic acid (PFHpA), and perfluorooctanoic acid (PFOA) relative percent differences (RPD) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

Samples I003MW12S-20200214 and DUP04-20200214 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
	I003MW12S-20200214	DUP04-20200214				
Perfluorobutanesulfonic acid (PFBS)	0.0346	0.0349	1 (≤30)	-	-	-
Perfluorohexanoic acid (PFHxA)	0.164	0.155	6 (≤30)	-	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
	I003MW12S-20200214	DUP04-20200214				
Perfluoroheptanoic acid (PFHpA)	0.0538	0.0547	2 (≤30)	-	-	-
Perfluorohexanesulfonic acid (PFHxS)	0.190	0.166	13 (≤30)	-	-	-
Perfluorooctanoic acid (PFOA)	0.402	0.403	0 (≤30)	-	-	-
Perfluorooctanesulfonic acid (PFOS)	0.0519	0.0574	10 (≤30)	-	-	-

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
DUP04-20200214	13C2-PFTeDA	39.9 (50-150)	Perfluorotetradecanoic acid (PFTeDA)	NA	-

XI. Compound Quantitation

All compound quantitations met validation criteria.

XII. Target Compound Identifications

All target compound identifications met validation criteria.

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.

The quality control criteria reviewed were met and are considered acceptable.

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Data Qualification Summary - SDG 2000330

No Sample Data Qualified in this SDG

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 2000330

No Sample Data Qualified in this SDG

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 2000330

No Sample Data Qualified in this SDG

LDC #: 47508C96

SDG #: 2000330

Laboratory: Vista Analytical Laboratory

VALIDATION COMPLETENESS WORKSHEET

Stage 4

Date: 3/16/20

Page: 1 of 1

Reviewer:

2nd Reviewer: SVG

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M DOD QSM 5.3)

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	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	RSD≤20% or r^2 ≥0.99/ICV=30%
IV.	Continuing calibration/ICSC	A	CCV/ISC=30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	EB=1 .SB=SB01-20200212(20003I4)
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D=3+4
X.	Labeled Compounds	SW	
VI.	Compound quantitation RL/LOQ/LODs	A	
XII.	Target compound identification	A	
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~~	~~EB03-20200214~~	~~2000330-01~~	~~Water~~	~~02/14/20~~
2	I003MW05S-20200214	2000330-02	Water	02/14/20
3	I003MW12S-20200214	2000330-03	Water	02/14/20
4	DUP04-20200214	2000330-04	Water	02/14/20
5	I003MW14S-20200214	2000330-05	Water	02/14/20
6	I003MW14S-20200214MS	2000330-05MS	Water	02/14/20
7	I003MW14S-20200214MSD	2000330-05MSD	Water	02/14/20
8				
9				
10				

Notes:

	BOB0137-BK1						

LDC #: 47508C96

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: 9
2nd Reviewer: JVC

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?	✓			
Was 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) ≤ 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) ≤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 standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) of the initial calibration verification ≤ 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 ≤ 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 ≤ 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?		✓		
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?		✓		

LDC #: 47508C96

VALIDATION FINDINGS CHECKLIST

Reviewer: Q
2nd Reviewer: SM6

Validation Area	Yes	No	NA	Findings/Comments
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.	✓			

TARGET COMPOUND WORKSHEET

METHOD: PFOS/PFOAs

A. Perfluorohexanoic acid (PFHxA)			
B. Perfluoroheptanoic acid (PFHpA)			
C. Perfluorooctanoic acid (PFOA)			
D. Perfluorononanoic acid (PFNA)			
E. Perfluorodecanoic acid (PFDA)			
F. Perfluoroundecanoic acid (PFUnA)			
G. Perfluorododecanoic acid (PFDoA)			
H. Perfluorotridecanoic acid (PFTriDA)			
I. Perfluorotetradecanoic acid (PFTeDA)			
J. Perfluorobutanesulfonic acid (PFBS)			
K. Perfluorohexanesulfonic acid (PFHxS)			
L. Perfluoroheptanesulfonic acid (PFHpS)			
M. Perfluorooctanesulfonic acid (PFOS)			
N.Perfluorodecanesulfonic acid (PFDS)			
O. Perfluorooctane Sulfonamide (FOSA)			
P. Perfluorobutanoic acid (PFBA)			
Q. Perfluoropentanoic acis (PFPeA)			
R. 1H, 1H, 2H, 2H-perfluorooctane sulfonate (6:2FTS)			
S. 1H, 1H, 2H, 2H-perfluorodecane sulfonate (8:2 FTS)			
T. N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)			
U. N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)			
V. 1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)			

LDC #: 47508c96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: 2
2nd Reviewer: JM

METHOD: LC/MS PFAS (EPA Method 537M)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) or duplicate sample analyzed for each matrix in this SDG?
Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?
Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		6/7	~~PFBS~~	53.1 (72-130)	68.3 (72-130)	( )	5	No Qual >4x
			~~PFHxA~~	( )	69.9 (72-129)	69.9 (≤30)		
			~~PFHpA~~	138 (72-130)	~~572~~ (70-130) -314	614 ( )		
				( )	( )	( )		
			~~PFHxS~~	44.2 (68-131)	-379 (68-131)	253 ( )		
			PFOA	64.4 (71-133)	26.4 (71-133)	83.7 ( )		
				( )	( )	( )		
			MeFOSAA	( )	( )	32.5 (≤30)	5 (ND)	Hold/A
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC#: 47508C96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: 9
2nd Reviewer: JM

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Compound	Concentration (ug/L)		(≤30) RPD	Difference (≤LOQ)	Limits	Qual
	3	4				
PFBS	0.0346	0.0349	1			
PFHxA	0.164	0.155	6			
PFHpA	0.0538	0.0547	2			
PFHxS	0.190	0.166	13			
PFOA	0.402	0.403	0			
PFOS	0.0519	0.0574	10			

V:\FIELD DUPLICATES\Field Duplicates\FD_Organics\2020\47508C96_WOOD.wpd

LDC #: 47508C96

VALIDATION FINDINGS WORKSHEET
Labeled Compounds

Reviewer: 9
2nd Reviewer: JM

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3
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
		2	13C2-PFOA	161	(50-150)	No qual (5x)
					( )	
		4 (N/D)	13C2PFTeDA	39.9	( )	Verify (PFTeDA)
					( )	
		5	13C3-PFHxA	187	( )	No qual (5x)
			13C3-PFOA	174	( )	
					( )	
					( )	
					( )	
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LDC#: 47508C96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 2
2nd Reviewer: JV6

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/24/2020	MQ4	PFBS	1	0.633875728	0.250
			2	1.101680907	0.500
			3	2.371425822	1.000
			4	5.122410556	2.000
			5	12.14561292	5.000
			6	24.17966012	10.000
			7	120.66273230	50.000
			8	249.1365015	100.000
			9	585.9840235	250.000
			10	1193.961241	500.000

Regression Output		*Reported*
Constant	*0.816967*	*0.022226*
Std Err of Y Est		
R Squared	*0.999841*	*0.999677*
Degrees of Freedom		
X Coefficient(s)	*2.380549*	*2.389200*
Std Err of Coef.		
Correlation Coefficient	*0.999921*	
Coefficient of Determination (r^2)	*0.999841*	*0.999677*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/24/2020	MQ4	PFHxA	1	0.315503721	0.250
			2	0.503071002	0.500
			3	1.029558277	1.000
			4	2.035496213	2.000
			5	5.038662651	5.000
			6	9.900583622	10.000
			7	47.51574284	50.000
			8	91.75496192	100.000
			9	228.7017249	250.000
			10	450.1274278	500.000

Regression Output		***Reported***
Constant	*0.859876*	*0.075621*
Std Err of Y Est		
R Squared	*0.999930*	*0.999659*
Degrees of Freedom		
X Coefficient(s)	*0.901577*	*0.910113*
Std Err of Coef.		
Correlation Coefficient	*0.999965*	
Coefficient of Determination (r^2)	*0.999930*	*0.999659*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/27/2020	MQ4	PFBS	1	0.632118722	0.250
			2	1.586507597	0.500
			3	2.742775839	1.000
			4	4.901326024	2.000
			5	12.22165384	5.000
			6	27.67974785	10.000
			7	128.6912281	50.000
			8	253.2448455	100.000
			9	578.2133693	250.000
			10	1165.917419	500.000

Regression Output		***Reported***
Constant	*3.957059*	*0.185525*
Std Err of Y Est		
R Squared	*0.999640*	*0.998443*
Degrees of Freedom		
X Coefficient(s)	*2.325181*	*2.366230*
Std Err of Coef.		
Correlation Coefficient	*0.999820*	
Coefficient of Determination (r^2)	*0.999640*	*0.998443*

LDC #: 47508C96

Validation Findings Worksheet
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: DV

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	Instrument	Compound	Standard	(Y) Response	(X) Conc.	(X^2) Conc.
2/27/2020	MQ4	PFOA	1	0.322971593	0.250	0.0625
			2	0.664649291	0.500	0.25
			3	1.41593446	1.000	1
			4	2.504266854	2.000	4
			5	6.608790835	5.000	25
			6	12.89285388	10.000	100
			7	58.00272182	50.000	2500
			8	117.4198491	100.000	10000
			9	276.2363349	250.000	62500
			10	502.6360698	500.000	250000

Regression Output	Calculated		*Reported*	
Constant	c	0.20152		0.0799012
Std Err of Y Est				
R Squared		0.9999868		0.9998180
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.20400609	-0.000398275	1.20955	-0.000410213
Std Err of Coef.				
Correlation Coefficient		0.999993		
Coefficient of Determination (r^2)		0.999987		

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
2/28/2020	MQ4	PFHxA	1	0.303600128	0.250
			2	0.597584798	0.500
			3	1.164206205	1.000
			4	1.968289604	2.000
			5	5.098500037	5.000
			6	9.640800994	10.000
			7	47.14252829	50.000
			8	95.7879666	100.000
			9	219.0447367	250.000
			10	420.3159336	500.000

Regression Output		***Reported***
Constant	*2.481143*	*0.122807*
Std Err of Y Est		
R Squared	*0.999080*	*0.997551*
Degrees of Freedom		
X Coefficient(s)	*0.844901*	*0.870570*
Std Err of Coef.		
Correlation Coefficient	*0.999540*	
Coefficient of Determination (r^2)	*0.999080*	*0.997551*

LDC #: 47988C96

Validation Findings Worksheet
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: SM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	Instrument	Compound	Standard	(Y) Response	(X) Conc.	(X^2) Conc.
2/28/2020	MQ4	PFHxS	1	0.12583571	0.250	0.0625
			2	0.546220095	0.500	0.25
			3	1.100093989	1.000	1
			4	2.268965029	2.000	4
			5	5.842901742	5.000	25
			6	12.00998324	10.000	100
			7	51.40861626	50.000	2500
			8	106.1284785	100.000	10000
			9	267.918899	250.000	62500
			10	468.4202122	500.000	250000

Regression Output	Calculated		*Reported*	
Constant	c	-1.04004		-0.0812317
Std Err of Y Est				
R Squared		0.9996150		0.9990280
Degrees of Freedom				
	b	a	b	a
X Coefficient(s)	1.170779375	-0.000459763	1.12704	-0.00036565
Std Err of Coef.				
Correlation Coefficient		0.999807		
Coefficient of Determination (r^2)		0.999615		

LDC #: ~~#50896~~

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: JM

METHOD: LC/MS PFAS (EPA Method 537M)

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:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF	Recalculated RRF	Reported %D	Recalculated %D
1	200224PFAS34	2/24/20	~~PFOA ($^{13}C_2$-PFOA)~~ PFBS	10.00	10.4	10.37	3.7	3.7
			~~PFOS ($^{13}C_8$-PFOS)~~	10.00	10.8	10.77	7.7	7.7
2	200228PFAS75	2/29/20	~~PFOA ($^{13}C_2$-PFOA)~~ PFHxA	10.0	11.1	11.14	11.4	11.4
			~~PFOS ($^{13}C_8$-PFOS)~~	10.0	9.57	9.57	4.3	4.3
3			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					
4			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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LDC #: 47508C96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: JV6

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 6/7

Compound	Spike Added (ng/L)		Sample Concentration (ng/L)	Spiked Sample Concentration (ng/L)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
PFOA	0.202	0.202	4.36	4.49	4.42	64.4	64.4	26.4	29.7	83.7	31.57
PFOS	~~0.675~~ 0.0403	0.0405	0.601	~~0.695~~ 0.649	0.649	111	109	120	119	7.79	0.62

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: AT508C-96

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: 1
2nd Reviewer: SW

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: BOB013T-BS1

Compound	Spike Added (ng/L)		Spike Concentration (ng/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
PFOA	0.0400	NA	0.0354	NA	88.5	88.5				
PFOS	"	"	0.0359	"	89.7	89.7				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: 47508C96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: 9
2nd reviewer: JM

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 1, PFBS:

Conc. = $\frac{(1380)(\frac{134000 \times 12.5}{2.3892} - 0.022262)}{(256)}$

= 0.198 ng/L

#	Sample ID	Compound	Reported Concentration (ng/L)	Calculated Concentration ( )	Qualification
	1	PFBS	0.198		

Privileged and Confidential

LDC Report# 47508D96

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro and Tustin PFAS

LDC Report Date: March 19, 2020

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 2000356

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
IS720W02D-20200219	2000356-02	Water	02/19/20
IS720W06D-20200219	2000356-03	Water	02/19/20
IS720W03D-20200219	2000356-04	Water	02/19/20
TW08S-20200219	2000356-05	Water	02/19/20
TW09S-20200219	2000356-06	Water	02/19/20
TW10S-20200219	2000356-07	Water	02/19/20
TW11S-20200219	2000356-08	Water	02/19/20
TW13S-20200219	2000356-09	Water	02/19/20
TW12S-20200219	2000356-10	Water	02/19/20

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 for Per- and Polyfluoroalkyl Substances in Groundwater in Carve-Outs 2, 5, 6, and 9 and Groundwater and Surface Water Near Operable Unit 3, Former Marine Corps Air Station Tustin, Tustin, California, with Addendum #02 to Final Sampling and Analysis Plan for Per- and Polyfluoroalkyl Substances Sampling for Groundwater Remedial Action at Operable Unit 3, Installation Restoration Program Site 1 (February 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).

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 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 EB04-20200219 was identified as an equipment blank. No contaminants were found.

Sample SB01-20200212 (from SDG 2000314) 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.

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
IS720W06D-20200219	Perfluorononanoic acid (PFNA)	14.064 (2.6685-8.0055)	J (all detects)	A
TW08S-20200219	Perfluorononanoic acid (PFNA) Perfluorooctanesulfonic acid (PFOS)	8.031 (2.6685-8.005) 3.631 (1.027-3.081)	J (all detects) J (all detects)	A
TW09S-20200219	Perfluorononanoic acid (PFNA)	8.314 (2.6685-8.0055)	J (all detects)	A

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 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 2000356

Sample	Compound	Flag	A or P	Reason
IS720W06D-20200219 TW09S-20200219	Perfluorononanoic acid (PFNA)	J (all detects)	A	Target compound identification (ion abundance ratio)
TW08S-20200219	Perfluorononanoic acid (PFNA) Perfluorooctanesulfonic acid (PFOS)	J (all detects) J (all detects)	A	Target compound identification (ion abundance ratio)

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 2000356

No Sample Data Qualified in this SDG

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 2000356

No Sample Data Qualified in this SDG

LDC #: 47508D96 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/4/20

SDG #: 2000356 Stage 4 Page: 1 of 1

Laboratory: Vista Analytical Laboratory Reviewer: V

2nd Reviewer: JVG

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M DOD QSM 5.3)

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	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	RSD≤20%. r² ≥ 0.990/ICV=70-130%
IV.	Continuing calibration/ICV	A	CCV/ICV=70-130%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	EB=1. SB=SB01-20200212(2000314)
VII.	Matrix spike/Matrix spike duplicates	N	CS
VIII.	Laboratory control samples	A	LCS/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~~	~~EB04-20200219~~	~~2000356-01~~	~~Water~~	~~02/19/20~~
2	IS720W02D-20200219	2000356-02	Water	02/19/20
3	IS720W06D-20200219	2000356-03	Water	02/19/20
4	IS720W03D-20200219	2000356-04	Water	02/19/20
5	TW08S-20200219	2000356-05	Water	02/19/20
6	TW09S-20200219	2000356-06	Water	02/19/20
7	TW10S-20200219	2000356-07	Water	02/19/20
8	TW11S-20200219	2000356-08	Water	02/19/20
9	TW13S-20200219	2000356-09	Water	02/19/20
10	TW12S-20200219	2000356-10	Water	02/19/20
11				

Notes:

	B0B0186-BK1						

LDC #: 47808696

VALIDATION FINDINGS CHECKLIST

Reviewer: 9
2nd Reviewer: JM

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?	✓			
Was 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) ≤ 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) ≤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 standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) of the initial calibration verification ≤ 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 ≤ 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 ≤ 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?		✓		
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?			✓	

LDC #: 47583D96

VALIDATION FINDINGS CHECKLIST

Reviewer: 9
2nd Reviewer: JW

Validation Area	Yes	No	NA	Findings/Comments
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.	✓			

TARGET COMPOUND WORKSHEET

METHOD: PFOS/PFOAs

A. Perfluorohexanoic acid (PFHxA)			
B. Perfluoroheptanoic acid (PFHpA)			
C. Perfluorooctanoic acid (PFOA)			
D. Perfluorononanoic acid (PFNA)			
E. Perfluorodecanoic acid (PFDA)			
F. Perfluoroundecanoic acid (PFUnA)			
G. Perfluorododecanoic acid (PFDoA)			
H. Perfluorotridecanoic acid (PFTriDA)			
I. Perfluorotetradecanoic acid (PFTeDA)			
J. Perfluorobutanesulfonic acid (PFBS)			
K. Perfluorohexanesulfonic acid (PFHxS)			
L. Perfluoroheptanesulfonic acid (PFHpS)			
M. Perfluorooctanesulfonic acid (PFOS)			
N.Perfluorodecanesulfonic acid (PFDS)			
O. Perfluorooctane Sulfonamide (FOSA)			
P. Perfluorobutanoic acid (PFBA)			
Q. Perfluoropentanoic acis (PFPeA)			
R. 1H, 1H, 2H, 2H-perfluorooctane sulfonate (6:2FTS)			
S. 1H, 1H, 2H, 2H-perfluorodecane sulfonate (8:2 FTS)			
T. N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)			
U. N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)			
V. 1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)			

LDC #: 47508096

VALIDATION FINDINGS WORKSHEET
Labeled Compounds

Reviewer: 9
2nd Reviewer: JV4

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3
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
		300B0186-BLK1	d5-EtFOSAA	45.1	(30-150)	J+ (all detects) A
					( )	
					( )	
					( )	
					( )	
					( )	
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					( )	
					( )	
					( )	
					( )	

LDC #: 47608D 96

VALIDATION FINDINGS WORKSHEET
Target Compound Identification

Reviewer: 9
2nd Reviewer: RL

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.1.1

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(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 between 50-150%?

#	Date	Sample ID	Associated Samples	Finding (ion Ratio 50-150%)	Qualifications
		3	PFNA	14.06J (2.6685-8.0055)	J det, /A
		5	PFNA	8.031 (2.6685-8.0055)	
			PFOS	3.631 (1.027-3.081)	
		6	PFNA	8.31J (2.6685-8.0055)	✓

LDC#: 47508D96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 4
2nd Reviewer: JM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/3/2020	MQ4	PFBS	1	0.554705098	0.250
			2	1.200240315	0.500
			3	2.661566497	1.000
			4	4.565038616	2.000
			5	11.70798422	5.000
			6	24.59190858	10.000
			7	123.1772944	50.000
			8	228.7428464	100.000
			9	652.3548228	250.000
			10	1232.788197	500.000

Regression Output		***Reported***
Constant	*-0.438622*	*-0.055572*
Std Err of Y Est		
R Squared	*0.999028*	*0.998545*
Degrees of Freedom		
X Coefficient(s)	*2.488959*	*2.484790*
Std Err of Coef.		
Correlation Coefficient	*0.999514*	
Coefficient of Determination (r^2)	*0.999028*	*0.998545*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/3/2020	MQ4	PFHxA	1	0.284453925	0.250
			2	0.563641632	0.500
			3	0.853216191	1.000
			4	1.758122628	2.000
			5	3.931533913	5.000
			6	8.197558343	10.000
			7	44.22352528	50.000
			8	88.16450415	100.000
			9	228.8115199	250.000
			10	439.6866489	500.000

Regression Output		***Reported***
Constant	*0.288773*	*0.023652*
Std Err of Y Est		
R Squared	*0.999657*	*0.999493*
Degrees of Freedom		
X Coefficient(s)	*0.885537*	*0.888423*
Std Err of Coef.		
Correlation Coefficient	*0.999829*	
Coefficient of Determination (r^2)	*0.999657*	*0.999493*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/4/2020	MQ4	PFBS	1	0.587190232	0.250
			2	1.302489993	0.500
			3	2.382420295	1.000
			4	4.640189802	2.000
			5	12.43729927	5.000
			6	22.28433527	10.000
			7	120.4758055	50.000
			8	242.8732193	100.000
			9	682.9602572	250.000
			10	1288.660676	500.000

Regression Output		***Reported***
Constant	*-1.500233*	*-0.116823*
Std Err of Y Est		
R Squared	*0.999024*	*0.998244*
Degrees of Freedom		
X Coefficient(s)	*2.605286*	*2.590230*
Std Err of Coef.		
Correlation Coefficient	*0.999512*	
Coefficient of Determination (r^2)	*0.999024*	*0.998244*

LDC#: 47898D96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: JM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/4/2020	MQ4	PFHxA	1	0.31107562	0.250
			2	0.537330688	0.500
			3	0.920922420	1.000
			4	1.813037164	2.000
			5	4.474043531	5.000
			6	9.166550489	10.000
			7	43.86348346	50.000
			8	85.83019426	100.000
			9	226.2737151	250.000
			10	433.2922326	500.000

Regression Output		***Reported***
Constant	*0.492762*	*0.058589*
Std Err of Y Est		
R Squared	*0.999590*	*0.999543*
Degrees of Freedom		
X Coefficient(s)	*0.872441*	*0.877166*
Std Err of Coef.		
Correlation Coefficient	*0.999795*	
Coefficient of Determination (r^2)	*0.999590*	*0.999543*

LDC #: 47088D96

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: 9
2nd Reviewer: SM

METHOD: LC/MS PFAS (EPA Method 537M)

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:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF	Recalculated RRF	Reported %D	Recalculated %D
1	20030422S9	3/5/20	~~PFOA ($^{13}C_2$-PFOA)~~ ~~PFBS~~	10.00	9.86	9.86	1.4	1.4
			~~PFOS ($^{13}C_8$-PFOS)~~	10.00	10.1	10.08	0.8	0.8
2			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					
3			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					
4			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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LDC #41608D96

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: 9
2nd Reviewer: JM

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 80B0186-BS1/BSD1

Compound	Spike Added (µL)		Spike Concentration (µg/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
PFOA	0.0400	0.0400	0.0374	0.0385	93.4	93.4	96.3	96.3	3.06	2.90
PFOS	↓	↓	0.0361	0.0403	90.2	90.2	101	101	11.1	11.0

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: 47508D96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: 9
2nd reviewer: JVG

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 2, PFBS

Conc. = $\frac{(995 \times 12.5)}{(756)(2.48474)(252)} \times \frac{0.055572}{(1)} \times \frac{(2.0)}{(1)}$

= 0.0264 µg/L

#	Sample ID	Compound	Reported Concentration µg/L	Calculated Concentration ( )	Qualification
	2	PFBS	0.0264		

Privileged and Confidential

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro and Tustin PFAS

LDC Report Date: March 19, 2020

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 2000372

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TW07S-20200220	2000372-02	Water	02/20/20
TW05S-20200220	2000372-03	Water	02/20/20
TW06S-20200220	2000372-04	Water	02/20/20
TW21S-20200220	2000372-05	Water	02/20/20
TW20S-20200220	2000372-06	Water	02/20/20
TW19S-20200220	2000372-07	Water	02/20/20
TW18S-20200220	2000372-08	Water	02/20/20

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 for Per- and Polyfluoroalkyl Substances in Groundwater in Carve-Outs 2, 5, 6, and 9 and Groundwater and Surface Water Near Operable Unit 3, Former Marine Corps Air Station Tustin, Tustin, California, with Addendum #02 to Final Sampling and Analysis Plan for Per- and Polyfluoroalkyl Substances Sampling for Groundwater Remedial Action at Operable Unit 3, Installation Restoration Program Site 1 (February 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).

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 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 EB04-20200219 was identified as an equipment blank. No contaminants were found.

Sample SB01-20200212 (from SDG 2000314) 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.

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
TW05S-20200220	Perfluorononanoic acid (PFNA)	9.388 (2.6685-8.0055)	J (all detects)	A
TW21S-20200220	Perfluorononanoic acid (PFNA)	16.165 (3.6265-10.8795)	J (all detects)	A
TW20S-20200220	Perfluorohexanoic acid (PFHxA)	125.926 (10.3835-31.1505)	J (all detects)	A
TW18S-20200220	Perfluoroheptanoic acid (PFHpA)	27.375 (8.382-25.146)	J (all detects)	A

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 four 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 2000372

Sample	Compound	Flag	A or P	Reason
TW05S-20200220 TW21S-20200220	Perfluorononanoic acid (PFNA)	J (all detects)	A	Target compound identification (ion abundance ratio)
TW20S-20200220	Perfluorohexanoic acid (PFHxA)	J (all detects)	A	Target compound identification (ion abundance ratio)
TW18S-20200220	Perfluoroheptanoic acid (PFHpA)	J (all detects)	A	Target compound identification (ion abundance ratio)

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 2000372

No Sample Data Qualified in this SDG

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 2000372

No Sample Data Qualified in this SDG

LDC #: 47508E96 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/16/20
SDG #: 2000372 Stage 4 Page: 1 of 1
Laboratory: Vista Analytical Laboratory Reviewer:
2nd Reviewer: JVG

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M DOD QSM 5.3)

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	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	RSD≤20% r² ICV/ICV≤30%
IV.	Continuing calibration/ISC	A	CCV/ISC≤30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	EB=1 SB=SB01-20200212(2000314)
VII.	Matrix spike/Matrix spike duplicates	N	CS
VIII.	Laboratory control samples	A	LCS/D
IX.	Field duplicates	N	
X.	Labeled Compounds	A	
VI.	Compound quantitation RL/LOQ/LODs	A	
XII.	Target compound identification	A	
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~~	~~EB05-20200220~~	~~2000372-01~~	~~Water~~	~~02/20/20~~
2	TW07S-20200220	2000372-02	Water	02/20/20
3	TW05S-20200220	2000372-03	Water	02/20/20
4	TW06S-20200220	2000372-04	Water	02/20/20
5	TW21S-20200220	2000372-05	Water	02/20/20
6	TW20S-20200220	2000372-06	Water	02/20/20
7	TW19S-20200220	2000372-07	Water	02/20/20
8	TW18S-20200220	2000372-08	Water	02/20/20
9				
10				

Notes:

	BOB0213-BLK1						

LDC #: 47508296

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: 9
2nd Reviewer: JW

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?	✓			
Was 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) ≤ 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) ≤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 standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) of the initial calibration verification ≤ 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 ≤ 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 ≤ 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?		✓		
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?			✓	

LDC #: 47508296

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: 9
2nd Reviewer: JV6

Validation Area	Yes	No	NA	Findings/Comments
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.	✓			

TARGET COMPOUND WORKSHEET

METHOD: PFOS/PFOAs

A. Perfluorohexanoic acid (PFHxA)			
B. Perfluoroheptanoic acid (PFHpA)			
C. Perfluorooctanoic acid (PFOA)			
D. Perfluorononanoic acid (PFNA)			
E. Perfluorodecanoic acid (PFDA)			
F. Perfluoroundecanoic acid (PFUnA)			
G. Perfluorododecanoic acid (PFDoA)			
H. Perfluorotridecanoic acid (PFTriDA)			
I. Perfluorotetradecanoic acid (PFTeDA)			
J. Perfluorobutanesulfonic acid (PFBS)			
K. Perfluorohexanesulfonic acid (PFHxS)			
L. Perfluoroheptanesulfonic acid (PFHpS)			
M. Perfluorooctanesulfonic acid (PFOS)			
N.Perfluorodecanesulfonic acid (PFDS)			
O. Perfluorooctane Sulfonamide (FOSA)			
P. Perfluorobutanoic acid (PFBA)			
Q. Perfluoropentanoic acis (PFPeA)			
R. 1H, 1H, 2H, 2H-perfluorooctane sulfonate (6:2FTS)			
S. 1H, 1H, 2H, 2H-perfluorodecane sulfonate (8:2 FTS)			
T. N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)			
U. N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)			
V. 1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)			

LDC #: 47508E96

VALIDATION FINDINGS WORKSHEET
Target Compound Identification

Reviewer: 9
2nd Reviewer: JM

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.1.1

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

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 between 50-150%?

#	Date	Sample ID	Associated Samples	Ion Ratio (50-150%) Finding	Qualifications
		3	PFNA	9.388 (2.685-8.0055)	J+ (all) / A
		5	PFNA	16.165 (3.6265-10.8795)	
		6	PFHxA	125.926 (10.3835-31.1505)	
		8	PFHpA	27.375 (0.382-25.146)	

LDC#: 41582 98

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: JM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/4/2020	MQ4	PFBS	1	0.587190232	0.250
			2	1.302489993	0.500
			3	2.382420295	1.000
			4	4.640189802	2.000
			5	12.43729927	5.000
			6	22.28433527	10.000
			7	120.4758055	50.000
			8	242.8732193	100.000
			9	682.9602572	250.000
			10	1288.660676	500.000

Regression Output		***Reported***
Constant	*-1.500233*	*-0.116823*
Std Err of Y Est		
R Squared	*0.999024*	*0.998244*
Degrees of Freedom		
X Coefficient(s)	*2.605286*	*2.590230*
Std Err of Coef.		
Correlation Coefficient	*0.999512*	
Coefficient of Determination (r^2)	*0.999024*	*0.998244*

LDC#: 47582-96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer:
2nd Reviewer: JM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/4/2020	MQ4	PFHxA	1	0.31107562	0.250
			2	0.537330688	0.500
			3	0.920922420	1.000
			4	1.813037164	2.000
			5	4.474043531	5.000
			6	9.166550489	10.000
			7	43.86348346	50.000
			8	85.83019426	100.000
			9	226.2737151	250.000
			10	433.2922326	500.000

Regression Output		***Reported***
Constant	*0.492762*	*0.058589*
Std Err of Y Est		
R Squared	*0.999590*	*0.999543*
Degrees of Freedom		
X Coefficient(s)	*0.872441*	*0.877166*
Std Err of Coef.		
Correlation Coefficient	*0.999795*	
Coefficient of Determination (r^2)	*0.999590*	*0.999543*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/5/2020	MQ4	PFBS	1	0.726555356	0.250
			2	1.104992504	0.500
			3	2.524191830	1.000
			4	5.242095397	2.000
			5	12.56394309	5.000
			6	24.35921505	10.000
			7	128.0155043	50.000
			8	263.9439244	100.000
			9	580.1280986	250.000
			10	1282.892279	500.000

Regression Output		***Reported***
Constant	*-1.958225*	*0.020965*
Std Err of Y Est		
R Squared	*0.997967*	*0.997821*
Degrees of Freedom		
X Coefficient(s)	*2.526349*	*2.504810*
Std Err of Coef.		
Correlation Coefficient	*0.998983*	
Coefficient of Determination (r^2)	*0.997967*	*0.997821*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/5/2020	MQ4	PFHxA	1	0.303339179	0.250
			2	0.512576408	0.500
			3	0.938837798	1.000
			4	1.910591972	2.000
			5	4.666418299	5.000
			6	9.287534991	10.000
			7	45.54031784	50.000
			8	89.32557222	100.000
			9	217.1793728	250.000
			10	414.4291907	500.000

Regression Output		***Reported***
Constant	*1.769943*	*0.082029*
Std Err of Y Est		
R Squared	*0.999397*	*0.998840*
Degrees of Freedom		
X Coefficient(s)	*0.834171*	*0.852543*
Std Err of Coef.		
Correlation Coefficient	*0.999698*	
Coefficient of Determination (r^2)	*0.999397*	*0.998840*

LDC #: ~~41508270~~

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: LC/MS PFAS (EPA Method 537M)

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:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = $(A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF	Recalculated RRF	Reported %D	Recalculated %D
1	~~20030SP-31~~	~~3/6/20~~	~~PFOA ($^{13}C_2$-PFOA)~~ ~~PFBS~~	10.00	9.65	9.65	3.5	3.5
			~~PFOS ($^{13}C_8$-PFOS)~~ ~~PFHxA~~	10.00	10.4	10.42	4.2	4.2
2			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					
3			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					
4			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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LDC #: 47008296

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: JVC

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: BOB0213-BS1/-BSD1

Compound	Spike Added (µg/L)		Spike Concentration (ng)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
PFOA	0.0400	0.0400	0.0429	0.0420	107	107	105	105	2.03	2.12
PFOS	↓	↓	0.0403	0.0436	101	101	109	109	7.91	7.87

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Privileged and Confidential

LDC #: 47508296

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: 9
2nd reviewer: JM

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 2, PFHxA

Conc. = $\frac{(1.33e4 \times 12.5)}{(1.38e4 \times 1)} \times \frac{0.005859}{(0.877166)(254)} \times \frac{(1)}{(\quad)} \times \frac{(\quad)}{(\quad)}$

= 0.0497 ng/L

#	Sample ID	Compound	Reported Concentration (ng/L)	Calculated Concentration ( )	Qualification
	2	PFHxA	0.0494		

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Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro and Tustin PFAS

LDC Report Date: March 20, 2020

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 2000390

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
TW14S-20200221	2000390-02	Water	02/21/20
TW17S-20200221	2000390-03	Water	02/21/20
TW16S-20200221	2000390-04	Water	02/21/20
TW15S-20200221	2000390-05	Water	02/21/20

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 for Per- and Polyfluoroalkyl Substances in Groundwater in Carve-Outs 2, 5, 6, and 9 and Groundwater and Surface Water Near Operable Unit 3, Former Marine Corps Air Station Tustin, Tustin, California, with Addendum #02 to Final Sampling and Analysis Plan for Per- and Polyfluoroalkyl Substances Sampling for Groundwater Remedial Action at Operable Unit 3, Installation Restoration Program Site 1 (February 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).

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 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 EB06-20200221 was identified as an equipment blank. No contaminants were found.

Sample SB01-20200212 (from SDG 2000314) 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.

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
TW14S-20200221	Perfluorononanoic acid (PFNA)	8.665 (2.6685-8.0055)	J (all detects)	A
TW15S-20200221	Perfluorononanoic acid (PFNA)	8.257 (2.6685-8.0055)	J (all detects)	A

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 two 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 2000390

Sample	Compound	Flag	A or P	Reason
TW14S-20200221 TW15S-20200221	Perfluorononanoic acid (PFNA)	J (all detects)	A	Target compound identification (ion abundance ratio)

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 2000390

No Sample Data Qualified in this SDG

MCAS El Toro and Tustin PFAS
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 2000390

No Sample Data Qualified in this SDG

LDC #: 47508F96 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/16/20
SDG #: 2000390 Stage 4 Page: 1 of 1
Laboratory: Vista Analytical Laboratory Reviewer: 1
2nd Reviewer: JM

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M DOD QSM 5.3)

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	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	≤20%, r² True/lcv=30%
IV.	Continuing calibration/ISC	A	ccv/isc=30%
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	FB=1 .SB=SB01-20200213(2000314)
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS/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~~	~~EB06-20200221~~	~~2000390-01~~	~~Water~~	~~02/21/20~~
2	TW14S-20200221	2000390-02	Water	02/21/20
3	TW17S-20200221	2000390-03	Water	02/21/20
4	TW16S-20200221	2000390-04	Water	02/21/20
5	TW15S-20200221	2000390-05	Water	02/21/20
6				
7				
8				
9				
10				

Notes:

	BOBO213-Pdd						

LDC #: 47508F96

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: 9
2nd Reviewer: JM

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?	✓			
Was 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) ≤ 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) ≤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 standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) of the initial calibration verification ≤ 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 ≤ 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 ≤ 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?		✓		
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?			✓	

LDC #: 47508F96

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: 9
2nd Reviewer: SW

Validation Area	Yes	No	NA	Findings/Comments
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.	✓			

TARGET COMPOUND WORKSHEET

METHOD: PFOS/PFOAs

A. Perfluorohexanoic acid (PFHxA)			
B. Perfluoroheptanoic acid (PFHpA)			
C. Perfluorooctanoic acid (PFOA)			
D. Perfluorononanoic acid (PFNA)			
E. Perfluorodecanoic acid (PFDA)			
F. Perfluoroundecanoic acid (PFUnA)			
G. Perfluorododecanoic acid (PFDoA)			
H. Perfluorotridecanoic acid (PFTriDA)			
I. Perfluorotetradecanoic acid (PFTeDA)			
J. Perfluorobutanesulfonic acid (PFBS)			
K. Perfluorohexanesulfonic acid (PFHxS)			
L. Perfluoroheptanesulfonic acid (PFHpS)			
M. Perfluorooctanesulfonic acid (PFOS)			
N.Perfluorodecanesulfonic acid (PFDS)			
O. Perfluorooctane Sulfonamide (FOSA)			
P. Perfluorobutanoic acid (PFBA)			
Q. Perfluoropentanoic acis (PFPeA)			
R. 1H, 1H, 2H, 2H-perfluorooctane sulfonate (6:2FTS)			
S. 1H, 1H, 2H, 2H-perfluorodecane sulfonate (8:2 FTS)			
T. N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)			
U. N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)			
V. 1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)			

LDC #: 47308E96

VALIDATION FINDINGS WORKSHEET
Labeled Compounds

Reviewer: 9
2nd Reviewer: JVG

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3
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
		3	13C2-PFOA	160	(50-150)	No Qual (15X)
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
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					( )	
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					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	

LDC #: #17508E96

VALIDATION FINDINGS WORKSHEET
Target Compound Identification

Reviewer: 9
2nd Reviewer: JM

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.1.1

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

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 between 50-150%?

#	Date	Sample ID	Associated Samples	Finding (Ion Ratio 150-150%)	Qualifications
		2	PFNA	8.665 (2.6685 - 8.005)	J det/☆
		5	PFNA	8.257	↓

LDC#: 47508F96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 2nd Reviewer:

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/4/2020	MQ4	PFBS	1	0.587190232	0.250
			2	1.302489993	0.500
			3	2.382420295	1.000
			4	4.640189802	2.000
			5	12.43729927	5.000
			6	22.28433527	10.000
			7	120.4758055	50.000
			8	242.8732193	100.000
			9	682.9602572	250.000
			10	1288.660676	500.000

Regression Output		*Reported*
Constant	*-1.500233*	*-0.116823*
Std Err of Y Est		
R Squared	*0.999024*	*0.998244*
Degrees of Freedom		
X Coefficient(s)	*2.605286*	*2.590230*
Std Err of Coef.		
Correlation Coefficient	*0.999512*	
Coefficient of Determination (r^2)	*0.999024*	*0.998244*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/4/2020	MQ4	PFHxA	1	0.31107562	0.250
			2	0.537330688	0.500
			3	0.920922420	1.000
			4	1.813037164	2.000
			5	4.474043531	5.000
			6	9.166550489	10.000
			7	43.86348346	50.000
			8	85.83019426	100.000
			9	226.2737151	250.000
			10	433.2922326	500.000

Regression Output		***Reported***
Constant	*0.492762*	*0.058589*
Std Err of Y Est		
R Squared	*0.999590*	*0.999543*
Degrees of Freedom		
X Coefficient(s)	*0.872441*	*0.877166*
Std Err of Coef.		
Correlation Coefficient	*0.999795*	
Coefficient of Determination (r^2)	*0.999590*	*0.999543*

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/5/2020	MQ4	PFBS	1	0.726555356	0.250
			2	1.104992504	0.500
			3	2.524191830	1.000
			4	5.242095397	2.000
			5	12.56394309	5.000
			6	24.35921505	10.000
			7	128.0155043	50.000
			8	263.9439244	100.000
			9	580.1280986	250.000
			10	1282.892279	500.000

Regression Output		*Reported*
Constant	*-1.958225*	*0.020965*
Std Err of Y Est		
R Squared	*0.997967*	*0.997821*
Degrees of Freedom		
X Coefficient(s)	*2.526349*	*2.504810*
Std Err of Coef.		
Correlation Coefficient	*0.998983*	
Coefficient of Determination (r^2)	*0.997967*	*0.997821*

LDC#: 47608F96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: JM

Method: LC/MS PFCs (EPA Method 537)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
3/5/2020	MQ4	PFHxA	1	0.303339179	0.250
			2	0.512576408	0.500
			3	0.938837798	1.000
			4	1.910591972	2.000
			5	4.666418299	5.000
			6	9.287534991	10.000
			7	45.54031784	50.000
			8	89.32557222	100.000
			9	217.1793728	250.000
			10	414.4291907	500.000

Regression Output		***Reported***
Constant	*1.769943*	*0.082029*
Std Err of Y Est		
R Squared	*0.999397*	*0.998840*
Degrees of Freedom		
X Coefficient(s)	*0.834171*	*0.852543*
Std Err of Coef.		
Correlation Coefficient	*0.999698*	
Coefficient of Determination (r^2)	*0.999397*	*0.998840*

LDC #: 47508F96

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: 9
2nd Reviewer: JVG

METHOD: LC/MS PFAS (EPA Method 537M)

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:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF	Recalculated RRF	Reported %D	Recalculated %D
1	200324P2-29	3/5/20	~~PFOA ($^{13}C_2$-PFOA)~~ PFBS	10.00	9.73	9.73	2.7	2.7
			~~PFOS ($^{13}C_8$-PFOS)~~ PFHxA	10.00	9.92	9.92	0.8	0.8
2			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					
3			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					
4			PFOA ($^{13}C_2$-PFOA)					
			PFOS ($^{13}C_8$-PFOS)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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LDC #: 47808-7D

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: Q
2nd Reviewer: JM6

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 280B0213-BS1/-BSD1

Compound	Spike Added (µg/L)		Spike Concentration (µg/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
PFOA	0.0400	0.0400	0.0429	0.0420	107	107	105	105	2.03	2.12
PFOS	↓	↓	0.0403	0.0436	101	101	109	109	7.91	7.87

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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LDC #: 47508F96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: 2
2nd reviewer: JM

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 2 PFHxA:

Conc. = $\frac{(1.51e4 \times 12.5) - 9.05859}{(1.33e4)(0.8771)(60)} \frac{(1)}{(52)}$

= 0.0639 ng/L

#	Sample ID	Compound	Reported Concentration ng/L	Calculated Concentration ( )	Qualification
	2	PFHxA	0.064 J		

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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
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
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TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
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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
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TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321

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
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW11S	Monitoring well	6083358	2205462.13	I012MW11S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321

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
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00005	I013WMW02SR	Monitoring well	6082397.33	2207650.54	I013WMW02SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW15S	Monitoring well	6083458.9	2202594.7	I003MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00013S	IS72MW17S	Monitoring well	6082349.8	2207186.6	IS72MW17S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	OU 0000001B NORTH	I012MW01SR	Monitoring well	6082775.54	2201315.4	I012MW01SR-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW02S	Monitoring well	6083533.08	2202863.7	I003MW02S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	DUP02-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW10S	Monitoring well	6083347.61	2205848.96	I012MW10S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00003	I003MW01S	Monitoring well	6082986.58	2203292.59	I003MW01S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321
TUSTIN_MCAS	SITE 00012	I012MW15S	Monitoring well	6083346.2	2204911.8	I012MW15S-20200213	Ground water	13-Feb-20	Perfluoroalkyl Compounds	2000321