



**Groundwater Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Report, SDG 1800274**

*Naval Air Station Whidbey Island
Oak Harbor, Washington*

June 2019



February 27, 2018

Vista Work Order No. 1800274

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

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on February 08, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'CLEAN CTO-4041 WHIDBEY ISLAND'.

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. 1800274**Case Narrative****Sample Condition on Receipt:**

Seventeen drinking water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. Three containers labeled as WI-A06-RW05-0218 and one container labeled as WI-A06-FB05-0218 were received. Per client instruction, sample 1800274-10B was relabeled as WI-A06-FB05-0218.

Analytical Notes:**EPA Method 537**

Sample WI-A06-RW04-0218 contained particulate and was centrifuged prior to extraction.

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

Holding Times

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

Quality Control

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

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

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

TABLE OF CONTENTS

Case Narrative.....	1
Table of Contents.....	3
Sample Inventory.....	4
Analytical Results.....	5
Qualifiers.....	25
Certifications.....	26
Sample Receipt.....	27

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800274-01	WI-A06-RW01-0218	05-Feb-18 15:06	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-02	WI-A06-FB01-0218	05-Feb-18 15:07	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-03	WI-A06-RW02-0218	05-Feb-18 15:38	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-04	WI-A06-FB02-0218	05-Feb-18 15:39	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-05	WI-A06-RW03-0218	05-Feb-18 16:11	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-06	WI-A06-FB03-0218	05-Feb-18 16:12	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-07	WI-A06-RW04-0218	05-Feb-18 16:50	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-08	WI-A06-FB04-0218	05-Feb-18 16:51	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-09	WI-A06-RW05-0218	06-Feb-18 10:08	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-10	WI-A06-FB05-0218	06-Feb-18 10:08	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-11	WI-A06-RW06-0218	06-Feb-18 10:56	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-12	WI-A06-RW05P-0218	06-Feb-18 10:08	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-13	WI-A06-FB06-0218	06-Feb-18 10:56	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-14	WI-A06-RW07-0218	06-Feb-18 14:05	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-15	WI-A06-FB07-0218	06-Feb-18 14:05	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-16	WI-A06-RW08-0218	06-Feb-18 18:02	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-17	WI-A06-FB08-0218	06-Feb-18 18:02	08-Feb-18 09:03	HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB					EPA Method 537					
Client Data					Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous		Lab Sample:	B8B0104-BLK1	Column:	BEH C18		
Project:	CLEAN CTO-4041 WHIDBEY ISLAND									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFHxA	0.685	0.663	5.00	10.0	J	B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFHpA	ND	0.533	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFHxS	ND	0.415	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFOA	ND	1.08	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFNA	ND	1.44	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFOS	ND	1.04	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFDA	ND	1.28	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
MeFOSAA	ND	3.04	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
EtFOSAA	ND	1.93	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFUnA	ND	0.255	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFDoA	ND	0.952	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFTTrDA	ND	0.943	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFTeDA	ND	0.777	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.3	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
13C2-PFDA	SURR	88.3	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
d5-EtFOSAA	SURR	107	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: LFBD

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B8B0104-BS1/B8B0104-BSD1	Date Extracted:	16-Feb-18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	QC Batch:	B8B0104	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	35.7	35.4	101		33.4	35.4	94.5	6.58		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFHxA	44.3	40.0	111	B	40.1	40.0	100	10.0	B	70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFHpA	44.2	40.0	110		43.8	40.0	110	0.895		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFHxS	39.0	36.4	107		36.8	36.4	101	5.95		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFOA	39.3	40.0	98.2		40.6	40.0	101	3.22		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFNA	43.8	40.0	109		44.6	40.0	112	1.93		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFOS	38.5	37.0	104		37.3	37.0	101	3.30		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFDA	37.4	40.0	93.5		39.9	40.0	99.8	6.52		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
MeFOSAA	42.9	40.0	107		40.4	40.0	101	6.04		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
EtFOSAA	40.0	40.0	99.9		37.1	40.0	92.7	7.46		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFUnA	39.8	40.0	99.5		40.8	40.0	102	2.43		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFDoA	41.3	40.0	103		37.6	40.0	94.0	9.29		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFTTrDA	42.5	40.0	106		42.5	40.0	106	0.0721		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFTeDA	40.4	40.0	101		38.2	40.0	95.4	5.75		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
Labeled Standards	Type		LCS % Rec	LCS Quals			LCSD % Rec		LCSD Quals	Limits		LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C2-PFHxA	SURR		105				97.9			70-130		23-Feb-18 15:58	1	23-Feb-18 16:11	1
13C2-PFDA	SURR		99.1				89.0			70-130		23-Feb-18 15:58	1	23-Feb-18 16:11	1
d5-EtFOSAA	SURR		95.0				93.3			70-130		23-Feb-18 15:58	1	23-Feb-18 16:11	1

Sample ID: WI-A06-RW01-0218					EPA Method 537					
Client Data					Laboratory Data					
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-01	Column:	BEH C18			
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 15:06	Date Received:	08-Feb-18 09:03					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.466	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFHxA	0.813	0.698	5.25	10.5	J, B	B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFHpA	ND	0.561	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFHxS	ND	0.437	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFOA	ND	1.14	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFNA	ND	1.52	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFOS	ND	1.09	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFDA	ND	1.35	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
MeFOSAA	ND	3.20	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
EtFOSAA	ND	2.03	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFUnA	ND	0.268	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFDoA	ND	1.00	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFTTrDA	ND	0.992	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFTeDA	ND	0.818	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.4	70 - 130			B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
13C2-PFDA	SURR	88.3	70 - 130			B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
d5-EtFOSAA	SURR	102	70 - 130			B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-FB01-0218
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-02	Column:	BEH C18		
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 15:07	Date Received:	08-Feb-18 09:03				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.435	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFHxA	ND	0.651	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFHpA	ND	0.523	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFHxS	ND	0.408	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFOA	ND	1.06	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFNA	ND	1.41	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFOS	ND	1.02	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFDA	ND	1.26	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
MeFOSAA	ND	2.99	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
EtFOSAA	ND	1.90	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFUnA	ND	0.250	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFDoA	ND	0.935	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFTTrDA	ND	0.926	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFTeDA	ND	0.763	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	101	70 - 130			B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
13C2-PFDA	SURR	98.0	70 - 130			B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
d5-EtFOSAA	SURR	109	70 - 130			B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW02-0218					EPA Method 537					
Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND Matrix: Drinking Water Date Collected: 05-Feb-18 15:38					Laboratory Data Lab Sample: 1800274-03 Date Received: 08-Feb-18 09:03 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.445	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFHxA	0.929	0.666	5.02	10.1	J, B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFHpA	ND	0.536	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFHxS	1.31	0.417	5.02	10.1	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFOA	ND	1.09	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFNA	ND	1.45	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFOS	ND	1.05	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFDA	ND	1.29	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
MeFOSAA	ND	3.06	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
EtFOSAA	ND	1.94	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFUnA	ND	0.256	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFDoA	ND	0.957	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFTTrDA	ND	0.948	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFTeDA	ND	0.781	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	101	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
13C2-PFDA	SURR	89.3	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
d5-EtFOSAA	SURR	90.7	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-FB02-0218

EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water		Lab Sample:	1800274-04	Column:	BEH C18	
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 15:39		Date Received:	08-Feb-18 09:03			

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.449	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHxA	ND	0.672	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHpA	ND	0.540	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHxS	ND	0.420	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFOA	ND	1.09	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFNA	ND	1.46	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFOS	ND	1.05	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFDA	ND	1.30	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
MeFOSAA	ND	3.08	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
EtFOSAA	ND	1.96	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFUnA	ND	0.258	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFDoA	ND	0.965	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFTTrDA	ND	0.955	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFTeDA	ND	0.787	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.2	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
13C2-PFDA	SURR	89.1	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
d5-EtFOSAA	SURR	96.7	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW03-0218					EPA Method 537					
Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND Matrix: Drinking Water Date Collected: 05-Feb-18 16:11					Laboratory Data Lab Sample: 1800274-05 Date Received: 08-Feb-18 09:03 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	41.8	0.450	5.08	10.2	B	B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFHxA	55.7	0.674	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFHpA	19.9	0.542	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFHxS	108	0.422	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFOA	27.9	1.10	5.08	10.2	J	B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFNA	ND	1.46	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFOS	7.59	1.06	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFDA	ND	1.30	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
MeFOSAA	ND	3.09	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
EtFOSAA	ND	1.96	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFUnA	ND	0.259	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFDoA	ND	0.968	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFTTrDA	ND	0.959	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFTeDA	ND	0.790	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	109	70 - 130			B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
13C2-PFDA	SURR	86.7	70 - 130			B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
d5-EtFOSAA	SURR	105	70 - 130			B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-FB03-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-06	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:12	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.435	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHxA	0.739	0.652	4.92	9.83	J, B	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHpA	ND	0.524	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHxS	ND	0.408	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFOA	ND	1.06	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFNA	ND	1.42	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFOS	ND	1.02	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFDA	ND	1.26	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
MeFOSAA	ND	2.99	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
EtFOSAA	ND	1.90	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFUnA	ND	0.251	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFDoA	ND	0.935	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFTTrDA	ND	0.927	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFTeDA	ND	0.764	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
13C2-PFDA	SURR	85.8	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
d5-EtFOSAA	SURR	94.8	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Sample ID: WI-A06-RW04-0218
EPA Method 537

Client Data					Laboratory Data					
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-07	Column:	BEH C18			
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:50	Date Received:	08-Feb-18 09:03					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	37.9	0.436	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFHxA	3.80	0.653	4.92	9.85	J, B	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFHpA	1.52	0.525	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFHxS	50.6	0.409	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFOA	4.15	1.06	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFNA	ND	1.42	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFOS	2.77	1.02	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFDA	ND	1.26	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
MeFOSAA	ND	3.00	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
EtFOSAA	ND	1.90	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFUnA	ND	0.251	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFDoA	ND	0.938	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFTTrDA	ND	0.929	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFTeDA	ND	0.766	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	93.0	70 - 130		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1	
13C2-PFDA	SURR	77.5	70 - 130		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1	
d5-EtFOSAA	SURR	83.9	70 - 130		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1	

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Sample ID: WI-A06-FB04-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-08	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:51	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.447	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHxA	ND	0.668	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHpA	ND	0.537	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHxS	ND	0.418	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFOA	ND	1.09	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFNA	ND	1.45	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFOS	ND	1.05	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFDA	ND	1.29	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
MeFOSAA	ND	3.06	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
EtFOSAA	ND	1.95	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFUnA	ND	0.257	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFDoA	ND	0.960	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFTTrDA	ND	0.951	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFTeDA	ND	0.783	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	85.1	70 - 130			B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
13C2-PFDA	SURR	78.1	70 - 130			B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
d5-EtFOSAA	SURR	85.5	70 - 130			B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW05-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-09	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 10:08	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	28.9	0.442	4.98	9.98	B	B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHxA	48.6	0.662	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHpA	20.2	0.532	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHxS	210	0.828	9.96	20.0	D	B8B0104	16-Feb-18	0.251 L	26-Feb-18 11:08	2
PFOA	57.7	1.08	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFNA	ND	1.44	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFOS	64.1	1.04	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFDA	ND	1.28	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
MeFOSAA	ND	3.03	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
EtFOSAA	ND	1.93	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFUnA	ND	0.254	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFDoA	ND	0.950	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFTTrDA	ND	0.941	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFTeDA	ND	0.775	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
13C2-PFDA	SURR	84.5	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
d5-EtFOSAA	SURR	88.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-FB05-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-10	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 10:08	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.469	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFHxA	0.716	0.702	5.30	10.6	J, B	B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFHpA	ND	0.564	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFHxS	ND	0.439	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFOA	ND	1.14	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFNA	ND	1.52	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFOS	ND	1.10	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFDA	ND	1.36	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
MeFOSAA	ND	3.22	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
EtFOSAA	ND	2.04	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFUnA	ND	0.270	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFDoA	ND	1.01	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFTTrDA	ND	0.999	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFTeDA	ND	0.823	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	91.8	70 - 130			B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
13C2-PFDA	SURR	75.3	70 - 130			B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
d5-EtFOSAA	SURR	89.8	70 - 130			B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW06-0218					EPA Method 537					
Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND Matrix: Drinking Water Date Collected: 06-Feb-18 10:56					Laboratory Data Lab Sample: 1800274-11 Date Received: 08-Feb-18 09:03 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.442	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFHxA	ND	0.662	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFHpA	ND	0.532	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFHxS	ND	0.414	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFOA	ND	1.08	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFNA	ND	1.44	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFOS	ND	1.04	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFDA	ND	1.28	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
MeFOSAA	ND	3.03	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
EtFOSAA	ND	1.93	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFUnA	ND	0.255	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFDoA	ND	0.950	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFTTrDA	ND	0.941	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFTeDA	ND	0.776	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.2	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
13C2-PFDA	SURR	70.6	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
d5-EtFOSAA	SURR	112	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-RW05P-0218					EPA Method 537					
Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND Matrix: Drinking Water Date Collected: 06-Feb-18 10:08					Laboratory Data Lab Sample: 1800274-12 Date Received: 08-Feb-18 09:03 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	28.9	0.444	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHxA	49.8	0.665	5.02	10.0	B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHpA	21.4	0.534	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHxS	232	0.832	10.0	20.0	D	B8B0104	16-Feb-18	0.249 L	26-Feb-18 11:20	2
PFOA	55.3	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFNA	1.67	1.44	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFOS	63.8	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFDA	ND	1.28	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
EtFOSAA	ND	1.93	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFDoA	ND	0.954	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFTTrDA	ND	0.945	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFTeDA	ND	0.779	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.3	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
13C2-PFDA	SURR	86.1	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
d5-EtFOSAA	SURR	97.5	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-FB06-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-13	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 10:56	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.444	5.02	10.0	J, B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHxA	0.770	0.665	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHpA	ND	0.534	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHxS	ND	0.416	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFOA	ND	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFNA	ND	1.44	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFOS	ND	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFDA	ND	1.28	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
EtFOSAA	ND	1.94	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFDoA	ND	0.955	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFTTrDA	ND	0.946	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFTeDA	ND	0.779	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
13C2-PFDA	SURR	90.2	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
d5-EtFOSAA	SURR	106	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW07-0218					EPA Method 537					
Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND Matrix: Drinking Water Date Collected: 06-Feb-18 14:05					Laboratory Data Lab Sample: 1800274-14 Date Received: 08-Feb-18 09:03 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.438	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFHxA	ND	0.655	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFHpA	ND	0.527	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFHxS	ND	0.410	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFOA	ND	1.07	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFNA	ND	1.42	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFOS	ND	1.03	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFDA	ND	1.26	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
MeFOSAA	ND	3.00	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
EtFOSAA	ND	1.91	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFUnA	ND	0.252	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFDoA	ND	0.941	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFTTrDA	ND	0.932	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFTeDA	ND	0.768	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130			B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
13C2-PFDA	SURR	86.2	70 - 130			B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
d5-EtFOSAA	SURR	91.0	70 - 130			B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-FB07-0218
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-15	Column:	BEH C18		
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 14:05	Date Received:	08-Feb-18 09:03				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.428	4.84	9.67	J, B	B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHxA	0.677	0.641	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHpA	ND	0.516	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHxS	ND	0.401	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFOA	ND	1.04	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFNA	ND	1.39	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFOS	ND	1.01	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFDA	ND	1.24	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
MeFOSAA	ND	2.94	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
EtFOSAA	ND	1.87	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFUnA	ND	0.247	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFDoA	ND	0.921	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFTTrDA	ND	0.912	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFTeDA	ND	0.752	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.8	70 - 130			B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
13C2-PFDA	SURR	82.9	70 - 130			B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
d5-EtFOSAA	SURR	111	70 - 130			B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW08-0218
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water		Lab Sample:	1800274-16	Column:	BEH C18	
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 18:02		Date Received:	08-Feb-18 09:03			

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	23.0	0.445	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFHxA	15.1	0.666	5.02	10.0	B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFHpA	8.81	0.535	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFHxS	116	0.417	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFOA	25.4	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFNA	2.51	1.45	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFOS	78.2	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFDA	ND	1.29	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
EtFOSAA	ND	1.94	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFDoA	ND	0.956	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFTTrDA	ND	0.947	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFTeDA	ND	0.781	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	92.4	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
13C2-PFDA	SURR	74.4	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
d5-EtFOSAA	SURR	80.7	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-FB08-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-17	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 18:02	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.441	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFHxA	ND	0.661	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFHpA	ND	0.531	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFHxS	ND	0.414	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFOA	ND	1.08	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFNA	ND	1.43	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFOS	ND	1.04	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFDA	ND	1.28	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
MeFOSAA	ND	3.03	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
EtFOSAA	ND	1.92	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFUnA	ND	0.254	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFDoA	ND	0.949	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFTTrDA	ND	0.940	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFTeDA	ND	0.774	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
13C2-PFDA	SURR	80.8	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
d5-EtFOSAA	SURR	93.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

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

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

CERTIFICATIONS

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

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



CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800274 Temp: 0.6 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: CLEAN CTD-4041 PO#: 10006-7-108336 Sampler: K. RABE/CH2M
WHIDBEY ISLAND (name)

TAT (check one): ☐ 21 days ☐ 14 days ☐ 7 days (Specify: 10)
Standard: ☐ Rush (surcharge may apply)
State: _____ Ph#: _____ Fax#: _____

Invoice to: Name TIFFANY HILL Company CH2M HILL Address 1100 NE CIRCLE BLVD 300 City CORVALLIS State OR Zip 97330

Relinquished by (printed name and signature) Katie Rabe Date 2/7/18 Time 1300 Received by (printed name and signature) B. Benedict Date 02/08/18 Time 0907
Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 (916) 673-1520 * Fax (916) 673-0106				Method of Shipment:		Add Analysis(es) Requested										Comments	
ATTN: _____				Tracking No.: _____		Container(s)											
Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List: 6	537 List: 14	Full List of 28	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List: 6	537 List: 14	537 (DW only)		
WI-A06-RW01-0218	2/5/18	15:06		2	P	DW									TZ		
WI-A06-FB01-0218	2/5/18	15:07		2	P	DW											
WI-A06-RW02-0218	2/5/18	15:38		2	P	DW											
WI-A06-FB02-0218	2/5/18	15:39		2	P	DW											
WI-A06-RW03-0218	2/5/18	16:11		2	P	DW											
WI-A06-FB03-0218	2/5/18	16:12		2	P	DW											
WI-A06-RW04-0218	2/5/18	16:50		2	P	DW											
WI-A06-FB04-0218	2/5/18	16:51		2	P	DW											
WI-A06-RW05-0218	2/6/18	10:08		2	P	DW											
WI-A06-FB05-0218	2/6/18	10:08		2	P	DW											

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: TIFFANY HILL
Company: CH2M
Address: 1100 NE CIRCLE BLVD 300
City: CORVALLIS State: OR Zip: 97330
Phone: _____ Fax: _____
Email: tiiffany.hill@ch2m.com

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

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____



CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800274 Temp: 0.6 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: CLEAN CT0-4041 PO#: 10006-7-108336 Sampler: K. Rabe CH2M
Whidbey Island (name)

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

Invoice to: Name Tiffany Hill Company CH2M HILL Address 1100 NE CIRCLE BLVD 300 City CORVALLIS State OR Ph# 97330 Fax#

Relinquished by (printed name and signature) KATIE RABE K Rabe Date 2/7/18 Time 1300 Received by (printed name and signature) B. Benedict B. Benedict Date 02/08/18 Time 0907

SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 (916) 673-1520 * Fax (916) 673-0106				Method of Shipment: _____									
ATTN: _____				Tracking No.: _____									
Sample ID	Date	Time	Location/Sample Description	Add Analysis(es) Requested									
				Container(s)									
				Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List 14	Full List of 28	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List 6
W1-A06-RW06-0218	2/6/18	1056		2	P	DW							TZ
W1-A06-RW05P-0218	2/6/18	1008		2	P	DW							TZ
W1-A06-FB06-0218	2/6/18	1056		2	P	DW							TZ
W1-A06-RW07-0218	2/6/18	1405		2	P	DW							TZ
W1-A06-FB07-0218	2/6/18	1405		2	P	DW							TZ
W1-A06-RW08-0218	2/6/18	1802		2	P	DW							TZ
W1-A06-FB08-0218	2/6/18	1802		2	P	DW							TZ

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: TIFFANY HILL
Company: CH2M
Address: 1100 NE CIRCLE, BLVD 300
City: CORVALLIS State: OR Zip: 97330
Phone: _____ Fax: _____
Email: tiffany.hill@ch2m.com

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

Bottle Preservation Type: T = Thiosulfate,
(TZ) = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Sample Log-in Checklist

Vista Work Order #: 1800274 TAT 14 days

Samples Arrival:	Date/Time <u>2/8/18</u> <u>0903</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>NA</u>
Logged In:	Date/Time <u>02/08/18</u> <u>0921</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>E-5</u>
Delivered By:	☒ FedEx ☐ UPS ☐ On Trac ☐ GSO ☐ DHL ☐ Hand Delivered ☐ Other		
Preservation:	☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ None		
Temp °C: <u>0.7</u> (uncorrected)	Time: <u>0908</u>	Thermometer ID: <u>IR-4</u>	
Temp °C: <u>0.6</u> (corrected)	Probe used: Yes ☐ No ☒		

		YES	NO	NA
Adequate Sample Volume Received?		✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # <u>8121 0190 3833</u>	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?				✓
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?		✓	+	+
If Chlorinated or Drinking Water Samples, Acceptable Preservation?		✓		
Preservation Documented:	<u>Na₂S₂O₃</u> <u>Trizma</u> ☐ None ☒ Yes ☐ No ☐ NA			
Shipping Container	☒ Vista ☐ Client ☐ Retain ☐ Return ☐ Dispose			

Comments: sample label

WWS 02/08/18

COC ID

* W1-206-FB05-0218 (~~2 bottle~~) received 1 bottle

W1-206-FB05-0218

* W1-206-RW05-0218 (~~3 bottle~~) received 3 bottles

* containers were bagged together in one bag upon receipt

Chain of Custody Anomaly/Sample Acceptance Form



Client: CH2M Hill
 Contact: Tiffany Hill
 Email: tiffany.hill@ch2m.com
 Phone: (541) 768-3109

Workorder Number: 1800274
 Date Received: 08-Feb-18 09:03
 Documented by/date: MSparks/08-Feb-18

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

Thank you,

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

The following information or item is needed to proceed with analysis:

☐ Complete Chain-of-Custody	☐ Preservative	☐ Collector's Name
☐ Test Method Requested	☐ Sample Identification	☐ Sample Type
☐ Analyte List Requested	☐ Sample Collection Date and/or Time	☐ Sample Location
☒ Other: see comments		

The following anomalies were noted. Authorization is needed to proceed with analysis.

☐ Temperature outside < 6°C Range	Samples Affected: _____		
Temperature _____ °C	Ice Present?	Yes	No
☐ Sample ID Discrepancy	☐ Insufficient Sample Size		
☐ Sample Holding Time Missed	☐ Sample Container(s) Broken		
☐ Custody Seals Broken	☐ Incorrect Container Type		

Comments:

Received 3 containers with sample ID: WI-A06-RW05-0218; received 1 container with sample ID: WI-A06-FB05-0218

Client Authorization

Proceed with Analysis: YES NO

Signature and Date Laurin A. Brakney. 2-9-18

Client Comments/Instructions Per client, vista ID: 1800274-10 B will be relabelled as "WI-A06-FB05-0218".



February 27, 2018

Vista Work Order No. 1800274

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

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on February 08, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'CLEAN CTO-4041 WHIDBEY ISLAND'.

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. 1800274**Case Narrative****Sample Condition on Receipt:**

Seventeen drinking water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. Three containers labeled as WI-A06-RW05-0218 and one container labeled as WI-A06-FB05-0218 were received. Per client instruction, sample 1800274-10B was relabeled as WI-A06-FB05-0218.

Analytical Notes:**EPA Method 537**

Sample WI-A06-RW04-0218 contained particulate and was centrifuged prior to extraction.

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

Holding Times

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

Quality Control

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

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

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

TABLE OF CONTENTS

Case Narrative.....	1
Table of Contents.....	3
Sample Inventory.....	4
Analytical Results.....	5
Qualifiers.....	25
Certifications.....	26
Sample Receipt.....	27
Extraction Information.....	31
Sample Data - EPA Method 537.....	36
IIS Areas, IBs and CCVs.....	141
ICAL with ICV and IB.....	178

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800274-01	WI-A06-RW01-0218	05-Feb-18 15:06	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-02	WI-A06-FB01-0218	05-Feb-18 15:07	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-03	WI-A06-RW02-0218	05-Feb-18 15:38	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-04	WI-A06-FB02-0218	05-Feb-18 15:39	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-05	WI-A06-RW03-0218	05-Feb-18 16:11	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-06	WI-A06-FB03-0218	05-Feb-18 16:12	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-07	WI-A06-RW04-0218	05-Feb-18 16:50	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-08	WI-A06-FB04-0218	05-Feb-18 16:51	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-09	WI-A06-RW05-0218	06-Feb-18 10:08	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-10	WI-A06-FB05-0218	06-Feb-18 10:08	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-11	WI-A06-RW06-0218	06-Feb-18 10:56	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-12	WI-A06-RW05P-0218	06-Feb-18 10:08	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-13	WI-A06-FB06-0218	06-Feb-18 10:56	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-14	WI-A06-RW07-0218	06-Feb-18 14:05	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-15	WI-A06-FB07-0218	06-Feb-18 14:05	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-16	WI-A06-RW08-0218	06-Feb-18 18:02	08-Feb-18 09:03	HDPE Bottle, 250 mL
1800274-17	WI-A06-FB08-0218	06-Feb-18 18:02	08-Feb-18 09:03	HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB					EPA Method 537					
Client Data					Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous		Lab Sample:	B8B0104-BLK1	Column:	BEH C18		
Project:	CLEAN CTO-4041 WHIDBEY ISLAND									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFHxA	0.685	0.663	5.00	10.0	J	B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFHpA	ND	0.533	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFHxS	ND	0.415	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFOA	ND	1.08	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFNA	ND	1.44	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFOS	ND	1.04	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFDA	ND	1.28	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
MeFOSAA	ND	3.04	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
EtFOSAA	ND	1.93	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFUnA	ND	0.255	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFDoA	ND	0.952	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFTTrDA	ND	0.943	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
PFTeDA	ND	0.777	5.00	10.0		B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.3	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
13C2-PFDA	SURR	88.3	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1
d5-EtFOSAA	SURR	107	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 16:23	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: LFBD

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B8B0104-BS1/B8B0104-BSD1	Date Extracted:	16-Feb-18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	QC Batch:	B8B0104	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	35.7	35.4	101		33.4	35.4	94.5	6.58		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFHxA	44.3	40.0	111	B	40.1	40.0	100	10.0	B	70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFHpA	44.2	40.0	110		43.8	40.0	110	0.895		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFHxS	39.0	36.4	107		36.8	36.4	101	5.95		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFOA	39.3	40.0	98.2		40.6	40.0	101	3.22		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFNA	43.8	40.0	109		44.6	40.0	112	1.93		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFOS	38.5	37.0	104		37.3	37.0	101	3.30		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFDA	37.4	40.0	93.5		39.9	40.0	99.8	6.52		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
MeFOSAA	42.9	40.0	107		40.4	40.0	101	6.04		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
EtFOSAA	40.0	40.0	99.9		37.1	40.0	92.7	7.46		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFUnA	39.8	40.0	99.5		40.8	40.0	102	2.43		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFDoA	41.3	40.0	103		37.6	40.0	94.0	9.29		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFTTrDA	42.5	40.0	106		42.5	40.0	106	0.0721		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
PFTeDA	40.4	40.0	101		38.2	40.0	95.4	5.75		70-130	200	23-Feb-18 15:58	1	23-Feb-18 16:11	1
Labeled Standards	Type		LCS % Rec	LCS Quals			LCSD % Rec		LCSD Quals	Limits		LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C2-PFHxA	SURR		105				97.9			70-130		23-Feb-18 15:58	1	23-Feb-18 16:11	1
13C2-PFDA	SURR		99.1				89.0			70-130		23-Feb-18 15:58	1	23-Feb-18 16:11	1
d5-EtFOSAA	SURR		95.0				93.3			70-130		23-Feb-18 15:58	1	23-Feb-18 16:11	1

Sample ID: WI-A06-RW01-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-01	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 15:06	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.466	5.25	10.5	J, B	B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFHxA	0.813	0.698	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFHpA	ND	0.561	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFHxS	ND	0.437	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFOA	ND	1.14	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFNA	ND	1.52	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFOS	ND	1.09	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFDA	ND	1.35	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
MeFOSAA	ND	3.20	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
EtFOSAA	ND	2.03	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFUnA	ND	0.268	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFDoA	ND	1.00	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFTTrDA	ND	0.992	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
PFTeDA	ND	0.818	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.4	70 - 130			B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
13C2-PFDA	SURR	88.3	70 - 130			B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1
d5-EtFOSAA	SURR	102	70 - 130			B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-FB01-0218					EPA Method 537					
Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND Matrix: Drinking Water Date Collected: 05-Feb-18 15:07					Laboratory Data Lab Sample: 1800274-02 Date Received: 08-Feb-18 09:03 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.435	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFHxA	ND	0.651	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFHpA	ND	0.523	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFHxS	ND	0.408	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFOA	ND	1.06	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFNA	ND	1.41	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFOS	ND	1.02	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFDA	ND	1.26	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
MeFOSAA	ND	2.99	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
EtFOSAA	ND	1.90	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFUnA	ND	0.250	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFDoA	ND	0.935	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFTTrDA	ND	0.926	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
PFTeDA	ND	0.763	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	101	70 - 130			B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
13C2-PFDA	SURR	98.0	70 - 130			B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1
d5-EtFOSAA	SURR	109	70 - 130			B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-RW02-0218					EPA Method 537					
Client Data					Laboratory Data					
Name: CH2M Hill		Matrix: Drinking Water		Lab Sample: 1800274-03		Column: BEH C18				
Project: CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected: 05-Feb-18 15:38		Date Received: 08-Feb-18 09:03						
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.445	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFHxA	0.929	0.666	5.02	10.1	J, B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFHpA	ND	0.536	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFHxS	1.31	0.417	5.02	10.1	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFOA	ND	1.09	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFNA	ND	1.45	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFOS	ND	1.05	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFDA	ND	1.29	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
MeFOSAA	ND	3.06	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
EtFOSAA	ND	1.94	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFUnA	ND	0.256	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFDoA	ND	0.957	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFTTrDA	ND	0.948	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
PFTeDA	ND	0.781	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	101	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
13C2-PFDA	SURR	89.3	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1
d5-EtFOSAA	SURR	90.7	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-FB02-0218
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-04	Column:	BEH C18		
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 15:39	Date Received:	08-Feb-18 09:03				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.449	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHxA	ND	0.672	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHpA	ND	0.540	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHxS	ND	0.420	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFOA	ND	1.09	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFNA	ND	1.46	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFOS	ND	1.05	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFDA	ND	1.30	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
MeFOSAA	ND	3.08	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
EtFOSAA	ND	1.96	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFUnA	ND	0.258	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFDoA	ND	0.965	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFTTrDA	ND	0.955	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFTeDA	ND	0.787	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.2	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
13C2-PFDA	SURR	89.1	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
d5-EtFOSAA	SURR	96.7	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW03-0218					EPA Method 537					
Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND					Laboratory Data Lab Sample: 1800274-05 Date Received: 08-Feb-18 09:03 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	41.8	0.450	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFHxA	55.7	0.674	5.08	10.2	B	B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFHpA	19.9	0.542	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFHxS	108	0.422	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFOA	27.9	1.10	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFNA	ND	1.46	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFOS	7.59	1.06	5.08	10.2	J	B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFDA	ND	1.30	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
MeFOSAA	ND	3.09	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
EtFOSAA	ND	1.96	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFUnA	ND	0.259	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFDoA	ND	0.968	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFTTrDA	ND	0.959	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
PFTeDA	ND	0.790	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	109	70 - 130			B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
13C2-PFDA	SURR	86.7	70 - 130			B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1
d5-EtFOSAA	SURR	105	70 - 130			B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-FB03-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-06	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:12	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.435	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHxA	0.739	0.652	4.92	9.83	J, B	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHpA	ND	0.524	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHxS	ND	0.408	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFOA	ND	1.06	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFNA	ND	1.42	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFOS	ND	1.02	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFDA	ND	1.26	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
MeFOSAA	ND	2.99	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
EtFOSAA	ND	1.90	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFUnA	ND	0.251	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFDoA	ND	0.935	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFTTrDA	ND	0.927	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFTeDA	ND	0.764	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
13C2-PFDA	SURR	85.8	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
d5-EtFOSAA	SURR	94.8	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW04-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-07	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:50	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	37.9	0.436	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFHxA	3.80	0.653	4.92	9.85	J, B	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFHpA	1.52	0.525	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFHxS	50.6	0.409	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFOA	4.15	1.06	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFNA	ND	1.42	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFOS	2.77	1.02	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFDA	ND	1.26	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
MeFOSAA	ND	3.00	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
EtFOSAA	ND	1.90	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFUnA	ND	0.251	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFDoA	ND	0.938	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFTTrDA	ND	0.929	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFTeDA	ND	0.766	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.0	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
13C2-PFDA	SURR	77.5	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
d5-EtFOSAA	SURR	83.9	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-FB04-0218
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-08	Column:	BEH C18		
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:51	Date Received:	08-Feb-18 09:03				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.447	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHxA	ND	0.668	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHpA	ND	0.537	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHxS	ND	0.418	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFOA	ND	1.09	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFNA	ND	1.45	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFOS	ND	1.05	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFDA	ND	1.29	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
MeFOSAA	ND	3.06	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
EtFOSAA	ND	1.95	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFUnA	ND	0.257	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFDoA	ND	0.960	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFTTrDA	ND	0.951	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFTeDA	ND	0.783	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	85.1	70 - 130			B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
13C2-PFDA	SURR	78.1	70 - 130			B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
d5-EtFOSAA	SURR	85.5	70 - 130			B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW05-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-09	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 10:08	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	28.9	0.442	4.98	9.98	B	B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHxA	48.6	0.662	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHpA	20.2	0.532	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHxS	210	0.828	9.96	20.0	D	B8B0104	16-Feb-18	0.251 L	26-Feb-18 11:08	2
PFOA	57.7	1.08	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFNA	ND	1.44	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFOS	64.1	1.04	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFDA	ND	1.28	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
MeFOSAA	ND	3.03	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
EtFOSAA	ND	1.93	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFUnA	ND	0.254	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFDoA	ND	0.950	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFTTrDA	ND	0.941	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFTeDA	ND	0.775	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
13C2-PFDA	SURR	84.5	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
d5-EtFOSAA	SURR	88.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-FB05-0218					EPA Method 537					
Client Data					Laboratory Data					
Name: CH2M Hill		Matrix: Drinking Water		Lab Sample: 1800274-10		Column: BEH C18				
Project: CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected: 06-Feb-18 10:08		Date Received: 08-Feb-18 09:03						
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.469	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFHxA	0.716	0.702	5.30	10.6	J, B	B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFHpA	ND	0.564	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFHxS	ND	0.439	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFOA	ND	1.14	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFNA	ND	1.52	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFOS	ND	1.10	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFDA	ND	1.36	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
MeFOSAA	ND	3.22	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
EtFOSAA	ND	2.04	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFUnA	ND	0.270	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFDoA	ND	1.01	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFTTrDA	ND	0.999	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
PFTeDA	ND	0.823	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	91.8	70 - 130			B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
13C2-PFDA	SURR	75.3	70 - 130			B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1
d5-EtFOSAA	SURR	89.8	70 - 130			B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-RW06-0218	EPA Method 537
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Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND Matrix: Drinking Water Date Collected: 06-Feb-18 10:56	Laboratory Data Lab Sample: 1800274-11 Date Received: 08-Feb-18 09:03 Column: BEH C18
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Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.442	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFHxA	ND	0.662	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFHpA	ND	0.532	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFHxS	ND	0.414	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFOA	ND	1.08	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFNA	ND	1.44	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFOS	ND	1.04	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFDA	ND	1.28	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
MeFOSAA	ND	3.03	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
EtFOSAA	ND	1.93	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFUnA	ND	0.255	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFDoA	ND	0.950	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFTTrDA	ND	0.941	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
PFTeDA	ND	0.776	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.2	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
13C2-PFDA	SURR	70.6	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1
d5-EtFOSAA	SURR	112	70 - 130			B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1

DL - Detection Limit	LOD - Limit of Detection LOQ - Limit of quantitation	LCL-UCL- Lower control limit - upper control limit Results reported to the DL.	When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.
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Sample ID: WI-A06-RW05P-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-12	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 10:08	Date Received:	08-Feb-18 09:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	28.9	0.444	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHxA	49.8	0.665	5.02	10.0	B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHpA	21.4	0.534	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHxS	232	0.832	10.0	20.0	D	B8B0104	16-Feb-18	0.249 L	26-Feb-18 11:20	2
PFOA	55.3	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFNA	1.67	1.44	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFOS	63.8	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFDA	ND	1.28	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
EtFOSAA	ND	1.93	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFDoA	ND	0.954	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFTTrDA	ND	0.945	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFTeDA	ND	0.779	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.3	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
13C2-PFDA	SURR	86.1	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
d5-EtFOSAA	SURR	97.5	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-FB06-0218
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water		Lab Sample:	1800274-13	Column:	BEH C18	
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 10:56		Date Received:	08-Feb-18 09:03			

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.444	5.02	10.0	J, B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHxA	0.770	0.665	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHpA	ND	0.534	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHxS	ND	0.416	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFOA	ND	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFNA	ND	1.44	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFOS	ND	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFDA	ND	1.28	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
EtFOSAA	ND	1.94	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFDoA	ND	0.955	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFTTrDA	ND	0.946	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFTeDA	ND	0.779	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
13C2-PFDA	SURR	90.2	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
d5-EtFOSAA	SURR	106	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW07-0218
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-14	Column:	BEH C18		
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 14:05	Date Received:	08-Feb-18 09:03				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.438	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFHxA	ND	0.655	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFHpA	ND	0.527	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFHxS	ND	0.410	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFOA	ND	1.07	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFNA	ND	1.42	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFOS	ND	1.03	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFDA	ND	1.26	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
MeFOSAA	ND	3.00	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
EtFOSAA	ND	1.91	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFUnA	ND	0.252	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFDoA	ND	0.941	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFTTrDA	ND	0.932	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
PFTeDA	ND	0.768	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130			B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
13C2-PFDA	SURR	86.2	70 - 130			B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1
d5-EtFOSAA	SURR	91.0	70 - 130			B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-FB07-0218
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-15	Column:	BEH C18		
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 14:05	Date Received:	08-Feb-18 09:03				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.428	4.84	9.67	J, B	B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHxA	0.677	0.641	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHpA	ND	0.516	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHxS	ND	0.401	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFOA	ND	1.04	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFNA	ND	1.39	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFOS	ND	1.01	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFDA	ND	1.24	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
MeFOSAA	ND	2.94	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
EtFOSAA	ND	1.87	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFUnA	ND	0.247	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFDoA	ND	0.921	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFTTrDA	ND	0.912	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFTeDA	ND	0.752	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.8	70 - 130			B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
13C2-PFDA	SURR	82.9	70 - 130			B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
d5-EtFOSAA	SURR	111	70 - 130			B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1

DL - Detection Limit

LOD - Limit of Detection

LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit

Results reported to the DL.

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

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW08-0218					EPA Method 537					
Client Data					Laboratory Data					
Name: CH2M Hill		Matrix: Drinking Water		Lab Sample: 1800274-16		Column: BEH C18				
Project: CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected: 06-Feb-18 18:02		Date Received: 08-Feb-18 09:03						
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	23.0	0.445	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFHxA	15.1	0.666	5.02	10.0	B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFHpA	8.81	0.535	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFHxS	116	0.417	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFOA	25.4	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFNA	2.51	1.45	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFOS	78.2	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFDA	ND	1.29	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
EtFOSAA	ND	1.94	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFDoA	ND	0.956	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFTTrDA	ND	0.947	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
PFTeDA	ND	0.781	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	92.4	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
13C2-PFDA	SURR	74.4	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1
d5-EtFOSAA	SURR	80.7	70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: WI-A06-FB08-0218					EPA Method 537					
Client Data Name: CH2M Hill Project: CLEAN CTO-4041 WHIDBEY ISLAND Matrix: Drinking Water Date Collected: 06-Feb-18 18:02					Laboratory Data					
					Lab Sample: 1800274-17		Column: BEH C18			
					Date Received: 08-Feb-18 09:03					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.441	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFHxA	ND	0.661	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFHpA	ND	0.531	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFHxS	ND	0.414	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFOA	ND	1.08	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFNA	ND	1.43	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFOS	ND	1.04	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFDA	ND	1.28	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
MeFOSAA	ND	3.03	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
EtFOSAA	ND	1.92	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFUnA	ND	0.254	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFDoA	ND	0.949	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFTTrDA	ND	0.940	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
PFTeDA	ND	0.774	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
13C2-PFDA	SURR	80.8	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1
d5-EtFOSAA	SURR	93.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

DATA QUALIFIERS & ABBREVIATIONS

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

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

CERTIFICATIONS

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

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



CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800274 Temp: 0.6 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: CLEAN CTD-4041 PO#: 10006-7-108336 Sampler: K. RABE/CH2M
WHIDBEY ISLAND (name)

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

Invoice to: Name TIFFANY HILL Company CH2M HILL Address 1100 NE CIRCLE BLVD 300 City CORVALLIS State OR Ph# 97330 Fax#

Relinquished by (printed name and signature) Katie Rabe Date 2/7/18 Time 1300 Received by (printed name and signature) B. Benedict Date 02/08/18 Time 0907
Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 (916) 673-1520 * Fax (916) 673-0106				Method of Shipment:		Add Analysis(es) Requested										Comments	
ATTN: _____				Tracking No.: _____		Container(s)											
Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List: 6	537 List: 14	Full List of 28	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List: 6	537 List: 14	537 (DW only)		
WI-A06-RW01-0218	2/5/18	15:06		2	P	DW										TZ	
WI-A06-FB01-0218	2/5/18	15:07		2	P	DW											
WI-A06-RW02-0218	2/5/18	15:38		2	P	DW											
WI-A06-FB02-0218	2/5/18	15:39		2	P	DW											
WI-A06-RW03-0218	2/5/18	16:11		2	P	DW											
WI-A06-FB03-0218	2/5/18	16:12		2	P	DW											
WI-A06-RW04-0218	2/5/18	16:50		2	P	DW											
WI-A06-FB04-0218	2/5/18	16:51		2	P	DW											
WI-A06-RW05-0218	2/6/18	10:08		2	P	DW											
WI-A06-FB05-0218	2/6/18	10:08		2	P	DW											

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: TIFFANY HILL
Company: CH2M
Address: 1100 NE CIRCLE BLVD 300
City: CORVALLIS State: OR Zip: 97330
Phone: _____ Fax: _____
Email: tiiffany.will@ch2m.com

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

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____



CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800274 Temp: 0.6 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: CLEAN CTO-4041 PO#: 10006-7-108336 Sampler: K. Rabe CH2M
Whidbey Island (name)

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

Invoice to: Name Tiffany Hill Company CH2M HILL Address 1100 NE CIRCLE BLVD 300 City CORVALLIS State OR Ph# 97330 Fax#

Relinquished by (printed name and signature) KATIE RABE K Rabe Date 2/7/18 Time 1300 Received by (printed name and signature) B. Benedict B Benedict Date 02/08/18 Time 0907

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

Method of Shipment:

ATTN:

Tracking No.:

Add Analysis(es) Requested

Container(s)

Mod. EPA Method 537

EPA Method 537(DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List 14	Full List of 28	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List 6	PFAS List 14	Comments
W1-A06-RW06-0218	2/6/18	1056		2	P	DW									TZ
W1-A06-RW05P-0218	2/6/18	1008		2	P	DW									TZ
W1-A06-FB06-0218	2/6/18	1056		2	P	DW									TZ
W1-A06-RW07-0218	2/6/18	1405		2	P	DW									TZ
W1-A06-FB07-0218	2/6/18	1405		2	P	DW									TZ
W1-A06-RW08-0218	2/6/18	1802		2	P	DW									TZ
W1-A06-FB08-0218	2/6/18	1802		2	P	DW									TZ

Special Instructions/Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name: TIFFANY HILL
Company: CH2M
Address: 1100 NE CIRCLE, BLVD 300
City: CORVALLIS State: OR Zip: 97330
Phone: Fax:
Email: tiffany.hill@ch2m.com

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

Bottle Preservation Type: T = Thiosulfate,
(TZ) = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Sample Log-in Checklist

Vista Work Order #: 1800274 TAT 14 days

Samples Arrival:	Date/Time <u>2/8/18</u> <u>0903</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>NA</u>
Logged In:	Date/Time <u>02/08/18</u> <u>0921</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>E-5</u>
Delivered By:	☒ FedEx ☐ UPS ☐ On Trac ☐ GSO ☐ DHL ☐ Hand Delivered ☐ Other		
Preservation:	☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ None		
Temp °C: <u>0.7</u> (uncorrected)	Time: <u>0908</u>	Thermometer ID: <u>IR-4</u>	
Temp °C: <u>0.6</u> (corrected)	Probe used: Yes ☐ No ☒		

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill	Trk # <u>8121 0190 3833</u>	✓	
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?	✓	+	+
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	✓		
Preservation Documented:	<u>Na₂S₂O₃</u> <u>Trizma</u> <u>None</u> <u>Yes</u> <u>No</u> <u>NA</u>		
Shipping Container	<u>Vista</u> <u>Client</u> <u>Retain</u> <u>Return</u> <u>Dispose</u>		

Comments: sample label

WWS 02/08/18

COC ID

- * W1-206-FB05-0218 (~~2 bottle~~) received 1 bottle
- * W1-206-RW05-0218 (~~3 bottle~~) received 3 bottles

W1-206-FB05-0218

* containers were bagged together in one bag upon receipt

WWS 02/08/18

Chain of Custody Anomaly/Sample Acceptance Form



Client: CH2M Hill
 Contact: Tiffany Hill
 Email: tiffany.hill@ch2m.com
 Phone: (541) 768-3109

Workorder Number: 1800274
 Date Received: 08-Feb-18 09:03
 Documented by/date: MSparks/08-Feb-18

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

Thank you,

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

The following information or item is needed to proceed with analysis:

☐ Complete Chain-of-Custody	☐ Preservative	☐ Collector's Name
☐ Test Method Requested	☐ Sample Identification	☐ Sample Type
☐ Analyte List Requested	☐ Sample Collection Date and/or Time	☐ Sample Location
☒ Other: see comments		

The following anomalies were noted. Authorization is needed to proceed with analysis.

☐ Temperature outside < 6°C Range	Samples Affected: _____		
Temperature _____ °C	Ice Present?	Yes	No Melted
☐ Sample ID Discrepancy	☐ Insufficient Sample Size		
☐ Sample Holding Time Missed	☐ Sample Container(s) Broken		
☐ Custody Seals Broken	☐ Incorrect Container Type		

Comments:

Received 3 containers with sample ID: WI-A06-RW05-0218; received 1 container with sample ID: WI-A06-FB05-0218

Client Authorization

Proceed with Analysis: YES NO

Signature and Date Laurin A. Brakney. 2-9-18

Client Comments/Instructions Per client, vista ID: 1800274-10 B will be relabelled as "WI-A06-FB05-0218".

EXTRACTION INFORMATION

Process Sheet
Workorder: 1800274

PRIORITY

Prep Expiration: 2018-Feb-19
Client: CH2M Hill

Workorder Due: 22-Feb-18 00:00

TAT: 14

Method: 537 PFAS DW DoD Unmodified
Matrix: Aqueous

Prep Batch: B8B0104

Version: 14 Analytes
DoD: DoD QSM 5.1

Prep Data Entered: 2-20-18 7R
Date and Initials

Initial Sequence:

LabSampleID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1800274-01	B	☒	☒	WI-A06-RW01-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-02		☒	☒	WI-A06-FB01-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-03		☒	☒	WI-A06-RW02-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-04		☒	☒	WI-A06-FB02-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-05		☒	☒	WI-A06-RW03-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-06		☒	☒	WI-A06-FB03-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-07		☒	☒	WI-A06-RW04-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-08		☒	☒	WI-A06-FB04-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-09		☒	☒	WI-A06-RW05-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-10		☒	☐	WI-A06-FB05-0218	"WI-A06-RW05-0218" Client approved 1/16/18 relabel	WR-2 E-5	HDPE Bottle, 250 mL
1800274-11		☒	☒	WI-A06-RW06-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-12		☒	☒	WI-A06-RW05P-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-13		☒	☒	WI-A06-FB06-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-14		☒	☒	WI-A06-RW07-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-15		☒	☒	WI-A06-FB07-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-16		☒	☒	WI-A06-RW08-0218		WR-2 E-5	HDPE Bottle, 250 mL
1800274-17		☒	☒	WI-A06-FB08-0218		WR-2 E-5	HDPE Bottle, 250 mL

Pre-Prep Check Out: HN 2/16/18
Pre-Prep Check In: NA

Prep Check Out: NA
Prep Check In: NA

Prep Reconciled Initials/Date: HN 2/16/18
Spike Reconciled Initials/Date: 7R 2-16-18
VialBoxID: Mula

Batch: B8B0104

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1800214-02	0.25507 -	NA	NA	1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800216-04	0.25325 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-01	0.23754 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-02	0.25456 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-03	0.24872 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-04	0.24674 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-05	0.2459 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-06	0.25441 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-07	0.25373 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-08	0.24797 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-09	0.25053 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-10	0.23607 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-11	0.25046 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-12	0.24939 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-13	0.24933 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-14	0.25299 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-15	0.25846 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-16	0.24886 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800274-17	0.2509 -			1000	16-Feb-18 12:00	KC			Drinking Water	537 PFAS DW DoD Unmoc
B8B0104-BLK1	0.25 -			1000	16-Feb-18 12:00	KC				QC
B8B0104-BS1	0.25 -			1000	16-Feb-18 12:00	KC	17L2901 -	10 -		QC
B8B0104-BSD1	0.25 -			1000	16-Feb-18 12:00	KC	17L2901 -	10 -		QC

ZR 2-20-18

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8B0104

Chemist: KC
Prep Date/Time: 18-Feb-18 08:37
16 1200
KC 2/16/18

Prepared using: LCMS - SPE Extraction-LCMS

Balance ID: HRMS-8

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B8B0104-BLK1 <u>⑥</u>	<u>NA</u>	<u>NA</u>	<u>(0.250)</u>	<u>KC 7R 2/16/18</u>	<u>KC 7R 2/16/18</u>	<u>HC 2-20-18</u>
☐	B8B0104-BS1	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
☐	B8B0104-BSD1	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
☐	1800214-02	<u>282.58</u>	<u>27.51</u>	<u>0.25507</u>			
☐	1800216-04	<u>280.75</u>	<u>27.50</u>	<u>0.25325</u>			
☐	1800274-01	<u>265.35</u>	<u>27.81</u>	<u>0.23754</u>			
☐	1800274-02	<u>282.35</u>	<u>27.79</u>	<u>0.25456</u>			
☐	1800274-03	<u>276.78</u>	<u>28.06</u>	<u>0.24872</u>			
☐	1800274-04	<u>274.58</u>	<u>27.84</u>	<u>0.24674</u>			
☐	1800274-05	<u>273.68</u>	<u>27.78</u>	<u>0.24590</u>			
☐	1800274-06	<u>283.75</u>	<u>29.34</u>	<u>0.25441</u>			
☒	1800274-07	<u>HN 2/16/18</u> <u>275.77 281.20</u>	<u>27.47</u>	<u>0.25373</u>			
☐	1800274-08	<u>275.77</u>	<u>27.80</u>	<u>0.24797</u>			
☐	1800274-09	<u>277.93</u>	<u>27.40</u>	<u>0.25053</u>			
☐	1800274-10	<u>263.93</u>	<u>27.86</u>	<u>0.23607</u>			
☐	1800274-11	<u>277.54</u>	<u>27.08</u>	<u>0.25046</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>

SS/IS: <u>17L1416, 20 mL (V1)</u> NS: <u>17L2901, 10 mL (V2)</u> IS/RS: <u>18B0502, 20 mL (V2)</u>	SPE Chem: <u>Strata-X 33um 500mg</u> Lot#: <u>517-005658</u> Ele SOLV: <u>MeOH</u> Lot#: <u>58044809</u> Final Volume(s) <u>1 mL</u>	Notes: <u>⑥ 1.25g Trizma added HN 2/16/18</u>
--	--	---

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8B0104

Chemist: KCPrep Date/Time: 18-Feb-18 08:27

Prepared using: LCMS - SPE Extraction-LCMS

16 12:00
KC 2/16/18Balance ID: HRMS-8

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	1800274-12	276.86	27.47	0.24939	KC 7R 2/16/18	KC 7R 2/16/18	7R 2-2018
☐	1800274-13	276.63	27.30	0.24933	↓	↓	↓
☐	1800274-14	280.82	27.83	0.25299			
☐	1800274-15	HN 2/16/18 287.7 287.75	29.29	0.25846			
☐	1800274-16	276.30	27.44	0.24886			
☐	1800274-17	278.25	27.35	0.25090			

SS/IS: <u>17L14116, 20μL (V1)</u> NS: <u>17L2901, 10μL (V2)</u> IS/RS: <u>18B0502, 20μL (V2)</u>	SPE Chem: <u>Strata-X 33μm 500mg/mL</u> Lot#: <u>517-005658</u> Ele SOLV: <u>MeOH</u> Lot#: <u>JB064804</u> Final Volume(s): <u>1mL</u>	Notes: <u>N/A</u>
--	---	-------------------

Comments: Assume 1 g = 1 mL
 .Cen = Centrifuged

SAMPLE DATA –EPA METHOD 537

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-16.qld

Last Altered: Monday, February 26, 2018 13:22:21 Pacific Standard Time

Printed: Monday, February 26, 2018 13:22:42 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_16, Date: 23-Feb-2018, Time: 16:23:41, ID: B8B0104-BLK1 LRB 0.25, Description: LRB

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.48e4	0.2500		3.02				
2	2 PFHxA	313.2 > 268.9	7.71e1	8.13e3	0.2500		3.36	3.38	0.0948	0.685	
3	3 PFHpA	363 > 318.9	2.25e1	8.13e3	0.2500		3.88	3.89	0.0277	0.118	
4	4 PFHxS	398.9 > 79.6	3.65e0	1.48e4	0.2500		4.00	4.02	0.00705	0.0403	
5	5 PFOA	413 > 368.7	1.20e2	8.13e3	0.2500		4.31	4.31	0.148	0.706	
6	6 PFNA	463 > 418.8	1.05e0	8.13e3	0.2500		4.65	4.65	0.00129	0.00508	
7	7 PFOS	499 > 79.9	2.17e0	1.48e4	0.2500		4.71	4.72	0.00419	0.0175	
8	8 PFDA	513 > 468.8	8.22e1	8.13e3	0.2500		4.88	4.95	0.101	0.364	
9	9 N-MeFOSAA	570.1 > 419.0	2.95e1	1.07e4	0.2500		5.01	5.07	0.111	0.338	
10	10 N-EtFOSAA	584.2 > 419.0		1.07e4	0.2500		5.19				
11	11 PFUnA	563 > 518.9	6.76e0	8.13e3	0.2500		5.14	5.21	0.00832	0.0331	
12	12 PFDoA	612.9 > 318.8		8.13e3	0.2500		5.34				
13	13 PFTrDA	662.9 > 618.9		8.13e3	0.2500		5.57				
14	14 PFTeDA	712.9 > 668.8		8.13e3	0.2500		5.74				
15	15 13C2-PFHxA	315 > 269.8	5.85e3	8.13e3	0.2500	0.731	3.46	3.38	7.19	39.3	98.3
16	16 13C2-PFDA	515.1 > 469.9	6.53e3	8.13e3	0.2500	0.910	4.91	4.95	8.03	35.3	88.3
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.19e4	1.07e4	0.2500	1.049	5.07	5.19	44.7	170	106.5
18	18 13C2-PFOA	414.9 > 369.7	8.13e3	8.13e3	0.2500	1.000	4.41	4.31	10.0	40.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.48e4	1.48e4	0.2500	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.07e4	1.07e4	0.2500	1.000	5.16	5.07	40.0	160	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-16.qld

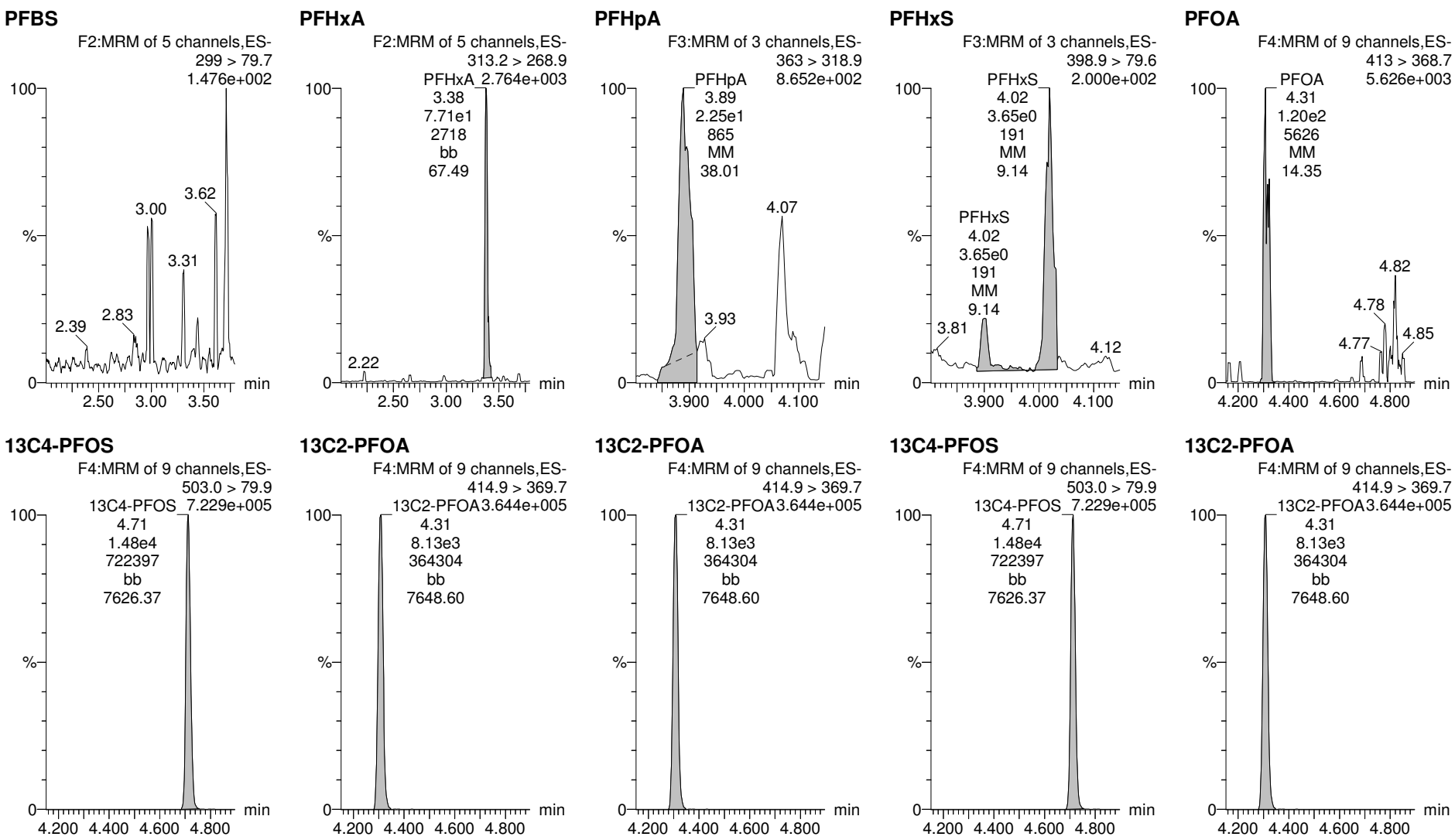
Last Altered: Monday, February 26, 2018 13:22:21 Pacific Standard Time

Printed: Monday, February 26, 2018 13:22:42 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_16, Date: 23-Feb-2018, Time: 16:23:41, ID: B8B0104-BLK1 LRB 0.25, Description: LRB



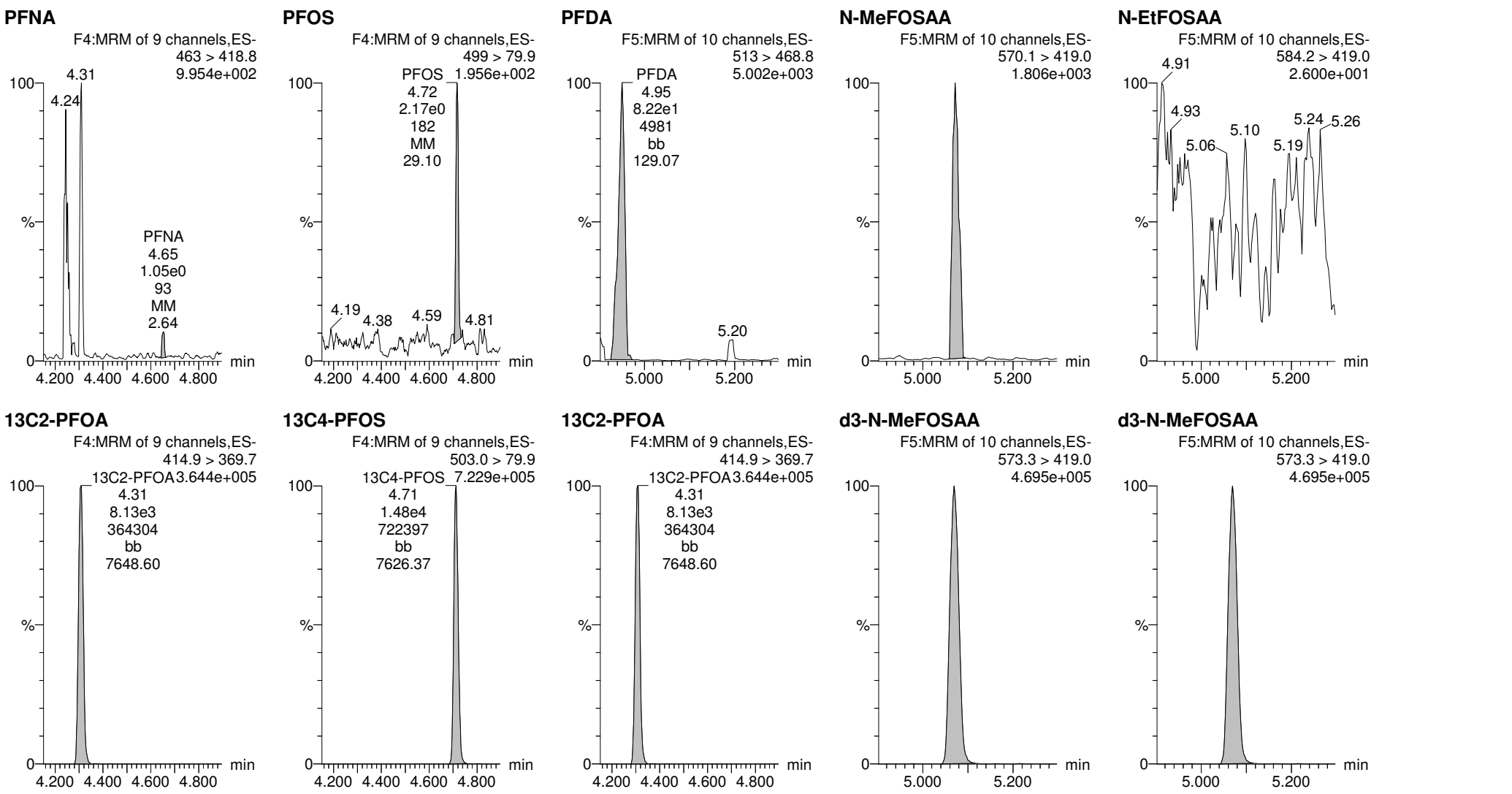
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Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:22:21 Pacific Standard Time

Printed: Monday, February 26, 2018 13:22:42 Pacific Standard Time

Name: 180223G2_16, Date: 23-Feb-2018, Time: 16:23:41, ID: B8B0104-BLK1 LRB 0.25, Description: LRB

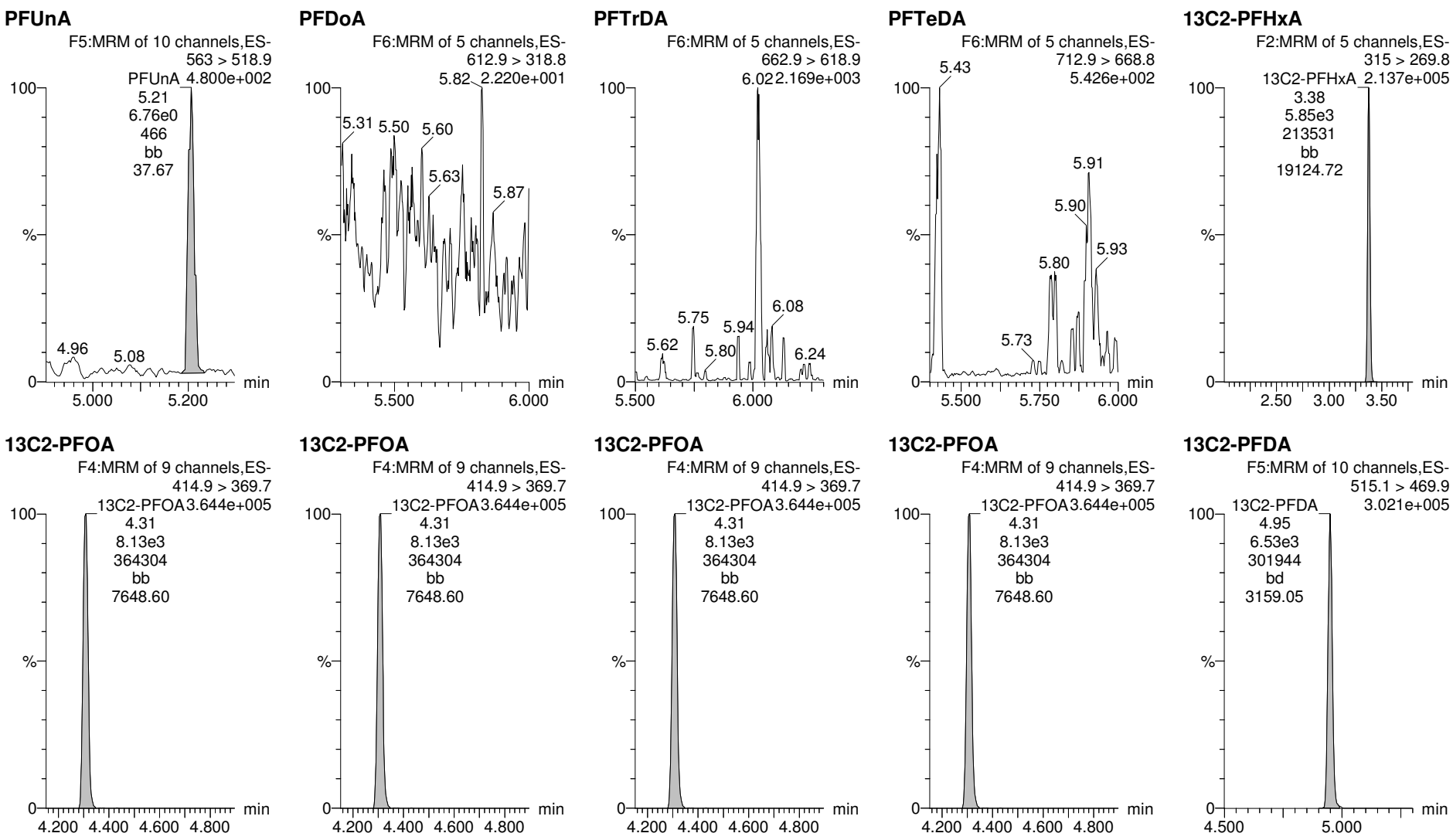


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-16.qld

Last Altered: Monday, February 26, 2018 13:22:21 Pacific Standard Time

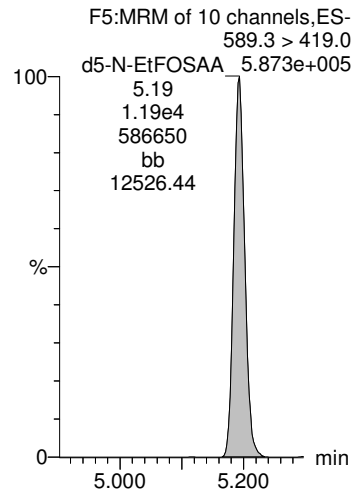
Printed: Monday, February 26, 2018 13:22:42 Pacific Standard Time

Name: 180223G2_16, Date: 23-Feb-2018, Time: 16:23:41, ID: B8B0104-BLK1 LRB 0.25, Description: LRB



Name: 180223G2_16, Date: 23-Feb-2018, Time: 16:23:41, ID: B8B0104-BLK1 LRB 0.25, Description: LRB

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-14.qld

Last Altered: Monday, February 26, 2018 08:08:14 Pacific Standard Time

Printed: Monday, February 26, 2018 08:10:24 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_14, Date: 23-Feb-2018, Time: 15:58:57, ID: B8B0104-BS1 LFB 0.25, Description: LFB

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.34e3	1.47e4	0.2500		3.01	3.02	6.53	35.7	100.9
2	2 PFHxA	313.2 > 268.9	4.52e3	7.38e3	0.2500		3.36	3.38	6.13	44.3	110.7
3	3 PFHpA	363 > 318.9	7.67e3	7.38e3	0.2500		3.88	3.89	10.4	44.2	110.5
4	4 PFHxS	398.9 > 79.6	3.50e3	1.47e4	0.2500		4.00	4.01	6.83	39.0	107.0
5	5 PFOA	413 > 368.7	6.07e3	7.38e3	0.2500		4.31	4.31	8.22	39.3	98.2
6	6 PFNA	463 > 418.8	8.21e3	7.38e3	0.2500		4.65	4.65	11.1	43.8	109.5
7	7 PFOS	499 > 79.9	4.74e3	1.47e4	0.2500		4.71	4.71	9.25	38.5	104.1
8	8 PFDA	513 > 468.8	7.56e3	7.38e3	0.2500		4.88	4.95	10.2	37.4	93.5
9	9 N-MeFOSAA	570.1 > 419.0	4.19e3	1.17e4	0.2500		5.01	5.07	14.4	42.9	107.3
10	10 N-EtFOSAA	584.2 > 419.0	3.09e3	1.17e4	0.2500		5.19	5.20	10.6	40.0	99.9
11	11 PFUnA	563 > 518.9	7.37e3	7.38e3	0.2500		5.14	5.21	9.99	39.8	99.5
12	12 PFDoA	612.9 > 318.8	1.21e3	7.38e3	0.2500		5.34	5.42	1.63	41.3	103.2
13	13 PFTTrDA	662.9 > 618.9	1.08e4	7.38e3	0.2500		5.57	5.61	14.6	42.5	106.2
14	14 PFTeDA	712.9 > 668.8	9.31e3	7.38e3	0.2500		5.74	5.78	12.6	40.4	101.0
15	15 13C2-PFHxA	315 > 269.8	5.69e3	7.38e3	0.2500	0.731	3.46	3.38	7.71	42.2	105.4
16	16 13C2-PFDA	515.1 > 469.9	6.65e3	7.38e3	0.2500	0.910	4.91	4.95	9.02	39.6	99.1
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.16e4	1.17e4	0.2500	1.049	5.07	5.19	39.9	152	95.0
18	18 13C2-PFOA	414.9 > 369.7	7.38e3	7.38e3	0.2500	1.000	4.41	4.31	10.0	40.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.47e4	1.47e4	0.2500	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.17e4	1.17e4	0.2500	1.000	5.16	5.07	40.0	160	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-14.qld

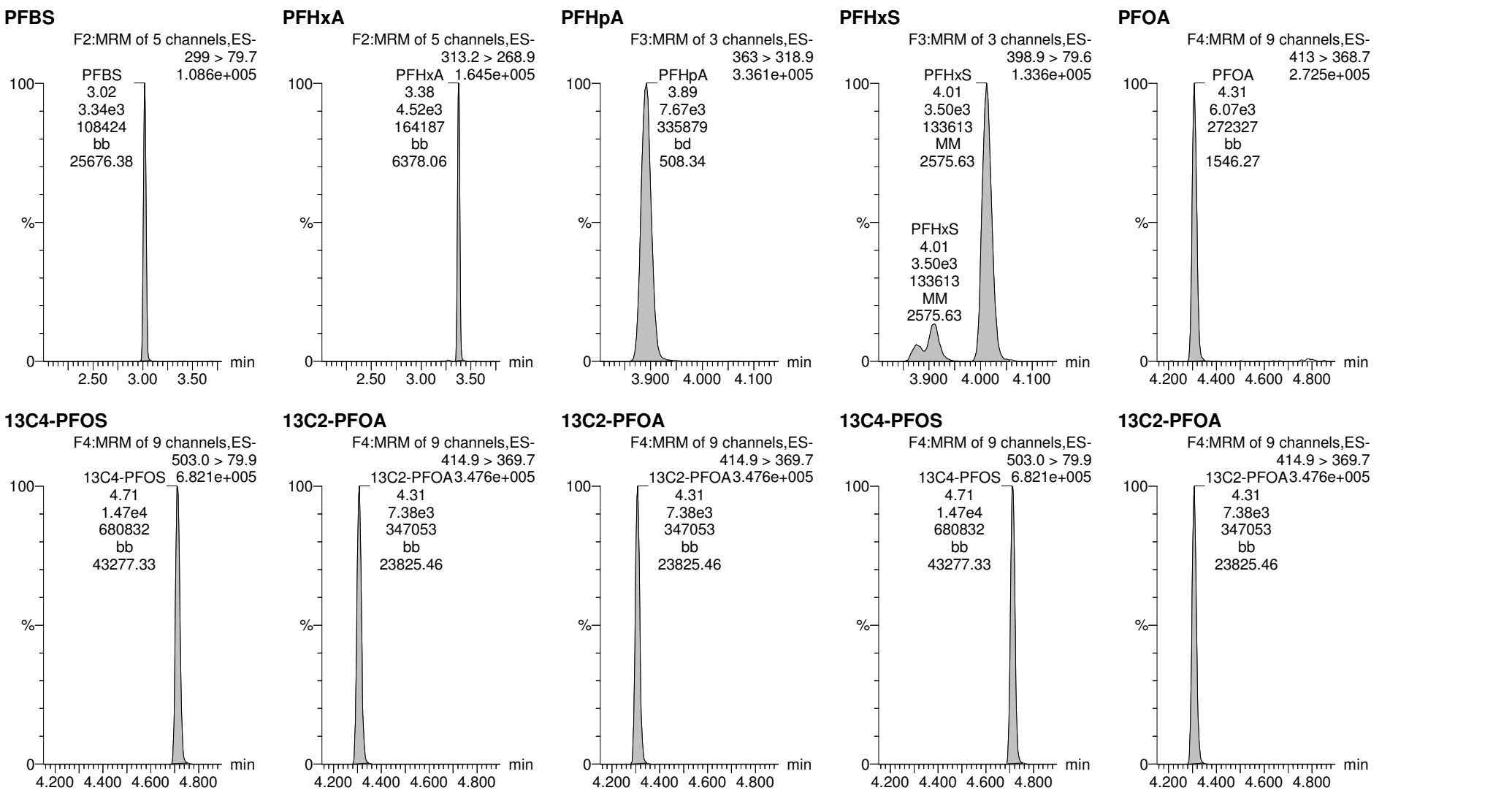
Last Altered: Monday, February 26, 2018 08:08:14 Pacific Standard Time

Printed: Monday, February 26, 2018 08:10:24 Pacific Standard Time

Rev'd: MM 2/26/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_14, Date: 23-Feb-2018, Time: 15:58:57, ID: B8B0104-BS1 LFB 0.25, Description: LFB

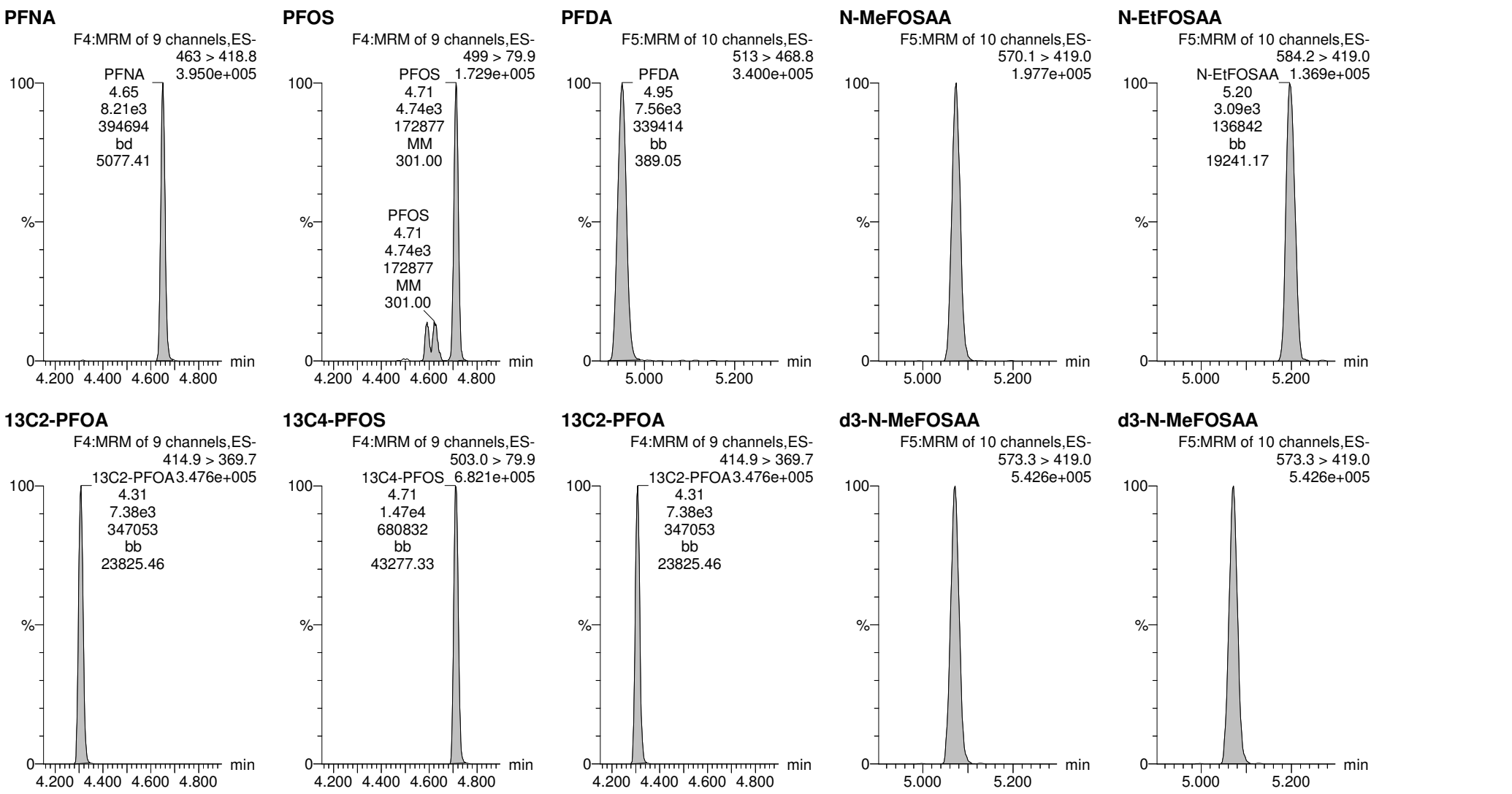


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-14.qld

Last Altered: Monday, February 26, 2018 08:08:14 Pacific Standard Time

Printed: Monday, February 26, 2018 08:10:24 Pacific Standard Time

Name: 180223G2_14, Date: 23-Feb-2018, Time: 15:58:57, ID: B8B0104-BS1 LFB 0.25, Description: LFB

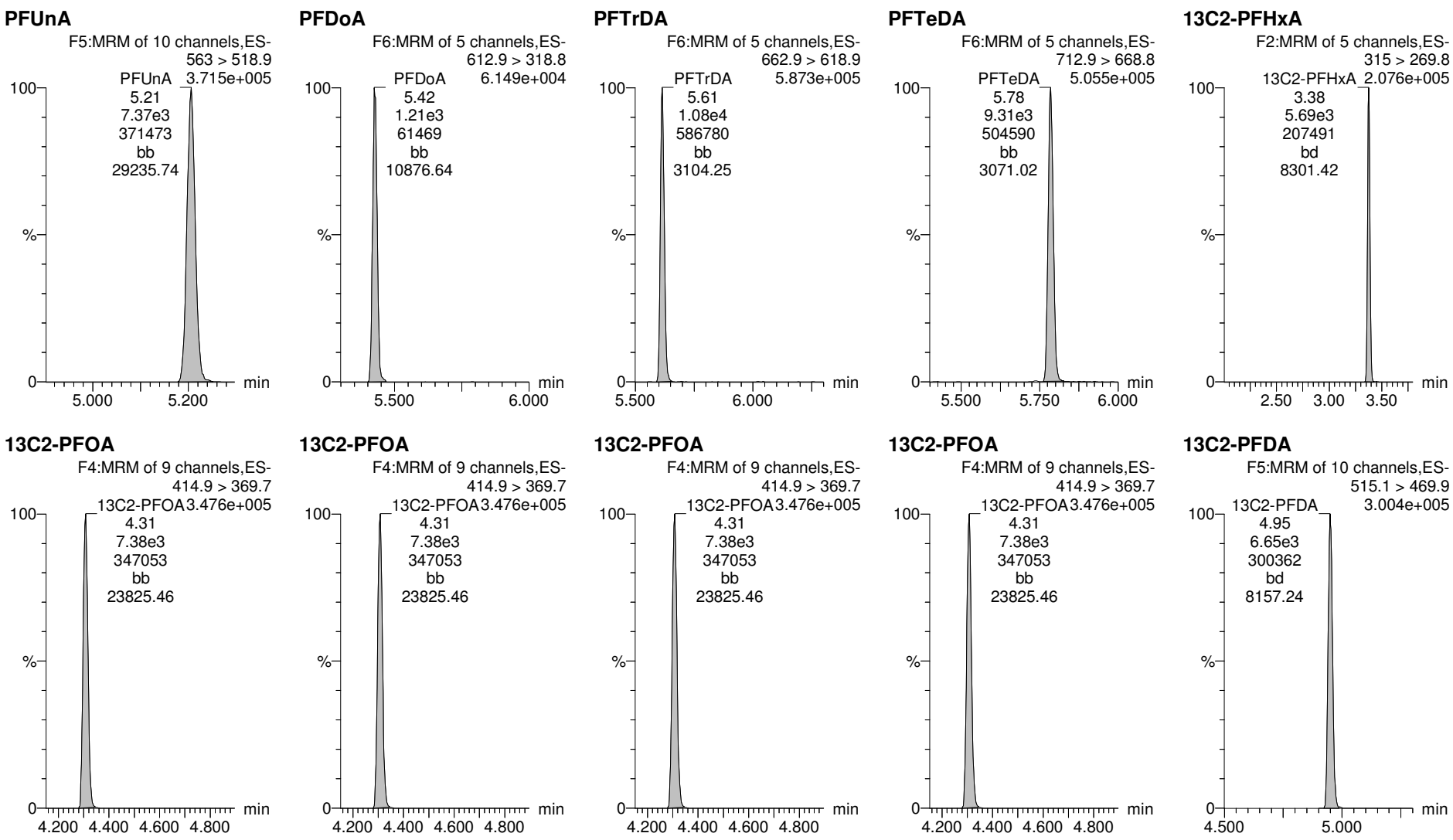


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-14.qld

Last Altered: Monday, February 26, 2018 08:08:14 Pacific Standard Time

Printed: Monday, February 26, 2018 08:10:24 Pacific Standard Time

Name: 180223G2_14, Date: 23-Feb-2018, Time: 15:58:57, ID: B8B0104-BS1 LFB 0.25, Description: LFB



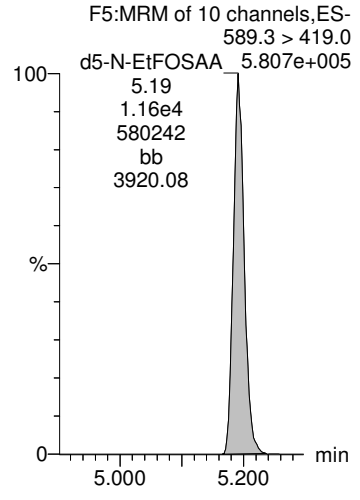
Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-14.qld

Last Altered: Monday, February 26, 2018 08:08:14 Pacific Standard Time

Printed: Monday, February 26, 2018 08:10:24 Pacific Standard Time

Name: 180223G2_14, Date: 23-Feb-2018, Time: 15:58:57, ID: B8B0104-BS1 LFB 0.25, Description: LFB

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-15.qld

Last Altered: Monday, February 26, 2018 08:19:12 Pacific Standard Time

Printed: Monday, February 26, 2018 08:21:06 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_15, Date: 23-Feb-2018, Time: 16:11:17, ID: B8B0104-BSD1 LFBD 0.25, Description: LFBD

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.63e3	1.71e4	0.2500		3.02	3.02	6.11	33.4	94.5
2	2 PFHxA	313.2 > 268.9	4.71e3	8.50e3	0.2500		3.36	3.38	5.54	40.1	100.1
3	3 PFHpA	363 > 318.9	8.75e3	8.50e3	0.2500		3.88	3.89	10.3	43.8	109.5
4	4 PFHxS	398.9 > 79.6	3.82e3	1.71e4	0.2500		4.00	4.01	6.43	36.8	100.8
5	5 PFOA	413 > 368.7	7.22e3	8.50e3	0.2500		4.31	4.31	8.49	40.6	101.4
6	6 PFNA	463 > 418.8	9.64e3	8.50e3	0.2500		4.65	4.65	11.3	44.6	111.6
7	7 PFOS	499 > 79.9	5.32e3	1.71e4	0.2500		4.71	4.71	8.95	37.3	100.7
8	8 PFDA	513 > 468.8	9.28e3	8.50e3	0.2500		4.88	4.95	10.9	39.9	99.8
9	9 N-MeFOSAA	570.1 > 419.0	4.49e3	1.33e4	0.2500		5.01	5.07	13.5	40.4	101.0
10	10 N-EtFOSAA	584.2 > 419.0	3.27e3	1.33e4	0.2500		5.19	5.20	9.83	37.1	92.7
11	11 PFUnA	563 > 518.9	8.70e3	8.50e3	0.2500		5.14	5.21	10.2	40.8	101.9
12	12 PFDoA	612.9 > 318.8	1.27e3	8.50e3	0.2500		5.34	5.42	1.49	37.6	94.0
13	13 PFTTrDA	662.9 > 618.9	1.24e4	8.50e3	0.2500		5.57	5.61	14.6	42.5	106.3
14	14 PFTeDA	712.9 > 668.8	1.01e4	8.50e3	0.2500		5.74	5.78	11.9	38.2	95.4
15	15 13C2-PFHxA	315 > 269.8	6.09e3	8.50e3	0.2500	0.731	3.46	3.38	7.16	39.2	97.9
16	16 13C2-PFDA	515.1 > 469.9	6.89e3	8.50e3	0.2500	0.910	4.91	4.95	8.10	35.6	89.0
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.30e4	1.33e4	0.2500	1.049	5.07	5.19	39.2	149	93.3
18	18 13C2-PFOA	414.9 > 369.7	8.50e3	8.50e3	0.2500	1.000	4.41	4.31	10.0	40.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.71e4	1.71e4	0.2500	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.33e4	1.33e4	0.2500	1.000	5.16	5.07	40.0	160	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-15.qld

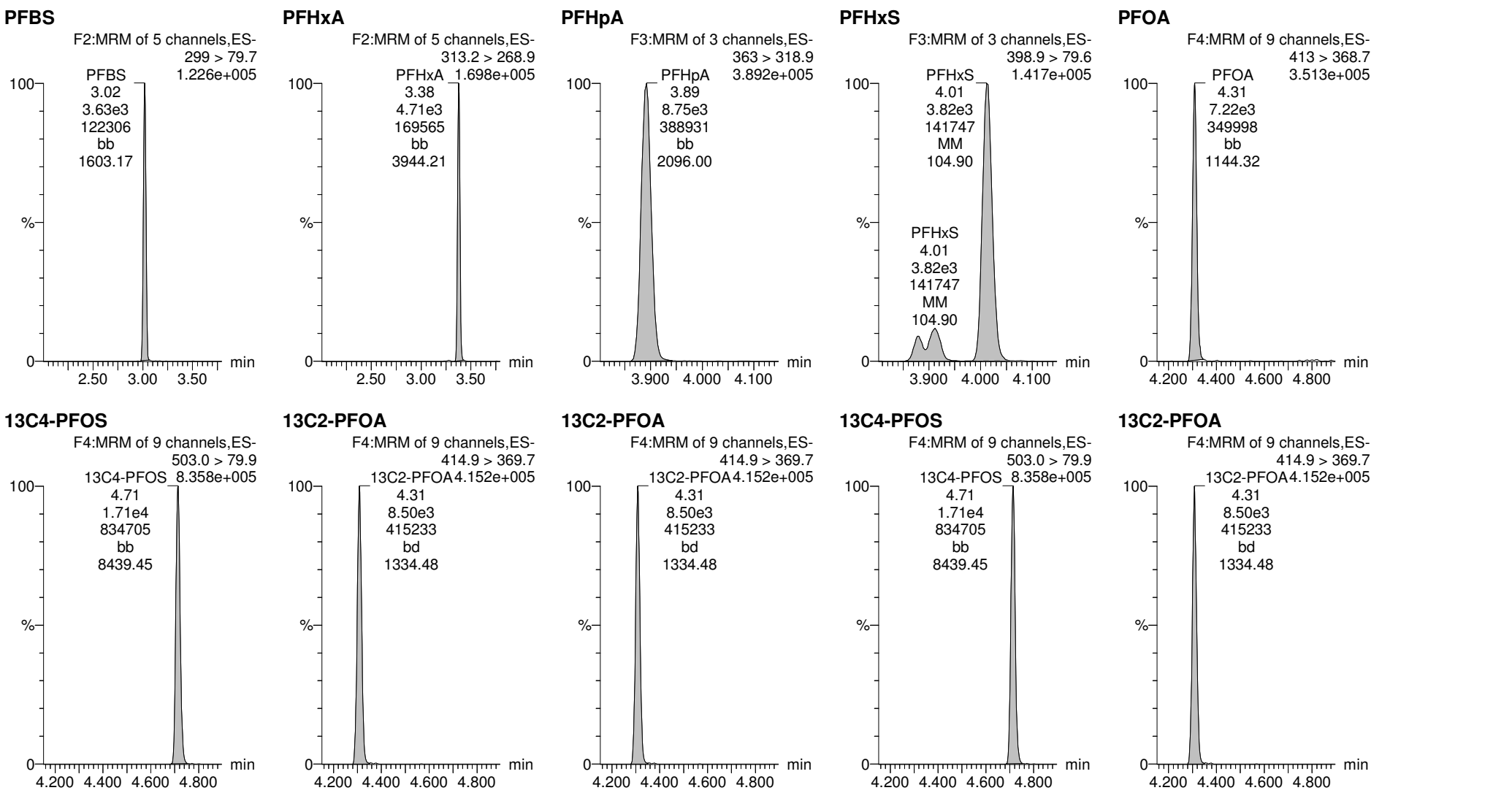
Last Altered: Monday, February 26, 2018 08:19:12 Pacific Standard Time

Printed: Monday, February 26, 2018 08:21:06 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_15, Date: 23-Feb-2018, Time: 16:11:17, ID: B8B0104-BSD1 LFBF 0.25, Description: LFBF

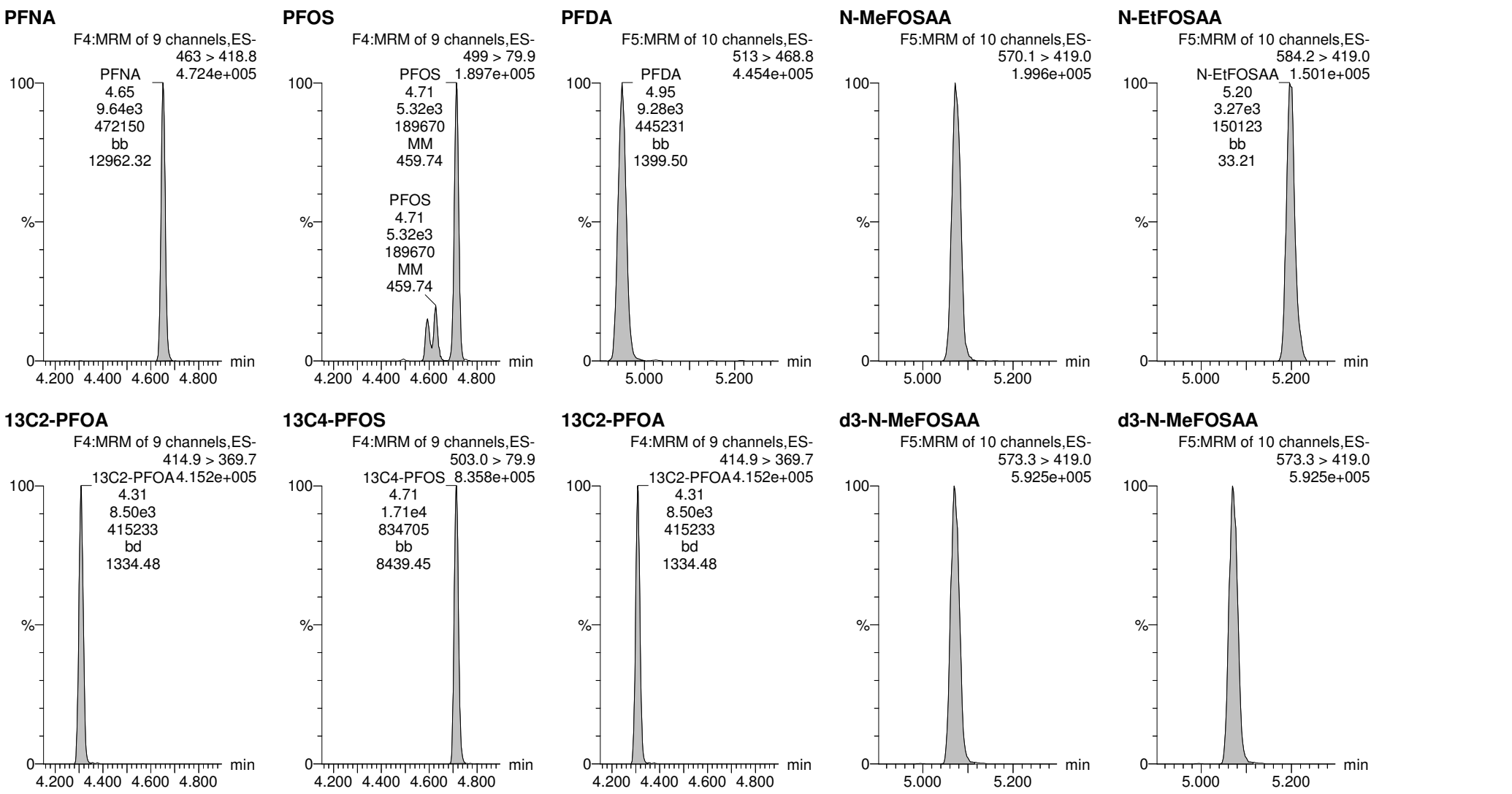


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-15.qld

Last Altered: Monday, February 26, 2018 08:19:12 Pacific Standard Time

Printed: Monday, February 26, 2018 08:21:06 Pacific Standard Time

Name: 180223G2_15, Date: 23-Feb-2018, Time: 16:11:17, ID: B8B0104-BSD1 LFBF 0.25, Description: LFBF

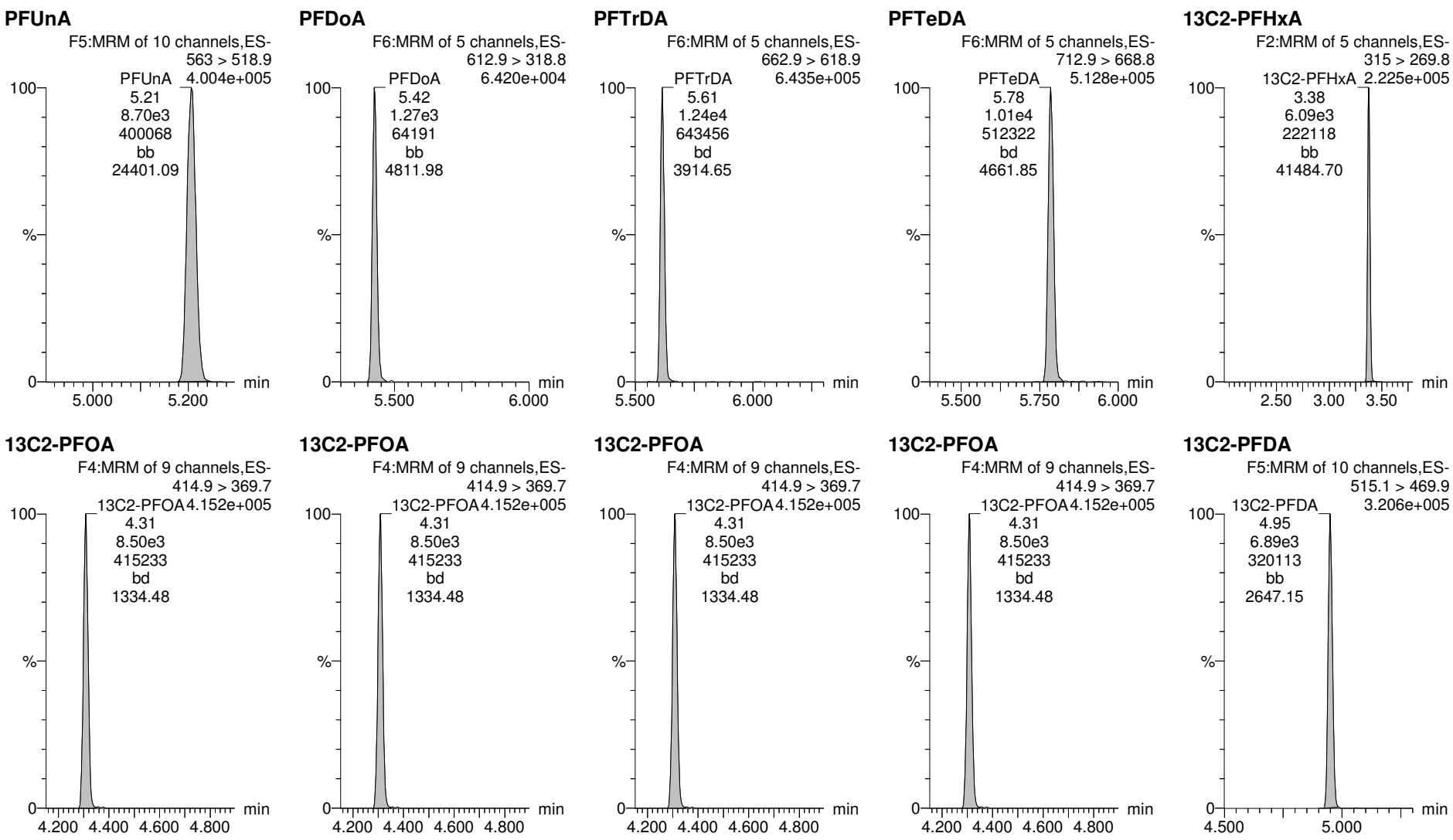


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-15.qld

Last Altered: Monday, February 26, 2018 08:19:12 Pacific Standard Time

Printed: Monday, February 26, 2018 08:21:06 Pacific Standard Time

Name: 180223G2_15, Date: 23-Feb-2018, Time: 16:11:17, ID: B8B0104-BSD1 LFBF 0.25, Description: LFBF



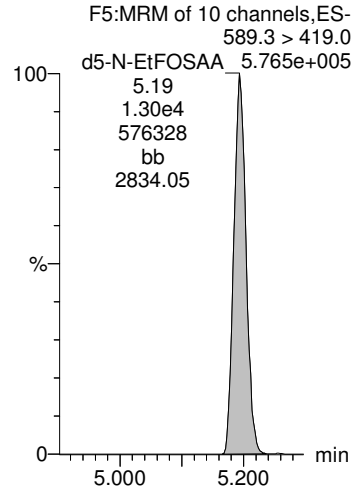
Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-15.qld

Last Altered: Monday, February 26, 2018 08:19:12 Pacific Standard Time

Printed: Monday, February 26, 2018 08:21:06 Pacific Standard Time

Name: 180223G2_15, Date: 23-Feb-2018, Time: 16:11:17, ID: B8B0104-BSD1 LFBD 0.25, Description: LFBD

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-19.qld

Last Altered: Monday, February 26, 2018 12:56:11 Pacific Standard Time

Printed: Monday, February 26, 2018 12:56:39 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_19, Date: 23-Feb-2018, Time: 17:00:57, ID: 1800274-01 WI-A06-RW01-0218 0.23754, Description: WI-A06-RW01-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.52e4	0.2375		3.01				
2	2 PFHxA	313.2 > 268.9	8.85e1	8.28e3	0.2375		3.36	3.38	0.107	0.813	
3	3 PFHpA	363 > 318.9	3.79e1	8.28e3	0.2375		3.88	3.89	0.0458	0.205	
4	4 PFHxS	398.9 > 79.6		1.52e4	0.2375		4.00				
5	5 PFOA	413 > 368.7	1.03e2	8.28e3	0.2375		4.31	4.31	0.125	0.626	
6	6 PFNA	463 > 418.8		8.28e3	0.2375		4.65				
7	7 PFOS	499 >79.9		1.52e4	0.2375		4.71				
8	8 PFDA	513 > 468.8	7.20e1	8.28e3	0.2375		4.88	4.95	0.0870	0.330	
9	9 N-MeFOSAA	570.1 > 419.0		1.09e4	0.2375		5.01				
10	10 N-EtFOSAA	584.2 >419.0		1.09e4	0.2375		5.19				
11	11 PFUnA	563 > 518.9		8.28e3	0.2375		5.14				
12	12 PFDoA	612.9 > 318.8		8.28e3	0.2375		5.34				
13	13 PFTxDA	662.9 > 618.9		8.28e3	0.2375		5.57				
14	14 PFTeDA	712.9 > 668.8		8.28e3	0.2375		5.74				
15	15 13C2-PFHxA	315 > 269.8	5.89e3	8.28e3	0.2375	0.731	3.46	3.38	7.12	41.0	97.4
16	16 13C2-PFDA	515.1 > 469.9	6.65e3	8.28e3	0.2375	0.910	4.91	4.95	8.04	37.2	88.3
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.17e4	1.09e4	0.2375	1.049	5.07	5.19	42.9	172	102.2
18	18 13C2-PFOA	414.9 > 369.7	8.28e3	8.28e3	0.2375	1.000	4.41	4.31	10.0	42.1	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.52e4	1.52e4	0.2375	1.000	4.81	4.71	28.7	121	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.09e4	1.09e4	0.2375	1.000	5.16	5.07	40.0	168	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-19.qld

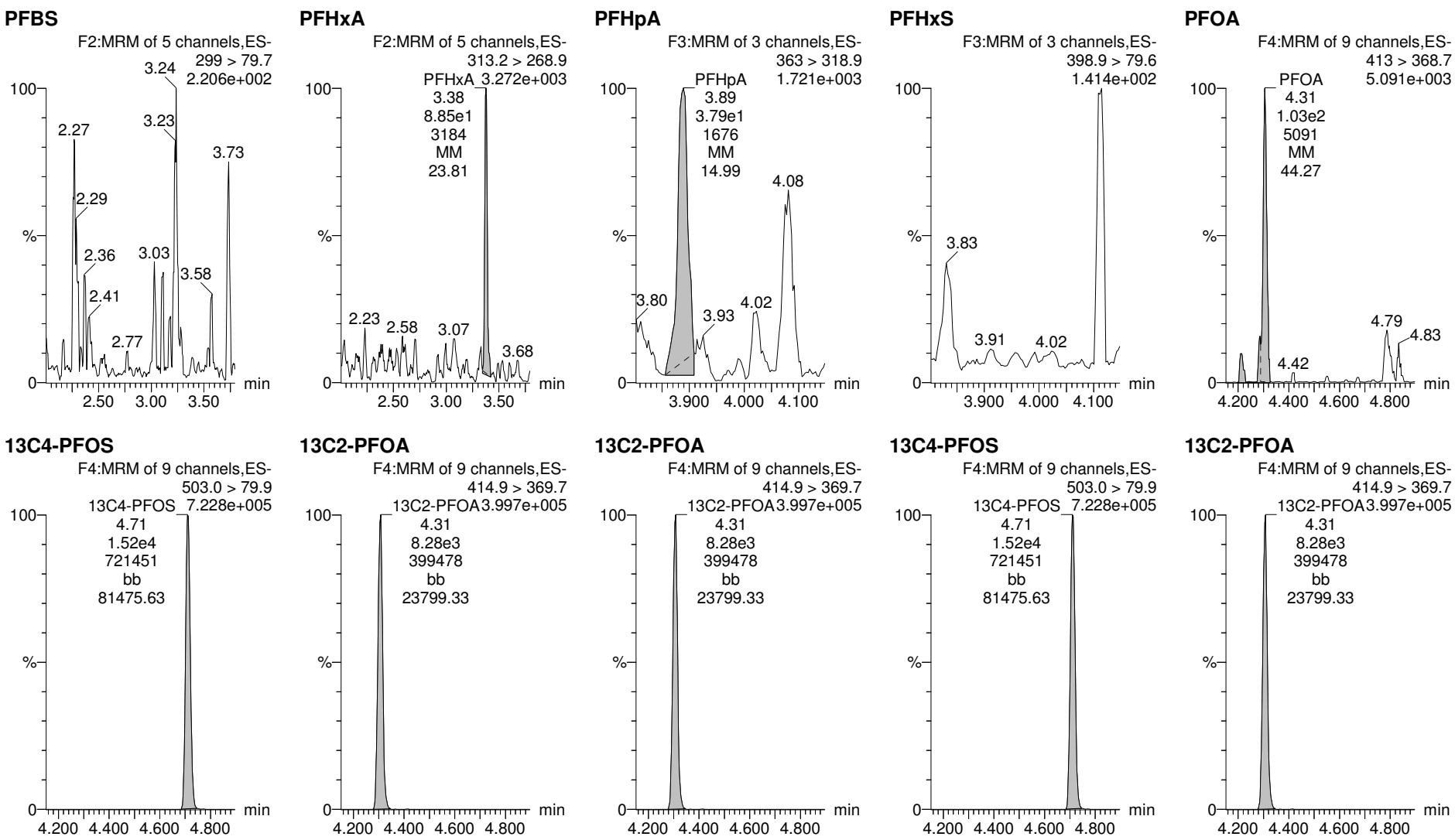
Last Altered: Monday, February 26, 2018 12:56:11 Pacific Standard Time

Printed: Monday, February 26, 2018 12:56:39 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_19, Date: 23-Feb-2018, Time: 17:00:57, ID: 1800274-01 WI-A06-RW01-0218 0.23754, Description: WI-A06-RW01-0218

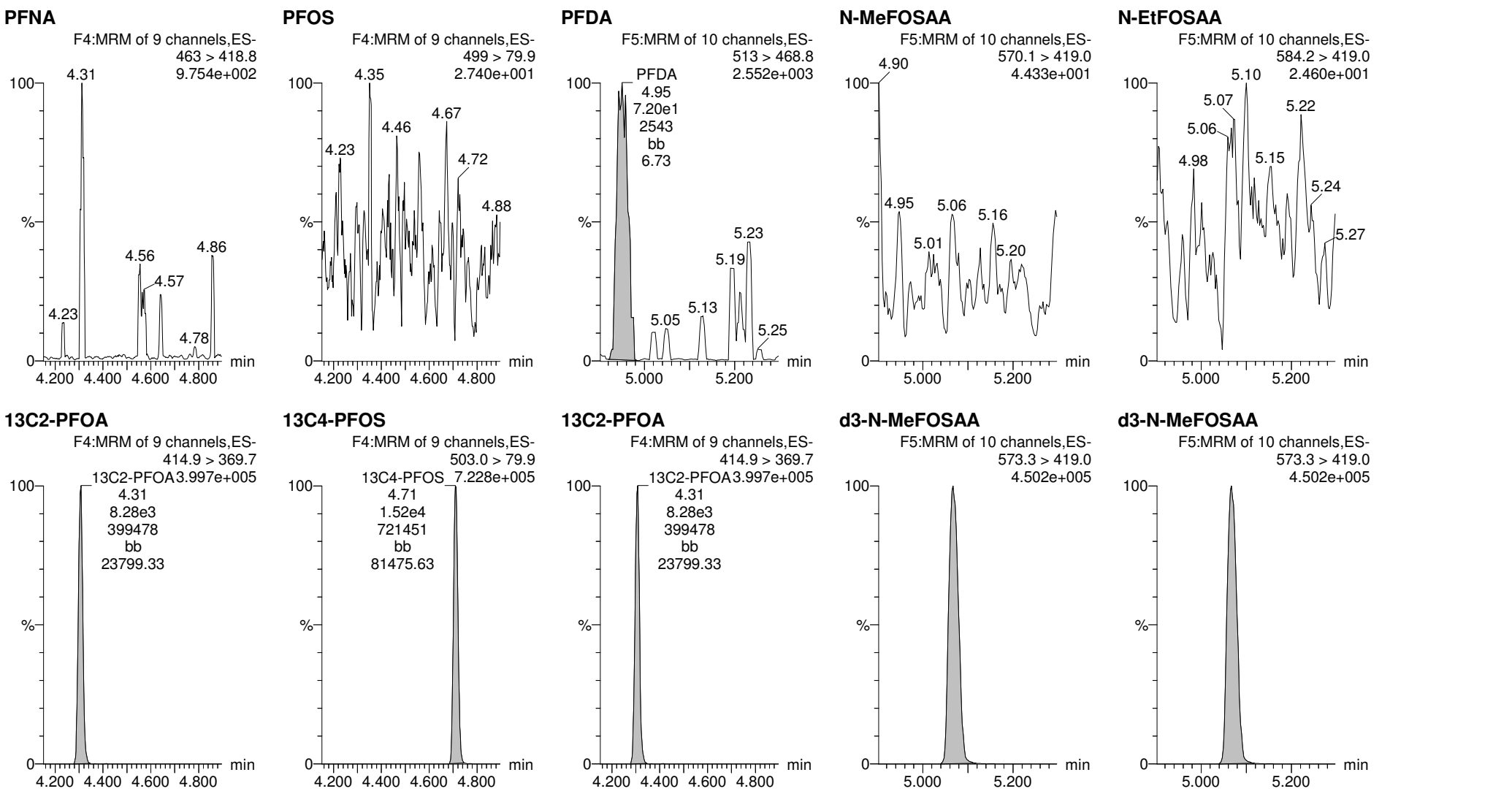


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-19.qld

Last Altered: Monday, February 26, 2018 12:56:11 Pacific Standard Time

Printed: Monday, February 26, 2018 12:56:39 Pacific Standard Time

Name: 180223G2_19, Date: 23-Feb-2018, Time: 17:00:57, ID: 1800274-01 WI-A06-RW01-0218 0.23754, Description: WI-A06-RW01-0218

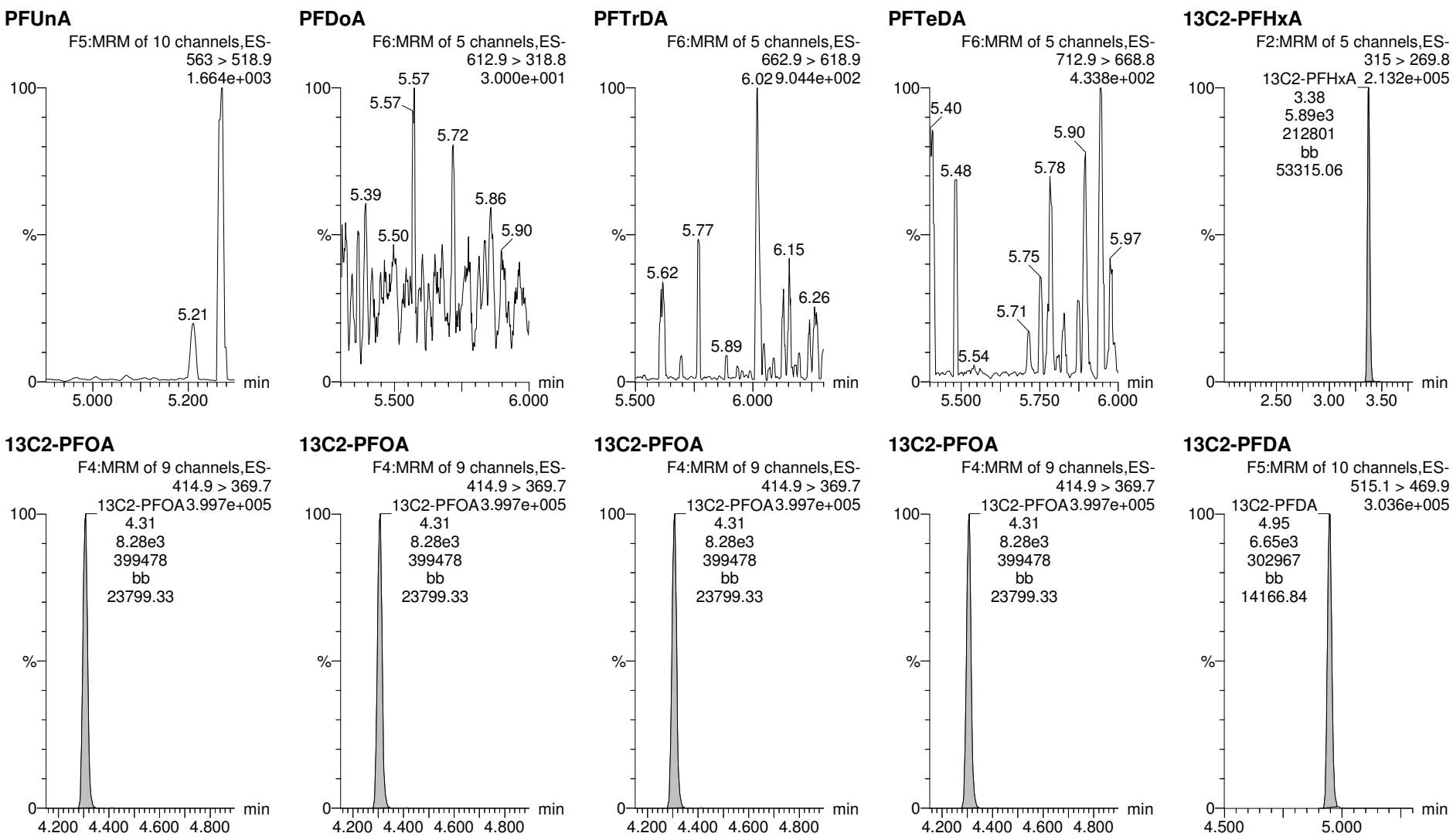


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-19.qld

Last Altered: Monday, February 26, 2018 12:56:11 Pacific Standard Time

Printed: Monday, February 26, 2018 12:56:39 Pacific Standard Time

Name: 180223G2_19, Date: 23-Feb-2018, Time: 17:00:57, ID: 1800274-01 WI-A06-RW01-0218 0.23754, Description: WI-A06-RW01-0218



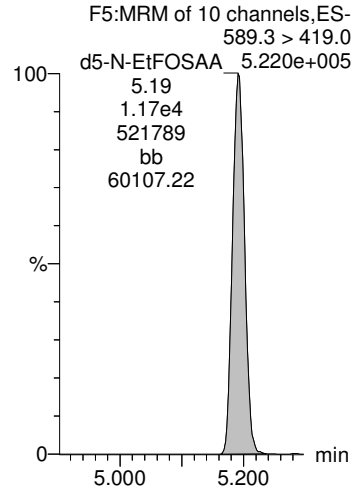
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Last Altered: Monday, February 26, 2018 12:56:11 Pacific Standard Time

Printed: Monday, February 26, 2018 12:56:39 Pacific Standard Time

Name: 180223G2_19, Date: 23-Feb-2018, Time: 17:00:57, ID: 1800274-01 WI-A06-RW01-0218 0.23754, Description: WI-A06-RW01-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-20.qld

Last Altered: Monday, February 26, 2018 12:58:51 Pacific Standard Time

Printed: Monday, February 26, 2018 12:59:03 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_20, Date: 23-Feb-2018, Time: 17:13:23, ID: 1800274-02 WI-A06-FB01-0218 0.25456, Description: WI-A06-FB01-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.54e4	0.2546		3.01				
2	2 PFHxA	313.2 > 268.9	6.48e1	8.89e3	0.2546		3.36	3.37	0.0729	0.517	
3	3 PFHpA	363 > 318.9	2.54e1	8.89e3	0.2546		3.87	3.89	0.0285	0.119	
4	4 PFHxS	398.9 > 79.6	4.55e0	1.54e4	0.2546		4.00	4.00	0.00847	0.0476	
5	5 PFOA	413 > 368.7	1.29e2	8.89e3	0.2546		4.30	4.31	0.145	0.680	
6	6 PFNA	463 > 418.8	8.51e0	8.89e3	0.2546		4.65	4.64	0.00958	0.0370	
7	7 PFOS	499 > 79.9	3.99e0	1.54e4	0.2546		4.71	4.72	0.00743	0.0304	
8	8 PFDA	513 > 468.8	4.15e1	8.89e3	0.2546		4.87	4.95	0.0467	0.165	
9	9 N-MeFOSAA	570.1 > 419.0		1.18e4	0.2546		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		1.18e4	0.2546		5.19				
11	11 PFUnA	563 > 518.9	6.64e0	8.89e3	0.2546		5.13	5.21	0.00748	0.0292	
12	12 PFDoA	612.9 > 318.8		8.89e3	0.2546		5.34				
13	13 PFTrDA	662.9 > 618.9	9.15e0	8.89e3	0.2546		5.56	5.61	0.0103	0.0294	
14	14 PFTeDA	712.9 > 668.8	6.43e0	8.89e3	0.2546		5.73	5.78	0.00724	0.0228	
15	15 13C2-PFHxA	315 > 269.8	6.57e3	8.89e3	0.2546	0.731	3.45	3.37	7.39	39.7	101.1
16	16 13C2-PFDA	515.1 > 469.9	7.93e3	8.89e3	0.2546	0.910	4.91	4.95	8.92	38.5	98.0
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.35e4	1.18e4	0.2546	1.049	5.07	5.19	45.5	170	108.5
18	18 13C2-PFOA	414.9 > 369.7	8.89e3	8.89e3	0.2546	1.000	4.41	4.30	10.0	39.3	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.54e4	1.54e4	0.2546	1.000	4.81	4.71	28.7	113	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.18e4	1.18e4	0.2546	1.000	5.16	5.07	40.0	157	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-20.qld

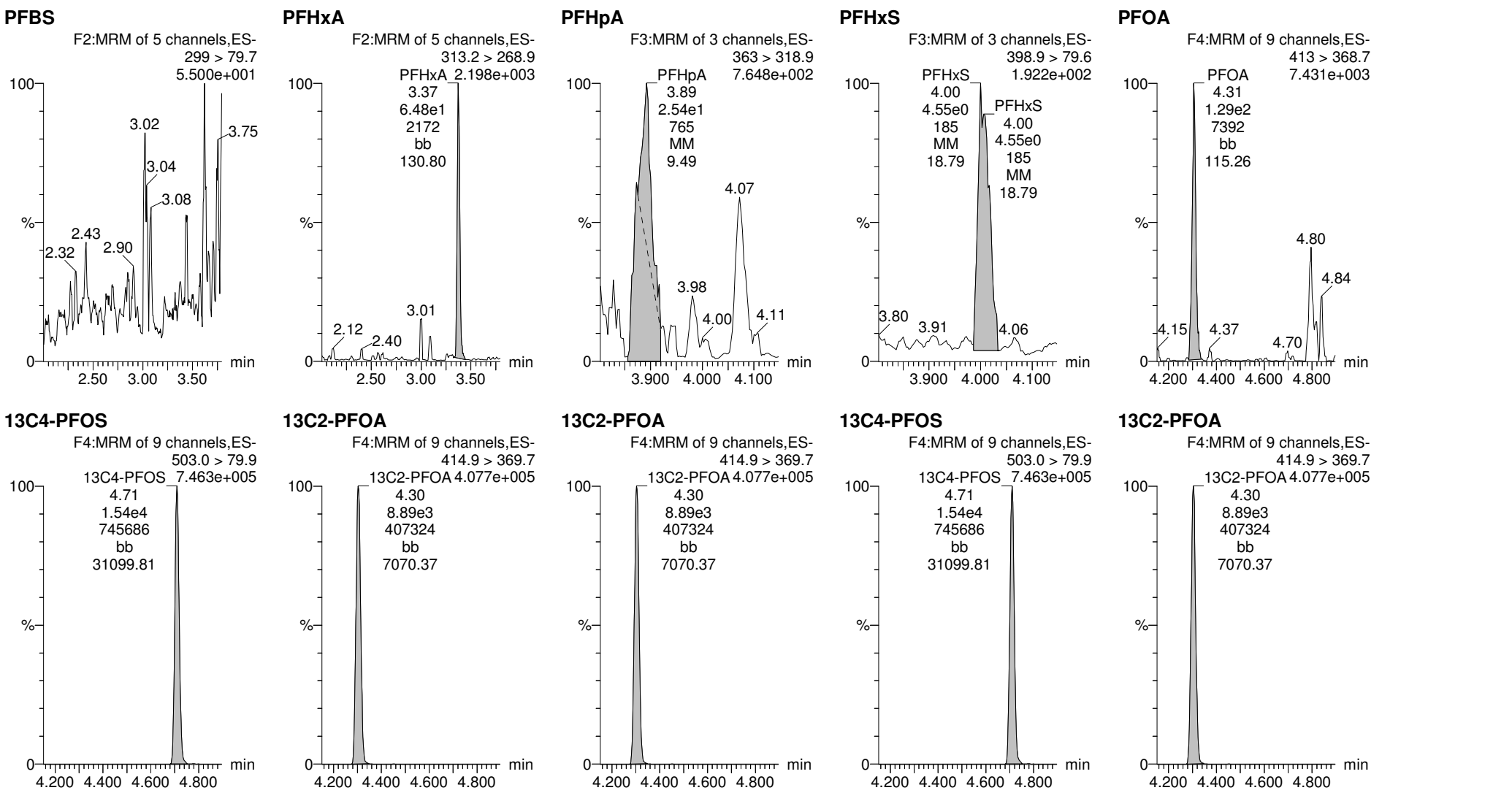
Last Altered: Monday, February 26, 2018 12:58:51 Pacific Standard Time

Printed: Monday, February 26, 2018 12:59:03 Pacific Standard Time

Rev'd: MM 2/26/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_20, Date: 23-Feb-2018, Time: 17:13:23, ID: 1800274-02 WI-A06-FB01-0218 0.25456, Description: WI-A06-FB01-0218

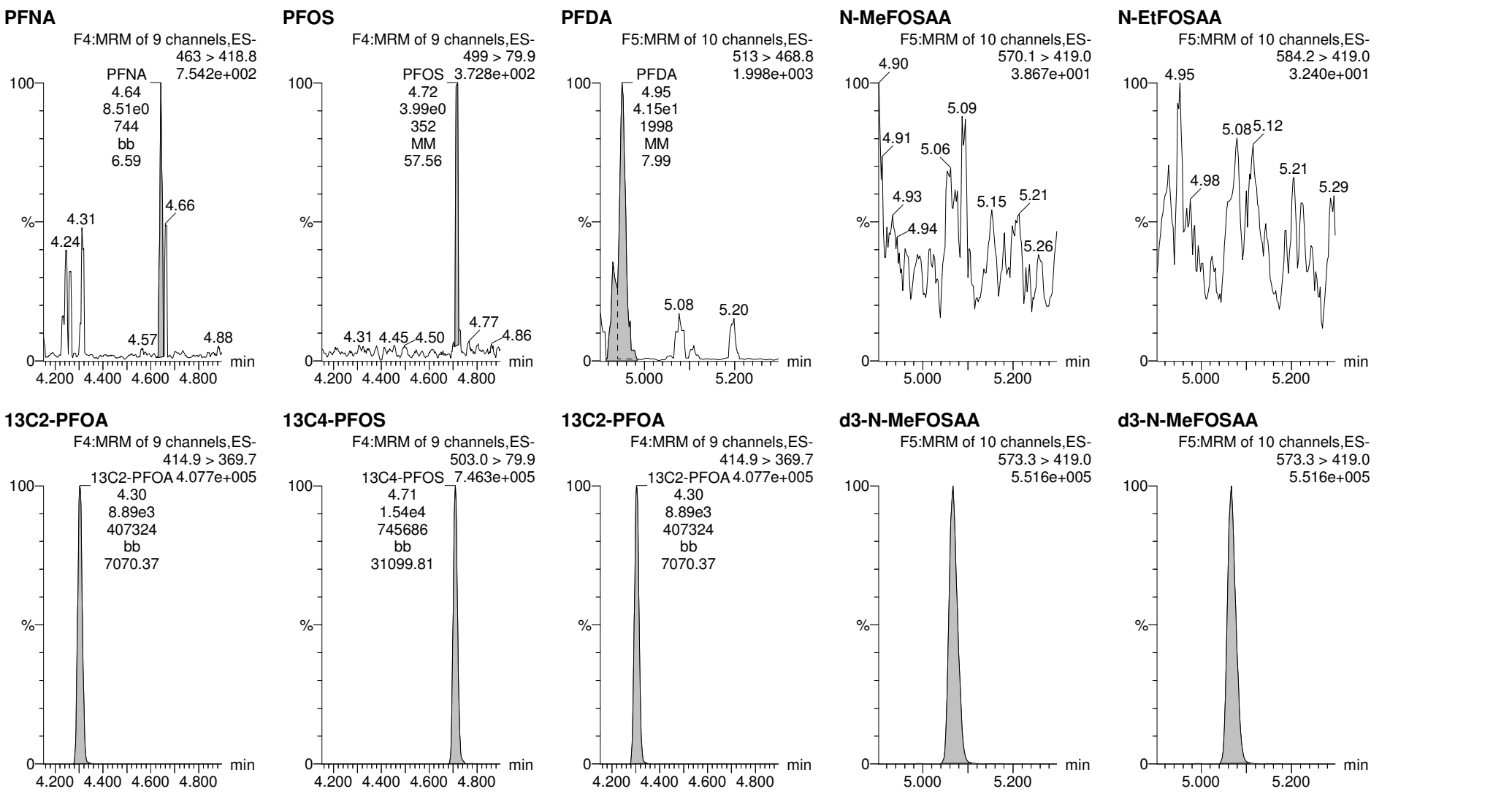


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Last Altered: Monday, February 26, 2018 12:58:51 Pacific Standard Time

Printed: Monday, February 26, 2018 12:59:03 Pacific Standard Time

Name: 180223G2_20, Date: 23-Feb-2018, Time: 17:13:23, ID: 1800274-02 WI-A06-FB01-0218 0.25456, Description: WI-A06-FB01-0218

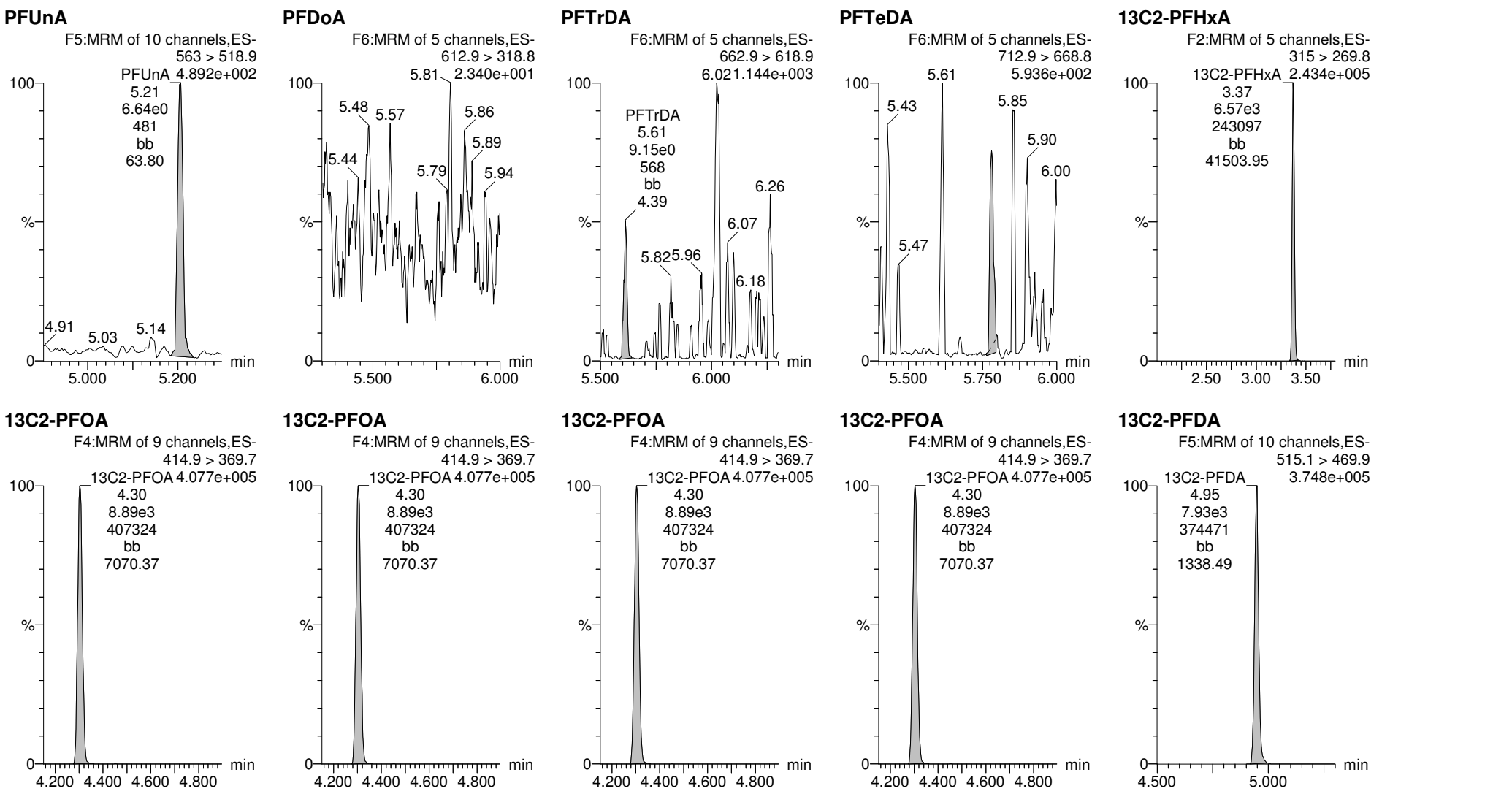


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Last Altered: Monday, February 26, 2018 12:58:51 Pacific Standard Time

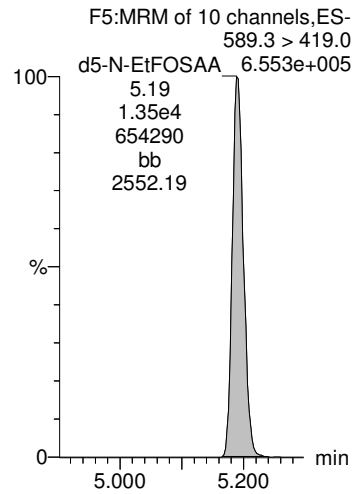
Printed: Monday, February 26, 2018 12:59:03 Pacific Standard Time

Name: 180223G2_20, Date: 23-Feb-2018, Time: 17:13:23, ID: 1800274-02 WI-A06-FB01-0218 0.25456, Description: WI-A06-FB01-0218



Name: 180223G2_20, Date: 23-Feb-2018, Time: 17:13:23, ID: 1800274-02 WI-A06-FB01-0218 0.25456, Description: WI-A06-FB01-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-21.qld

Last Altered: Monday, February 26, 2018 13:00:16 Pacific Standard Time

Printed: Monday, February 26, 2018 13:00:44 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_21, Date: 23-Feb-2018, Time: 17:25:43, ID: 1800274-03 WI-A06-RW02-0218 0.24872, Description: WI-A06-RW02-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.63e1	1.55e4	0.2487		3.01	3.02	0.0486	0.267	
2	2 PFHxA	313.2 > 268.9	1.06e2	8.26e3	0.2487		3.36	3.38	0.128	0.929	
3	3 PFHpA	363 > 318.9	3.87e1	8.26e3	0.2487		3.87	3.89	0.0469	0.200	
4	4 PFHxS	398.9 > 79.6	1.23e2	1.55e4	0.2487		4.00	4.01	0.228	1.31	
5	5 PFOA	413 > 368.7	7.59e1	8.26e3	0.2487		4.31	4.31	0.0919	0.441	
6	6 PFNA	463 > 418.8	9.59e0	8.26e3	0.2487		4.65	4.65	0.0116	0.0459	
7	7 PFOS	499 > 79.9		1.55e4	0.2487		4.71				
8	8 PFDA	513 > 468.8	6.93e1	8.26e3	0.2487		4.88	4.95	0.0839	0.304	
9	9 N-MeFOSAA	570.1 > 419.0		1.14e4	0.2487		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		1.14e4	0.2487		5.19				
11	11 PFUnA	563 > 518.9	7.77e0	8.26e3	0.2487		5.14	5.21	0.00941	0.0377	
12	12 PFDoA	612.9 > 318.8		8.26e3	0.2487		5.34				
13	13 PFTTrDA	662.9 > 618.9		8.26e3	0.2487		5.57				
14	14 PFTeDA	712.9 > 668.8		8.26e3	0.2487		5.74				
15	15 13C2-PFHxA	315 > 269.8	6.09e3	8.26e3	0.2487	0.731	3.45	3.38	7.38	40.6	100.9
16	16 13C2-PFDA	515.1 > 469.9	6.71e3	8.26e3	0.2487	0.910	4.91	4.95	8.12	35.9	89.3
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.08e4	1.14e4	0.2487	1.049	5.07	5.19	38.1	146	90.7
18	18 13C2-PFOA	414.9 > 369.7	8.26e3	8.26e3	0.2487	1.000	4.41	4.31	10.0	40.2	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.55e4	1.55e4	0.2487	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.14e4	1.14e4	0.2487	1.000	5.16	5.07	40.0	161	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-21.qld

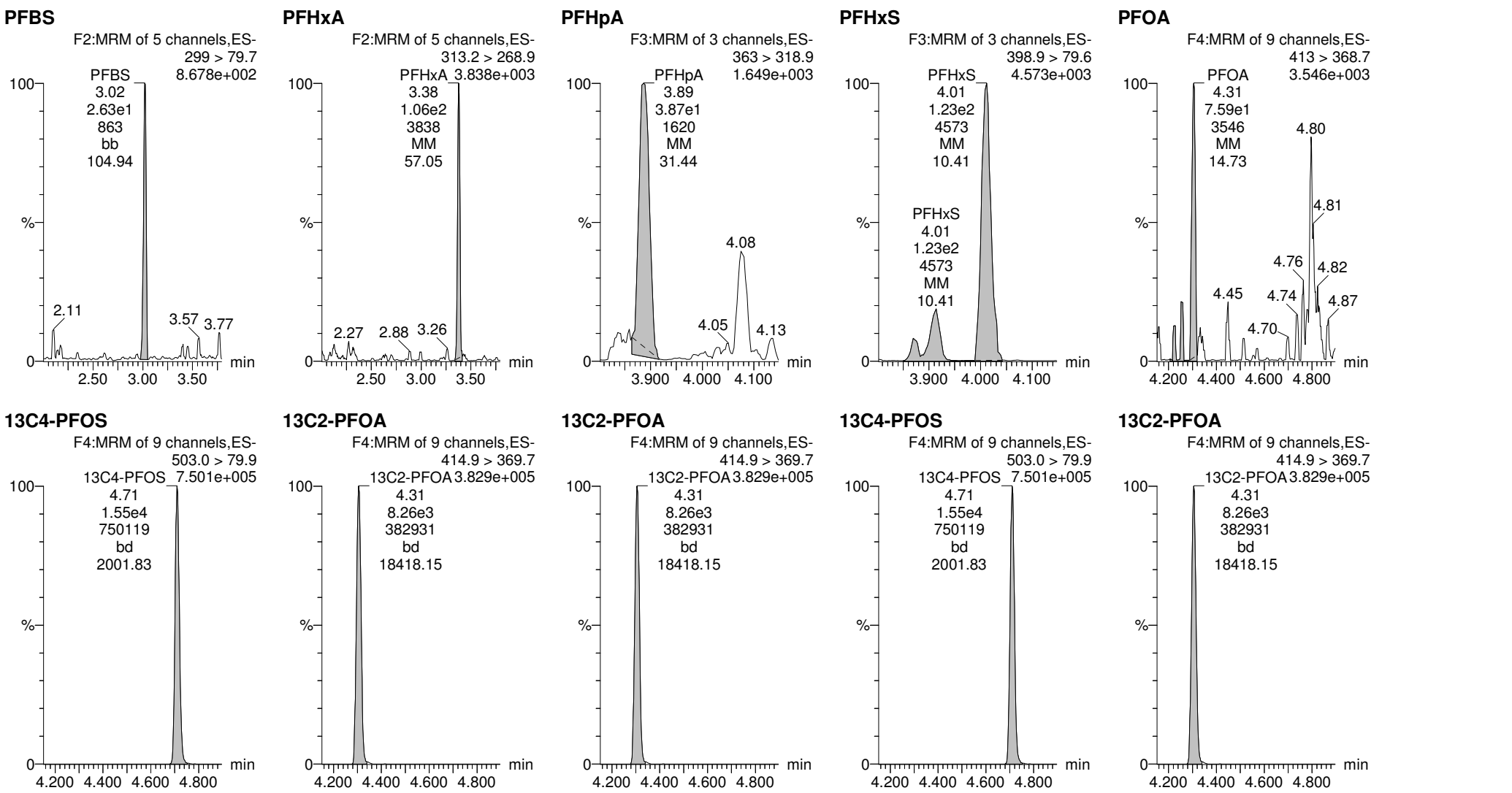
Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:00:16 Pacific Standard Time

Printed: Monday, February 26, 2018 13:00:44 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_21, Date: 23-Feb-2018, Time: 17:25:43, ID: 1800274-03 WI-A06-RW02-0218 0.24872, Description: WI-A06-RW02-0218



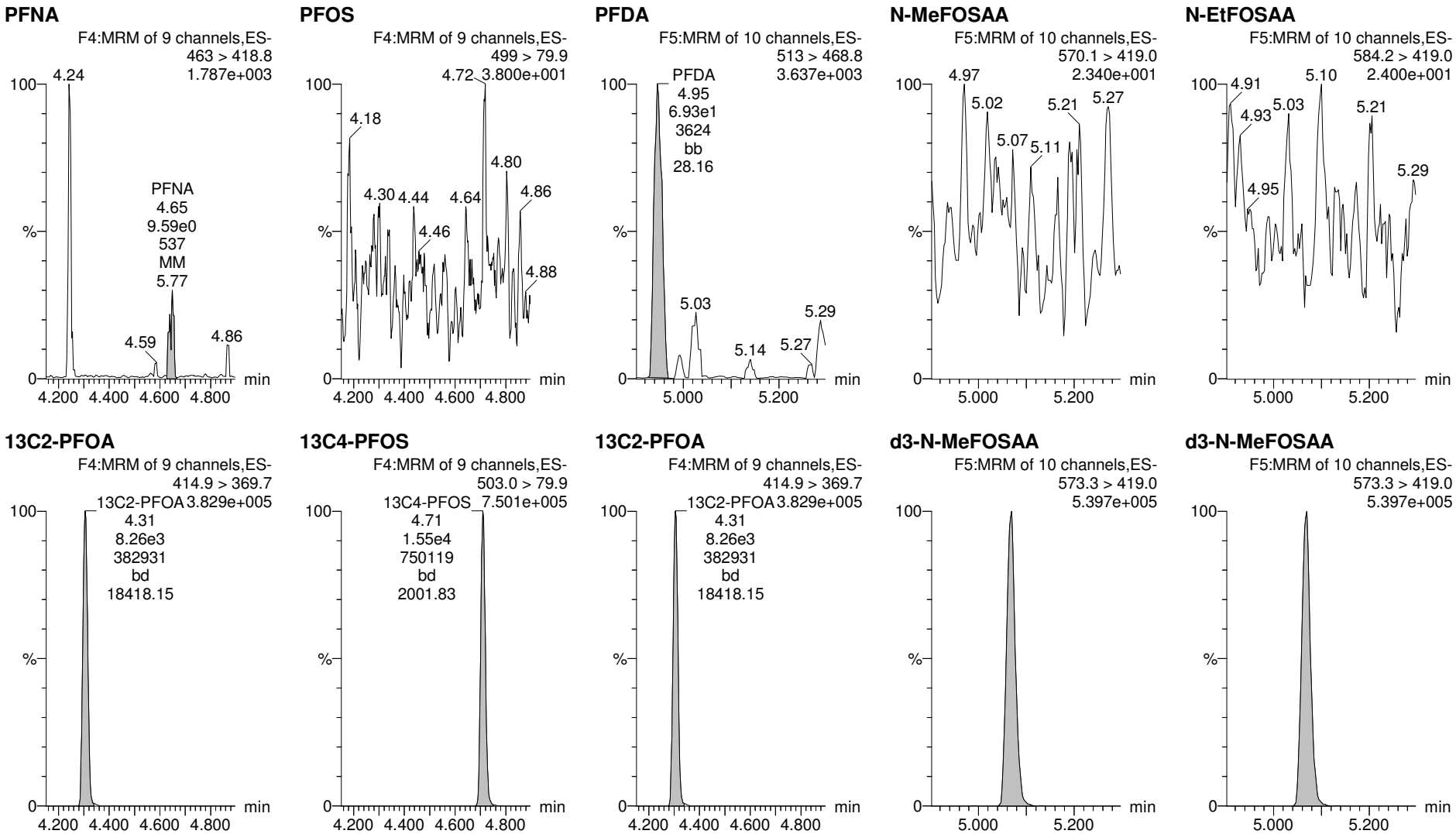
Rev'd: MM 2/26/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-21.qld

Last Altered: Monday, February 26, 2018 13:00:16 Pacific Standard Time

Printed: Monday, February 26, 2018 13:00:44 Pacific Standard Time

Name: 180223G2_21, Date: 23-Feb-2018, Time: 17:25:43, ID: 1800274-03 WI-A06-RW02-0218 0.24872, Description: WI-A06-RW02-0218

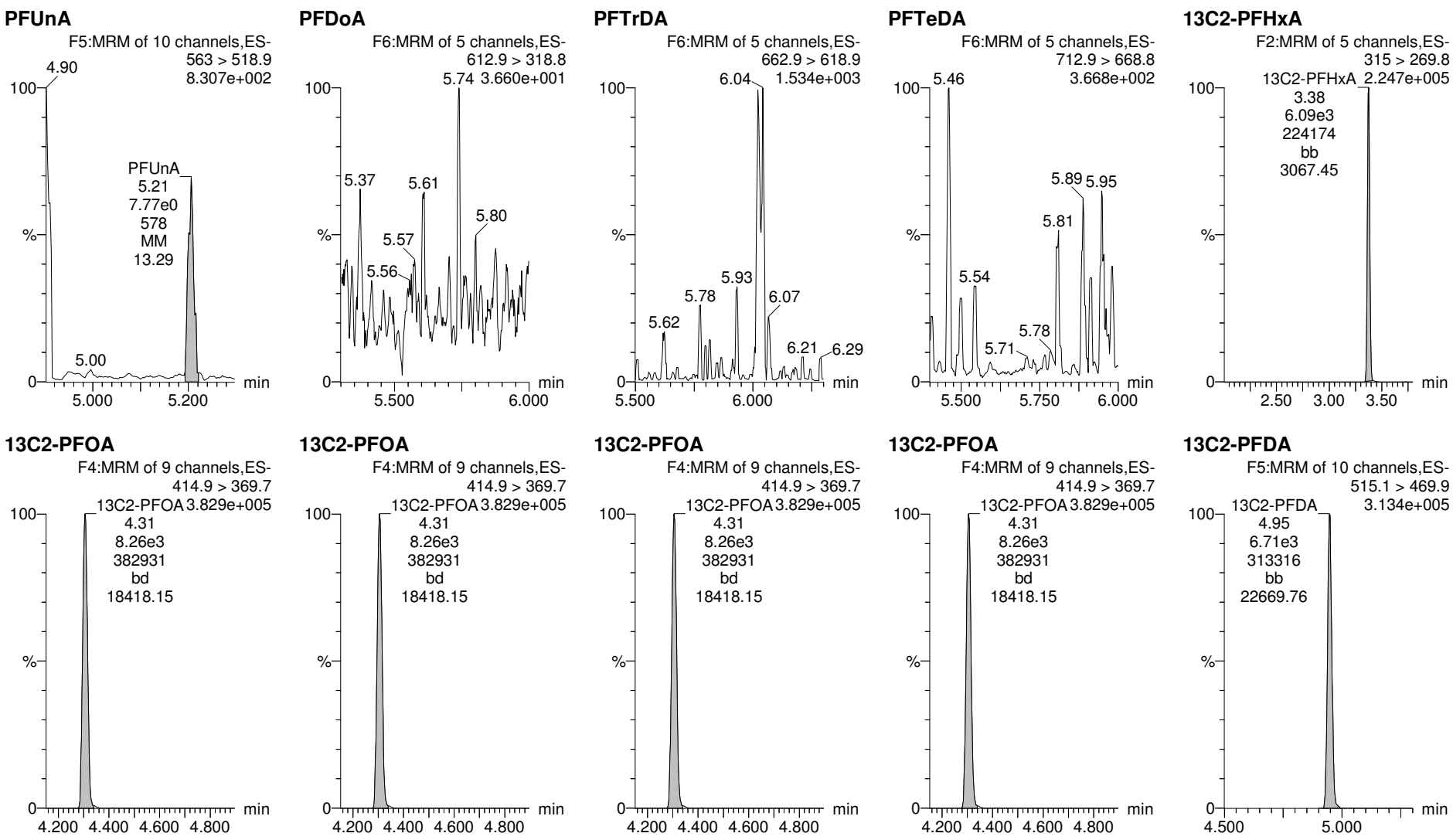


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-21.qld

Last Altered: Monday, February 26, 2018 13:00:16 Pacific Standard Time

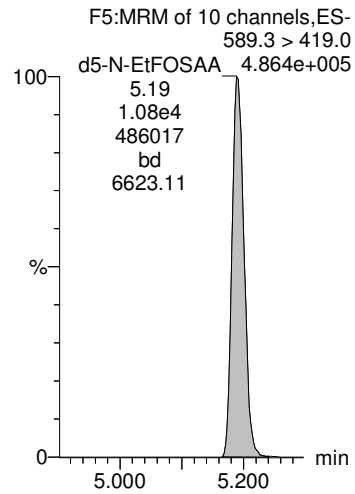
Printed: Monday, February 26, 2018 13:00:44 Pacific Standard Time

Name: 180223G2_21, Date: 23-Feb-2018, Time: 17:25:43, ID: 1800274-03 WI-A06-RW02-0218 0.24872, Description: WI-A06-RW02-0218



Name: 180223G2_21, Date: 23-Feb-2018, Time: 17:25:43, ID: 1800274-03 WI-A06-RW02-0218 0.24872, Description: WI-A06-RW02-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-22.qld

Last Altered: Monday, February 26, 2018 13:03:06 Pacific Standard Time

Printed: Monday, February 26, 2018 13:03:25 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_22, Date: 23-Feb-2018, Time: 17:38:08, ID: 1800274-04 WI-A06-FB02-0218 0.24674, Description: WI-A06-FB02-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.73e4	0.2467		3.02				
2	2 PFHxA	313.2 > 268.9	6.15e1	9.38e3	0.2467		3.36	3.37	0.0656	0.480	
3	3 PFHpA	363 > 318.9	1.84e1	9.38e3	0.2467		3.87	3.89	0.0196	0.0843	
4	4 PFHxS	398.9 > 79.6	2.76e0	1.73e4	0.2467		4.00	4.02	0.00457	0.0265	
5	5 PFOA	413 > 368.7	1.06e2	9.38e3	0.2467		4.31	4.31	0.113	0.547	
6	6 PFNA	463 > 418.8	7.04e0	9.38e3	0.2467		4.65	4.65	0.00750	0.0299	
7	7 PFOS	499 > 79.9		1.73e4	0.2467		4.71				
8	8 PFDA	513 > 468.8	9.07e1	9.38e3	0.2467		4.88	4.95	0.0967	0.353	
9	9 N-MeFOSAA	570.1 > 419.0	5.29e0	1.12e4	0.2467		5.01	5.07	0.0189	0.0585	
10	10 N-EtFOSAA	584.2 > 419.0		1.12e4	0.2467		5.19				
11	11 PFUnA	563 > 518.9		9.38e3	0.2467		5.14				
12	12 PFDoA	612.9 > 318.8		9.38e3	0.2467		5.34				
13	13 PFTrDA	662.9 > 618.9		9.38e3	0.2467		5.57				
14	14 PFTeDA	712.9 > 668.8		9.38e3	0.2467		5.74				
15	15 13C2-PFHxA	315 > 269.8	6.46e3	9.38e3	0.2467	0.731	3.45	3.37	6.89	38.2	94.2
16	16 13C2-PFDA	515.1 > 469.9	7.61e3	9.38e3	0.2467	0.910	4.91	4.95	8.11	36.1	89.1
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.13e4	1.12e4	0.2467	1.049	5.07	5.19	40.6	157	96.7
18	18 13C2-PFOA	414.9 > 369.7	9.38e3	9.38e3	0.2467	1.000	4.41	4.31	10.0	40.5	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.73e4	1.73e4	0.2467	1.000	4.81	4.71	28.7	116	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.12e4	1.12e4	0.2467	1.000	5.16	5.07	40.0	162	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-22.qld

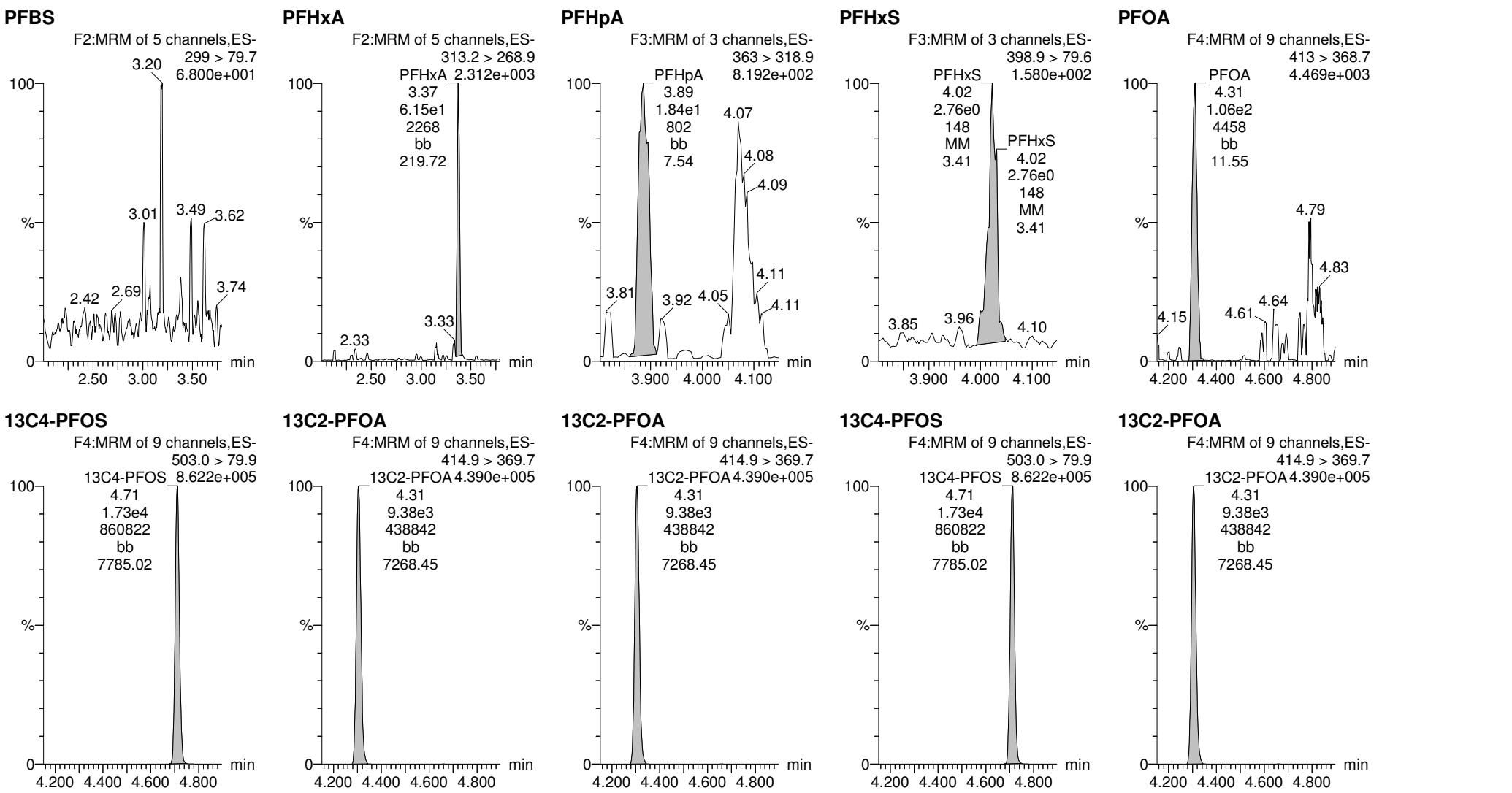
Last Altered: Monday, February 26, 2018 13:03:06 Pacific Standard Time

Printed: Monday, February 26, 2018 13:03:25 Pacific Standard Time

Rev'd: MM 2/26/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_22, Date: 23-Feb-2018, Time: 17:38:08, ID: 1800274-04 WI-A06-FB02-0218 0.24674, Description: WI-A06-FB02-0218



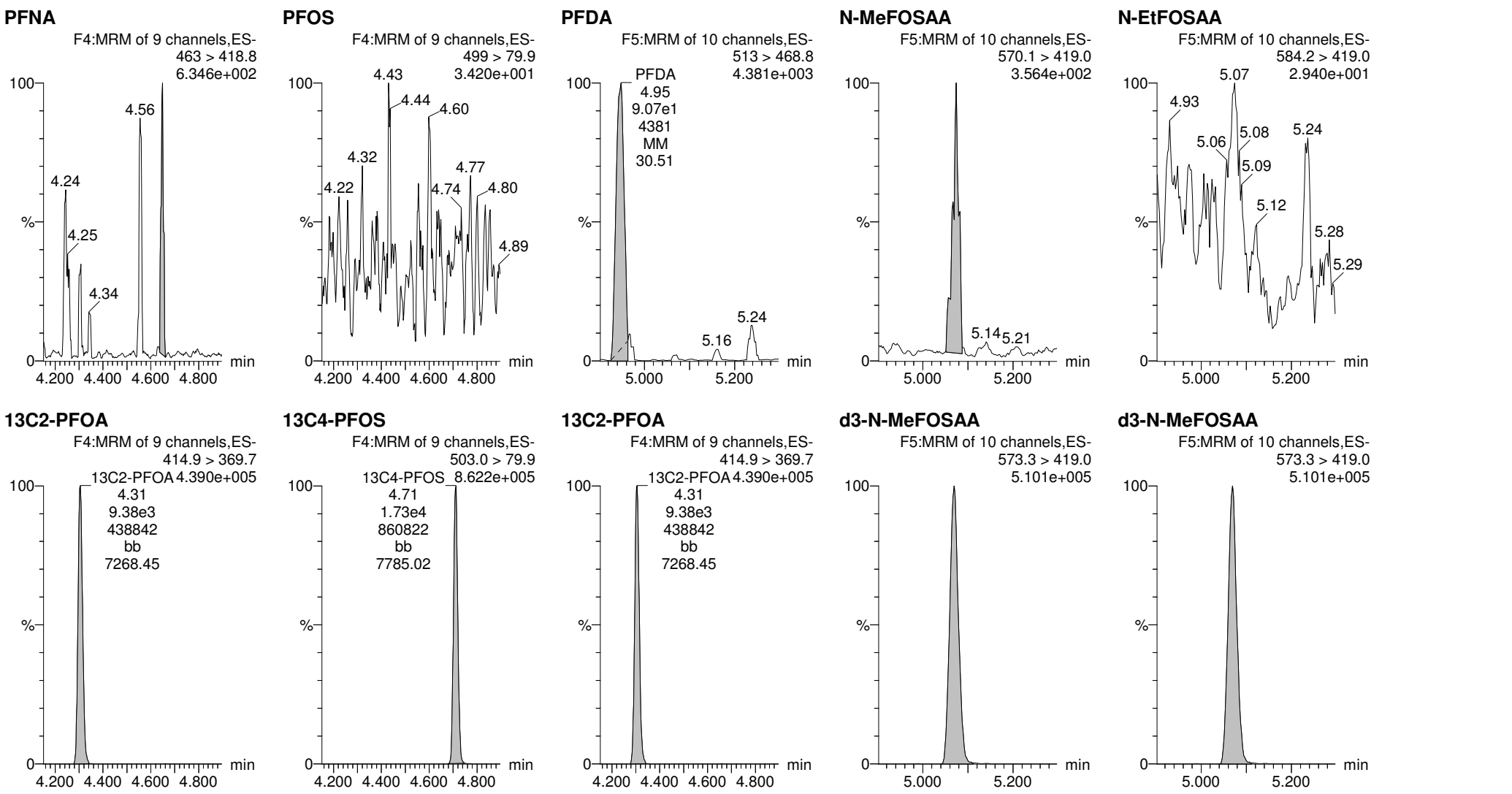
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Last Altered: Monday, February 26, 2018 13:03:06 Pacific Standard Time

Printed: Monday, February 26, 2018 13:03:25 Pacific Standard Time

Rev'd: MM 2/26/2018

Name: 180223G2_22, Date: 23-Feb-2018, Time: 17:38:08, ID: 1800274-04 WI-A06-FB02-0218 0.24674, Description: WI-A06-FB02-0218

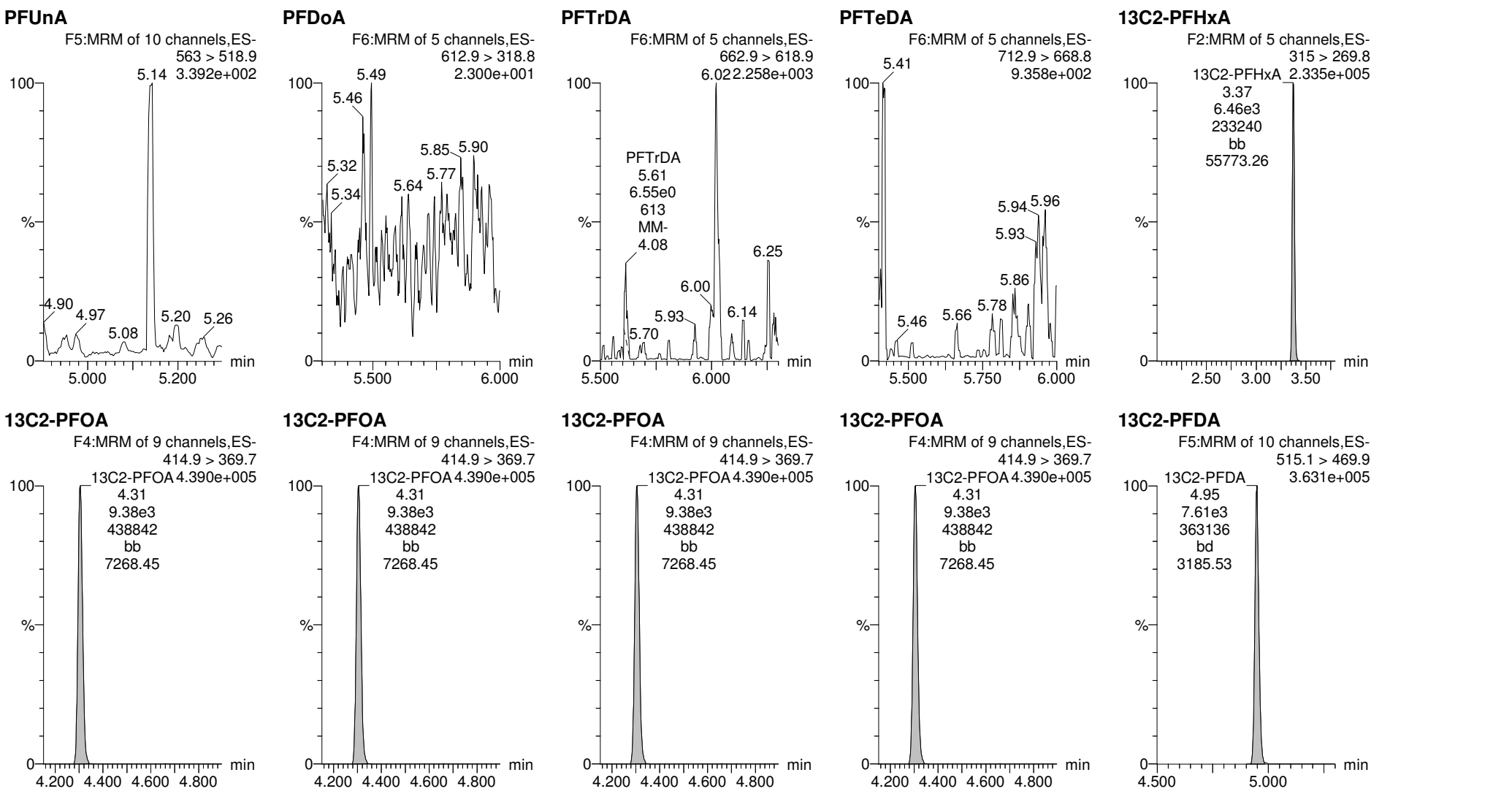


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Last Altered: Monday, February 26, 2018 13:03:06 Pacific Standard Time

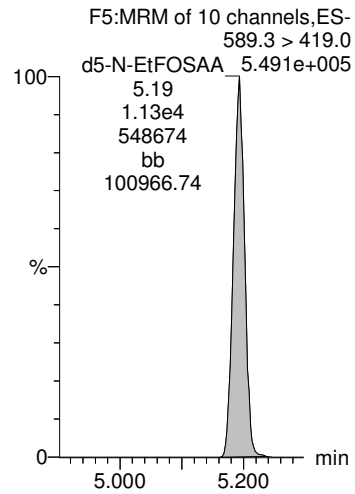
Printed: Monday, February 26, 2018 13:03:25 Pacific Standard Time

Name: 180223G2_22, Date: 23-Feb-2018, Time: 17:38:08, ID: 1800274-04 WI-A06-FB02-0218 0.24674, Description: WI-A06-FB02-0218



Name: 180223G2_22, Date: 23-Feb-2018, Time: 17:38:08, ID: 1800274-04 WI-A06-FB02-0218 0.24674, Description: WI-A06-FB02-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-23.qld

Last Altered: Monday, February 26, 2018 09:44:38 Pacific Standard Time

Printed: Monday, February 26, 2018 09:45:21 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_23, Date: 23-Feb-2018, Time: 17:50:33, ID: 1800274-05 WI-A06-RW03-0218 0.2459, Description: WI-A06-RW03-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	4.04e3	1.54e4	0.2459		3.01	3.01	7.51	41.8	
2	2 PFHxA	313.2 > 268.9	6.16e3	8.13e3	0.2459		3.36	3.37	7.58	55.7	
3	3 PFHpA	363 > 318.9	3.74e3	8.13e3	0.2459		3.87	3.89	4.61	19.9	
4	4 PFHxS	398.9 > 79.6	9.95e3	1.54e4	0.2459		4.00	4.01	18.5	108	
5	5 PFOA	413 > 368.7	4.67e3	8.13e3	0.2459		4.30	4.31	5.75	27.9	
6	6 PFNA	463 > 418.8	4.99e1	8.13e3	0.2459		4.65	4.64	0.0614	0.246	
7	7 PFOS	499 > 79.9	9.63e2	1.54e4	0.2459		4.71	4.71	1.79	7.59	
8	8 PFDA	513 > 468.8	9.14e1	8.13e3	0.2459		4.87	4.94	0.112	0.412	
9	9 N-MeFOSAA	570.1 > 419.0		1.08e4	0.2459		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		1.08e4	0.2459		5.19				
11	11 PFUnA	563 > 518.9	1.44e0	8.13e3	0.2459		5.13	5.19	0.00178	0.00719	
12	12 PFDoA	612.9 > 318.8		8.13e3	0.2459		5.34				
13	13 PFTTrDA	662.9 > 618.9		8.13e3	0.2459		5.56				
14	14 PFTeDA	712.9 > 668.8		8.13e3	0.2459		5.73				
15	15 13C2-PFHxA	315 > 269.8	6.45e3	8.13e3	0.2459	0.731	3.45	3.37	7.94	44.1	108.5
16	16 13C2-PFDA	515.1 > 469.9	6.41e3	8.13e3	0.2459	0.910	4.91	4.95	7.88	35.2	86.7
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.19e4	1.08e4	0.2459	1.049	5.07	5.19	43.9	170	104.6
18	18 13C2-PFOA	414.9 > 369.7	8.13e3	8.13e3	0.2459	1.000	4.41	4.30	10.0	40.7	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.54e4	1.54e4	0.2459	1.000	4.81	4.71	28.7	117	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.08e4	1.08e4	0.2459	1.000	5.16	5.07	40.0	163	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-23.qld

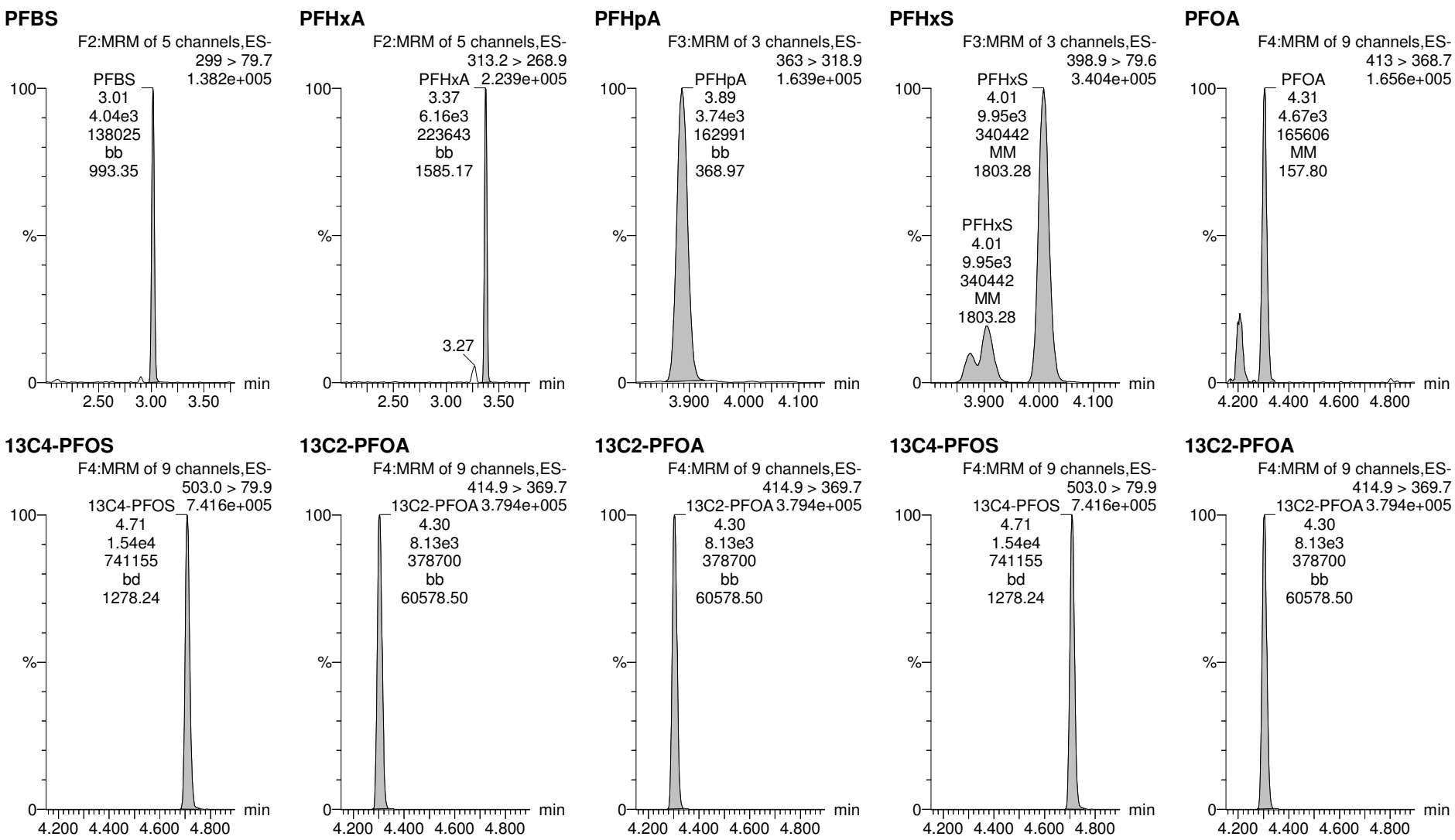
Last Altered: Monday, February 26, 2018 09:44:38 Pacific Standard Time

Printed: Monday, February 26, 2018 09:45:21 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_23, Date: 23-Feb-2018, Time: 17:50:33, ID: 1800274-05 WI-A06-RW03-0218 0.2459, Description: WI-A06-RW03-0218



Vista Analytical Laboratory

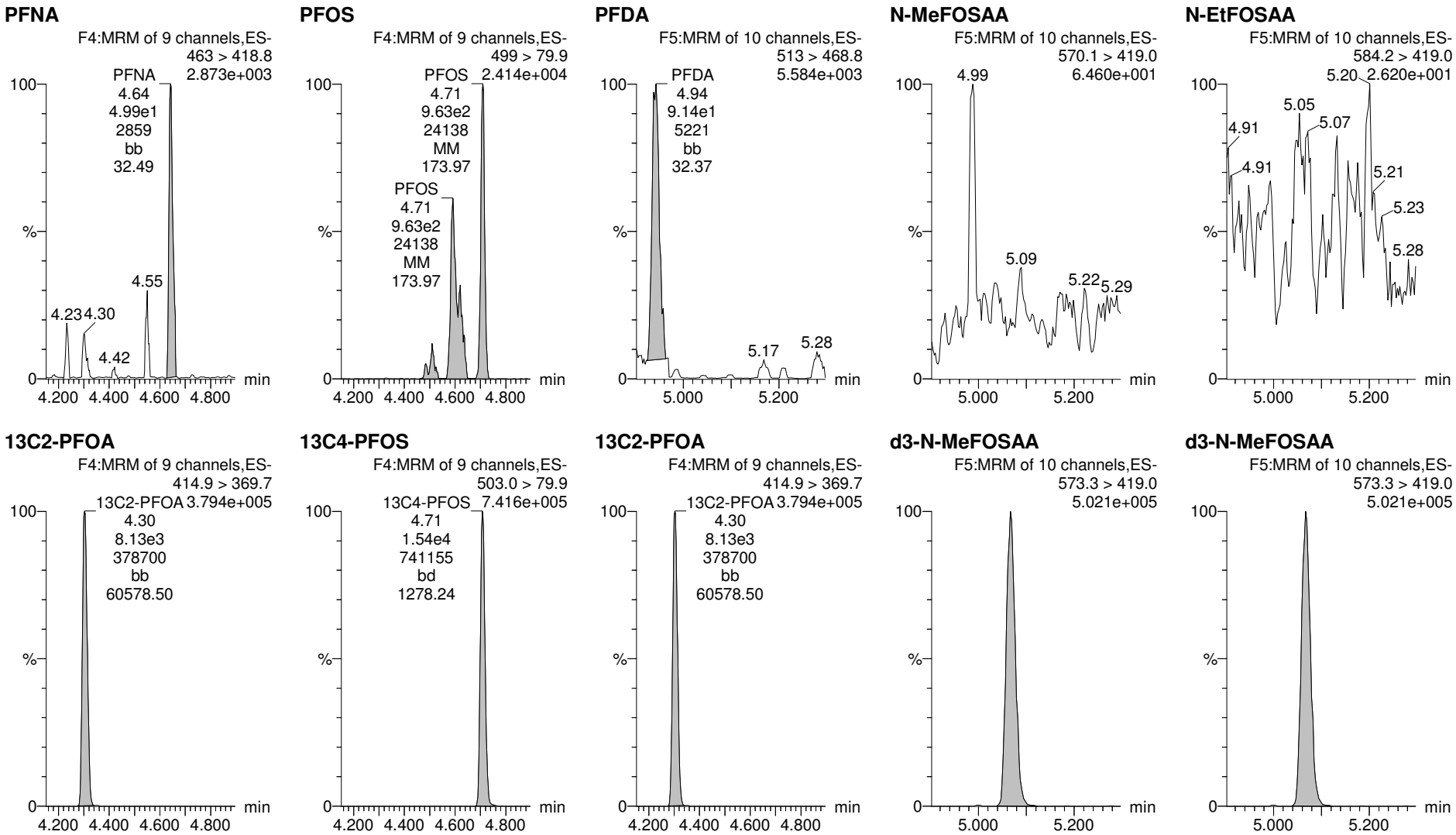
Rev'd: MM 2/26/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-23.qld

Last Altered: Monday, February 26, 2018 09:44:38 Pacific Standard Time

Printed: Monday, February 26, 2018 09:45:21 Pacific Standard Time

Name: 180223G2_23, Date: 23-Feb-2018, Time: 17:50:33, ID: 1800274-05 WI-A06-RW03-0218 0.2459, Description: WI-A06-RW03-0218

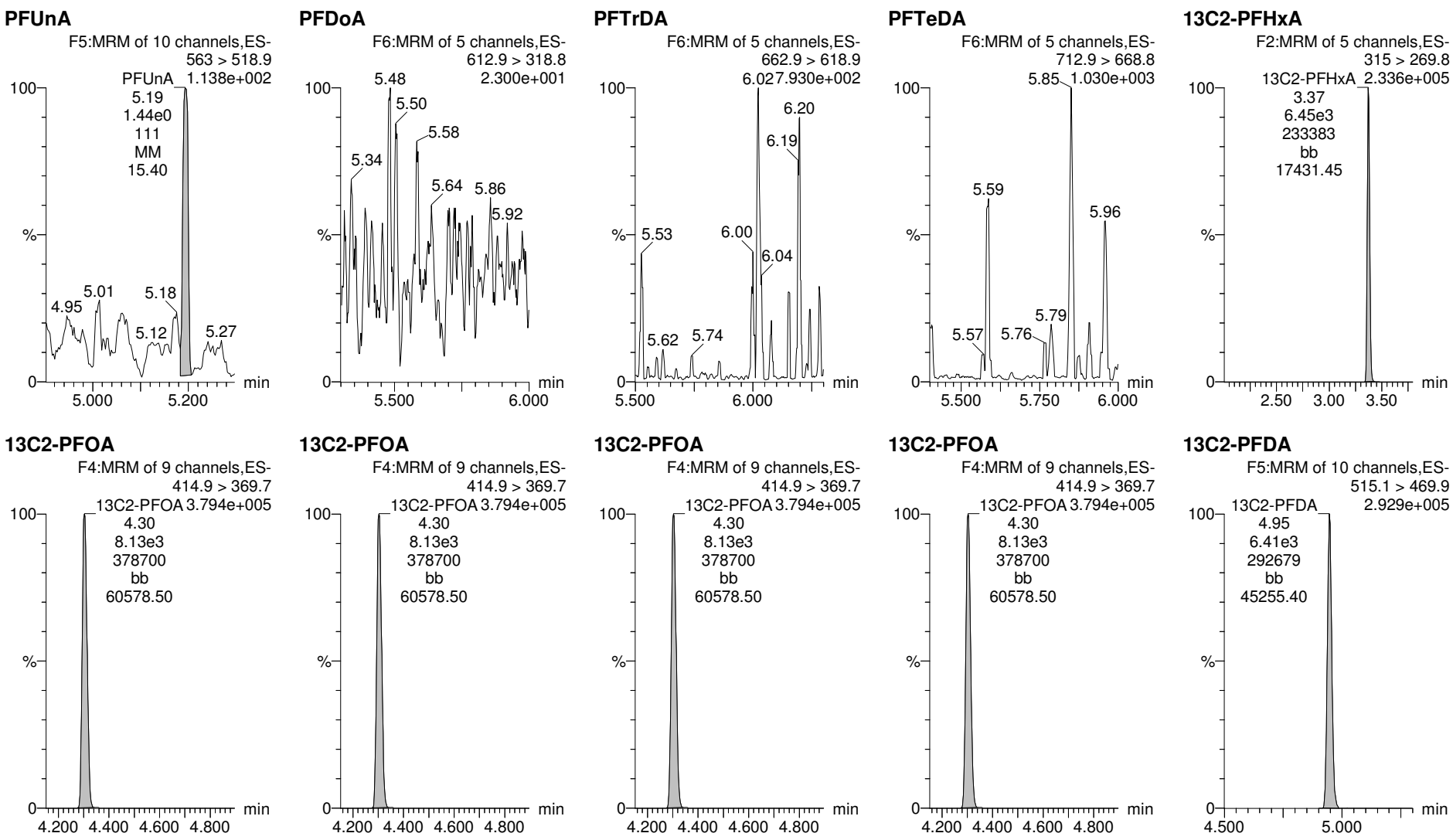


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Last Altered: Monday, February 26, 2018 09:44:38 Pacific Standard Time

Printed: Monday, February 26, 2018 09:45:21 Pacific Standard Time

Name: 180223G2_23, Date: 23-Feb-2018, Time: 17:50:33, ID: 1800274-05 WI-A06-RW03-0218 0.2459, Description: WI-A06-RW03-0218



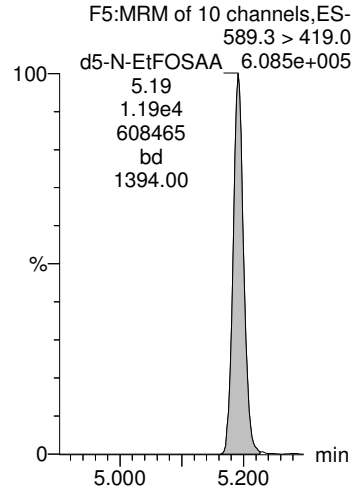
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Last Altered: Monday, February 26, 2018 09:44:38 Pacific Standard Time

Printed: Monday, February 26, 2018 09:45:21 Pacific Standard Time

Name: 180223G2_23, Date: 23-Feb-2018, Time: 17:50:33, ID: 1800274-05 WI-A06-RW03-0218 0.2459, Description: WI-A06-RW03-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-24.qld

Last Altered: Monday, February 26, 2018 13:04:11 Pacific Standard Time

Printed: Monday, February 26, 2018 13:04:37 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_24, Date: 23-Feb-2018, Time: 18:02:58, ID: 1800274-06 WI-A06-FB03-0218 0.25441, Description: WI-A06-FB03-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.54e4	0.2544		3.01				
2	2 PFHxA	313.2 > 268.9	9.06e1	8.71e3	0.2544		3.36	3.37	0.104	0.739	
3	3 PFHpA	363 > 318.9	2.06e1	8.71e3	0.2544		3.87	3.89	0.0237	0.0990	
4	4 PFHxS	398.9 > 79.6	4.55e0	1.54e4	0.2544		4.00	4.02	0.00850	0.0478	
5	5 PFOA	413 > 368.7	1.05e2	8.71e3	0.2544		4.31	4.31	0.120	0.564	
6	6 PFNA	463 > 418.8		8.71e3	0.2544		4.65				
7	7 PFOS	499 > 79.9		1.54e4	0.2544		4.71				
8	8 PFDA	513 > 468.8	6.30e1	8.71e3	0.2544		4.88	4.95	0.0724	0.256	
9	9 N-MeFOSAA	570.1 > 419.0		1.15e4	0.2544		5.00				
10	10 N-EtFOSAA	584.2 > 419.0		1.15e4	0.2544		5.18				
11	11 PFUnA	563 > 518.9	8.04e0	8.71e3	0.2544		5.14	5.20	0.00923	0.0361	
12	12 PFDoA	612.9 > 318.8		8.71e3	0.2544		5.34				
13	13 PFTTrDA	662.9 > 618.9		8.71e3	0.2544		5.57				
14	14 PFTeDA	712.9 > 668.8		8.71e3	0.2544		5.74				
15	15 13C2-PFHxA	315 > 269.8	6.52e3	8.71e3	0.2544	0.731	3.45	3.38	7.49	40.2	102.4
16	16 13C2-PFDA	515.1 > 469.9	6.80e3	8.71e3	0.2544	0.910	4.91	4.95	7.80	33.7	85.8
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.15e4	1.15e4	0.2544	1.049	5.06	5.19	39.8	149	94.8
18	18 13C2-PFOA	414.9 > 369.7	8.71e3	8.71e3	0.2544	1.000	4.41	4.31	10.0	39.3	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.54e4	1.54e4	0.2544	1.000	4.81	4.71	28.7	113	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.15e4	1.15e4	0.2544	1.000	5.16	5.06	40.0	157	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-24.qld

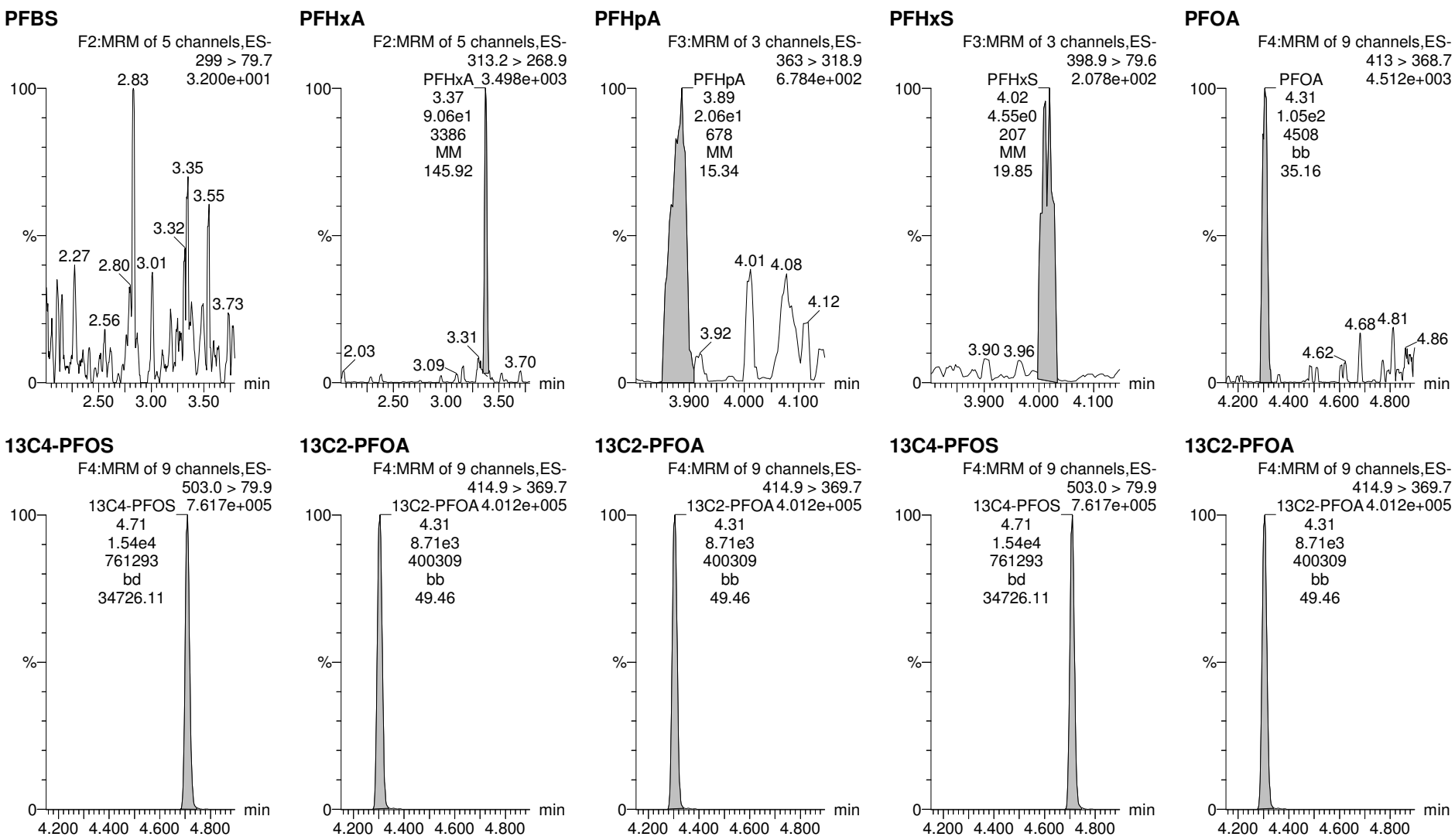
Last Altered: Monday, February 26, 2018 13:04:11 Pacific Standard Time

Printed: Monday, February 26, 2018 13:04:37 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_24, Date: 23-Feb-2018, Time: 18:02:58, ID: 1800274-06 WI-A06-FB03-0218 0.25441, Description: WI-A06-FB03-0218



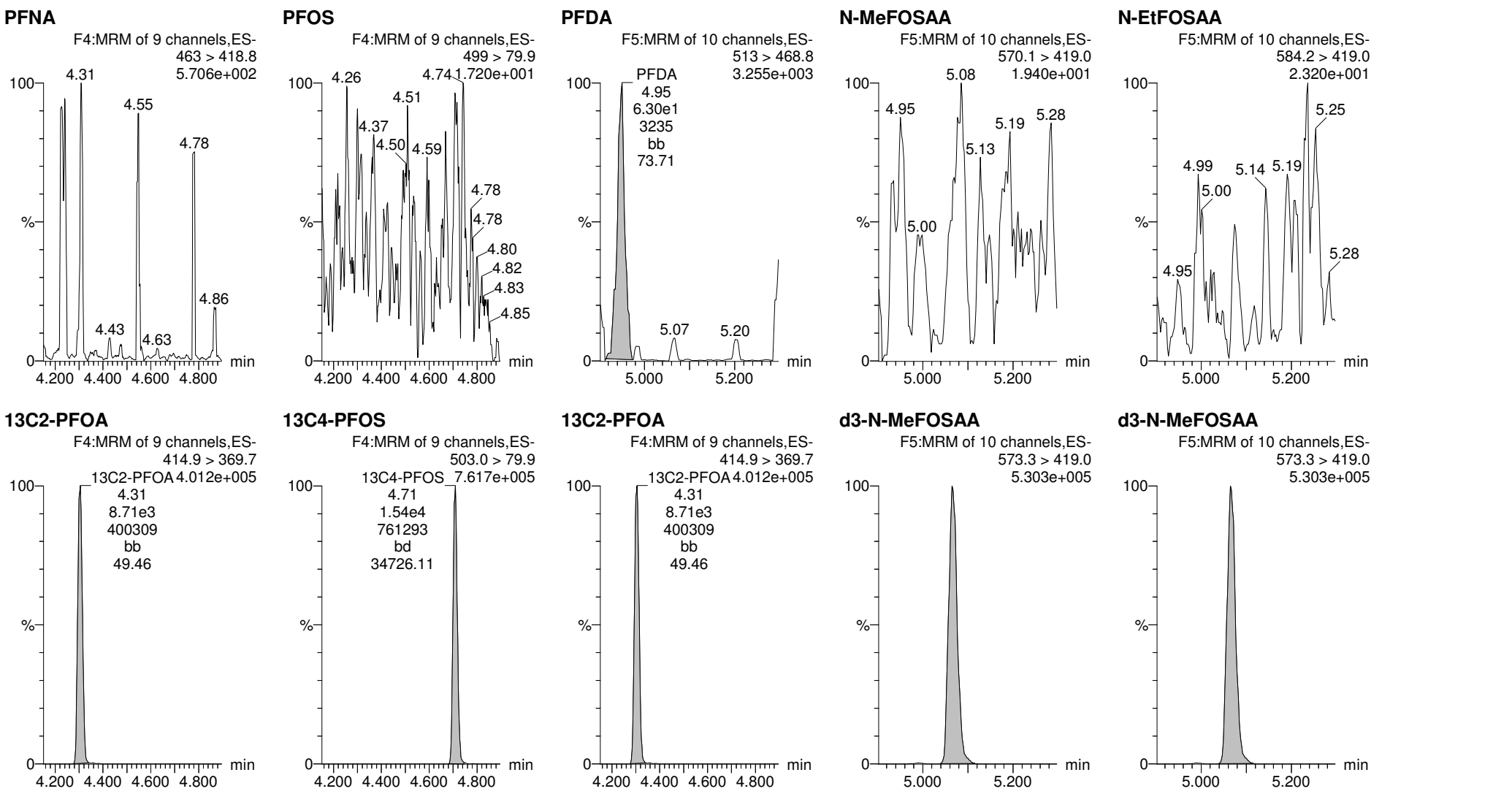
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Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:04:11 Pacific Standard Time

Printed: Monday, February 26, 2018 13:04:37 Pacific Standard Time

Name: 180223G2_24, Date: 23-Feb-2018, Time: 18:02:58, ID: 1800274-06 WI-A06-FB03-0218 0.25441, Description: WI-A06-FB03-0218

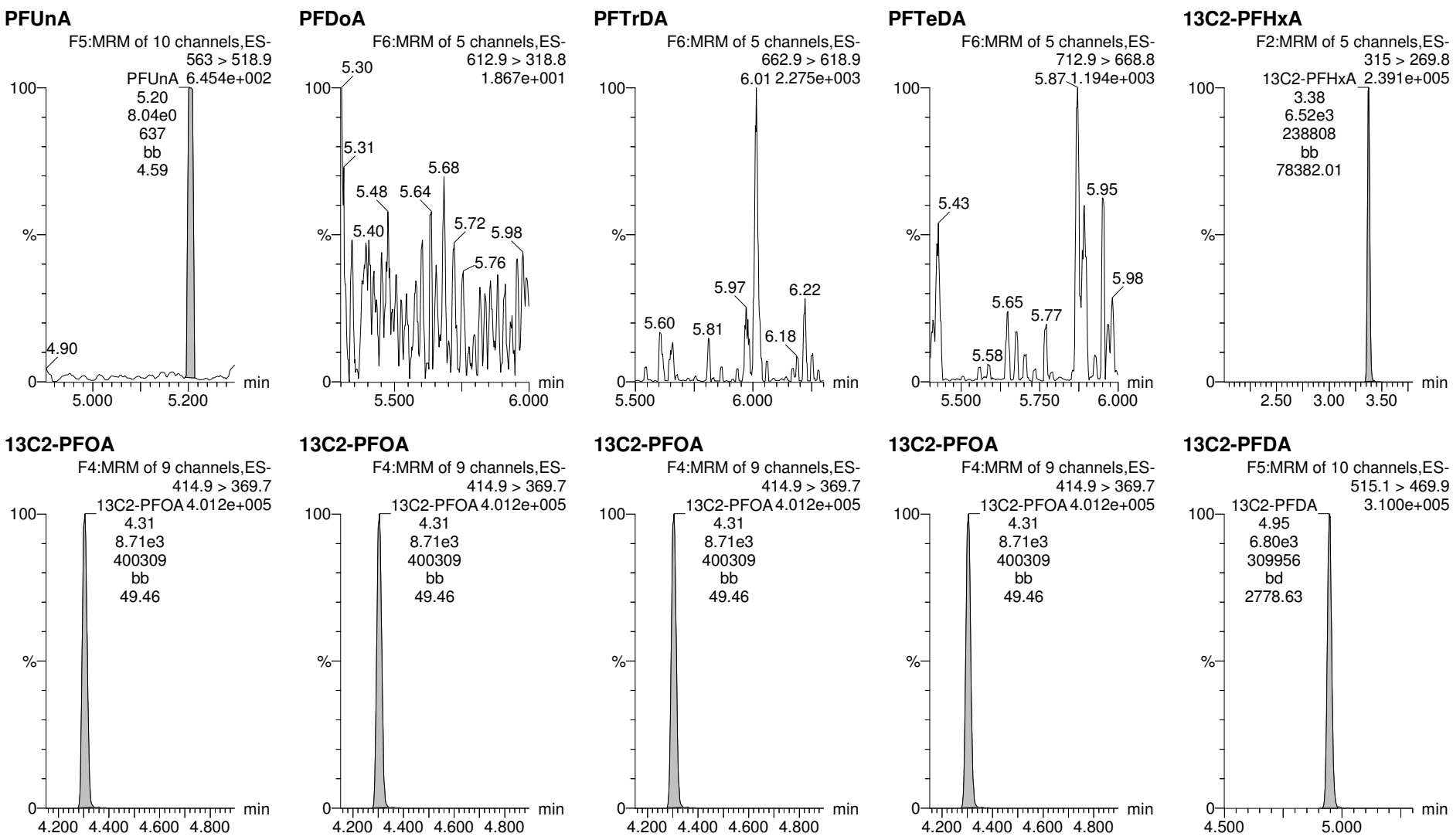


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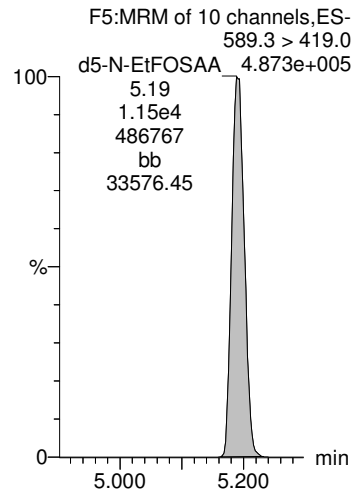
Printed: Monday, February 26, 2018 13:04:37 Pacific Standard Time

Name: 180223G2_24, Date: 23-Feb-2018, Time: 18:02:58, ID: 1800274-06 WI-A06-FB03-0218 0.25441, Description: WI-A06-FB03-0218



Name: 180223G2_24, Date: 23-Feb-2018, Time: 18:02:58, ID: 1800274-06 WI-A06-FB03-0218 0.25441, Description: WI-A06-FB03-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-25.qld

Last Altered: Monday, February 26, 2018 13:09:21 Pacific Standard Time

Printed: Monday, February 26, 2018 13:09:51 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_25, Date: 23-Feb-2018, Time: 18:15:24, ID: 1800274-07 WI-A06-RW04-0218 0.25373, Description: WI-A06-RW04-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.97e3	1.62e4	0.2537		3.01	3.01	7.03	37.9	
2	2 PFHxA	313.2 > 268.9	5.13e2	9.62e3	0.2537		3.36	3.37	0.534	3.80	
3	3 PFHpA	363 > 318.9	3.48e2	9.62e3	0.2537		3.87	3.88	0.362	1.52	
4	4 PFHxS	398.9 > 79.6	5.08e3	1.62e4	0.2537		4.00	4.01	8.99	50.6	
5	5 PFOA	413 > 368.7	8.49e2	9.62e3	0.2537		4.30	4.30	0.883	4.15	
6	6 PFNA	463 > 418.8	2.43e1	9.62e3	0.2537		4.65	4.65	0.0253	0.0980	
7	7 PFOS	499 > 79.9	3.81e2	1.62e4	0.2537		4.71	4.59	0.674	2.77	
8	8 PFDA	513 > 468.8	6.42e1	9.62e3	0.2537		4.87	4.95	0.0668	0.237	
9	9 N-MeFOSAA	570.1 > 419.0	1.14e0	1.20e4	0.2537		5.01	5.07	0.00379	0.0114	
10	10 N-EtFOSAA	584.2 > 419.0		1.20e4	0.2537		5.19				
11	11 PFUnA	563 > 518.9		9.62e3	0.2537		5.13				
12	12 PFDoA	612.9 > 318.8		9.62e3	0.2537		5.34				
13	13 PFTrDA	662.9 > 618.9		9.62e3	0.2537		5.56				
14	14 PFTeDA	712.9 > 668.8	8.50e0	9.62e3	0.2537		5.73	5.78	0.00884	0.0279	
15	15 13C2-PFHxA	315 > 269.8	6.54e3	9.62e3	0.2537	0.731	3.45	3.37	6.80	36.7	93.0
16	16 13C2-PFDA	515.1 > 469.9	6.78e3	9.62e3	0.2537	0.910	4.91	4.95	7.05	30.6	77.5
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.06e4	1.20e4	0.2537	1.049	5.07	5.19	35.2	132	83.9
18	18 13C2-PFOA	414.9 > 369.7	9.62e3	9.62e3	0.2537	1.000	4.41	4.30	10.0	39.4	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.62e4	1.62e4	0.2537	1.000	4.81	4.71	28.7	113	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.20e4	1.20e4	0.2537	1.000	5.16	5.07	40.0	158	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-25.qld

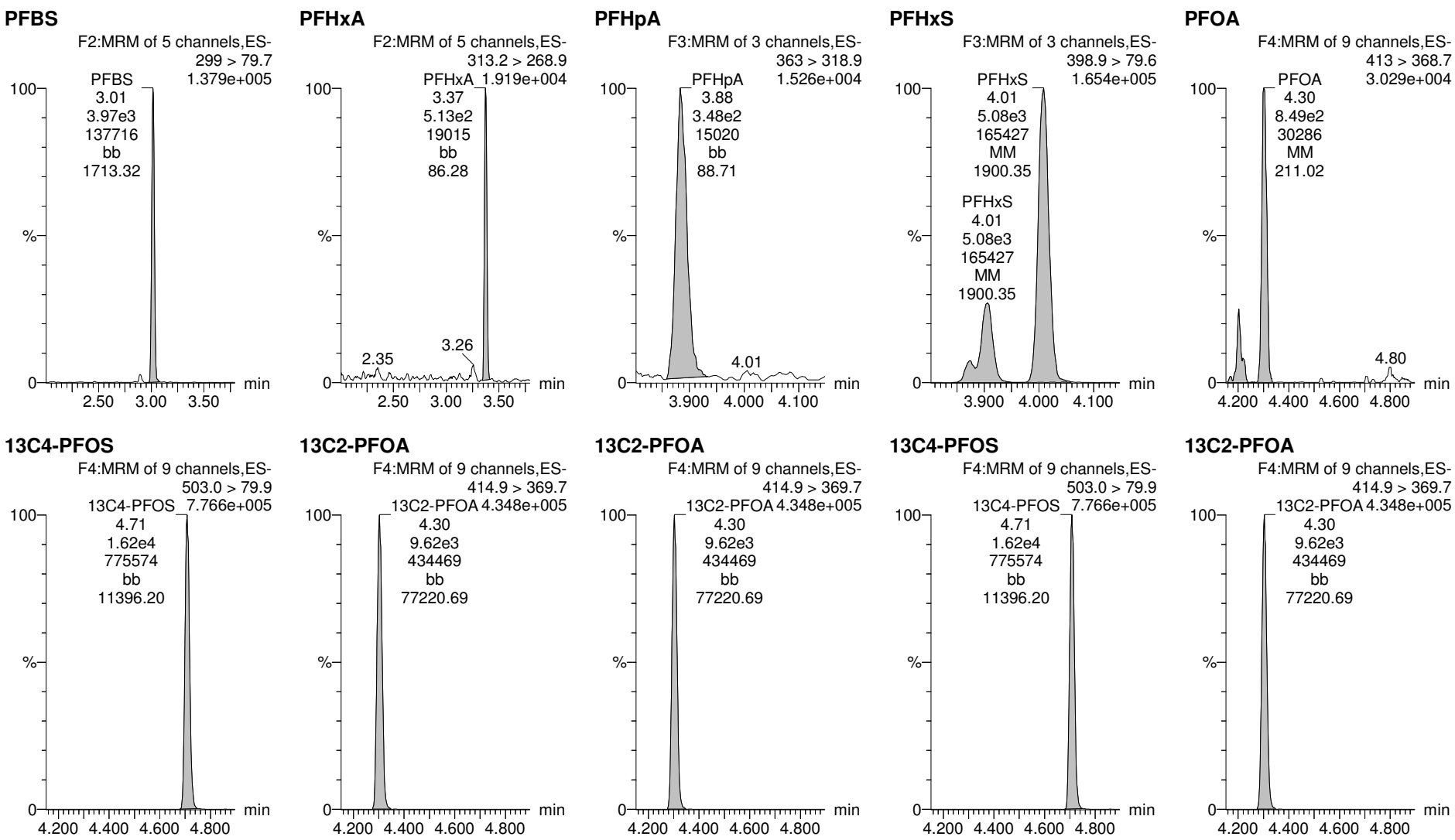
Last Altered: Monday, February 26, 2018 13:09:21 Pacific Standard Time

Printed: Monday, February 26, 2018 13:09:51 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_25, Date: 23-Feb-2018, Time: 18:15:24, ID: 1800274-07 WI-A06-RW04-0218 0.25373, Description: WI-A06-RW04-0218

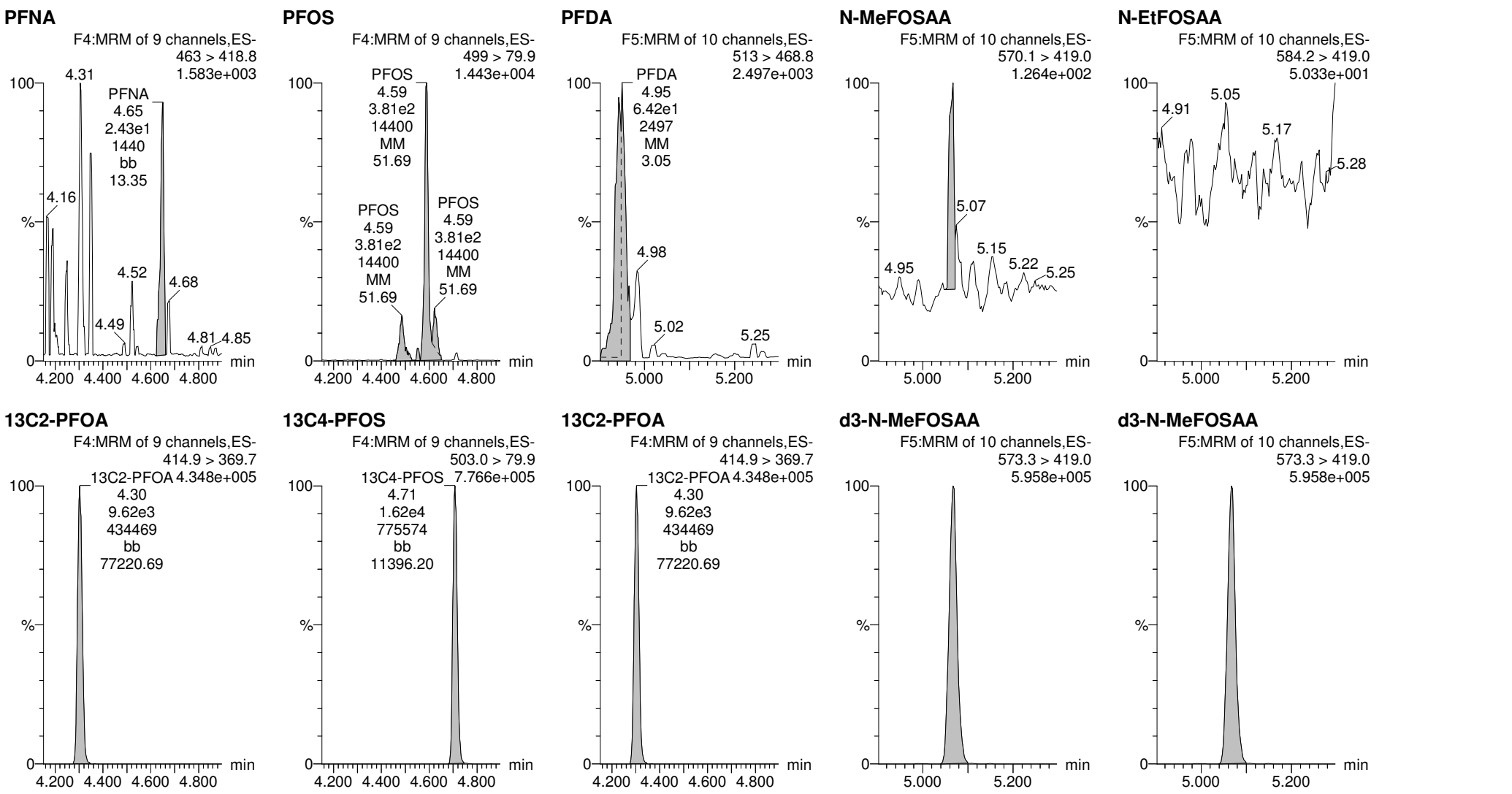


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-25.qld

Last Altered: Monday, February 26, 2018 13:09:21 Pacific Standard Time

Printed: Monday, February 26, 2018 13:09:51 Pacific Standard Time

Name: 180223G2_25, Date: 23-Feb-2018, Time: 18:15:24, ID: 1800274-07 WI-A06-RW04-0218 0.25373, Description: WI-A06-RW04-0218

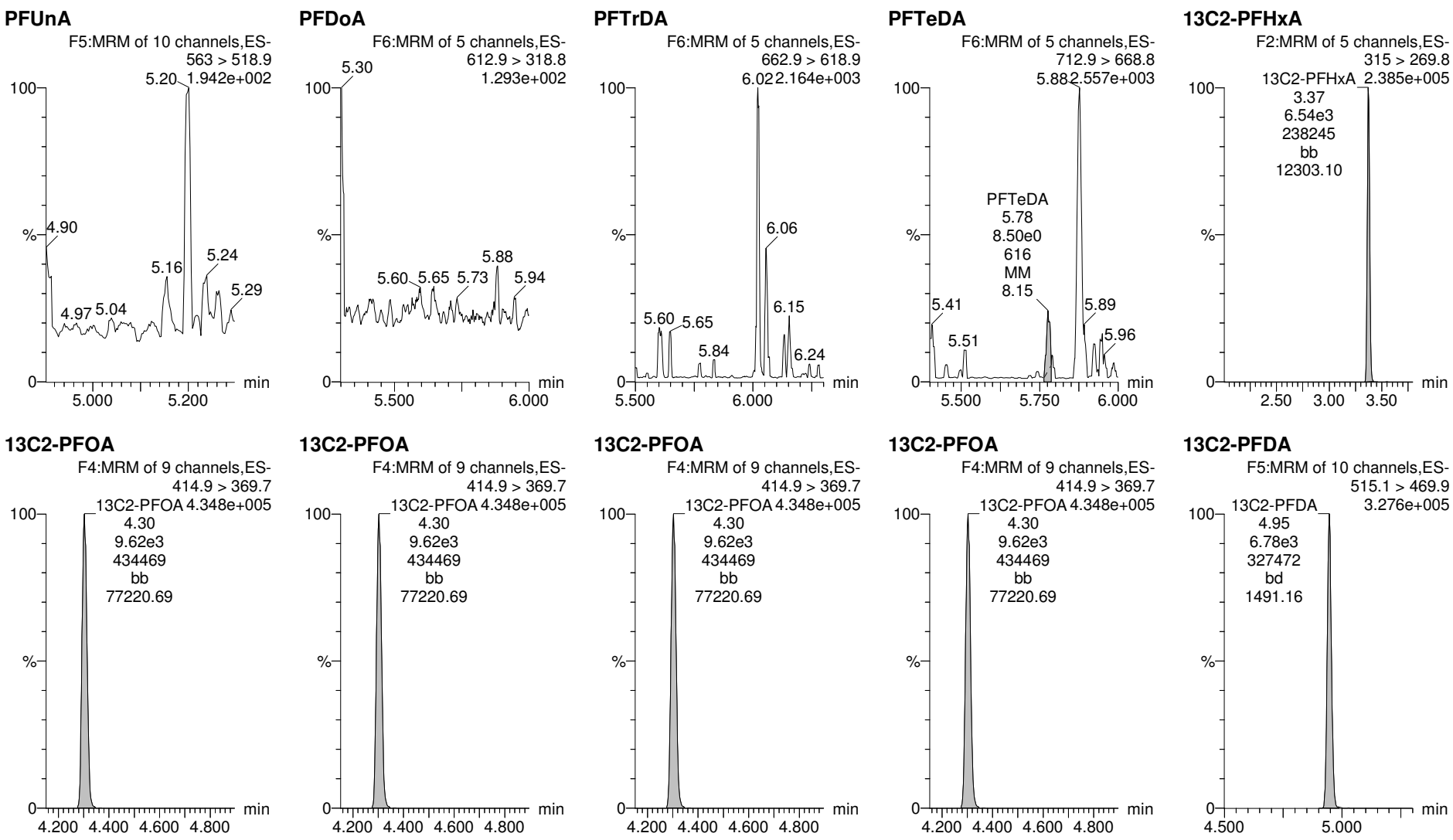


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Last Altered: Monday, February 26, 2018 13:09:21 Pacific Standard Time

Printed: Monday, February 26, 2018 13:09:51 Pacific Standard Time

Name: 180223G2_25, Date: 23-Feb-2018, Time: 18:15:24, ID: 1800274-07 WI-A06-RW04-0218 0.25373, Description: WI-A06-RW04-0218



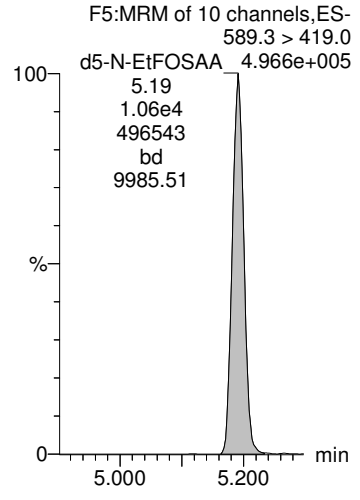
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Last Altered: Monday, February 26, 2018 13:09:21 Pacific Standard Time

Printed: Monday, February 26, 2018 13:09:51 Pacific Standard Time

Name: 180223G2_25, Date: 23-Feb-2018, Time: 18:15:24, ID: 1800274-07 WI-A06-RW04-0218 0.25373, Description: WI-A06-RW04-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-26.qld

Last Altered: Monday, February 26, 2018 10:00:33 Pacific Standard Time

Printed: Monday, February 26, 2018 10:00:49 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_26, Date: 23-Feb-2018, Time: 18:27:48, ID: 1800274-08 WI-A06-FB04-0218 0.24797, Description: WI-A06-FB04-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	5.18e0	1.52e4	0.2480		3.01	3.02	0.00975	0.0538	
2	2 PFHxA	313.2 > 268.9	8.75e1	9.62e3	0.2480		3.36	3.38	0.0910	0.663	
3	3 PFHpA	363 > 318.9	2.00e1	9.62e3	0.2480		3.87	3.89	0.0208	0.0890	
4	4 PFHxS	398.9 > 79.6		1.52e4	0.2480		4.00				
5	5 PFOA	413 > 368.7	9.98e1	9.62e3	0.2480		4.31	4.31	0.104	0.499	
6	6 PFNA	463 > 418.8	4.80e0	9.62e3	0.2480		4.65	4.65	0.00499	0.0198	
7	7 PFOS	499 > 79.9	4.83e-1	1.52e4	0.2480		4.71	4.71	0.000909	0.00382	
8	8 PFDA	513 > 468.8	5.60e1	9.62e3	0.2480		4.88	4.95	0.0583	0.211	
9	9 N-MeFOSAA	570.1 > 419.0		1.22e4	0.2480		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		1.22e4	0.2480		5.19				
11	11 PFUnA	563 > 518.9	1.42e0	9.62e3	0.2480		5.14	5.20	0.00147	0.00591	
12	12 PFDoA	612.9 > 318.8		9.62e3	0.2480		5.34				
13	13 PFTrDA	662.9 > 618.9	1.17e1	9.62e3	0.2480		5.57	5.61	0.0121	0.0356	
14	14 PFTeDA	712.9 > 668.8		9.62e3	0.2480		5.74				
15	15 13C2-PFHxA	315 > 269.8	5.98e3	9.62e3	0.2480	0.731	3.45	3.38	6.22	34.3	85.1
16	16 13C2-PFDA	515.1 > 469.9	6.83e3	9.62e3	0.2480	0.910	4.91	4.95	7.10	31.5	78.1
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.09e4	1.22e4	0.2480	1.049	5.07	5.19	35.9	138	85.5
18	18 13C2-PFOA	414.9 > 369.7	9.62e3	9.62e3	0.2480	1.000	4.41	4.31	10.0	40.3	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.52e4	1.52e4	0.2480	1.000	4.81	4.71	28.7	116	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.22e4	1.22e4	0.2480	1.000	5.16	5.07	40.0	161	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-26.qld

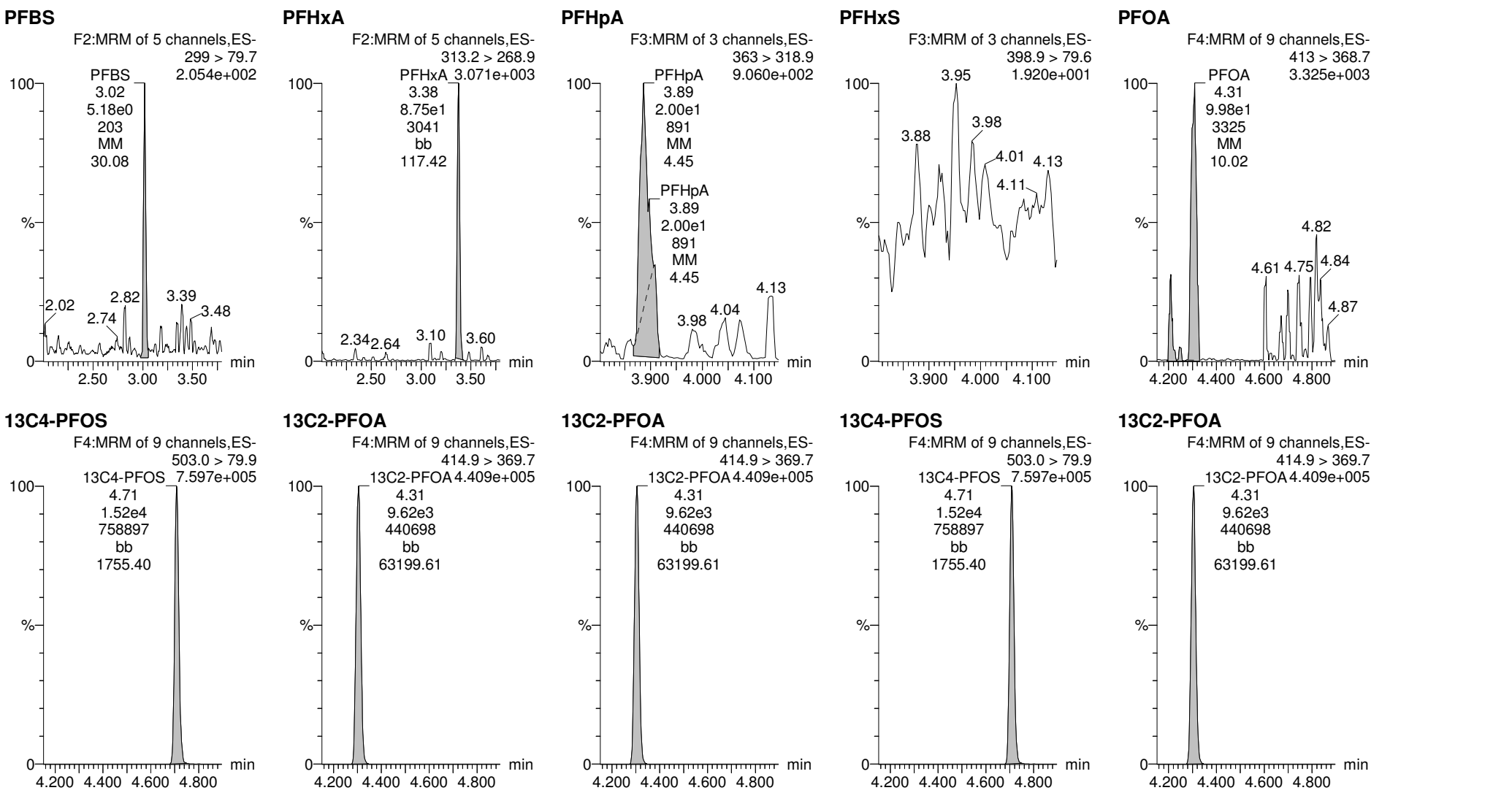
Last Altered: Monday, February 26, 2018 10:00:33 Pacific Standard Time

Printed: Monday, February 26, 2018 10:00:49 Pacific Standard Time

Rev'd: MM 2/26/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_26, Date: 23-Feb-2018, Time: 18:27:48, ID: 1800274-08 WI-A06-FB04-0218 0.24797, Description: WI-A06-FB04-0218

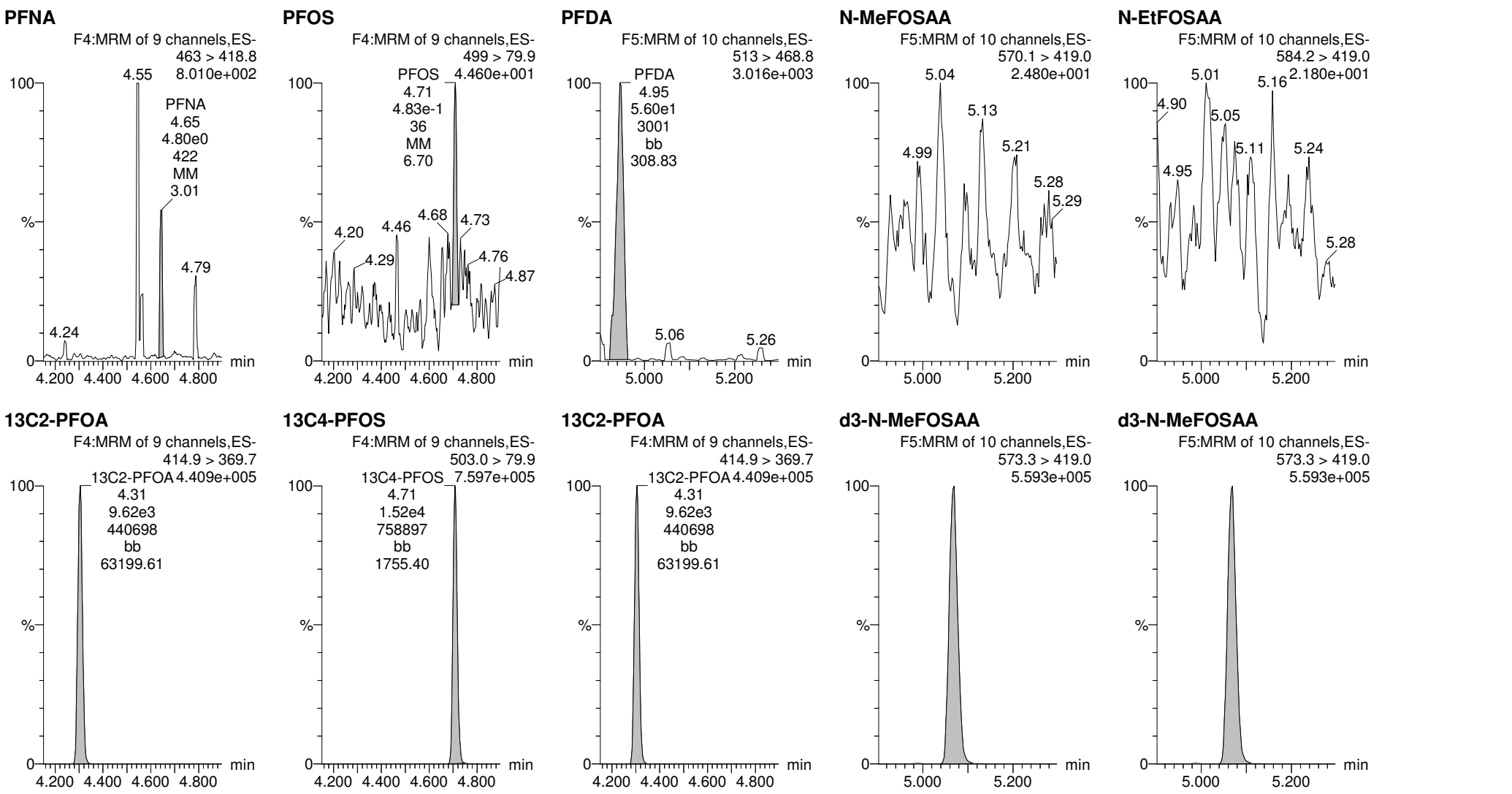


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-26.qld

Last Altered: Monday, February 26, 2018 10:00:33 Pacific Standard Time

Printed: Monday, February 26, 2018 10:00:49 Pacific Standard Time

Name: 180223G2_26, Date: 23-Feb-2018, Time: 18:27:48, ID: 1800274-08 WI-A06-FB04-0218 0.24797, Description: WI-A06-FB04-0218

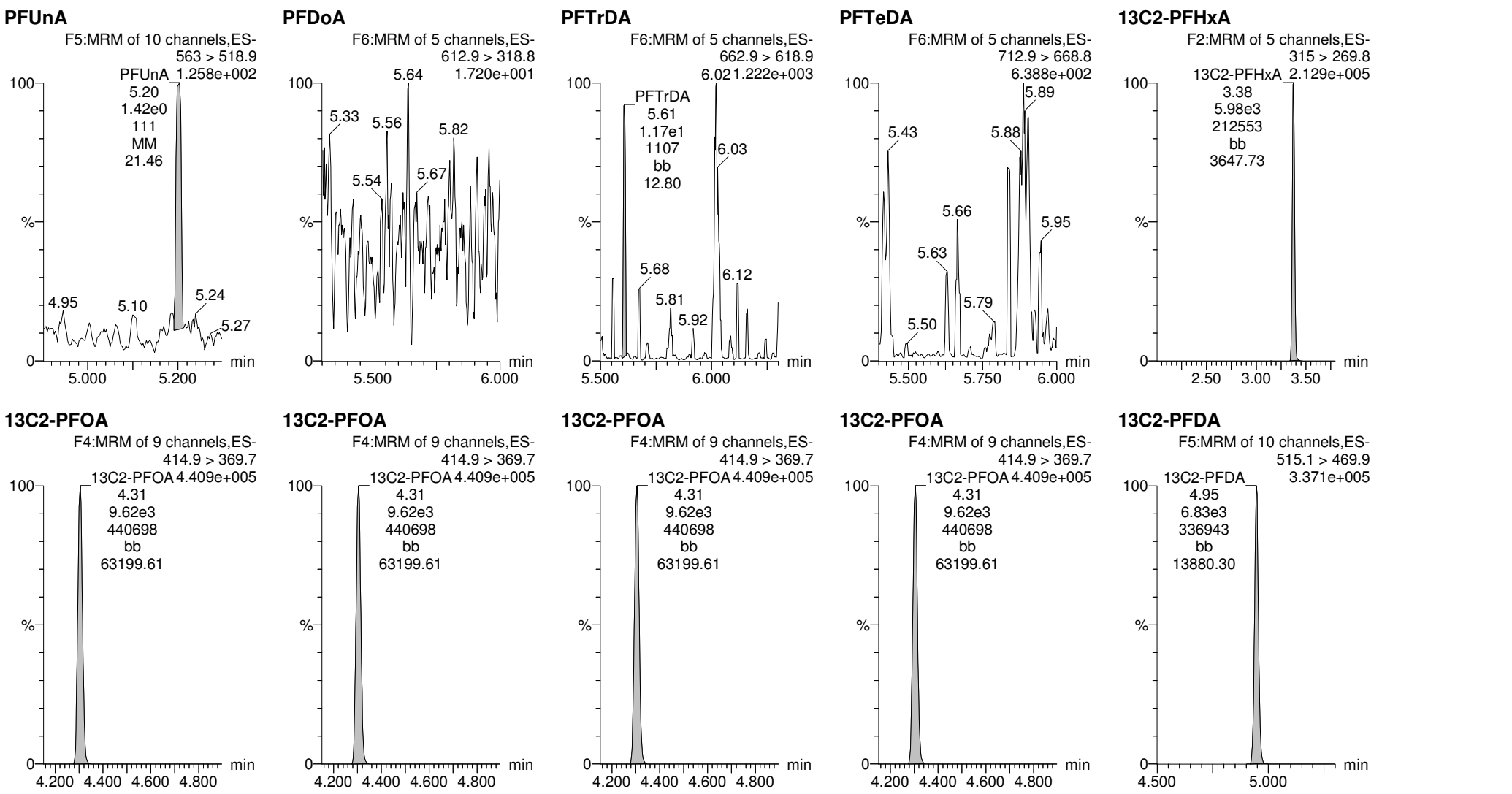


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Last Altered: Monday, February 26, 2018 10:00:33 Pacific Standard Time

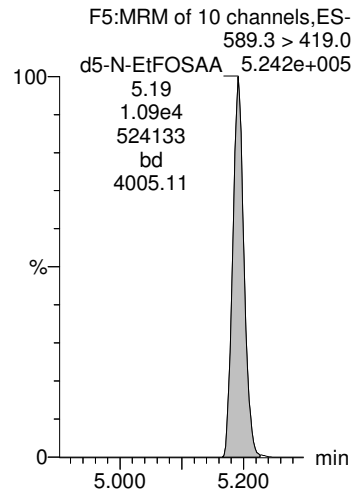
Printed: Monday, February 26, 2018 10:00:49 Pacific Standard Time

Name: 180223G2_26, Date: 23-Feb-2018, Time: 18:27:48, ID: 1800274-08 WI-A06-FB04-0218 0.24797, Description: WI-A06-FB04-0218



Name: 180223G2_26, Date: 23-Feb-2018, Time: 18:27:48, ID: 1800274-08 WI-A06-FB04-0218 0.24797, Description: WI-A06-FB04-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-30.qld

Last Altered: Monday, February 26, 2018 10:17:20 Pacific Standard Time

Printed: Monday, February 26, 2018 11:18:24 Pacific Standard Time

*E SEE DILUTION

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_30, Date: 23-Feb-2018, Time: 19:17:28, ID: 1800274-09 WI-A06-RW05-0218 0.25053, Description: WI-A06-RW05-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.66e3	1.44e4	0.2505		3.01	3.02	5.30	28.9	
2	2 PFHxA	313.2 > 268.9	6.14e3	9.12e3	0.2505		3.36	3.38	6.74	48.6	
3	3 PFHpA	363 > 318.9	4.34e3	9.12e3	0.2505		3.87	3.89	4.76	20.2	
4	4 PFHxS	398.9 > 79.6	1.81e4	1.44e4	0.2505		4.00	4.01	36.1	206	
5	5 PFOA	413 > 368.7	1.11e4	9.12e3	0.2505		4.30	4.30	12.1	57.7	
6	6 PFNA	463 > 418.8	3.04e2	9.12e3	0.2505		4.65	4.65	0.334	1.31	
7	7 PFOS	499 >79.9	7.74e3	1.44e4	0.2505		4.71	4.71	15.4	64.1	
8	8 PFDA	513 > 468.8	5.53e1	9.12e3	0.2505		4.87	4.94	0.0606	0.218	
9	9 N-MeFOSAA	570.1 > 419.0		1.14e4	0.2505		5.01				
10	10 N-EtFOSAA	584.2 >419.0		1.14e4	0.2505		5.19				
11	11 PFUnA	563 > 518.9		9.12e3	0.2505		5.13				
12	12 PFDoA	612.9 > 318.8		9.12e3	0.2505		5.34				
13	13 PFTrDA	662.9 > 618.9		9.12e3	0.2505		5.56				
14	14 PFTeDA	712.9 > 668.8	1.07e1	9.12e3	0.2505		5.73	5.78	0.0117	0.0375	
15	15 13C2-PFHxA	315 > 269.8	6.36e3	9.12e3	0.2505	0.731	3.45	3.38	6.97	38.1	95.4
16	16 13C2-PFDA	515.1 > 469.9	7.01e3	9.12e3	0.2505	0.910	4.91	4.95	7.68	33.7	84.5
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.05e4	1.14e4	0.2505	1.049	5.07	5.19	37.1	141	88.4
18	18 13C2-PFOA	414.9 > 369.7	9.12e3	9.12e3	0.2505	1.000	4.41	4.30	10.0	39.9	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.44e4	1.44e4	0.2505	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.14e4	1.14e4	0.2505	1.000	5.16	5.07	40.0	160	100.0

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Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-30.qld

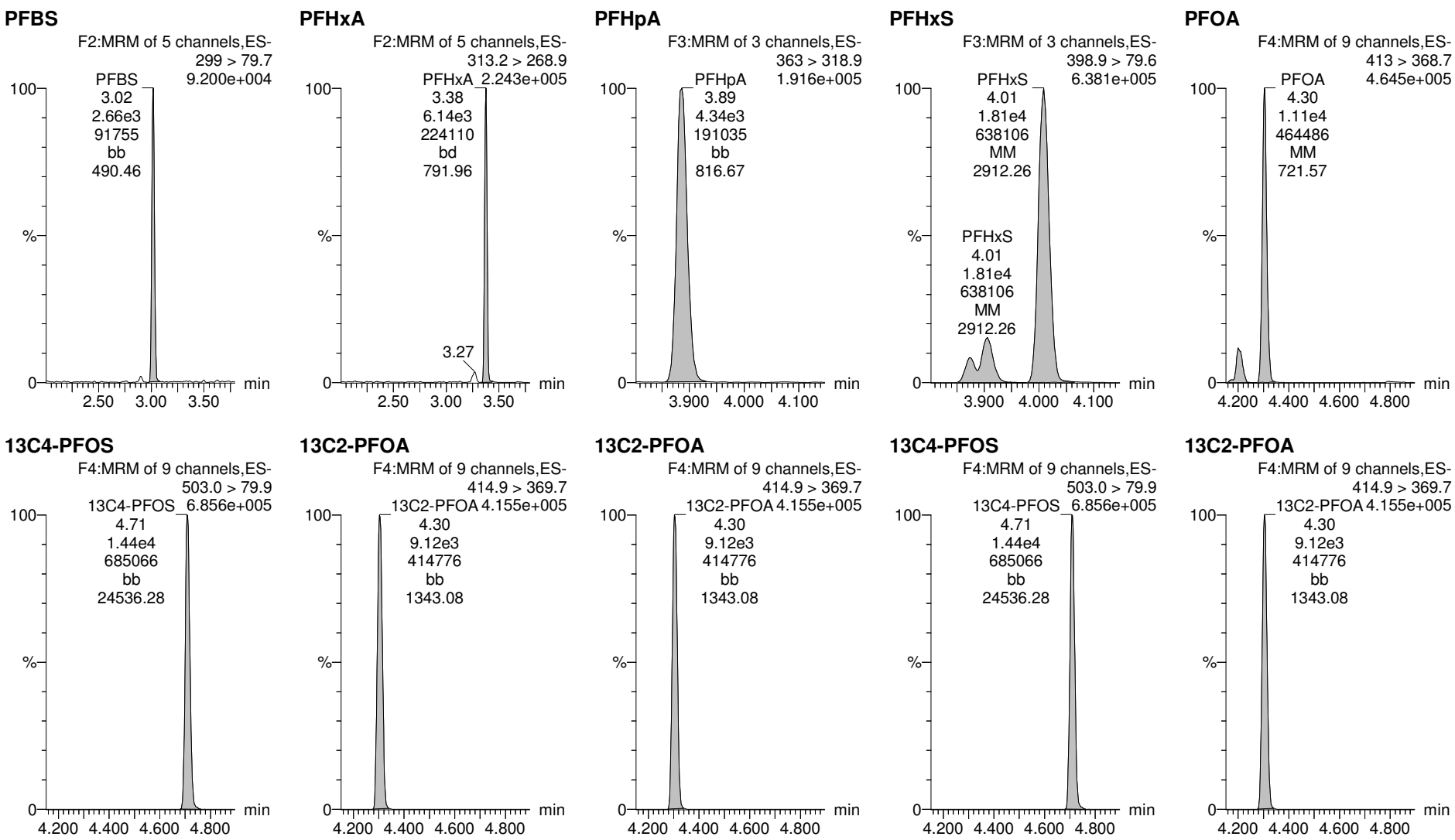
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Printed: Monday, February 26, 2018 11:18:24 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_30, Date: 23-Feb-2018, Time: 19:17:28, ID: 1800274-09 WI-A06-RW05-0218 0.25053, Description: WI-A06-RW05-0218



Vista Analytical Laboratory

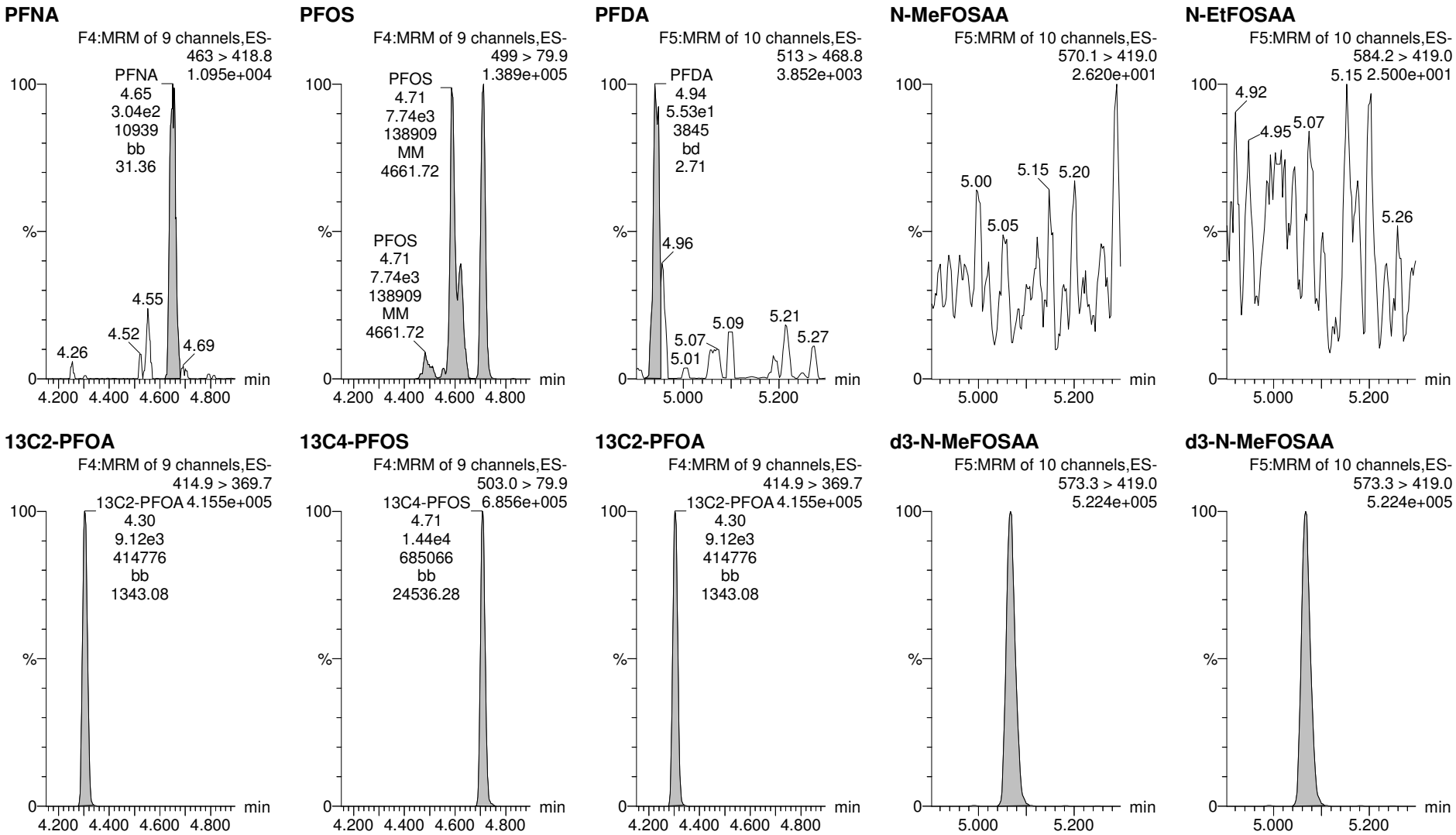
Rev'd: MM 2/26/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-30.qld

Last Altered: Monday, February 26, 2018 10:17:20 Pacific Standard Time

Printed: Monday, February 26, 2018 11:18:24 Pacific Standard Time

Name: 180223G2_30, Date: 23-Feb-2018, Time: 19:17:28, ID: 1800274-09 WI-A06-RW05-0218 0.25053, Description: WI-A06-RW05-0218

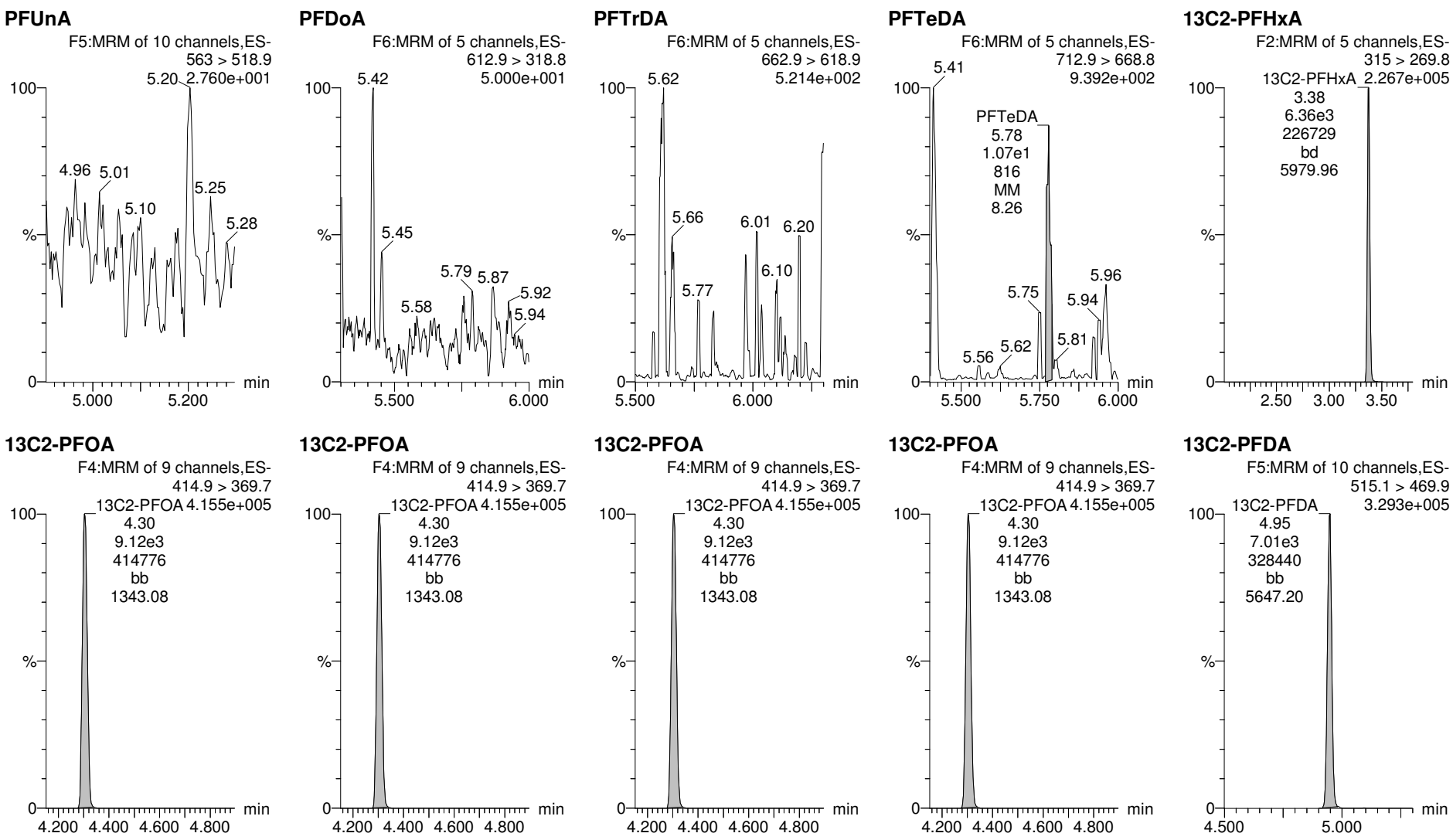


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-30.qld

Last Altered: Monday, February 26, 2018 10:17:20 Pacific Standard Time

Printed: Monday, February 26, 2018 11:18:24 Pacific Standard Time

Name: 180223G2_30, Date: 23-Feb-2018, Time: 19:17:28, ID: 1800274-09 WI-A06-RW05-0218 0.25053, Description: WI-A06-RW05-0218



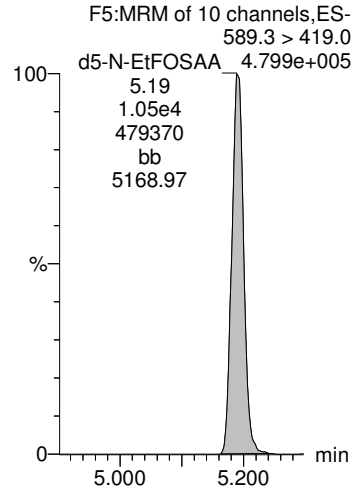
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Last Altered: Monday, February 26, 2018 10:17:20 Pacific Standard Time

Printed: Monday, February 26, 2018 11:18:24 Pacific Standard Time

Name: 180223G2_30, Date: 23-Feb-2018, Time: 19:17:28, ID: 1800274-09 WI-A06-RW05-0218 0.25053, Description: WI-A06-RW05-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180226G2\180226G2-9.qld

Last Altered: Monday, February 26, 2018 12:44:39 Pacific Standard Time

Printed: Monday, February 26, 2018 12:49:03 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180226G2_9, Date: 26-Feb-2018, Time: 11:08:33, ID: 1800274-09 @1:2 WI-A06-RW05-0218 0.25053, Description: WI-A06-RW05-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	4 PFHxS	398.9 > 79.6	1.40e4	1.09e4	0.2505		4.00	4.01	36.8	210	
2	15 13C2-PFHxA	315 > 269.8	5.11e3	6.56e3	0.2505	0.731	3.45	3.37	7.80	42.5	106.6
3	16 13C2-PFDA	515.1 > 469.9	6.67e3	6.56e3	0.2505	0.910	4.91	4.95	10.2	44.6	111.8
4	19 13C4-PFOS	503.0 > 79.9	1.09e4	1.09e4	0.2505	1.000	4.81	4.71	28.7	115	100.0

Dataset: X:\G1.PRO\Results\2018\180226G2\180226G2-9.qld

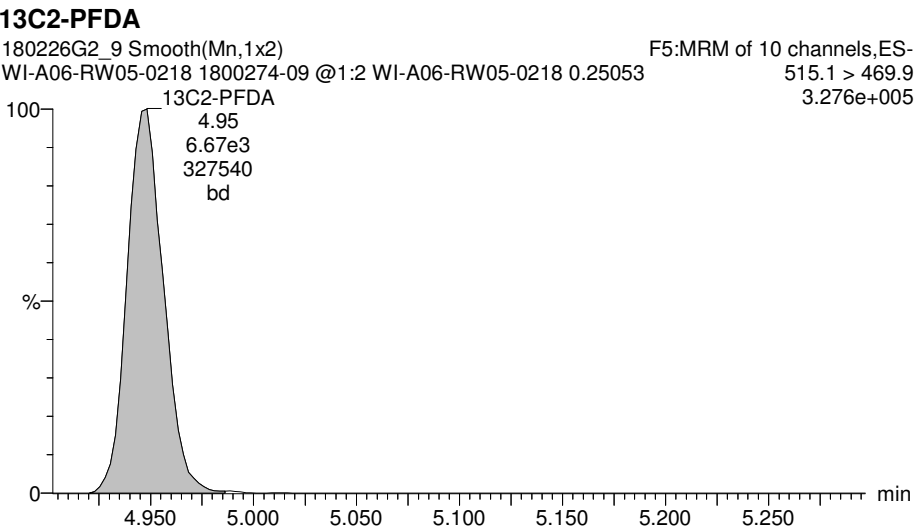
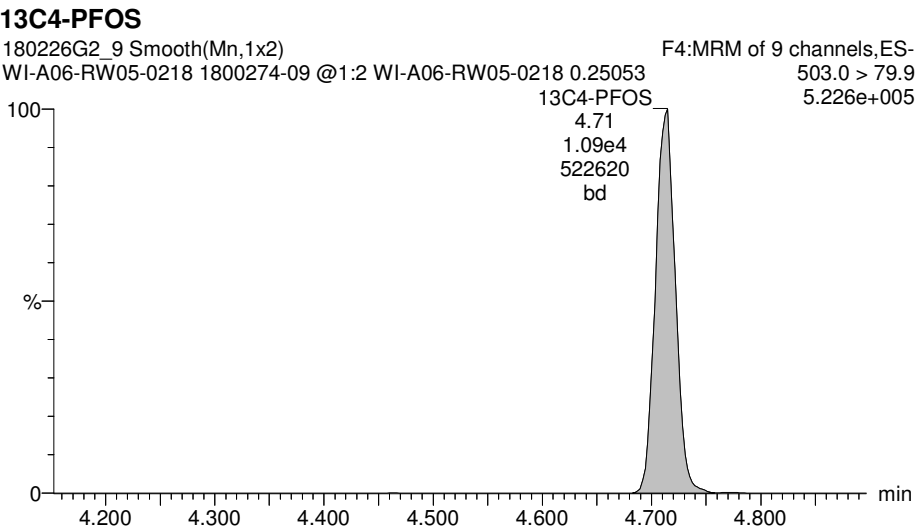
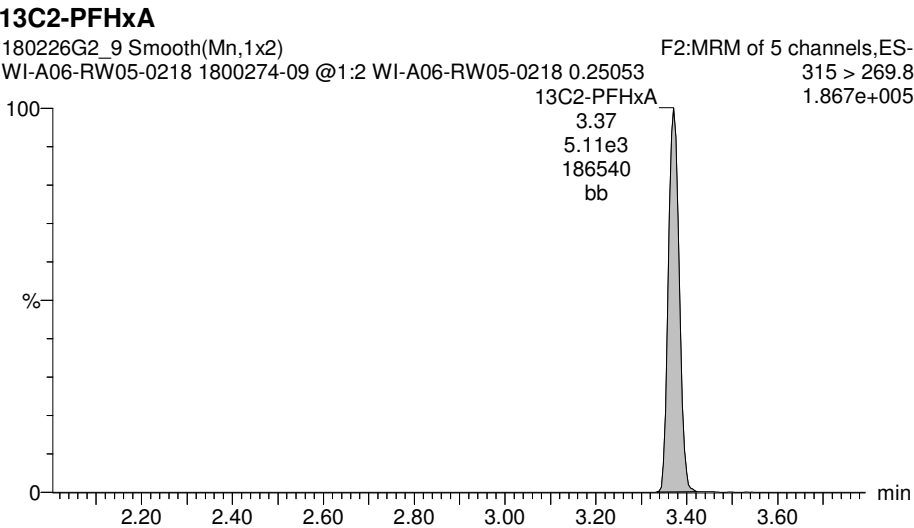
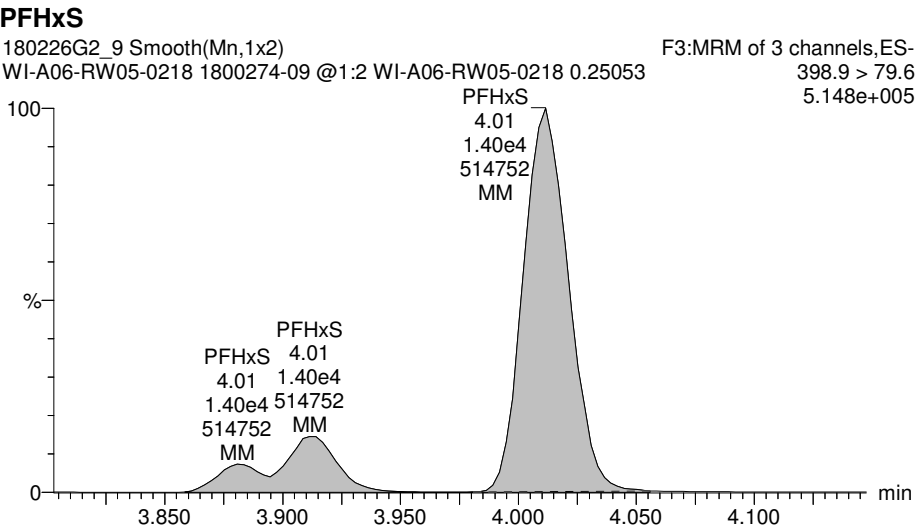
Last Altered: Monday, February 26, 2018 12:44:39 Pacific Standard Time

Printed: Monday, February 26, 2018 12:49:03 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180226G2_9, Date: 26-Feb-2018, Time: 11:08:33, ID: 1800274-09 @1:2 WI-A06-RW05-0218 0.25053, Description: WI-A06-RW05-0218



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-31.qld

Last Altered: Monday, February 26, 2018 13:11:54 Pacific Standard Time

Printed: Monday, February 26, 2018 13:12:32 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_31, Date: 23-Feb-2018, Time: 19:29:53, ID: 1800274-10 WI-A06-FB05-0218 0.23607, Description: WI-A06-FB05-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.34e4	0.2361		3.01				
2	2 PFHxA	313.2 > 268.9	9.05e1	9.67e3	0.2361		3.36	3.38	0.0936	0.716	
3	3 PFHpA	363 > 318.9	2.34e1	9.67e3	0.2361		3.87	3.89	0.0242	0.109	
4	4 PFHxS	398.9 > 79.6	1.07e0	1.34e4	0.2361		4.00	4.01	0.00228	0.0138	
5	5 PFOA	413 > 368.7	9.72e1	9.67e3	0.2361		4.30	4.30	0.100	0.508	
6	6 PFNA	463 > 418.8	1.78e1	9.67e3	0.2361		4.65	4.30	0.0184	0.0765	
7	7 PFOS	499 > 79.9	5.19e0	1.34e4	0.2361		4.71	4.71	0.0111	0.0488	
8	8 PFDA	513 > 468.8	7.19e1	9.67e3	0.2361		4.87	4.95	0.0744	0.284	
9	9 N-MeFOSAA	570.1 > 419.0	2.82e0	1.09e4	0.2361		5.01	5.07	0.0103	0.0333	
10	10 N-EtFOSAA	584.2 > 419.0		1.09e4	0.2361		5.19				
11	11 PFUnA	563 > 518.9		9.67e3	0.2361		5.13				
12	12 PFDoA	612.9 > 318.8		9.67e3	0.2361		5.34				
13	13 PFTrDA	662.9 > 618.9		9.67e3	0.2361		5.56				
14	14 PFTeDA	712.9 > 668.8		9.67e3	0.2361		5.73				
15	15 13C2-PFHxA	315 > 269.8	6.49e3	9.67e3	0.2361	0.731	3.45	3.38	6.72	38.9	91.8
16	16 13C2-PFDA	515.1 > 469.9	6.62e3	9.67e3	0.2361	0.910	4.91	4.95	6.85	31.9	75.3
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.03e4	1.09e4	0.2361	1.049	5.07	5.19	37.7	152	89.8
18	18 13C2-PFOA	414.9 > 369.7	9.67e3	9.67e3	0.2361	1.000	4.41	4.30	10.0	42.4	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.34e4	1.34e4	0.2361	1.000	4.81	4.71	28.7	122	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.09e4	1.09e4	0.2361	1.000	5.16	5.07	40.0	169	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-31.qld

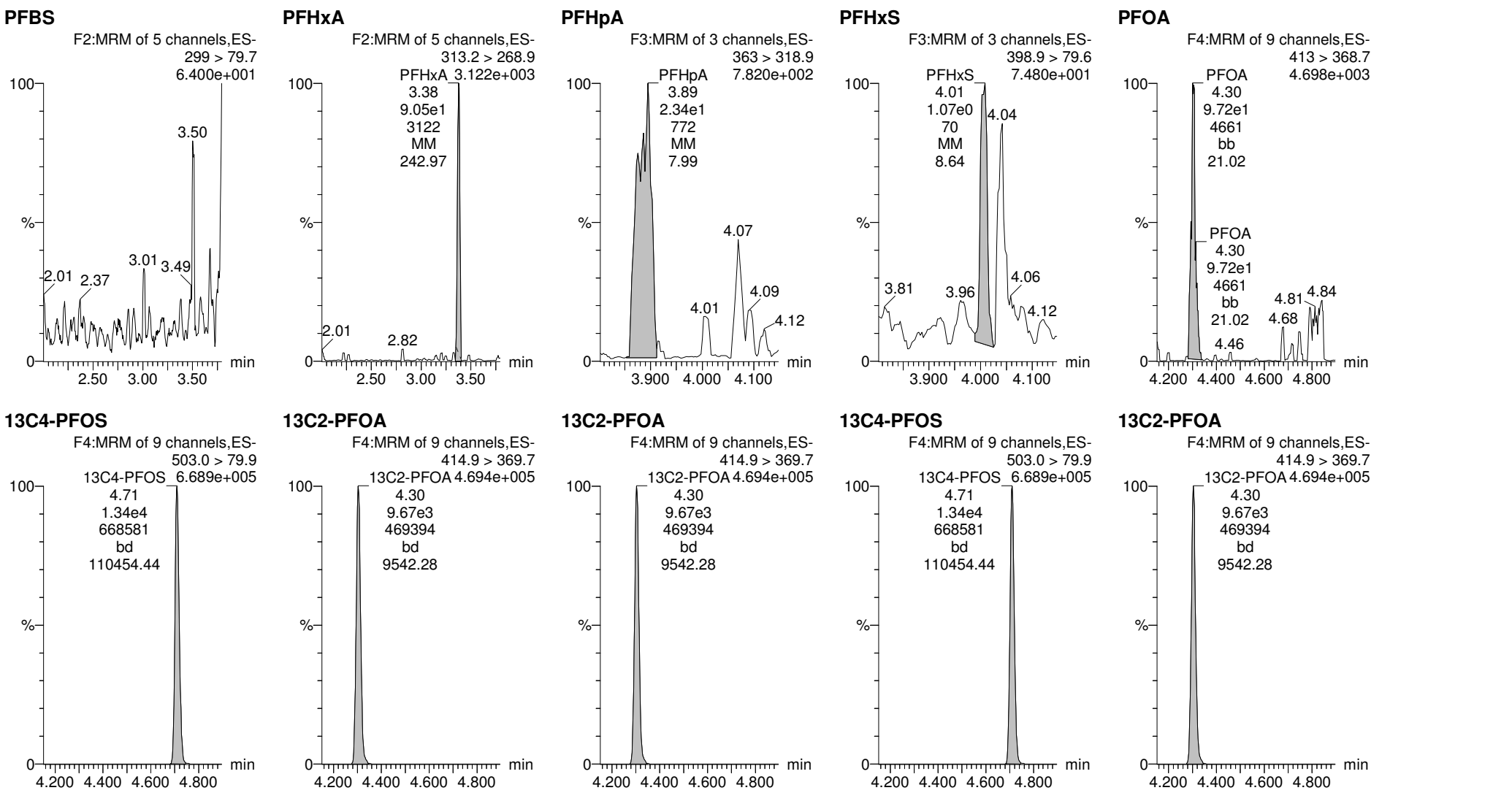
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Printed: Monday, February 26, 2018 13:12:32 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_31, Date: 23-Feb-2018, Time: 19:29:53, ID: 1800274-10 WI-A06-FB05-0218 0.23607, Description: WI-A06-FB05-0218

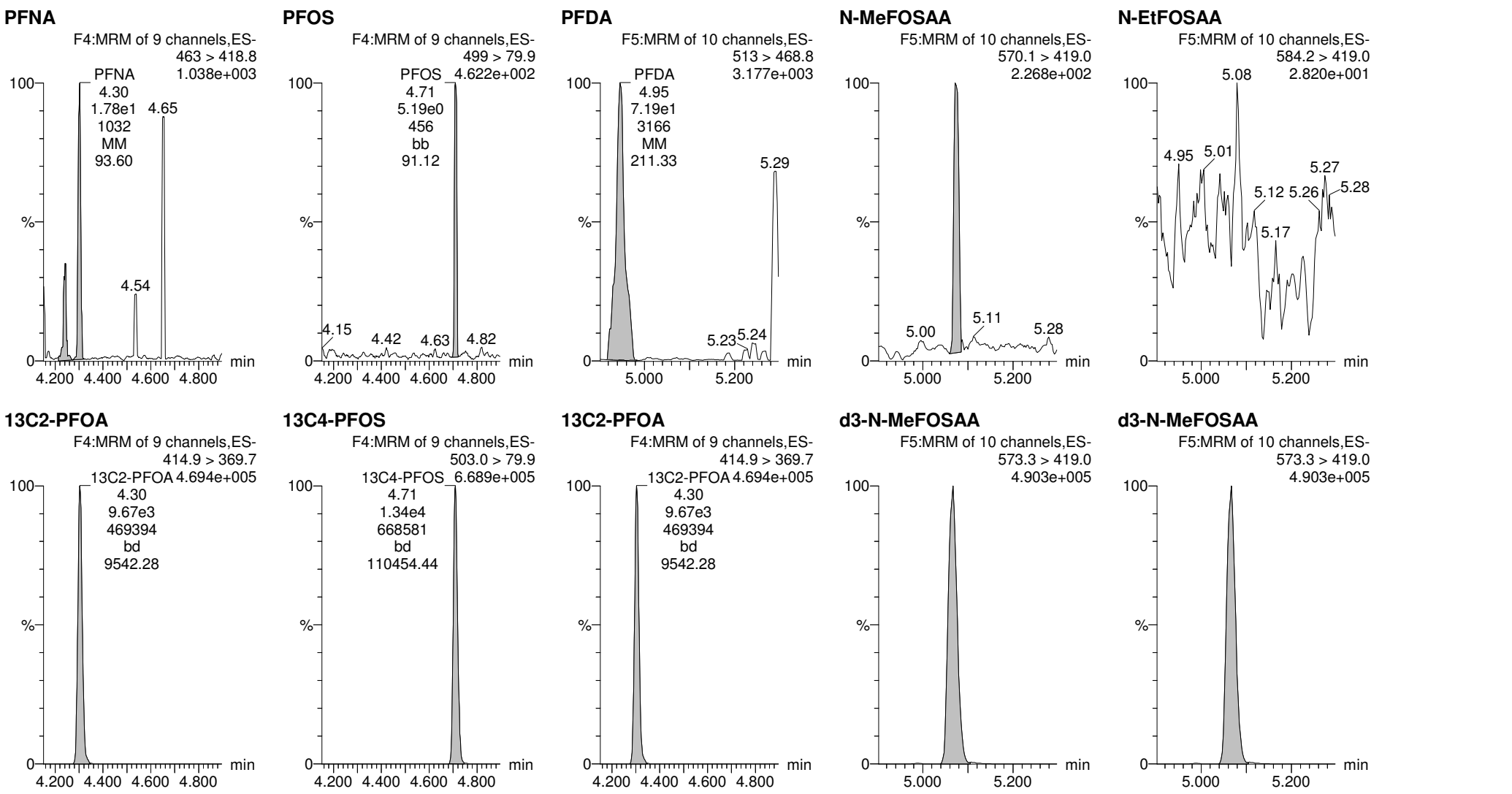


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-31.qld

Last Altered: Monday, February 26, 2018 13:11:54 Pacific Standard Time

Printed: Monday, February 26, 2018 13:12:32 Pacific Standard Time

Name: 180223G2_31, Date: 23-Feb-2018, Time: 19:29:53, ID: 1800274-10 WI-A06-FB05-0218 0.23607, Description: WI-A06-FB05-0218

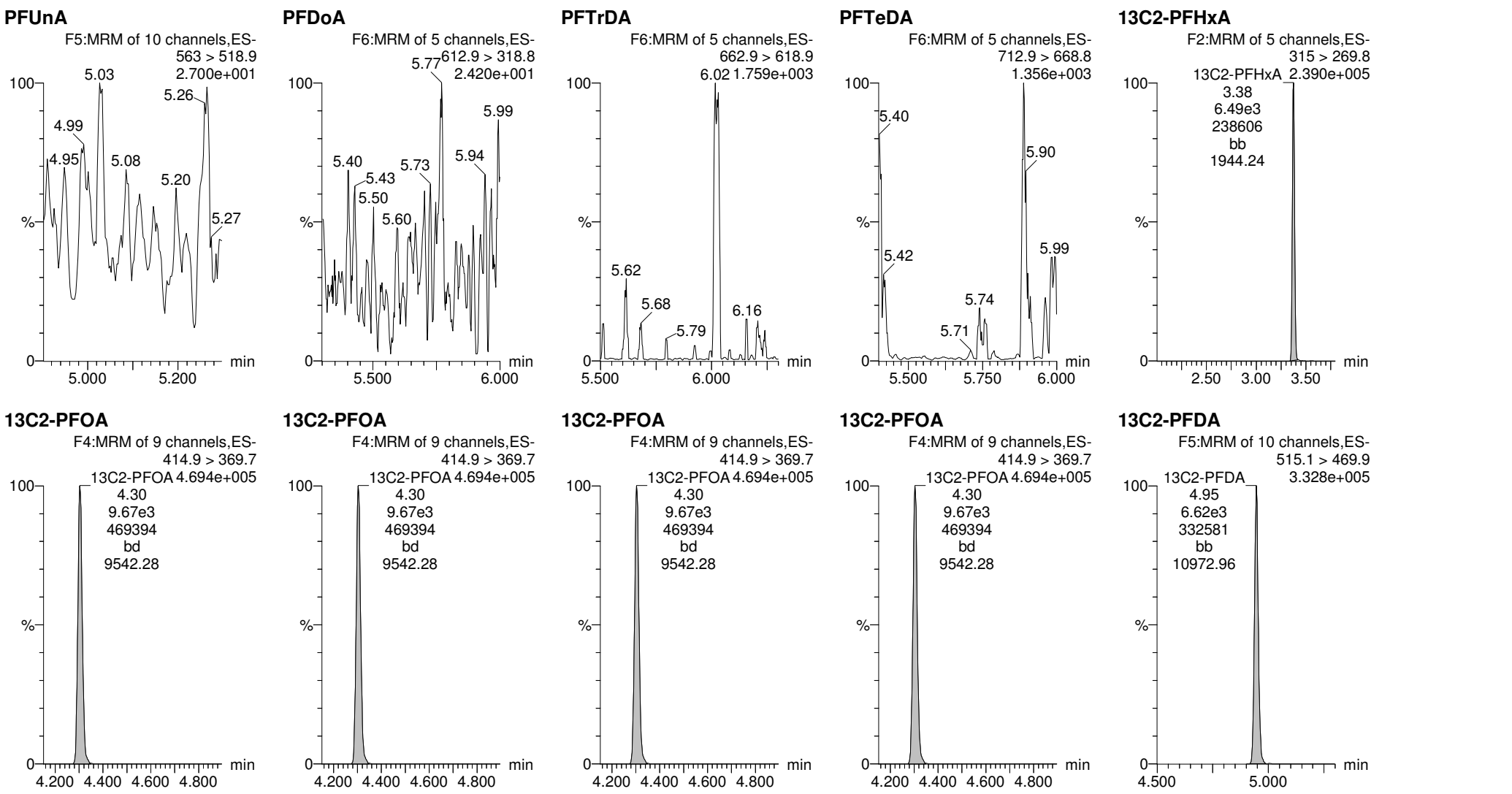


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-31.qld

Last Altered: Monday, February 26, 2018 13:11:54 Pacific Standard Time

Printed: Monday, February 26, 2018 13:12:32 Pacific Standard Time

Name: 180223G2_31, Date: 23-Feb-2018, Time: 19:29:53, ID: 1800274-10 WI-A06-FB05-0218 0.23607, Description: WI-A06-FB05-0218



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-31.qld

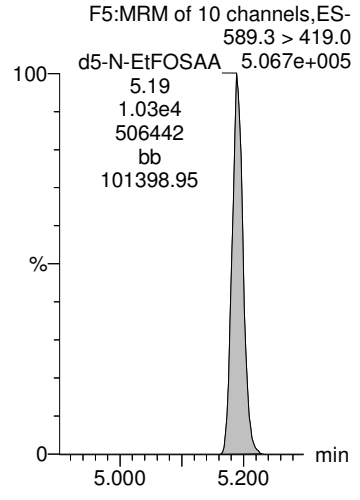
Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:11:54 Pacific Standard Time

Printed: Monday, February 26, 2018 13:12:32 Pacific Standard Time

Name: 180223G2_31, Date: 23-Feb-2018, Time: 19:29:53, ID: 1800274-10 WI-A06-FB05-0218 0.23607, Description: WI-A06-FB05-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-32.qld

Last Altered: Monday, February 26, 2018 13:15:46 Pacific Standard Time

Printed: Monday, February 26, 2018 13:16:35 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_32, Date: 23-Feb-2018, Time: 19:42:14, ID: 1800274-11 WI-A06-RW06-0218 0.25046, Description: WI-A06-RW06-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.36e4	0.2505		3.01				
2	2 PFHxA	313.2 > 268.9	7.41e1	9.31e3	0.2505		3.36	3.38	0.0796	0.575	
3	3 PFHpA	363 > 318.9	2.35e1	9.31e3	0.2505		3.87	3.88	0.0253	0.107	
4	4 PFHxS	398.9 > 79.6	6.65e0	1.36e4	0.2505		4.00	4.01	0.0140	0.0798	
5	5 PFOA	413 > 368.7	1.09e2	9.31e3	0.2505		4.30	4.30	0.117	0.560	
6	6 PFNA	463 > 418.8	4.21e0	9.31e3	0.2505		4.65	4.65	0.00452	0.0178	
7	7 PFOS	499 > 79.9		1.36e4	0.2505		4.71				
8	8 PFDA	513 > 468.8	7.40e1	9.31e3	0.2505		4.87	4.95	0.0795	0.286	
9	9 N-MeFOSAA	570.1 > 419.0		9.27e3	0.2505		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		9.27e3	0.2505		5.19				
11	11 PFUnA	563 > 518.9		9.31e3	0.2505		5.13				
12	12 PFDaA	612.9 > 318.8	4.57e0	9.31e3	0.2505		5.34	5.43	0.00490	0.124	
13	13 PFTrDA	662.9 > 618.9	6.98e0	9.31e3	0.2505		5.56	5.61	0.00750	0.0218	
14	14 PFTeDA	712.9 > 668.8		9.31e3	0.2505		5.73				
15	15 13C2-PFHxA	315 > 269.8	6.41e3	9.31e3	0.2505	0.731	3.45	3.38	6.89	37.6	94.2
16	16 13C2-PFDA	515.1 > 469.9	5.98e3	9.31e3	0.2505	0.910	4.91	4.95	6.42	28.2	70.6
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.09e4	9.27e3	0.2505	1.049	5.07	5.19	47.0	179	112.1
18	18 13C2-PFOA	414.9 > 369.7	9.31e3	9.31e3	0.2505	1.000	4.41	4.30	10.0	39.9	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.36e4	1.36e4	0.2505	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	9.27e3	9.27e3	0.2505	1.000	5.16	5.07	40.0	160	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-32.qld

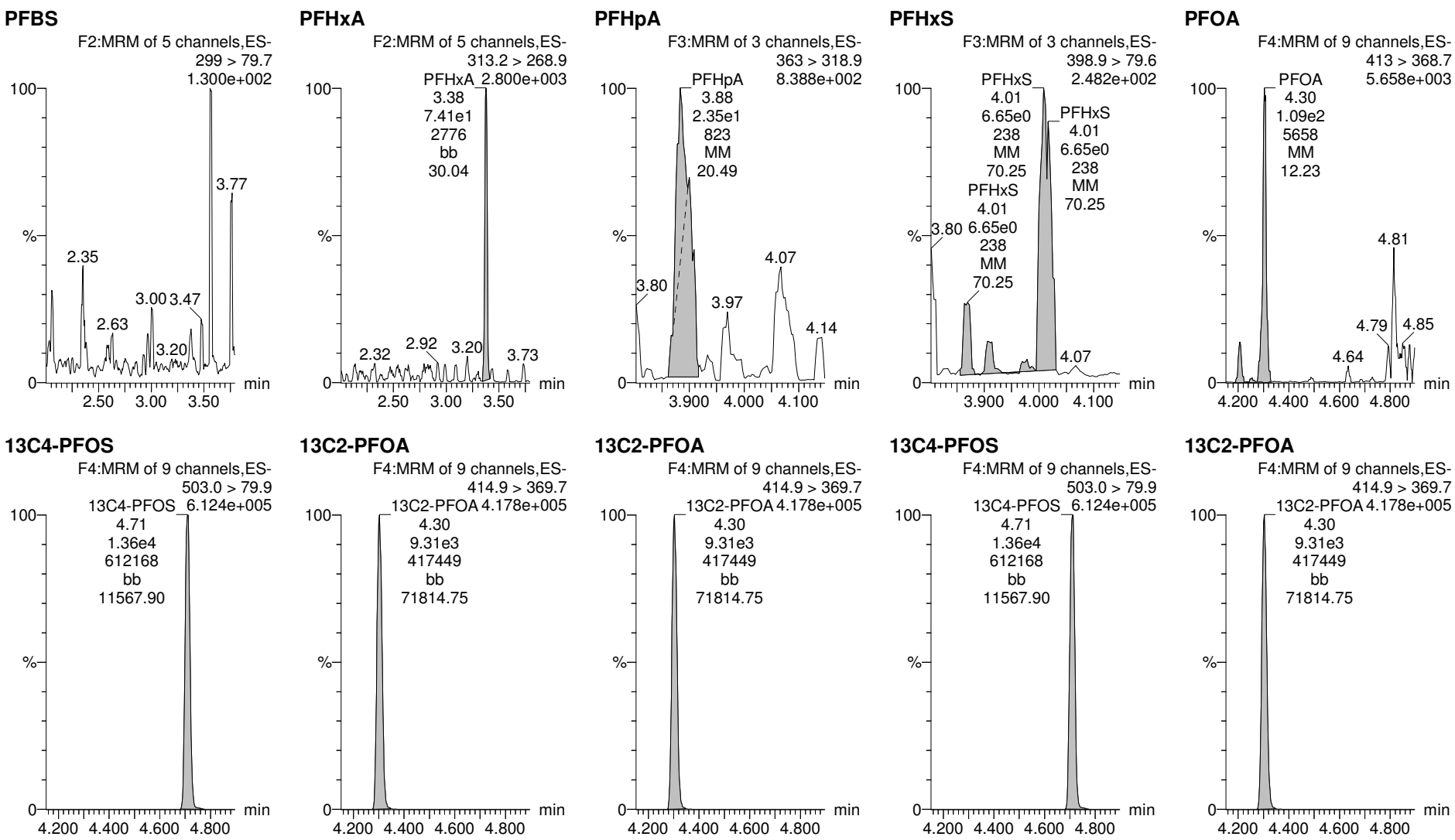
Last Altered: Monday, February 26, 2018 13:15:46 Pacific Standard Time

Printed: Monday, February 26, 2018 13:16:35 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_32, Date: 23-Feb-2018, Time: 19:42:14, ID: 1800274-11 WI-A06-RW06-0218 0.25046, Description: WI-A06-RW06-0218



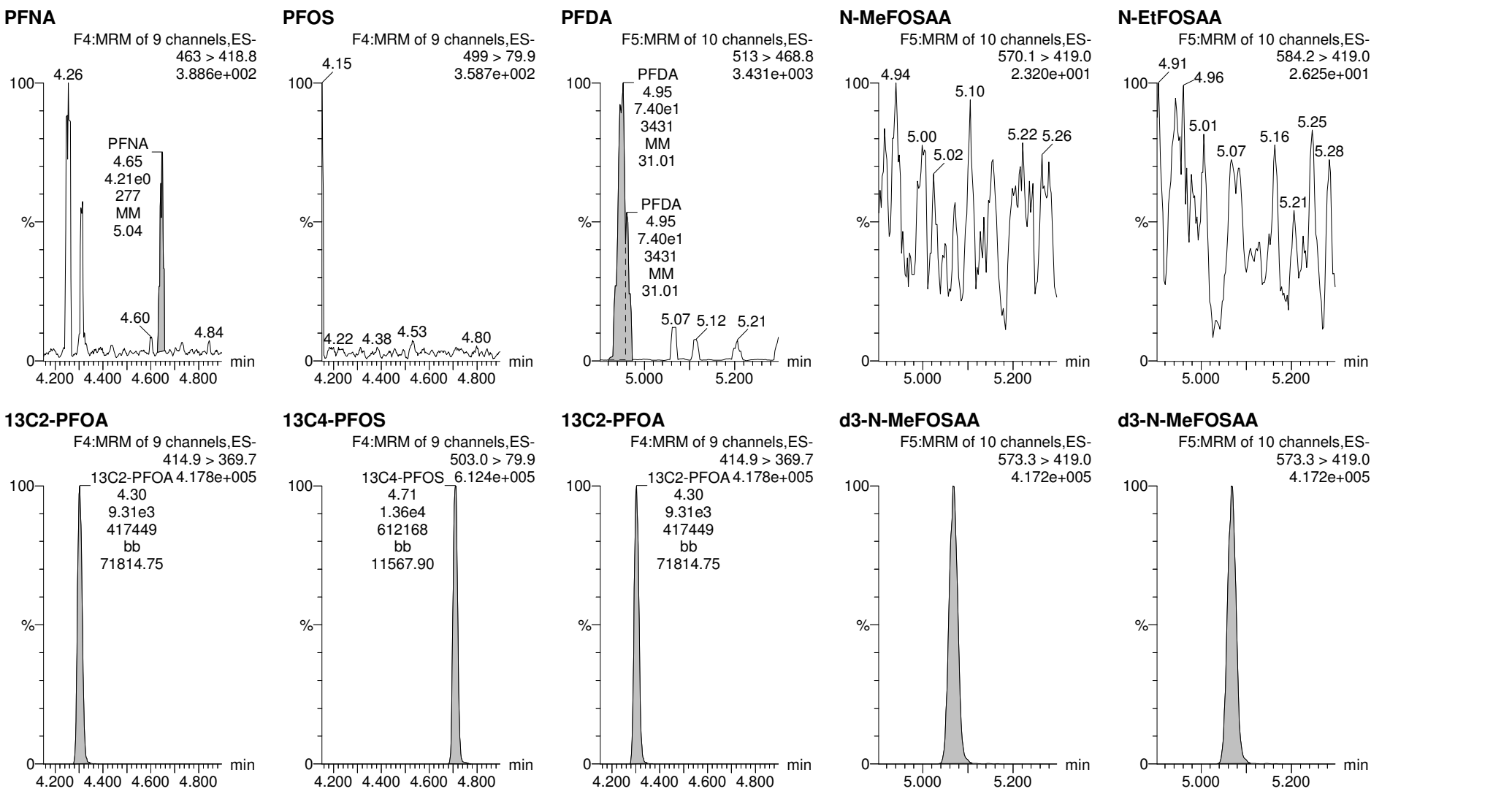
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Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:15:46 Pacific Standard Time

Printed: Monday, February 26, 2018 13:16:35 Pacific Standard Time

Name: 180223G2_32, Date: 23-Feb-2018, Time: 19:42:14, ID: 1800274-11 WI-A06-RW06-0218 0.25046, Description: WI-A06-RW06-0218

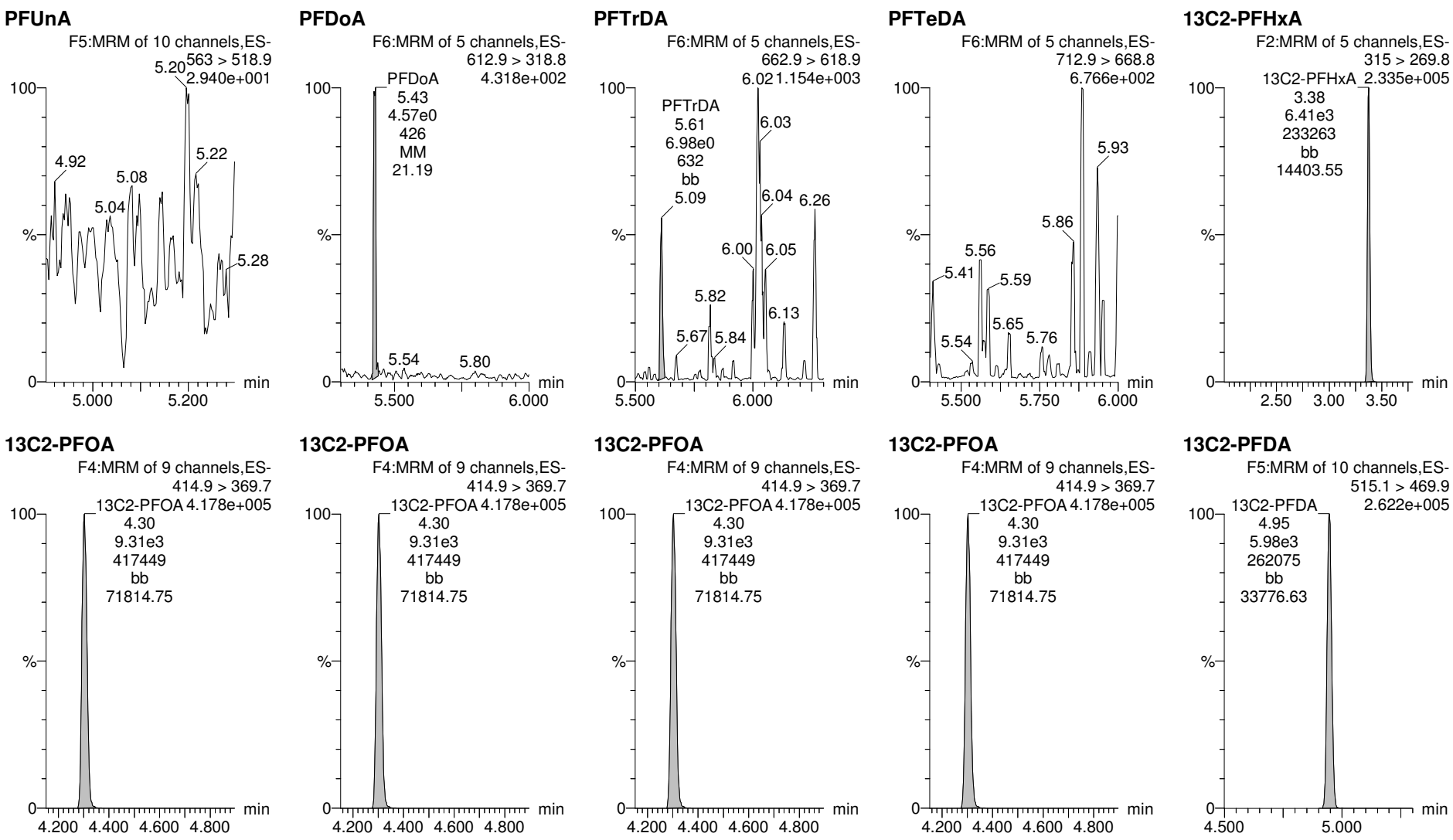


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-32.qld

Last Altered: Monday, February 26, 2018 13:15:46 Pacific Standard Time

Printed: Monday, February 26, 2018 13:16:35 Pacific Standard Time

Name: 180223G2_32, Date: 23-Feb-2018, Time: 19:42:14, ID: 1800274-11 WI-A06-RW06-0218 0.25046, Description: WI-A06-RW06-0218



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-32.qld

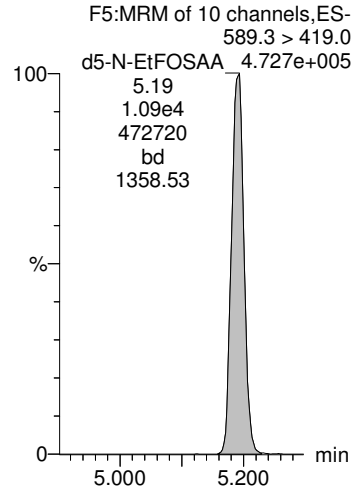
Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:15:46 Pacific Standard Time

Printed: Monday, February 26, 2018 13:16:35 Pacific Standard Time

Name: 180223G2_32, Date: 23-Feb-2018, Time: 19:42:14, ID: 1800274-11 WI-A06-RW06-0218 0.25046, Description: WI-A06-RW06-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-33.qld

Last Altered: Monday, February 26, 2018 11:21:38 Pacific Standard Time

Printed: Monday, February 26, 2018 11:22:36 Pacific Standard Time

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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_33, Date: 23-Feb-2018, Time: 19:54:30, ID: 1800274-12 WI-A06-RW05P-0218 0.24939, Description: WI-A06-RW05P-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.68e3	1.46e4	0.2494		3.01	3.01	5.28	28.9	
2	2 PFHxA	313.2 > 268.9	6.16e3	8.95e3	0.2494		3.36	3.38	6.88	49.8	
3	3 PFHpA	363 > 318.9	4.50e3	8.95e3	0.2494		3.87	3.89	5.02	21.4	
4	4 PFHxS	398.9 > 79.6	1.94e4	1.46e4	0.2494		4.00	4.01	38.2	219	
5	5 PFOA	413 > 368.7	1.03e4	8.95e3	0.2494		4.30	4.31	11.6	55.3	
6	6 PFNA	463 > 418.8	3.78e2	8.95e3	0.2494		4.65	4.64	0.422	1.67	
7	7 PFOS	499 >79.9	7.77e3	1.46e4	0.2494		4.71	4.71	15.3	63.8	
8	8 PFDA	513 > 468.8	7.96e1	8.95e3	0.2494		4.87	4.95	0.0889	0.321	
9	9 N-MeFOSAA	570.1 > 419.0		1.03e4	0.2494		5.01				
10	10 N-EtFOSAA	584.2 >419.0		1.03e4	0.2494		5.19				
11	11 PFUnA	563 > 518.9		8.95e3	0.2494		5.13				
12	12 PFDoA	612.9 > 318.8		8.95e3	0.2494		5.34				
13	13 PFTrDA	662.9 > 618.9		8.95e3	0.2494		5.56				
14	14 PFTeDA	712.9 > 668.8		8.95e3	0.2494		5.73				
15	15 13C2-PFHxA	315 > 269.8	6.37e3	8.95e3	0.2494	0.731	3.45	3.38	7.11	39.0	97.3
16	16 13C2-PFDA	515.1 > 469.9	7.02e3	8.95e3	0.2494	0.910	4.91	4.95	7.84	34.5	86.1
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.06e4	1.03e4	0.2494	1.049	5.07	5.19	40.9	156	97.5
18	18 13C2-PFOA	414.9 > 369.7	8.95e3	8.95e3	0.2494	1.000	4.41	4.30	10.0	40.1	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.46e4	1.46e4	0.2494	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.03e4	1.03e4	0.2494	1.000	5.16	5.07	40.0	160	100.0

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Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-33.qld

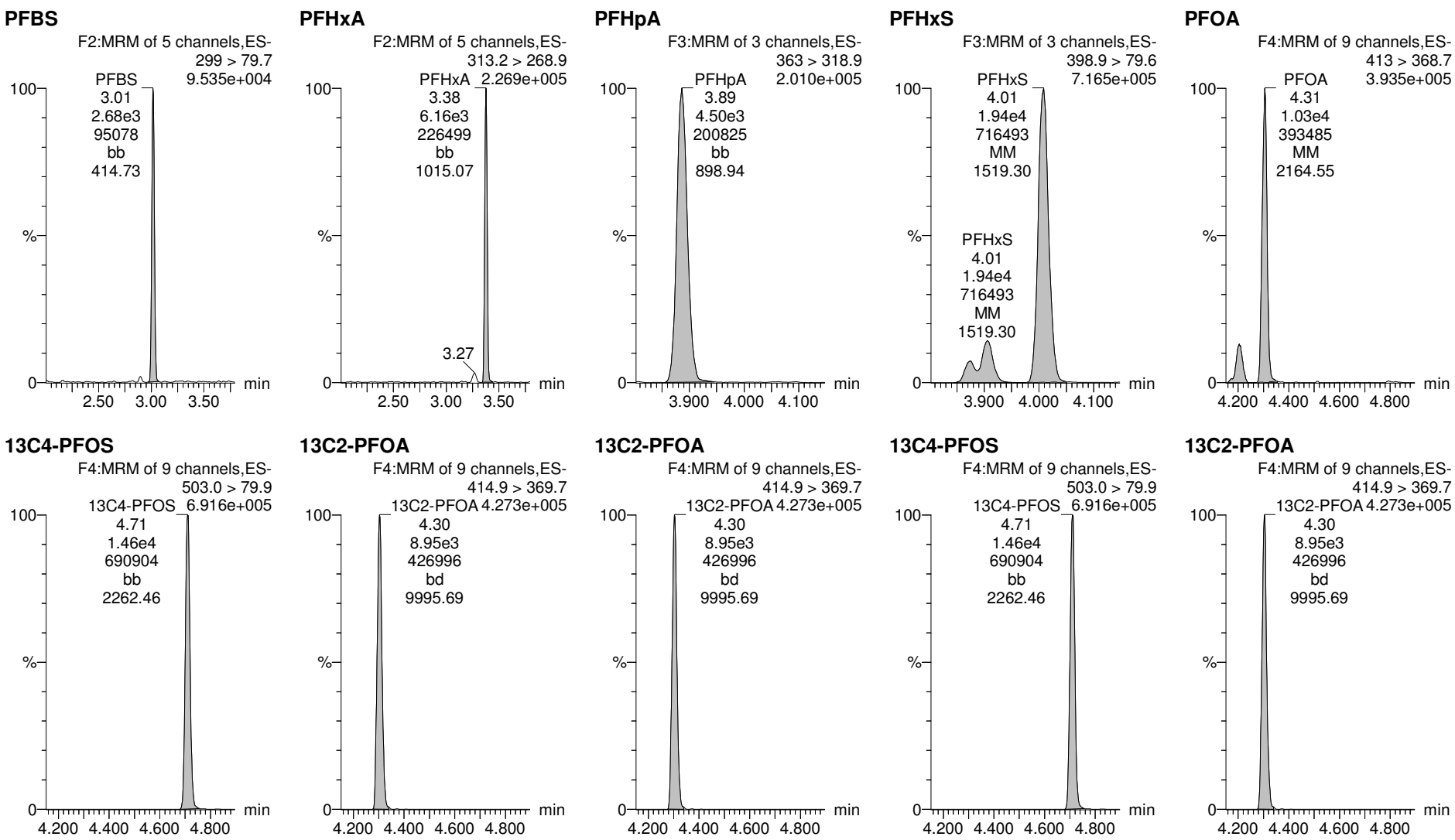
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Printed: Monday, February 26, 2018 11:22:36 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_33, Date: 23-Feb-2018, Time: 19:54:30, ID: 1800274-12 WI-A06-RW05P-0218 0.24939, Description: WI-A06-RW05P-0218

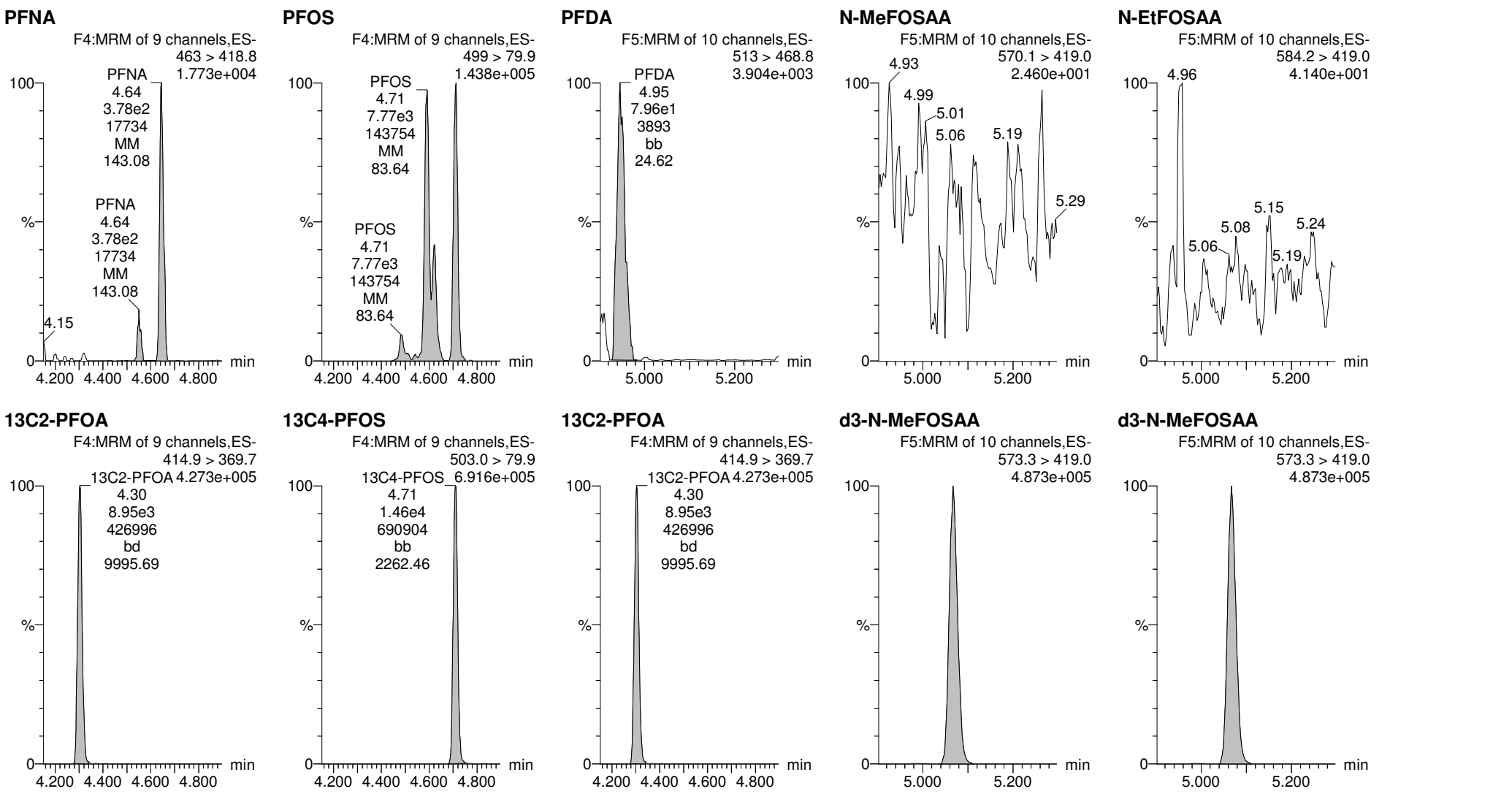


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Last Altered: Monday, February 26, 2018 11:21:38 Pacific Standard Time

Printed: Monday, February 26, 2018 11:22:36 Pacific Standard Time

Name: 180223G2_33, Date: 23-Feb-2018, Time: 19:54:30, ID: 1800274-12 WI-A06-RW05P-0218 0.24939, Description: WI-A06-RW05P-0218

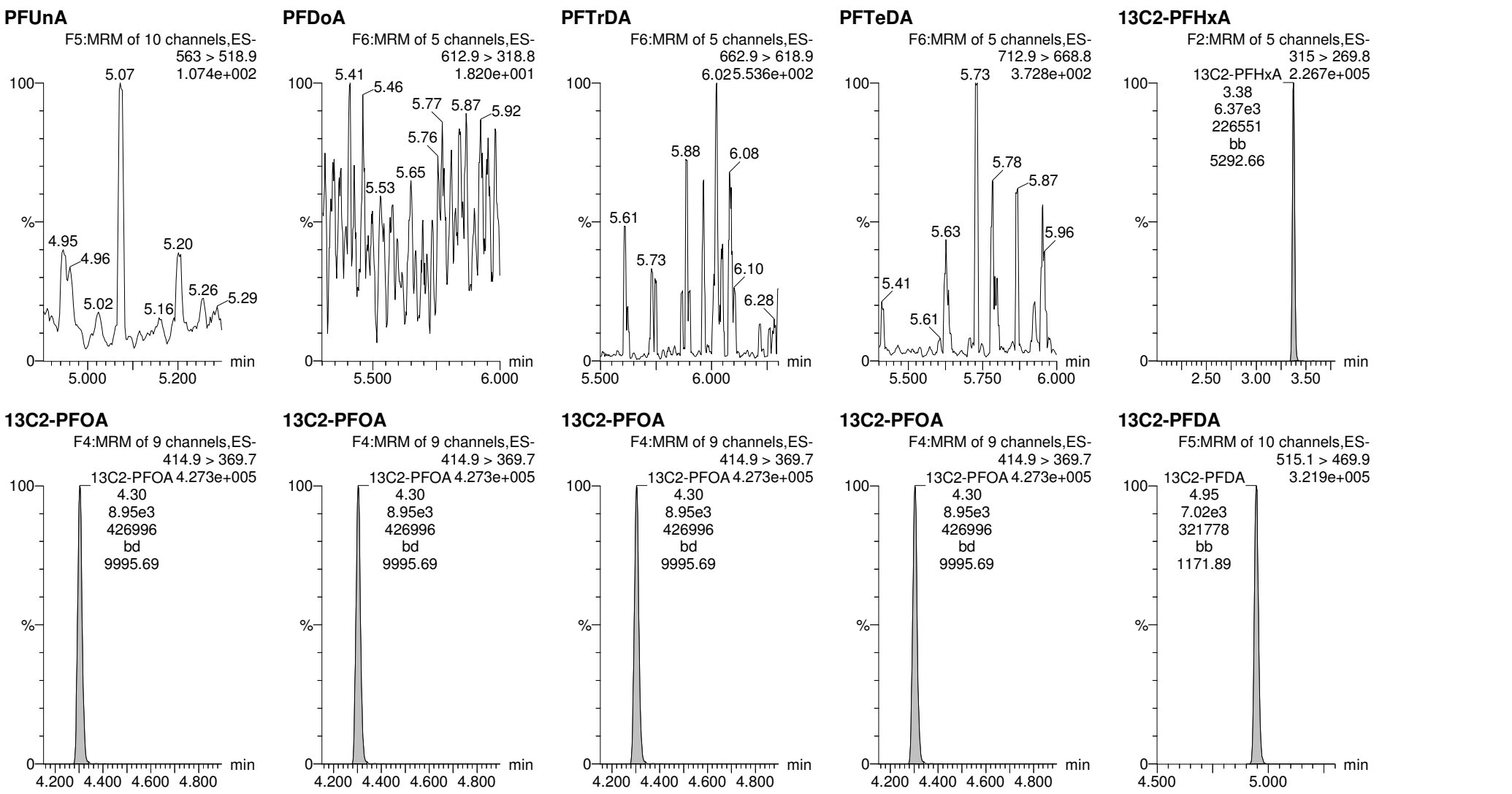


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-33.qld

Last Altered: Monday, February 26, 2018 11:21:38 Pacific Standard Time

Printed: Monday, February 26, 2018 11:22:36 Pacific Standard Time

Name: 180223G2_33, Date: 23-Feb-2018, Time: 19:54:30, ID: 1800274-12 WI-A06-RW05P-0218 0.24939, Description: WI-A06-RW05P-0218



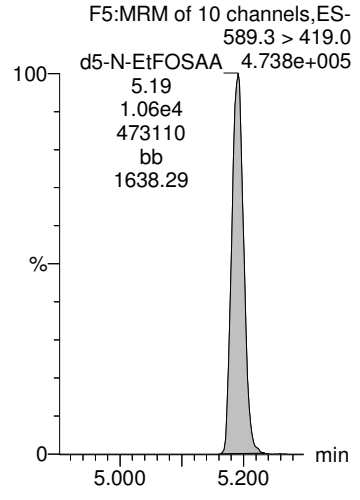
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Printed: Monday, February 26, 2018 11:22:36 Pacific Standard Time

Name: 180223G2_33, Date: 23-Feb-2018, Time: 19:54:30, ID: 1800274-12 WI-A06-RW05P-0218 0.24939, Description: WI-A06-RW05P-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180226G2\180226G2-10.qld

Last Altered: Monday, February 26, 2018 12:50:12 Pacific Standard Time

Printed: Monday, February 26, 2018 12:50:50 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180226G2_10, Date: 26-Feb-2018, Time: 11:20:36, ID: 1800274-12 @1:2 WI-A06-RW05P-0218 0.24939, Description: WI-A06-RW05P-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	4 PFHxS	398.9 > 79.6	1.46e4	1.03e4	0.2494		4.00	4.01	40.5	232	
2	15 13C2-PFHxA	315 > 269.8	5.15e3	7.23e3	0.2494	0.731	3.45	3.37	7.12	39.0	97.3
3	16 13C2-PFDA	515.1 > 469.9	4.86e3	7.23e3	0.2494	0.910	4.90	4.95	6.72	29.6	73.9
4	19 13C4-PFOS	503.0 > 79.9	1.03e4	1.03e4	0.2494	1.000	4.81	4.71	28.7	115	100.0

Dataset: X:\G1.PRO\Results\2018\180226G2\180226G2-10.qld

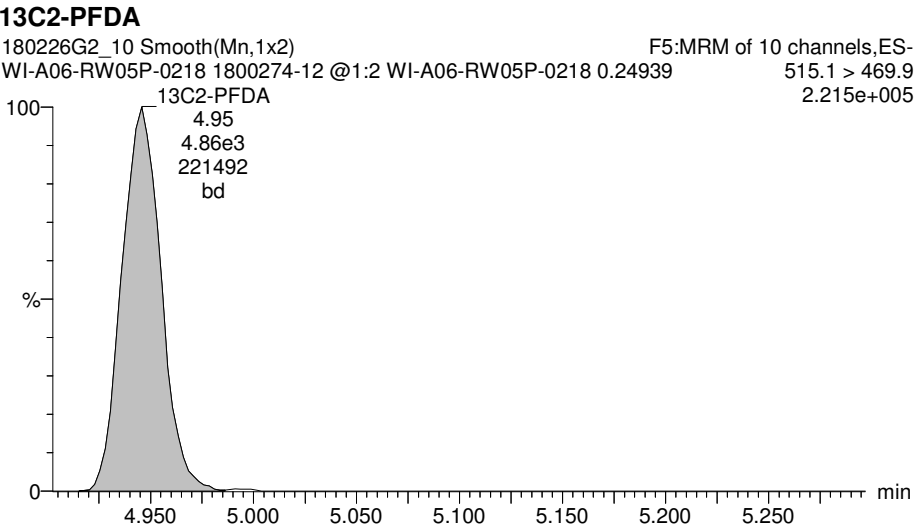
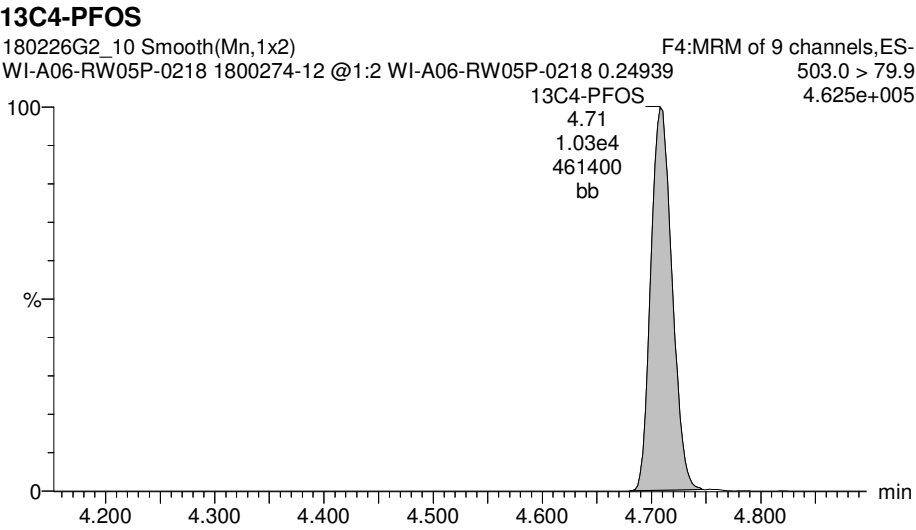
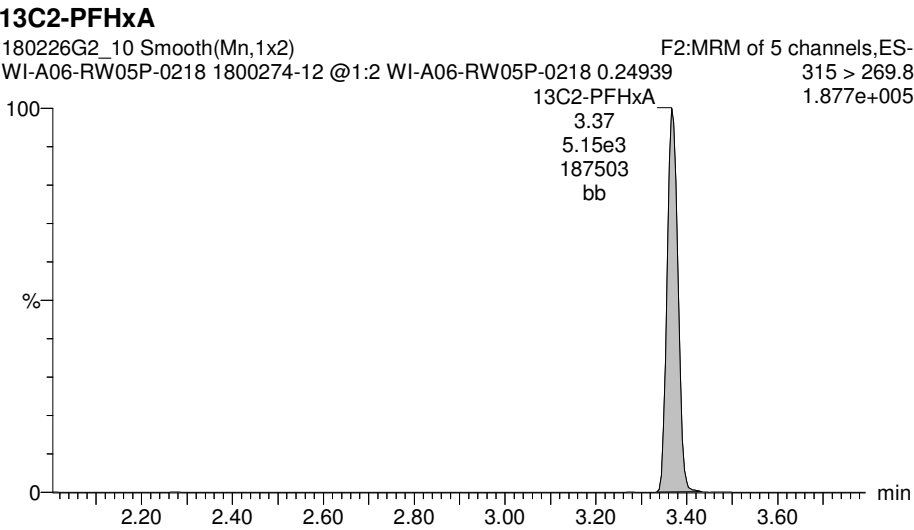
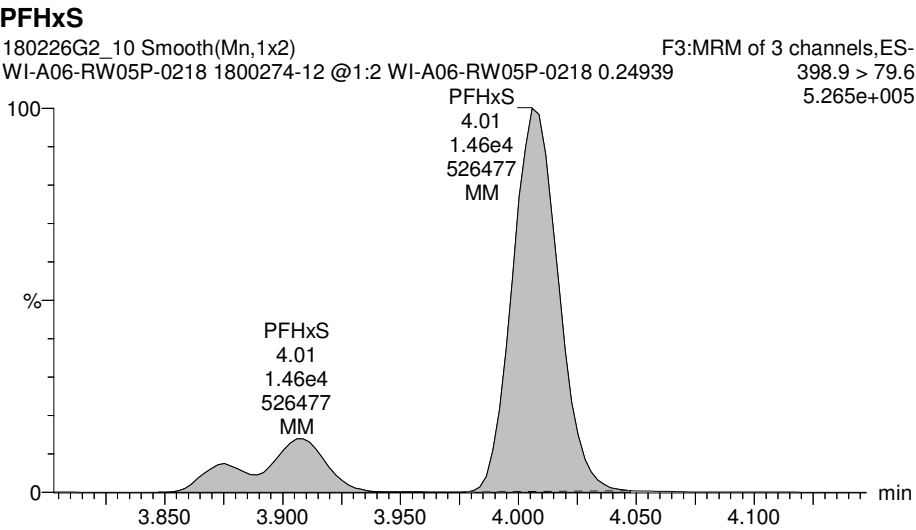
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Printed: Monday, February 26, 2018 12:50:50 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180226G2_10, Date: 26-Feb-2018, Time: 11:20:36, ID: 1800274-12 @1:2 WI-A06-RW05P-0218 0.24939, Description: WI-A06-RW05P-0218



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-34.qld

Last Altered: Monday, February 26, 2018 13:19:14 Pacific Standard Time

Printed: Monday, February 26, 2018 13:19:34 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_34, Date: 23-Feb-2018, Time: 20:06:48, ID: 1800274-13 WI-A06-FB06-0218 0.24933, Description: WI-A06-FB06-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.40e4	0.2493		3.01				
2	2 PFHxA	313.2 > 268.9	8.95e1	8.42e3	0.2493		3.36	3.37	0.106	0.770	
3	3 PFHpA	363 > 318.9	2.01e1	8.42e3	0.2493		3.87	3.89	0.0239	0.102	
4	4 PFHxS	398.9 > 79.6	3.48e0	1.40e4	0.2493		4.00	4.01	0.00715	0.0410	
5	5 PFOA	413 > 368.7	7.75e1	8.42e3	0.2493		4.31	4.30	0.0920	0.441	
6	6 PFNA	463 > 418.8	3.29e0	8.42e3	0.2493		4.65	4.64	0.00391	0.0154	
7	7 PFOS	499 > 79.9		1.40e4	0.2493		4.71				
8	8 PFDA	513 > 468.8	1.14e2	8.42e3	0.2493		4.88	4.95	0.135	0.489	
9	9 N-MeFOSAA	570.1 > 419.0	4.00e0	9.44e3	0.2493		5.01	5.07	0.0169	0.0518	
10	10 N-EtFOSAA	584.2 > 419.0		9.44e3	0.2493		5.19				
11	11 PFUnA	563 > 518.9		8.42e3	0.2493		5.14				
12	12 PFDoA	612.9 > 318.8		8.42e3	0.2493		5.34				
13	13 PFTrDA	662.9 > 618.9		8.42e3	0.2493		5.57				
14	14 PFTeDA	712.9 > 668.8	9.66e0	8.42e3	0.2493		5.74	5.79	0.0115	0.0368	
15	15 13C2-PFHxA	315 > 269.8	6.38e3	8.42e3	0.2493	0.731	3.45	3.38	7.57	41.5	103.5
16	16 13C2-PFDA	515.1 > 469.9	6.91e3	8.42e3	0.2493	0.910	4.91	4.95	8.21	36.2	90.2
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.05e4	9.44e3	0.2493	1.049	5.07	5.19	44.6	171	106.3
18	18 13C2-PFOA	414.9 > 369.7	8.42e3	8.42e3	0.2493	1.000	4.41	4.31	10.0	40.1	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.40e4	1.40e4	0.2493	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	9.44e3	9.44e3	0.2493	1.000	5.16	5.07	40.0	160	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-34.qld

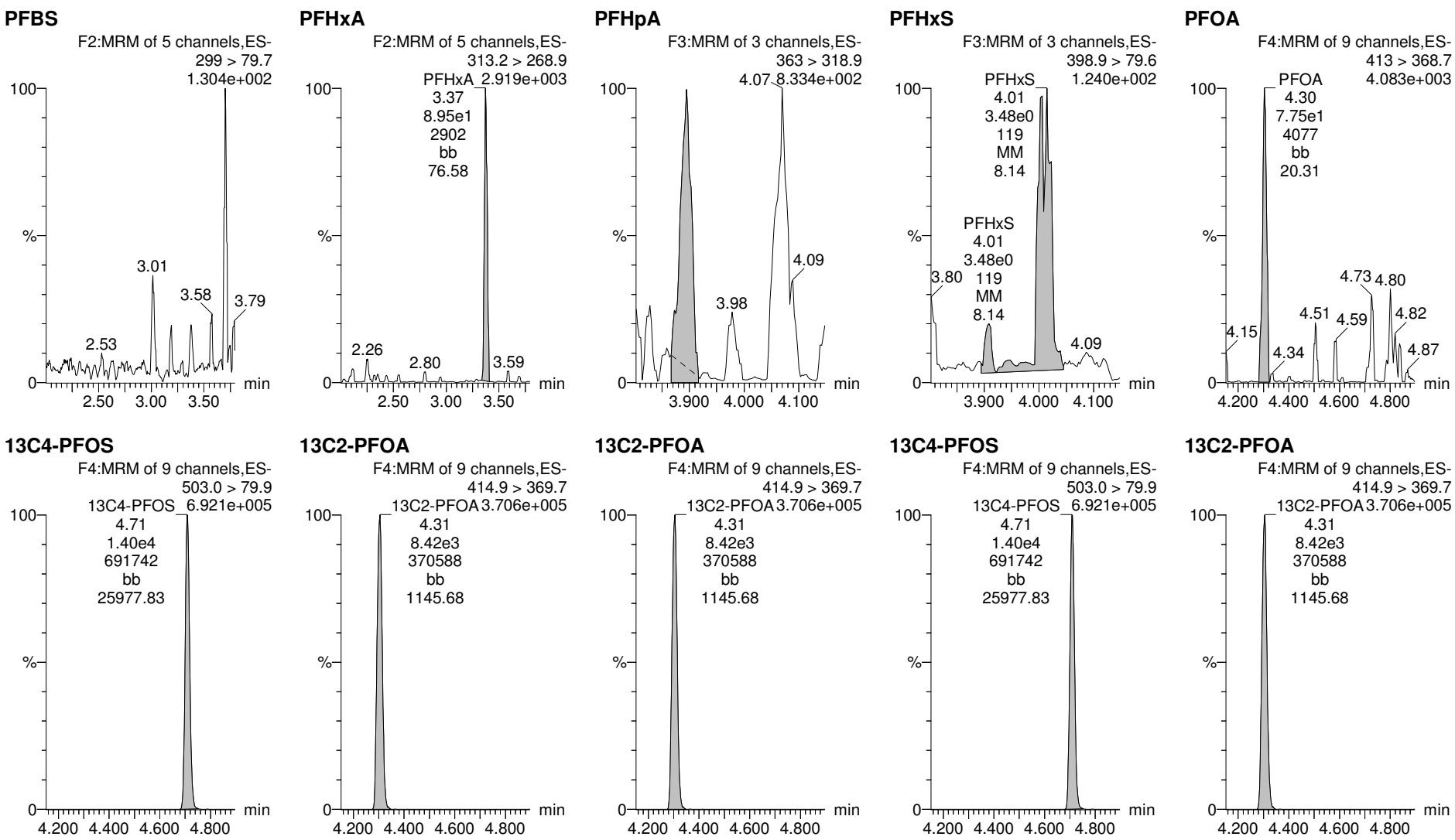
Last Altered: Monday, February 26, 2018 13:19:14 Pacific Standard Time

Printed: Monday, February 26, 2018 13:19:34 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_34, Date: 23-Feb-2018, Time: 20:06:48, ID: 1800274-13 WI-A06-FB06-0218 0.24933, Description: WI-A06-FB06-0218



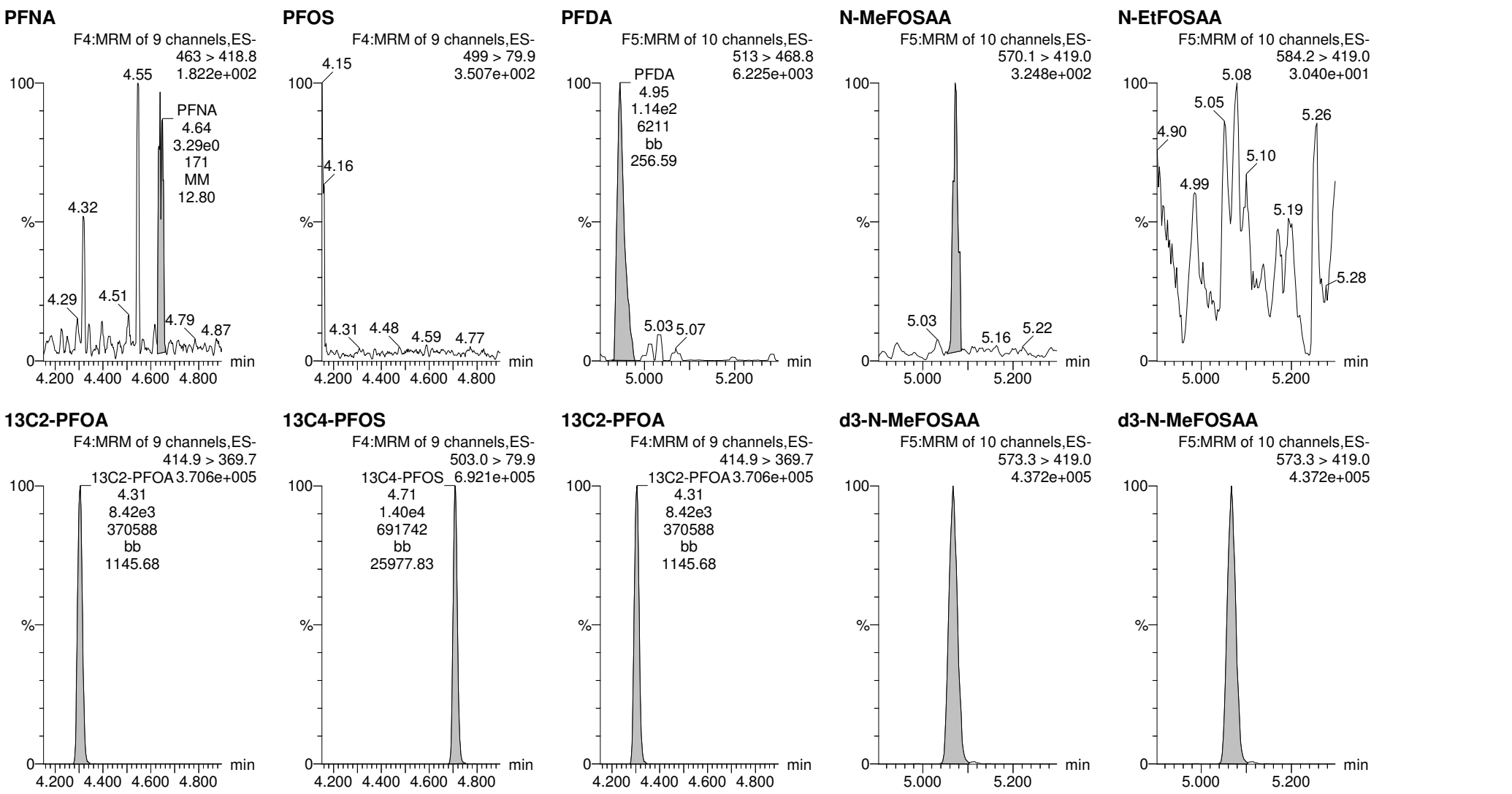
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Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:19:14 Pacific Standard Time

Printed: Monday, February 26, 2018 13:19:34 Pacific Standard Time

Name: 180223G2_34, Date: 23-Feb-2018, Time: 20:06:48, ID: 1800274-13 WI-A06-FB06-0218 0.24933, Description: WI-A06-FB06-0218

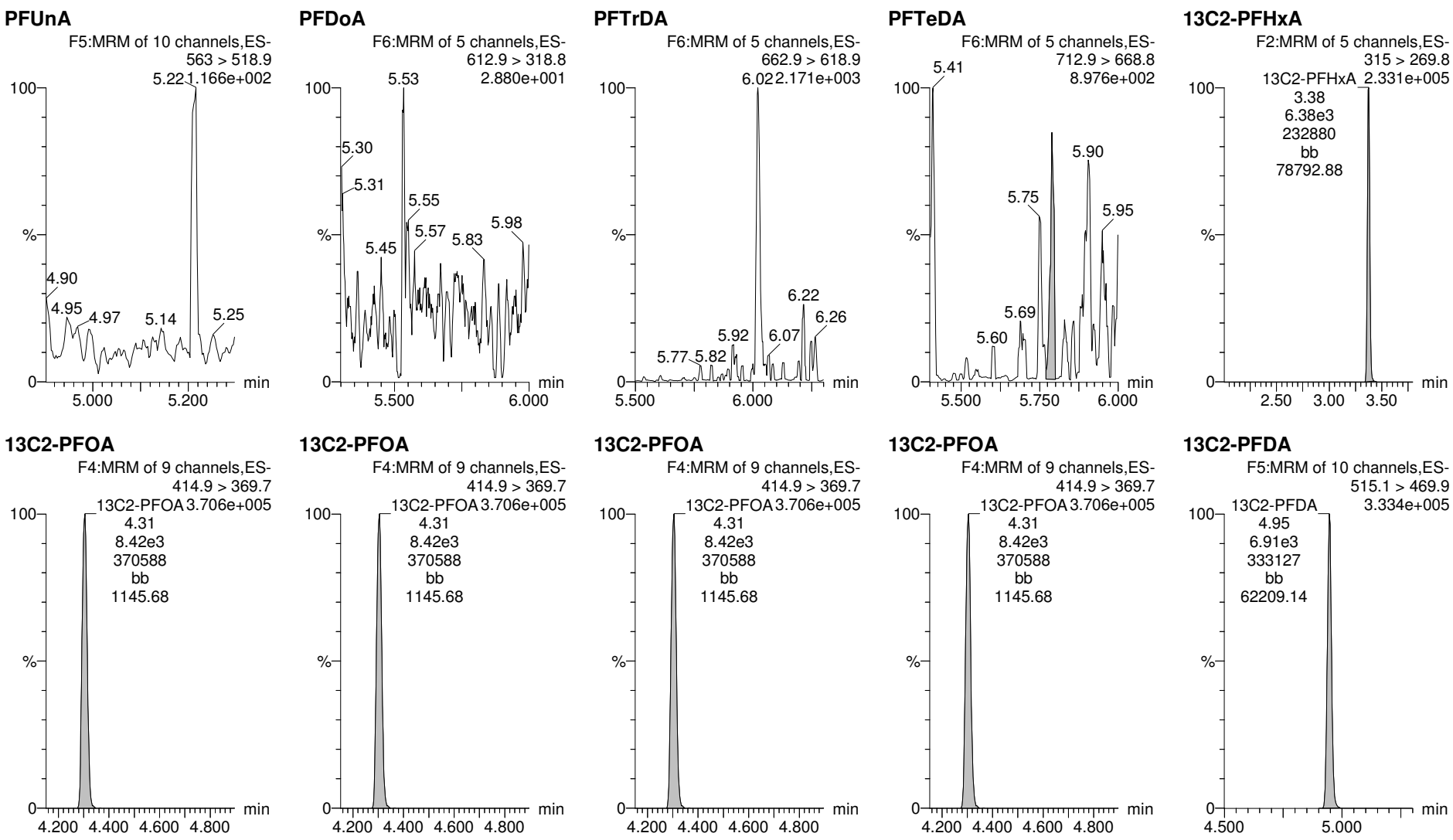


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-34.qld

Last Altered: Monday, February 26, 2018 13:19:14 Pacific Standard Time

Printed: Monday, February 26, 2018 13:19:34 Pacific Standard Time

Name: 180223G2_34, Date: 23-Feb-2018, Time: 20:06:48, ID: 1800274-13 WI-A06-FB06-0218 0.24933, Description: WI-A06-FB06-0218



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-34.qld

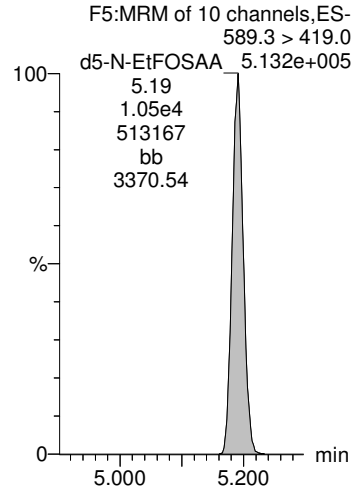
Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:19:14 Pacific Standard Time

Printed: Monday, February 26, 2018 13:19:34 Pacific Standard Time

Name: 180223G2_34, Date: 23-Feb-2018, Time: 20:06:48, ID: 1800274-13 WI-A06-FB06-0218 0.24933, Description: WI-A06-FB06-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-35.qld

Last Altered: Monday, February 26, 2018 11:28:40 Pacific Standard Time

Printed: Monday, February 26, 2018 11:29:13 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_35, Date: 23-Feb-2018, Time: 20:19:13, ID: 1800274-14 WI-A06-RW07-0218 0.25299, Description: WI-A06-RW07-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.36e4	0.2530		3.01				
2	2 PFHxA	313.2 > 268.9	6.67e1	8.98e3	0.2530		3.36	3.38	0.0742	0.530	
3	3 PFHpA	363 > 318.9		8.98e3	0.2530		3.87				
4	4 PFHxS	398.9 > 79.6		1.36e4	0.2530		4.00				
5	5 PFOA	413 > 368.7	1.05e2	8.98e3	0.2530		4.30	4.31	0.117	0.552	
6	6 PFNA	463 > 418.8		8.98e3	0.2530		4.65				
7	7 PFOS	499 > 79.9		1.36e4	0.2530		4.71				
8	8 PFDA	513 > 468.8	4.08e1	8.98e3	0.2530		4.87	4.95	0.0455	0.162	
9	9 N-MeFOSAA	570.1 > 419.0	4.04e0	1.08e4	0.2530		5.01	5.07	0.0150	0.0451	
10	10 N-EtFOSAA	584.2 > 419.0		1.08e4	0.2530		5.19				
11	11 PFUnA	563 > 518.9		8.98e3	0.2530		5.13				
12	12 PFDoA	612.9 > 318.8		8.98e3	0.2530		5.34				
13	13 PFTrDA	662.9 > 618.9	5.26e0	8.98e3	0.2530		5.56	5.61	0.00586	0.0168	
14	14 PFTeDA	712.9 > 668.8		8.98e3	0.2530		5.73				
15	15 13C2-PFHxA	315 > 269.8	6.81e3	8.98e3	0.2530	0.731	3.45	3.38	7.58	41.0	103.7
16	16 13C2-PFDA	515.1 > 469.9	7.04e3	8.98e3	0.2530	0.910	4.91	4.95	7.84	34.1	86.2
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.03e4	1.08e4	0.2530	1.049	5.07	5.19	38.2	144	91.0
18	18 13C2-PFOA	414.9 > 369.7	8.98e3	8.98e3	0.2530	1.000	4.41	4.30	10.0	39.5	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.36e4	1.36e4	0.2530	1.000	4.81	4.71	28.7	113	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.08e4	1.08e4	0.2530	1.000	5.16	5.07	40.0	158	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-35.qld

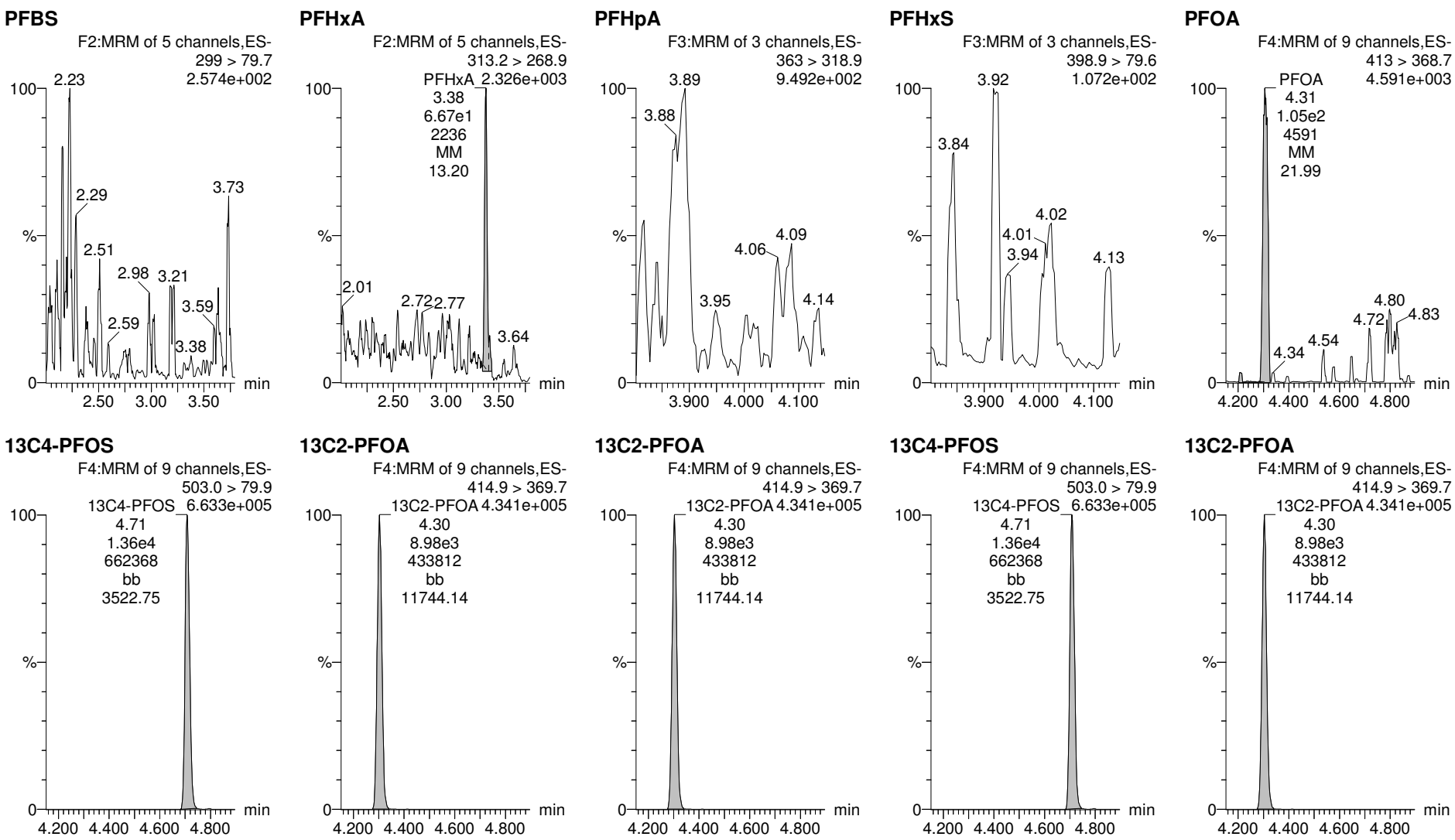
Last Altered: Monday, February 26, 2018 11:28:40 Pacific Standard Time

Printed: Monday, February 26, 2018 11:29:13 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_35, Date: 23-Feb-2018, Time: 20:19:13, ID: 1800274-14 WI-A06-RW07-0218 0.25299, Description: WI-A06-RW07-0218



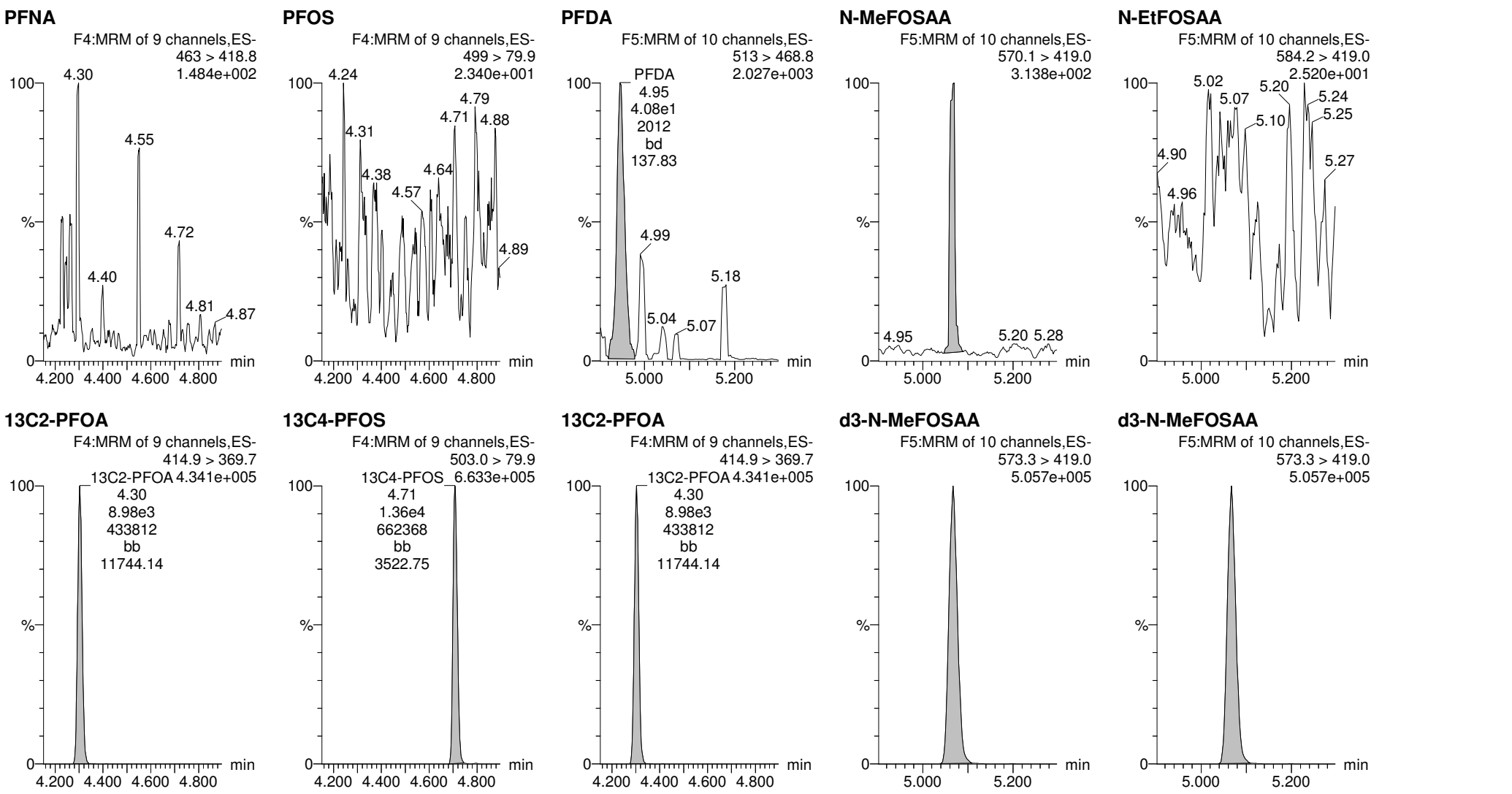
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Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 11:28:40 Pacific Standard Time

Printed: Monday, February 26, 2018 11:29:13 Pacific Standard Time

Name: 180223G2_35, Date: 23-Feb-2018, Time: 20:19:13, ID: 1800274-14 WI-A06-RW07-0218 0.25299, Description: WI-A06-RW07-0218

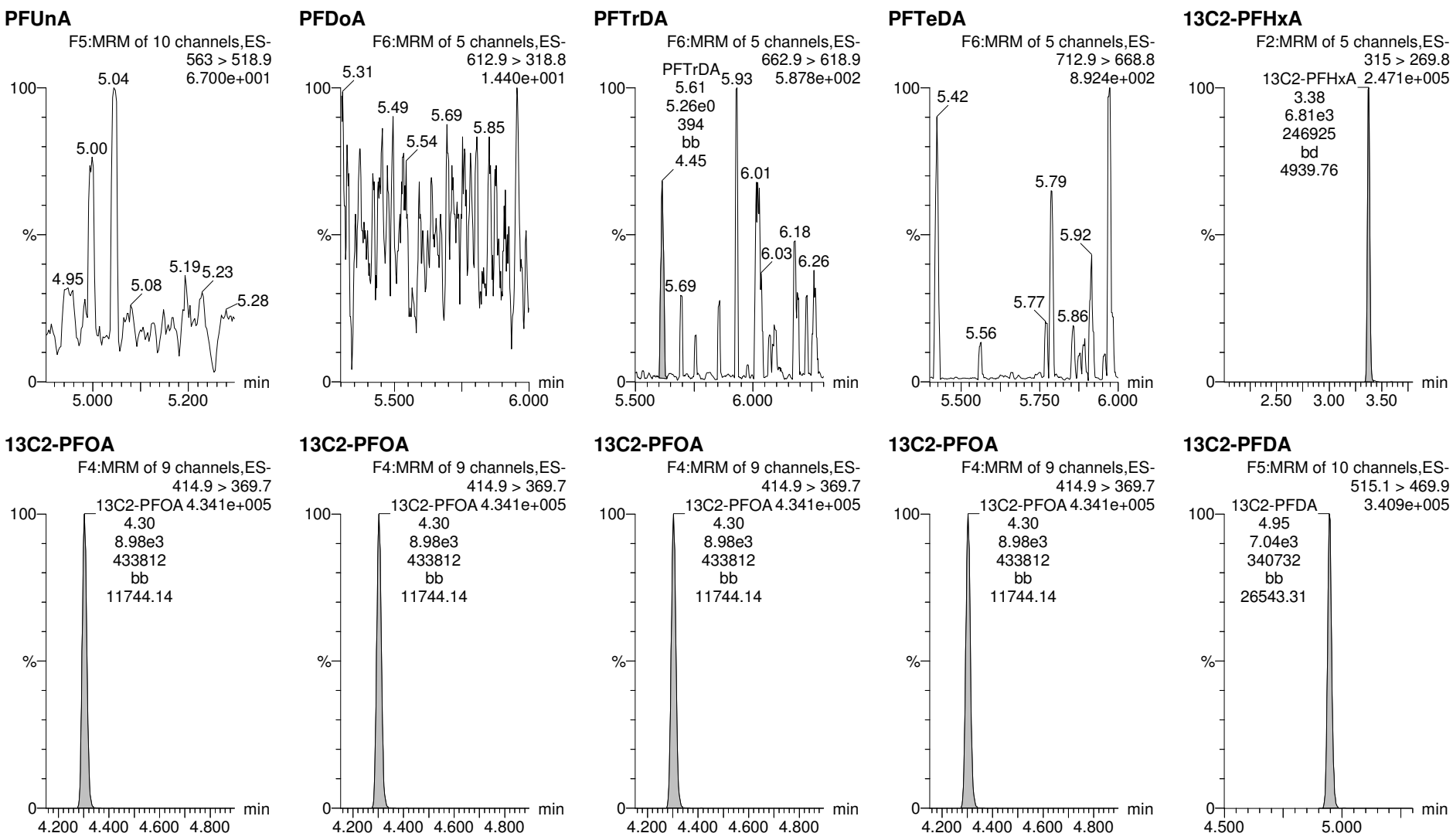


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-35.qld

Last Altered: Monday, February 26, 2018 11:28:40 Pacific Standard Time

Printed: Monday, February 26, 2018 11:29:13 Pacific Standard Time

Name: 180223G2_35, Date: 23-Feb-2018, Time: 20:19:13, ID: 1800274-14 WI-A06-RW07-0218 0.25299, Description: WI-A06-RW07-0218



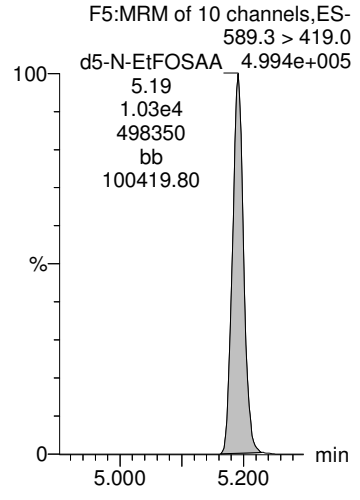
Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-35.qld

Last Altered: Monday, February 26, 2018 11:28:40 Pacific Standard Time

Printed: Monday, February 26, 2018 11:29:13 Pacific Standard Time

Name: 180223G2_35, Date: 23-Feb-2018, Time: 20:19:13, ID: 1800274-14 WI-A06-RW07-0218 0.25299, Description: WI-A06-RW07-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-36.qld

Last Altered: Monday, February 26, 2018 13:21:04 Pacific Standard Time

Printed: Monday, February 26, 2018 13:21:24 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_36, Date: 23-Feb-2018, Time: 20:31:38, ID: 1800274-15 WI-A06-FB07-0218 0.25846, Description: WI-A06-FB07-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.29e4	0.2585		3.01				
2	2 PFHxA	313.2 > 268.9	8.74e1	9.03e3	0.2585		3.36	3.38	0.0968	0.677	
3	3 PFHpA	363 > 318.9	2.57e1	9.03e3	0.2585		3.87	3.90	0.0285	0.117	
4	4 PFHxS	398.9 > 79.6	1.50e0	1.29e4	0.2585		4.00	4.01	0.00332	0.0184	
5	5 PFOA	413 > 368.7	1.11e2	9.03e3	0.2585		4.30	4.31	0.123	0.569	
6	6 PFNA	463 > 418.8	5.79e0	9.03e3	0.2585		4.65	4.65	0.00642	0.0244	
7	7 PFOS	499 > 79.9		1.29e4	0.2585		4.71				
8	8 PFDA	513 > 468.8	3.08e1	9.03e3	0.2585		4.87	4.94	0.0342	0.119	
9	9 N-MeFOSAA	570.1 > 419.0		9.28e3	0.2585		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		9.28e3	0.2585		5.19				
11	11 PFUnA	563 > 518.9		9.03e3	0.2585		5.13				
12	12 PFDoA	612.9 > 318.8		9.03e3	0.2585		5.34				
13	13 PFTrDA	662.9 > 618.9		9.03e3	0.2585		5.56				
14	14 PFTeDA	712.9 > 668.8		9.03e3	0.2585		5.73				
15	15 13C2-PFHxA	315 > 269.8	6.32e3	9.03e3	0.2585	0.731	3.45	3.38	7.01	37.1	95.8
16	16 13C2-PFDA	515.1 > 469.9	6.81e3	9.03e3	0.2585	0.910	4.91	4.95	7.55	32.1	82.9
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.08e4	9.28e3	0.2585	1.049	5.07	5.19	46.6	172	110.9
18	18 13C2-PFOA	414.9 > 369.7	9.03e3	9.03e3	0.2585	1.000	4.41	4.30	10.0	38.7	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.29e4	1.29e4	0.2585	1.000	4.81	4.71	28.7	111	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	9.28e3	9.28e3	0.2585	1.000	5.16	5.07	40.0	155	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-36.qld

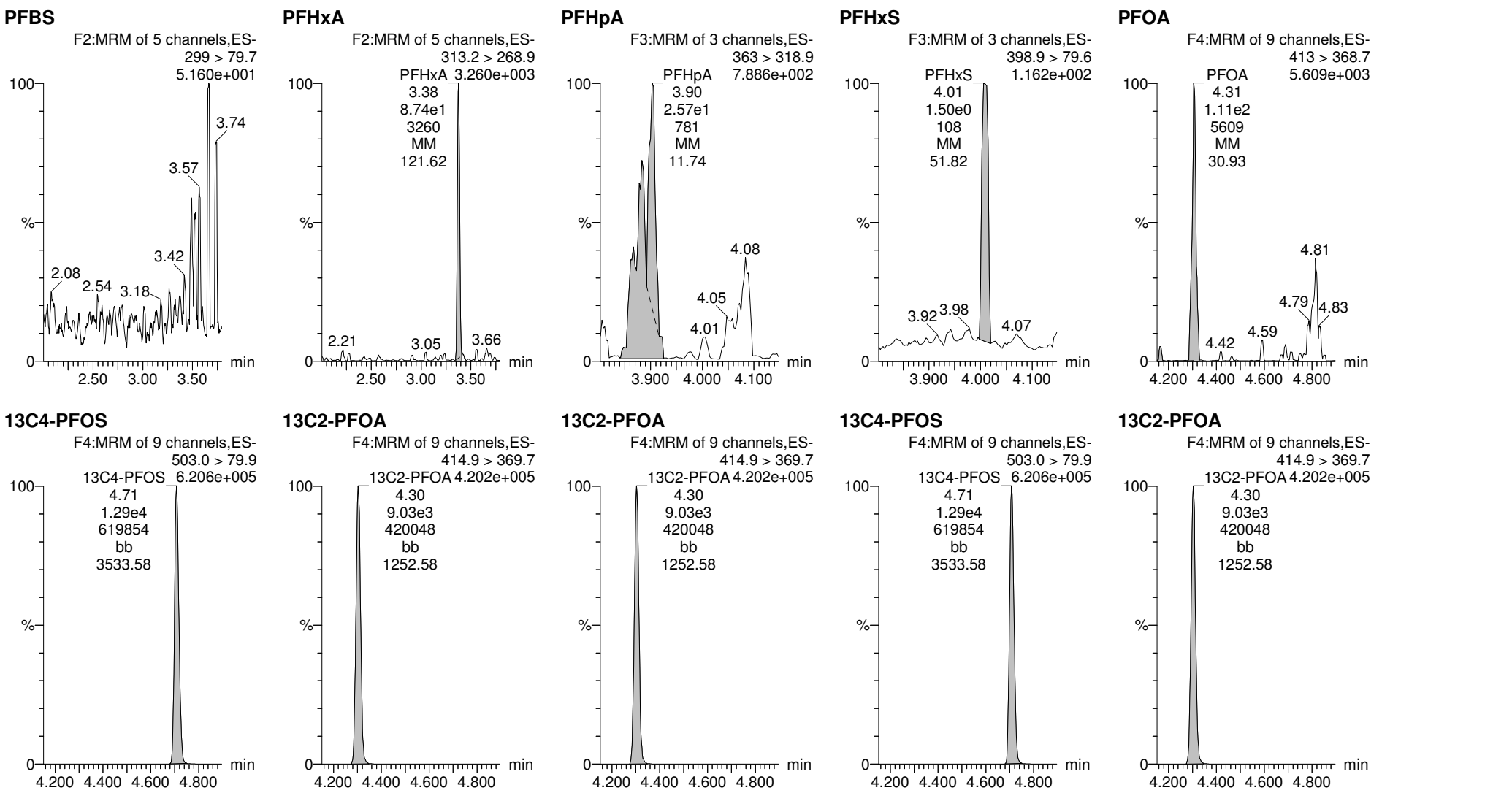
Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:21:04 Pacific Standard Time

Printed: Monday, February 26, 2018 13:21:24 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_36, Date: 23-Feb-2018, Time: 20:31:38, ID: 1800274-15 WI-A06-FB07-0218 0.25846, Description: WI-A06-FB07-0218



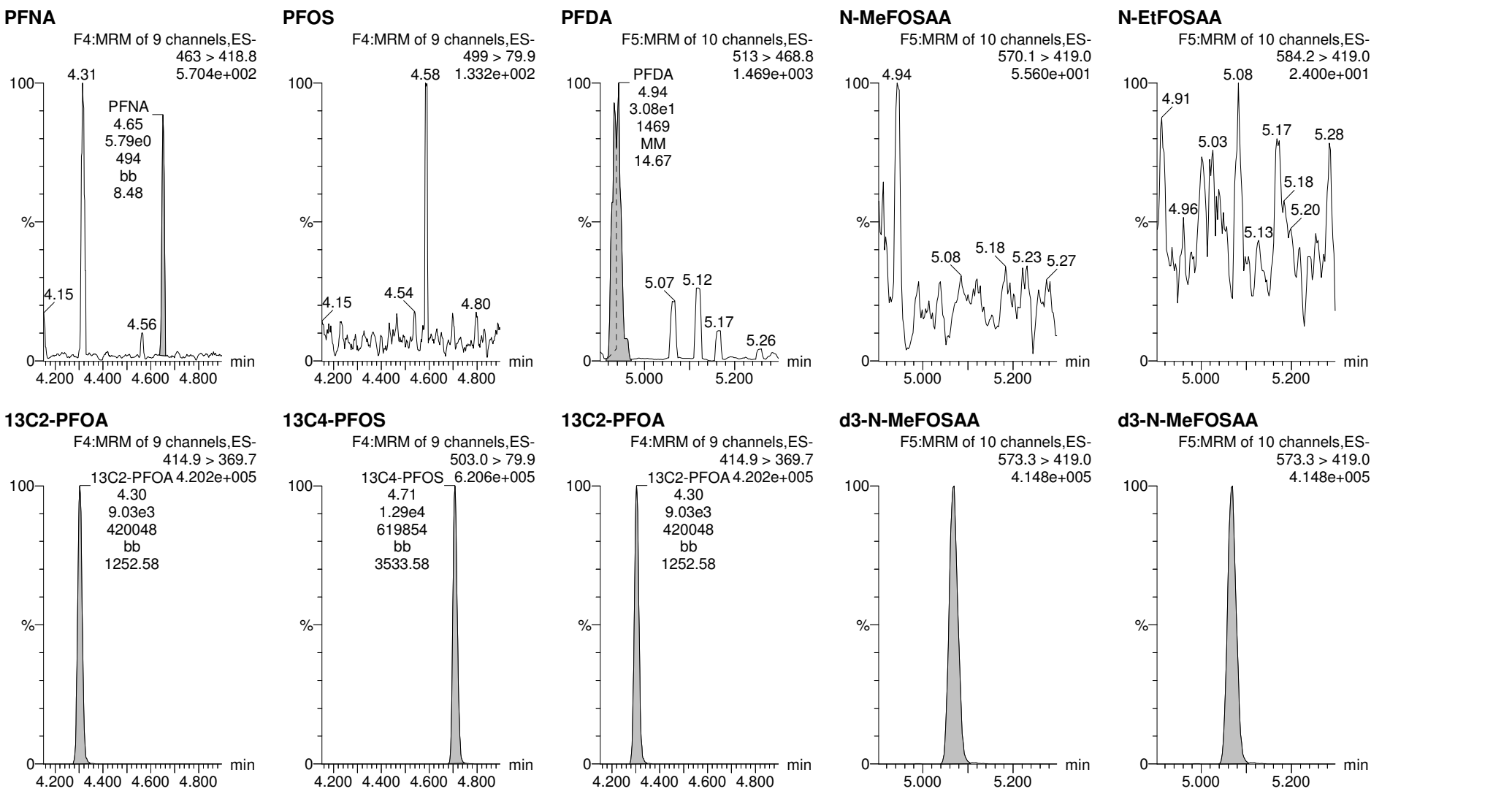
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Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 13:21:04 Pacific Standard Time

Printed: Monday, February 26, 2018 13:21:24 Pacific Standard Time

Name: 180223G2_36, Date: 23-Feb-2018, Time: 20:31:38, ID: 1800274-15 WI-A06-FB07-0218 0.25846, Description: WI-A06-FB07-0218

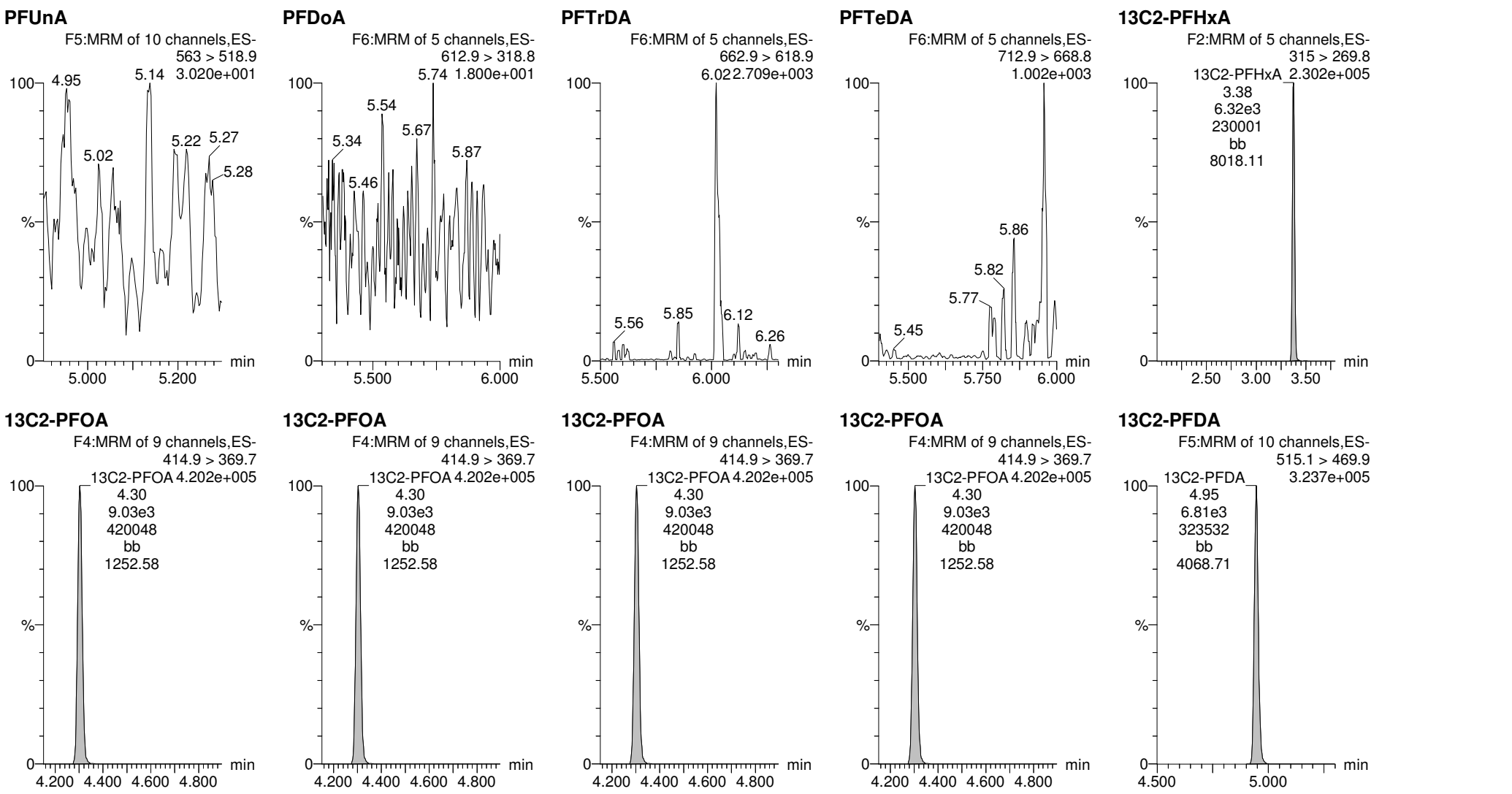


Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-36.qld

Last Altered: Monday, February 26, 2018 13:21:04 Pacific Standard Time

Printed: Monday, February 26, 2018 13:21:24 Pacific Standard Time

Name: 180223G2_36, Date: 23-Feb-2018, Time: 20:31:38, ID: 1800274-15 WI-A06-FB07-0218 0.25846, Description: WI-A06-FB07-0218



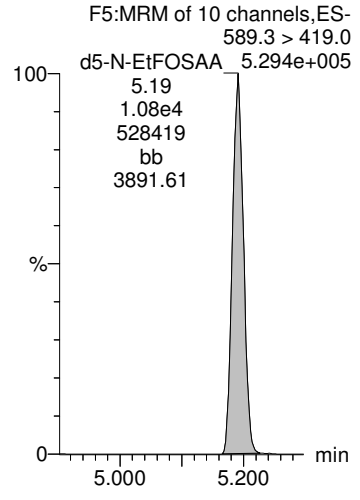
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Last Altered: Monday, February 26, 2018 13:21:04 Pacific Standard Time

Printed: Monday, February 26, 2018 13:21:24 Pacific Standard Time

Name: 180223G2_36, Date: 23-Feb-2018, Time: 20:31:38, ID: 1800274-15 WI-A06-FB07-0218 0.25846, Description: WI-A06-FB07-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-37.qld

Last Altered: Monday, February 26, 2018 11:35:25 Pacific Standard Time

Printed: Monday, February 26, 2018 11:35:55 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_37, Date: 23-Feb-2018, Time: 20:44:03, ID: 1800274-16 WI-A06-RW08-0218 0.24886, Description: WI-A06-RW08-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.97e3	1.35e4	0.2489		3.01	3.01	4.18	23.0	
2	2 PFHxA	313.2 > 268.9	1.92e3	9.26e3	0.2489		3.36	3.38	2.08	15.1	
3	3 PFHpA	363 > 318.9	1.91e3	9.26e3	0.2489		3.87	3.89	2.06	8.81	
4	4 PFHxS	398.9 > 79.6	9.50e3	1.35e4	0.2489		4.00	4.01	20.1	116	
5	5 PFOA	413 > 368.7	4.91e3	9.26e3	0.2489		4.30	4.31	5.30	25.4	
6	6 PFNA	463 > 418.8	5.87e2	9.26e3	0.2489		4.65	4.65	0.634	2.51	
7	7 PFOS	499 > 79.9	8.82e3	1.35e4	0.2489		4.71	4.71	18.7	78.2	
8	8 PFDA	513 > 468.8	4.20e1	9.26e3	0.2489		4.87	4.95	0.0454	0.164	
9	9 N-MeFOSAA	570.1 > 419.0	4.12e0	1.14e4	0.2489		5.01	5.07	0.0145	0.0443	
10	10 N-EtFOSAA	584.2 > 419.0		1.14e4	0.2489		5.19				
11	11 PFUnA	563 > 518.9		9.26e3	0.2489		5.13				
12	12 PFDoA	612.9 > 318.8		9.26e3	0.2489		5.34				
13	13 PFTxDA	662.9 > 618.9		9.26e3	0.2489		5.56				
14	14 PFTeDA	712.9 > 668.8		9.26e3	0.2489		5.73				
15	15 13C2-PFHxA	315 > 269.8	6.25e3	9.26e3	0.2489	0.731	3.45	3.38	6.75	37.1	92.4
16	16 13C2-PFDA	515.1 > 469.9	6.27e3	9.26e3	0.2489	0.910	4.91	4.95	6.77	29.9	74.4
17	17 d5-N-EtFOSAA	589.3 > 419.0	9.66e3	1.14e4	0.2489	1.049	5.07	5.19	33.9	130	80.7
18	18 13C2-PFOA	414.9 > 369.7	9.26e3	9.26e3	0.2489	1.000	4.41	4.30	10.0	40.2	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.35e4	1.35e4	0.2489	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.14e4	1.14e4	0.2489	1.000	5.16	5.07	40.0	161	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-37.qld

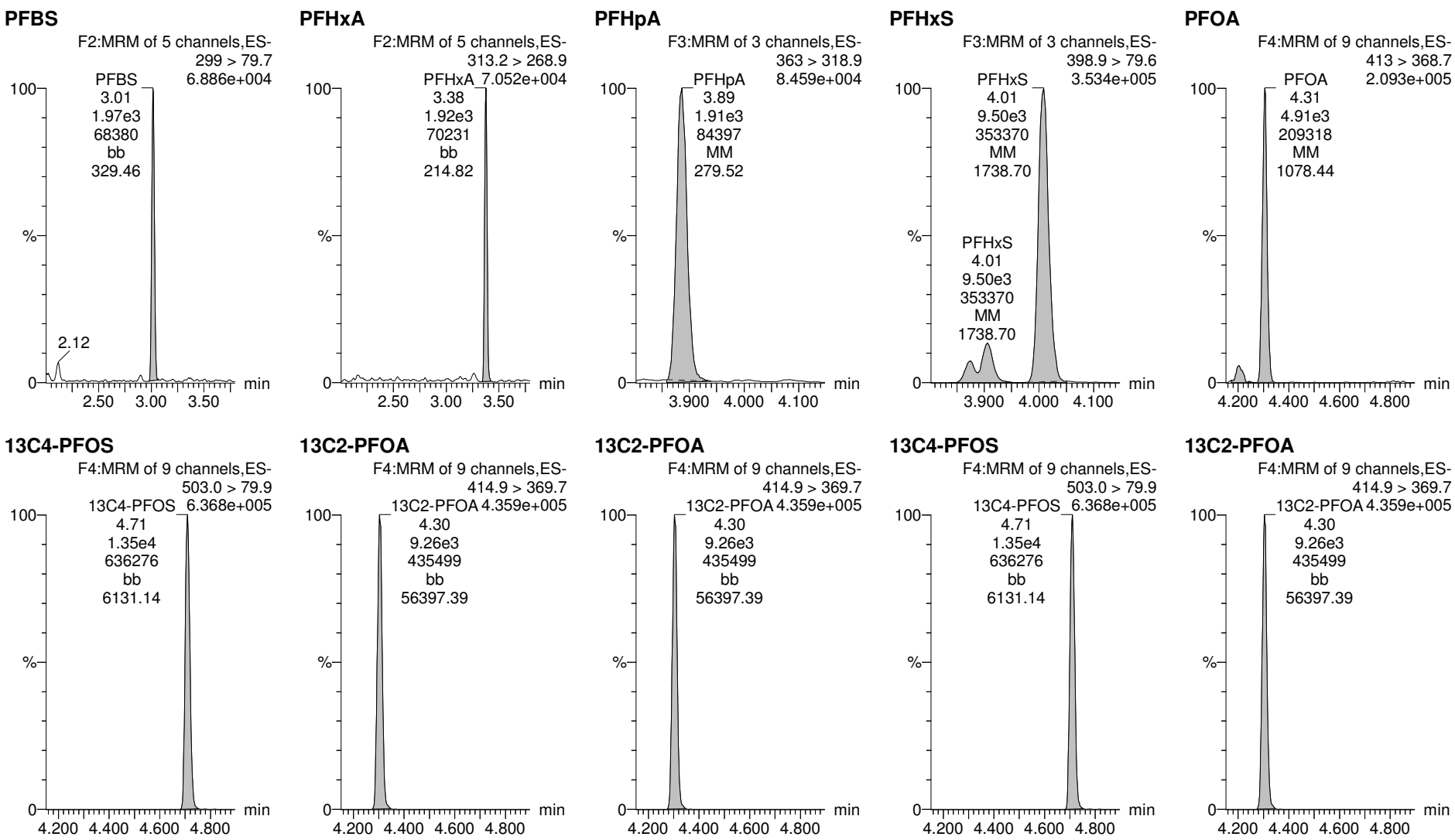
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Printed: Monday, February 26, 2018 11:35:55 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_37, Date: 23-Feb-2018, Time: 20:44:03, ID: 1800274-16 WI-A06-RW08-0218 0.24886, Description: WI-A06-RW08-0218



Vista Analytical Laboratory

Rev'd: MM 2/26/2018

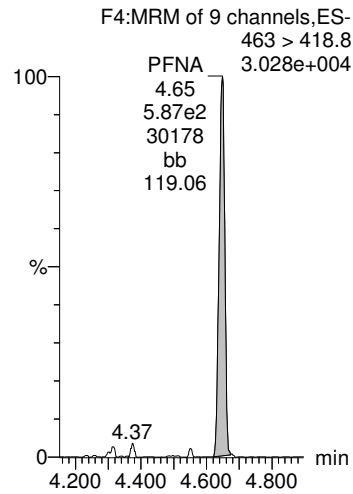
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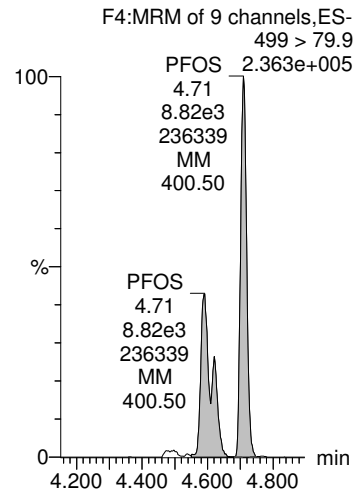
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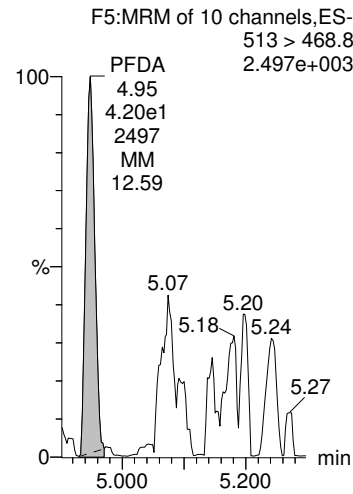
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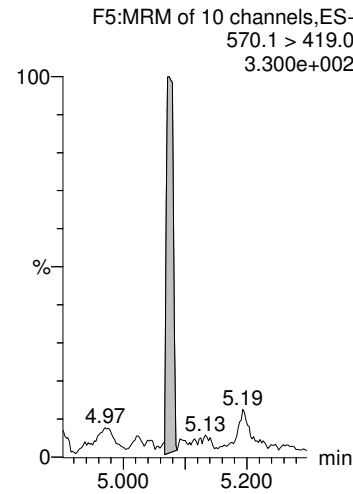
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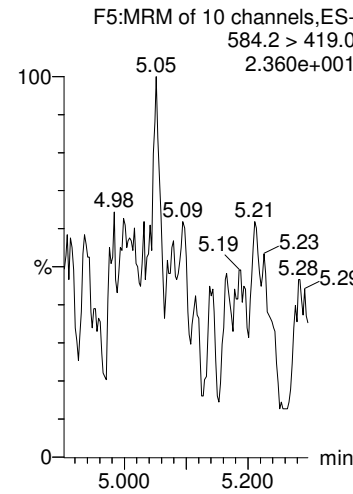
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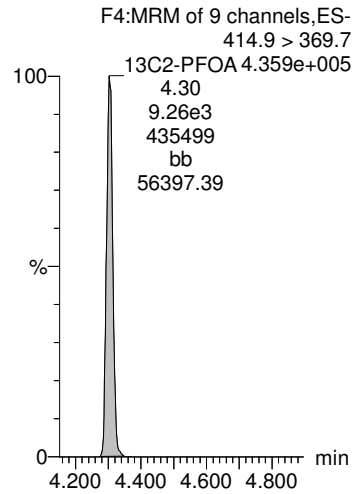
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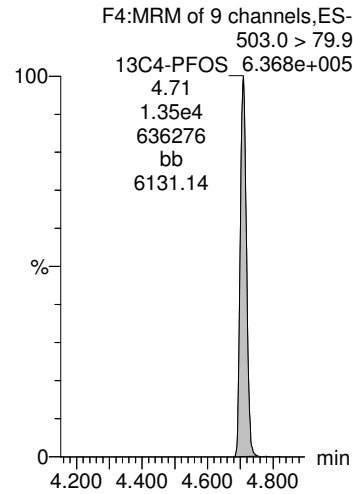
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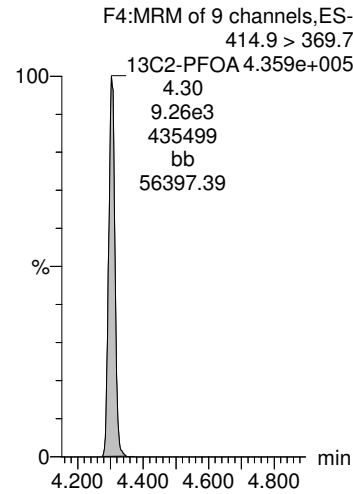
13C2-PFOA



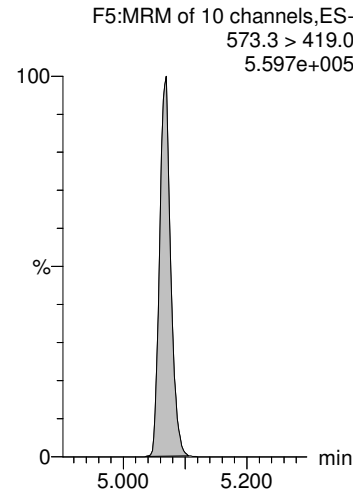
13C4-PFOS



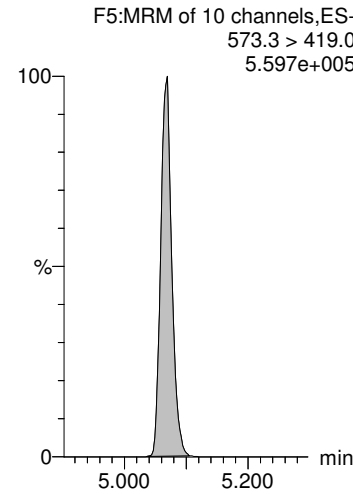
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA

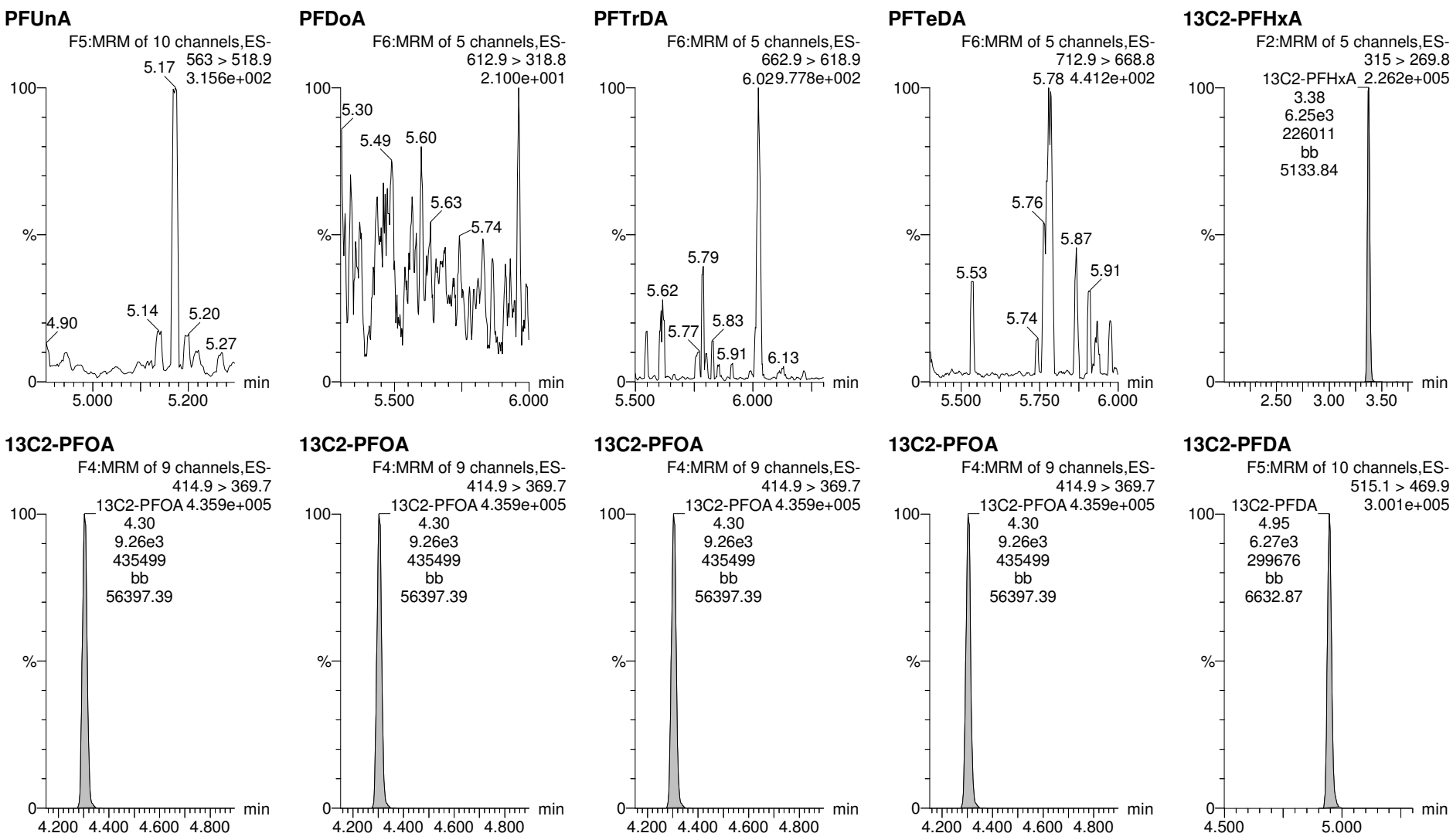


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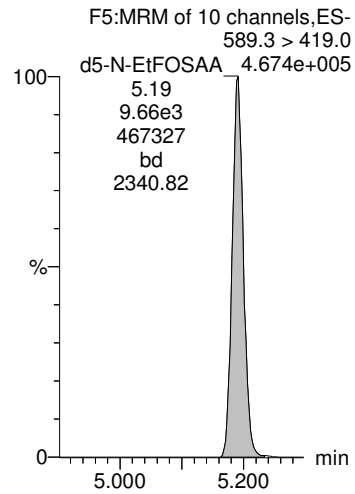
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Name: 180223G2_37, Date: 23-Feb-2018, Time: 20:44:03, ID: 1800274-16 WI-A06-RW08-0218 0.24886, Description: WI-A06-RW08-0218



Name: 180223G2_37, Date: 23-Feb-2018, Time: 20:44:03, ID: 1800274-16 WI-A06-RW08-0218 0.24886, Description: WI-A06-RW08-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-38.qld

Last Altered: Monday, February 26, 2018 11:37:33 Pacific Standard Time

Printed: Monday, February 26, 2018 11:38:11 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_38, Date: 23-Feb-2018, Time: 20:56:28, ID: 1800274-17 WI-A06-FB08-0218 0.2509, Description: WI-A06-FB08-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.34e4	0.2509		3.01				
2	2 PFHxA	313.2 > 268.9	8.01e1	9.08e3	0.2509		3.36	3.38	0.0882	0.635	
3	3 PFHpA	363 > 318.9	1.93e1	9.08e3	0.2509		3.87	3.89	0.0212	0.0899	
4	4 PFHxS	398.9 > 79.6	3.30e0	1.34e4	0.2509		4.00	4.01	0.00705	0.0401	
5	5 PFOA	413 > 368.7	9.76e1	9.08e3	0.2509		4.30	4.31	0.108	0.511	
6	6 PFNA	463 > 418.8	1.49e1	9.08e3	0.2509		4.65	4.66	0.0164	0.0642	
7	7 PFOS	499 > 79.9	7.51e0	1.34e4	0.2509		4.71	4.72	0.0160	0.0666	
8	8 PFDA	513 > 468.8	7.16e1	9.08e3	0.2509		4.87	4.94	0.0789	0.283	
9	9 N-MeFOSAA	570.1 > 419.0		1.08e4	0.2509		5.00				
10	10 N-EtFOSAA	584.2 > 419.0		1.08e4	0.2509		5.18				
11	11 PFUnA	563 > 518.9		9.08e3	0.2509		5.13				
12	12 PFDoA	612.9 > 318.8		9.08e3	0.2509		5.34				
13	13 PFTrDA	662.9 > 618.9	9.96e0	9.08e3	0.2509		5.56	5.61	0.0110	0.0318	
14	14 PFTeDA	712.9 > 668.8	1.56e1	9.08e3	0.2509		5.73	5.79	0.0171	0.0547	
15	15 13C2-PFHxA	315 > 269.8	6.40e3	9.08e3	0.2509	0.731	3.45	3.38	7.05	38.4	96.4
16	16 13C2-PFDA	515.1 > 469.9	6.68e3	9.08e3	0.2509	0.910	4.91	4.95	7.36	32.2	80.8
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.06e4	1.08e4	0.2509	1.049	5.06	5.19	39.2	149	93.4
18	18 13C2-PFOA	414.9 > 369.7	9.08e3	9.08e3	0.2509	1.000	4.41	4.30	10.0	39.9	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.34e4	1.34e4	0.2509	1.000	4.81	4.71	28.7	114	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.08e4	1.08e4	0.2509	1.000	5.16	5.06	40.0	159	100.0

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-38.qld

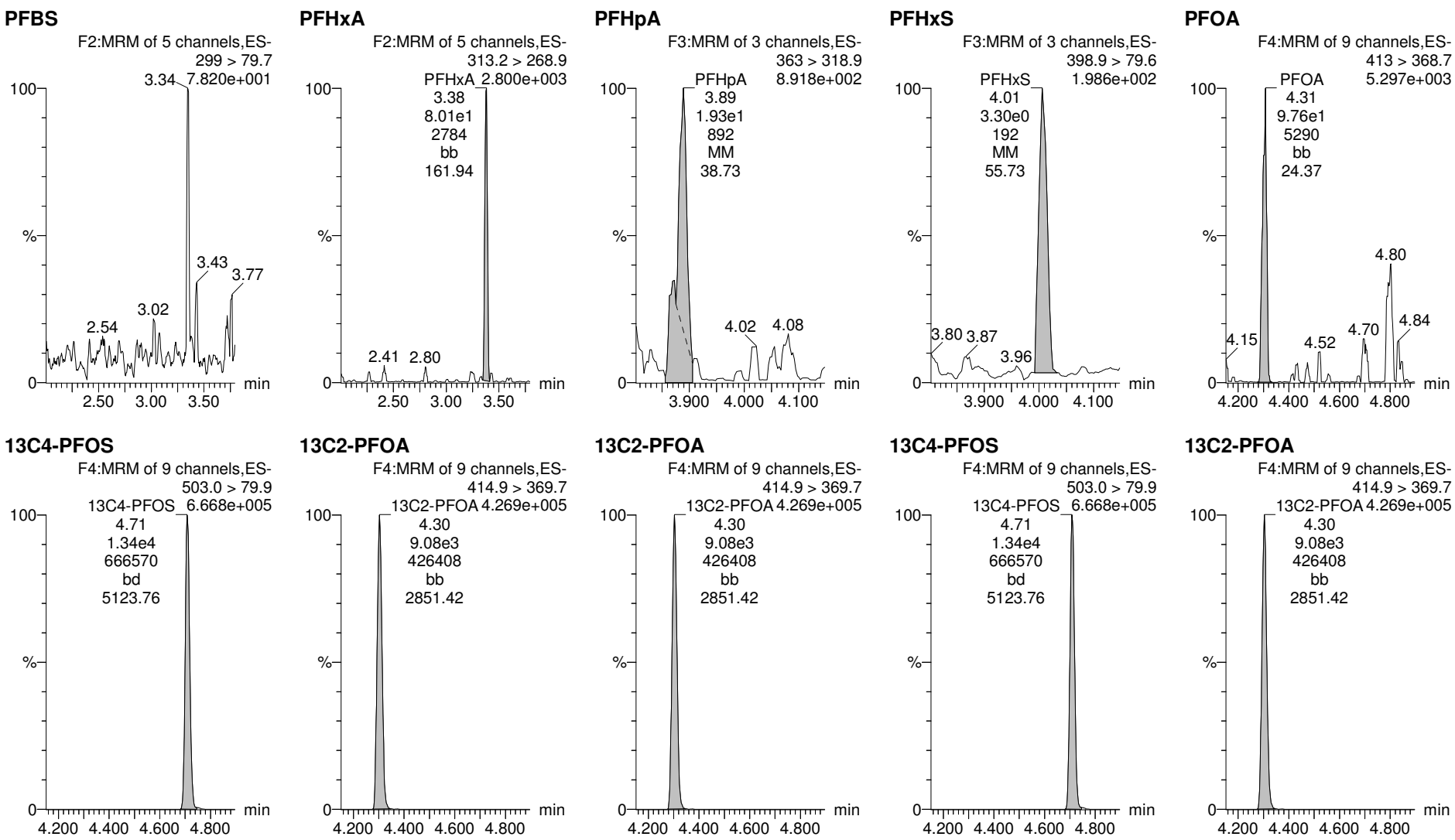
Last Altered: Monday, February 26, 2018 11:37:33 Pacific Standard Time

Printed: Monday, February 26, 2018 11:38:11 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_38, Date: 23-Feb-2018, Time: 20:56:28, ID: 1800274-17 WI-A06-FB08-0218 0.2509, Description: WI-A06-FB08-0218



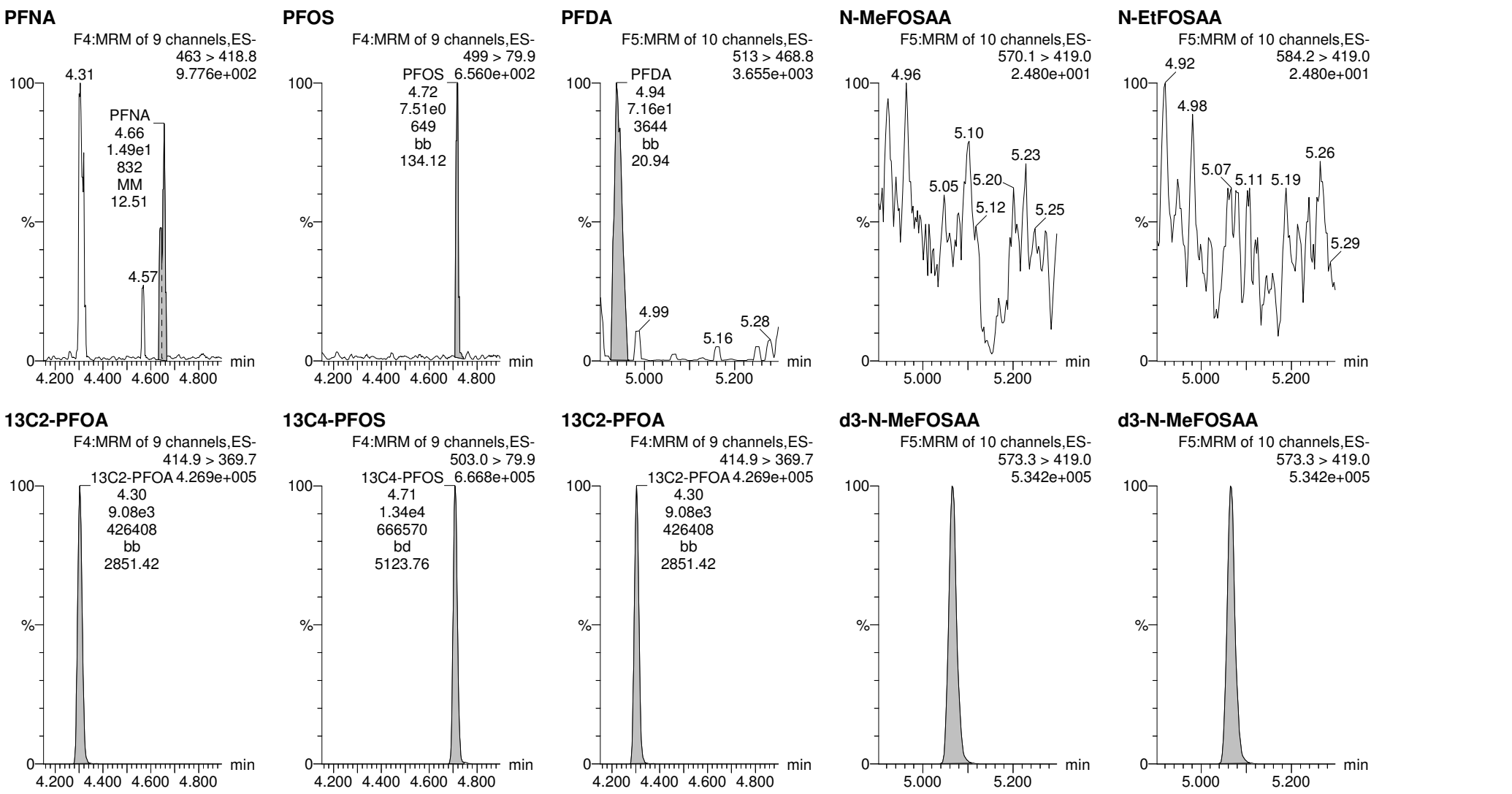
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Last Altered: Monday, February 26, 2018 11:37:33 Pacific Standard Time

Printed: Monday, February 26, 2018 11:38:11 Pacific Standard Time

Rev'd: MM 2/26/2018

Name: 180223G2_38, Date: 23-Feb-2018, Time: 20:56:28, ID: 1800274-17 WI-A06-FB08-0218 0.2509, Description: WI-A06-FB08-0218

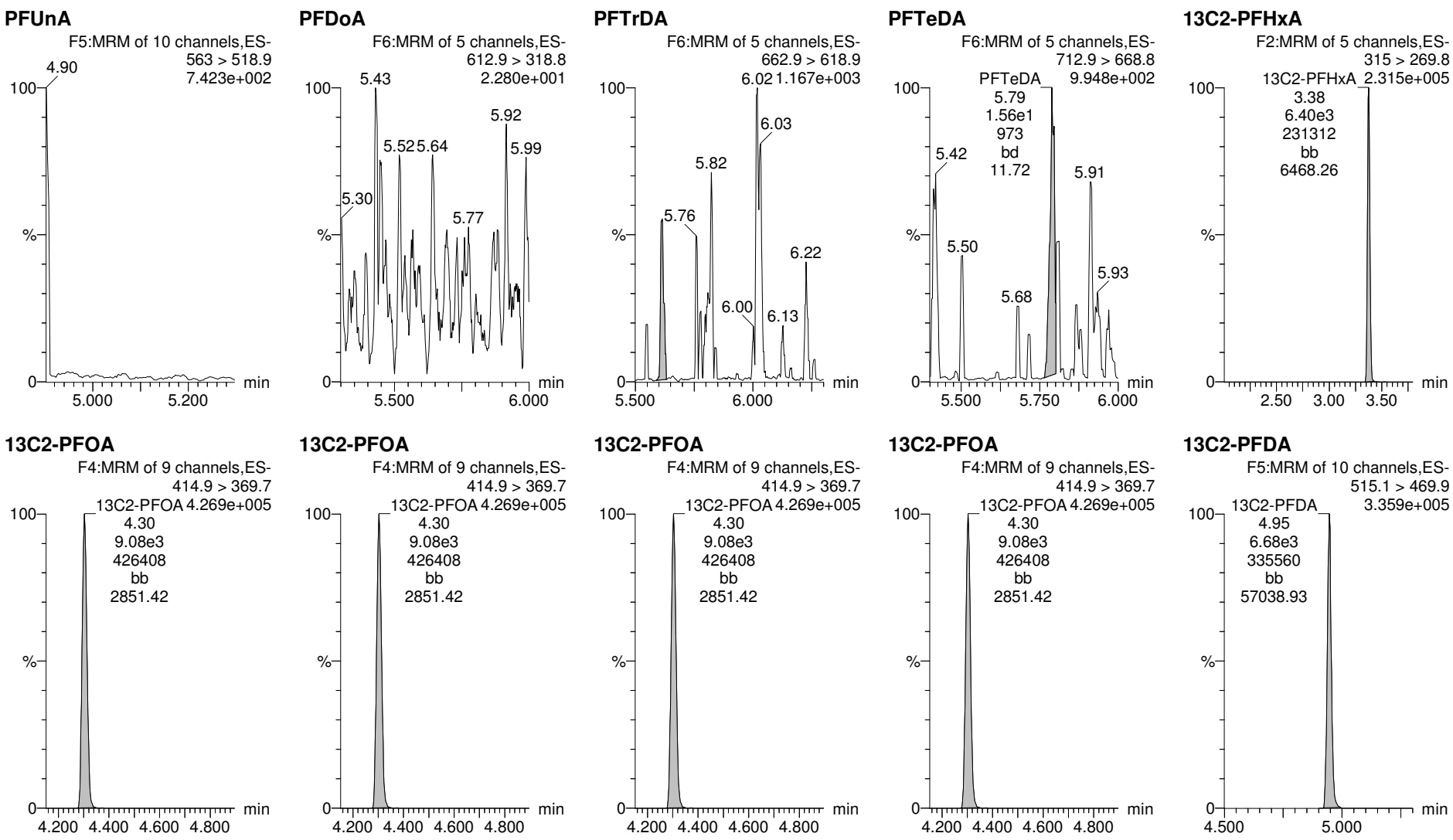


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Last Altered: Monday, February 26, 2018 11:37:33 Pacific Standard Time

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Name: 180223G2_38, Date: 23-Feb-2018, Time: 20:56:28, ID: 1800274-17 WI-A06-FB08-0218 0.2509, Description: WI-A06-FB08-0218



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-38.qld

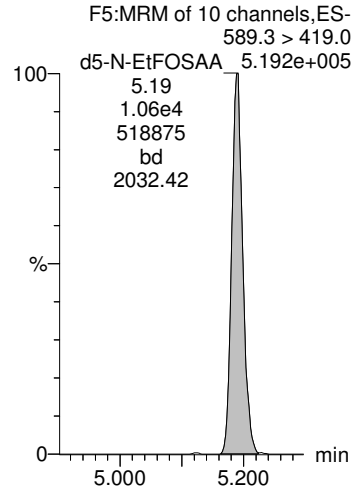
Rev'd: MM 2/26/2018

Last Altered: Monday, February 26, 2018 11:37:33 Pacific Standard Time

Printed: Monday, February 26, 2018 11:38:11 Pacific Standard Time

Name: 180223G2_38, Date: 23-Feb-2018, Time: 20:56:28, ID: 1800274-17 WI-A06-FB08-0218 0.2509, Description: WI-A06-FB08-0218

d5-N-EtFOSAA



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

IS Area

Ical

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	IS Area	Ical Area	Area %
1 B8B0104-BS1 LFB 0.25	180223G2_	Analyte	10	4.31	7378.865	8974.47	82.22
2 B8B0104-BSD1 LFBD 0.25	180223G2_	Analyte	10	4.31	8499.945	8974.47	94.71
3 B8B0104-BLK1 LRB 0.25	180223G2_	Analyte	10	4.31	8130.667	8974.47	90.60
4 1800214-02 HORSH-011618-FRB-1256 0.25507	180223G2_	Analyte	10	4.31	8679.525	8974.47	96.71
5 1800216-04 HORSH-01242018-FRB-1139 0.25325	180223G2_	Analyte	10	4.31	8546.396	8974.47	95.23
6 1800274-01 WI-A06-RW01-0218 0.23754	180223G2_	Analyte	10	4.31	8275.524	8974.47	92.21
7 1800274-02 WI-A06-FB01-0218 0.25456	180223G2_	Analyte	10	4.3	8886.526	8974.47	99.02
8 1800274-03 WI-A06-RW02-0218 0.24872	180223G2_	Analyte	10	4.31	8257.283	8974.47	92.01
9 1800274-04 WI-A06-FB02-0218 0.24674	180223G2_	Analyte	10	4.31	9384.407	8974.47	104.57
10 1800274-05 WI-A06-RW03-0218 0.2459	180223G2_	Analyte	10	4.3	8127.487	8974.47	90.56
11 1800274-06 WI-A06-FB03-0218 0.25441	180223G2_	Analyte	10	4.31	8711.147	8974.47	97.07
12 1800274-07 WI-A06-RW04-0218 0.25373	180223G2_	Analyte	10	4.3	9615.934	8974.47	107.15
13 1800274-08 WI-A06-FB04-0218 0.24797	180223G2_	Analyte	10	4.31	9616.688	8974.47	107.16
14 IPA	180223G2_	Analyte	10			8974.47	0.00
15 ST180223G2-10 PFC CS2 537 18B2305	180223G2_	Standard	10	4.3	9588.948	8974.47	106.85
16 IPA	180223G2_	Analyte	10			8974.47	0.00
17 1800274-09 WI-A06-RW05-0218 0.25053	180223G2_	Analyte	10	4.3	9121.252	8974.47	101.64
18 1800274-10 WI-A06-FB05-0218 0.23607	180223G2_	Analyte	10	4.3	9670.286	8974.47	107.75
19 1800274-11 WI-A06-RW06-0218 0.25046	180223G2_	Analyte	10	4.3	9307.342	8974.47	103.71
20 1800274-12 WI-A06-RW05P-0218 0.24939	180223G2_	Analyte	10	4.3	8953.928	8974.47	99.77
21 1800274-13 WI-A06-FB06-0218 0.24933	180223G2_	Analyte	10	4.31	8423.08	8974.47	93.86
22 1800274-14 WI-A06-RW07-0218 0.25299	180223G2_	Analyte	10	4.3	8977.426	8974.47	100.03
23 1800274-15 WI-A06-FB07-0218 0.25846	180223G2_	Analyte	10	4.3	9026.424	8974.47	100.58
24 1800274-16 WI-A06-RW08-0218 0.24886	180223G2_	Analyte	10	4.3	9258.74	8974.47	103.17
25 1800274-17 WI-A06-FB08-0218 0.2509	180223G2_	Analyte	10	4.3	9077.267	8974.47	101.15
26 IPA	180223G2_	Analyte	10			8974.47	0.00
27 ST180223G2-11 PFC CS4 537 18B2307	180223G2_	Standard	10	4.31	10016.18	8974.47	111.61

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	IS Area	Ical Area	Area %
1 B8B0104-BS1 LFB 0.25	180223G2_	Analyte	28.7	4.71	14704.89	17934.74	81.99
2 B8B0104-BSD1 LFBD 0.25	180223G2_	Analyte	28.7	4.71	17051.93	17934.74	95.08
3 B8B0104-BLK1 LRB 0.25	180223G2_	Analyte	28.7	4.71	14849.23	17934.74	82.80
4 1800214-02 HORSH-011618-FRB-1256 0.25507	180223G2_	Analyte	28.7	4.71	15435.17	17934.74	86.06
5 1800216-04 HORSH-01242018-FRB-1139 0.25325	180223G2_	Analyte	28.7	4.71	15683.24	17934.74	87.45
6 1800274-01 WI-A06-RW01-0218 0.23754	180223G2_	Analyte	28.7	4.71	15187.91	17934.74	84.68
7 1800274-02 WI-A06-FB01-0218 0.25456	180223G2_	Analyte	28.7	4.71	15423.91	17934.74	86.00
8 1800274-03 WI-A06-RW02-0218 0.24872	180223G2_	Analyte	28.7	4.71	15508.72	17934.74	86.47
9 1800274-04 WI-A06-FB02-0218 0.24674	180223G2_	Analyte	28.7	4.71	17315.12	17934.74	96.55
10 1800274-05 WI-A06-RW03-0218 0.2459	180223G2_	Analyte	28.7	4.71	15420.24	17934.74	85.98
11 1800274-06 WI-A06-FB03-0218 0.25441	180223G2_	Analyte	28.7	4.71	15354.93	17934.74	85.62
12 1800274-07 WI-A06-RW04-0218 0.25373	180223G2_	Analyte	28.7	4.71	16217.03	17934.74	90.42
13 1800274-08 WI-A06-FB04-0218 0.24797	180223G2_	Analyte	28.7	4.71	15243.28	17934.74	84.99
14 IPA	180223G2_	Analyte	28.7			17934.74	0.00
15 ST180223G2-10 PFC CS2 537 18B2305	180223G2_	Standard	28.7	4.71	16390.42	17934.74	91.39
16 IPA	180223G2_	Analyte	28.7			17934.74	0.00
17 1800274-09 WI-A06-RW05-0218 0.25053	180223G2_	Analyte	28.7	4.71	14388.29	17934.74	80.23
18 1800274-10 WI-A06-FB05-0218 0.23607	180223G2_	Analyte	28.7	4.71	13449.53	17934.74	74.99
19 1800274-11 WI-A06-RW06-0218 0.25046	180223G2_	Analyte	28.7	4.71	13646.63	17934.74	76.09
20 1800274-12 WI-A06-RW05P-0218 0.24939	180223G2_	Analyte	28.7	4.71	14595.93	17934.74	81.38
21 1800274-13 WI-A06-FB06-0218 0.24933	180223G2_	Analyte	28.7	4.71	13959.08	17934.74	77.83
22 1800274-14 WI-A06-RW07-0218 0.25299	180223G2_	Analyte	28.7	4.71	13594.26	17934.74	75.80
23 1800274-15 WI-A06-FB07-0218 0.25846	180223G2_	Analyte	28.7	4.71	12945.15	17934.74	72.18
24 1800274-16 WI-A06-RW08-0218 0.24886	180223G2_	Analyte	28.7	4.71	13546.18	17934.74	75.53
25 1800274-17 WI-A06-FB08-0218 0.2509	180223G2_	Analyte	28.7	4.71	13445.3	17934.74	74.97
26 IPA	180223G2_	Analyte	28.7			17934.74	0.00
27 ST180223G2-11 PFC CS4 537 18B2307	180223G2_	Standard	28.7	4.71	13463.37	17934.74	75.07

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	IS Area	Ical Area	Area %
1 B8B0104-BS1 LFB 0.25	180223G2_	Analyte	40	5.07	11679.6	12825.49	91.07
2 B8B0104-BSD1 LFB 0.25	180223G2_	Analyte	40	5.07	13318.15	12825.49	103.84
3 B8B0104-BLK1 LRB 0.25	180223G2_	Analyte	40	5.07	10656.62	12825.49	83.09
4 1800214-02 HORSH-011618-FRB-1256 0.25507	180223G2_	Analyte	40	5.07	11615.68	12825.49	90.57
5 1800216-04 HORSH-01242018-FRB-1139 0.25325	180223G2_	Analyte	40	5.07	11651.39	12825.49	90.85
6 1800274-01 WI-A06-RW01-0218 0.23754	180223G2_	Analyte	40	5.07	10899.12	12825.49	84.98
7 1800274-02 WI-A06-FB01-0218 0.25456	180223G2_	Analyte	40	5.07	11835.83	12825.49	92.28
8 1800274-03 WI-A06-RW02-0218 0.24872	180223G2_	Analyte	40	5.07	11354.47	12825.49	88.53
9 1800274-04 WI-A06-FB02-0218 0.24674	180223G2_	Analyte	40	5.07	11178.99	12825.49	87.16
10 1800274-05 WI-A06-RW03-0218 0.2459	180223G2_	Analyte	40	5.07	10836.28	12825.49	84.49
11 1800274-06 WI-A06-FB03-0218 0.25441	180223G2_	Analyte	40	5.06	11507.9	12825.49	89.73
12 1800274-07 WI-A06-RW04-0218 0.25373	180223G2_	Analyte	40	5.07	12024.33	12825.49	93.75
13 1800274-08 WI-A06-FB04-0218 0.24797	180223G2_	Analyte	40	5.07	12169.95	12825.49	94.89
14 IPA	180223G2_	Analyte	40			12825.49	0.00
15 ST180223G2-10 PFC CS2 537 18B2305	180223G2_	Standard	40	5.07	12826.47	12825.49	100.01
16 IPA	180223G2_	Analyte	40			12825.49	0.00
17 1800274-09 WI-A06-RW05-0218 0.25053	180223G2_	Analyte	40	5.07	11368.27	12825.49	88.64
18 1800274-10 WI-A06-FB05-0218 0.23607	180223G2_	Analyte	40	5.07	10938.91	12825.49	85.29
19 1800274-11 WI-A06-RW06-0218 0.25046	180223G2_	Analyte	40	5.07	9265.657	12825.49	72.24
20 1800274-12 WI-A06-RW05P-0218 0.24939	180223G2_	Analyte	40	5.07	10336.6	12825.49	80.59
21 1800274-13 WI-A06-FB06-0218 0.24933	180223G2_	Analyte	40	5.07	9437.981	12825.49	73.59
22 1800274-14 WI-A06-RW07-0218 0.25299	180223G2_	Analyte	40	5.07	10813.32	12825.49	84.31
23 1800274-15 WI-A06-FB07-0218 0.25846	180223G2_	Analyte	40	5.07	9279.203	12825.49	72.35
24 1800274-16 WI-A06-RW08-0218 0.24886	180223G2_	Analyte	40	5.07	11414.36	12825.49	89.00
25 1800274-17 WI-A06-FB08-0218 0.2509	180223G2_	Analyte	40	5.06	10838.47	12825.49	84.51
26 IPA	180223G2_	Analyte	40			12825.49	0.00
27 ST180223G2-11 PFC CS4 537 18B2307	180223G2_	Standard	40	5.07	9905.804	12825.49	77.24

Ccal

ST180223G2-10 PFC CS2 537 18B2305

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	IS Area	Ccal Area	Area %
15 ST180223G2-10 PFC CS2 537 18B2305	180223G2_Standard		10	4.3	9588.948	9588.948	100.00
16 IPA	180223G2_Analyte		10			9588.948	0.00
17 1800274-09 WI-A06-RW05-0218 0.25053	180223G2_Analyte		10	4.3	9121.252	9588.948	95.12
18 1800274-10 WI-A06-FB05-0218 0.23607	180223G2_Analyte		10	4.3	9670.286	9588.948	100.85
19 1800274-11 WI-A06-RW06-0218 0.25046	180223G2_Analyte		10	4.3	9307.342	9588.948	97.06
20 1800274-12 WI-A06-RW05P-0218 0.24939	180223G2_Analyte		10	4.3	8953.928	9588.948	93.38
21 1800274-13 WI-A06-FB06-0218 0.24933	180223G2_Analyte		10	4.31	8423.08	9588.948	87.84
22 1800274-14 WI-A06-RW07-0218 0.25299	180223G2_Analyte		10	4.3	8977.426	9588.948	93.62
23 1800274-15 WI-A06-FB07-0218 0.25846	180223G2_Analyte		10	4.3	9026.424	9588.948	94.13
24 1800274-16 WI-A06-RW08-0218 0.24886	180223G2_Analyte		10	4.3	9258.74	9588.948	96.56
25 1800274-17 WI-A06-FB08-0218 0.2509	180223G2_Analyte		10	4.3	9077.267	9588.948	94.66
26 IPA	180223G2_Analyte		10			9588.948	0.00
27 ST180223G2-11 PFC CS4 537 18B2307	180223G2_Standard		10	4.31	10016.18	9588.948	104.46

Compound 19: 13C4-PFOS

ST180223G2-10 PFC CS2 537 18B2305

ID	Name	Type	Std. Conc	RT	IS Area	Ccal Area	Area %
15 ST180223G2-10 PFC CS2 537 18B2305	180223G2_Standard		28.7	4.71	16390.42	16390.42	100.00
16 IPA	180223G2_Analyte		28.7			16390.42	0.00
17 1800274-09 WI-A06-RW05-0218 0.25053	180223G2_Analyte		28.7	4.71	14388.29	16390.42	87.78
18 1800274-10 WI-A06-FB05-0218 0.23607	180223G2_Analyte		28.7	4.71	13449.53	16390.42	82.06
19 1800274-11 WI-A06-RW06-0218 0.25046	180223G2_Analyte		28.7	4.71	13646.63	16390.42	83.26
20 1800274-12 WI-A06-RW05P-0218 0.24939	180223G2_Analyte		28.7	4.71	14595.93	16390.42	89.05
21 1800274-13 WI-A06-FB06-0218 0.24933	180223G2_Analyte		28.7	4.71	13959.08	16390.42	85.17
22 1800274-14 WI-A06-RW07-0218 0.25299	180223G2_Analyte		28.7	4.71	13594.26	16390.42	82.94
23 1800274-15 WI-A06-FB07-0218 0.25846	180223G2_Analyte		28.7	4.71	12945.15	16390.42	78.98
24 1800274-16 WI-A06-RW08-0218 0.24886	180223G2_Analyte		28.7	4.71	13546.18	16390.42	82.65
25 1800274-17 WI-A06-FB08-0218 0.2509	180223G2_Analyte		28.7	4.71	13445.3	16390.42	82.03
26 IPA	180223G2_Analyte		28.7			16390.42	0.00
27 ST180223G2-11 PFC CS4 537 18B2307	180223G2_Standard		28.7	4.71	13463.37	16390.42	82.14

Compound 20: d3-N-MeFOSAA

ST180223G2-10 PFC CS2 537 18B2305

ID	Name	Type	Std. Conc	RT	IS Area	Ccal Area	Area %
15 ST180223G2-10 PFC CS2 537 18B2305	180223G2_Standard		40	5.07	12826.47	12826.47	100.00
16 IPA	180223G2_Analyte		40			12826.47	0.00
17 1800274-09 WI-A06-RW05-0218 0.25053	180223G2_Analyte		40	5.07	11368.27	12826.47	88.63
18 1800274-10 WI-A06-FB05-0218 0.23607	180223G2_Analyte		40	5.07	10938.91	12826.47	85.28
19 1800274-11 WI-A06-RW06-0218 0.25046	180223G2_Analyte		40	5.07	9265.657	12826.47	72.24
20 1800274-12 WI-A06-RW05P-0218 0.24939	180223G2_Analyte		40	5.07	10336.6	12826.47	80.59
21 1800274-13 WI-A06-FB06-0218 0.24933	180223G2_Analyte		40	5.07	9437.981	12826.47	73.58
22 1800274-14 WI-A06-RW07-0218 0.25299	180223G2_Analyte		40	5.07	10813.32	12826.47	84.30
23 1800274-15 WI-A06-FB07-0218 0.25846	180223G2_Analyte		40	5.07	9279.203	12826.47	72.34
24 1800274-16 WI-A06-RW08-0218 0.24886	180223G2_Analyte		40	5.07	11414.36	12826.47	88.99
25 1800274-17 WI-A06-FB08-0218 0.2509	180223G2_Analyte		40	5.06	10838.47	12826.47	84.50
26 IPA	180223G2_Analyte		40			12826.47	0.00
27 ST180223G2-11 PFC CS4 537 18B2307	180223G2_Standard		40	5.07	9905.804	12826.47	77.23

LC Calibration Standards Review Checklist

02.1

Calibration ID:		ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
ST1 80223 G2-16	L M H	☒	☒	☒	☒	☒	☒	☒
	L M H	☒	☒	☒	☒	☒	☒	☒
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐
	L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 4/5/17

Run Log Present: ☒

of Samples per Sequence Checked: ☒

Instrument Blank Saved: ☒ DW

IIS Area Saved: ☒ 18022361

Reviewed By: JA. 02/26/2018
Initials/Date

Comments:

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-28.qld

Last Altered: Monday, February 26, 2018 07:15:17 Pacific Standard Time
Printed: Monday, February 26, 2018 07:15:28 Pacific Standard Time

✓ 02/26/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_28, Date: 23-Feb-2018, Time: 18:52:39, ID: ST180223G2-10 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	4.05e3	1.64e4	1.0000		3.01	3.01	7.10	9.71	109.7
2	2 PFHxA	313.2 > 268.9	4.50e3	9.59e3	1.0000		3.36	3.38	4.69	8.47	84.7
3	3 PFHpA	363 > 318.9	8.77e3	9.59e3	1.0000		3.87	3.89	9.14	9.72	97.2
4	4 PFHxS	398.9 > 79.6	3.92e3	1.64e4	1.0000		4.00	4.01	6.86	9.80	107.5
5	5 PFOA	413 > 368.7	8.39e3	9.59e3	1.0000		4.30	4.30	8.75	10.4	104.4
6	6 PFNA	463 > 418.8	8.82e3	9.59e3	1.0000		4.65	4.65	9.19	9.04	90.4
7	7 PFOS	499 > 79.9	5.04e3	1.64e4	1.0000		4.71	4.71	8.83	9.20	99.5
8	8 PFDA	513 > 468.8	9.83e3	9.59e3	1.0000		4.87	4.95	10.3	9.36	93.6
9	9 N-MeFOSAA	570.1 > 419.0	4.63e3	1.28e4	1.0000		5.01	5.07	14.4	10.8	107.8
10	10 N-EiFOSAA	584.2 > 419.0	3.18e3	1.28e4	1.0000		5.19	5.19	9.91	9.35	93.5
11	11 PFUnA	563 > 518.9	8.91e3	9.59e3	1.0000		5.13	5.20	9.29	9.25	92.5
12	12 PFDoA	612.9 > 318.8	1.59e3	9.59e3	1.0000		5.34	5.42	1.66	10.5	105.0
13	13 PFTTrDA	662.9 > 618.9	1.26e4	9.59e3	1.0000		5.56	5.61	13.2	9.58	95.8
14	14 PFTeDA	712.9 > 668.8	1.05e4	9.59e3	1.0000		5.73	5.78	11.0	8.77	87.7
15	15 13C2-PFHxA	315 > 269.8	6.95e3	9.59e3	1.0000	0.731	3.45	3.38	7.25	9.91	99.1
16	16 13C2-PFDA	515.1 > 469.9	7.76e3	9.59e3	1.0000	0.910	4.91	4.95	8.09	8.90	89.0
17	17 d5-N-EiFOSAA	589.3 > 419.0	1.19e4	1.28e4	1.0000	1.049	5.07	5.19	37.1	35.4	88.4
18	18 13C2-PFOA	414.9 > 369.7	9.59e3	9.59e3	1.0000	1.000	4.41	4.30	10.0	10.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.64e4	1.64e4	1.0000	1.000	4.81	4.71	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.28e4	1.28e4	1.0000	1.000	5.16	5.07	40.0	40.0	100.0

OK
2/26/18

Dataset: Untitled

Last Altered: Monday, February 26, 2018 07:21:31 Pacific Standard Time

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Compound name: PFBS

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1	180223G2_1	IPA	23-Feb-18	13:17:36
2	180223G2_2	ST180223G2-1 PFC CS-3 537 18B2301	23-Feb-18	13:29:59
3	180223G2_3	ST180223G2-2 PFC CS-2 537 18B2302	23-Feb-18	13:42:20
4	180223G2_4	ST180223G2-3 PFC CS-1 537 18B2310	23-Feb-18	13:54:45
5	180223G2_5	ST180223G2-4 PFC CS0 537 18B2303	23-Feb-18	14:07:10
6	180223G2_6	ST180223G2-5 PFC CS1 537 18B2304	23-Feb-18	14:19:35
7	180223G2_7	ST180223G2-6 PFC CS2 537 18B2305	23-Feb-18	14:32:01
8	180223G2_8	ST180223G2-7 PFC CS3 537 18B2306	23-Feb-18	14:44:25
9	180223G2_9	ST180223G2-8 PFC CS4 537 18B2307	23-Feb-18	14:56:52
10	180223G2_10	ST180223G2-9 PFC CS5 537 18B2308	23-Feb-18	15:09:16
11	180223G2_11	IPA	23-Feb-18	15:21:37
12	180223G2_12	ICV180223G2-1 PFC ICV 537 18B2309	23-Feb-18	15:34:05
13	180223G2_13	IPA	23-Feb-18	15:46:26
14	180223G2_14	B8B0104-BS1 LFB 0.25	23-Feb-18	15:58:57
15	180223G2_15	B8B0104-BSD1 LFB 0.25	23-Feb-18	16:11:17
16	180223G2_16	B8B0104-BLK1 LRB 0.25	23-Feb-18	16:23:41
17	180223G2_17	1800214-02 HORSH-011618-FRB-1256 0.25507	23-Feb-18	16:36:07
18	180223G2_18	1800216-04 HORSH-01242018-FRB-1139 0.25...	23-Feb-18	16:48:32
19	180223G2_19	1800274-01 WI-A06-RW01-0218 0.23754	23-Feb-18	17:00:57
20	180223G2_20	1800274-02 WI-A06-FB01-0218 0.25456	23-Feb-18	17:13:23
21	180223G2_21	1800274-03 WI-A06-RW02-0218 0.24872	23-Feb-18	17:25:43
22	180223G2_22	1800274-04 WI-A06-FB02-0218 0.24674	23-Feb-18	17:38:08
23	180223G2_23	1800274-05 WI-A06-RW03-0218 0.2459	23-Feb-18	17:50:33
24	180223G2_24	1800274-06 WI-A06-FB03-0218 0.25441	23-Feb-18	18:02:58
25	180223G2_25	1800274-07 WI-A06-RW04-0218 0.25373	23-Feb-18	18:15:24
26	180223G2_26	1800274-08 WI-A06-FB04-0218 0.24797	23-Feb-18	18:27:48
27	180223G2_27	IPA	23-Feb-18	18:40:14
28	180223G2_28	ST180223G2-10 PFC CS1 537 18B2304	23-Feb-18	18:52:39
29	180223G2_29	IPA	23-Feb-18	19:05:03
30	180223G2_30	1800274-09 WI-A06-RW05-0218 0.25053	23-Feb-18	19:17:28
31	180223G2_31	1800274-10 WI-A06-FB05-0218 0.23607	23-Feb-18	19:29:53

Dataset: Untitled

Last Altered: Monday, February 26, 2018 07:21:31 Pacific Standard Time

Printed: Monday, February 26, 2018 07:21:53 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	180223G2_32	1800274-11 WI-A06-RW06-0218 0.25046	23-Feb-18	19:42:14
33	180223G2_33	1800274-12 WI-A06-RW05P-0218 0.24939	23-Feb-18	19:54:30
34	180223G2_34	1800274-13 WI-A06-FB06-0218 0.24933	23-Feb-18	20:06:48
35	180223G2_35	1800274-14 WI-A06-RW07-0218 0.25299	23-Feb-18	20:19:13
36	180223G2_36	1800274-15 WI-A06-FB07-0218 0.25846	23-Feb-18	20:31:38
37	180223G2_37	1800274-16 WI-A06-RW08-0218 0.24886	23-Feb-18	20:44:03
38	180223G2_38	1800274-17 WI-A06-FB08-0218 0.2509	23-Feb-18	20:56:28
39	180223G2_39	IPA	23-Feb-18	21:08:54
40	180223G2_40	ST180223G2-11 PFC CS3 537 18B2306	23-Feb-18	21:21:19
41	180223G2_41	IPA	23-Feb-18	21:33:43

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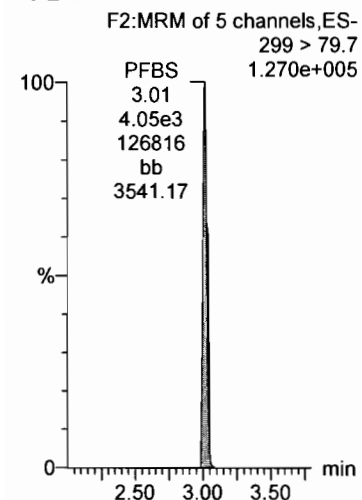
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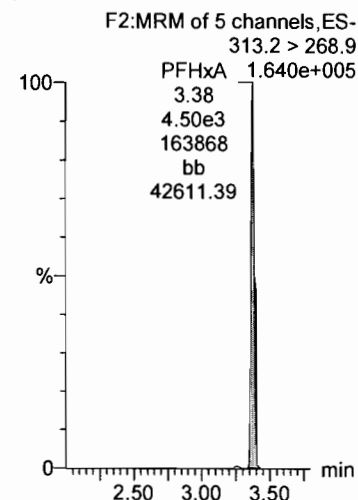
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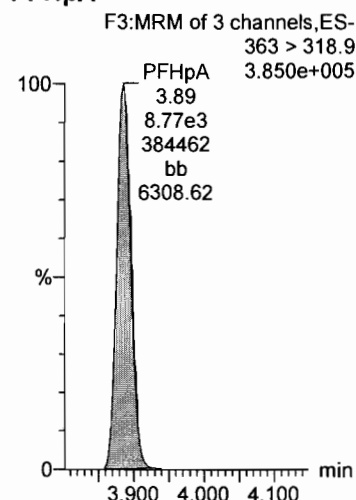
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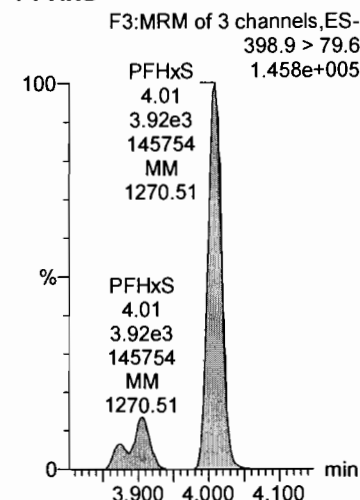
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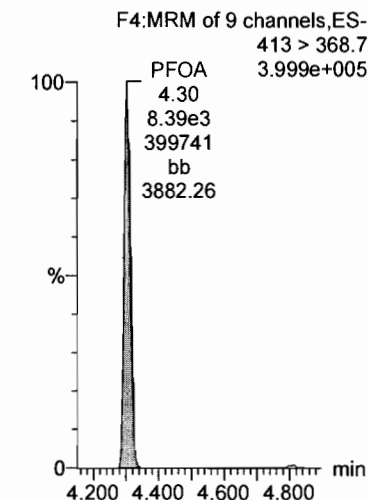
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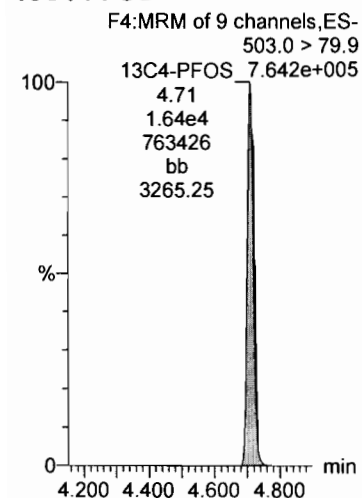
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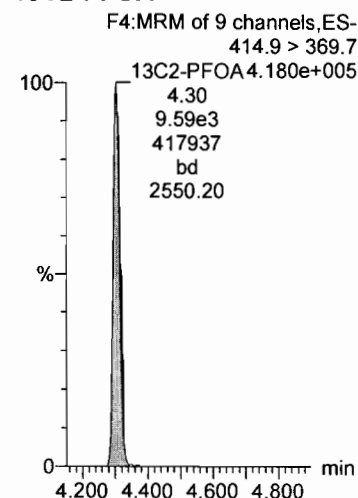
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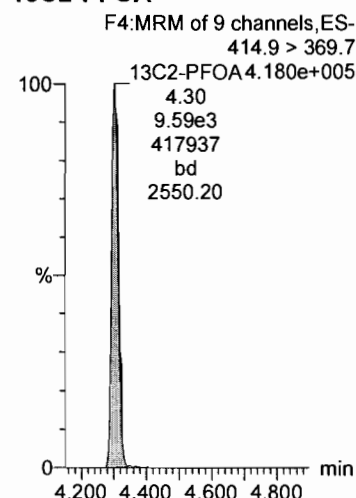
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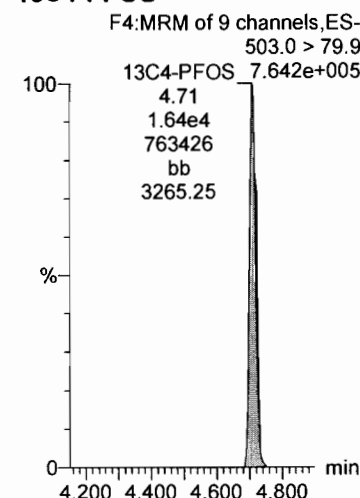
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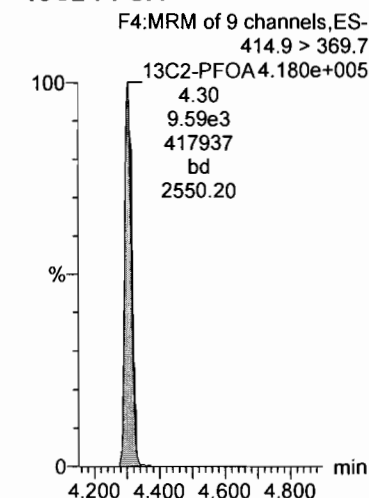
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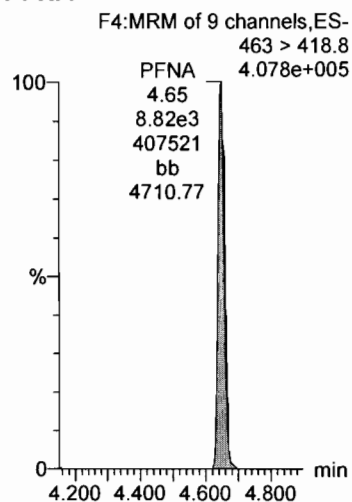
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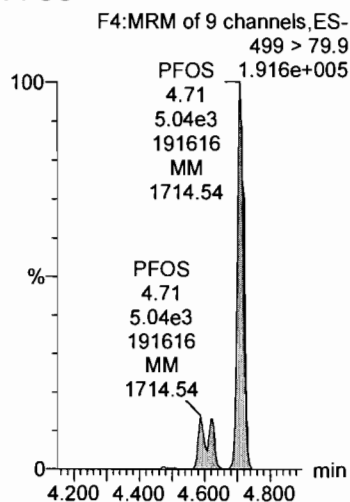
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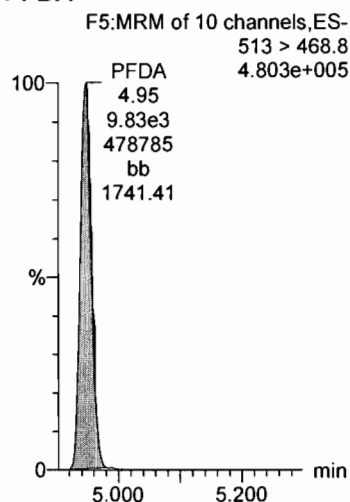
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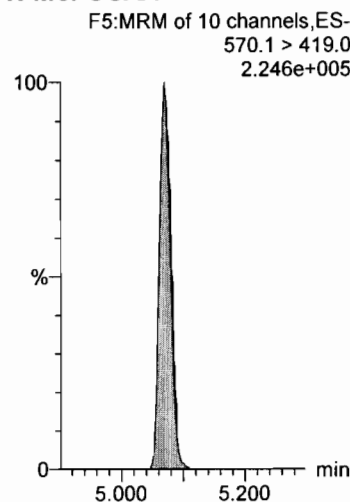
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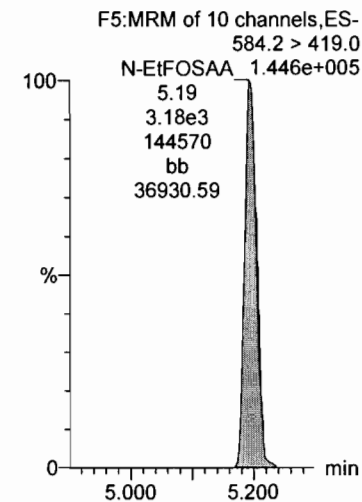
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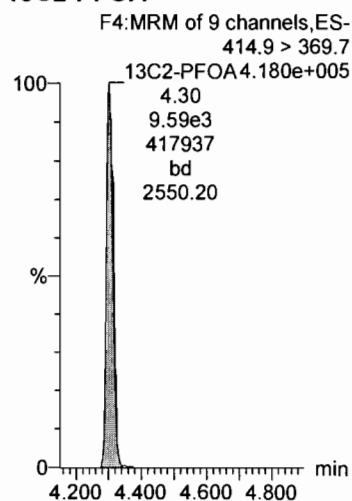
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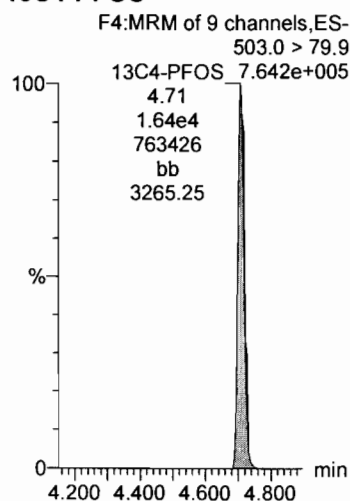
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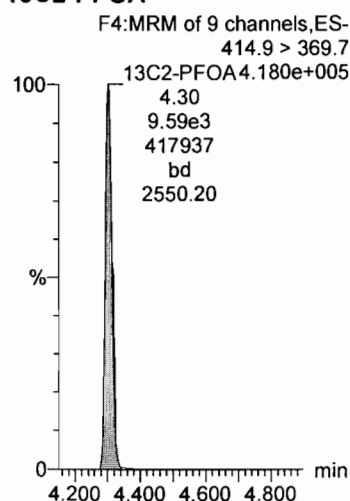
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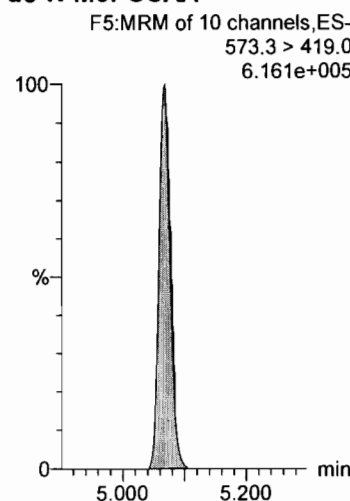
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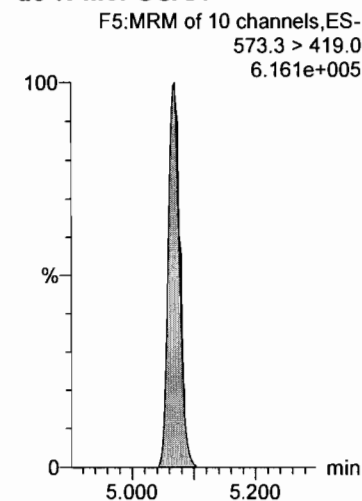
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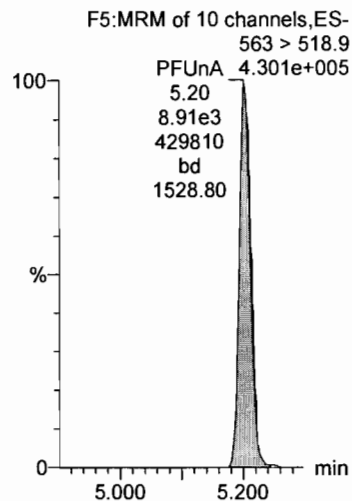
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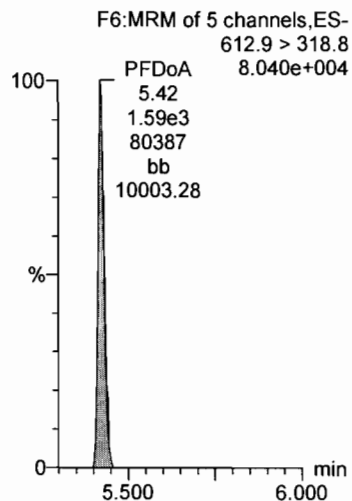
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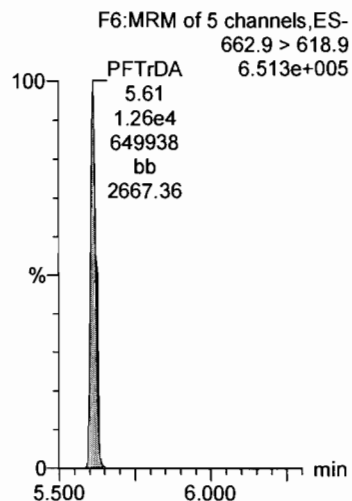
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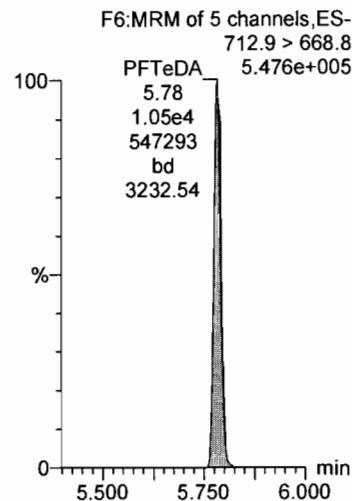
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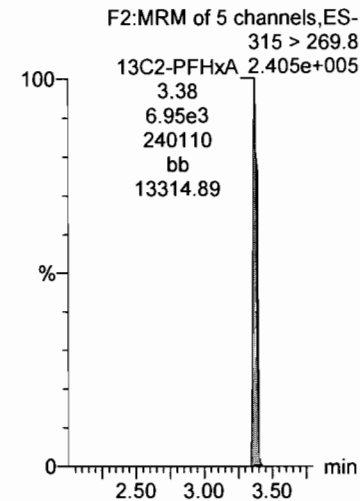
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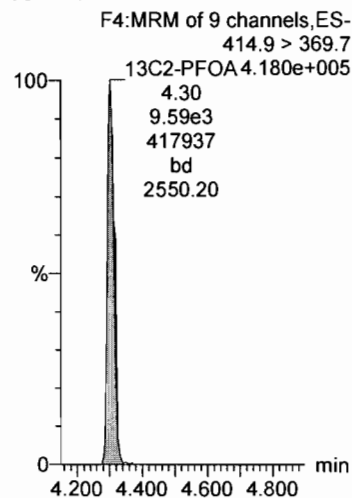
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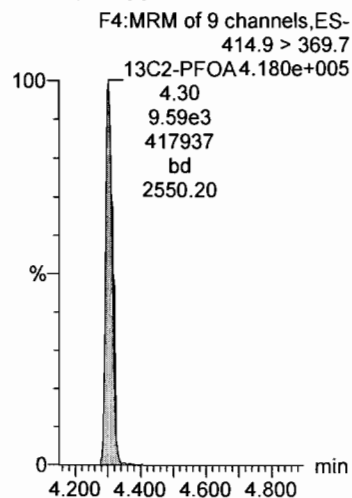
13C2-PFHxA



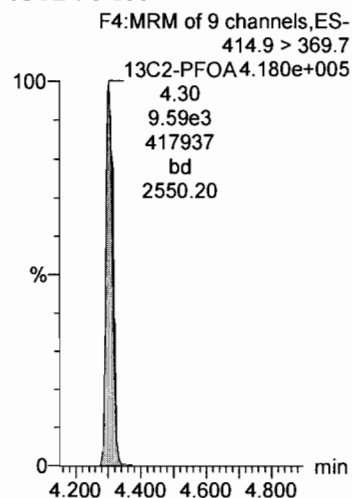
13C2-PFOA



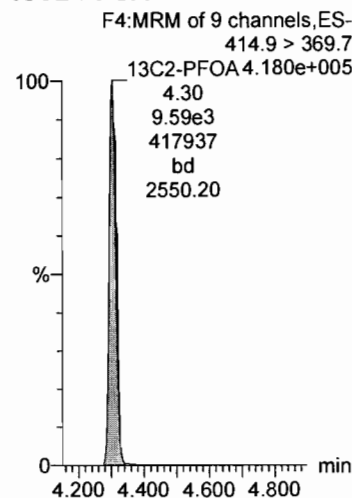
13C2-PFOA



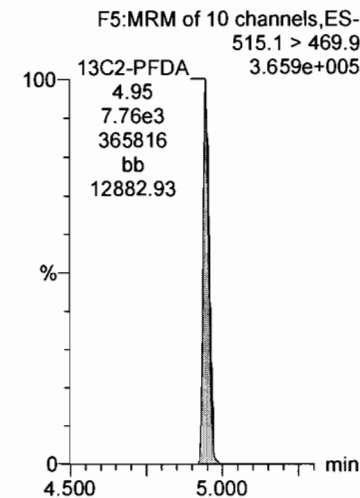
13C2-PFOA



13C2-PFOA



13C2-PFDA



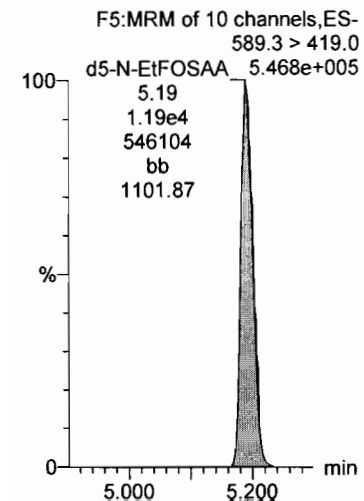
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Last Altered: Monday, February 26, 2018 07:15:17 Pacific Standard Time

Printed: Monday, February 26, 2018 07:15:28 Pacific Standard Time

Name: 180223G2_28, Date: 23-Feb-2018, Time: 18:52:39, ID: ST180223G2-10 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-40.qld

Last Altered: Monday, February 26, 2018 07:16:11 Pacific Standard Time

Printed: Monday, February 26, 2018 07:16:14 Pacific Standard Time

✓ J.A.
02/26/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_40, Date: 23-Feb-2018, Time: 21:21:19, ID: ST180223G2-11 PFC CS3 537 18B2306, Description: PFC CS3 537 18B2306

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.71e4	1.35e4	1.0000		3.01	3.01	36.4	49.7	112.5
2	2 PFHxA	313.2 > 268.9	1.97e4	1.00e4	1.0000		3.36	3.38	19.6	35.5	71.0
3	3 PFHpA	363 > 318.9	4.06e4	1.00e4	1.0000		3.87	3.89	40.6	43.1	86.3
4	4 PFHxS	398.9 > 79.6	1.72e4	1.35e4	1.0000		4.00	4.01	36.7	52.5	115.0
5	5 PFOA	413 > 368.7	3.61e4	1.00e4	1.0000		4.31	4.30	36.0	43.0	86.0
6	6 PFNA	463 > 418.8	4.32e4	1.00e4	1.0000		4.65	4.65	43.1	42.4	84.8
7	7 PFOS	499 > 79.9	2.12e4	1.35e4	1.0000		4.71	4.71	45.2	47.1	101.9
8	8 PFDA	513 > 468.8	4.43e4	1.00e4	1.0000		4.88	4.95	44.3	42.7	85.3
9	9 N-MeFOSAA	570.1 > 419.0	1.80e4	9.91e3	1.0000		5.01	5.07	72.5	50.5	101.0
10	10 N-EtFOSAA	584.2 > 419.0	1.46e4	9.91e3	1.0000		5.19	5.20	58.8	55.5	110.9
11	11 PFUnA	563 > 518.9	3.71e4	1.00e4	1.0000		5.14	5.20	37.0	36.8	73.6
12	12 PFDoA	612.9 > 318.8	7.22e3	1.00e4	1.0000		5.34	5.42	7.21	45.5	91.1
13	13 PFTrDA	662.9 > 618.9	5.40e4	1.00e4	1.0000		5.57	5.61	53.9	39.2	78.5
14	14 PFTeDA	712.9 > 668.8	4.94e4	1.00e4	1.0000		5.74	5.78	49.3	39.4	78.9
15	15 13C2-PFHxA	315 > 269.8	6.78e3	1.00e4	1.0000	0.731	3.45	3.37	6.77	9.26	92.6
16	16 13C2-PFDA	515.1 > 469.9	7.23e3	1.00e4	1.0000	0.910	4.91	4.95	7.22	7.94	79.4
17	17 d5-N-EtFOSAA	589.3 > 419.0	9.21e3	9.91e3	1.0000	1.049	5.07	5.19	37.2	35.4	88.6
18	18 13C2-PFOA	414.9 > 369.7	1.00e4	1.00e4	1.0000	1.000	4.41	4.31	10.0	10.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.35e4	1.35e4	1.0000	1.000	4.81	4.71	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	9.91e3	9.91e3	1.0000	1.000	5.16	5.07	40.0	40.0	100.0

DM
2/26/18

Dataset: Untitled

Last Altered: Monday, February 26, 2018 07:21:31 Pacific Standard Time

Printed: Monday, February 26, 2018 07:21:53 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180223G2_1	IPA	23-Feb-18	13:17:36
2	180223G2_2	ST180223G2-1 PFC CS-3 537 18B2301	23-Feb-18	13:29:59
3	180223G2_3	ST180223G2-2 PFC CS-2 537 18B2302	23-Feb-18	13:42:20
4	180223G2_4	ST180223G2-3 PFC CS-1 537 18B2310	23-Feb-18	13:54:45
5	180223G2_5	ST180222G3-4 PFC CS0 537 18B2303	23-Feb-18	14:07:10
6	180223G2_6	ST180223G2-5 PFC CS1 537 18B2304	23-Feb-18	14:19:35
7	180223G2_7	ST180223G2-6 PFC CS2 537 18B2305	23-Feb-18	14:32:01
8	180223G2_8	ST180223G2-7 PFC CS3 537 18B2306	23-Feb-18	14:44:25
9	180223G2_9	ST180223G2-8 PFC CS4 537 18B2307	23-Feb-18	14:56:52
10	180223G2_10	ST180223G2-9 PFC CS5 537 18B2308	23-Feb-18	15:09:16
11	180223G2_11	IPA	23-Feb-18	15:21:37
12	180223G2_12	ICV180223G2-1 PFC ICV 537 18B2309	23-Feb-18	15:34:05
13	180223G2_13	IPA	23-Feb-18	15:46:26
14	180223G2_14	B8B0104-BS1 LFB 0.25	23-Feb-18	15:58:57
15	180223G2_15	B8B0104-BSD1 LFB 0.25	23-Feb-18	16:11:17
16	180223G2_16	B8B0104-BLK1 LRB 0.25	23-Feb-18	16:23:41
17	180223G2_17	1800214-02 HORSH-011618-FRB-1256 0.25507	23-Feb-18	16:36:07
18	180223G2_18	1800216-04 HORSH-01242018-FRB-1139 0.25...	23-Feb-18	16:48:32
19	180223G2_19	1800274-01 WI-A06-RW01-0218 0.23754	23-Feb-18	17:00:57
20	180223G2_20	1800274-02 WI-A06-FB01-0218 0.25456	23-Feb-18	17:13:23
21	180223G2_21	1800274-03 WI-A06-RW02-0218 0.24872	23-Feb-18	17:25:43
22	180223G2_22	1800274-04 WI-A06-FB02-0218 0.24674	23-Feb-18	17:38:08
23	180223G2_23	1800274-05 WI-A06-RW03-0218 0.2459	23-Feb-18	17:50:33
24	180223G2_24	1800274-06 WI-A06-FB03-0218 0.25441	23-Feb-18	18:02:58
25	180223G2_25	1800274-07 WI-A06-RW04-0218 0.25373	23-Feb-18	18:15:24
26	180223G2_26	1800274-08 WI-A06-FB04-0218 0.24797	23-Feb-18	18:27:48
27	180223G2_27	IPA	23-Feb-18	18:40:14
28	180223G2_28	ST180223G2-10 PFC CS1 537 18B2304	23-Feb-18	18:52:39
29	180223G2_29	IPA	23-Feb-18	19:05:03
30	180223G2_30	1800274-09 WI-A06-RW05-0218 0.25053	23-Feb-18	19:17:28
31	180223G2_31	1800274-10 WI-A06-FB05-0218 0.23607	23-Feb-18	19:29:53

Dataset: Untitled

Last Altered: Monday, February 26, 2018 07:21:31 Pacific Standard Time

Printed: Monday, February 26, 2018 07:21:53 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	180223G2_32	1800274-11 WI-A06-RW06-0218 0.25046	23-Feb-18	19:42:14
33	180223G2_33	1800274-12 WI-A06-RW05P-0218 0.24939	23-Feb-18	19:54:30
34	180223G2_34	1800274-13 WI-A06-FB06-0218 0.24933	23-Feb-18	20:06:48
35	180223G2_35	1800274-14 WI-A06-RW07-0218 0.25299	23-Feb-18	20:19:13
36	180223G2_36	1800274-15 WI-A06-FB07-0218 0.25846	23-Feb-18	20:31:38
37	180223G2_37	1800274-16 WI-A06-RW08-0218 0.24886	23-Feb-18	20:44:03
38	180223G2_38	1800274-17 WI-A06-FB08-0218 0.2509	23-Feb-18	20:56:28
39	180223G2_39	IPA	23-Feb-18	21:08:54
40	180223G2_40	ST180223G2-11 PFC CS3 537 18B2306	23-Feb-18	21:21:19
41	180223G2_41	IPA	23-Feb-18	21:33:43

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-40.qld

Last Altered: Monday, February 26, 2018 07:16:11 Pacific Standard Time

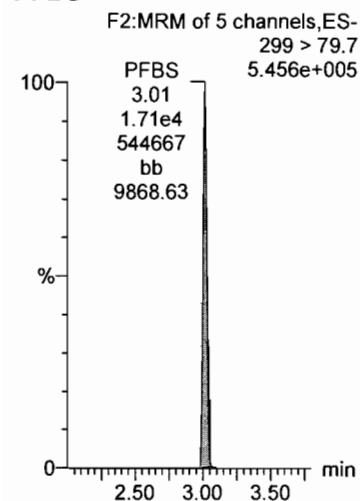
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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

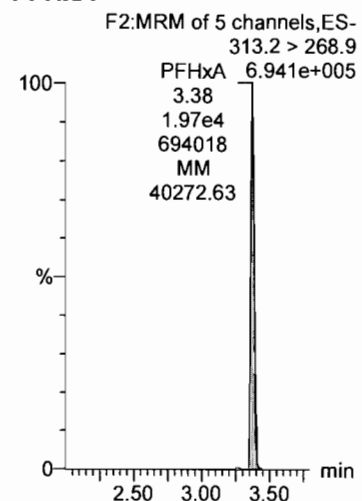
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Name: 180223G2_40, Date: 23-Feb-2018, Time: 21:21:19, ID: ST180223G2-11 PFC CS3 537 18B2306, Description: PFC CS3 537 18B2306

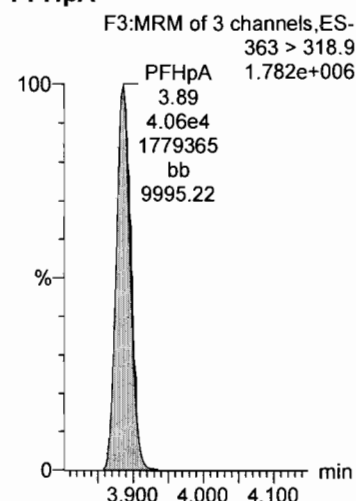
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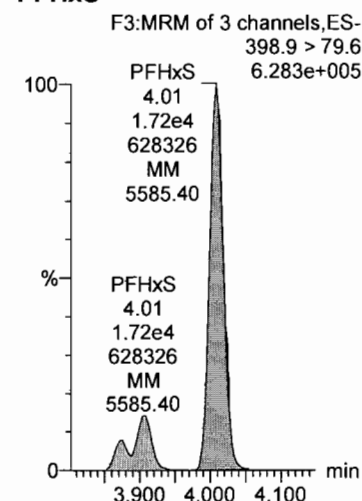
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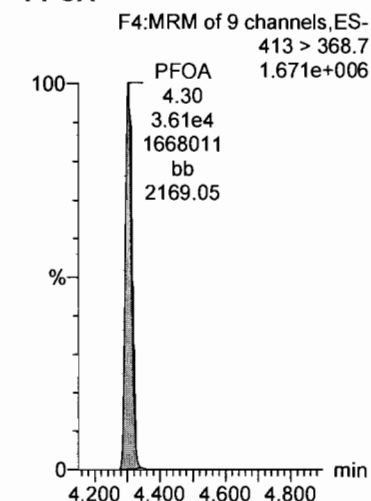
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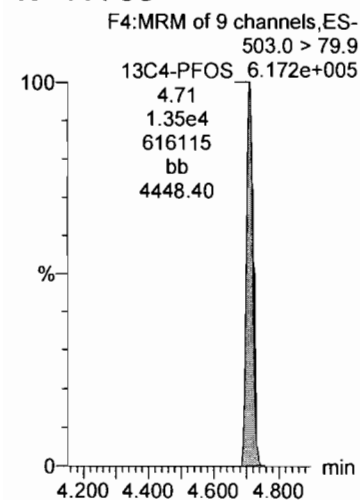
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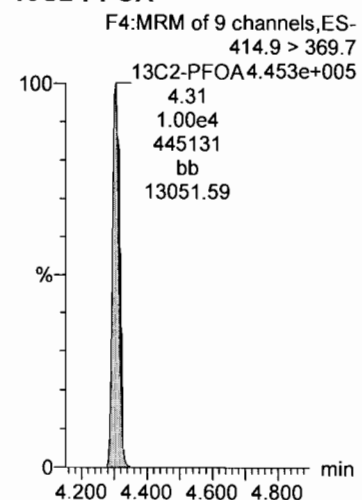
PFOA



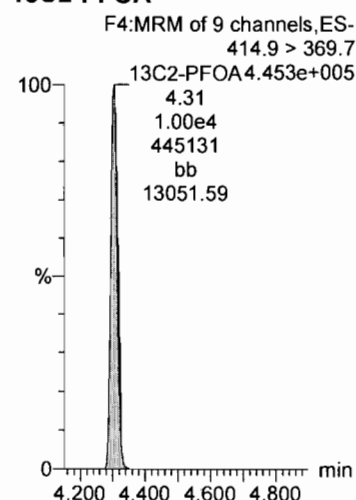
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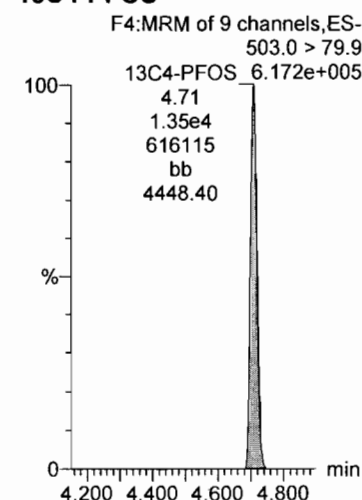
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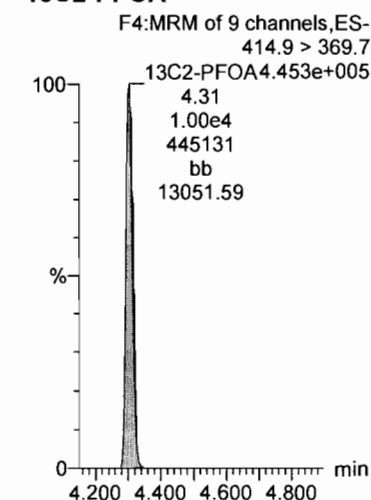
13C2-PFOA



13C4-PFOS



13C2-PFOA

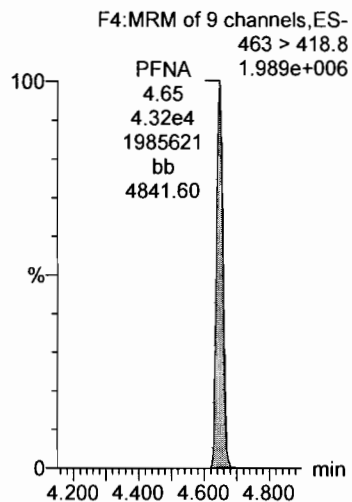


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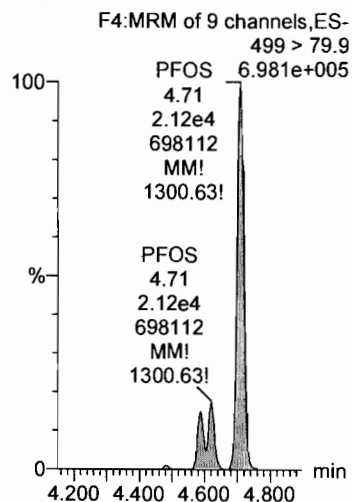
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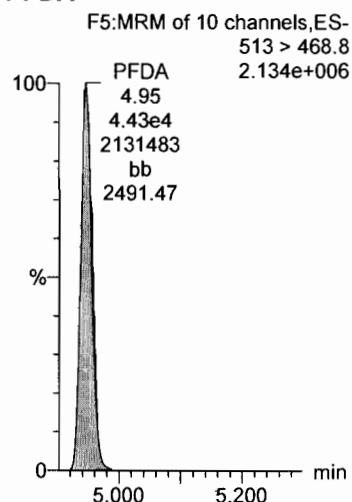
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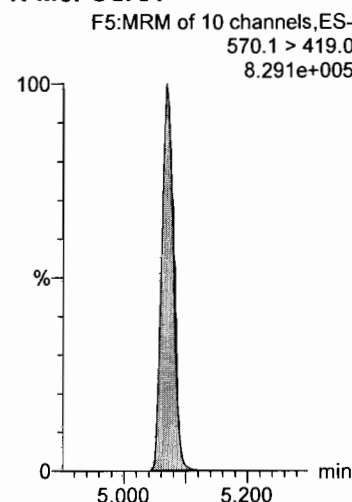
PFOS



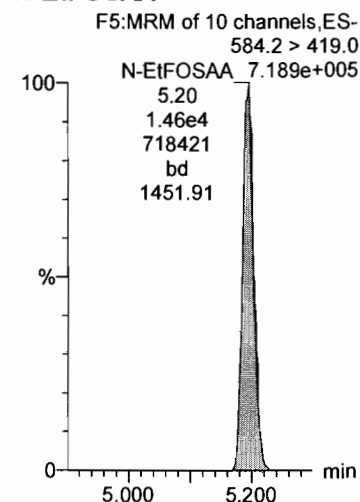
PFDA



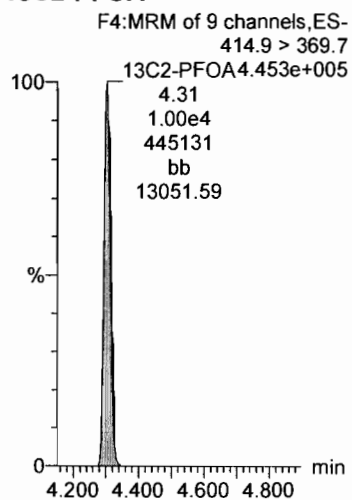
N-MeFOSAA



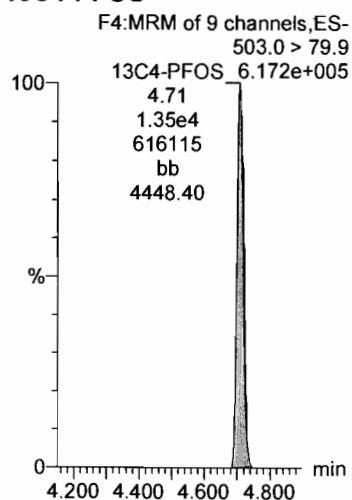
N-EtFOSAA



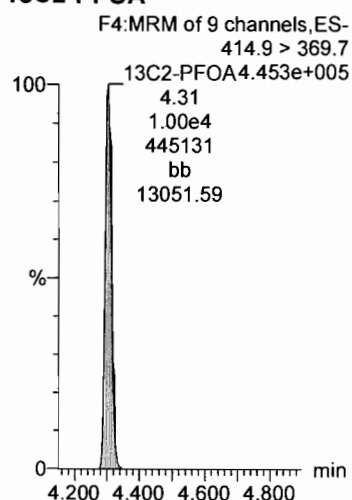
13C2-PFOA



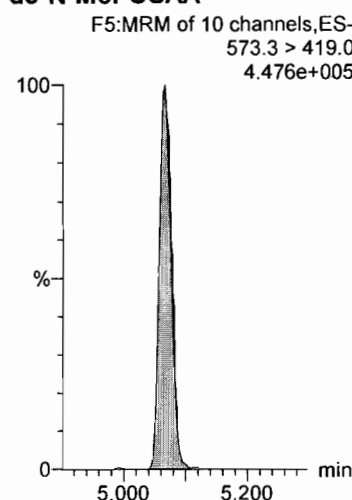
13C4-PFOS



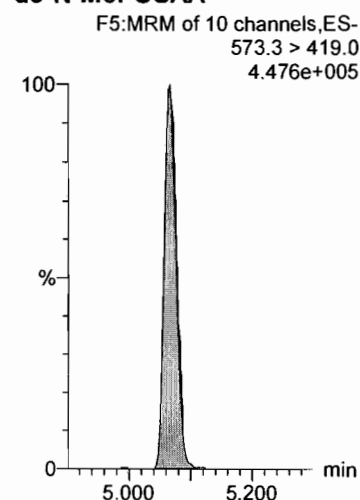
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA

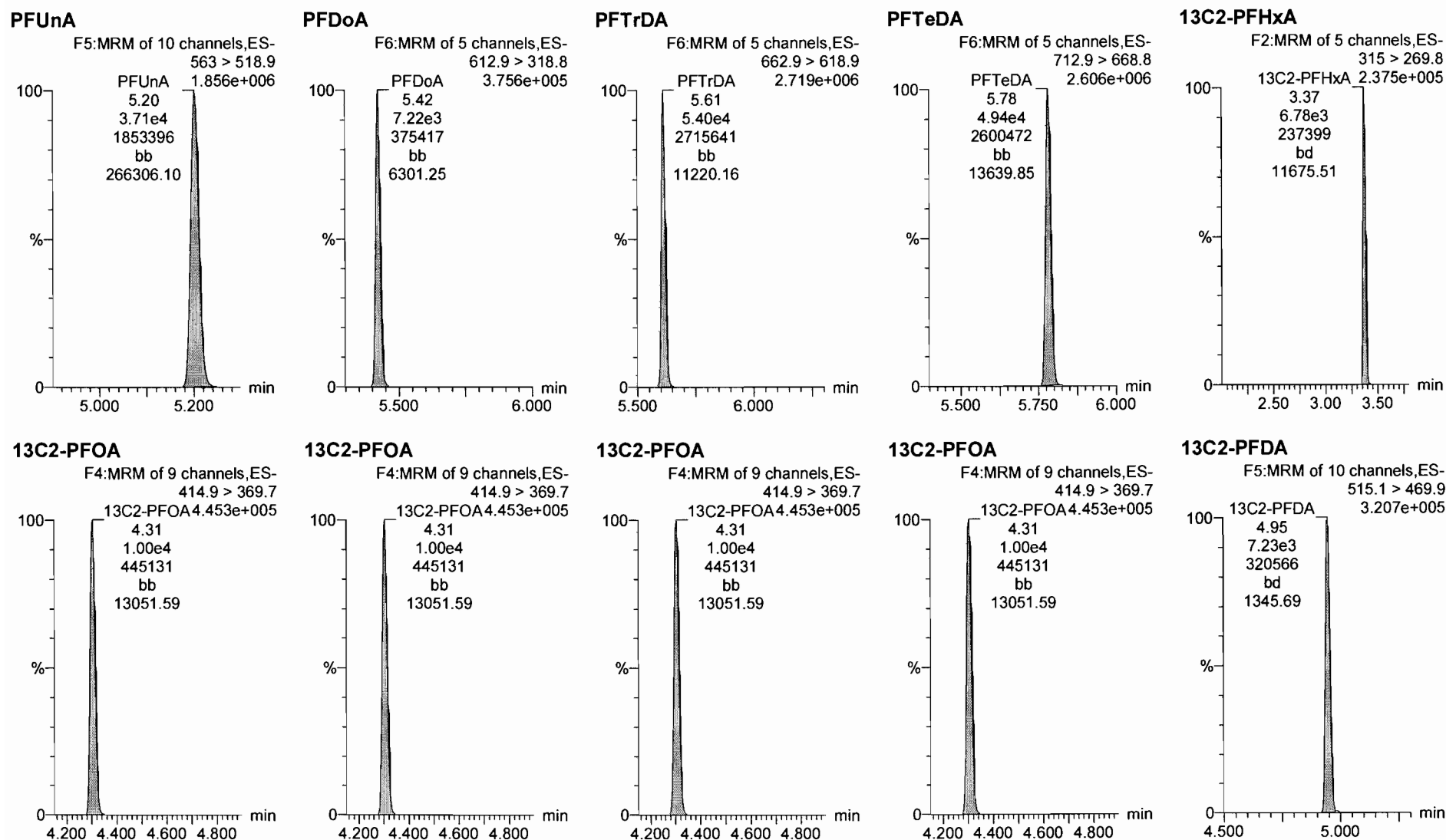


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Printed: Monday, February 26, 2018 07:16:14 Pacific Standard Time

Name: 180223G2_40, Date: 23-Feb-2018, Time: 21:21:19, ID: ST180223G2-11 PFC CS3 537 18B2306, Description: PFC CS3 537 18B2306



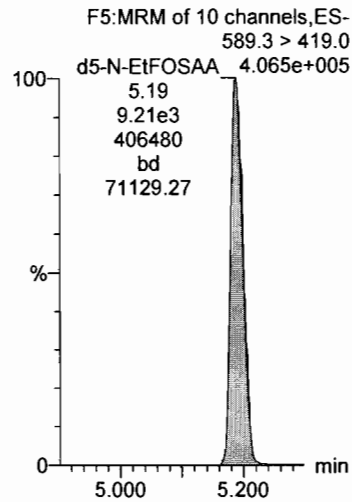
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Printed: Monday, February 26, 2018 07:16:14 Pacific Standard Time

Name: 180223G2_40, Date: 23-Feb-2018, Time: 21:21:19, ID: ST180223G2-11 PFC CS3 537 18B2306, Description: PFC CS3 537 18B2306

d5-N-EtFOSAA



ICAL

Compound 18: 13C2-PFOA

ID	Name	Type	Std. CRT	Area	ICAL AREA	Area %
1 IPA	180226G2_1	Analyte	10		8974.47	0.00
2 ST180226G2-1 PFC CS-1 537 18B2310	180226G2_2	Analyte	10	4.3 12304.68	8974.47	137.11
3 IPA	180226G2_3	Analyte	10		8974.47	0.00
4 B8A0078-BLK1 LRB 0.25	180226G2_4	Analyte	10	4.3 8698.901	8974.47	96.93
5 B8A0078-BS4 LFB 0.25	180226G2_5	Analyte	10	4.3 8603.135	8974.47	95.86
6 B8A0078-BS3 LFB 0.25	180226G2_6	Analyte	10	4.3 9336.399	8974.47	104.03
7 B8A0078-BS2 LFB 0.25	180226G2_7	Analyte	10	4.3 9079.529	8974.47	101.17
8 B8A0078-BS1 LFB 0.25	180226G2_8	Analyte	10	4.3 7730.221	8974.47	86.14
9 1800274-09 @1:2 WI-A06-RW05-0218 0.25053	180226G2_9	Analyte	10	4.31 6557.958	8974.47	73.07
10 1800274-12 @1:2 WI-A06-RW05P-0218 0.24939	180226G2_10	Analyte	10	4.3 7229.083	8974.47	80.55
11 IPA	180226G2_11	Analyte	10		8974.47	0.00
12 ST180226G2-2 PFC CS1 537 18B2304	180226G2_12	Analyte	10	4.3 12498.11	8974.47	139.26
13 IPA	180226G2_13	Analyte	10			

Compound 19: 13C4-PFOS

ID	Name	Type	Std. CRT	Area	ICAL AREA	Area %
1 IPA	180226G2_1	Analyte	28.7		17934.74	0.00
2 ST180226G2-1 PFC CS-1 537 18B2310	180226G2_2	Analyte	28.7	4.71 18889.5	17934.74	105.32
3 IPA	180226G2_3	Analyte	28.7	4.71 7.974	17934.74	0.04
4 B8A0078-BLK1 LRB 0.25	180226G2_4	Analyte	28.7	4.71 14523.96	17934.74	80.98
5 B8A0078-BS4 LFB 0.25	180226G2_5	Analyte	28.7	4.71 14412.86	17934.74	80.36
6 B8A0078-BS3 LFB 0.25	180226G2_6	Analyte	28.7	4.71 14436.82	17934.74	80.50
7 B8A0078-BS2 LFB 0.25	180226G2_7	Analyte	28.7	4.71 13843.7	17934.74	77.19
8 B8A0078-BS1 LFB 0.25	180226G2_8	Analyte	28.7	4.71 14799.23	17934.74	82.52
9 1800274-09 @1:2 WI-A06-RW05-0218 0.25053	180226G2_9	Analyte	28.7	4.71 10941.43	17934.74	61.01
10 1800274-12 @1:2 WI-A06-RW05P-0218 0.24939	180226G2_10	Analyte	28.7	4.71 10309.37	17934.74	57.48
11 IPA	180226G2_11	Analyte	28.7		17934.74	0.00
12 ST180226G2-2 PFC CS1 537 18B2304	180226G2_12	Analyte	28.7	4.71 21570.42	17934.74	120.27
13 IPA	180226G2_13	Analyte	28.7			

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. CRT	Area	ICAL AREA	Area %
1 IPA	180226G2_1	Analyte	40		12825.49	0.00
2 ST180226G2-1 PFC CS-1 537 18B2310	180226G2_2	Analyte	40	5.07 14227.53	12825.49	110.93
3 IPA	180226G2_3	Analyte	40		12825.49	0.00
4 B8A0078-BLK1 LRB 0.25	180226G2_4	Analyte	40	5.06 10022.06	12825.49	78.14
5 B8A0078-BS4 LFB 0.25	180226G2_5	Analyte	40	5.06 10297.17	12825.49	80.29
6 B8A0078-BS3 LFB 0.25	180226G2_6	Analyte	40	5.07 11380.61	12825.49	88.73
7 B8A0078-BS2 LFB 0.25	180226G2_7	Analyte	40	5.07 11833.12	12825.49	92.26
8 B8A0078-BS1 LFB 0.25	180226G2_8	Analyte	40	5.07 11144.94	12825.49	86.90
9 1800274-09 @1:2 WI-A06-RW05-0218 0.25053	180226G2_9	Analyte	40	5.07 10105.17	12825.49	78.79
10 1800274-12 @1:2 WI-A06-RW05P-0218 0.24939	180226G2_10	Analyte	40	5.07 8646.852	12825.49	67.42
11 IPA	180226G2_11	Analyte	40		12825.49	0.00
12 ST180226G2-2 PFC CS1 537 18B2304	180226G2_12	Analyte	40	5.07 16235.82	12825.49	126.59
13 IPA	180226G2_13	Analyte	40			

CCAL

Compound 18: 13C2-PFOA

ID	Name	Type	Std. CRT	Area	CCAL AREA	Area %
1 IPA	180226G2_1	Analyte	10		12304.68	0.00
2 ST180226G2-1 PFC CS-1 537 18B2310	180226G2_2	Analyte	10	4.3 12304.68	12304.68	100.00
3 IPA	180226G2_3	Analyte	10		12304.68	0.00
4 B8A0078-BLK1 LRB 0.25	180226G2_4	Analyte	10	4.3 8698.901	12304.68	70.70
5 B8A0078-BS4 LFB 0.25	180226G2_5	Analyte	10	4.3 8603.135	12304.68	69.92
6 B8A0078-BS3 LFB 0.25	180226G2_6	Analyte	10	4.3 9336.399	12304.68	75.88
7 B8A0078-BS2 LFB 0.25	180226G2_7	Analyte	10	4.3 9079.529	12304.68	73.79
8 B8A0078-BS1 LFB 0.25	180226G2_8	Analyte	10	4.3 7730.221	12304.68	62.82
9 1800274-09 @1:2 WI-A06-RW05-0218 0.25053	180226G2_9	Analyte	10	4.31 6557.958	12304.68	53.30
10 1800274-12 @1:2 WI-A06-RW05P-0218 0.24939	180226G2_10	Analyte	10	4.3 7229.083	12304.68	58.75
11 IPA	180226G2_11	Analyte	10		12304.68	0.00
12 ST180226G2-2 PFC CS1 537 18B2304	180226G2_12	Analyte	10	4.3 12498.11	12304.68	101.57
13 IPA	180226G2_13	Analyte	10			

Compound 19: 13C4-PFOS

ID	Name	Type	Std. C RT	Area		CCAL AREA	Area %
1 IPA	180226G2_1	Analyte	28.7			18889.5	0.00
2 ST180226G2-1 PFC CS-1 537 18B2310	180226G2_2	Analyte	28.7	4.71	18889.5	18889.5	100.00
3 IPA	180226G2_3	Analyte	28.7	4.71	7.974	18889.5	0.04
4 B8A0078-BLK1 LRB 0.25	180226G2_4	Analyte	28.7	4.71	14523.96	18889.5	76.89
5 B8A0078-BS4 LFB 0.25	180226G2_5	Analyte	28.7	4.71	14412.86	18889.5	76.30
6 B8A0078-BS3 LFB 0.25	180226G2_6	Analyte	28.7	4.71	14436.82	18889.5	76.43
7 B8A0078-BS2 LFB 0.25	180226G2_7	Analyte	28.7	4.71	13843.7	18889.5	73.29
8 B8A0078-BS1 LFB 0.25	180226G2_8	Analyte	28.7	4.71	14799.23	18889.5	78.35
9 1800274-09 @1:2 WI-A06-RW05-0218 0.25053	180226G2_9	Analyte	28.7	4.71	10941.43	18889.5	57.92
10 1800274-12 @1:2 WI-A06-RW05P-0218 0.24939	180226G2_10	Analyte	28.7	4.71	10309.37	18889.5	54.58
11 IPA	180226G2_11	Analyte	28.7			18889.5	0.00
12 ST180226G2-2 PFC CS1 537 18B2304	180226G2_12	Analyte	28.7	4.71	21570.42	18889.5	114.19
13 IPA	180226G2_13	Analyte	28.7				

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. C RT	Area		CCAL AREA	Area %
1 IPA	180226G2_1	Analyte	40			14227.53	0.00
2 ST180226G2-1 PFC CS-1 537 18B2310	180226G2_2	Analyte	40	5.07	14227.53	14227.53	100.00
3 IPA	180226G2_3	Analyte	40			14227.53	0.00
4 B8A0078-BLK1 LRB 0.25	180226G2_4	Analyte	40	5.06	10022.06	14227.53	70.44
5 B8A0078-BS4 LFB 0.25	180226G2_5	Analyte	40	5.06	10297.17	14227.53	72.37
6 B8A0078-BS3 LFB 0.25	180226G2_6	Analyte	40	5.07	11380.61	14227.53	79.99
7 B8A0078-BS2 LFB 0.25	180226G2_7	Analyte	40	5.07	11833.12	14227.53	83.17
8 B8A0078-BS1 LFB 0.25	180226G2_8	Analyte	40	5.07	11144.94	14227.53	78.33
9 1800274-09 @1:2 WI-A06-RW05-0218 0.25053	180226G2_9	Analyte	40	5.07	10105.17	14227.53	71.03
10 1800274-12 @1:2 WI-A06-RW05P-0218 0.24939	180226G2_10	Analyte	40	5.07	8646.852	14227.53	60.78
11 IPA	180226G2_11	Analyte	40			14227.53	0.00
12 ST180226G2-2 PFC CS1 537 18B2304	180226G2_12	Analyte	40	5.07	16235.82	14227.53	114.12
13 IPA	180226G2_13	Analyte	40			14227.53	0.00

LC Calibration Standards Review Checklist

Q1

Calibration ID:		ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
ST180226G2-1	LMH	☒	☒	☒	☒	☒	☒	NA
J -2	LMH	☒	☒	☒	☒	☒	☒	NA
	LMH	☐	☐	☐	☐	☐	☐	☐
	LMH	☐	☐	☐	☐	☐	☐	☐
	LMH	☐	☐	☐	☐	☐	☐	☐
	LMH	☐	☐	☐	☐	☐	☐	☐
	LMH	☐	☐	☐	☐	☐	☐	☐
	LMH	☐	☐	☐	☐	☐	☐	☐
	LMH	☐	☐	☐	☐	☐	☐	☐
	LMH	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 4.15.17

Run Log Present:

☒

of Samples per Sequence Checked:

☒

Instrument Blank Saved

NA DW

IIS Area Saved

☒ 180226G2

Reviewed By:

JA-02/26/2018
Initials/Date

Comments:

L14

DW.

Dataset: X:\G1.PRO\Results\2018\180226G2\180226G2-2.qld

Last Altered: Monday, February 26, 2018 09:52:00 Pacific Standard Time
Printed: Monday, February 26, 2018 12:04:45 Pacific Standard Time

✓JA-
02/26/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180226G2_2, Date: 26-Feb-2018, Time: 09:36:06, ID: ST180226G2-1 PFC CS-1 537 18B2310, Description: PFC CS-1 537 18B2310

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	9.23e2	1.89e4	1.0000		3.01	3.01	1.40	1.92	108.3
2	2 PFHxA	313.2 > 268.9	1.25e3	1.23e4	1.0000		3.35	3.37	1.01	1.83	91.7
3	3 PFHpA	363 > 318.9	2.29e3	1.23e4	1.0000		3.87	3.89	1.86	1.98	98.8
4	4 PFHxS	398.9 > 79.6	9.69e2	1.89e4	1.0000		4.00	4.01	1.47	2.10	115.6
5	5 PFOA	413 > 368.7	1.94e3	1.23e4	1.0000		4.30	4.30	1.58	1.89	94.3
6	6 PFNA	463 > 418.8	2.49e3	1.23e4	1.0000		4.64	4.64	2.02	1.99	99.5
7	7 PFOS	499 > 79.9	1.24e3	1.89e4	1.0000		4.71	4.71	1.88	1.96	106.0
8	8 PFDA	513 > 468.8	2.51e3	1.23e4	1.0000		4.87	4.94	2.04	1.84	91.9
9	9 N-MeFOSAA	570.1 > 419.0	1.10e3	1.42e4	1.0000		5.01	5.07	3.08	2.34	117.0
10	10 N-EtFOSAA	584.2 > 419.0	7.19e2	1.42e4	1.0000		5.19	5.19	2.02	1.91	95.4
11	11 PFUnA	563 > 518.9	2.47e3	1.23e4	1.0000		5.13	5.20	2.01	2.00	99.8
12	12 PFDoA	612.9 > 318.8	4.32e2	1.23e4	1.0000		5.33	5.42	0.351	2.22	110.9
13	13 PFTTrDA	662.9 > 618.9	3.30e3	1.23e4	1.0000		5.56	5.61	2.68	1.95	97.6
14	14 PFTeDA	712.9 > 668.8	3.05e3	1.23e4	1.0000		5.73	5.78	2.48	1.98	99.1
15	15 13C2-PFHxA	315 > 269.8	8.53e3	1.23e4	1.0000	0.731	3.45	3.37	6.93	9.48	94.8
16	16 13C2-PFDA	515.1 > 469.9	9.06e3	1.23e4	1.0000	0.910	4.90	4.94	7.37	8.10	81.0
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.38e4	1.42e4	1.0000	1.049	5.07	5.19	38.8	37.0	92.4
18	18 13C2-PFOA	414.9 > 369.7	1.23e4	1.23e4	1.0000	1.000	4.41	4.30	10.0	10.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.89e4	1.89e4	1.0000	1.000	4.81	4.71	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.42e4	1.42e4	1.0000	1.000	5.16	5.07	40.0	40.0	100.0

MJT
2/26/18

Dataset: Untitled

Last Altered: Monday, February 26, 2018 12:40:07 Pacific Standard Time

Printed: Monday, February 26, 2018 12:40:54 Pacific Standard Time

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180226G2_1	IPA	26-Feb-18	09:24:04
2	180226G2_2	ST180226G2-1 PFC CS-1 537 18B2310	26-Feb-18	09:36:06
3	180226G2_3	IPA	26-Feb-18	09:48:26
4	180226G2_4	B8A0078-BLK1 LRB 0.25	26-Feb-18	10:00:54
5	180226G2_5	B8A0078-BS4 LFB 0.25	26-Feb-18	10:13:16
6	180226G2_6	B8A0078-BS1-BS3 LFB 0.25	26-Feb-18	10:25:41
7	180226G2_7	B8A0078-BS2 LFB 0.25	26-Feb-18	10:38:07
8	180226G2_8	B8A0078-BS1 LFB 0.25	26-Feb-18	10:51:08
9	180226G2_9	1800274-09 @1:2 WI-A06-RW05-0218 0.25053	26-Feb-18	11:08:33
10	180226G2_10	1800274-12 @1:2 WI-A06-RW05P-0218 0.24939	26-Feb-18	11:20:36
11	180226G2_11	IPA	26-Feb-18	11:33:00
12	180226G2_12	ST180226G2-2 PFC CS1 537 18B2304	26-Feb-18	11:45:28
13	180226G2_13	IPA	26-Feb-18	11:57:52

Dataset: X:\G1.PRO\Results\2018\180226G2\180226G2-2.qld

Last Altered: Monday, February 26, 2018 09:52:00 Pacific Standard Time

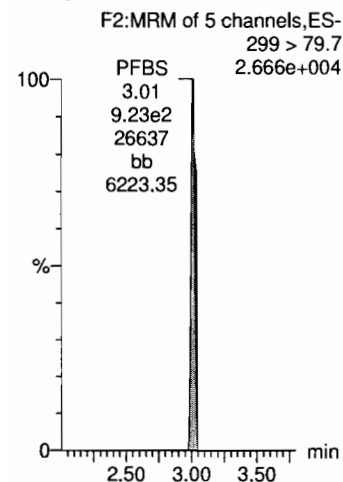
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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

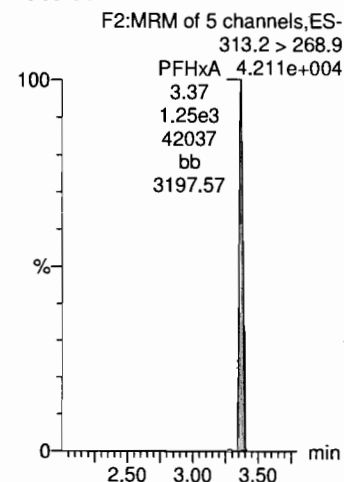
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Name: 180226G2_2, Date: 26-Feb-2018, Time: 09:36:06, ID: ST180226G2-1 PFC CS-1 537 18B2310, Description: PFC CS-1 537 18B2310

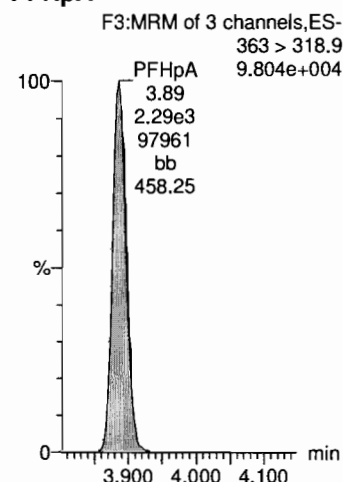
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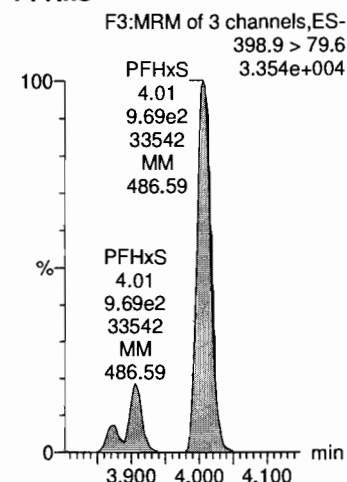
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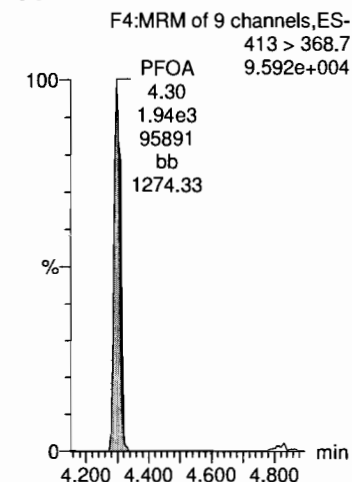
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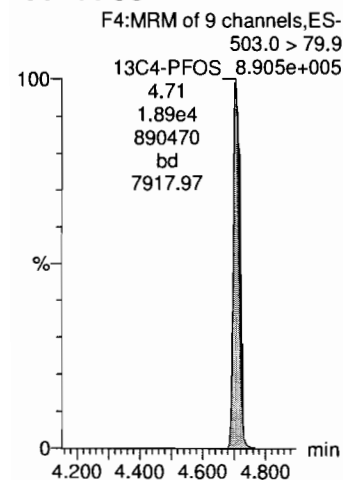
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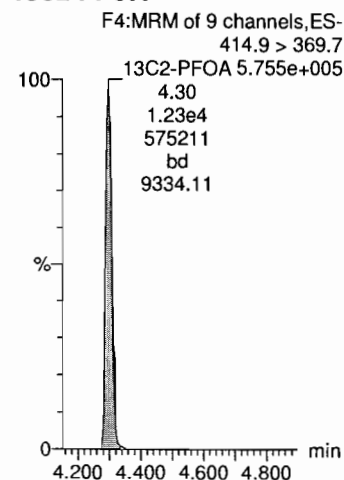
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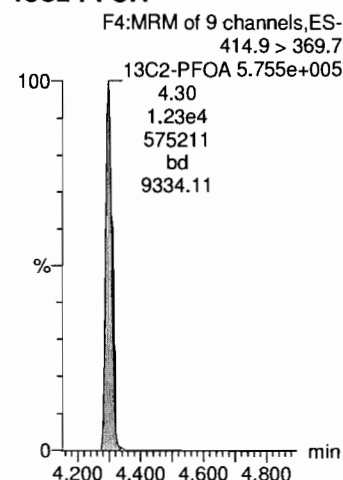
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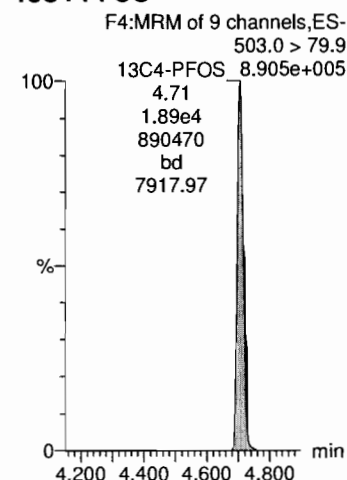
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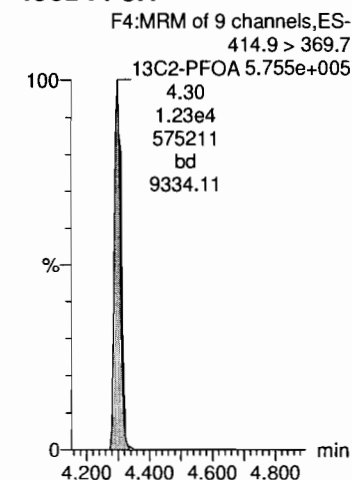
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13C4-PFOS



13C2-PFOA



MJT 2/26/2018

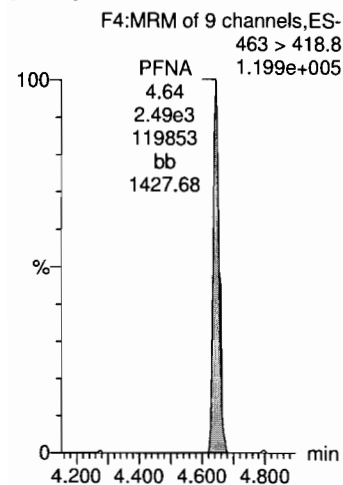
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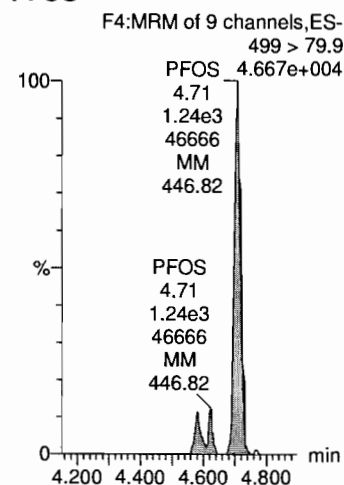
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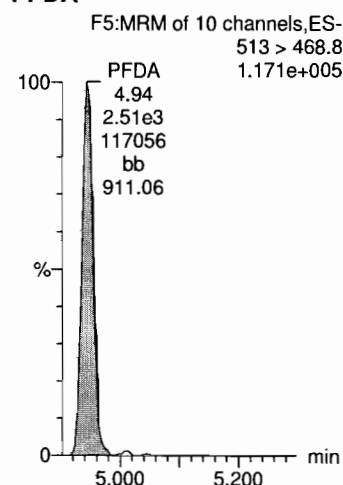
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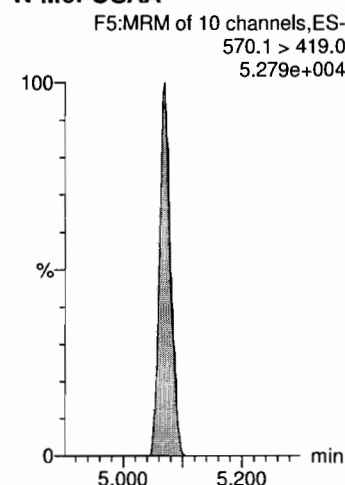
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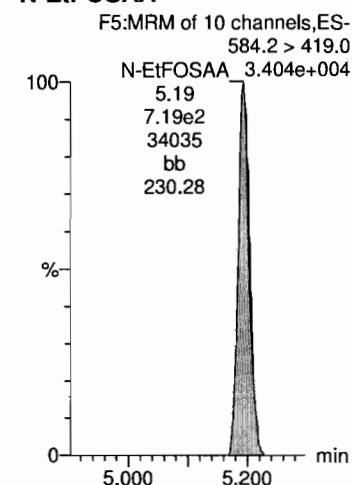
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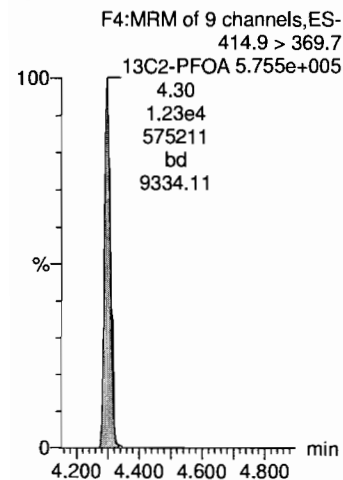
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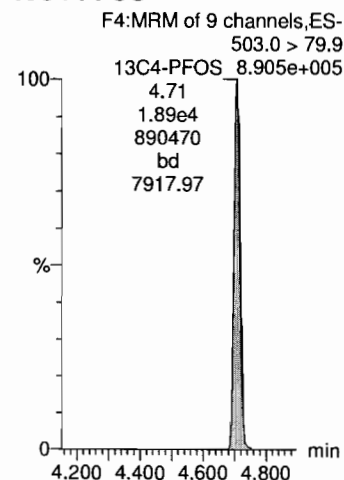
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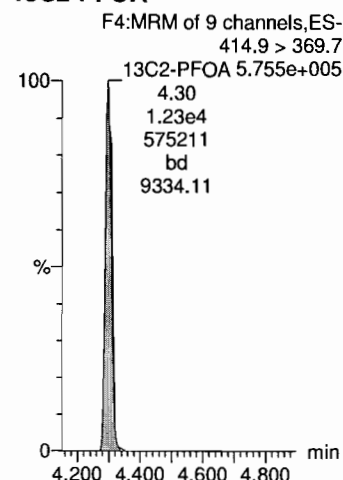
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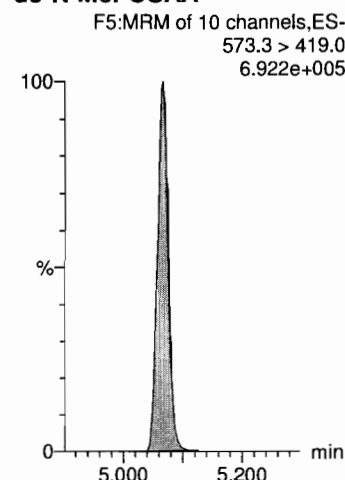
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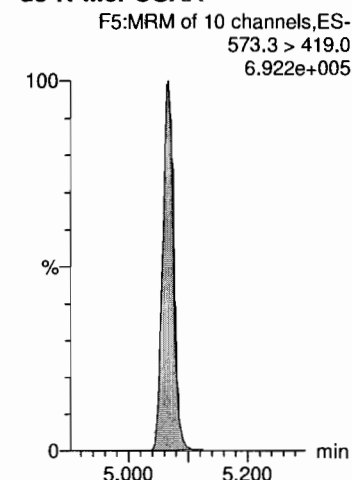
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d3-N-MeFOSAA



d3-N-MeFOSAA



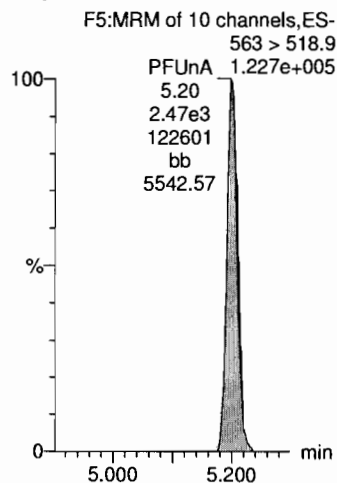
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Last Altered: Monday, February 26, 2018 09:52:00 Pacific Standard Time

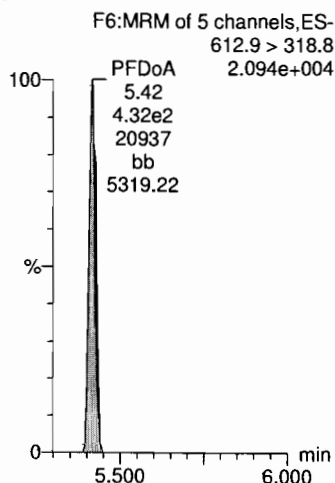
Printed: Monday, February 26, 2018 12:04:45 Pacific Standard Time

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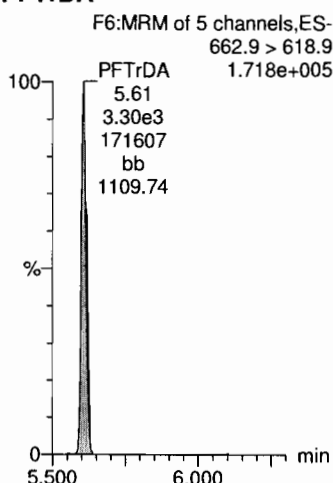
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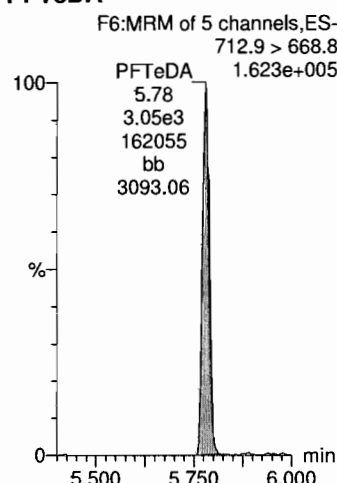
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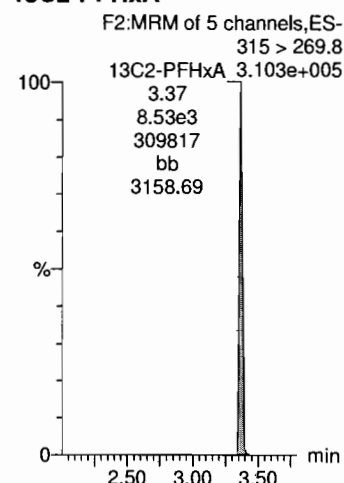
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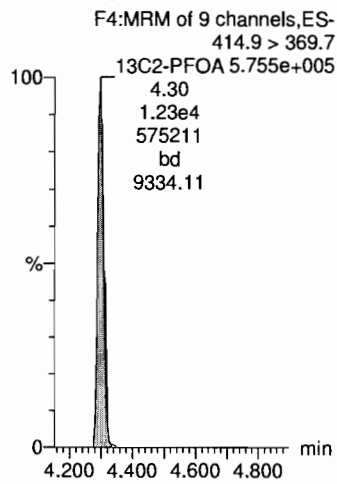
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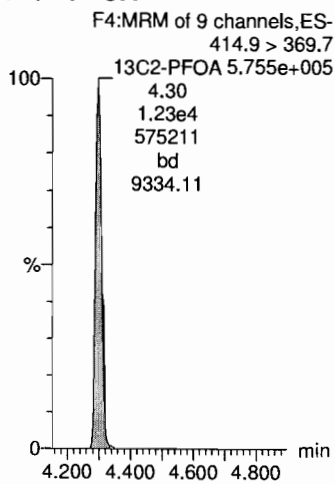
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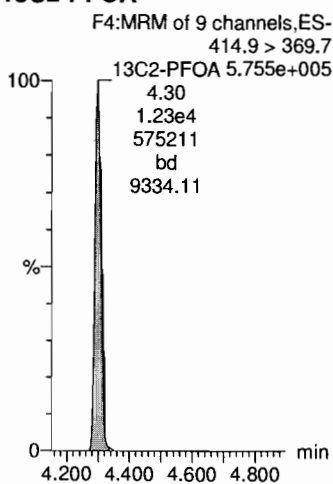
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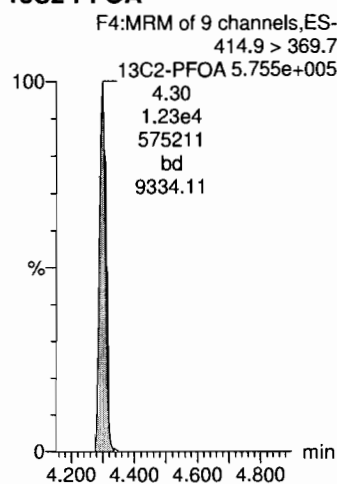
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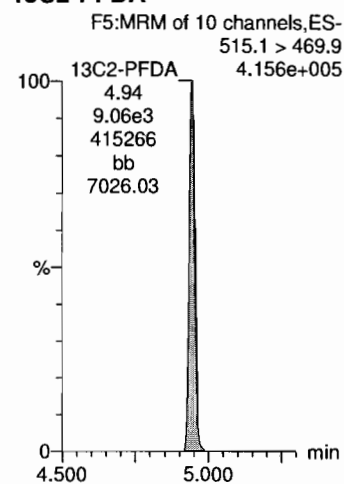
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13C2-PFOA



13C2-PFDA



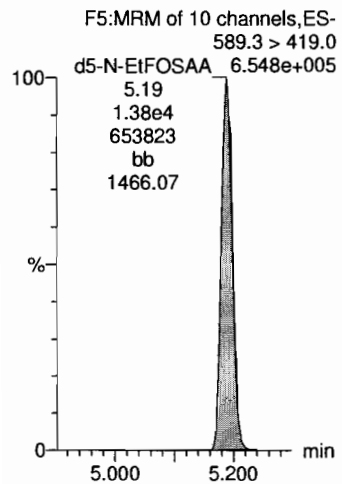
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Last Altered: Monday, February 26, 2018 09:52:00 Pacific Standard Time

Printed: Monday, February 26, 2018 12:04:45 Pacific Standard Time

Name: 180226G2_2, Date: 26-Feb-2018, Time: 09:36:06, ID: ST180226G2-1 PFC CS-1 537 18B2310, Description: PFC CS-1 537 18B2310

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180226G2\180226G2-12.qld

Last Altered: Monday, February 26, 2018 12:02:13 Pacific Standard Time

Printed: Monday, February 26, 2018 12:02:36 Pacific Standard Time

✓ JH.
02/26/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

MJT
2/26/18

Name: 180226G2_12, Date: 26-Feb-2018, Time: 11:45:28, ID: ST180226G2-2 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304

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1	1 PFBS	299 > 79.7	4.87e3	2.16e4	1.0000		3.01	3.01	6.48	8.86	100.1
2	2 PFHxA	313.2 > 268.9	6.58e3	1.25e4	1.0000		3.36	3.37	5.27	9.52	95.2
3	3 PFHpA	363 > 318.9	1.14e4	1.25e4	1.0000		3.87	3.89	9.09	9.67	96.7
4	4 PFHxS	398.9 > 79.6	4.72e3	2.16e4	1.0000		4.00	4.01	6.28	8.98	98.5
5	5 PFOA	413 > 368.7	1.03e4	1.25e4	1.0000		4.30	4.30	8.26	9.86	98.6
6	6 PFNA	463 > 418.8	1.23e4	1.25e4	1.0000		4.65	4.65	9.85	9.69	96.9
7	7 PFOS	499 > 79.9	6.92e3	2.16e4	1.0000		4.71	4.71	9.21	9.59	103.7
8	8 PFDA	513 > 468.8	1.18e4	1.25e4	1.0000		4.87	4.95	9.42	8.59	85.9
9	9 N-MeFOSAA	570.1 > 419.0	5.42e3	1.62e4	1.0000		5.01	5.07	13.3	9.98	99.8
10	10 N-EtFOSAA	584.2 > 419.0	4.55e3	1.62e4	1.0000		5.19	5.19	11.2	10.6	105.7
11	11 PFUnA	563 > 518.9	1.15e4	1.25e4	1.0000		5.13	5.20	9.23	9.19	91.9
12	12 PFDoA	612.9 > 318.8	2.17e3	1.25e4	1.0000		5.34	5.42	1.73	11.0	109.5
13	13 PFTTrDA	662.9 > 618.9	1.52e4	1.25e4	1.0000		5.56	5.61	12.2	8.85	88.5
14	14 PFTeDA	712.9 > 668.8	1.46e4	1.25e4	1.0000		5.73	5.78	11.7	9.37	93.7
15	15 13C2-PFHxA	315 > 269.8	9.27e3	1.25e4	1.0000	0.731	3.45	3.37	7.42	10.1	101.4
16	16 13C2-PFDA	515.1 > 469.9	9.90e3	1.25e4	1.0000	0.910	4.91	4.95	7.92	8.71	87.1
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.79e4	1.62e4	1.0000	1.049	5.07	5.19	44.1	42.0	105.0
18	18 13C2-PFOA	414.9 > 369.7	1.25e4	1.25e4	1.0000	1.000	4.41	4.30	10.0	10.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	2.16e4	2.16e4	1.0000	1.000	4.81	4.71	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.62e4	1.62e4	1.0000	1.000	5.16	5.07	40.0	40.0	100.0

Dataset: Untitled

Last Altered: Monday, February 26, 2018 12:40:07 Pacific Standard Time

Printed: Monday, February 26, 2018 12:40:54 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Compound name: PFBS

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1	180226G2_1	IPA	26-Feb-18	09:24:04
2	180226G2_2	ST180226G2-1 PFC CS-1 537 18B2310	26-Feb-18	09:36:06
3	180226G2_3	IPA	26-Feb-18	09:48:26
4	180226G2_4	B8A0078-BLK1 LRB 0.25	26-Feb-18	10:00:54
5	180226G2_5	B8A0078-BS4 LFB 0.25	26-Feb-18	10:13:16
6	180226G2_6	B8A0078-BS1-BS3 LFB 0.25	26-Feb-18	10:25:41
7	180226G2_7	B8A0078-BS2 LFB 0.25	26-Feb-18	10:38:07
8	180226G2_8	B8A0078-BS1 LFB 0.25	26-Feb-18	10:51:08
9	180226G2_9	1800274-09 @1:2 WI-A06-RW05-0218 0.25053	26-Feb-18	11:08:33
10	180226G2_10	1800274-12 @1:2 WI-A06-RW05P-0218 0.24939	26-Feb-18	11:20:36
11	180226G2_11	IPA	26-Feb-18	11:33:00
12	180226G2_12	ST180226G2-2 PFC CS1 537 18B2304	26-Feb-18	11:45:28
13	180226G2_13	IPA	26-Feb-18	11:57:52

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Last Altered: Monday, February 26, 2018 12:02:13 Pacific Standard Time

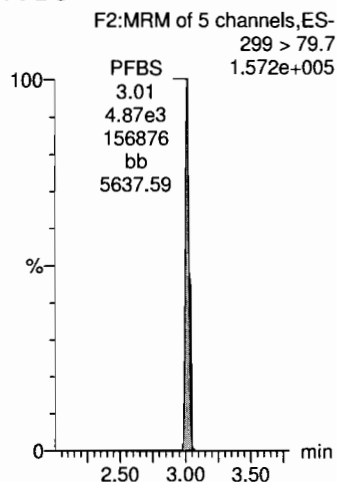
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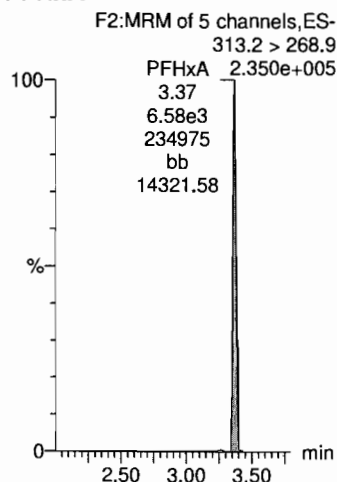
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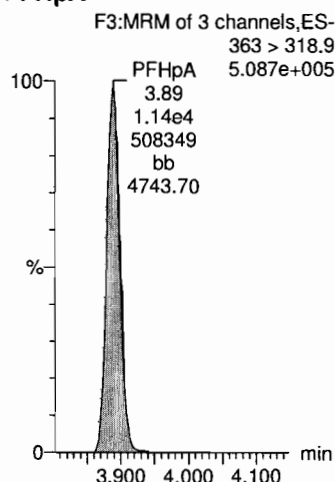
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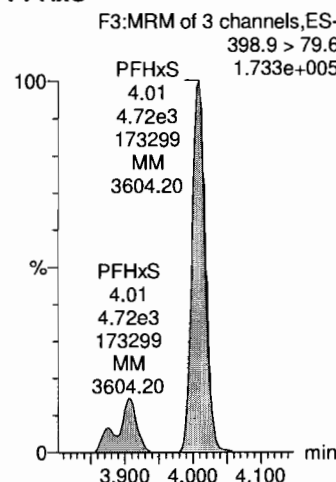
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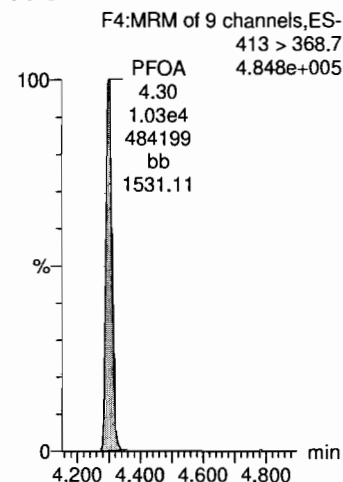
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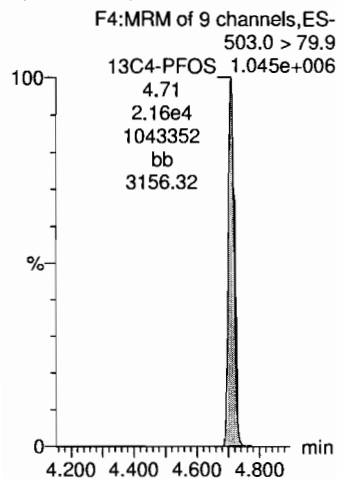
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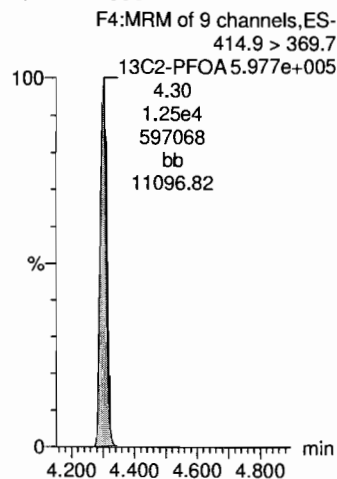
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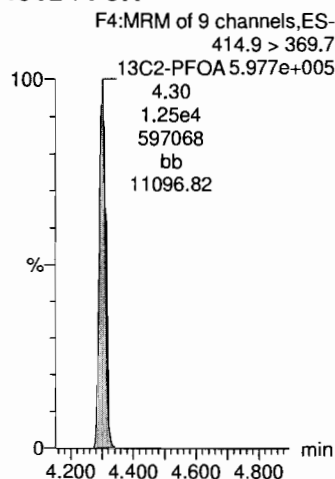
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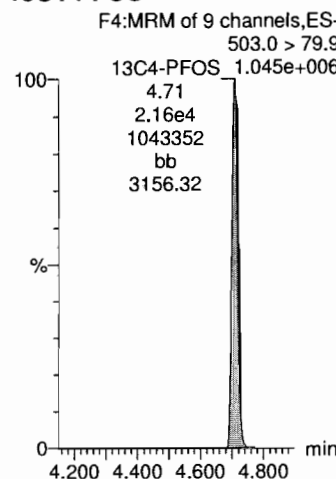
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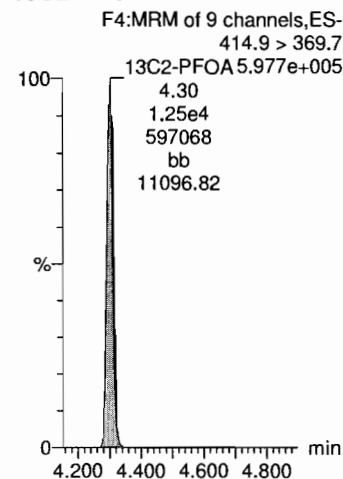
13C2-PFOA



13C4-PFOS



13C2-PFOA



MJT 2/26/2018

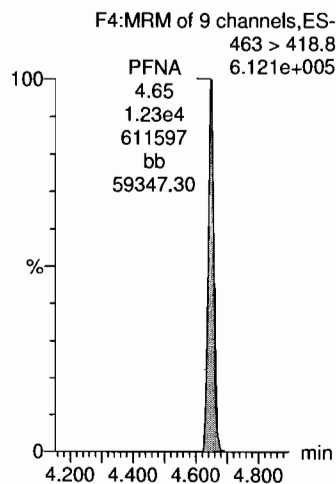
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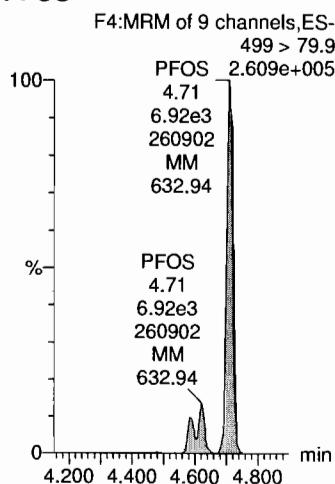
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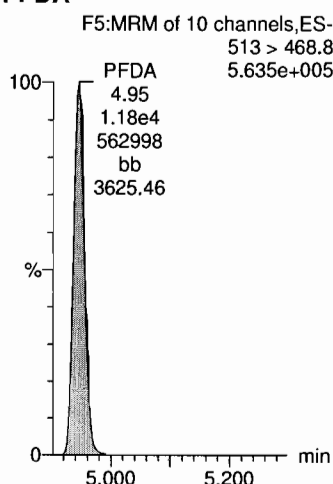
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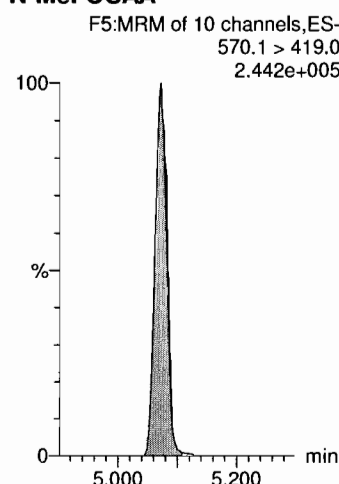
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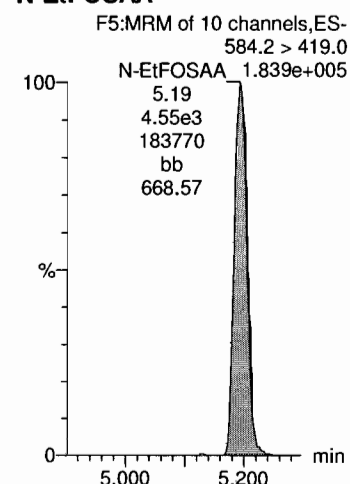
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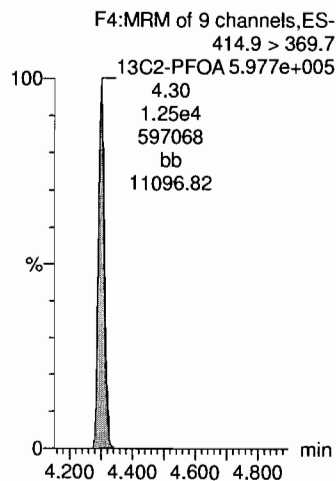
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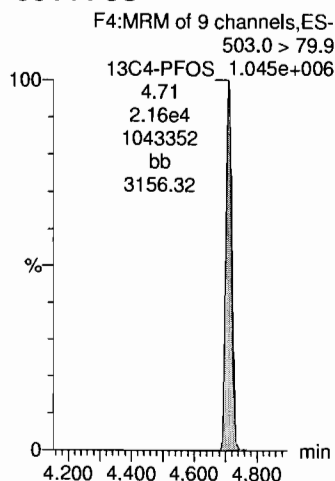
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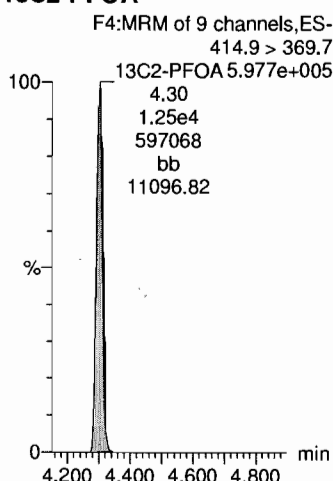
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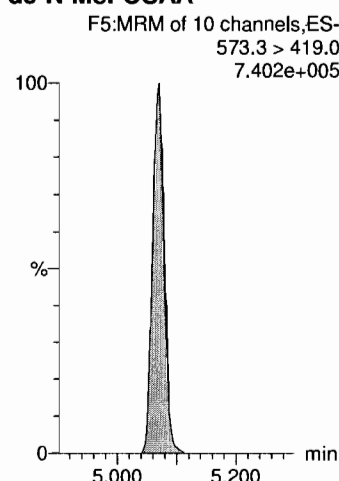
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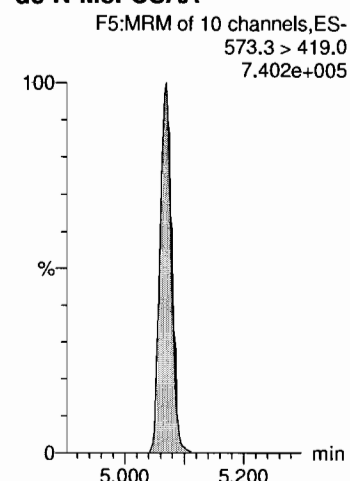
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d3-N-MeFOSAA



d3-N-MeFOSAA



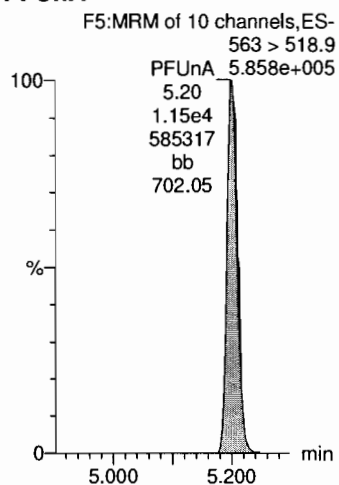
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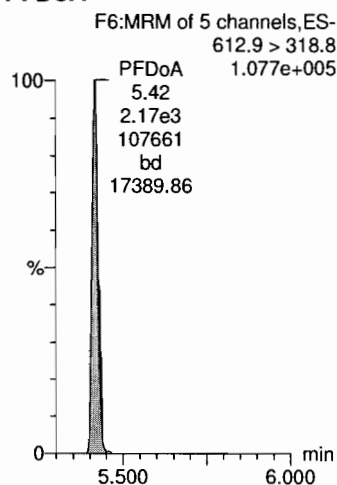
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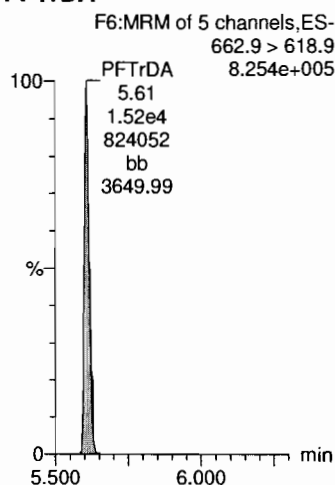
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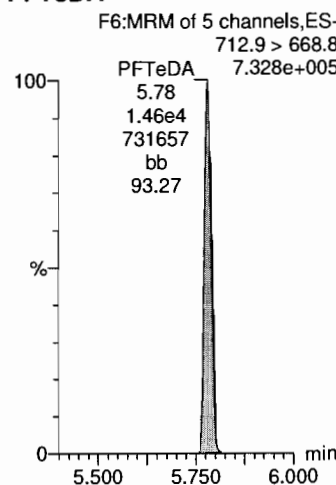
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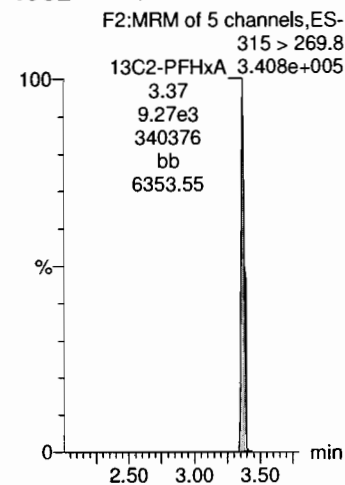
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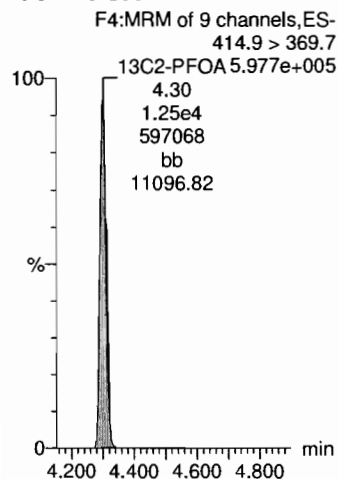
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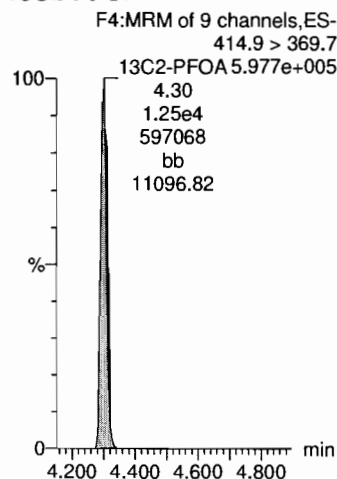
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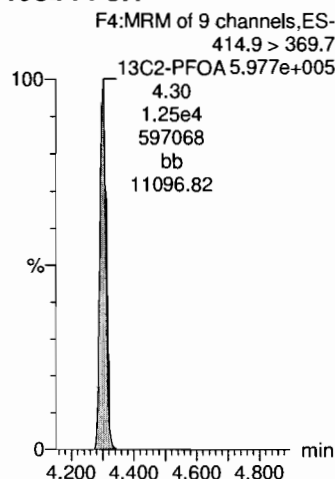
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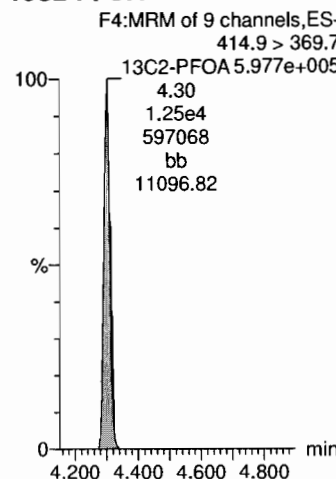
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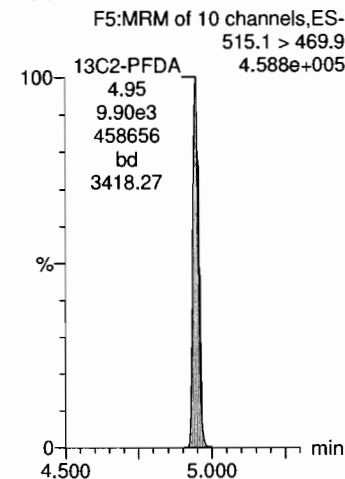
13C2-PFOA



13C2-PFOA



13C2-PFDA



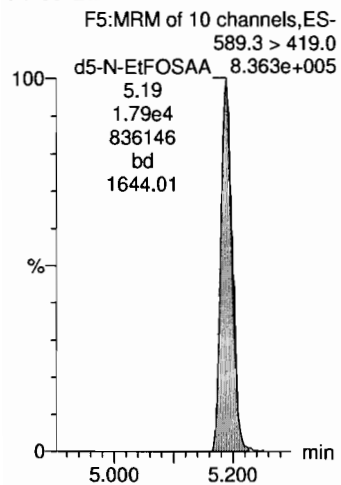
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Last Altered: Monday, February 26, 2018 12:02:13 Pacific Standard Time

Printed: Monday, February 26, 2018 12:02:36 Pacific Standard Time

Name: 180226G2_12, Date: 26-Feb-2018, Time: 11:45:28, ID: ST180226G2-2 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304

d5-N-EtFOSAA



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

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time
Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

JA
02/24/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 17:19:14

Compound name: PFBS

Coefficient of Determination: $R^2 = 0.996349$

Calibration curve: $0.731202 * x$

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

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

MJT
2/23/18

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.443	3.01	198.814	16868.711	0.338	0.5	4.5	NO	0.996	NO	bb
2	2 180223G2_3	Standard	0.885	3.01	521.997	18929.600	0.791	1.1	22.3	NO	0.996	NO	bb
3	3 180223G2_4	Standard	1.770	3.02	909.253	19568.625	1.334	1.8	3.0	NO	0.996	NO	bb
4	4 180223G2_5	Standard	4.420	3.01	2203.222	17986.094	3.516	4.8	8.8	NO	0.996	NO	bb
5	5 180223G2_6	Standard	8.850	3.02	3827.673	17892.594	6.140	8.4	-5.1	NO	0.996	NO	bb
6	6 180223G2_7	Standard	22.100	3.01	9307.743	17798.180	15.009	20.5	-7.1	NO	0.996	NO	bb
7	7 180223G2_8	Standard	44.200	3.02	19324.398	16645.363	33.319	45.6	3.1	NO	0.996	NO	bb
8	8 180223G2_9	Standard	66.300	3.02	28018.547	15491.563	51.908	71.0	7.1	NO	0.996	NO	MMX
9	9 180223G2_10	Standard	88.400	3.02	37264.695	15634.240	68.407	93.6	5.8	NO	0.996	NO	MMX

Compound name: PFHxA

Coefficient of Determination: $R^2 = 0.997717$

Calibration curve: $0.553475 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	3.38	354.132	9097.107	0.389	0.7	40.7	NO	0.998	NO	MM
2	2 180223G2_3	Standard	1.000	3.38	711.273	9939.635	0.716	1.3	29.3	NO	0.998	NO	MM
3	3 180223G2_4	Standard	2.000	3.38	1173.079	9566.432	1.226	2.2	10.8	NO	0.998	NO	bb
4	4 180223G2_5	Standard	5.000	3.38	2646.081	8946.824	2.958	5.3	6.9	NO	0.998	NO	bb
5	5 180223G2_6	Standard	10.000	3.38	4344.971	8816.899	4.928	8.9	-11.0	NO	0.998	NO	bb
6	6 180223G2_7	Standard	25.000	3.38	11894.084	8696.680	13.677	24.7	-1.2	NO	0.998	NO	bb
7	7 180223G2_8	Standard	50.000	3.38	23477.408	8483.395	27.675	50.0	0.0	NO	0.998	NO	bb
8	8 180223G2_9	Standard	75.000	3.38	34391.449	8248.775	41.693	75.3	0.4	NO	0.998	NO	MM
9	9 180223G2_10	Standard	100.000	3.38	44779.535	7559.229	59.238	107.0	7.0	NO	0.998	NO	bbX

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.998875$

Calibration curve: $0.940423 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	3.89	483.433	9097.107	0.531	0.6	13.0	NO	0.999	NO	bb
2	2 180223G2_3	Standard	1.000	3.89	1185.001	9939.635	1.192	1.3	26.8	NO	0.999	NO	bb
3	3 180223G2_4	Standard	2.000	3.89	1948.822	9566.432	2.037	2.2	8.3	NO	0.999	NO	bb
4	4 180223G2_5	Standard	5.000	3.89	4527.533	8946.824	5.060	5.4	7.6	NO	0.999	NO	bb
5	5 180223G2_6	Standard	10.000	3.89	7941.743	8816.899	9.007	9.6	-4.2	NO	0.999	NO	MM
6	6 180223G2_7	Standard	25.000	3.89	19776.438	8696.680	22.740	24.2	-3.3	NO	0.999	NO	bb
7	7 180223G2_8	Standard	50.000	3.89	39949.883	8483.395	47.092	50.1	0.2	NO	0.999	NO	MM
8	8 180223G2_9	Standard	75.000	3.89	58401.840	8248.775	70.801	75.3	0.4	NO	0.999	NO	bb
9	9 180223G2_10	Standard	100.000	3.89	74943.813	7559.229	99.142	105.4	5.4	NO	0.999	NO	bbX

Compound name: PFHxS

Coefficient of Determination: $R^2 = 0.997652$

Calibration curve: $0.699727 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.455	4.01	218.022	16868.711	0.371	0.5	16.5	NO	0.998	NO	MM
2	2 180223G2_3	Standard	0.910	4.01	506.356	18929.600	0.768	1.1	20.6	NO	0.998	NO	MM
3	3 180223G2_4	Standard	1.820	4.01	943.059	19568.625	1.383	2.0	8.6	NO	0.998	NO	MM
4	4 180223G2_5	Standard	4.560	4.01	2125.416	17986.094	3.391	4.8	6.3	NO	0.998	NO	MM
5	5 180223G2_6	Standard	9.120	4.01	3769.145	17892.594	6.046	8.6	-5.3	NO	0.998	NO	MM
6	6 180223G2_7	Standard	22.800	4.01	9441.263	17798.180	15.224	21.8	-4.6	NO	0.998	NO	MM
7	7 180223G2_8	Standard	45.600	4.01	18837.053	16645.363	32.479	46.4	1.8	NO	0.998	NO	MM
8	8 180223G2_9	Standard	68.400	4.01	26492.680	15491.563	49.081	70.1	2.5	NO	0.998	NO	MMX
9	9 180223G2_10	Standard	91.200	4.01	36343.625	15634.240	66.717	95.3	4.5	NO	0.998	NO	MMX

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time
Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: PFOA

Coefficient of Determination: $R^2 = 0.998447$

Calibration curve: $0.83774 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	4.31	444.616	9097.107	0.489	0.6	16.7	NO	0.998	NO	MMX
2	2 180223G2_3	Standard	1.000	4.31	1106.276	9939.635	1.113	1.3	32.9	NO	0.998	NO	bb
3	3 180223G2_4	Standard	2.000	4.31	1805.433	9566.432	1.887	2.3	12.6	NO	0.998	NO	MM
4	4 180223G2_5	Standard	5.000	4.31	4055.906	8946.824	4.533	5.4	8.2	NO	0.998	NO	bb
5	5 180223G2_6	Standard	10.000	4.31	6970.526	8816.899	7.906	9.4	-5.6	NO	0.998	NO	bb
6	6 180223G2_7	Standard	25.000	4.31	17861.994	8696.680	20.539	24.5	-1.9	NO	0.998	NO	bb
7	7 180223G2_8	Standard	50.000	4.31	35483.926	8483.395	41.828	49.9	-0.1	NO	0.998	NO	MM
8	8 180223G2_9	Standard	75.000	4.31	51913.281	8248.775	62.935	75.1	0.2	NO	0.998	NO	bb
9	9 180223G2_10	Standard	100.000	4.31	68504.563	7559.229	90.624	108.2	8.2	NO	0.998	NO	bbX

Compound name: PFNA

Coefficient of Determination: $R^2 = 0.999615$

Calibration curve: $1.01645 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	4.65	563.949	9097.107	0.620	0.6	22.0	NO	1.000	NO	bb
2	2 180223G2_3	Standard	1.000	4.65	1157.372	9939.635	1.164	1.1	14.6	NO	1.000	NO	MM
3	3 180223G2_4	Standard	2.000	4.65	1920.400	9566.432	2.007	2.0	-1.3	NO	1.000	NO	bb
4	4 180223G2_5	Standard	5.000	4.65	4575.846	8946.824	5.114	5.0	0.6	NO	1.000	NO	bb
5	5 180223G2_6	Standard	10.000	4.65	8764.228	8816.899	9.940	9.8	-2.2	NO	1.000	NO	bd
6	6 180223G2_7	Standard	25.000	4.65	22423.768	8696.680	25.784	25.4	1.5	NO	1.000	NO	bb
7	7 180223G2_8	Standard	50.000	4.65	42865.504	8483.395	50.529	49.7	-0.6	NO	1.000	NO	bb
8	8 180223G2_9	Standard	75.000	4.65	62783.340	8248.775	76.112	74.9	-0.2	NO	1.000	NO	bd
9	9 180223G2_10	Standard	100.000	4.65	84539.195	7559.229	111.836	110.0	10.0	NO	1.000	NO	bbX

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: PFOS

Coefficient of Determination: $R^2 = 0.999243$

Calibration curve: $0.960258 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.464	4.71	240.346	16868.711	0.409	0.4	-8.2	NO	0.999	NO	MM
2	2 180223G2_3	Standard	0.925	4.71	578.990	18929.600	0.878	0.9	-1.2	NO	0.999	NO	MM
3	3 180223G2_4	Standard	1.850	4.72	1246.784	19568.625	1.829	1.9	2.9	NO	0.999	NO	MM
4	4 180223G2_5	Standard	4.625	4.71	2839.078	17986.094	4.530	4.7	2.0	NO	0.999	NO	MM
5	5 180223G2_6	Standard	9.250	4.71	5482.640	17892.594	8.794	9.2	-1.0	NO	0.999	NO	MM
6	6 180223G2_7	Standard	23.100	4.71	13237.046	17798.180	21.345	22.2	-3.8	NO	0.999	NO	MM
7	7 180223G2_8	Standard	46.200	4.71	26212.029	16645.363	45.195	47.1	1.9	NO	0.999	NO	MM
8	8 180223G2_9	Standard	69.300	4.71	38823.871	15491.563	71.926	74.9	8.1	NO	0.999	NO	MMX
9	9 180223G2_10	Standard	92.400	4.72	54783.223	15634.240	100.566	104.7	13.3	NO	0.999	NO	MMX

Compound name: PFDA

Coefficient of Determination: $R^2 = 0.997317$

Calibration curve: $1.0203 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	4.95	595.268	9097.107	0.654	0.6	28.3	NO	0.997	NO	bb
2	2 180223G2_3	Standard	1.000	4.95	1092.503	9939.635	1.099	1.1	7.7	NO	0.997	NO	MM
3	3 180223G2_4	Standard	2.000	4.95	2348.901	9566.432	2.455	2.4	20.3	NO	0.997	NO	bb
4	4 180223G2_5	Standard	5.000	4.95	5082.690	8946.824	5.681	5.6	11.4	NO	0.997	NO	bb
5	5 180223G2_6	Standard	10.000	4.95	9182.706	8816.899	10.415	10.2	2.1	NO	0.997	NO	bb
6	6 180223G2_7	Standard	25.000	4.95	23729.313	8696.680	27.285	26.7	7.0	NO	0.997	NO	bb
7	7 180223G2_8	Standard	50.000	4.95	42435.055	8483.395	50.021	49.0	-1.9	NO	0.997	NO	bb
8	8 180223G2_9	Standard	75.000	4.95	61296.219	8248.775	74.309	72.8	-2.9	NO	0.997	NO	bb
9	9 180223G2_10	Standard	100.000	4.95	86878.820	7559.229	114.931	112.6	12.6	NO	0.997	NO	bbX

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: N-MeFOSAA

Coefficient of Determination: $R^2 = 0.996817$

Calibration curve: $1.4828 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	5.07	216.499	12707.717	0.681	0.5	-8.1	NO	0.997	NO	MM
2	2 180223G2_3	Standard	1.000	5.07	405.579	13652.991	1.188	0.8	-19.9	NO	0.997	NO	bb
3	3 180223G2_4	Standard	2.000	5.07	807.999	11741.213	2.753	1.9	-7.2	NO	0.997	NO	bb
4	4 180223G2_5	Standard	5.000	5.07	2570.225	14071.951	7.306	4.9	-1.5	NO	0.997	NO	bd
5	5 180223G2_6	Standard	10.000	5.07	4020.162	12882.572	12.482	8.4	-15.8	NO	0.997	NO	bb
6	6 180223G2_7	Standard	25.000	5.07	11394.728	13583.305	33.555	22.6	-9.5	NO	0.997	NO	bd
7	7 180223G2_8	Standard	50.000	5.07	22109.602	12346.496	71.630	48.3	-3.4	NO	0.997	NO	MM
8	8 180223G2_9	Standard	75.000	5.07	34154.773	11885.659	114.944	77.5	3.4	NO	0.997	NO	bb
9	9 180223G2_10	Standard	100.000	5.07	48529.656	12638.679	153.591	103.6	3.6	NO	0.997	NO	MM

Compound name: N-EtFOSAA

Coefficient of Determination: $R^2 = 0.993395$

Calibration curve: $1.05983 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	5.20	154.728	12707.717	0.487	0.5	-8.1	NO	0.993	NO	bb
2	2 180223G2_3	Standard	1.000	5.20	373.410	13652.991	1.094	1.0	3.2	NO	0.993	NO	MM
3	3 180223G2_4	Standard	2.000	5.20	628.798	11741.213	2.142	2.0	1.1	NO	0.993	NO	bb
4	4 180223G2_5	Standard	5.000	5.20	1653.245	14071.951	4.699	4.4	-11.3	NO	0.993	NO	bb
5	5 180223G2_6	Standard	10.000	5.20	3759.236	12882.572	11.672	11.0	10.1	NO	0.993	NO	bb
6	6 180223G2_7	Standard	25.000	5.20	9480.810	13583.305	27.919	26.3	5.4	NO	0.993	NO	bd
7	7 180223G2_8	Standard	50.000	5.20	17892.572	12346.496	57.968	54.7	9.4	NO	0.993	NO	bd
8	8 180223G2_9	Standard	75.000	5.20	24490.510	11885.659	82.420	77.8	3.7	NO	0.993	NO	bb
9	9 180223G2_10	Standard	100.000	5.20	30383.941	12638.679	96.162	90.7	-9.3	NO	0.993	NO	bb

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.999540$

Calibration curve: $1.00493 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	5.21	522.451	9097.107	0.574	0.6	14.3	NO	1.000	NO	bb
2	2 180223G2_3	Standard	1.000	5.20	1059.691	9939.635	1.066	1.1	6.1	NO	1.000	NO	bb
3	3 180223G2_4	Standard	2.000	5.21	1984.447	9566.432	2.074	2.1	3.2	NO	1.000	NO	bb
4	4 180223G2_5	Standard	5.000	5.21	4406.931	8946.824	4.926	4.9	-2.0	NO	1.000	NO	bb
5	5 180223G2_6	Standard	10.000	5.21	9202.060	8816.899	10.437	10.4	3.9	NO	1.000	NO	MM
6	6 180223G2_7	Standard	25.000	5.21	22094.332	8696.680	25.405	25.3	1.1	NO	1.000	NO	bb
7	7 180223G2_8	Standard	50.000	5.21	41571.934	8483.395	49.004	48.8	-2.5	NO	1.000	NO	bb
8	8 180223G2_9	Standard	75.000	5.21	62562.047	8248.775	75.844	75.5	0.6	NO	1.000	NO	bb
9	9 180223G2_10	Standard	100.000	5.21	78905.391	7559.229	104.383	103.9	3.9	NO	1.000	NO	bbX

Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.995506$

Calibration curve: $0.158397 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	5.43	59.313	9097.107	0.065	0.4	-17.7	NO	0.996	NO	bb
2	2 180223G2_3	Standard	1.000	5.43	144.899	9939.635	0.146	0.9	-8.0	NO	0.996	NO	bb
3	3 180223G2_4	Standard	2.000	5.43	316.583	9566.432	0.331	2.1	4.5	NO	0.996	NO	bb
4	4 180223G2_5	Standard	5.000	5.42	872.572	8946.824	0.975	6.2	23.1	NO	0.996	NO	bb
5	5 180223G2_6	Standard	10.000	5.43	1223.185	8816.899	1.387	8.8	-12.4	NO	0.996	NO	bb
6	6 180223G2_7	Standard	25.000	5.43	3603.039	8696.680	4.143	26.2	4.6	NO	0.996	NO	bb
7	7 180223G2_8	Standard	50.000	5.43	6975.865	8483.395	8.223	51.9	3.8	NO	0.996	NO	bb
8	8 180223G2_9	Standard	75.000	5.42	9419.647	8248.775	11.419	72.1	-3.9	NO	0.996	NO	bb
9	9 180223G2_10	Standard	100.000	5.43	10426.521	7559.229	13.793	87.1	-12.9	NO	0.996	NO	bbX

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: PFTrDA

Coefficient of Determination: $R^2 = 0.997291$

Calibration curve: $1.3743 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	5.61	726.707	9097.107	0.799	0.6	16.3	NO	0.997	NO	bd
2	2 180223G2_3	Standard	1.000	5.61	1605.347	9939.635	1.615	1.2	17.5	NO	0.997	NO	bb
3	3 180223G2_4	Standard	2.000	5.61	3192.247	9566.432	3.337	2.4	21.4	NO	0.997	NO	bb
4	4 180223G2_5	Standard	5.000	5.61	6533.214	8946.824	7.302	5.3	6.3	NO	0.997	NO	bb
5	5 180223G2_6	Standard	10.000	5.61	12468.454	8816.899	14.142	10.3	2.9	NO	0.997	NO	bb
6	6 180223G2_7	Standard	25.000	5.61	32196.830	8696.680	37.022	26.9	7.8	NO	0.997	NO	MM
7	7 180223G2_8	Standard	50.000	5.62	56222.504	8483.395	66.274	48.2	-3.6	NO	0.997	NO	bb
8	8 180223G2_9	Standard	75.000	5.61	83378.453	8248.775	101.080	73.5	-1.9	NO	0.997	NO	bb
9	9 180223G2_10	Standard	100.000	5.61	109636.859	7559.229	145.037	105.5	5.5	NO	0.997	NO	bbX

Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.998250$

Calibration curve: $1.24932 * x$

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

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

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.500	5.79	611.723	9097.107	0.672	0.5	7.6	NO	0.998	NO	MM
2	2 180223G2_3	Standard	1.000	5.79	1435.181	9939.635	1.444	1.2	15.6	NO	0.998	NO	bb
3	3 180223G2_4	Standard	2.000	5.78	2593.027	9566.432	2.711	2.2	8.5	NO	0.998	NO	MM
4	4 180223G2_5	Standard	5.000	5.78	6228.092	8946.824	6.961	5.6	11.4	NO	0.998	NO	bb
5	5 180223G2_6	Standard	10.000	5.78	11576.812	8816.899	13.130	10.5	5.1	NO	0.998	NO	bb
6	6 180223G2_7	Standard	25.000	5.79	28530.078	8696.680	32.806	26.3	5.0	NO	0.998	NO	MM
7	7 180223G2_8	Standard	50.000	5.79	52361.477	8483.395	61.722	49.4	-1.2	NO	0.998	NO	bd
8	8 180223G2_9	Standard	75.000	5.79	75116.234	8248.775	91.064	72.9	-2.8	NO	0.998	NO	MM
9	9 180223G2_10	Standard	100.000	5.79	102852.344	7559.229	136.062	108.9	8.9	NO	0.998	NO	MMX

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: 13C2-PFHxA

Response Factor: 0.731379

RRF SD: 0.0238184, Relative SD: 3.25663

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

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	10.000	3.38	6700.987	9097.107	7.366	10.1	0.7	NO		NO	bd
2	2 180223G2_3	Standard	10.000	3.38	7319.206	9939.635	7.364	10.1	0.7	NO		NO	bb
3	3 180223G2_4	Standard	10.000	3.38	6577.065	9566.432	6.875	9.4	-6.0	NO		NO	bb
4	4 180223G2_5	Standard	10.000	3.38	6657.985	8946.824	7.442	10.2	1.7	NO		NO	bb
5	5 180223G2_6	Standard	10.000	3.38	6290.871	8816.899	7.135	9.8	-2.4	NO		NO	bb
6	6 180223G2_7	Standard	10.000	3.38	6250.375	8696.680	7.187	9.8	-1.7	NO		NO	bb
7	7 180223G2_8	Standard	10.000	3.38	6455.338	8483.395	7.609	10.4	4.0	NO		NO	bb
8	8 180223G2_9	Standard	10.000	3.38	6213.207	8248.775	7.532	10.3	3.0	NO		NO	bb
9	9 180223G2_10	Standard	10.000	3.38	6040.483	7559.229	7.991	10.9	9.3	NO		NO	bbX

Compound name: 13C2-PFDA

Response Factor: 0.909838

RRF SD: 0.0477189, Relative SD: 5.24477

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

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	10.000	4.95	7725.546	9097.107	8.492	9.3	-6.7	NO		NO	bb
2	2 180223G2_3	Standard	10.000	4.95	8959.234	9939.635	9.014	9.9	-0.9	NO		NO	MM
3	3 180223G2_4	Standard	10.000	4.95	8703.722	9566.432	9.098	10.0	-0.0	NO		NO	bb
4	4 180223G2_5	Standard	10.000	4.95	8332.058	8946.824	9.313	10.2	2.4	NO		NO	bb
5	5 180223G2_6	Standard	10.000	4.95	7919.763	8816.899	8.982	9.9	-1.3	NO		NO	bb
6	6 180223G2_7	Standard	10.000	4.95	8753.030	8696.680	10.065	11.1	10.6	NO		NO	bb
7	7 180223G2_8	Standard	10.000	4.95	7796.922	8483.395	9.191	10.1	1.0	NO		NO	bb
8	8 180223G2_9	Standard	10.000	4.95	7120.327	8248.775	8.632	9.5	-5.1	NO		NO	bb
9	9 180223G2_10	Standard	10.000	4.95	7540.862	7559.229	9.976	11.0	9.6	NO		NO	bbX

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

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Compound name: d5-N-EtFOSAA

Response Factor: 1.04937

RRF SD: 0.099298, Relative SD: 9.46259

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

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	40.000	5.19	11991.277	12707.717	37.745	36.0	-10.1	NO		NO	bb
2	2 180223G2_3	Standard	40.000	5.19	16726.662	13652.991	49.005	46.7	16.7	NO		NO	bb
3	3 180223G2_4	Standard	40.000	5.19	14092.588	11741.213	48.011	45.8	14.4	NO		NO	bb
4	4 180223G2_5	Standard	40.000	5.19	14119.112	14071.951	40.134	38.2	-4.4	NO		NO	bb
5	5 180223G2_6	Standard	40.000	5.19	13679.503	12882.572	42.474	40.5	1.2	NO		NO	bb
6	6 180223G2_7	Standard	40.000	5.19	14178.573	13583.305	41.753	39.8	-0.5	NO		NO	bd
7	7 180223G2_8	Standard	40.000	5.19	12425.209	12346.496	40.255	38.4	-4.1	NO		NO	bb
8	8 180223G2_9	Standard	40.000	5.19	11514.227	11885.659	38.750	36.9	-7.7	NO		NO	bb
9	9 180223G2_10	Standard	40.000	5.19	12527.367	12638.679	39.648	37.8	-5.5	NO		NO	bd

Compound name: 13C2-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

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

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	10.000	4.31	9097.107	9097.107	10.000	10.0	0.0	NO		NO	bb
2	2 180223G2_3	Standard	10.000	4.31	9939.635	9939.635	10.000	10.0	0.0	NO		NO	bb
3	3 180223G2_4	Standard	10.000	4.31	9566.432	9566.432	10.000	10.0	0.0	NO		NO	bb
4	4 180223G2_5	Standard	10.000	4.31	8946.824	8946.824	10.000	10.0	0.0	NO		NO	bb
5	5 180223G2_6	Standard	10.000	4.31	8816.899	8816.899	10.000	10.0	0.0	NO		NO	bb
6	6 180223G2_7	Standard	10.000	4.31	8696.680	8696.680	10.000	10.0	0.0	NO		NO	bd
7	7 180223G2_8	Standard	10.000	4.31	8483.395	8483.395	10.000	10.0	0.0	NO		NO	bd
8	8 180223G2_9	Standard	10.000	4.31	8248.775	8248.775	10.000	10.0	0.0	NO		NO	bb
9	9 180223G2_10	Standard	10.000	4.31	7559.229	7559.229	10.000	10.0	0.0	NO		NO	bbX

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 1.35974e-016, Relative SD: 1.35974e-014

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

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	28.700	4.71	16868.711	16868.711	28.700	28.7	0.0	NO		NO	bd
2	2 180223G2_3	Standard	28.700	4.71	18929.600	18929.600	28.700	28.7	0.0	NO		NO	MM
3	3 180223G2_4	Standard	28.700	4.71	19568.625	19568.625	28.700	28.7	0.0	NO		NO	bd
4	4 180223G2_5	Standard	28.700	4.71	17986.094	17986.094	28.700	28.7	0.0	NO		NO	bd
5	5 180223G2_6	Standard	28.700	4.71	17892.594	17892.594	28.700	28.7	0.0	NO		NO	bd
6	6 180223G2_7	Standard	28.700	4.71	17798.180	17798.180	28.700	28.7	0.0	NO		NO	bb
7	7 180223G2_8	Standard	28.700	4.71	16645.363	16645.363	28.700	28.7	0.0	NO		NO	bb
8	8 180223G2_9	Standard	28.700	4.71	15491.563	15491.563	28.700	28.7	0.0	NO		NO	bbX
9	9 180223G2_10	Standard	28.700	4.71	15634.240	15634.240	28.700	28.7	0.0	NO		NO	bbX

Compound name: d3-N-MeFOSAA

Response Factor: 1

RRF SD: 0, Relative SD: 0

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

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	40.000	5.07	12707.717	12707.717	40.000	40.0	0.0	NO		NO	bb
2	2 180223G2_3	Standard	40.000	5.07	13652.991	13652.991	40.000	40.0	0.0	NO		NO	bb
3	3 180223G2_4	Standard	40.000	5.07	11741.213	11741.213	40.000	40.0	0.0	NO		NO	bd
4	4 180223G2_5	Standard	40.000	5.07	14071.951	14071.951	40.000	40.0	0.0	NO		NO	bd
5	5 180223G2_6	Standard	40.000	5.07	12882.572	12882.572	40.000	40.0	0.0	NO		NO	bd
6	6 180223G2_7	Standard	40.000	5.07	13583.305	13583.305	40.000	40.0	0.0	NO		NO	bb
7	7 180223G2_8	Standard	40.000	5.07	12346.496	12346.496	40.000	40.0	0.0	NO		NO	bb
8	8 180223G2_9	Standard	40.000	5.07	11885.659	11885.659	40.000	40.0	0.0	NO		NO	bb
9	9 180223G2_10	Standard	40.000	5.07	12638.679	12638.679	40.000	40.0	0.0	NO		NO	MM

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 17:19:14

Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

	# Name	IS#	CoD	CoD Flag	%RSD
1	1 PFBS	19	0.9963	NO	
2	2 PFHxA	18	0.9977	NO	
3	3 PFHpA	18	0.9989	NO	
4	4 PFHxS	19	0.9977	NO	
5	5 PFOA	18	0.9984	NO	
6	6 PFNA	18	0.9996	NO	
7	7 PFOS	19	0.9992	NO	
8	8 PFDA	18	0.9973	NO	
9	9 N-MeFOSAA	20	0.9968	NO	
10	10 N-EtFOSAA	20	0.9934	NO	
11	11 PFUnA	18	0.9995	NO	
12	12 PFDoA	18	0.9955	NO	
13	13 PFTTrDA	18	0.9973	NO	
14	14 PFTeDA	18	0.9982	NO	
15	15 13C2-PFHxA	18		NO	3.257
16	16 13C2-PFDA	18		NO	5.245
17	17 d5-N-EtFOSAA	20		NO	9.463
18	18 13C2-PFOA	18		NO	0.000
19	19 13C4-PFOS	19		NO	0.000
20	20 d3-N-MeFOSAA	20		NO	0.000

Dataset: Untitled

Last Altered: Friday, February 23, 2018 17:34:09 Pacific Standard Time
Printed: Friday, February 23, 2018 17:36:22 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180223G2_1	IPA	23-Feb-18	13:17:36
2	180223G2_2	ST180223G2-1 PFC CS-3 537 18B2301	23-Feb-18	13:29:59
3	180223G2_3	ST180223G2-2 PFC CS-2 537 18B2302	23-Feb-18	13:42:20
4	180223G2_4	ST180223G2-3 PFC CS-1 537 18B2310	23-Feb-18	13:54:45
5	180223G2_5	ST180222G3-4 PFC CS0 537 18B2303	23-Feb-18	14:07:10
6	180223G2_6	ST180223G2-5 PFC CS1 537 18B2304	23-Feb-18	14:19:35
7	180223G2_7	ST180223G2-6 PFC CS2 537 18B2305	23-Feb-18	14:32:01
8	180223G2_8	ST180223G2-7 PFC CS3 537 18B2306	23-Feb-18	14:44:25
9	180223G2_9	ST180223G2-8 PFC CS4 537 18B2307	23-Feb-18	14:56:52
10	180223G2_10	ST180223G2-9 PFC CS5 537 18B2308	23-Feb-18	15:09:16
11	180223G2_11	IPA	23-Feb-18	15:21:37
12	180223G2_12	ICV180223G2-1 PFC ICV 537 18B2309	23-Feb-18	15:34:05
13	180223G2_13	IPA	23-Feb-18	15:46:26

ICAL

Compound 18: 13C2-PFOA

high 9939.64 RPD
low 8248.78 18.59

ID	Name	Type	Std. CRT		Area	IS Area	Respo Primary Flags
1 ST180223G2-1 PFC CS-3 537 18B2301	180223G2_2	Analyte	10	4.31	9097.11	9097.11	10 bb
2 ST180223G2-2 PFC CS-2 537 18B2302	180223G2_3	Analyte	10	4.31	9939.64	9939.64	10 bb
3 ST180223G2-3 PFC CS-1 537 18B2310	180223G2_4	Standard	10	4.31	9566.43	9566.43	10 bb
4 ST180222G3-4 PFC CS0 537 18B2303	180223G2_5	Standard	10	4.31	8946.82	8946.82	10 bb
5 ST180223G2-5 PFC CS1 537 18B2304	180223G2_6	Standard	10	4.31	8816.90	8816.90	10 bb
6 ST180223G2-6 PFC CS2 537 18B2305	180223G2_7	Standard	10	4.31	8696.68	8696.68	10 bd
7 ST180223G2-7 PFC CS3 537 18B2306	180223G2_8	Standard	10	4.31	8483.40	8483.40	10 bd
8 ST180223G2-8 PFC CS4 537 18B2307	180223G2_9	Standard	10	4.31	8248.78	8248.78	10 bb
9 ST180223G2-9 PFC CS5 537 18B2308	180223G2_10	Standard	10	4.31	7559.23	7559.23	10 bbX
						average	
						8974.47	

Compound 19: 13C4-PFOS

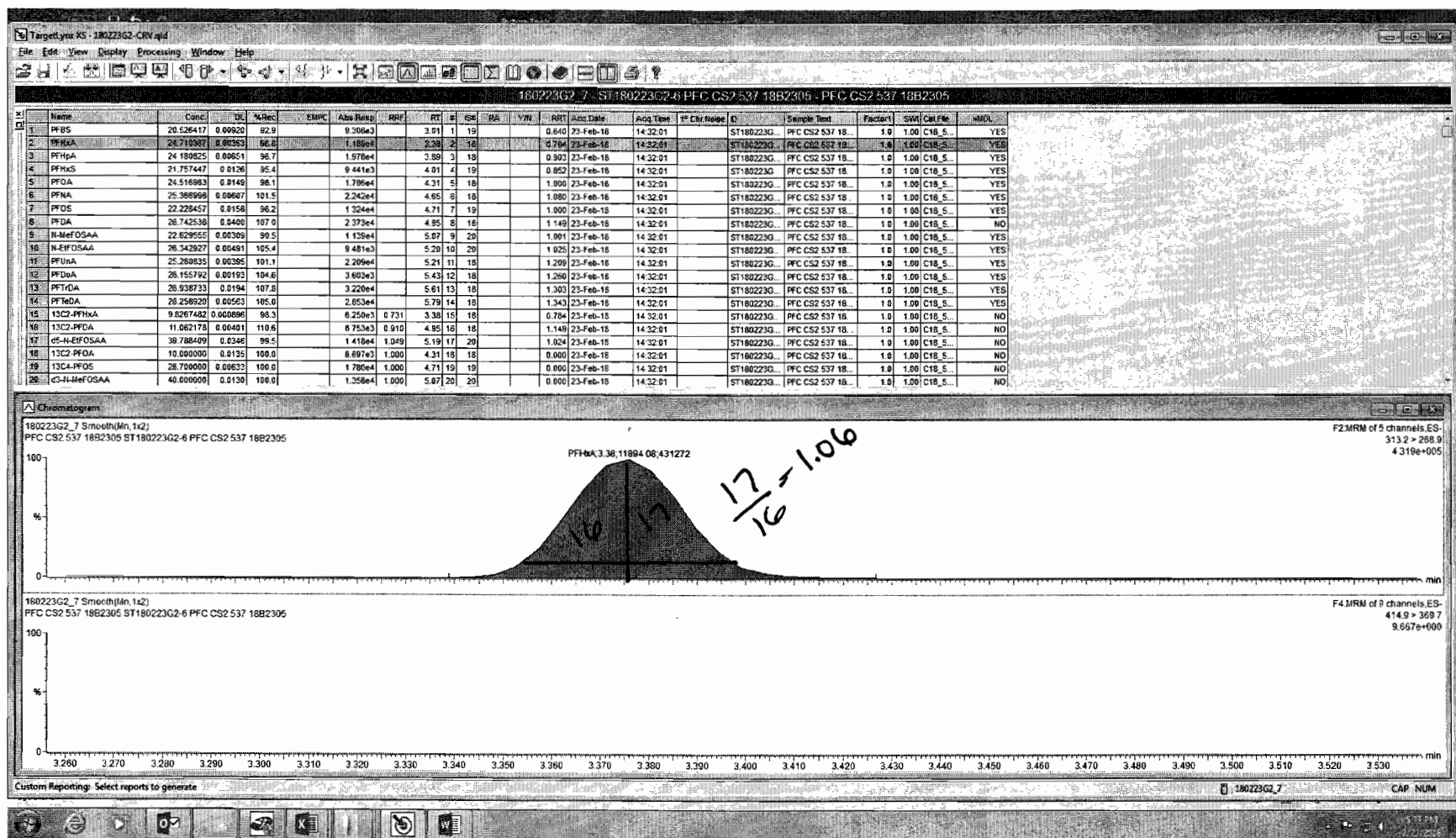
high 19568.625 RPD
low 16645.363 16.14

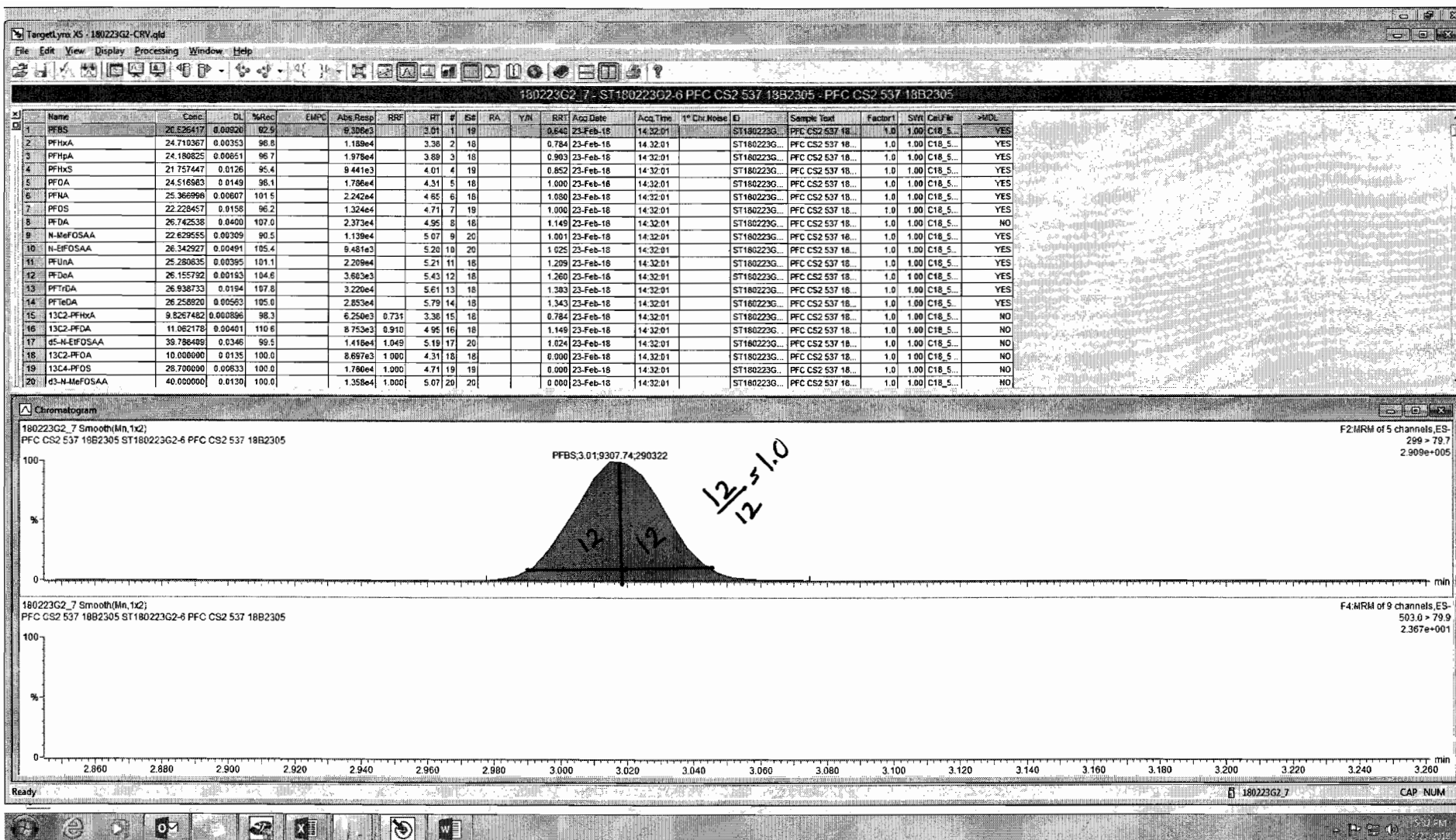
ID	Name	Type	Std. CRT		Area	IS Area	Respo Primary Flags
1 ST180223G2-1 PFC CS-3 537 18B2301	180223G2_2	Analyte	28.7	4.71	16868.71	16868.71	28.7 bd
2 ST180223G2-2 PFC CS-2 537 18B2302	180223G2_3	Analyte	28.7	4.71	18923.35	18783.59	28.7 bb
3 ST180223G2-3 PFC CS-1 537 18B2310	180223G2_4	Standard	28.7	4.71	19568.63	19568.63	28.7 bd
4 ST180222G3-4 PFC CS0 537 18B2303	180223G2_5	Standard	28.7	4.71	17986.09	17986.09	28.7 bd
5 ST180223G2-5 PFC CS1 537 18B2304	180223G2_6	Standard	28.7	4.71	17892.59	17892.59	28.7 bd
6 ST180223G2-6 PFC CS2 537 18B2305	180223G2_7	Standard	28.7	4.71	17798.18	17798.18	28.7 bb
7 ST180223G2-7 PFC CS3 537 18B2306	180223G2_8	Standard	28.7	4.71	16645.36	16645.36	28.7 bb
8 ST180223G2-8 PFC CS4 537 18B2307	180223G2_9	Standard	28.7	4.71	15491.56	15491.56	28.7 bbX
9 ST180223G2-9 PFC CS5 537 18B2308	180223G2_10	Standard	28.7	4.71	15634.24	15634.24	28.7 bbX
						average	
						17934.74	

Compound 20: d3-N-MeFOSAA

high	14071.95	RPD
low	11741.21	18.06

ID	Name	Type	Std. CRT	Area	IS Area	Respo Primary Flags
1 ST180223G2-1 PFC CS-3 537 18B2301	180223G2_2	Analyte	40 5.07	12707.72	12707.72	40 bb
2 ST180223G2-2 PFC CS-2 537 18B2302	180223G2_3	Analyte	40 5.07	13652.99	13652.99	40 bb
3 ST180223G2-3 PFC CS-1 537 18B2310	180223G2_4	Standard	40 5.07	11741.21	11741.21	40 bd
4 ST180222G3-4 PFC CS0 537 18B2303	180223G2_5	Standard	40 5.07	14071.95	14071.95	40 bd
5 ST180223G2-5 PFC CS1 537 18B2304	180223G2_6	Standard	40 5.07	12882.57	12882.57	40 bd
6 ST180223G2-6 PFC CS2 537 18B2305	180223G2_7	Standard	40 5.07	13583.31	13583.31	40 bb
7 ST180223G2-7 PFC CS3 537 18B2306	180223G2_8	Standard	40 5.07	12346.50	12346.50	40 bb
8 ST180223G2-8 PFC CS4 537 18B2307	180223G2_9	Standard	40 5.07	11885.66	11885.66	40 bb
9 ST180223G2-9 PFC CS5 537 18B2308	180223G2_10	Standard	40 5.07	12557.49	12557.49	40 bb
				average	12825.49	





Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 17:19:14

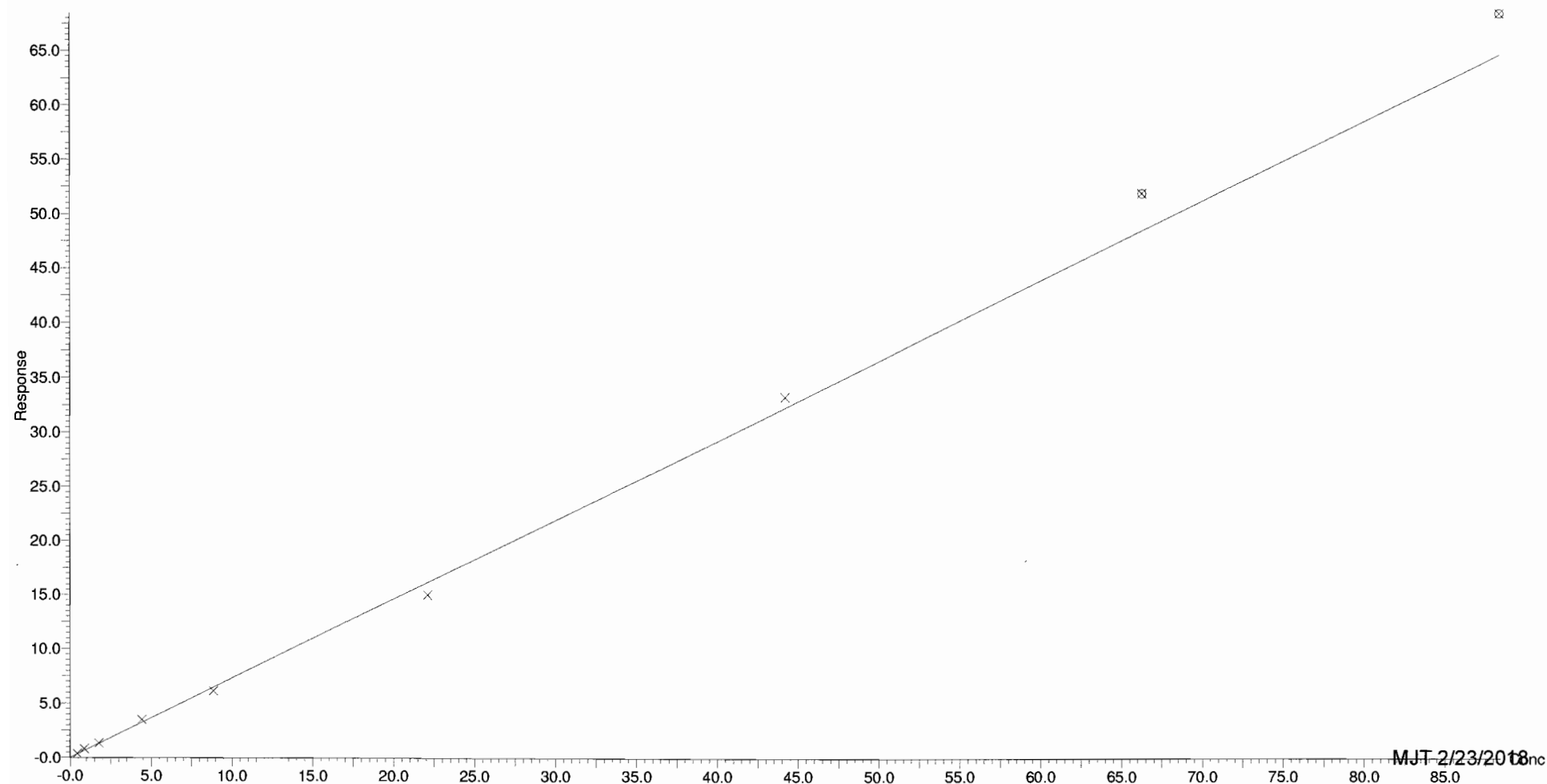
Compound name: PFBS

Coefficient of Determination: $R^2 = 0.996349$

Calibration curve: $0.731202 * x$

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

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



Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

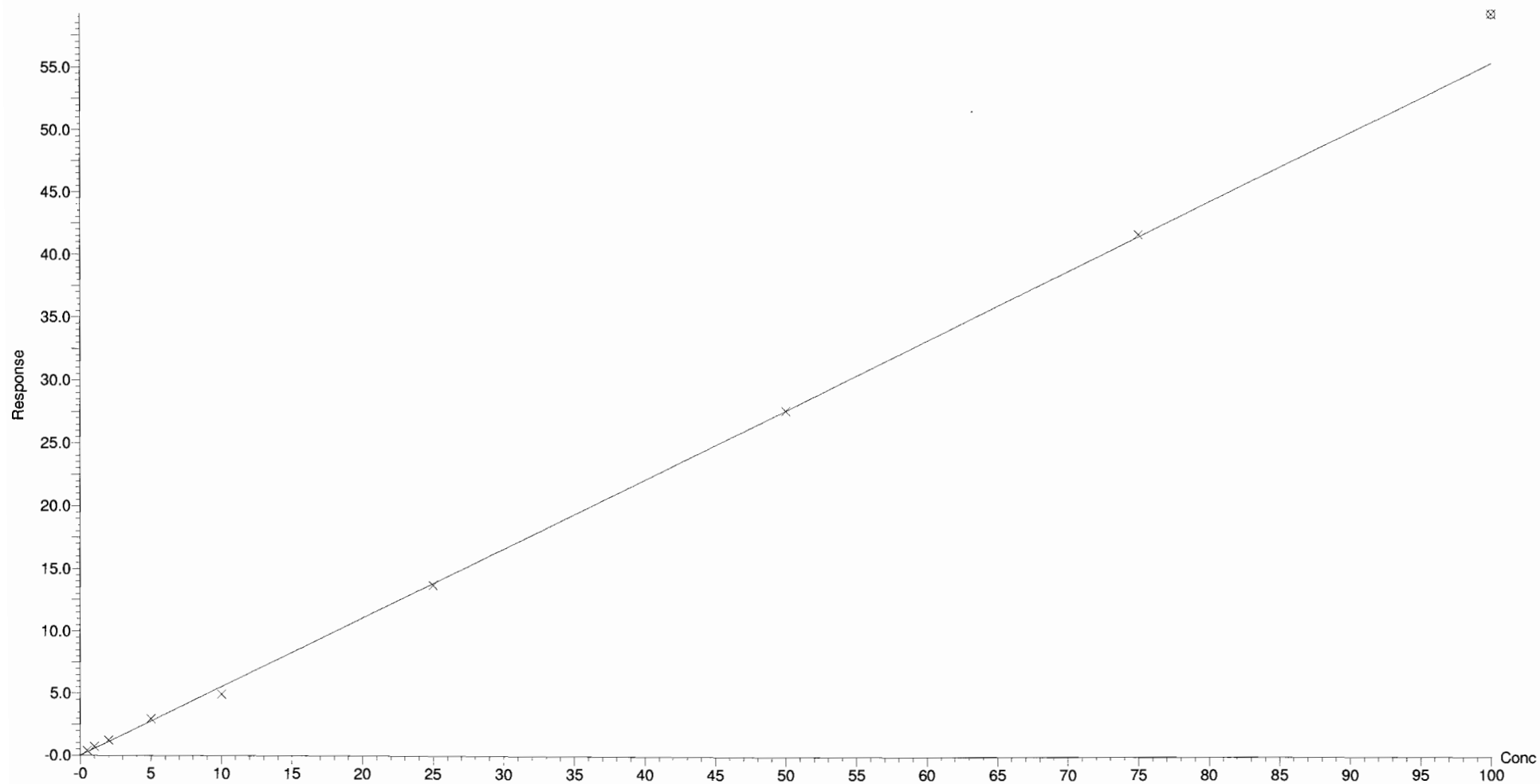
Compound name: PFHxA

Coefficient of Determination: $R^2 = 0.997717$

Calibration curve: $0.553475 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

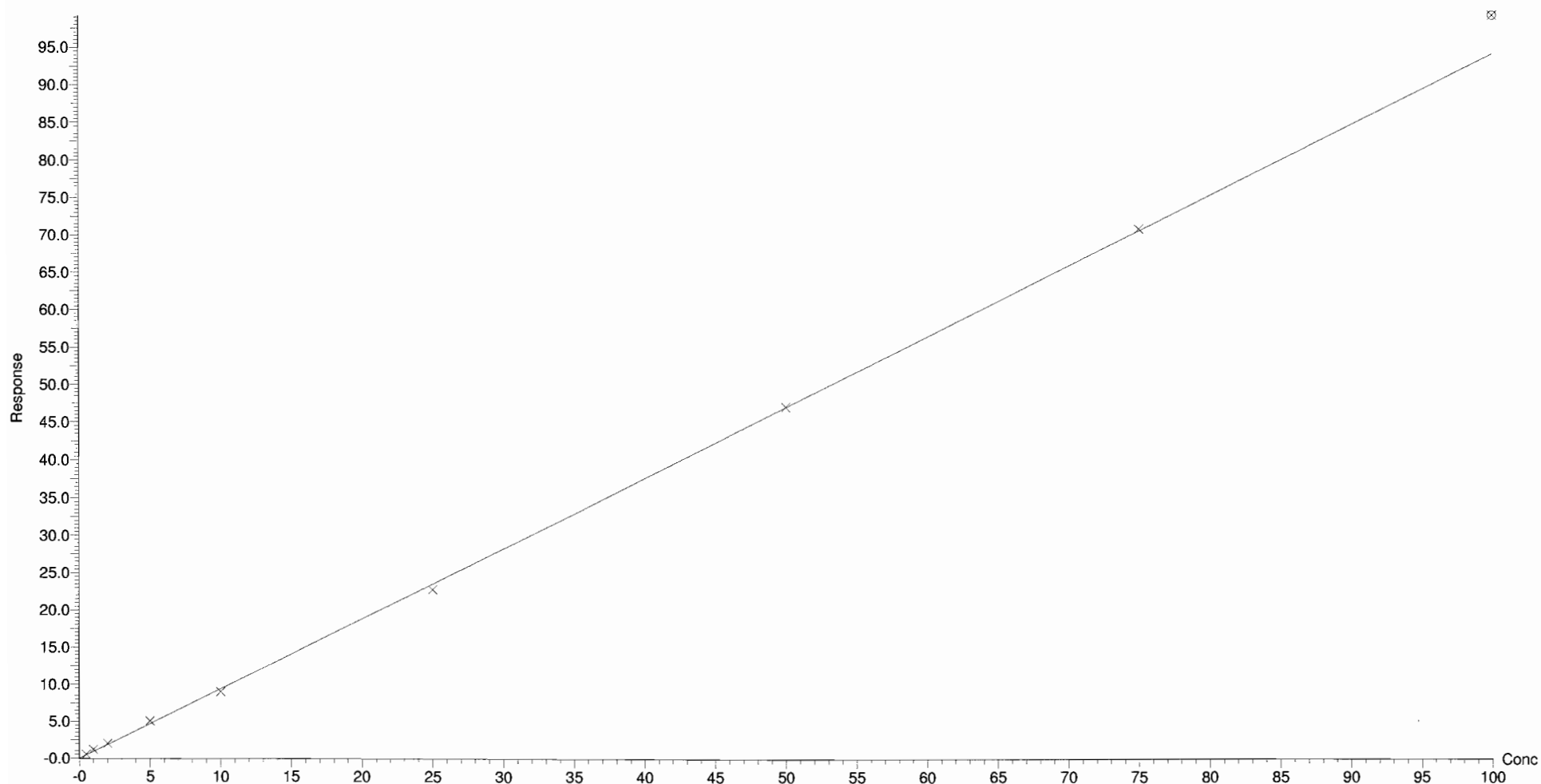
Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.998875$

Calibration curve: $0.940423 \times x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

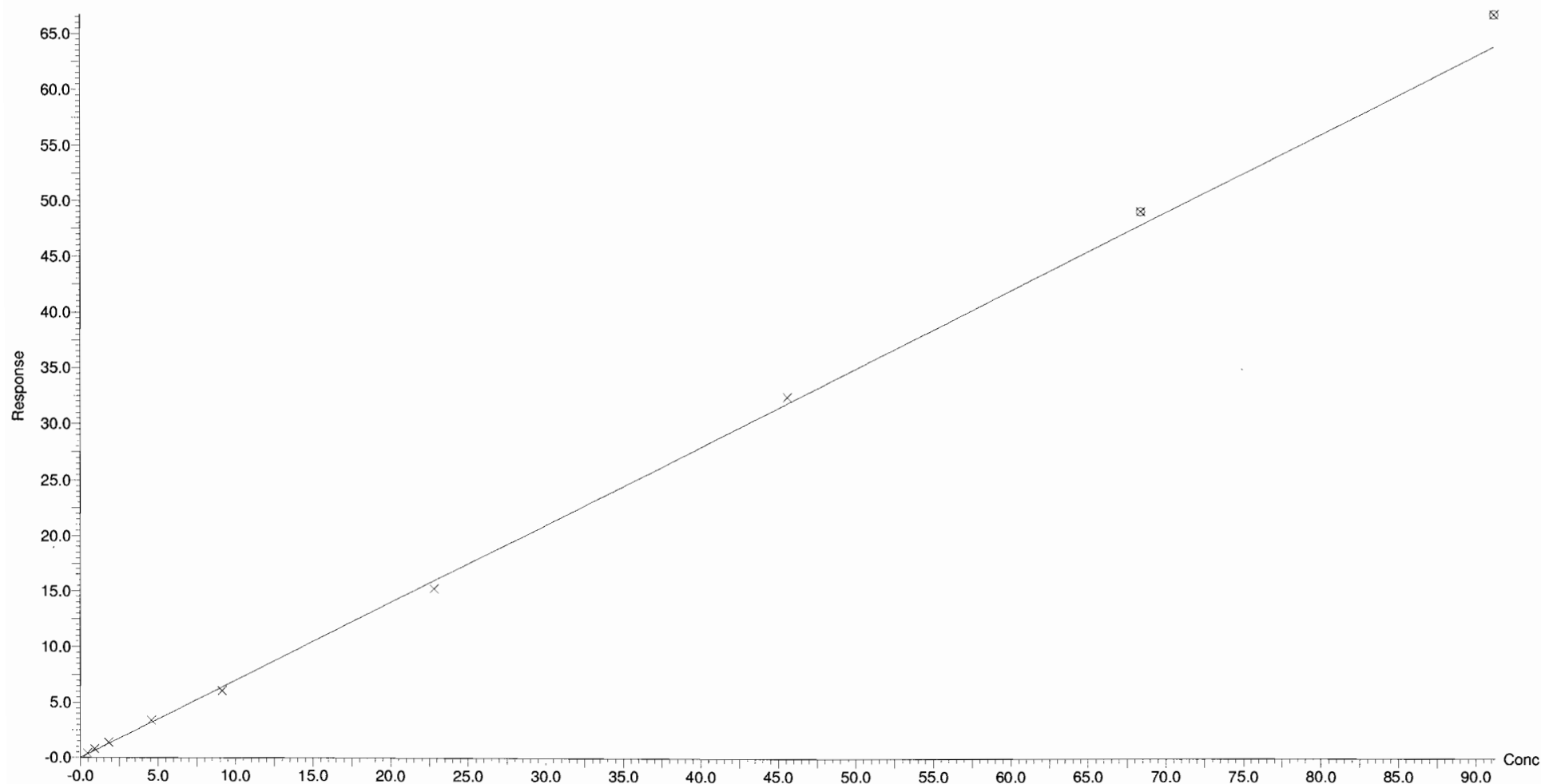
Compound name: PFHxS

Coefficient of Determination: $R^2 = 0.997652$

Calibration curve: $0.699727 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

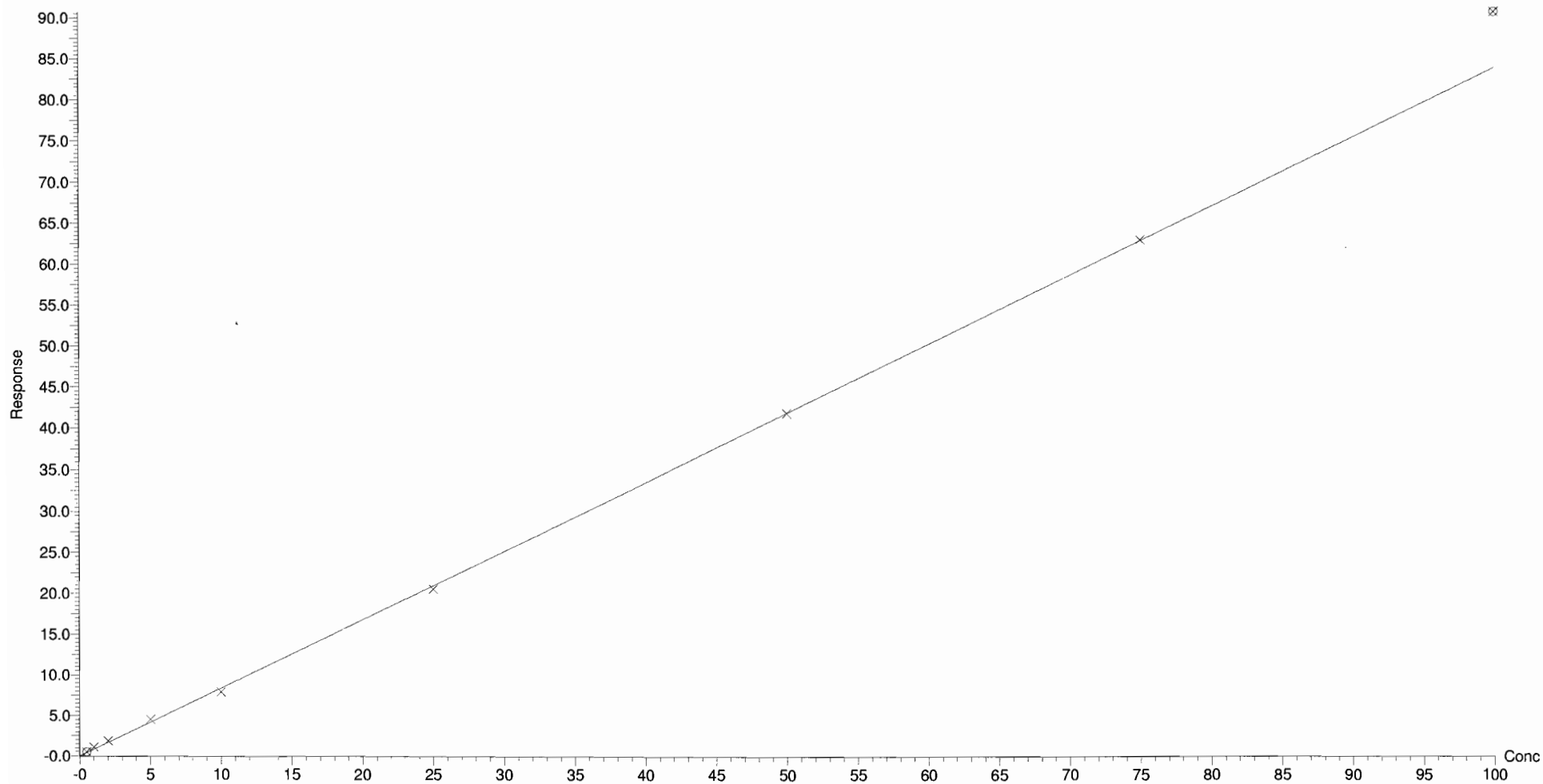
Compound name: PFOA

Coefficient of Determination: $R^2 = 0.998447$

Calibration curve: $0.83774 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

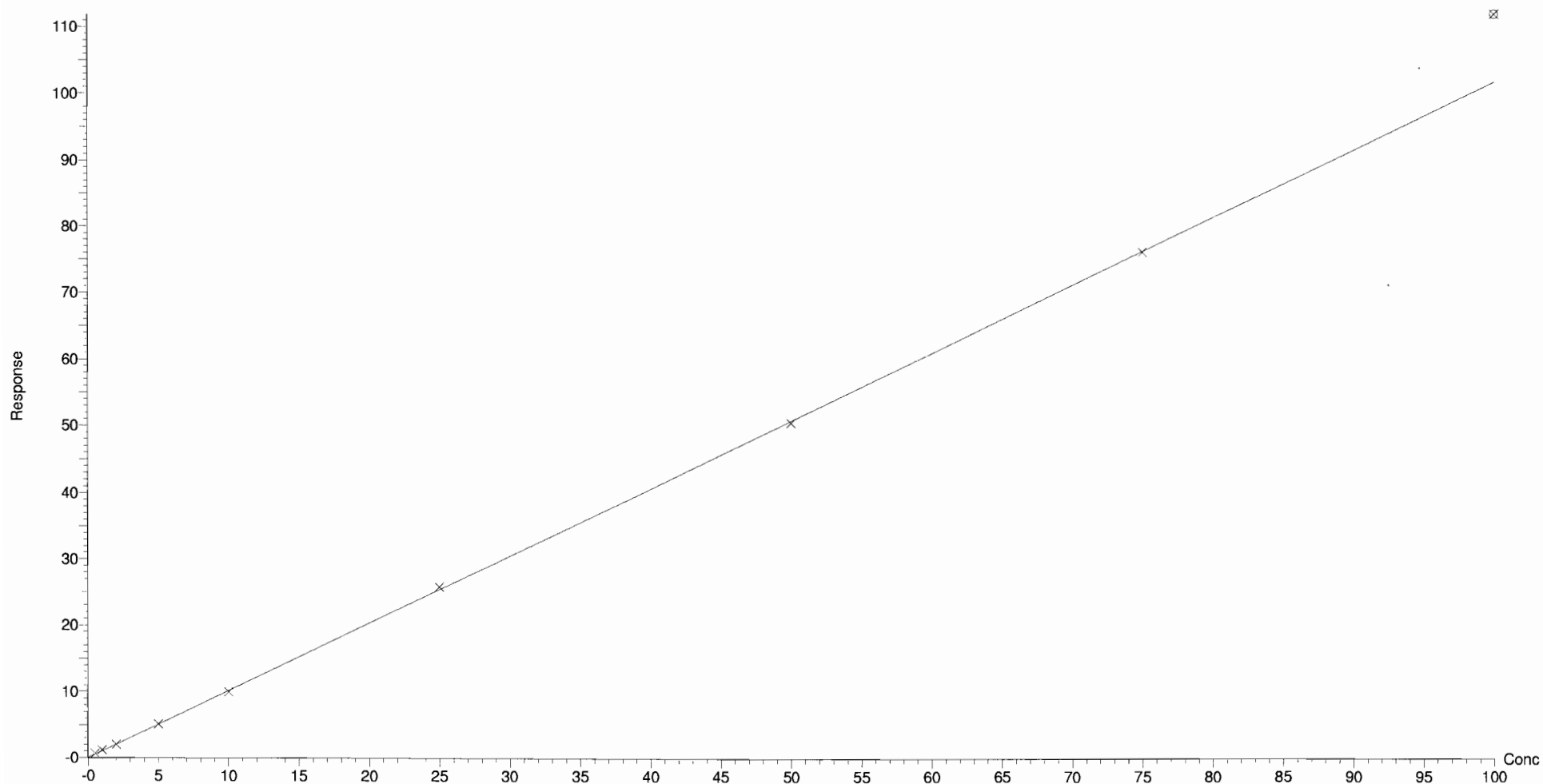
Compound name: PFNA

Coefficient of Determination: $R^2 = 0.999615$

Calibration curve: $1.01645 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

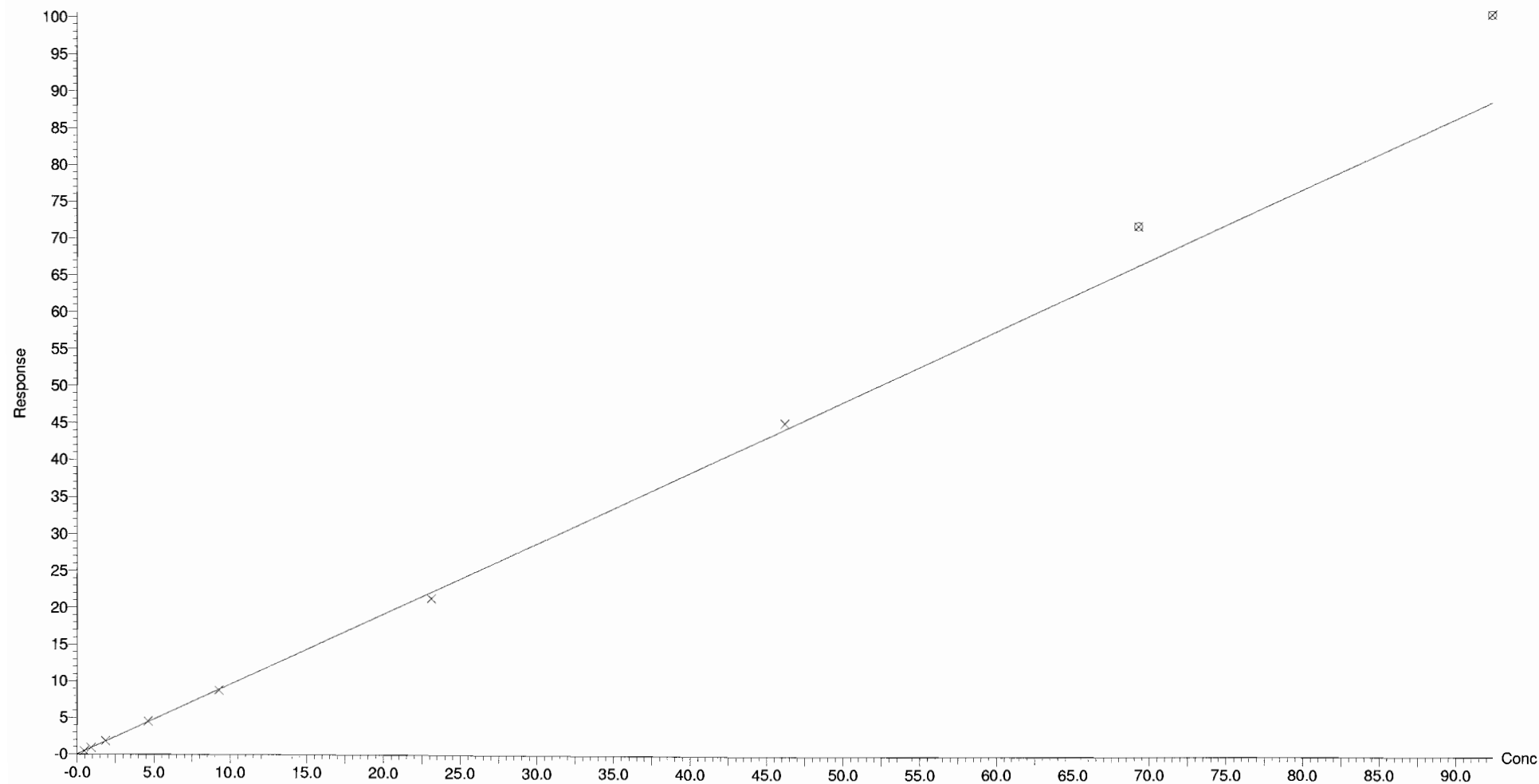
Compound name: PFOS

Coefficient of Determination: $R^2 = 0.999243$

Calibration curve: $0.960258 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

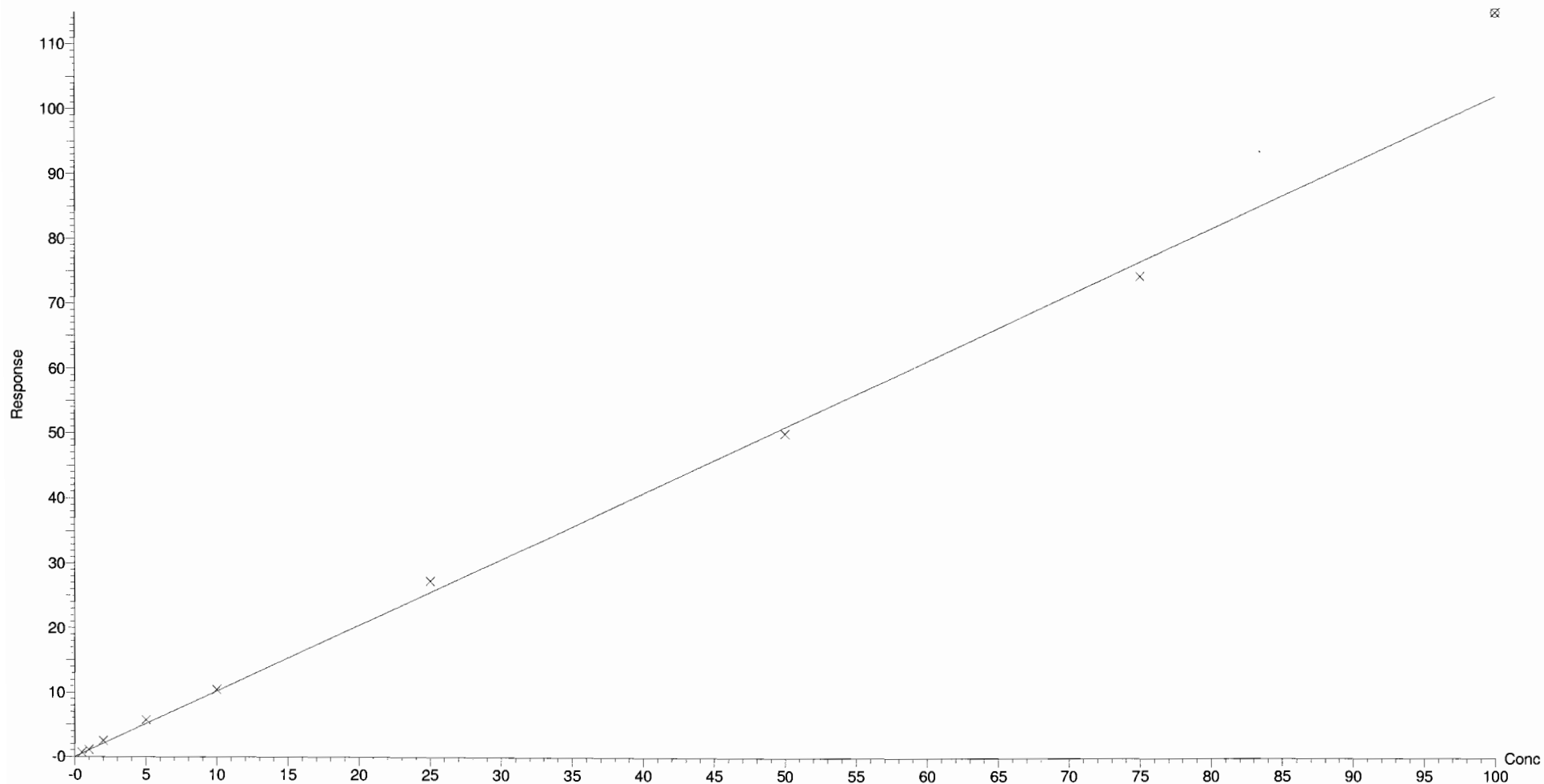
Compound name: PFDA

Coefficient of Determination: $R^2 = 0.997317$

Calibration curve: $1.0203 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

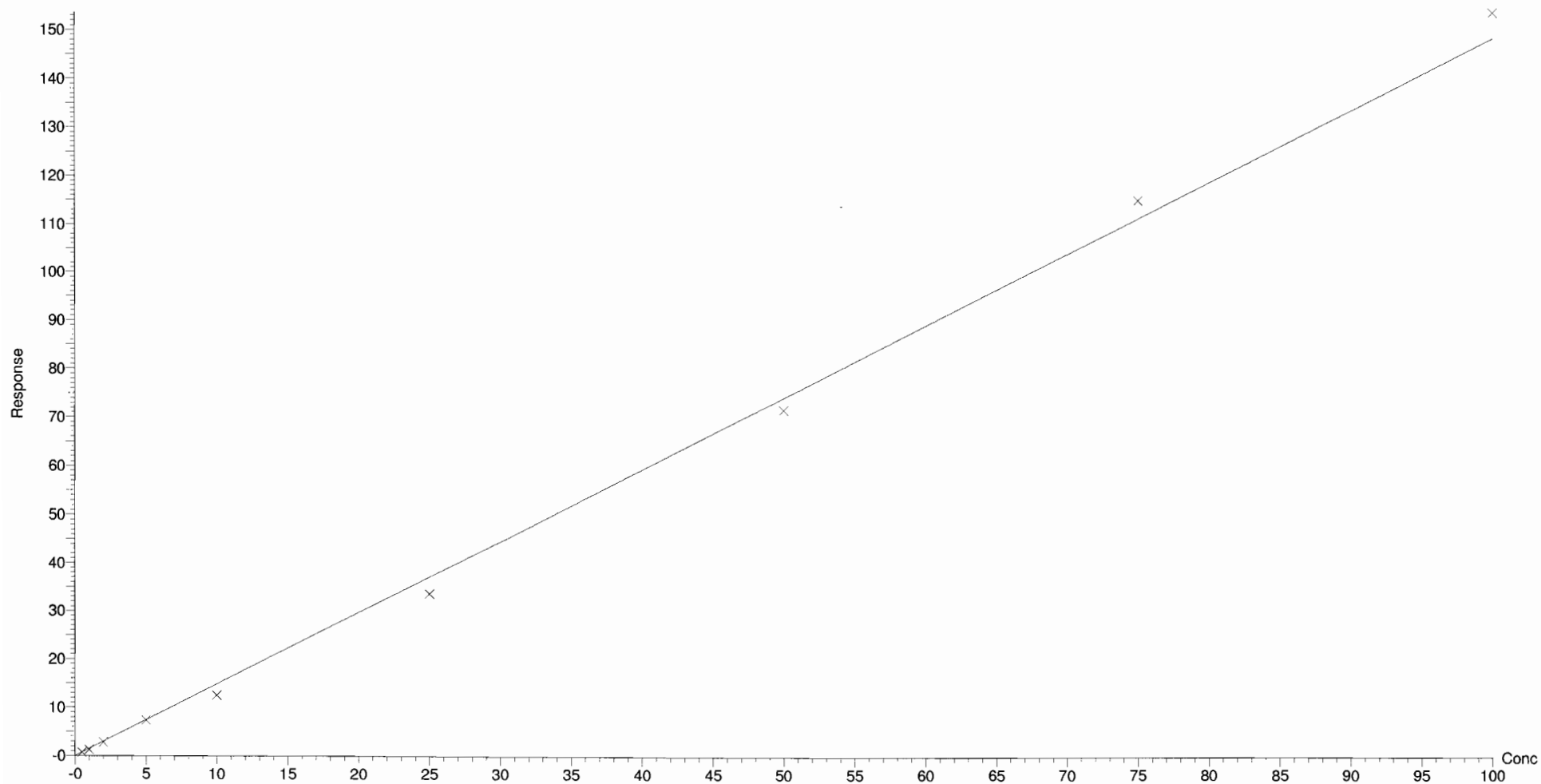
Compound name: N-MeFOSAA

Coefficient of Determination: $R^2 = 0.996817$

Calibration curve: $1.4828 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

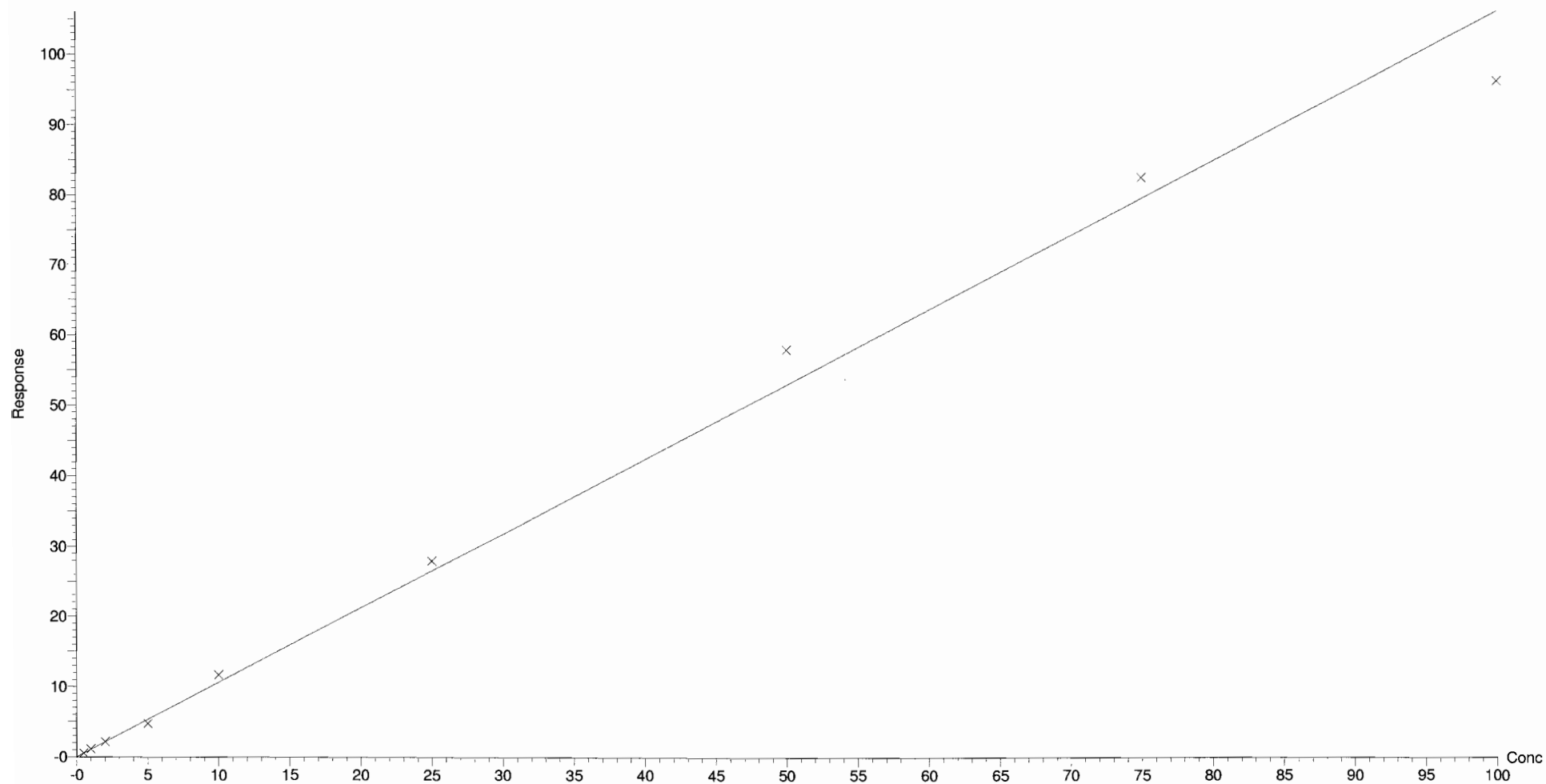
Compound name: N-EtFOSAA

Coefficient of Determination: $R^2 = 0.993395$

Calibration curve: $1.05983 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

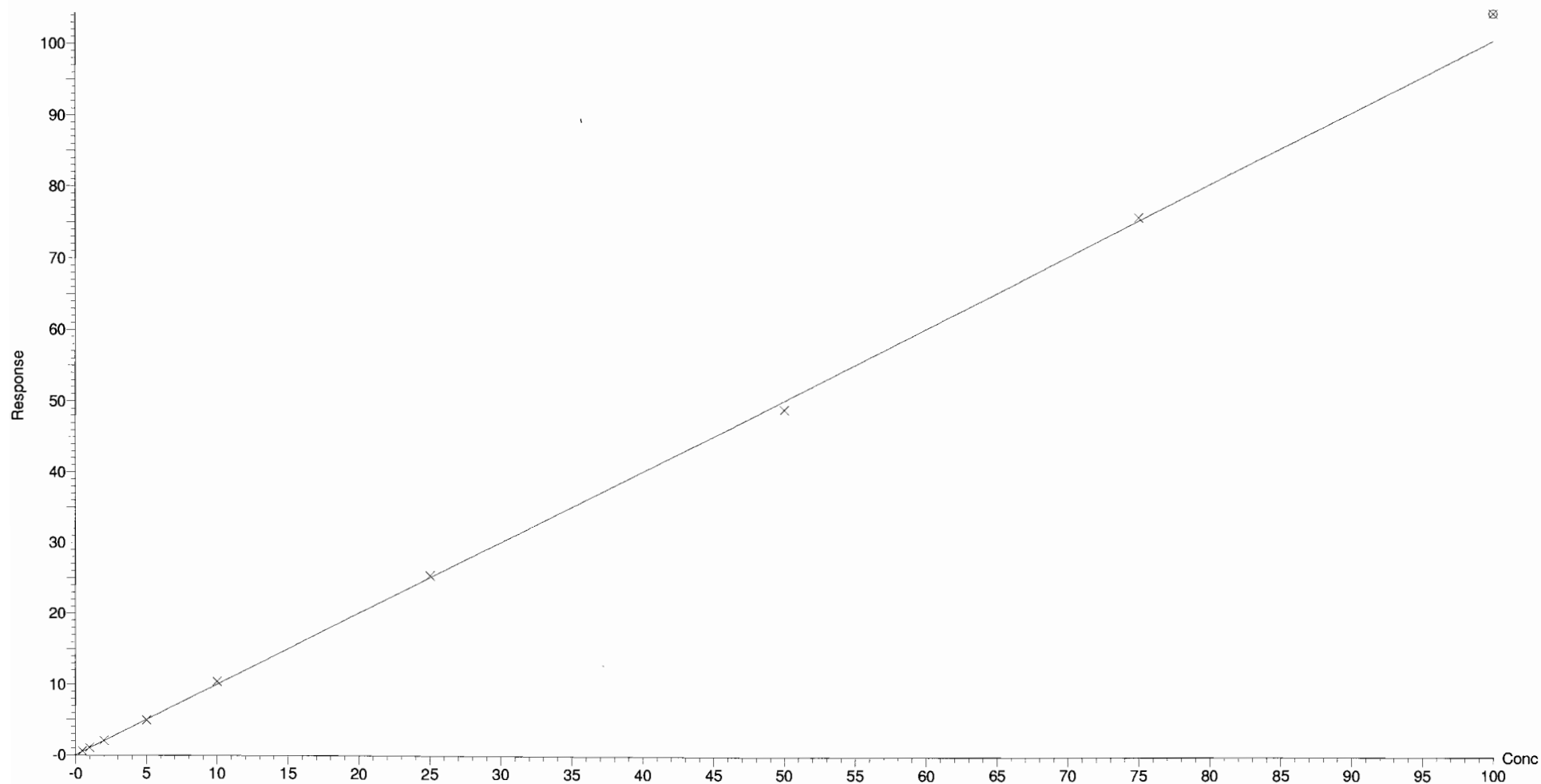
Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.999540$

Calibration curve: $1.00493 \times x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

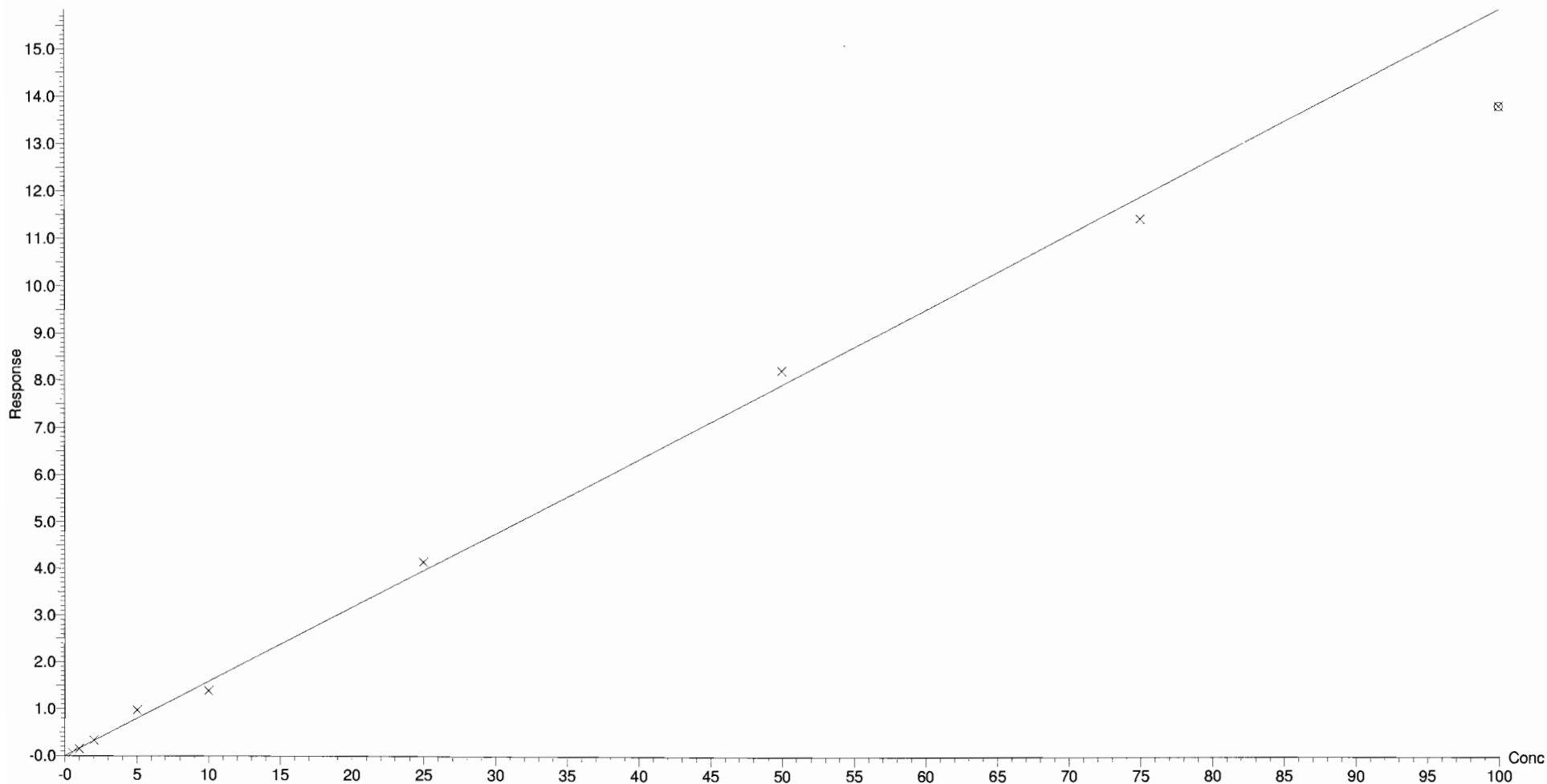
Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.995506$

Calibration curve: $0.158397 \cdot x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

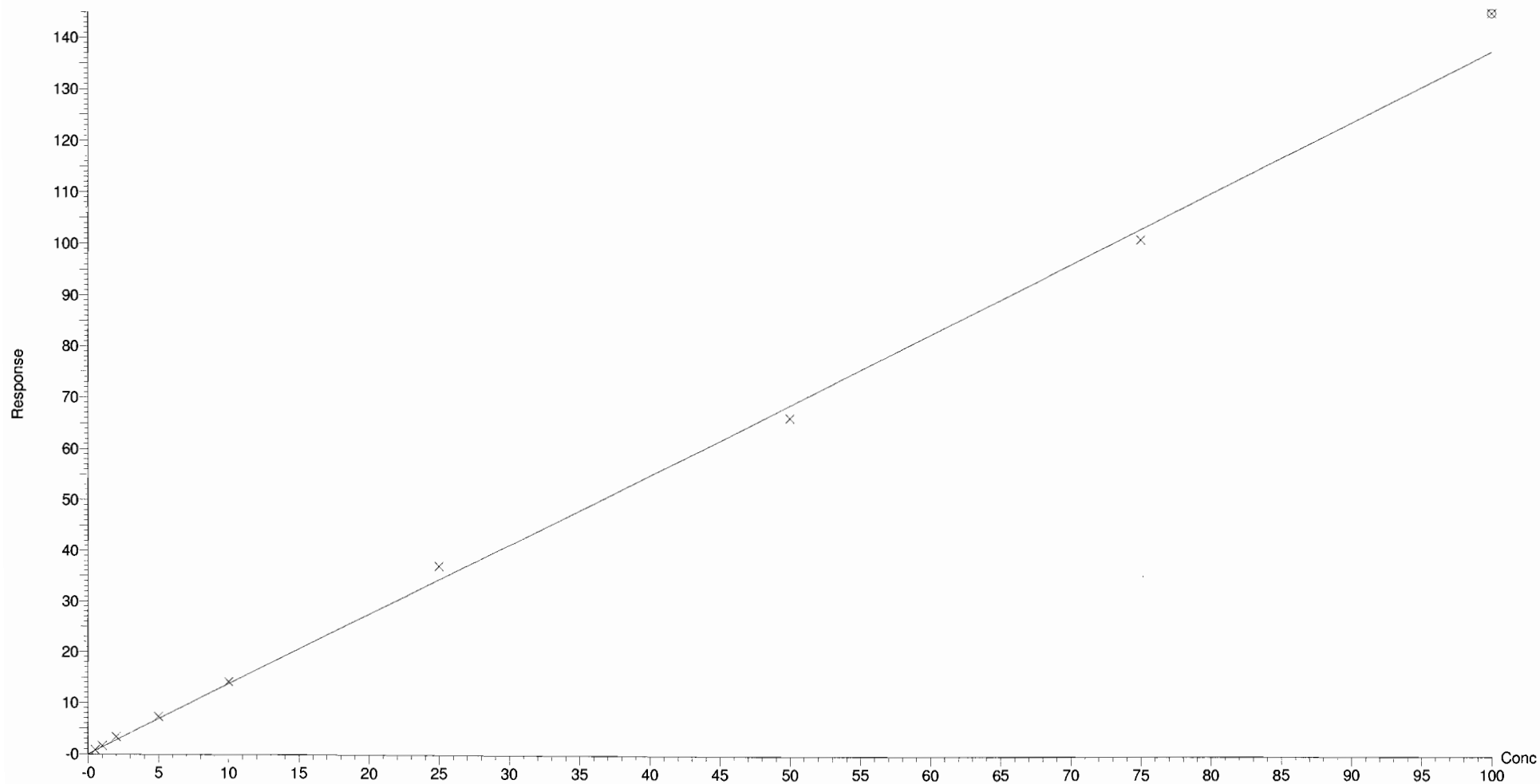
Compound name: PFTTrDA

Coefficient of Determination: $R^2 = 0.997291$

Calibration curve: $1.3743 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

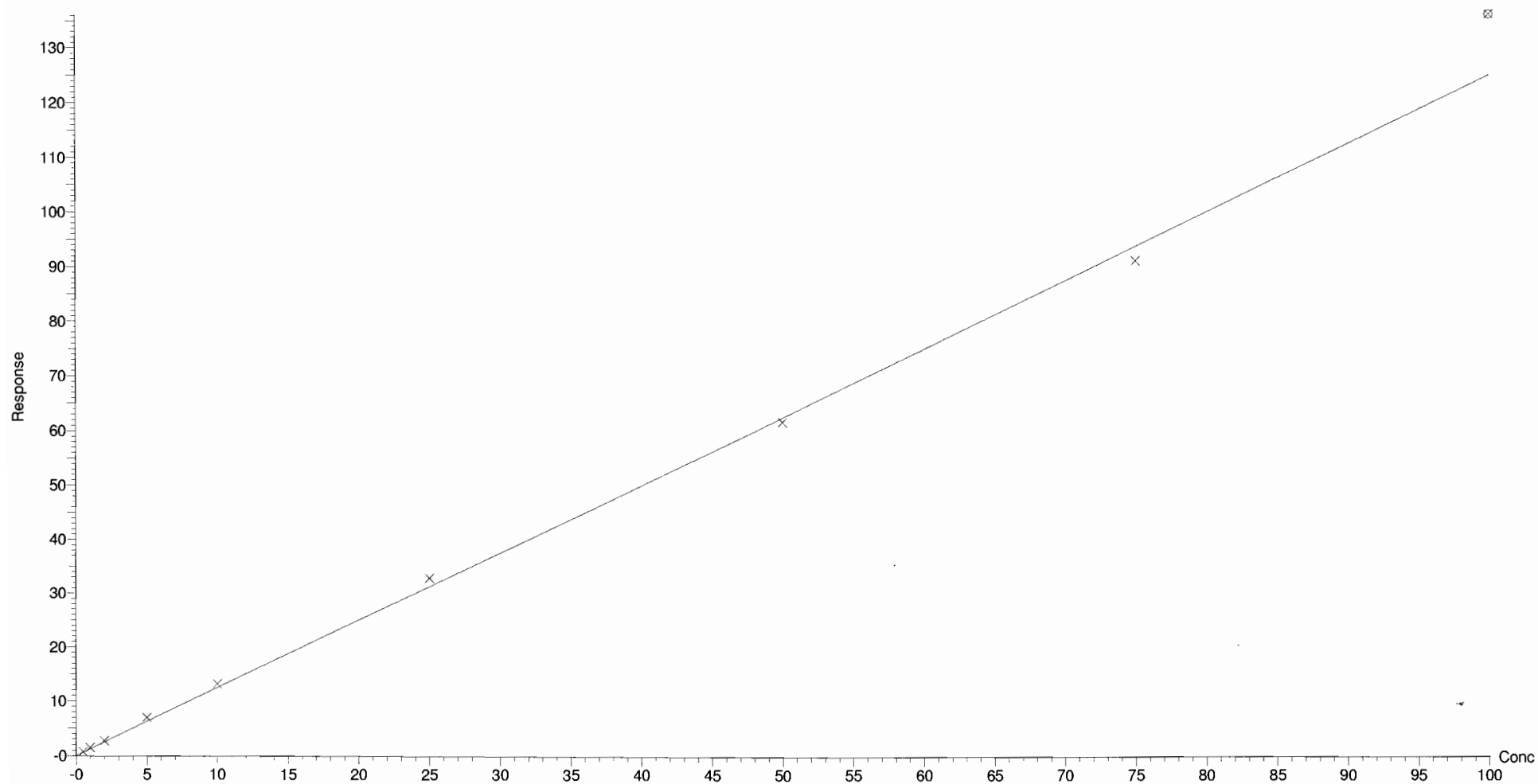
Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.998250$

Calibration curve: $1.24932 * x$

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

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



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

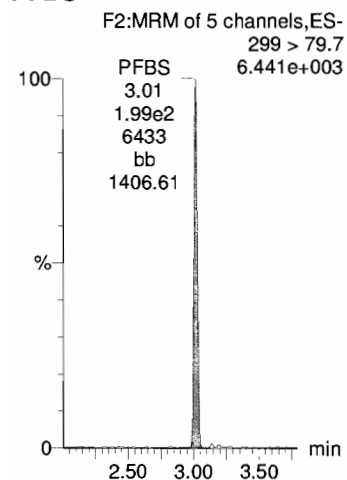
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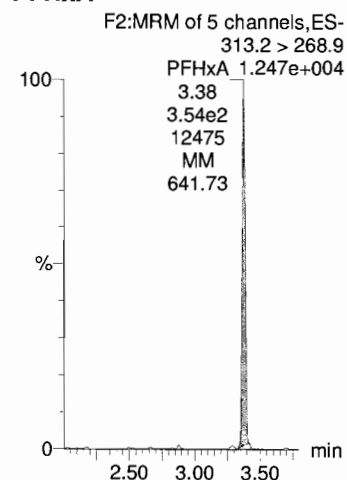
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Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

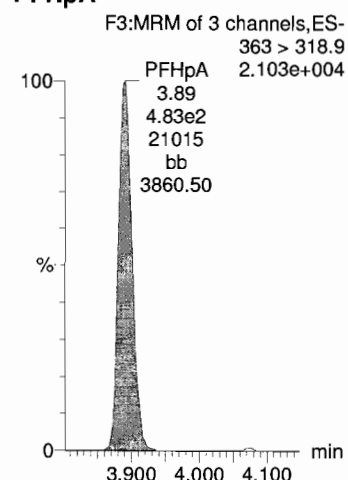
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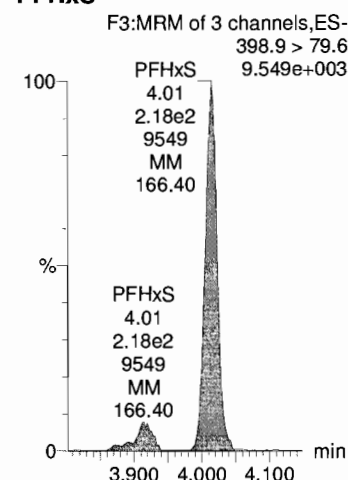
PFHxA



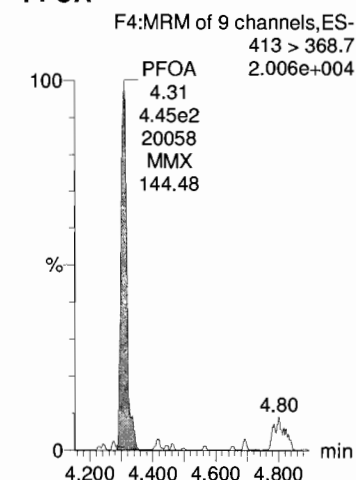
PFHpA



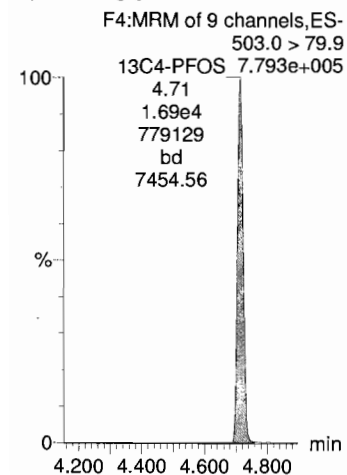
PFHxS



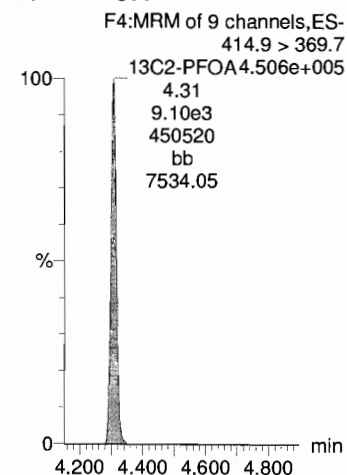
PFOA



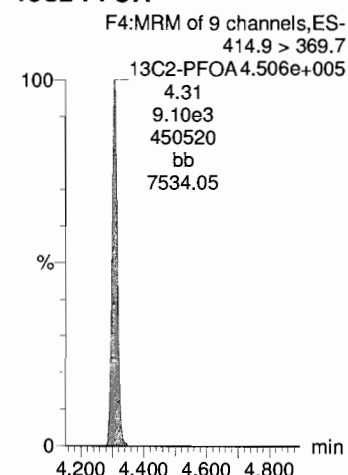
13C4-PFOS



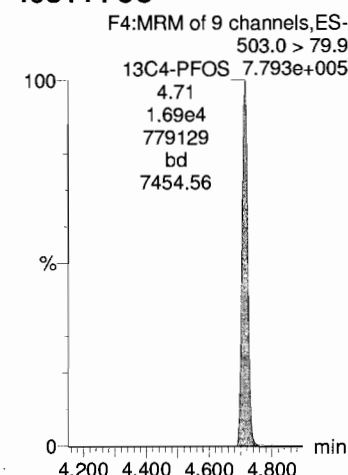
13C2-PFOA



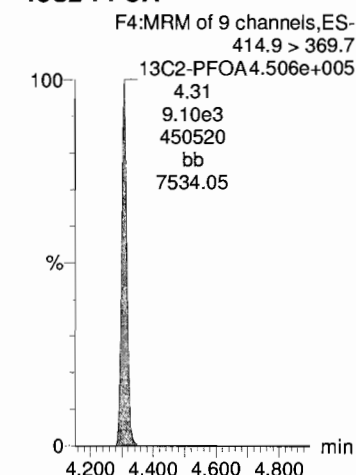
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13C4-PFOS



13C2-PFOA



MJT 2/23/2018

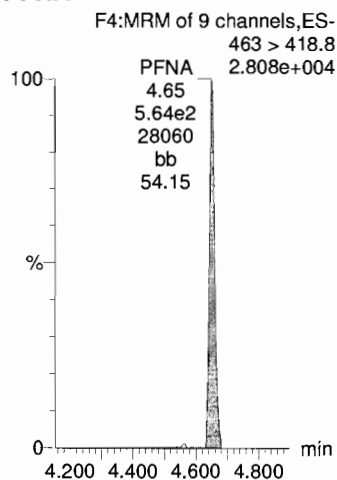
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Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

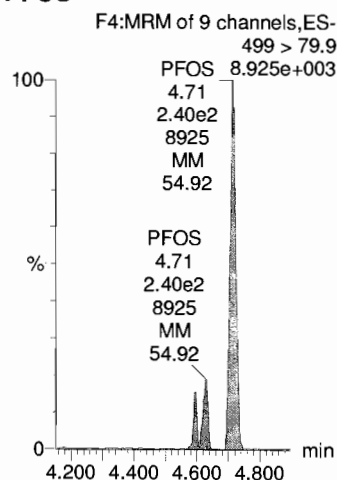
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Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

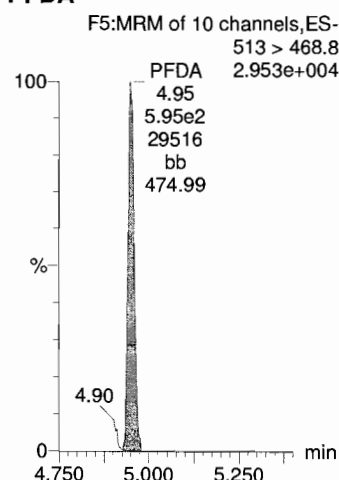
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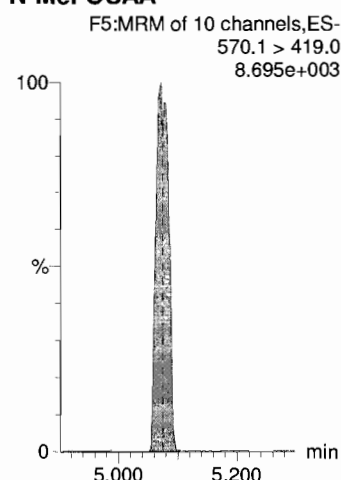
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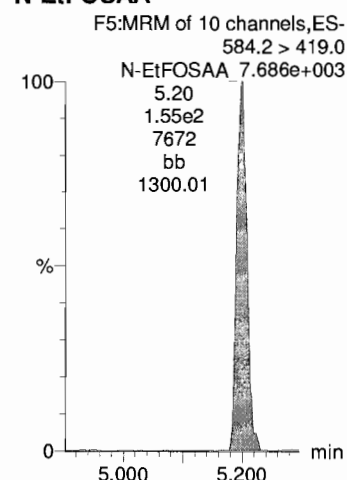
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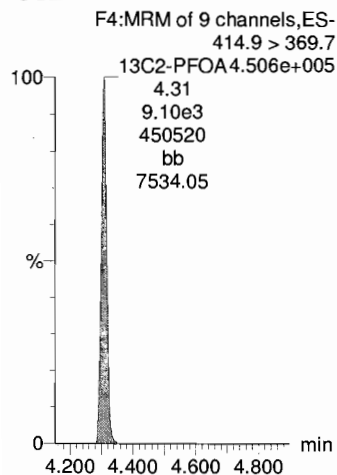
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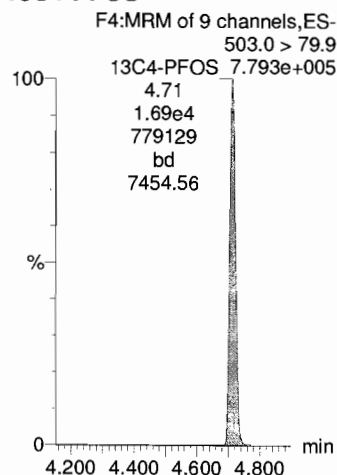
N-EtFOSAA



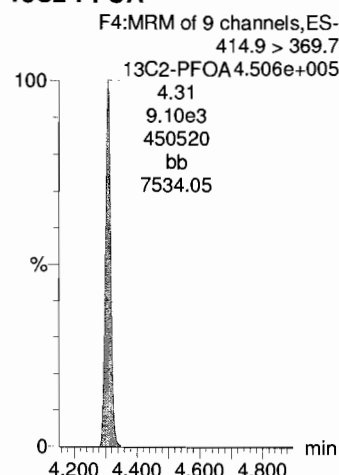
13C2-PFOA



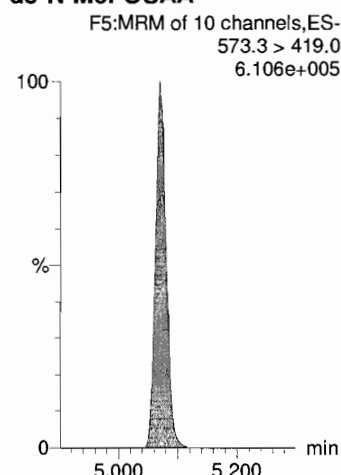
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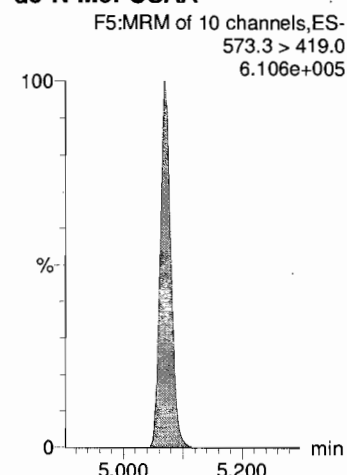
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



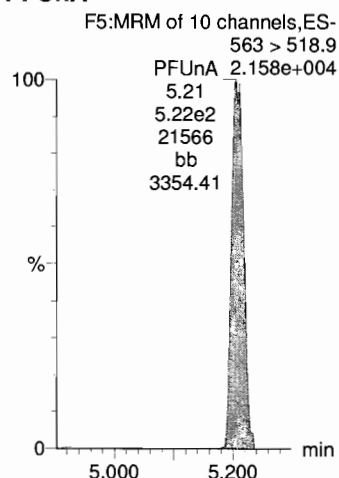
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Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

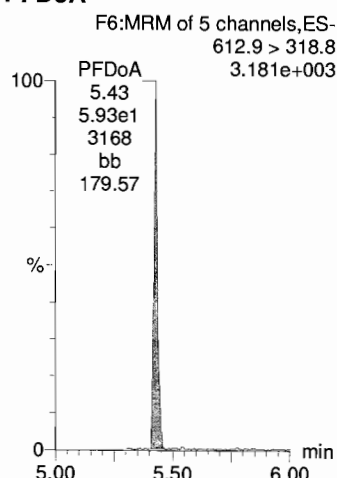
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Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

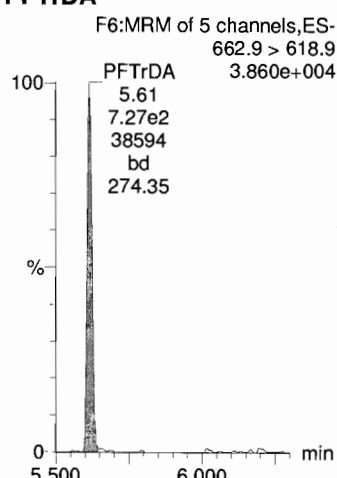
PFUnA



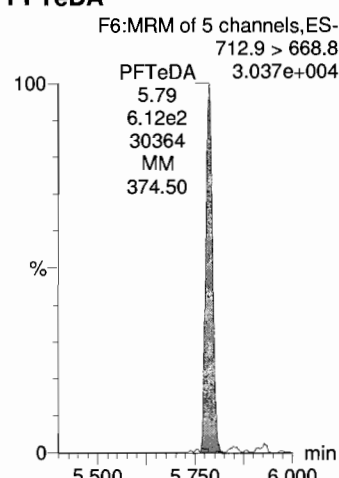
PFDaA



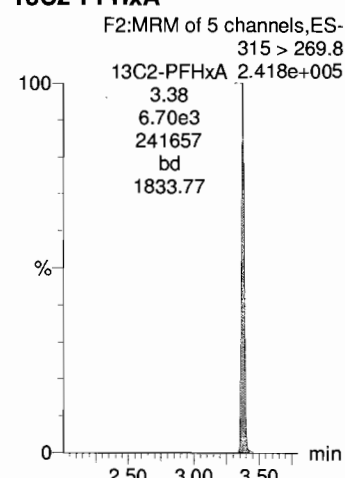
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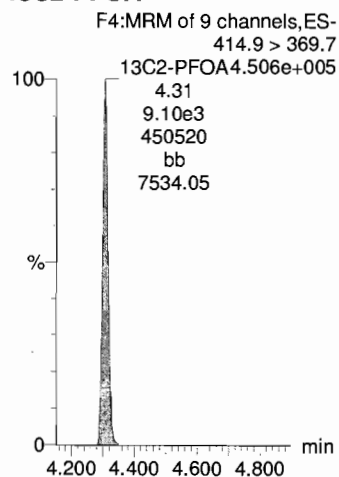
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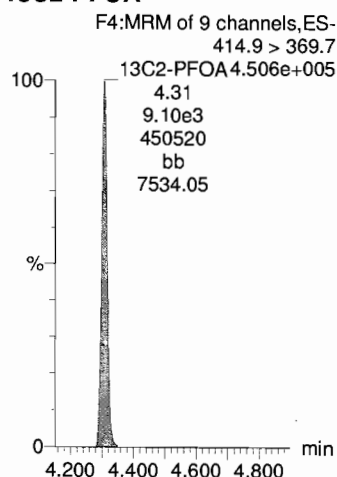
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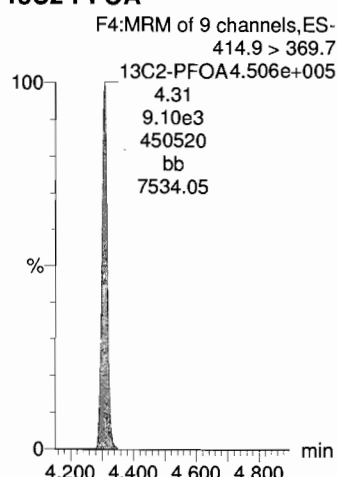
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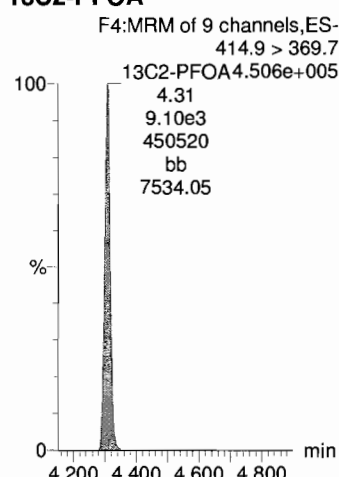
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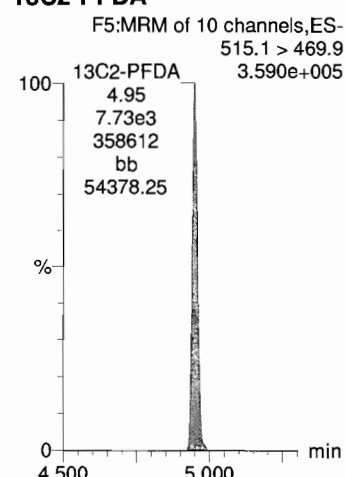
13C2-PFOA



13C2-PFOA



13C2-PFDA



MJT 2/23/2018

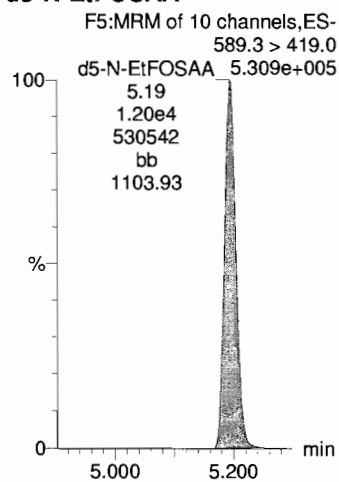
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Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

d5-N-EtFOSAA



MJT 2/23/2018

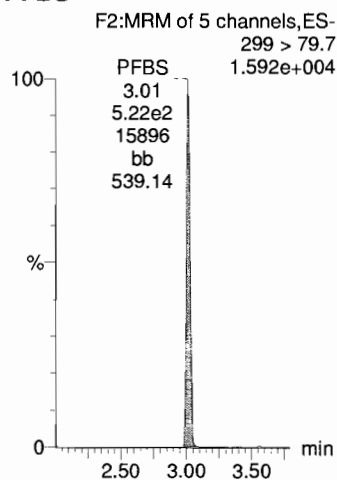
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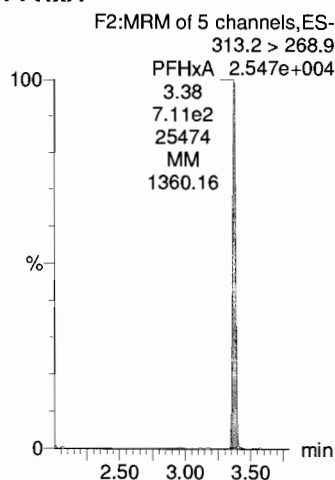
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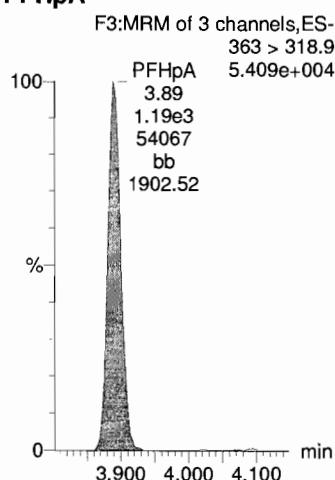
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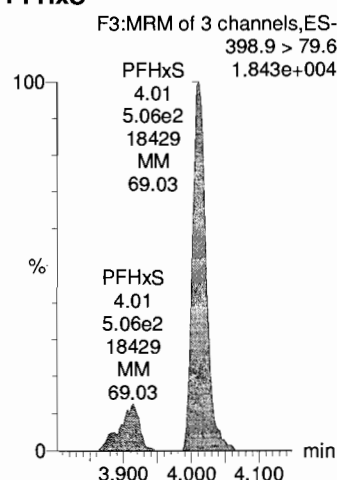
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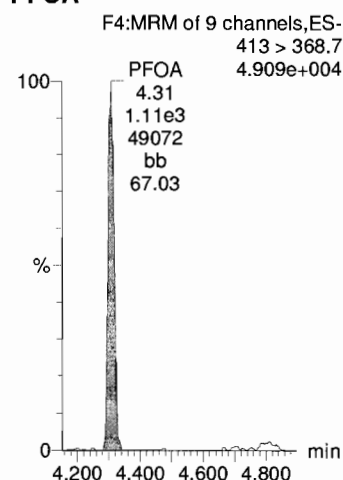
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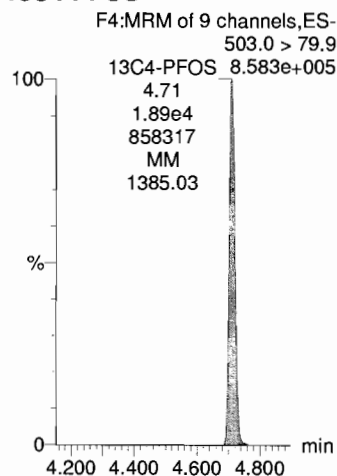
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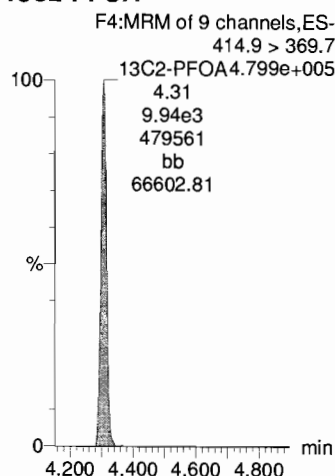
PFOA



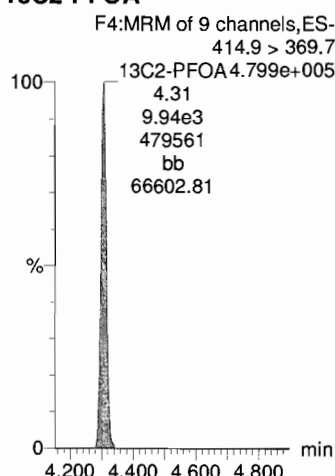
13C4-PFOS



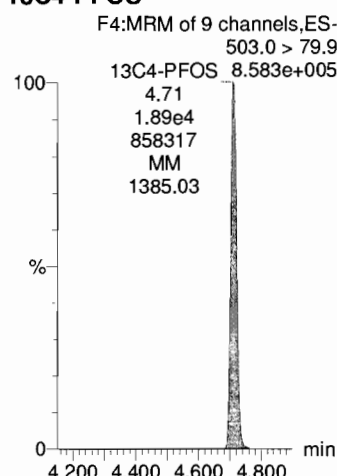
13C2-PFOA



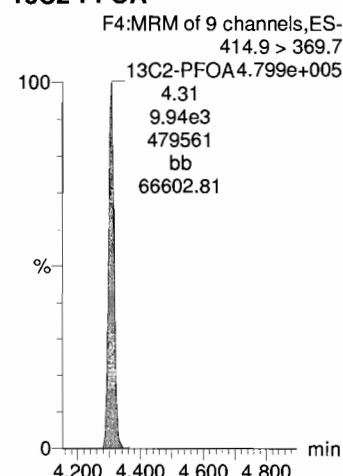
13C2-PFOA



13C4-PFOS



13C2-PFOA



MJT 2/23/2018

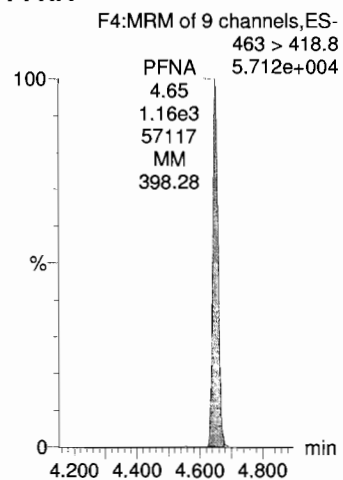
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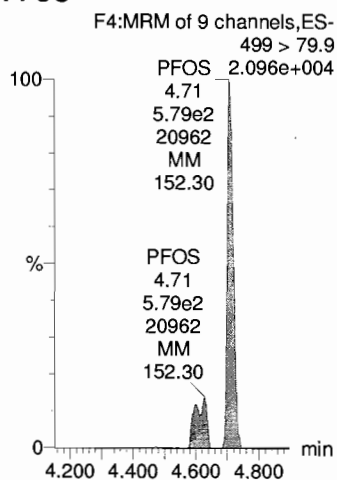
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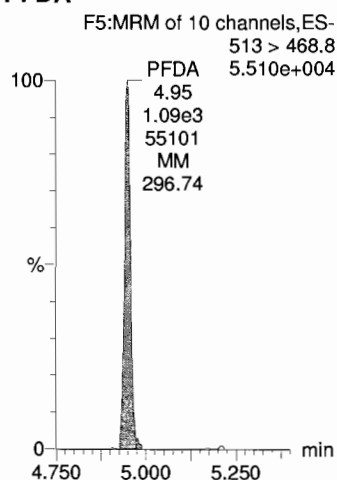
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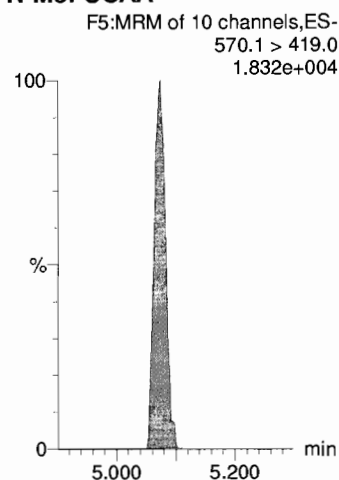
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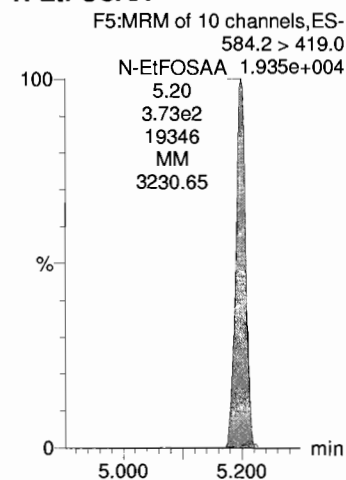
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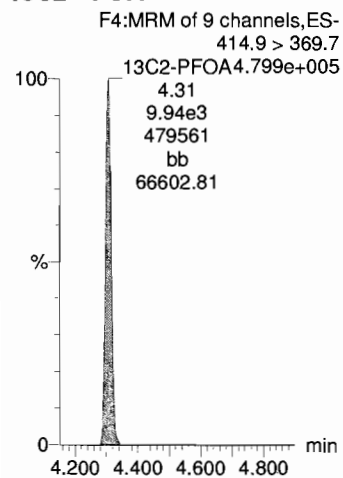
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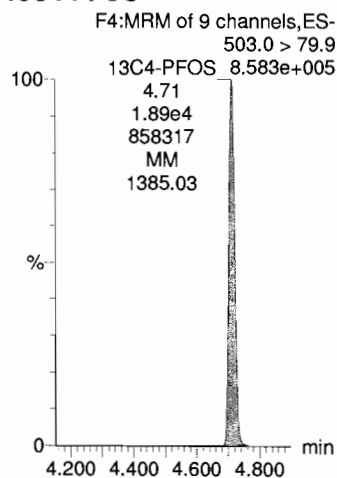
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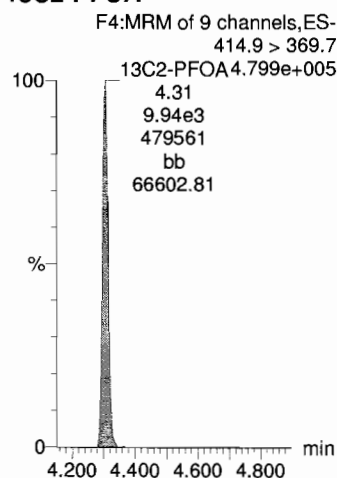
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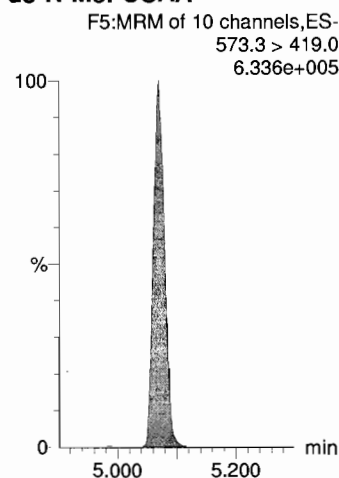
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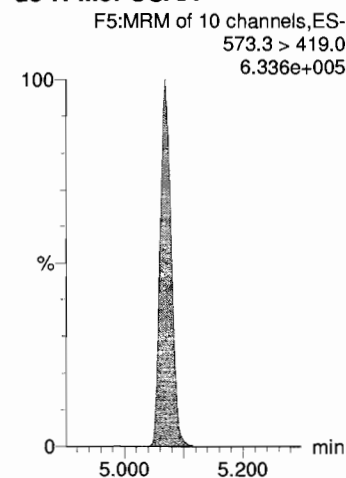
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d3-N-MeFOSAA



d3-N-MeFOSAA



MJT 2/23/2018

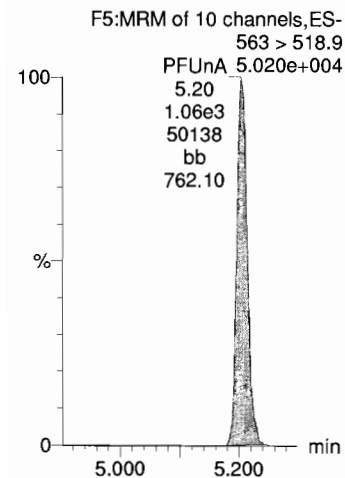
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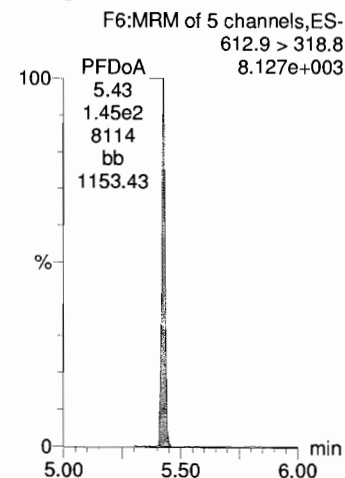
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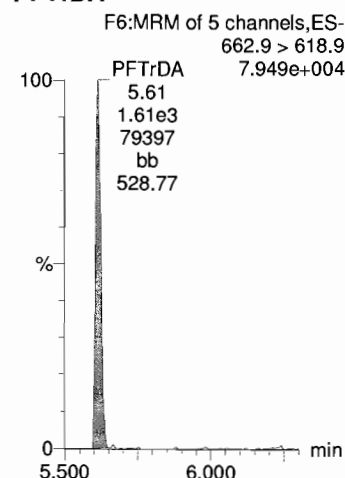
PFUnA



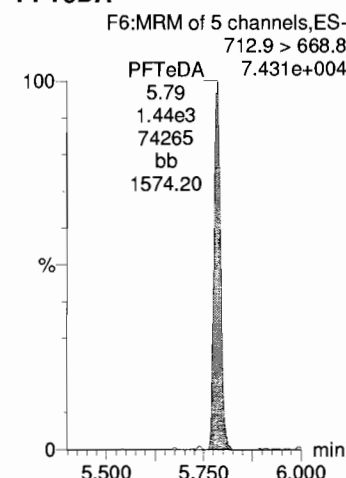
PFDaA



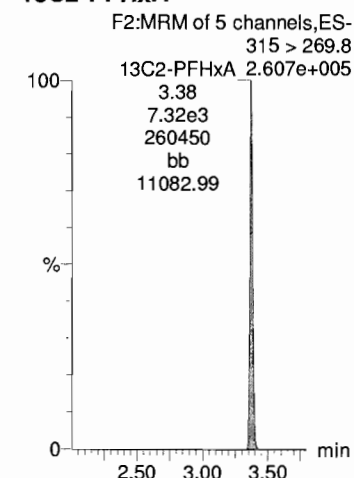
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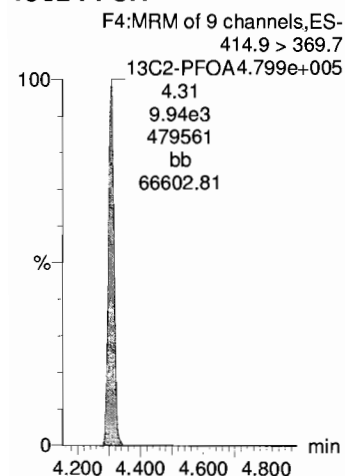
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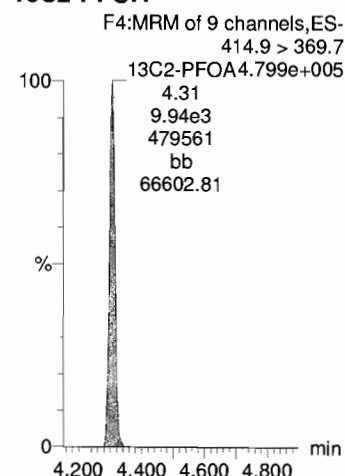
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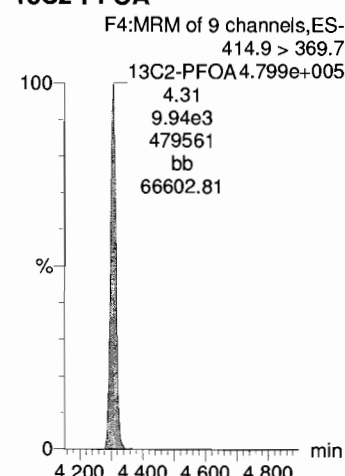
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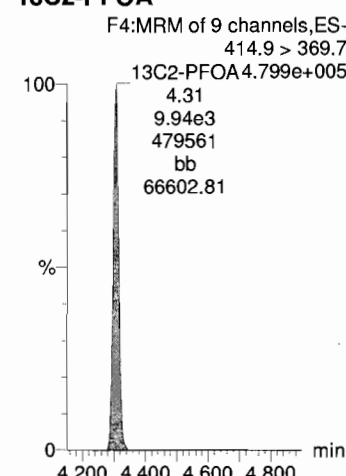
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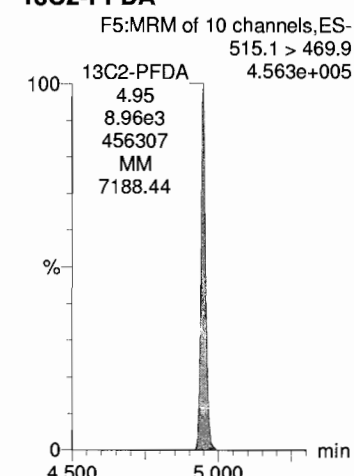
13C2-PFOA



13C2-PFOA



13C2-PFDA



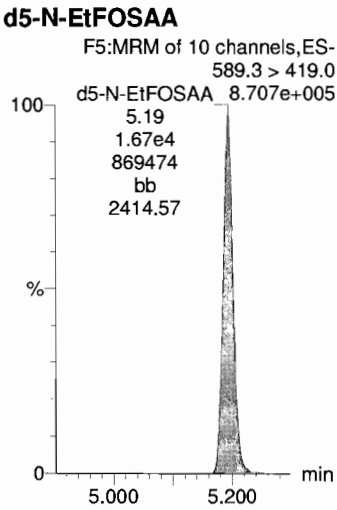
MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

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Name: 180223G2_3, Date: 23-Feb-2018, Time: 13:42:20, ID: ST180223G2-2 PFC CS-2 537 18B2302, Description: PFC CS-2 537 18B2302



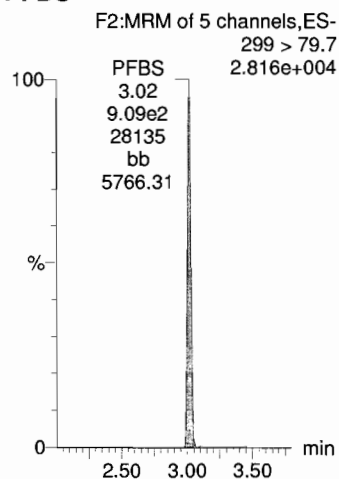
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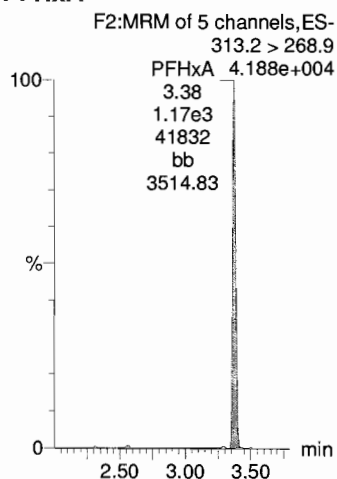
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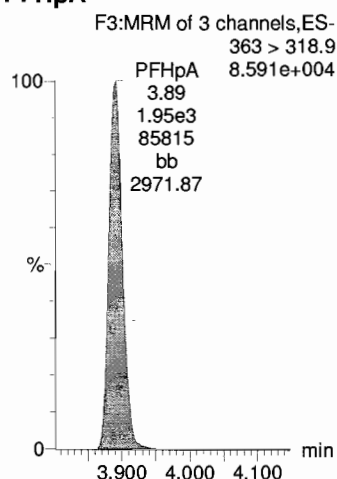
PFBS



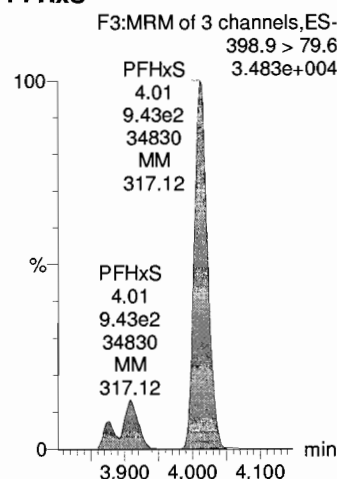
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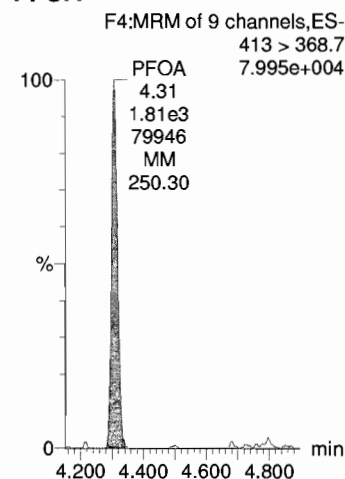
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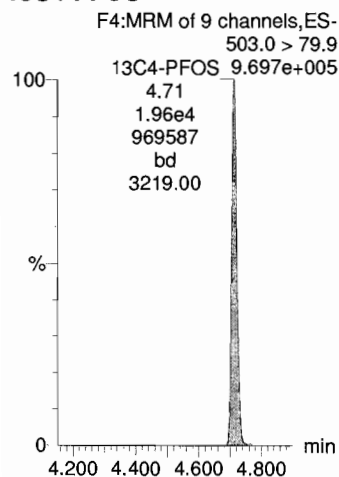
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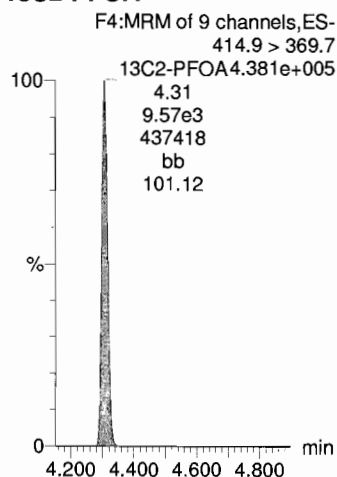
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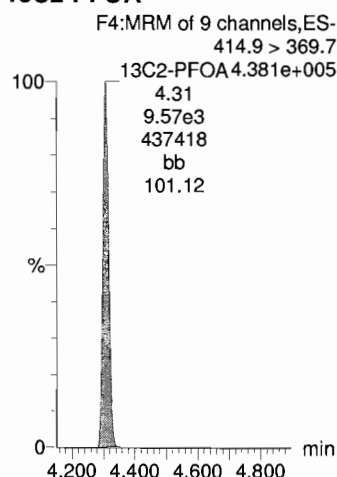
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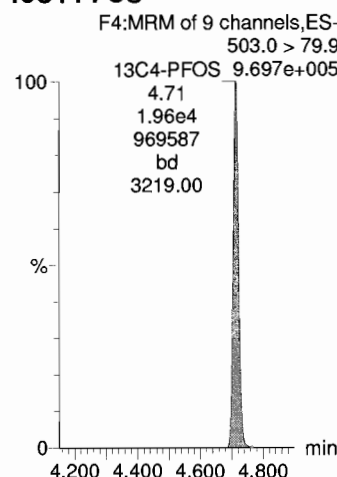
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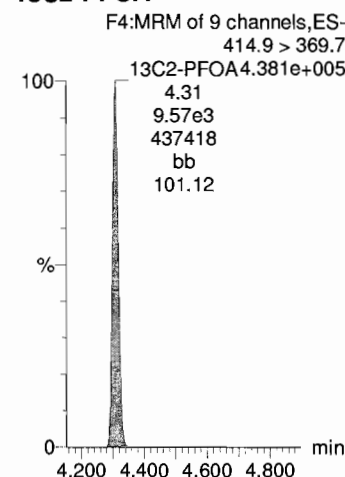
13C2-PFOA



13C4-PFOS



13C2-PFOA



MJT 2/23/2018

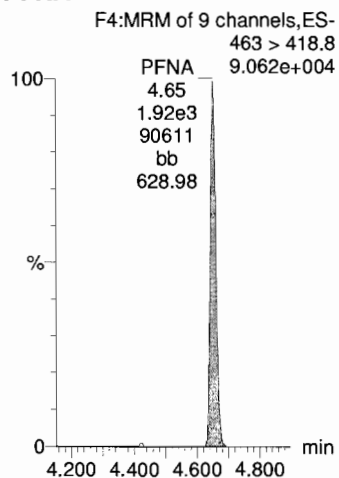
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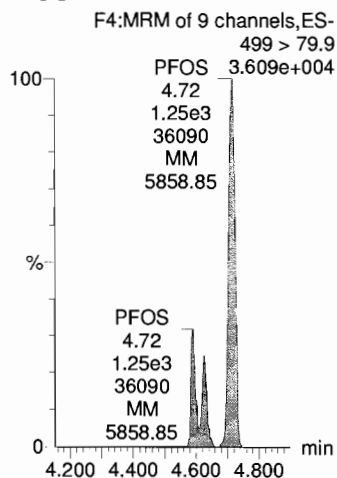
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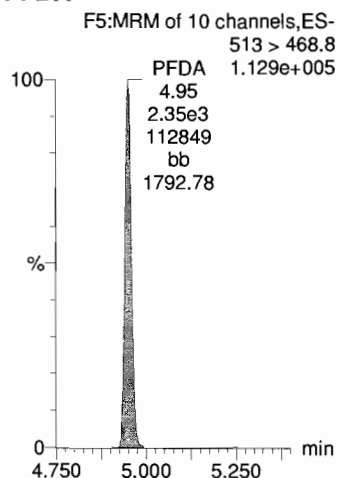
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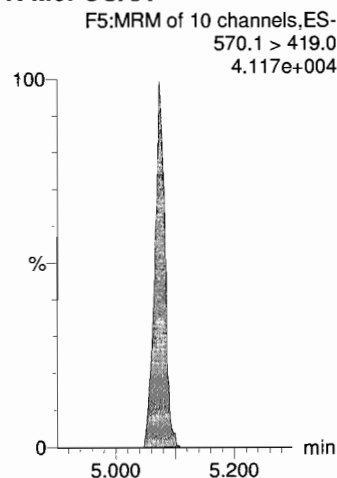
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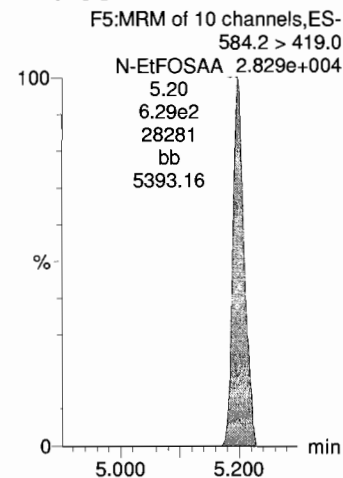
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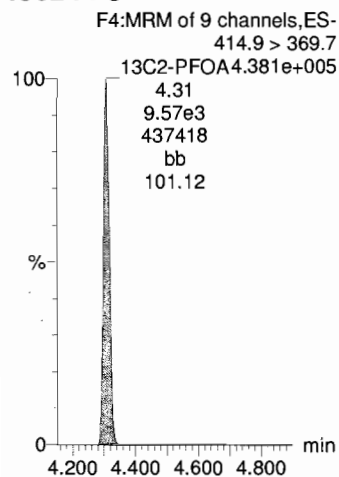
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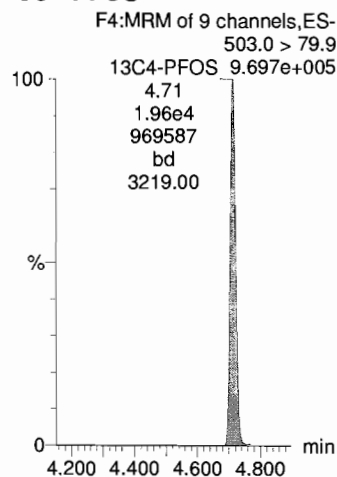
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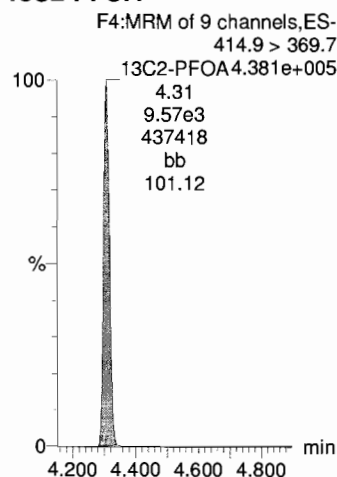
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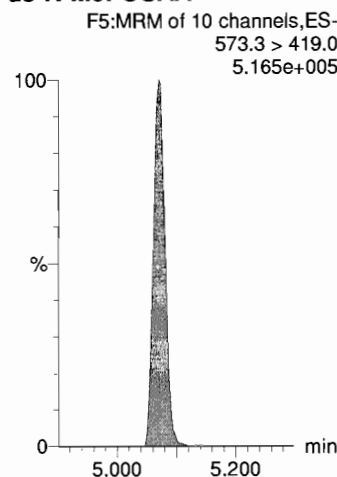
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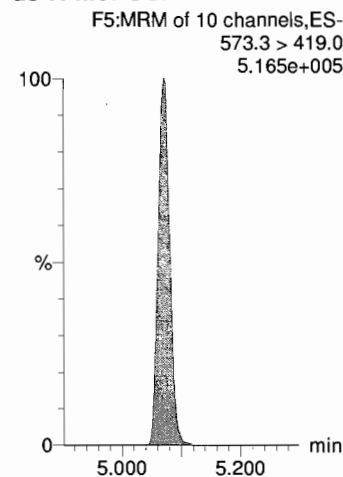
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d3-N-MeFOSAA



d3-N-MeFOSAA



MJT 2/23/2018

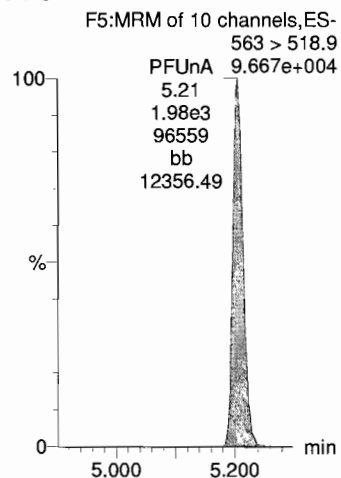
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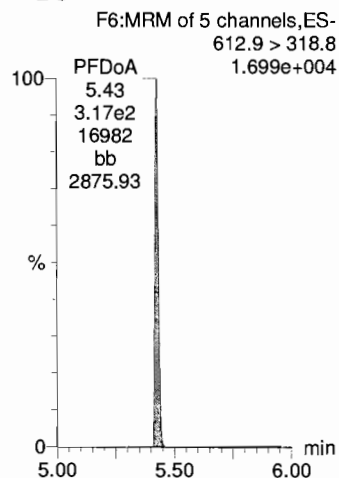
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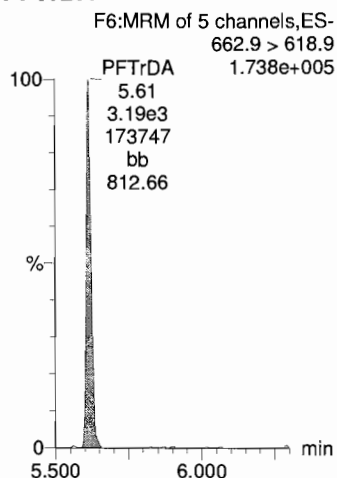
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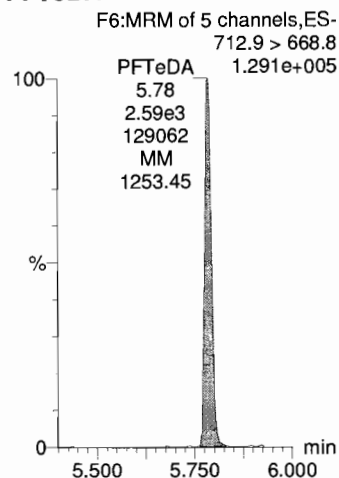
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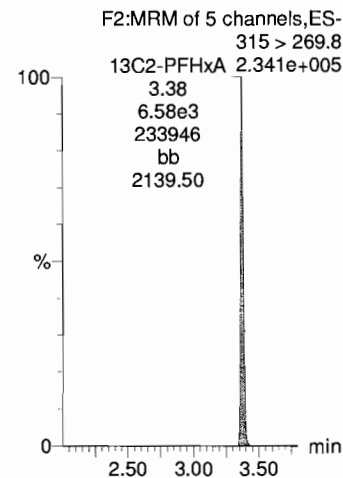
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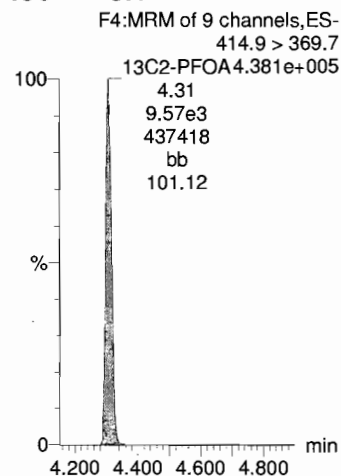
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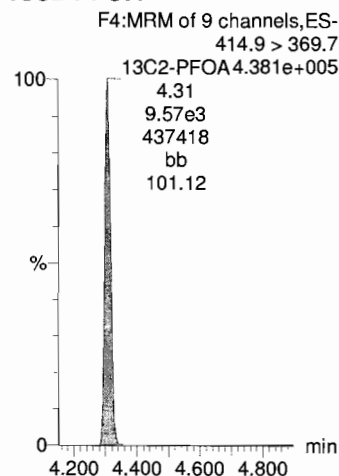
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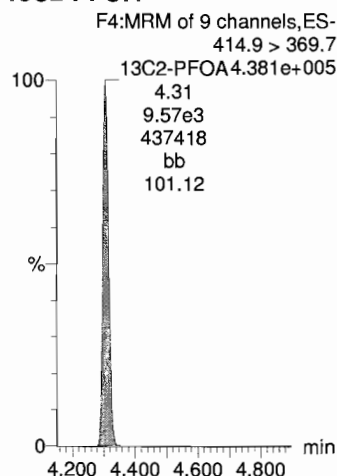
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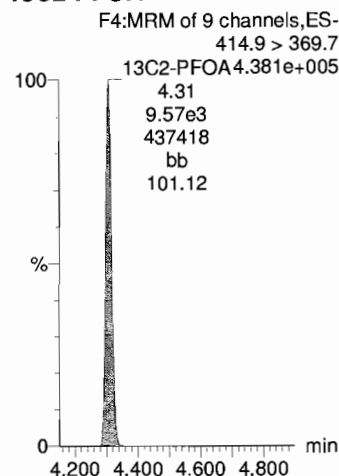
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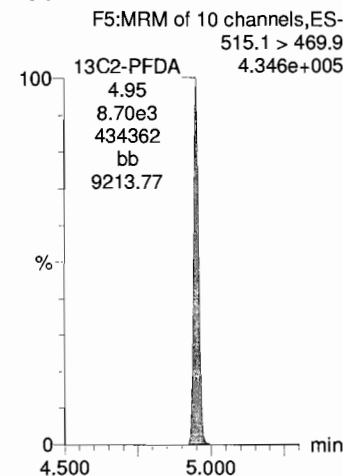
13C2-PFOA



13C2-PFOA



13C2-PFDA



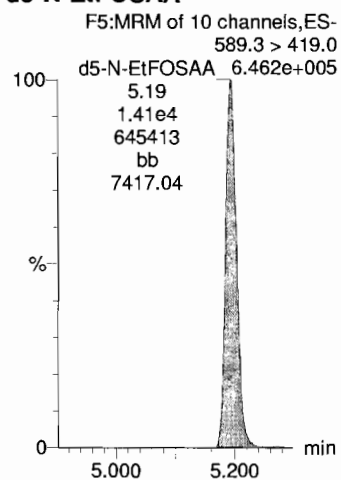
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Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_4, Date: 23-Feb-2018, Time: 13:54:45, ID: ST180223G2-3 PFC CS-1 537 18B2310, Description: PFC CS-1 537 18B2310

d5-N-EtFOSAA



MJT 2/23/2018

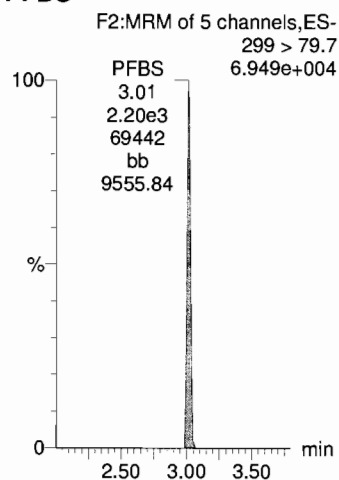
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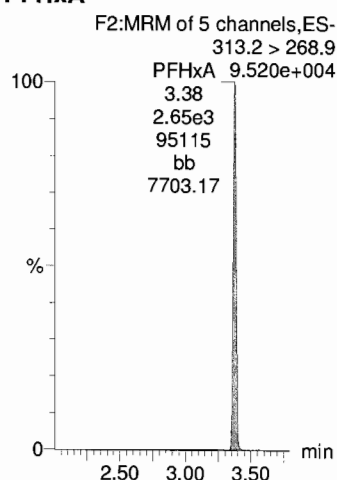
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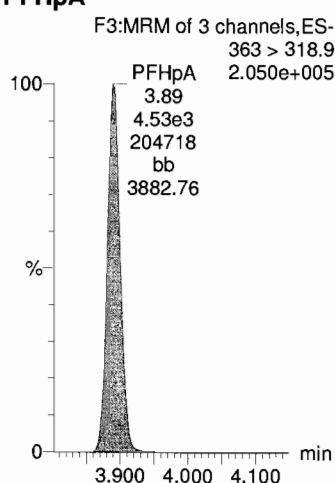
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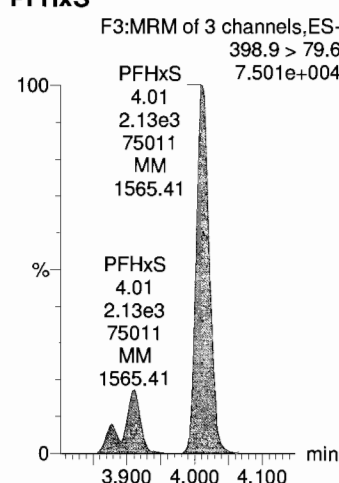
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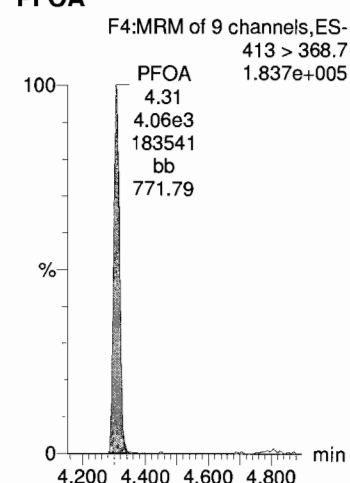
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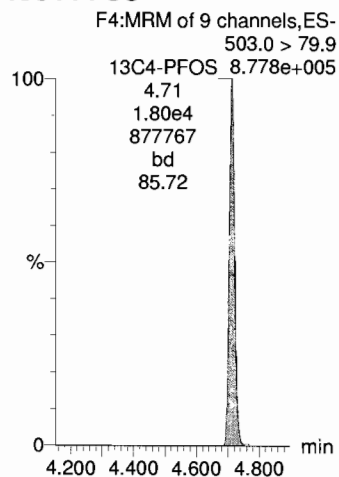
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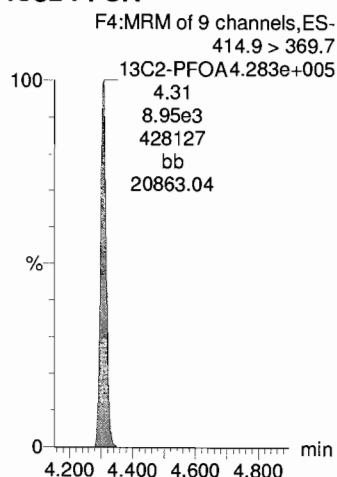
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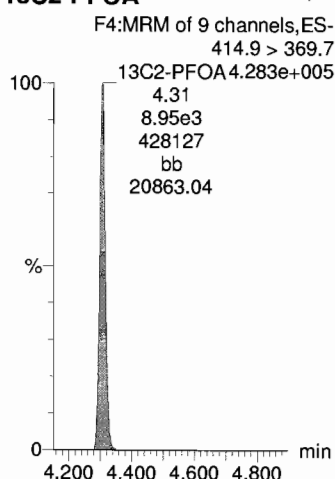
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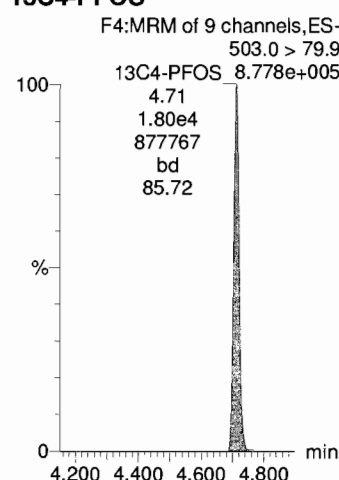
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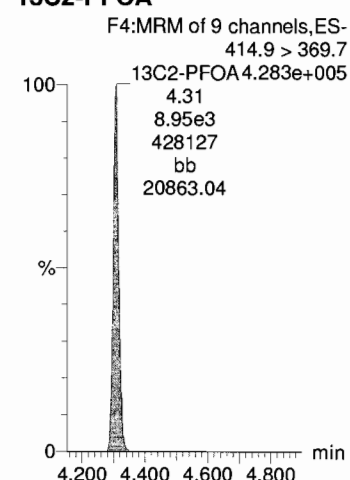
13C2-PFOA



13C4-PFOS



13C2-PFOA



MJT 2/23/2018

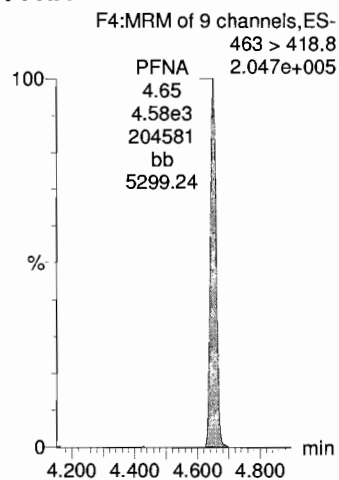
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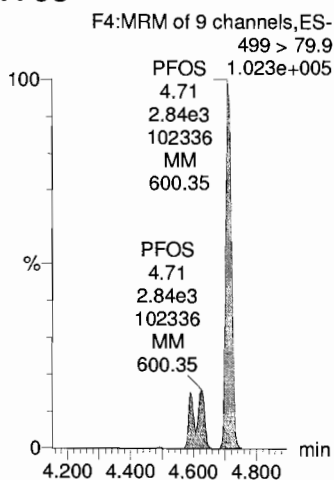
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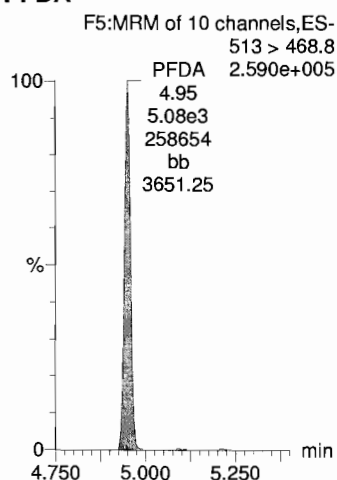
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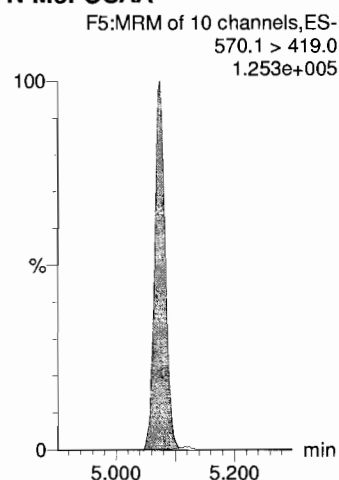
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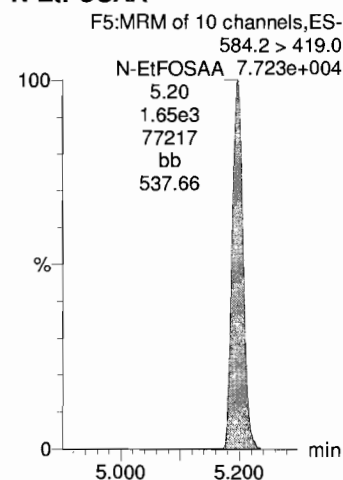
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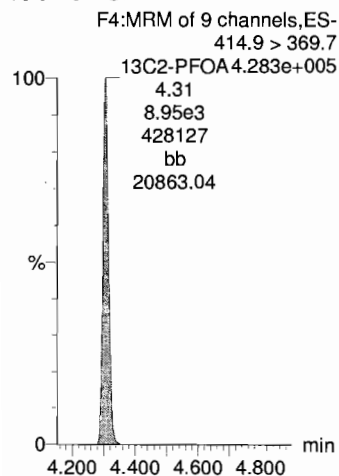
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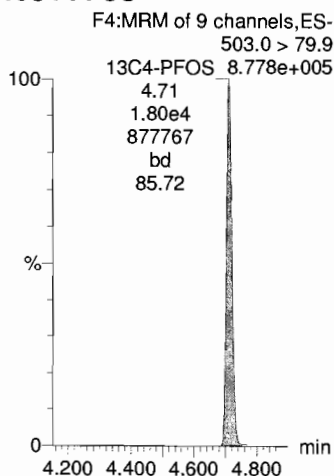
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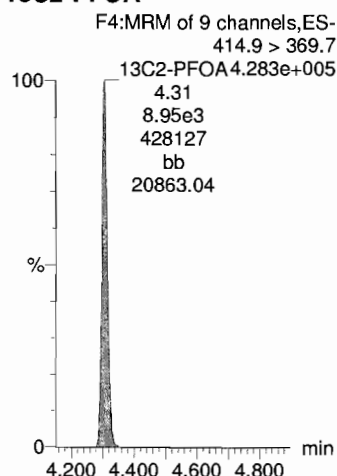
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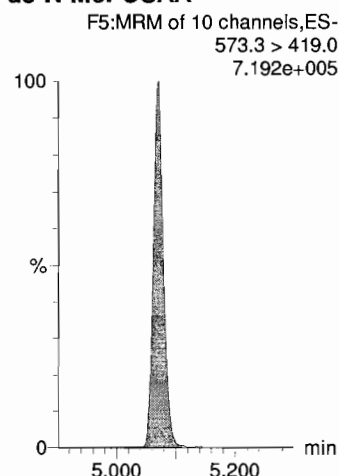
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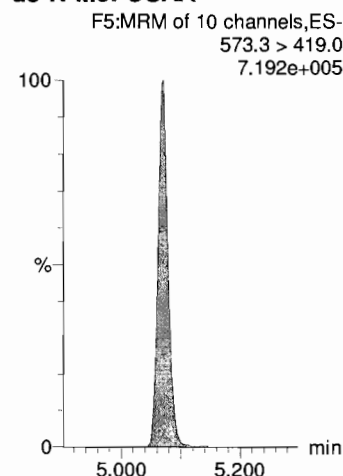
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d3-N-MeFOSAA



d3-N-MeFOSAA



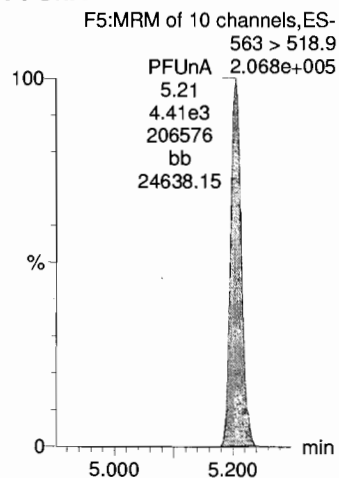
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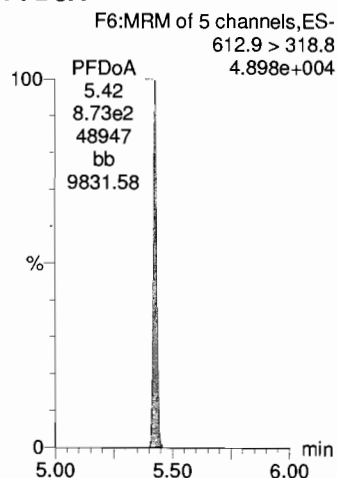
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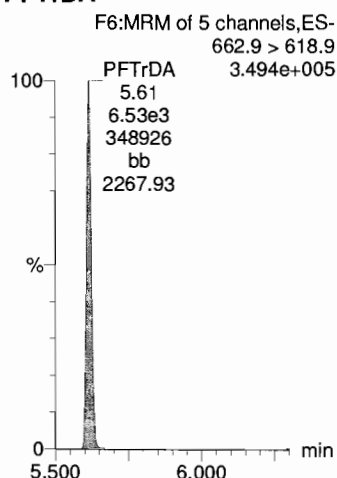
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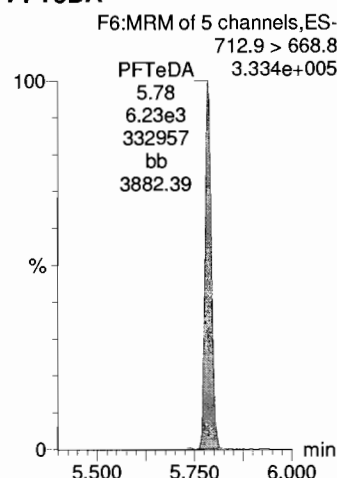
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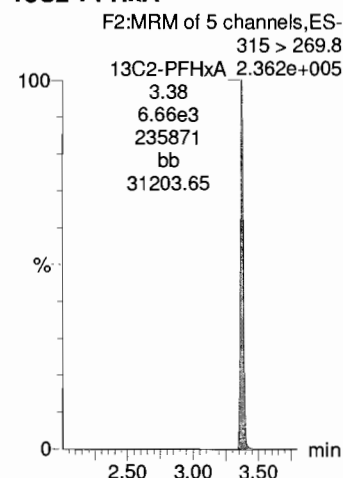
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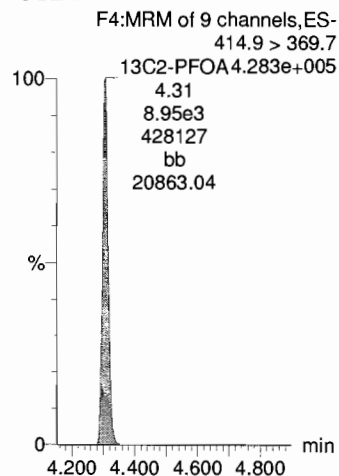
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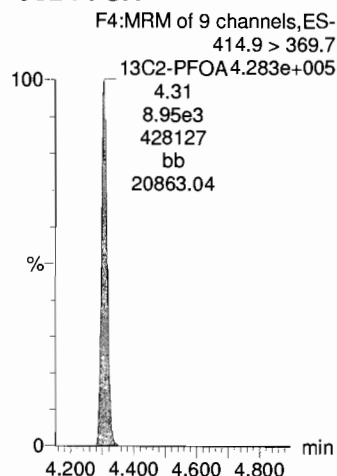
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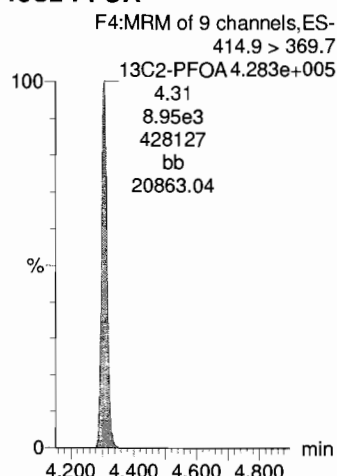
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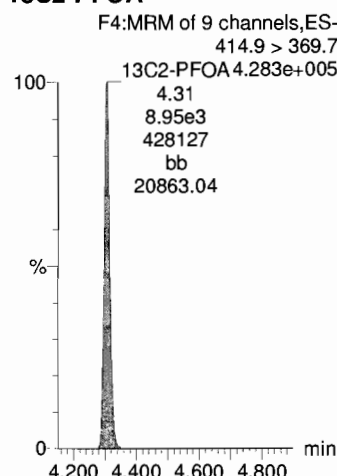
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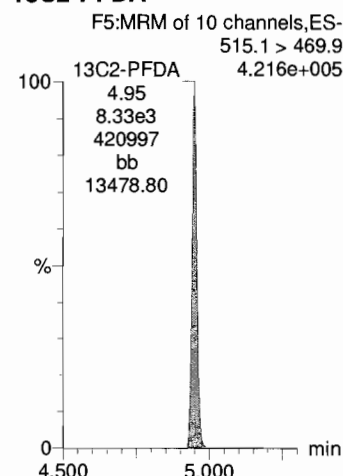
13C2-PFOA



13C2-PFOA



13C2-PFDA



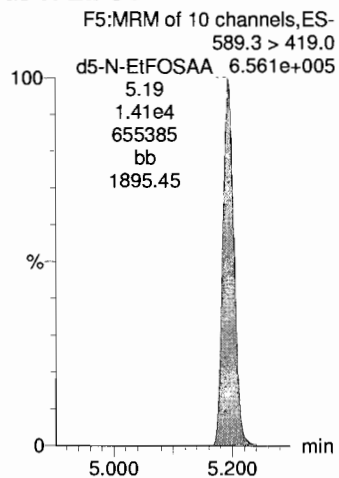
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Name: 180223G2_5, Date: 23-Feb-2018, Time: 14:07:10, ID: ST180222G3-4 PFC CS0 537 18B2303, Description: PFC CS0 537 18B2303

d5-N-EtFOSAA



MJT 2/23/2018

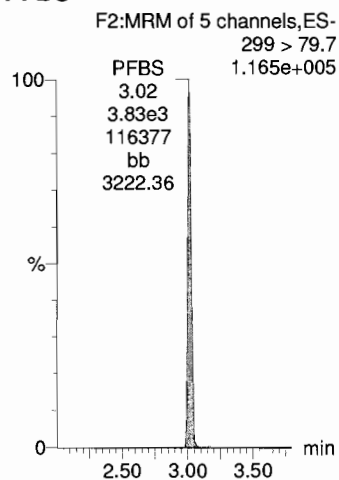
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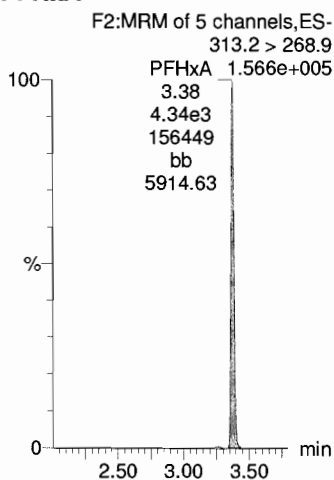
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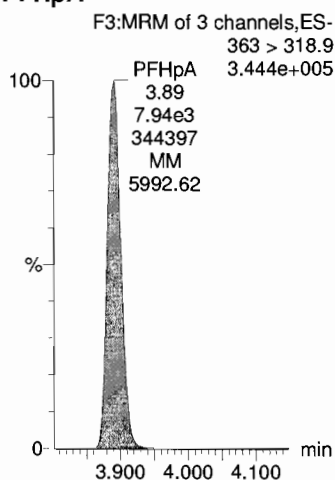
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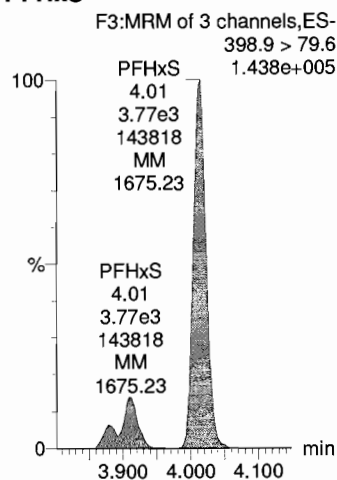
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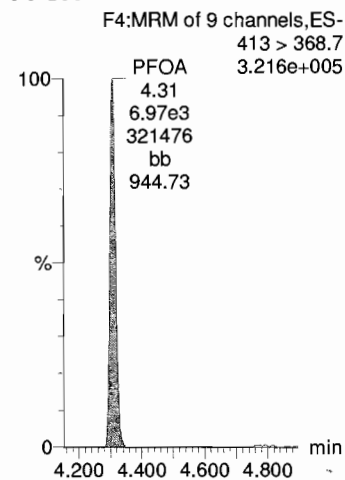
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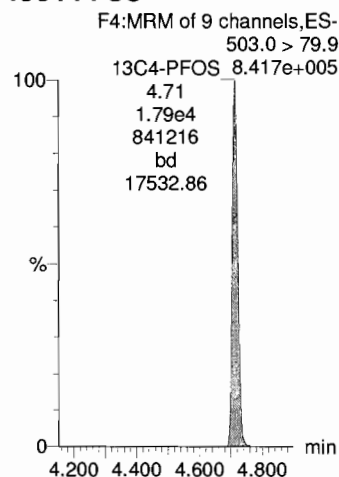
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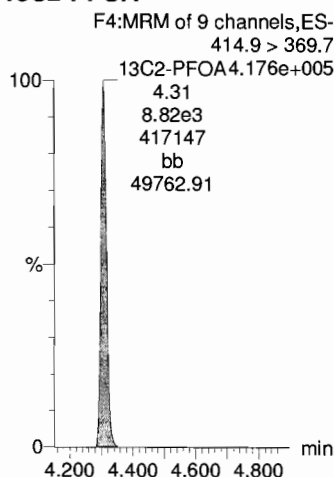
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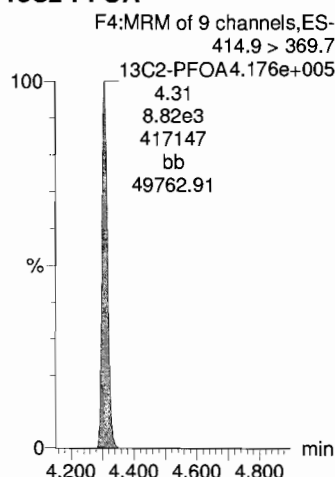
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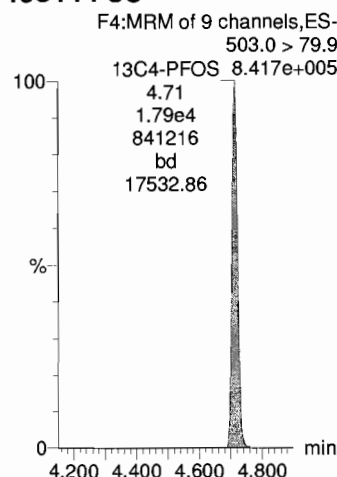
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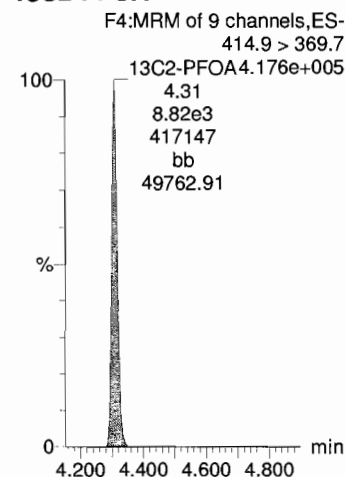
13C2-PFOA



13C4-PFOS



13C2-PFOA



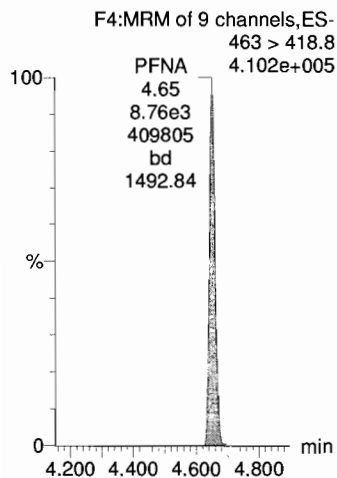
MJT 2/23/2018

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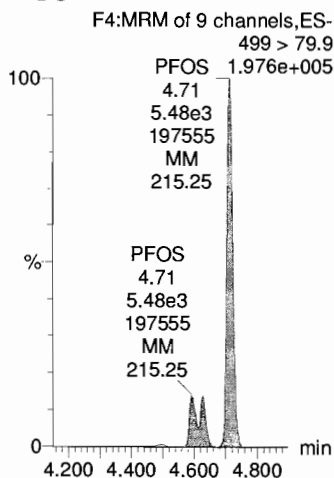
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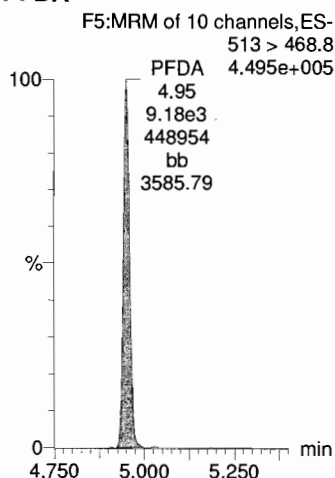
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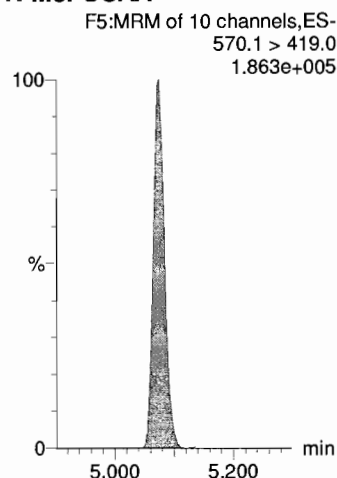
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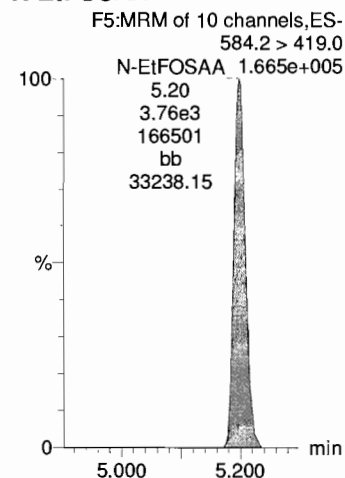
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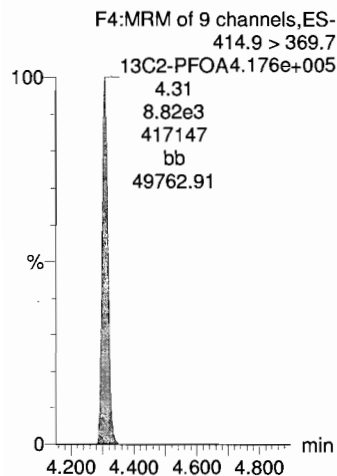
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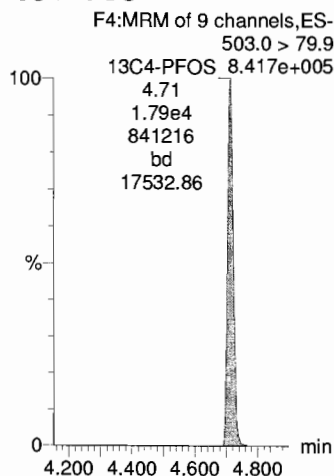
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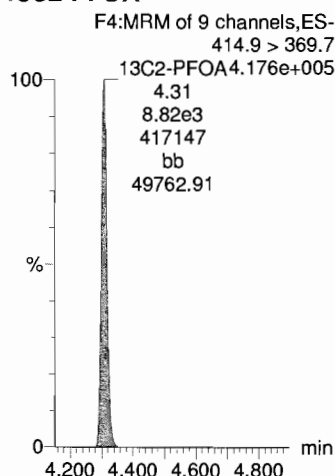
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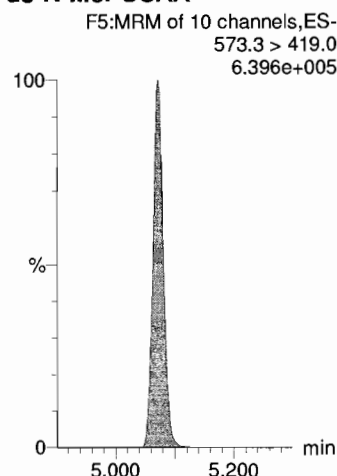
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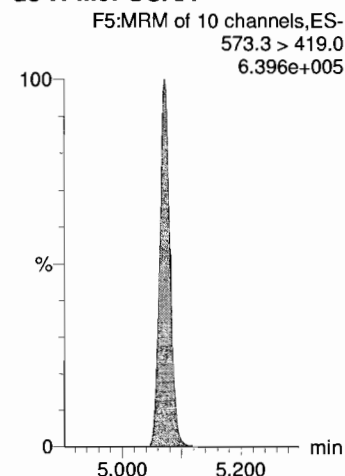
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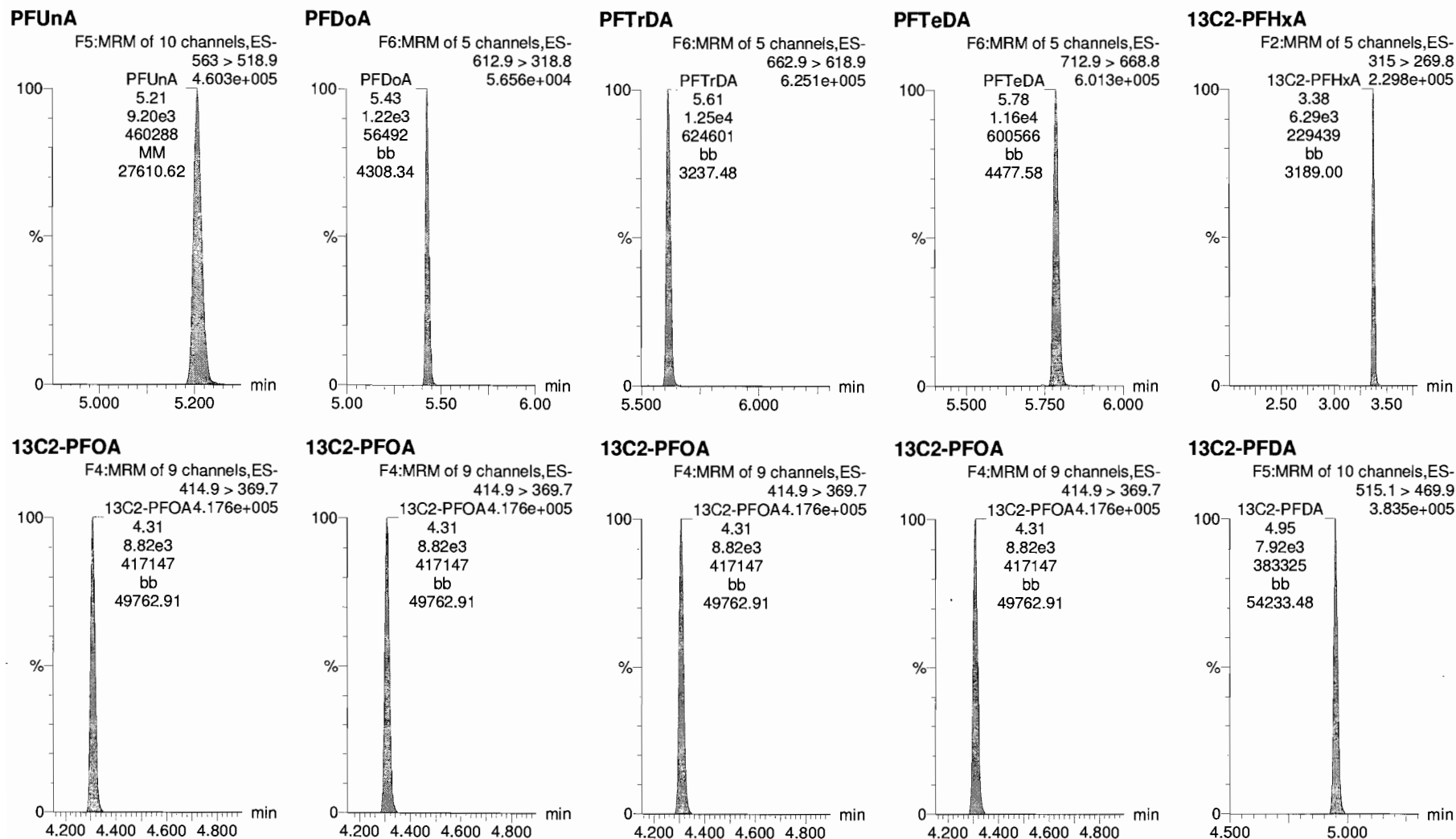
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Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_6, Date: 23-Feb-2018, Time: 14:19:35, ID: ST180223G2-5 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304



MJT 2/23/2018

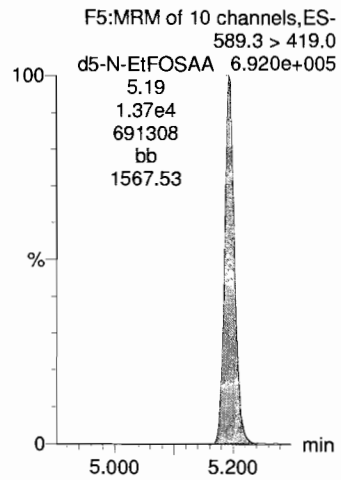
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d5-N-EtFOSAA



MJT 2/23/2018

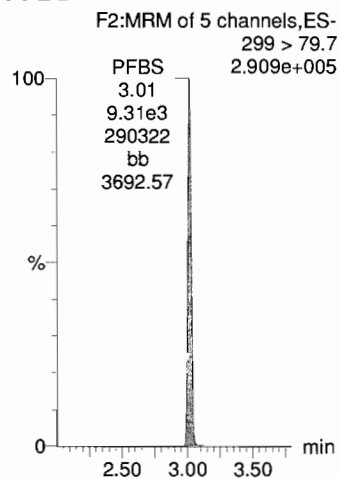
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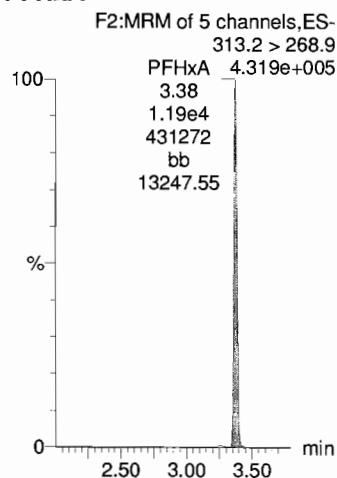
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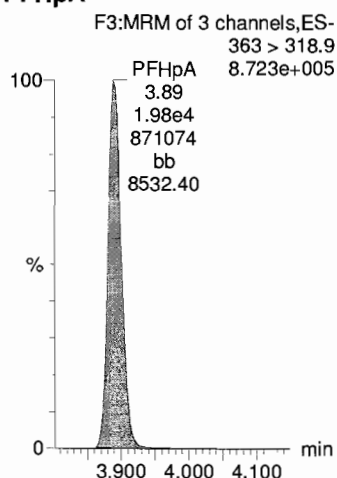
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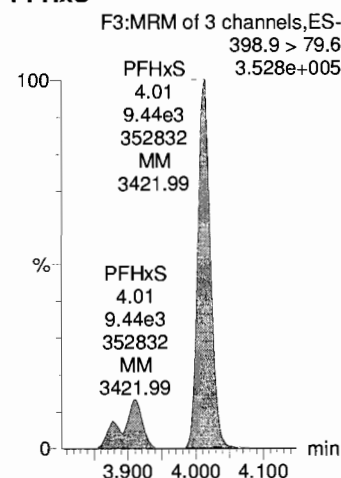
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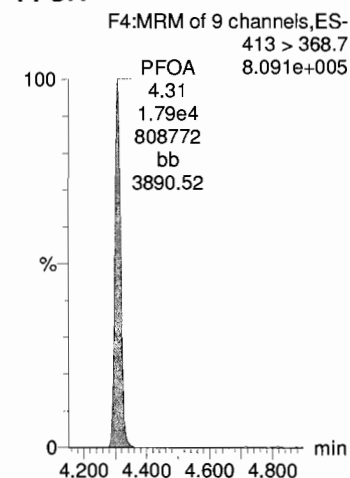
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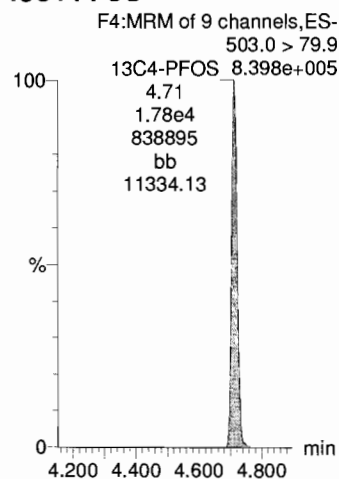
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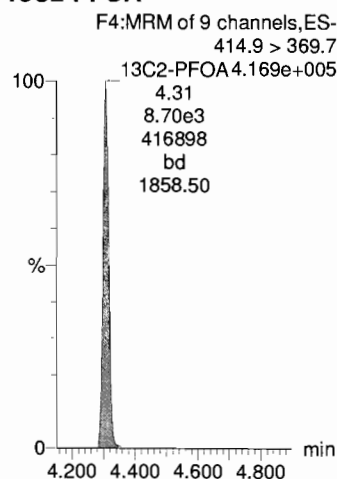
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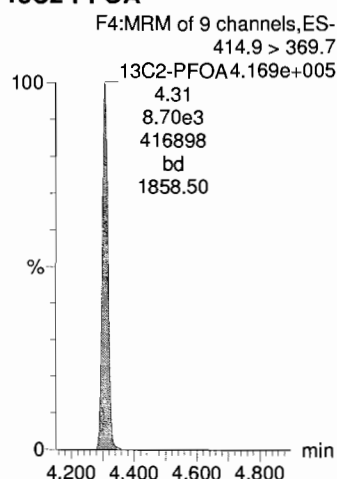
13C4-PFOS



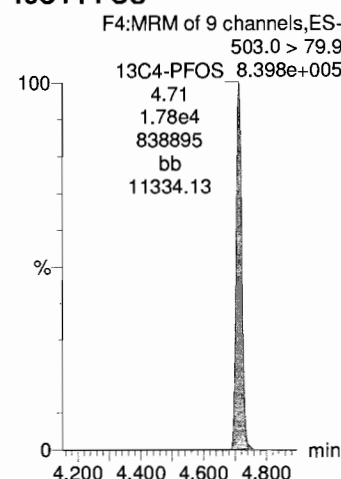
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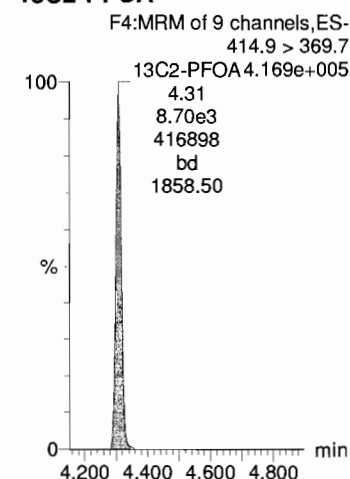
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13C4-PFOS



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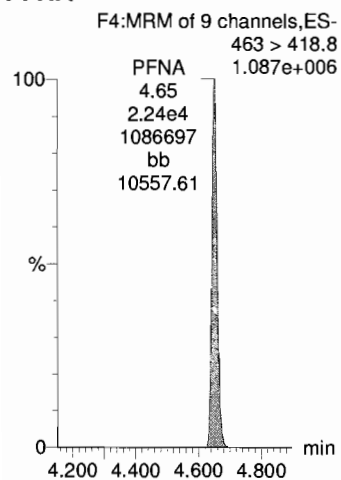
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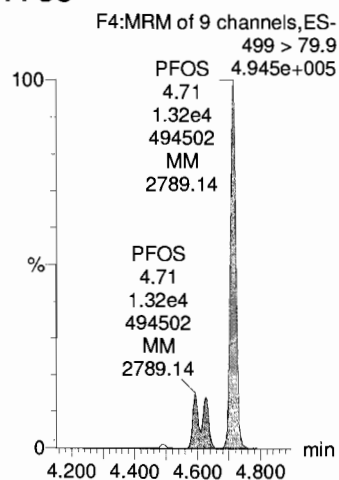
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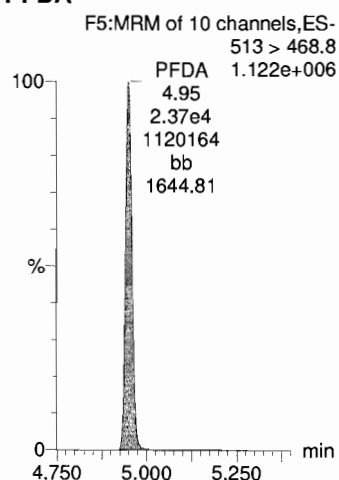
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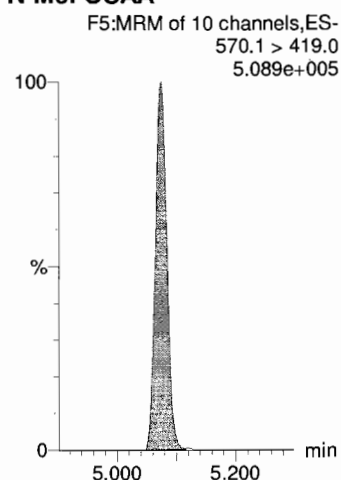
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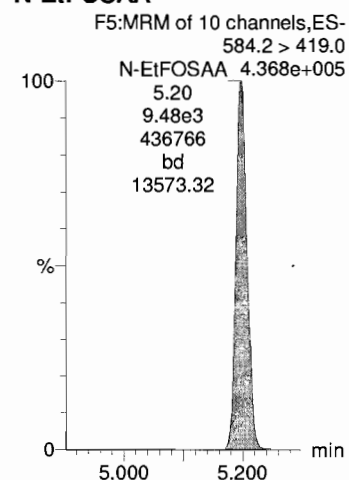
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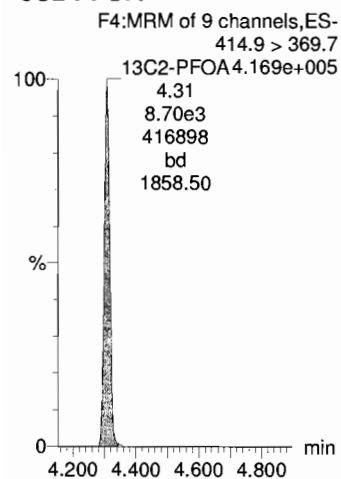
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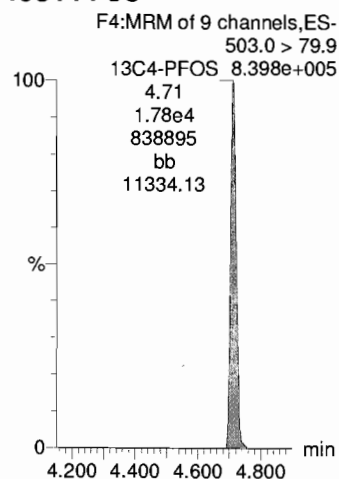
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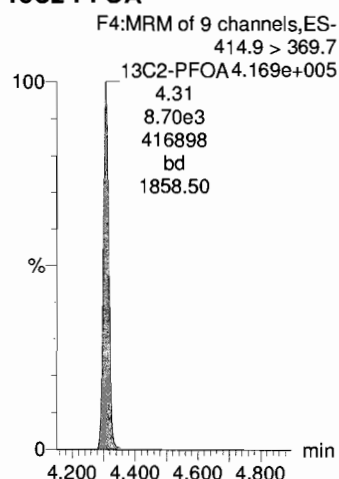
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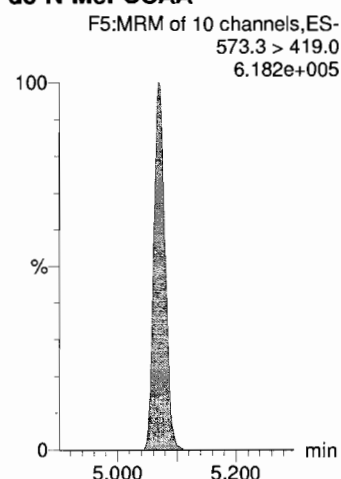
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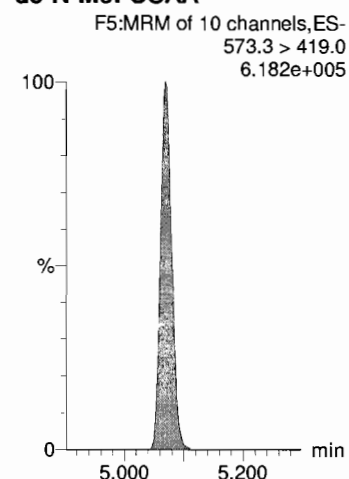
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d3-N-MeFOSAA



d3-N-MeFOSAA



MJT 2/23/2018

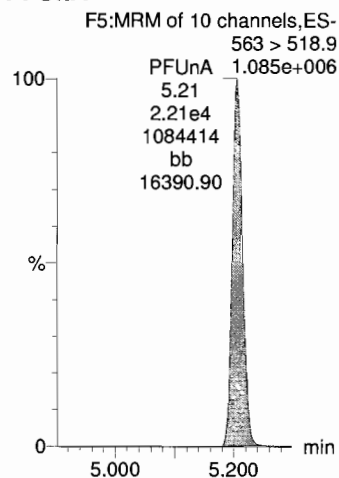
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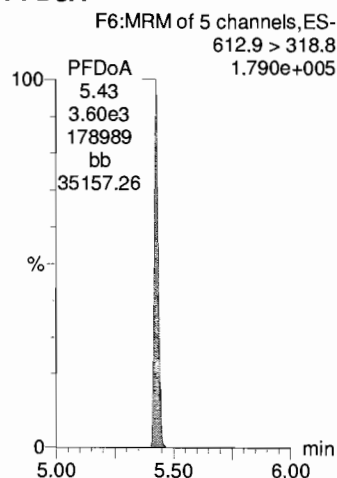
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Name: 180223G2_7, Date: 23-Feb-2018, Time: 14:32:01, ID: ST180223G2-6 PFC CS2 537 18B2305, Description: PFC CS2 537 18B2305

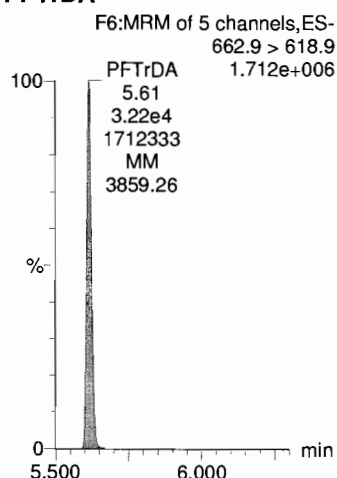
PFUnA



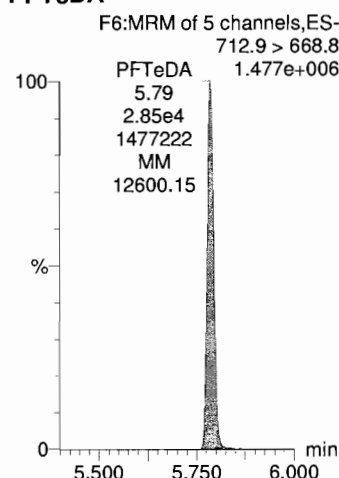
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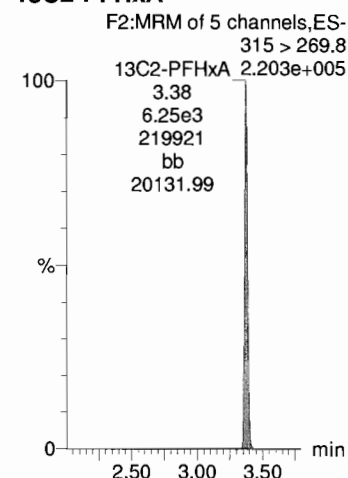
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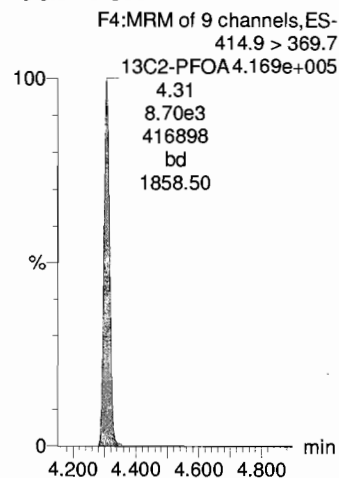
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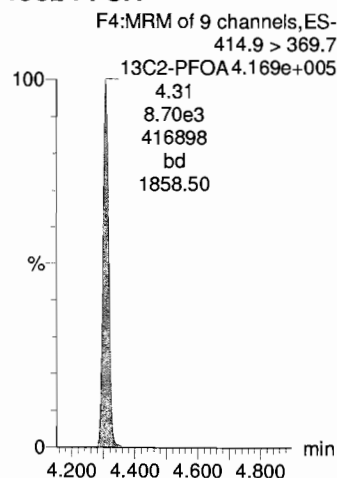
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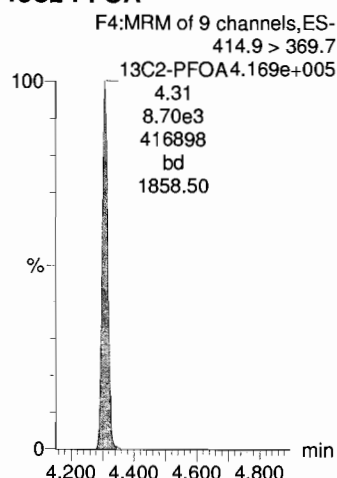
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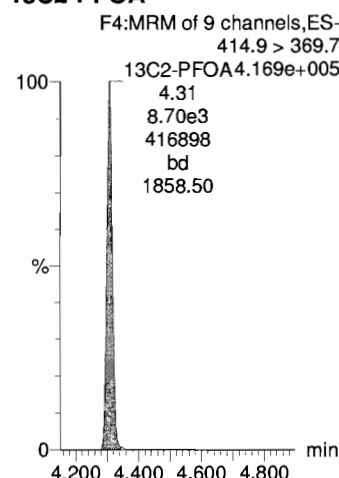
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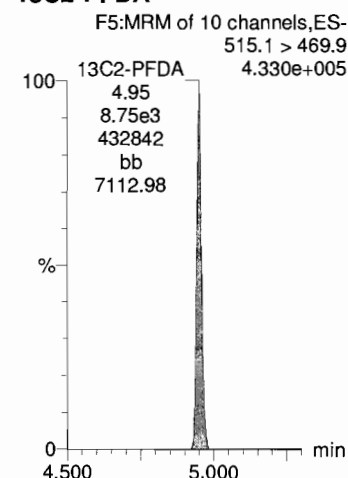
13C2-PFOA



13C2-PFOA



13C2-PFDA



MJT 2/23/2018

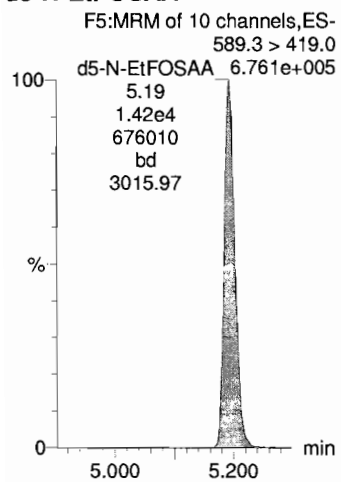
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Name: 180223G2_7, Date: 23-Feb-2018, Time: 14:32:01, ID: ST180223G2-6 PFC CS2 537 18B2305, Description: PFC CS2 537 18B2305

d5-N-EtFOSAA



MJT 2/23/2018

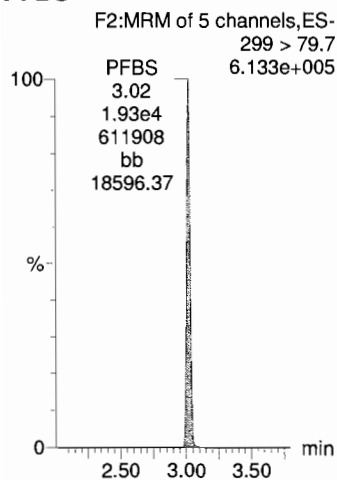
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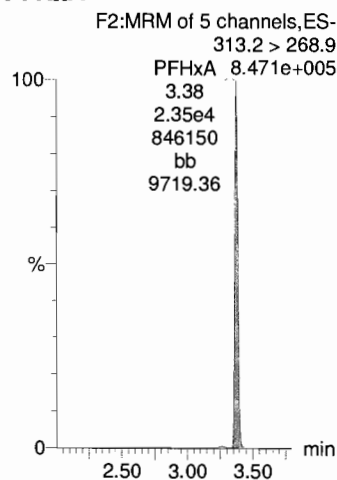
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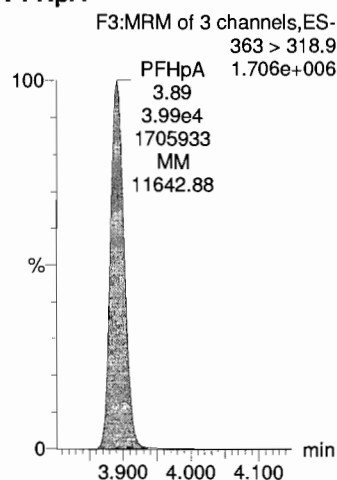
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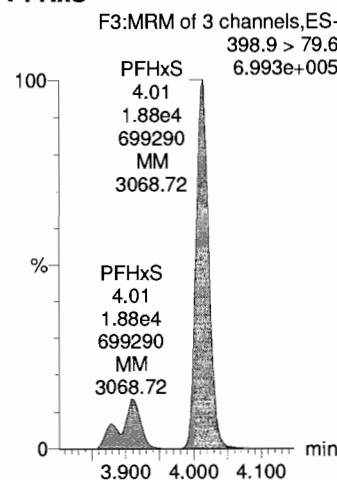
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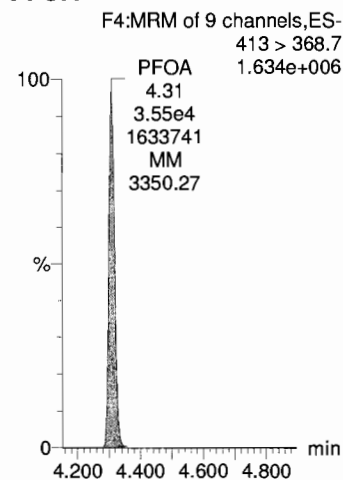
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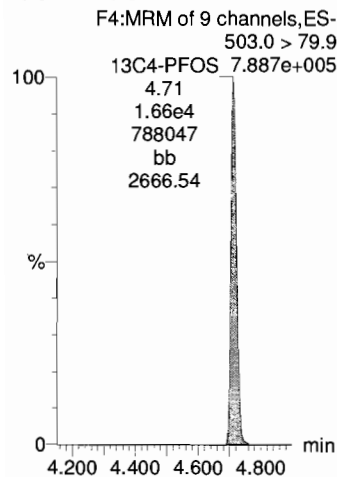
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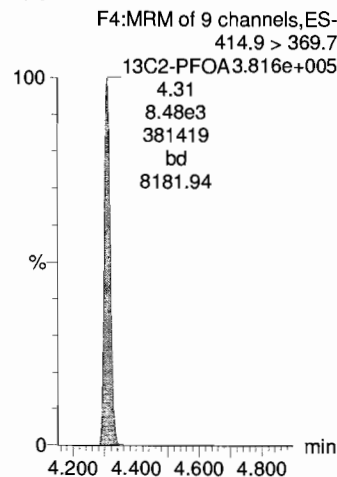
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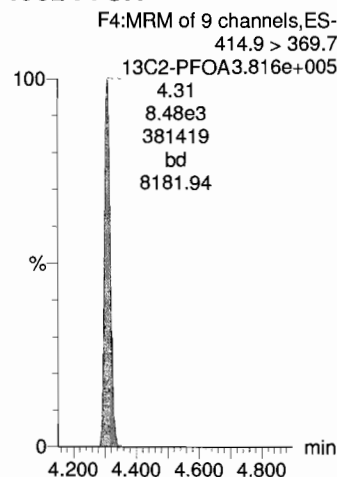
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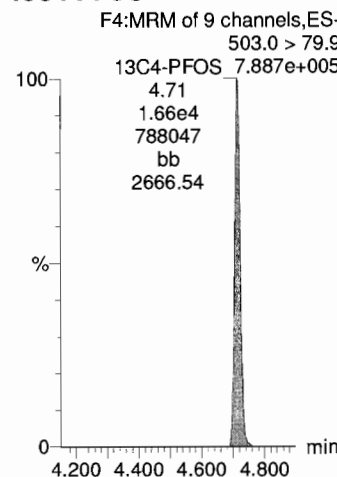
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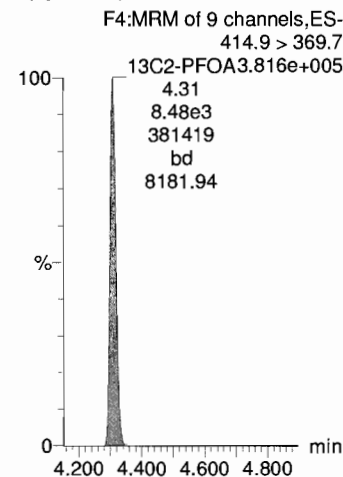
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13C4-PFOS



13C2-PFOA



MJT 2/23/2018

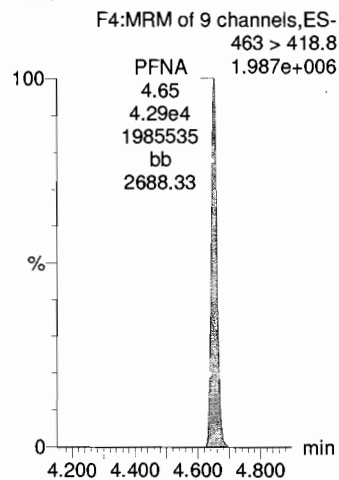
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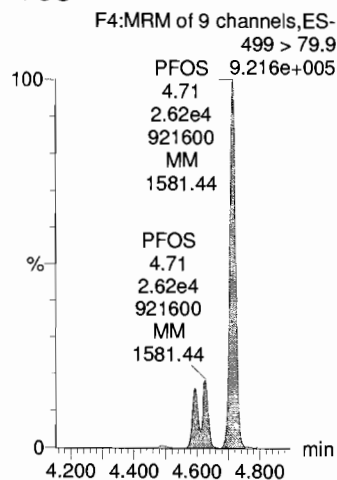
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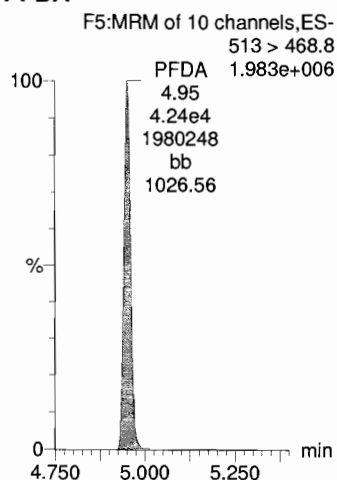
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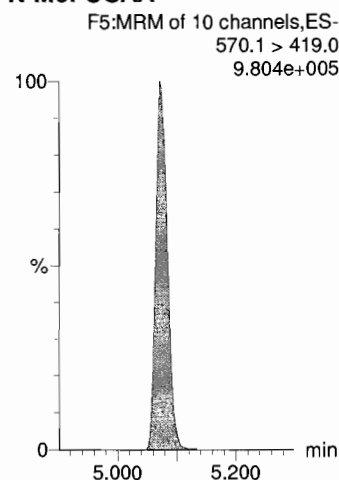
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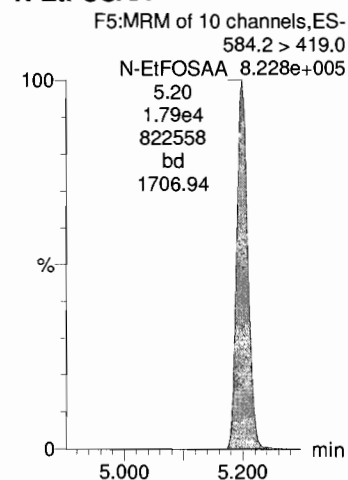
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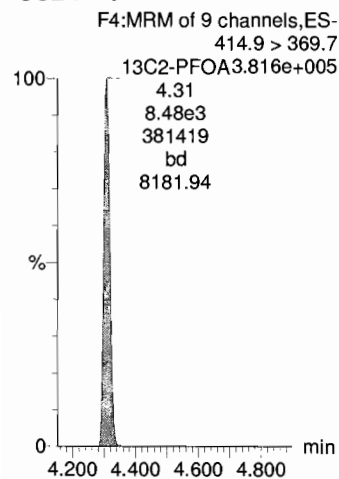
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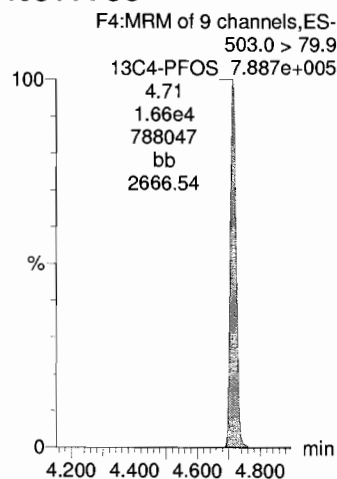
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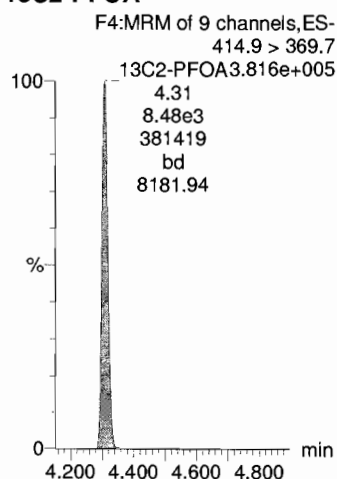
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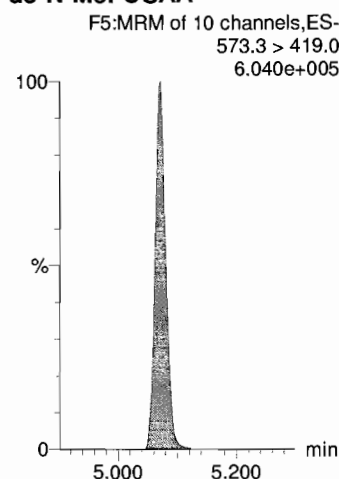
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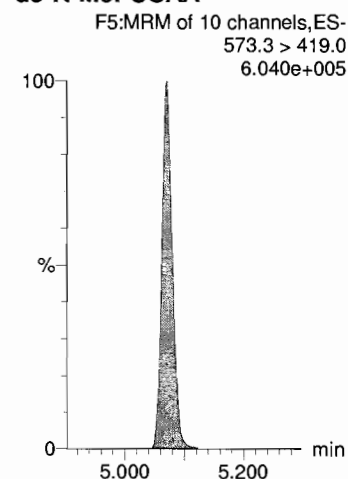
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d3-N-MeFOSAA



d3-N-MeFOSAA



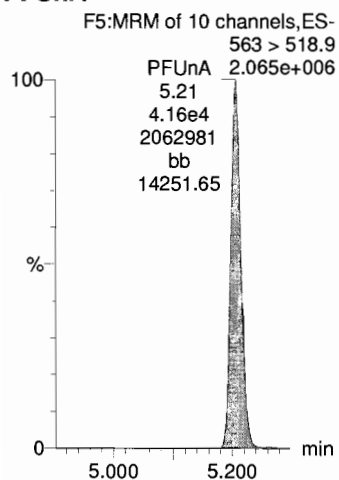
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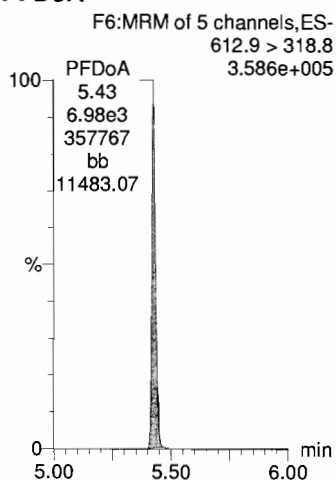
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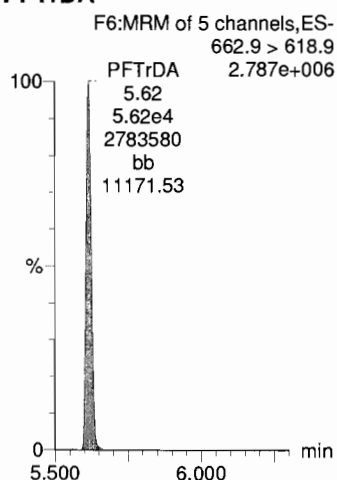
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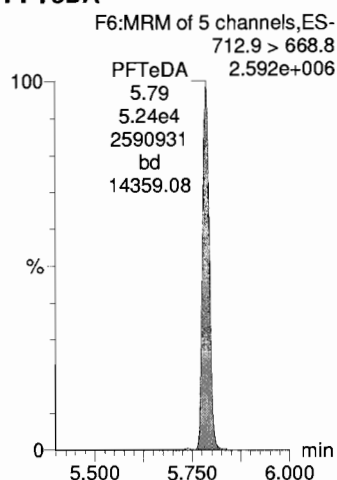
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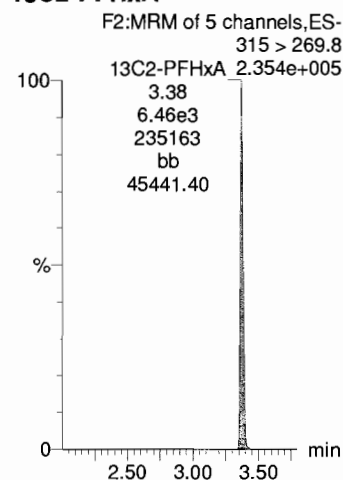
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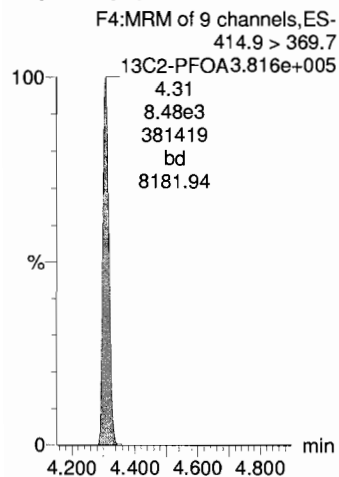
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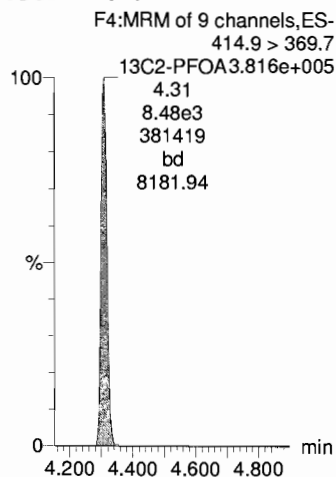
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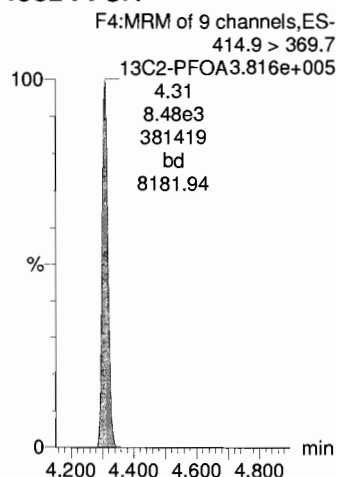
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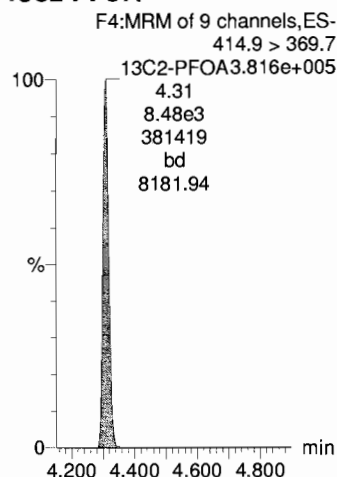
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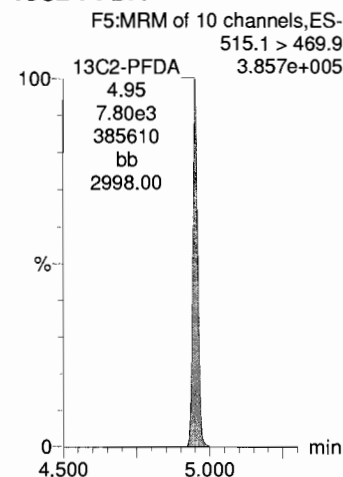
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13C2-PFOA



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MJT 2/23/2018

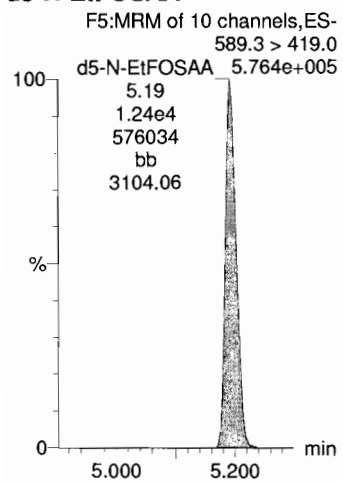
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Name: 180223G2_8, Date: 23-Feb-2018, Time: 14:44:25, ID: ST180223G2-7 PFC CS3 537 18B2306, Description: PFC CS3 537 18B2306

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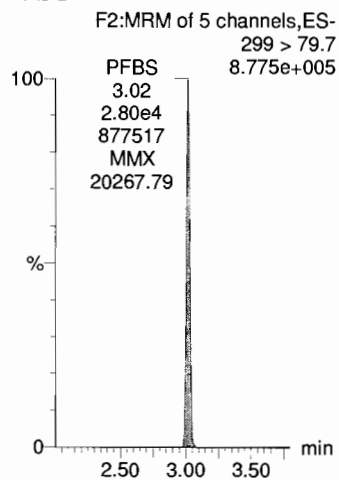
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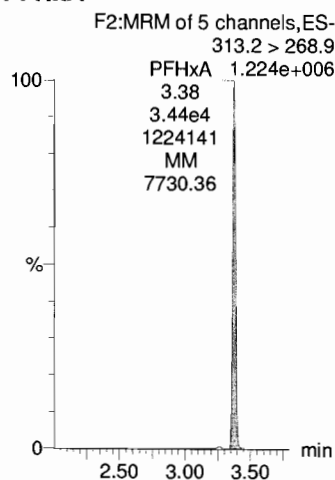
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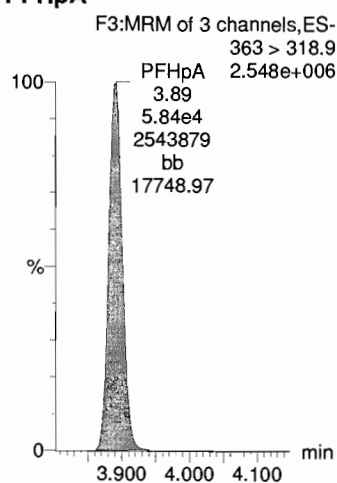
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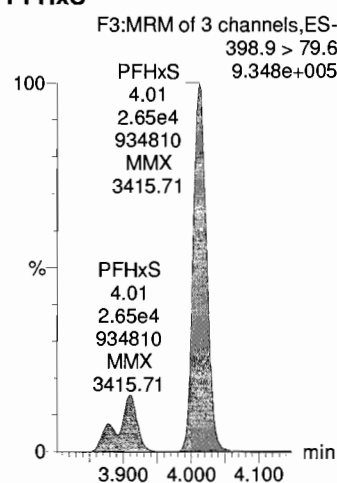
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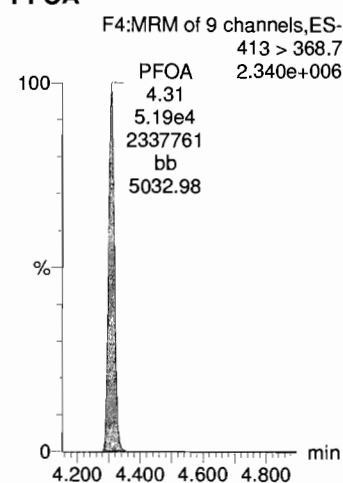
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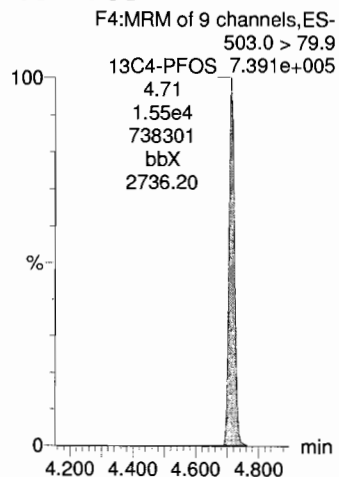
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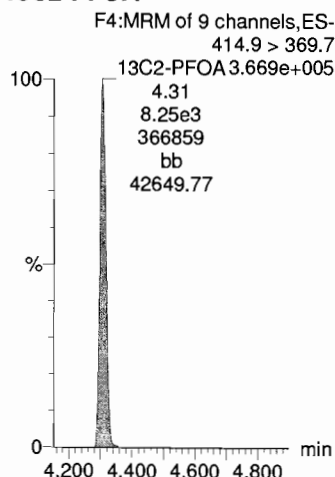
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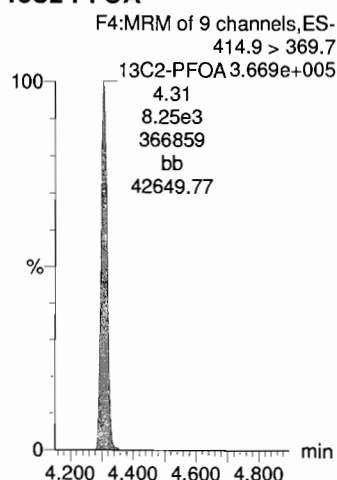
13C4-PFOS



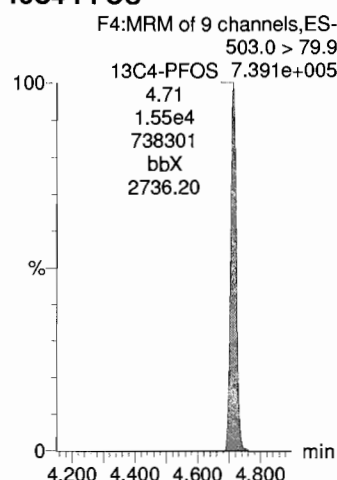
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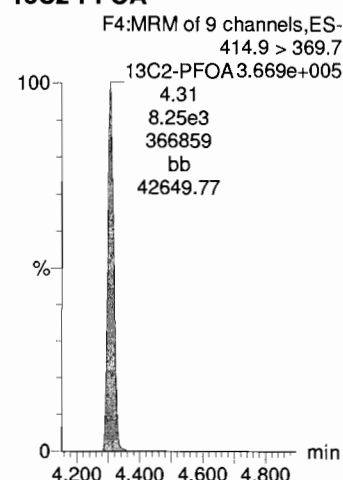
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13C4-PFOS



13C2-PFOA



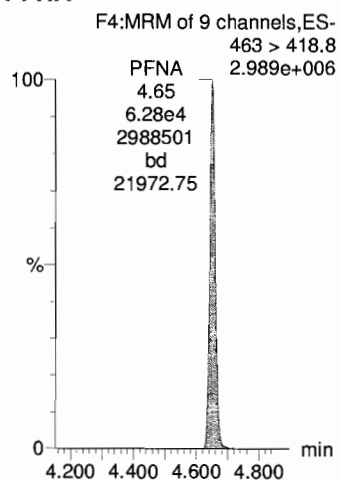
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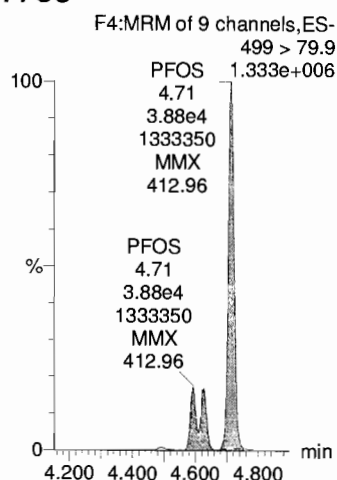
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Name: 180223G2_9, Date: 23-Feb-2018, Time: 14:56:52, ID: ST180223G2-8 PFC CS4 537 18B2307, Description: PFC CS4 537 18B2307

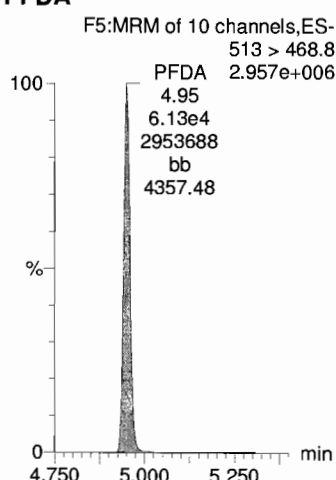
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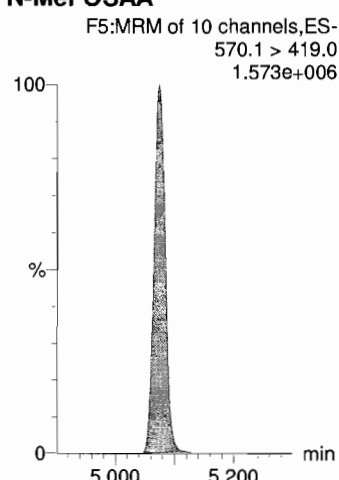
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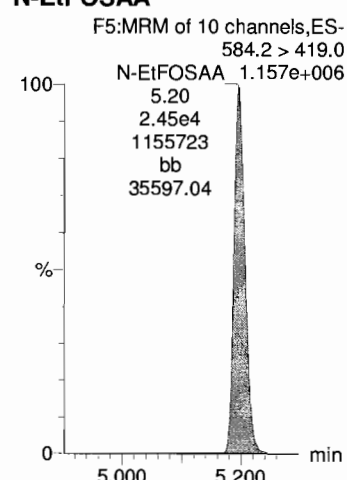
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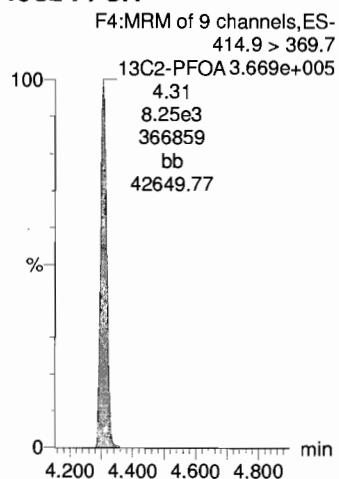
N-MeFOSAA



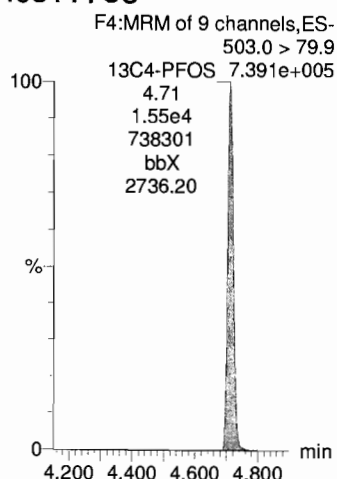
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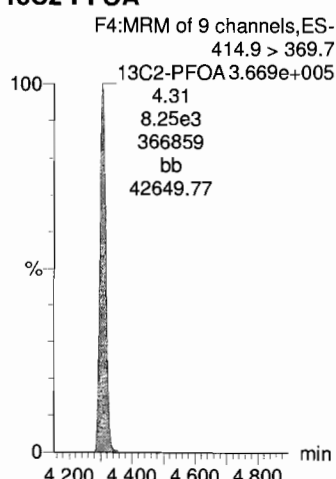
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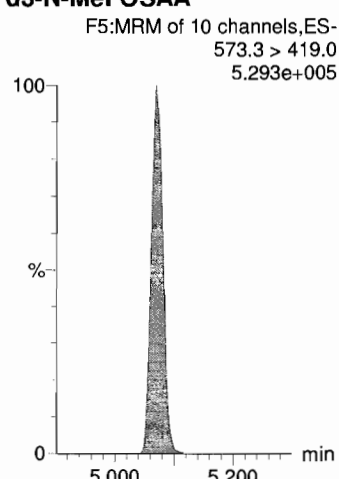
13C4-PFOS



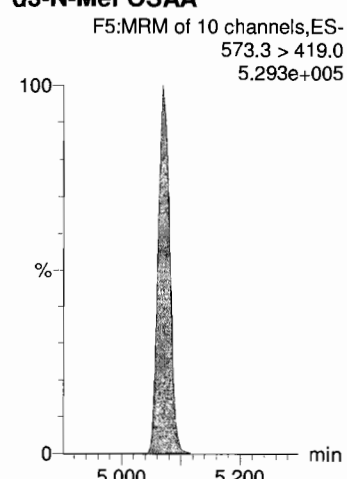
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



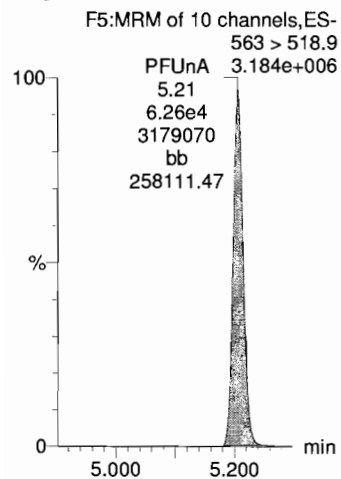
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Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

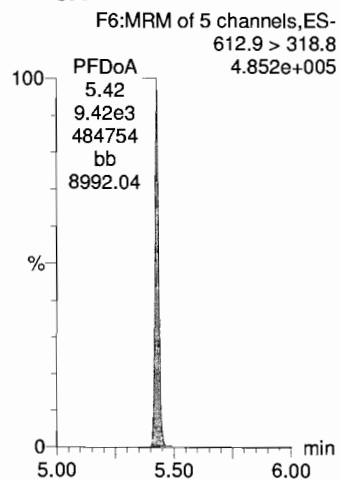
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Name: 180223G2_9, Date: 23-Feb-2018, Time: 14:56:52, ID: ST180223G2-8 PFC CS4 537 18B2307, Description: PFC CS4 537 18B2307

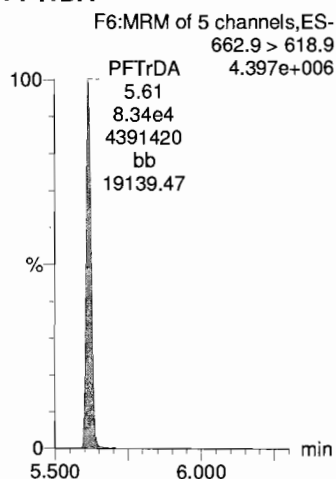
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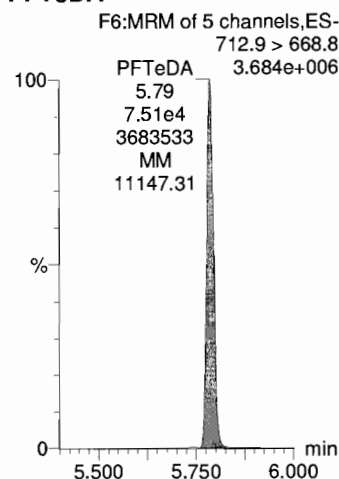
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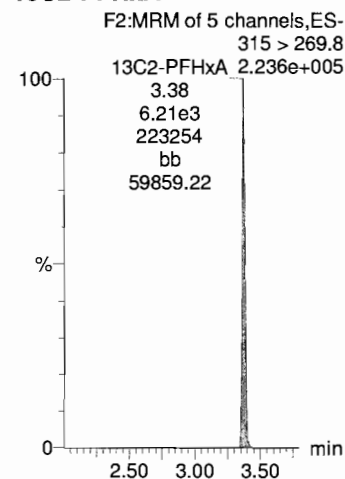
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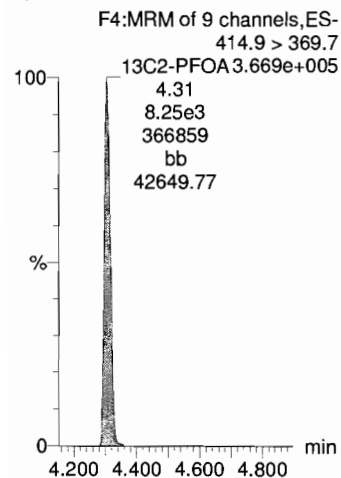
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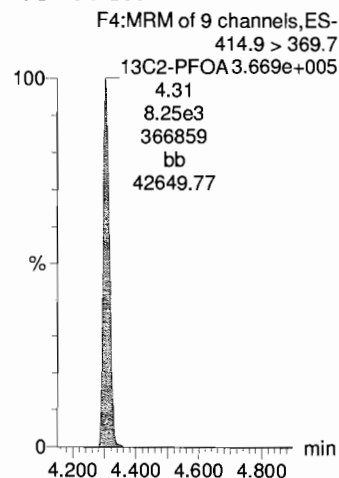
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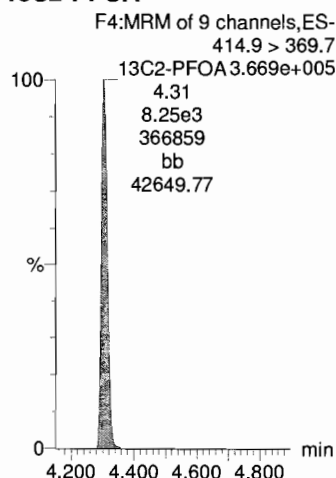
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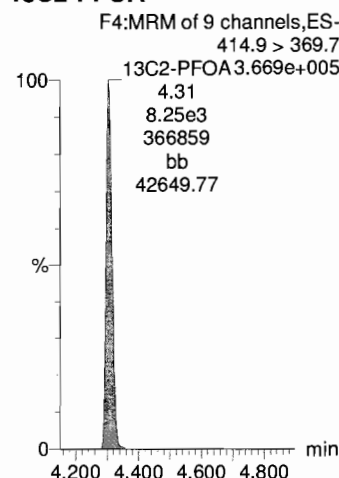
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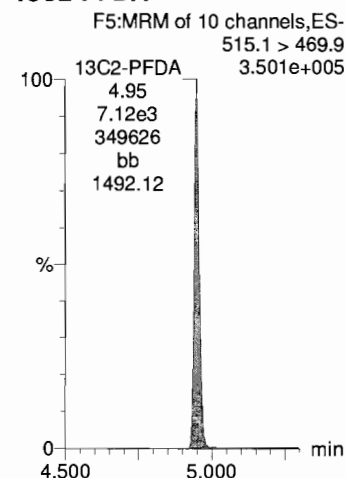
13C2-PFOA



13C2-PFOA



13C2-PFDA



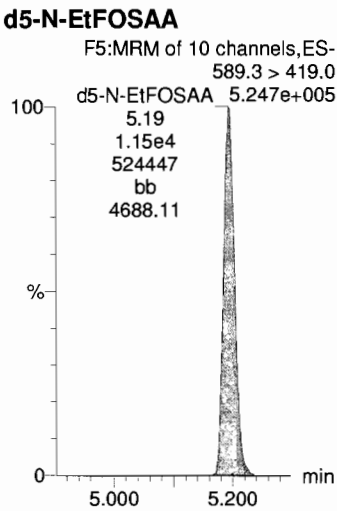
MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

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Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_9, Date: 23-Feb-2018, Time: 14:56:52, ID: ST180223G2-8 PFC CS4 537 18B2307, Description: PFC CS4 537 18B2307



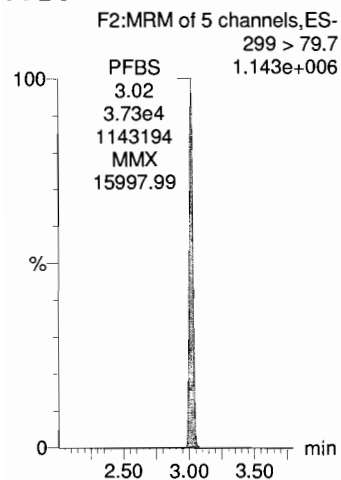
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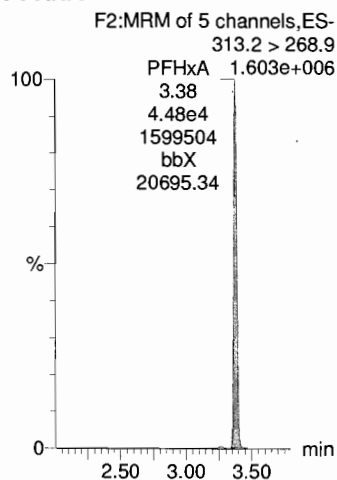
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Name: 180223G2_10, Date: 23-Feb-2018, Time: 15:09:16, ID: ST180223G2-9 PFC CS5 537 18B2308, Description: PFC CS5 537 18B2308

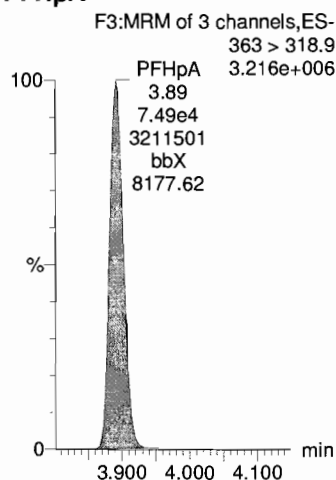
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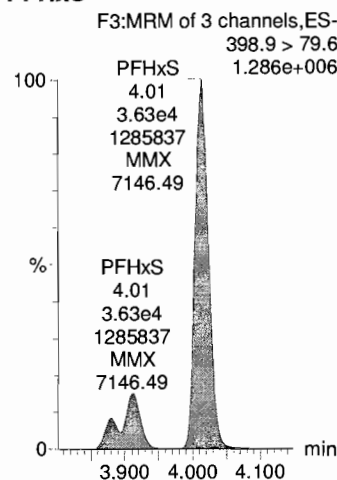
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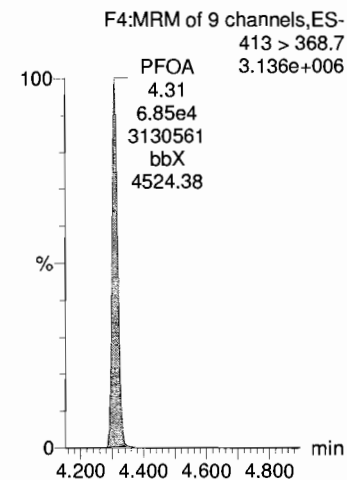
PFHpA



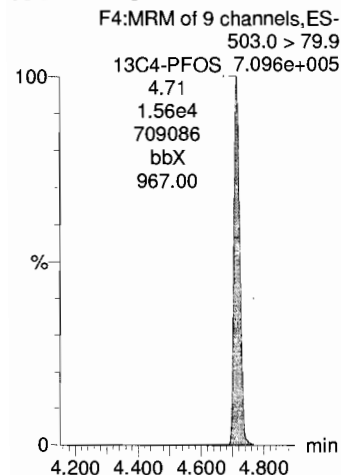
PFHxS



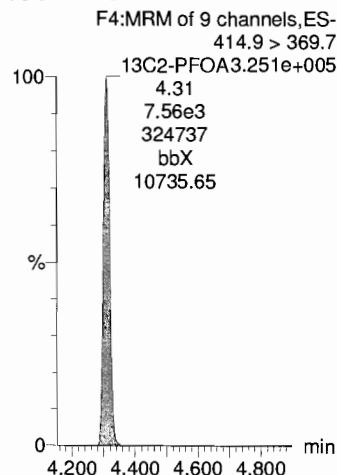
PFOA



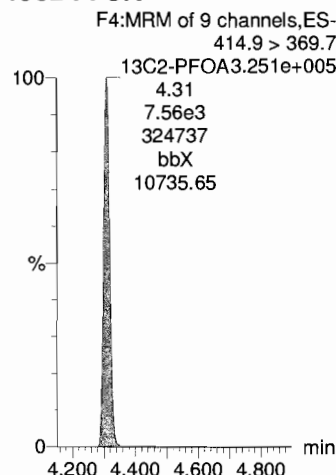
13C4-PFOS



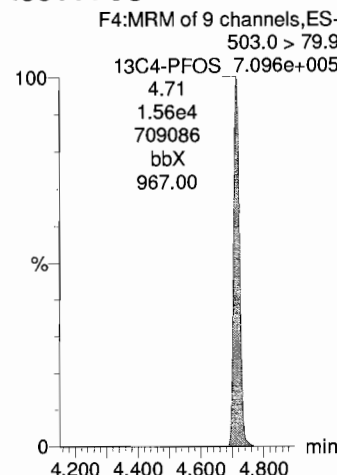
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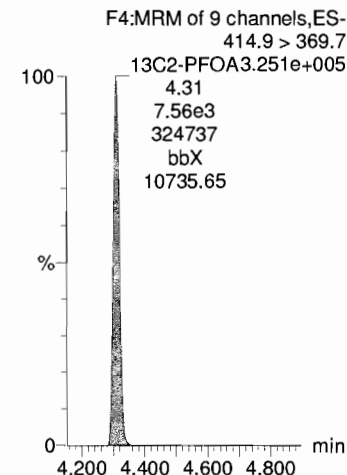
13C2-PFOA



13C4-PFOS



13C2-PFOA



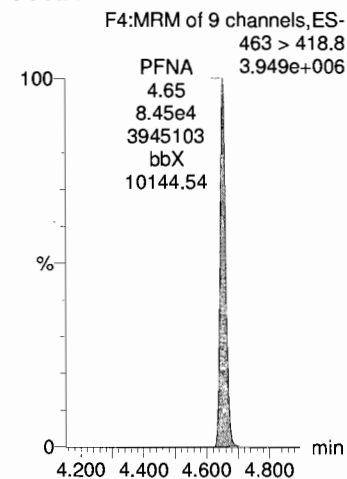
MJT 2/23/2018

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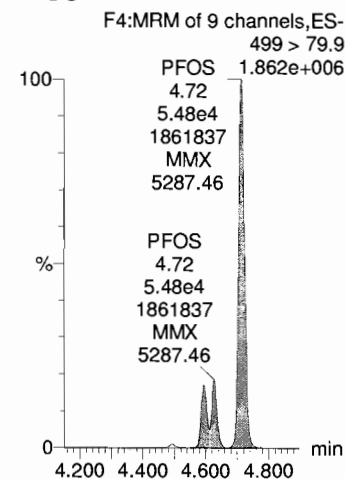
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Name: 180223G2_10, Date: 23-Feb-2018, Time: 15:09:16, ID: ST180223G2-9 PFC CS5 537 18B2308, Description: PFC CS5 537 18B2308

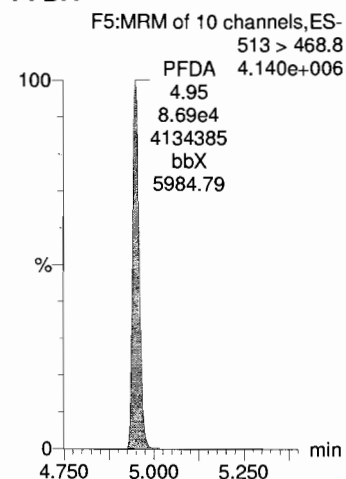
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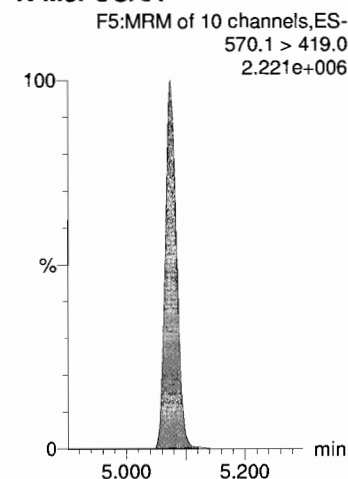
PFOS



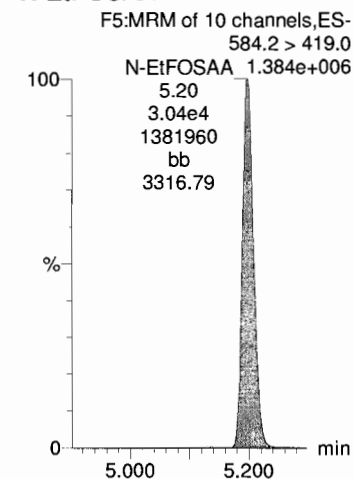
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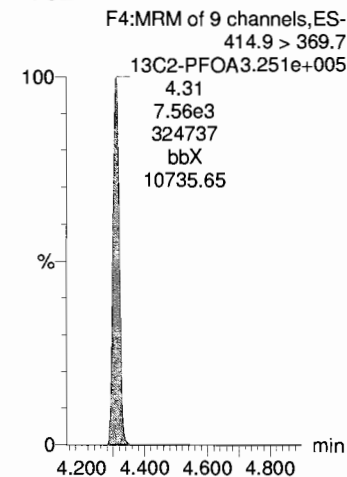
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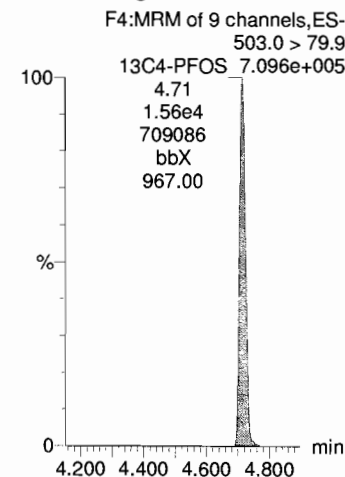
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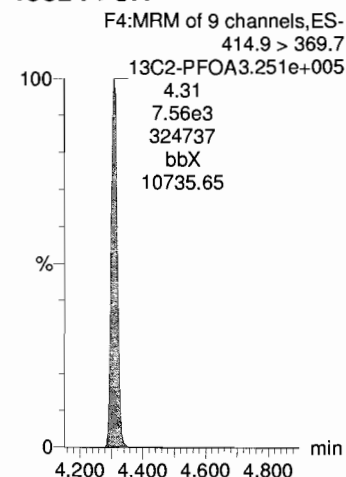
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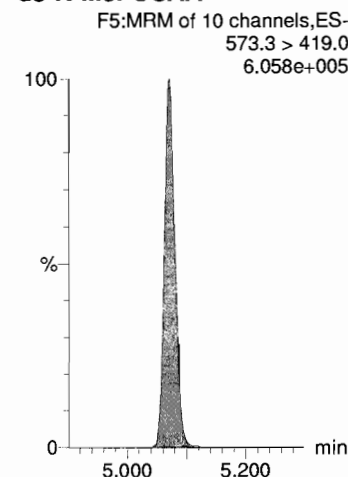
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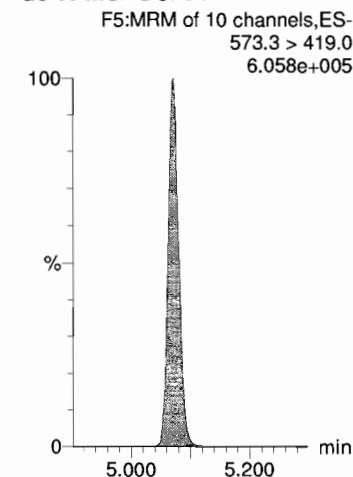
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d3-N-MeFOSAA



d3-N-MeFOSAA



MJT 2/23/2018

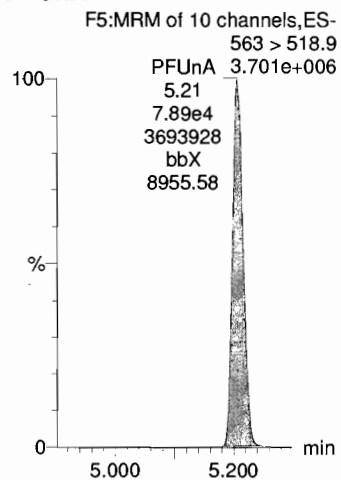
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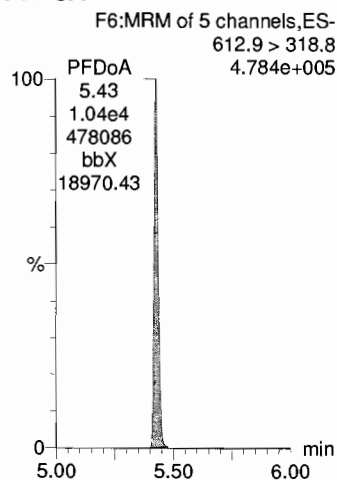
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Name: 180223G2_10, Date: 23-Feb-2018, Time: 15:09:16, ID: ST180223G2-9 PFC CS5 537 18B2308, Description: PFC CS5 537 18B2308

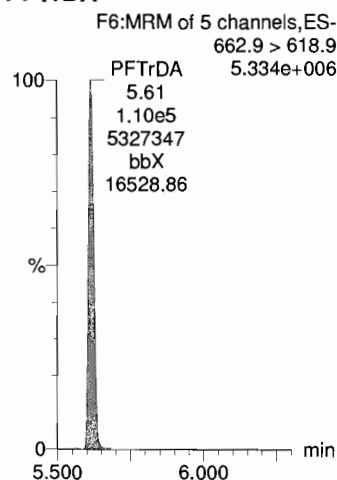
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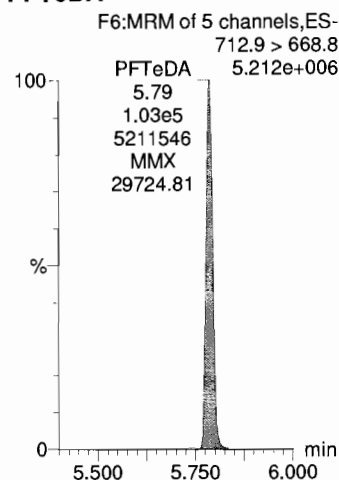
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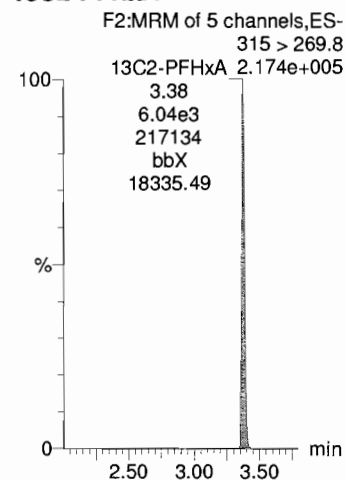
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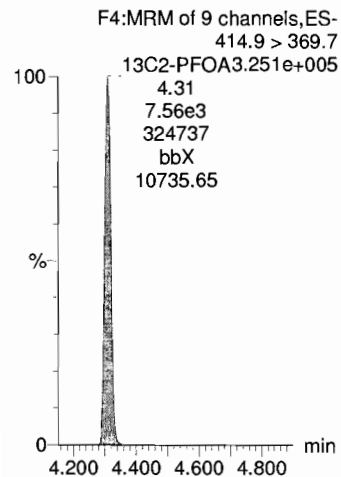
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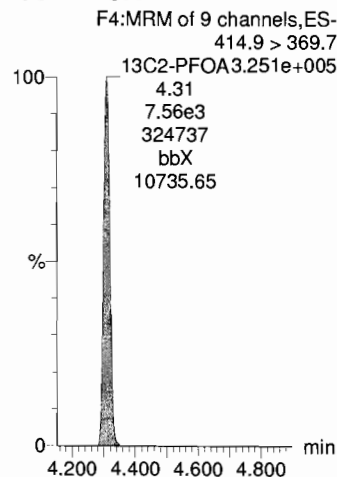
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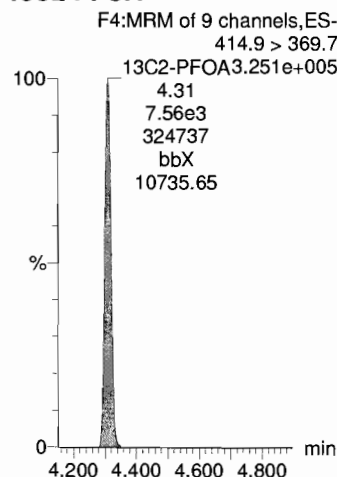
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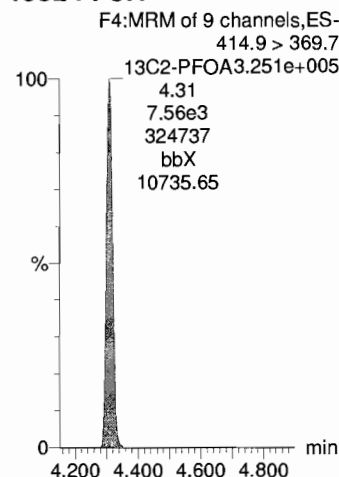
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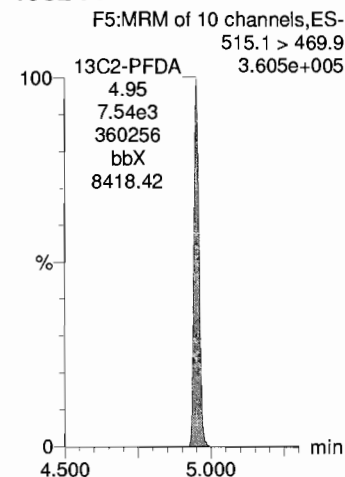
13C2-PFOA



13C2-PFOA



13C2-PFDA



MJT 2/23/2018

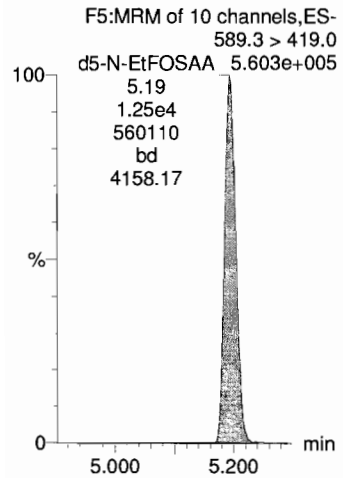
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Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_10, Date: 23-Feb-2018, Time: 15:09:16, ID: ST180223G2-9 PFC CS5 537 18B2308, Description: PFC CS5 537 18B2308

d5-N-EtFOSAA



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-12.qld

Last Altered: Friday, February 23, 2018 17:29:48 Pacific Standard Time

Printed: Friday, February 23, 2018 17:30:15 Pacific Standard Time

JA
02/24/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_12, Date: 23-Feb-2018, Time: 15:34:05, ID: ICV180223G2-1 PFC ICV 537 18B2309, Description: PFC ICV 537 18B2309

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	4.38e3	1.84e4	1.0000		3.02	3.02	6.82	9.32	93.2
2	2 PFHxA	313.2 > 268.9	5.03e3	8.33e3	1.0000		3.36	3.38	6.03	10.9	109.0
3	3 PFHpA	363 > 318.9	8.62e3	8.33e3	1.0000		3.88	3.89	10.3	11.0	110.1
4	4 PFHxS	398.9 > 79.6	4.37e3	1.84e4	1.0000		4.00	4.01	6.81	9.73	97.3
5	5 PFOA	413 > 368.7	7.32e3	8.33e3	1.0000		4.31	4.31	8.78	10.5	104.8
6	6 PFNA	463 > 418.8	1.03e4	8.33e3	1.0000		4.65	4.65	12.4	12.2	122.2
7	7 PFOS	499 > 79.9	6.52e3	1.84e4	1.0000		4.71	4.71	10.2	10.6	105.7
8	8 PFDA	513 > 468.8	9.34e3	8.33e3	1.0000		4.88	4.95	11.2	10.2	102.5
9	9 N-MeFOSAA	570.1 > 419.0	4.31e3	1.17e4	1.0000		5.01	5.08	14.7	11.0	109.9
10	10 N-EtFOSAA	584.2 > 419.0	3.95e3	1.17e4	1.0000		5.19	5.20	13.5	12.7	127.3
11	11 PFUnA	563 > 518.9	1.01e4	8.33e3	1.0000		5.14	5.21	12.2	12.1	121.2
12	12 PFDoA	612.9 > 318.8	1.39e3	8.33e3	1.0000		5.34	5.43	1.67	10.5	105.2
13	13 PFTrDA	662.9 > 618.9	1.34e4	8.33e3	1.0000		5.57	5.61	16.0	11.7	116.7
14	14 PFTeDA	712.9 > 668.8	1.13e4	8.33e3	1.0000		5.74	5.78	13.5	10.8	108.4
15	15 13C2-PFHxA	315 > 269.8	6.61e3	8.33e3	1.0000	0.731	3.46	3.38	7.94	10.9	108.5
16	16 13C2-PFDA	515.1 > 469.9	7.73e3	8.33e3	1.0000	0.910	4.91	4.95	9.28	10.2	102.0
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.26e4	1.17e4	1.0000	1.049	5.07	5.19	43.1	41.0	102.6
18	18 13C2-PFOA	414.9 > 369.7	8.33e3	8.33e3	1.0000	1.000	4.41	4.31	10.0	10.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.84e4	1.84e4	1.0000	1.000	4.81	4.71	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.17e4	1.17e4	1.0000	1.000	5.16	5.07	40.0	40.0	100.0

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-12.qld

Last Altered: Friday, February 23, 2018 17:29:48 Pacific Standard Time

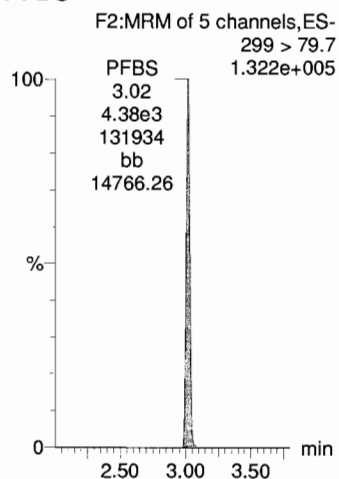
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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

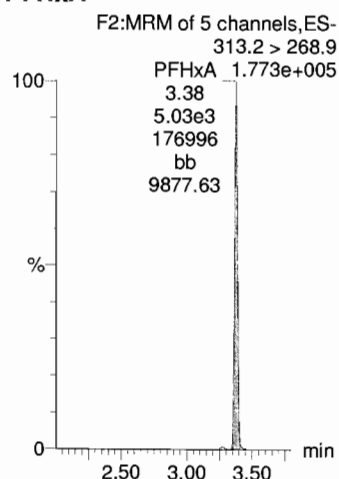
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_12, Date: 23-Feb-2018, Time: 15:34:05, ID: ICV180223G2-1 PFC ICV 537 18B2309, Description: PFC ICV 537 18B2309

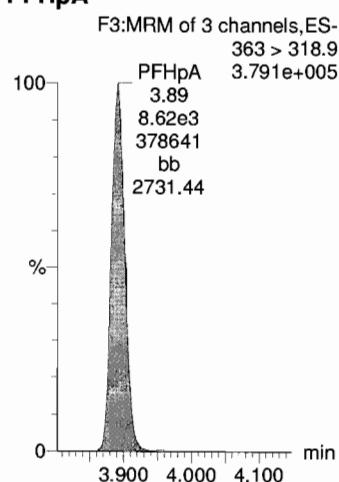
PFBS



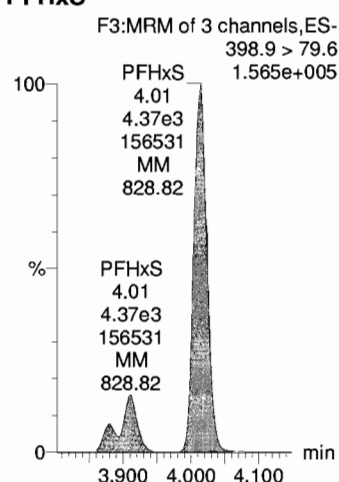
PFHxA



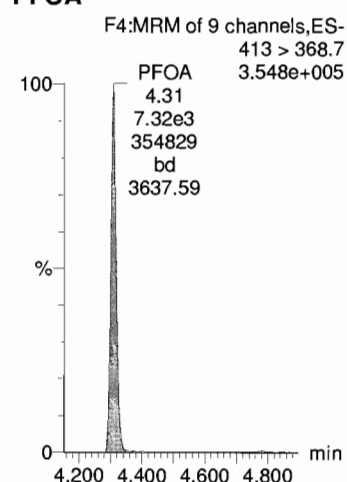
PFHpA



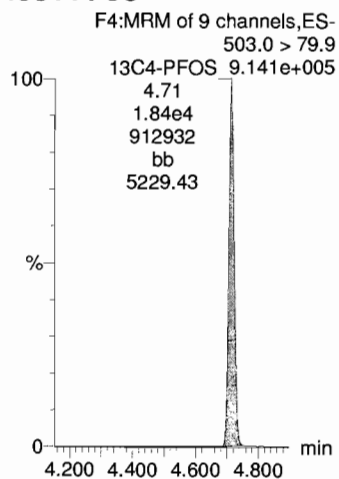
PFHxS



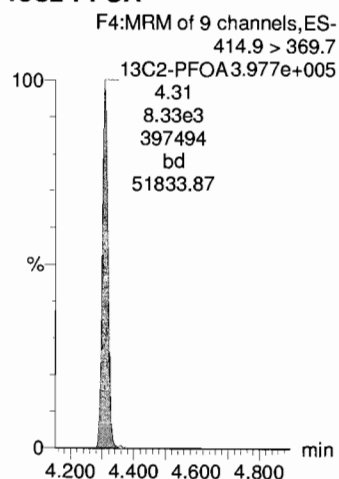
PFOA



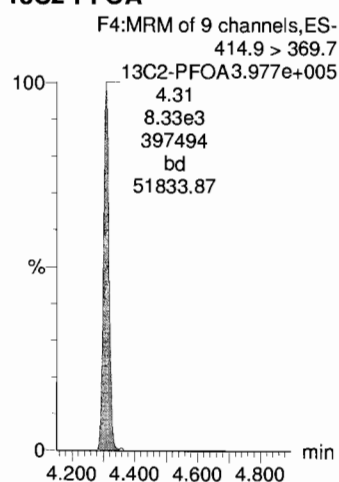
13C4-PFOS



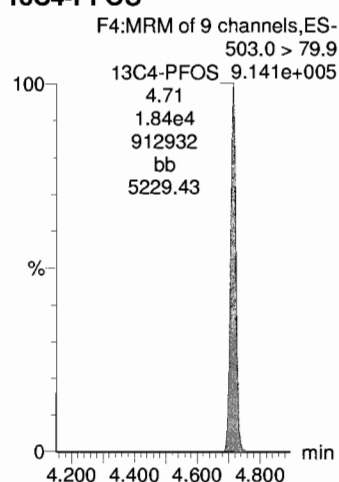
13C2-PFOA



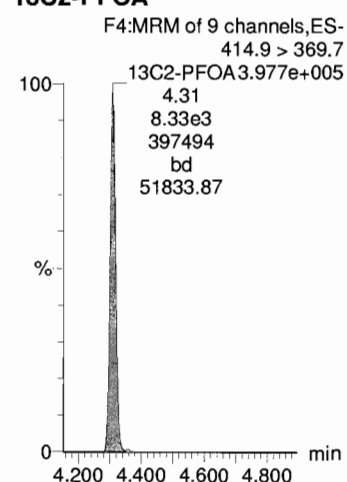
13C2-PFOA



13C4-PFOS



13C2-PFOA



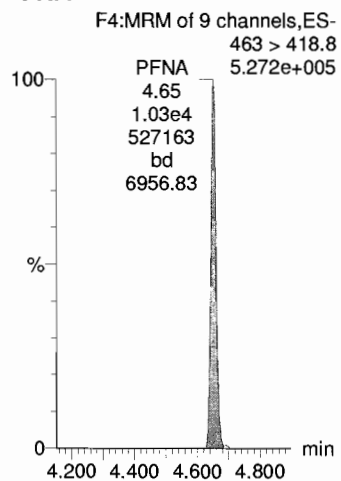
MJT 2/23/2018

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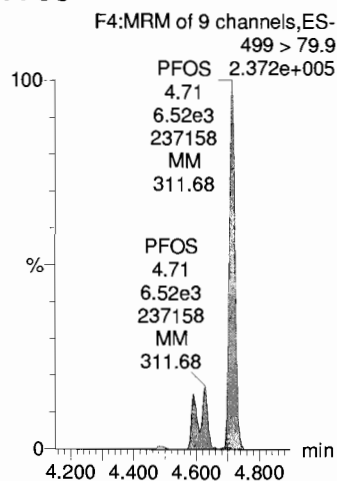
Last Altered: Friday, February 23, 2018 17:29:48 Pacific Standard Time
Printed: Friday, February 23, 2018 17:30:15 Pacific Standard Time

Name: 180223G2_12, Date: 23-Feb-2018, Time: 15:34:05, ID: ICV180223G2-1 PFC ICV 537 18B2309, Description: PFC ICV 537 18B2309

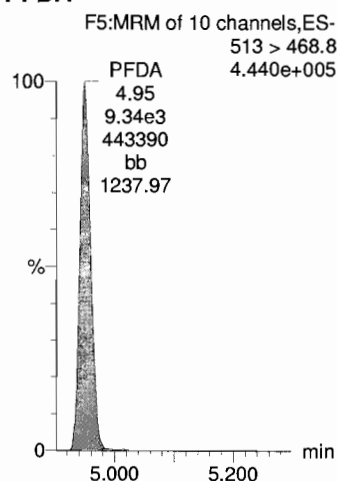
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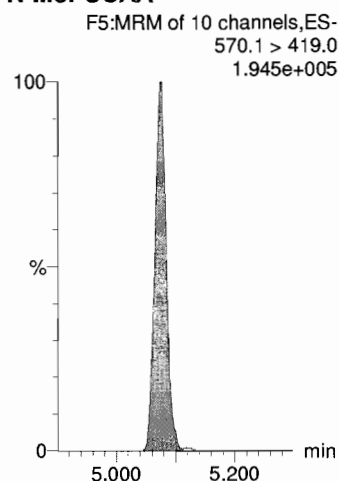
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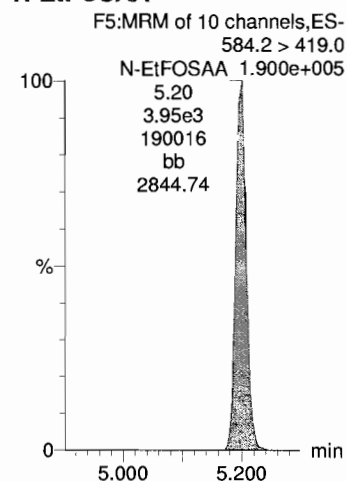
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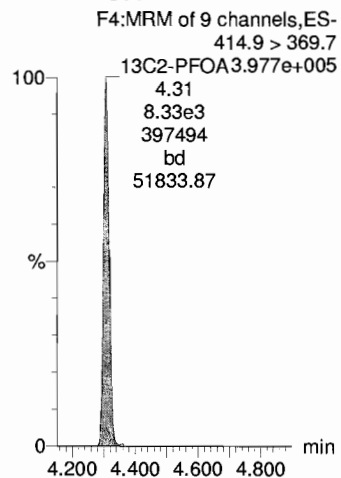
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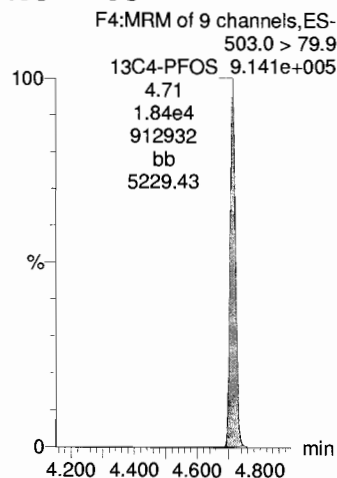
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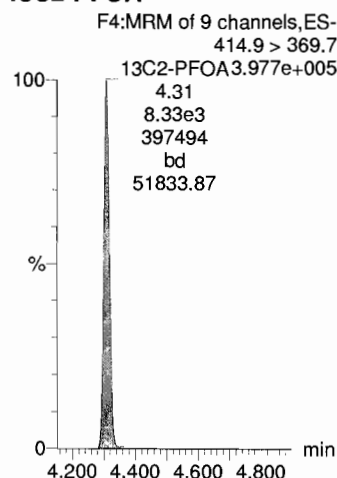
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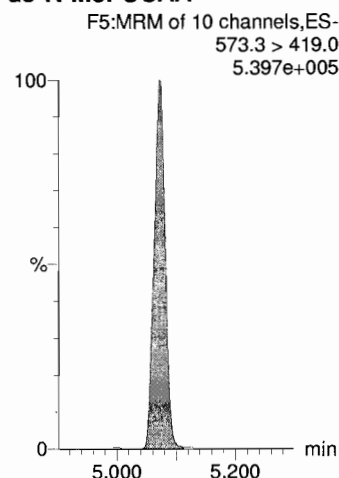
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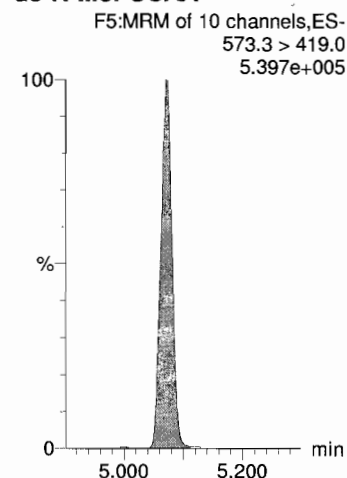
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d3-N-MeFOSAA



d3-N-MeFOSAA



MJT 2/23/2018

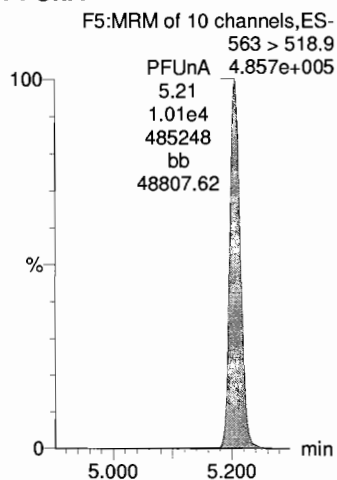
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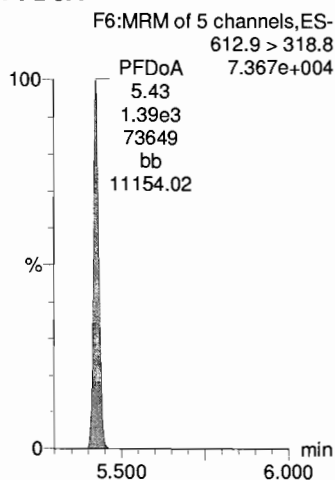
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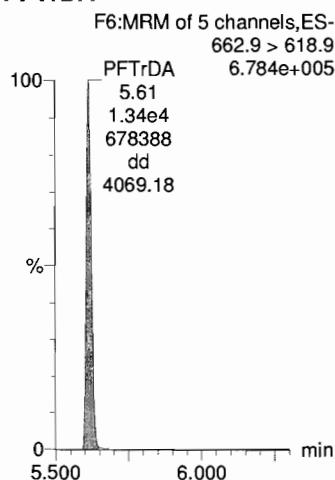
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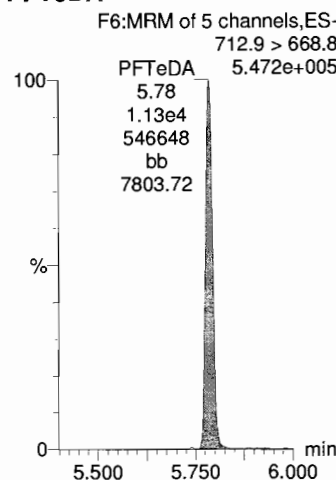
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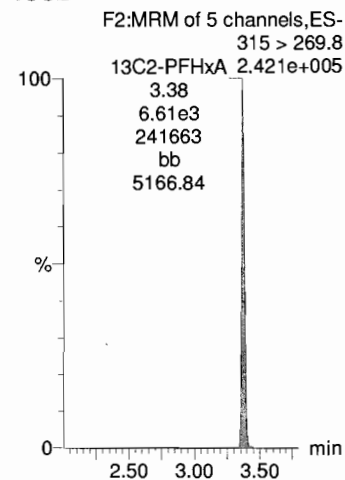
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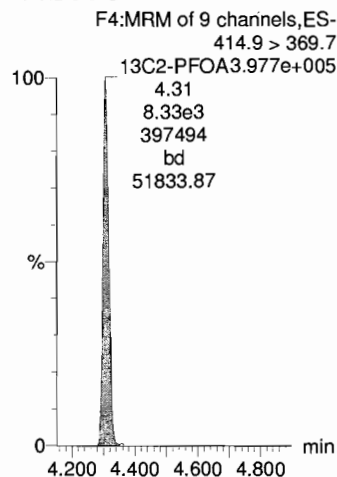
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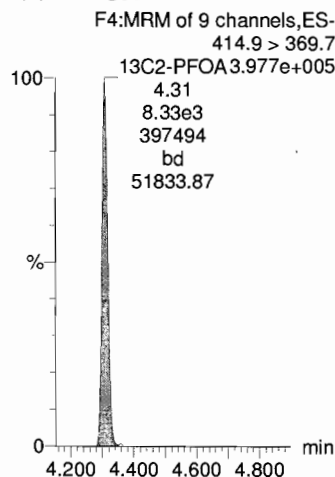
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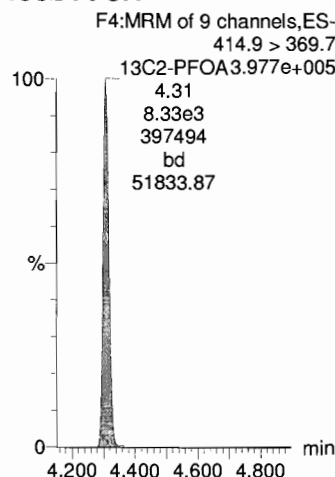
13C2-PFOA



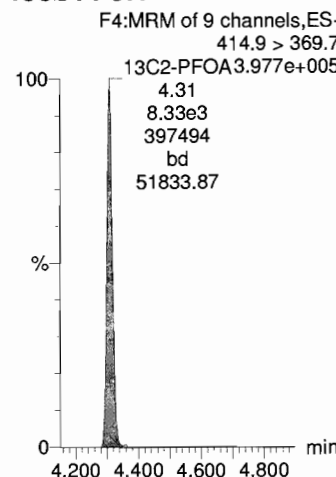
13C2-PFOA



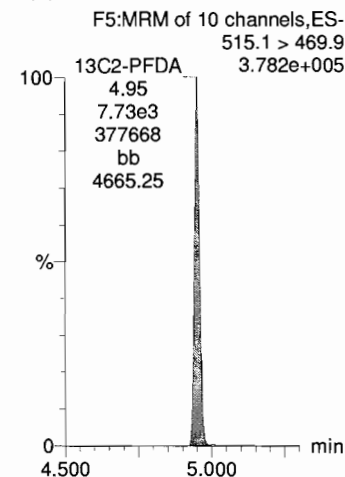
13C2-PFOA



13C2-PFOA



13C2-PFDA



MJT 2/23/2018

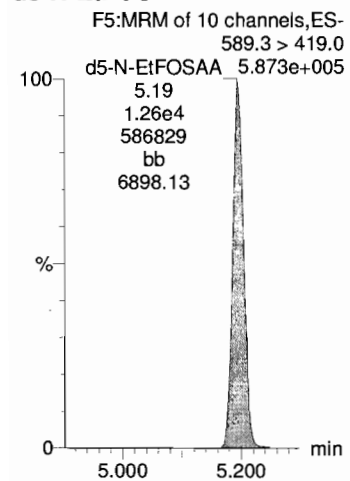
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Last Altered: Friday, February 23, 2018 17:29:48 Pacific Standard Time

Printed: Friday, February 23, 2018 17:30:15 Pacific Standard Time

Name: 180223G2_12, Date: 23-Feb-2018, Time: 15:34:05, ID: ICV180223G2-1 PFC ICV 537 18B2309, Description: PFC ICV 537 18B2309

d5-N-EtFOSAA



MJT 2/23/2018

[illegible]

[illegible]

**DATA VALIDATION SUMMARY REPORT
NAS WHIDBEY ISLAND, WASHINGTON**

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 1800274
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: NAS Whidbey Island, Area 6, CTO-4041, Washington
Date: May 12, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	WI-A06-RW01-0218	1800274-01	Water
2	WI-A06-FB01-0218	1800274-02	Water
3	WI-A06-RW02-0218	1800274-03	Water
4	WI-A06-FB02-0218	1800274-04	Water
5	WI-A06-RW03-0218	1800274-05	Water
6	WI-A06-FB03-0218	1800274-06	Water
7	WI-A06-RW04-0218	1800274-07	Water
8	WI-A06-FB04-0218	1800274-08	Water
9	WI-A06-RW05-0218	1800274-09	Water
10	WI-A06-FB05-0218	1800274-10	Water
11	WI-A06-RW06-0218	1800274-11	Water
12	WI-A06-RW05P-0218	1800274-12	Water
13	WI-A06-FB06-0218	1800274-13	Water
14	WI-A06-RW07-0218	1800274-14	Water
15	WI-A06-FB07-0218	1800274-15	Water
16	WI-A06-RW08-0218	1800274-16	Water
17	WI-A06-FB08-0218	1800274-17	Water

A full data validation was performed on the analytical data for nine water samples and eight aqueous field blanks sample collected on February 5-6, 2018 by CH2M HILL at the NAS Whidbey Island Area 6 site in Washington. The samples were analyzed under the EPA Method "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)".

Specific method references are as follows:

Analysis
PFCs

Method References
USEPA Method 537

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA “Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review,” January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Gas Chromatography/Mass Spectrometry (GC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data are acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent difference (%D) and RRF criteria were met.

Method Blank

- The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
B8B0104-BLK1	PFHxA	0.685	U	1, 3, 6, 7, 10, 13, 15

Field QC Blank

- Field QC sample result are summarized in the table below.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
WI-A06-FB01-0218	None - ND	-	-	-
WI-A06-FB02-0218	None - ND	-	-	-
WI-A06-FB03-0218	None - ND	-	-	-
WI-A06-FB04-0218	None - ND	-	-	-
WI-A06-FB05-0218	None - ND	-	-	-
WI-A06-FB06-0218	None - ND	-	-	-
WI-A06-FB07-0218	None - ND	-	-	-
WI-A06-FB08-0218	None - ND	-	-	-

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria except for the following.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- EDS Samples 9 and 12 were analyzed at a 2X dilution for PFHxS due to high concentrations. The reporting limits were adjusted accordingly. No action was taken.

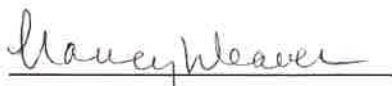
Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

PFCs				
Compound	WI-A06-RW05-0218 ng/L	WI-A06-RW05P-0218 ng/L	RPD	Qualifier
PFBS	28.9	28.9	0%	None
PFHxA	48.6	49.8	2%	
PFHpA	20.2	21.4	6%	
PFHxS	210	232	10%	
PFOA	57.7	55.3	4%	
PFNA	4.98U	1.67	NC	
PFOS	64.1	63.8	0%	

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:


Nancy Weaver
Senior Chemist

Dated: 5/15/18

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

Sample ID: WI-A06-RW01-0218										EPA Method 537			
Client Data				Laboratory Data									
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-01	Column:	BEH C18						
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 15:06	Date Received:	08-Feb-18 09:03								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFBS	ND	0.466	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFHxA	5.25	0.698	5.25	10.5	L-B	B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFHpA	ND	0.561	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFHxS	ND	0.437	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFOA	ND	1.14	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFNA	ND	1.52	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFOS	ND	1.09	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFDA	ND	1.35	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
MeFOSAA	ND	3.20	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
EtFOSAA	ND	2.03	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFUnA	ND	0.268	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFDoA	ND	1.00	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFTtDA	ND	0.992	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
PFTeDA	ND	0.818	5.25	10.5		B8B0104	16-Feb-18	0.238 L	23-Feb-18 17:00	1			
Labeled Standards	Type	% Recovery	Limits	Qualifiers Batch Extracted Samp Size Analyzed Dilution									
13C2-PFHxA	SURR	97.4	70 - 130	B8B0104 16-Feb-18 0.238 L 23-Feb-18 17:00 1									
13C2-PFDA	SURR	88.3	70 - 130	B8B0104 16-Feb-18 0.238 L 23-Feb-18 17:00 1									
d5-EtFOSAA	SURR	102	70 - 130	B8B0104 16-Feb-18 0.238 L 23-Feb-18 17:00 1									

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

new 5/12/18

Sample ID: WI-A06-FB01-0218										EPA Method 537			
Client Data				Laboratory Data									
Name:		CH2M Hill		Matrix:		Drinking Water		Lab Sample:		1800274-02		Column:	
Project:		CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected:		05-Feb-18 15:07		Date Received:		08-Feb-18 09:03			
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFBS	ND	0.435	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFHxA	ND	0.651	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFHpA	ND	0.523	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFHxS	ND	0.408	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFOA	ND	1.06	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFNA	ND	1.41	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFOS	ND	1.02	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFDA	ND	1.26	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
MeFOSAA	ND	2.99	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
EtFOSAA	ND	1.90	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFUnA	ND	0.250	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFDoA	ND	0.935	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFTTrDA	ND	0.926	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
PFTeDA	ND	0.763	4.90	9.82		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
Labeled Standards	Type	% Recovery		Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
13C2-PFHxA	SURR	101		70 - 130		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
13C2-PFDA	SURR	98.0		70 - 130		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			
d5-EtFOSAA	SURR	109		70 - 130		B8B0104	16-Feb-18	0.255 L	23-Feb-18 17:13	1			

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

msl121.8

Sample ID: W1-A06-RW02-0218										EPA Method 537			
Client Data				Laboratory Data									
Name: CH2M Hill		Matrix: Drinking Water		Lab Sample: 1800274-03		Batch: B8B0104		Samp Size: 0.249 L		Analyzed: 23-Feb-18 17:25			
Project: CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected: 05-Feb-18 15:38		Date Received: 08-Feb-18 09:03		Batch: B8B0104		Samp Size: 0.249 L		Analyzed: 23-Feb-18 17:25			
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFBS	ND	0.445	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFHxA	5.02	0.666	5.02	10.1	LB	B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFHpA	ND	0.536	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFHxS	1.31	0.417	5.02	10.1	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFOA	ND	1.09	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFNA	ND	1.45	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFOS	ND	1.05	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFDA	ND	1.29	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
MeFOSAA	ND	3.06	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
EtFOSAA	ND	1.94	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFUnA	ND	0.256	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFDoA	ND	0.957	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFTDA	ND	0.948	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
PFTeDA	ND	0.781	5.02	10.1		B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1			
Labeled Standards	Type	% Recovery		Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C2-PFHxA	SURR	101		70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1		
13C2-PFDA	SURR	89.3		70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1		
d5-EtFOSAA	SURR	90.7		70 - 130			B8B0104	16-Feb-18	0.249 L	23-Feb-18 17:25	1		

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

new 5/12/18

Sample ID: WI-A06-FB02-0218

EPA Method 537

Client Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-04
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 15:39	Date Received:	08-Feb-18 09:03
				Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.449	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHxA	ND	0.672	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHpA	ND	0.540	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFHxS	ND	0.420	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFOA	ND	1.09	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFNA	ND	1.46	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFOS	ND	1.05	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFDA	ND	1.30	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
MeFOSAA	ND	3.08	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
EtFOSAA	ND	1.96	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFUnA	ND	0.258	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFDoA	ND	0.965	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFTTrDA	ND	0.955	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
PFTeDA	ND	0.787	5.06	10.1		B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
Labeled Standards	Type	% Recovery		Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.2	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
13C2-PFDA	SURR	89.1	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1
d5-EtFOSAA	SURR	96.7	70 - 130			B8B0104	16-Feb-18	0.247 L	23-Feb-18 17:38	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

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

51.21.8

Sample ID: WL-A06-RW03-0218										EPA Method 537					
Client Data				Laboratory Data											
Name:		CH2M Hill		Matrix:		Drinking Water		Lab Sample:		1800274-05		Column:		BEH C18	
Project:		CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected:		05-Feb-18 16:11		Date Received:		08-Feb-18 09:03					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution					
PFBS	41.8	0.450	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFHxA	55.7	0.674	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFHpA	19.9	0.542	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFHxS	108	0.422	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFOA	27.9	1.10	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFNA	ND	1.46	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFOS	7.59	1.06	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFDA	ND	1.30	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
MeFOSAA	ND	3.09	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
EtFOSAA	ND	1.96	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFUnA	ND	0.259	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFDoA	ND	0.968	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFTtDA	ND	0.959	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
PFTeDA	ND	0.790	5.08	10.2		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
Labeled Standards	Type	% Recovery		Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution					
13C2-PFHxA	SURR	109		70 - 130		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
13C2-PFDA	SURR	86.7		70 - 130		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					
d5-EtFOSAA	SURR	105		70 - 130		B8B0104	16-Feb-18	0.246 L	23-Feb-18 17:50	1					

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

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Sample ID: WI-A06-FB03-0218

EPA Method 537

Client Data				Laboratory Data						
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-06	Column:	BEH C18			
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:12	Date Received:	08-Feb-18 09:03					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.435	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHxA	4.92-0.739 ✓	0.652	4.92	9.83	✓	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHpA	ND	0.524	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFHxS	ND	0.408	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFOA	ND	1.06	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFNA	ND	1.42	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFOS	ND	1.02	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFDA	ND	1.26	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
MeFOSAA	ND	2.99	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
EtFOSAA	ND	1.90	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFUnA	ND	0.251	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFDoA	ND	0.935	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFTTrDA	ND	0.927	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
PFTeDA	ND	0.764	4.92	9.83		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
13C2-PFDA	SURR	85.8	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1
d5-EtFOSAA	SURR	94.8	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:02	1

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

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

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

raw SL1.21.8

Sample ID: WI-A06-RW04-0218

EPA Method 537

Client Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-07
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:50	Date Received:	08-Feb-18 09:03
				Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	37.9	0.436	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFPHxA	4.92	0.653	4.92	9.85	J-P	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFPHpA	1.52	0.525	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFHxS	50.6	0.409	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFOA	4.15	1.06	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFNA	ND	1.42	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFOS	2.77	1.02	4.92	9.85	J	B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFDA	ND	1.26	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
MeFOSAA	ND	3.00	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
EtFOSAA	ND	1.90	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFUnA	ND	0.251	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFDoA	ND	0.938	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFTTrDA	ND	0.929	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
PFTeDA	ND	0.766	4.92	9.85		B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
Labeled Standards	% Recovery		Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.0	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
13C2-PFDA	SURR	77.5	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1
d5-EtFOSAA	SURR	83.9	70 - 130			B8B0104	16-Feb-18	0.254 L	23-Feb-18 18:15	1

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

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Sample ID: W1-A06-FB04-0218

EPA Method 537

Client Data			Laboratory Data							
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-08	Column:	BEH C18			
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	05-Feb-18 16:51	Date Received:	08-Feb-18 09:03					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.447	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHxA	ND	0.668	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHpA	ND	0.537	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFHxS	ND	0.418	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFOA	ND	1.09	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFNA	ND	1.45	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFOS	ND	1.05	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFDA	ND	1.29	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
MeFOSAA	ND	3.06	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
EtFOSAA	ND	1.95	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFUnA	ND	0.257	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFDoA	ND	0.960	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFTrDA	ND	0.951	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
PFTeDA	ND	0.783	5.04	10.1		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	85.1	70 - 130		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1	
13C2-PFDA	SURR	78.1	70 - 130		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1	
d5-EtFOSAA	SURR	85.5	70 - 130		B8B0104	16-Feb-18	0.248 L	23-Feb-18 18:27	1	

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

new SL 2618

Sample ID: WI-A06-RW05-0218

EPA Method 537

Client Data			Laboratory Data							
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-09					
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 10:08	Date Received:	08-Feb-18 09:03					
Column:	BEH C18									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	28.9	0.442	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHxA	48.6	0.662	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHpA	20.2	0.532	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFHxS	210	0.828	9.96	20.0		B8B0104	16-Feb-18	0.251 L	26-Feb-18 11:08	2
PFOA	57.7	1.08	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFNA	ND	1.44	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFOS	64.1	1.04	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFDA	ND	1.28	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
MeFOSAA	ND	3.03	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
EtFOSAA	ND	1.93	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFUnA	ND	0.254	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFDoA	ND	0.950	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFTrDA	ND	0.941	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
PFTeDA	ND	0.775	4.98	9.98		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	95.4	70 - 130		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1	
13C2-PFDA	SURR	84.5	70 - 130		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1	
d5-EtFOSAA	SURR	88.4	70 - 130		B8B0104	16-Feb-18	0.251 L	23-Feb-18 19:17	1	

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

LC1-UCL- Lower control limit - upper control limit
Results reported to the DL.

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

new SL 2/18

Sample ID: W1-A06-FB05-0218

EPA Method 537

Client Data		Laboratory Data		Matrix:		Date Collected:		Date Received:		Column:	
Name:	CH2M Hill	Lab Sample:	1800274-10	Drinking Water		06-Feb-18 10:08		08-Feb-18 09:03		BEH C18	
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Received:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBs	ND	0.469	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFHxA	5.30	0.702	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFHpA	ND	0.564	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFHxS	ND	0.439	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFOA	ND	1.14	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFNA	ND	1.52	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFOS	ND	1.10	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFDA	ND	1.36	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
MeFOSAA	ND	3.22	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
EtFOSAA	ND	2.04	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFUnA	ND	0.270	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFDoA	ND	1.01	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFTtDA	ND	0.999	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
PFTeDA	ND	0.823	5.30	10.6		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C2-PFHxA	SURR	91.8	70 - 130		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1		
13C2-PFDA	SURR	75.3	70 - 130		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1		
d5-EtFOSAA	SURR	89.8	70 - 130		B8B0104	16-Feb-18	0.236 L	23-Feb-18 19:29	1		

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

5.30

Sample ID: WL-A06-RW06-0218										EPA Method 537	
Client Data				Laboratory Data							
Name: CH2M Hill		Matrix: Drinking Water		Lab Sample: 1800274-11		Column: BEH C18					
Project: CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected: 06-Feb-18 10:56		Date Received: 08-Feb-18 09:03							
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	ND	0.442	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFHxA	ND	0.662	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFHpA	ND	0.532	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFHxS	ND	0.414	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFOA	ND	1.08	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFNA	ND	1.44	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFOS	ND	1.04	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFDA	ND	1.28	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
MeFOSAA	ND	3.03	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
EiFOSAA	ND	1.93	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFUnA	ND	0.255	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFDoA	ND	0.950	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFTTrDA	ND	0.941	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
PFTeDA	ND	0.776	5.00	9.98		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C2-PFHxA	SURR	94.2	70 - 130		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42		1	
13C2-PFDA	SURR	70.6	70 - 130		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42		1	
d5-EiFOSAA	SURR	112	70 - 130		B8B0104	16-Feb-18	0.250 L	23-Feb-18 19:42		1	

DL - Detection Limit
 LOD - Limit of Detection
 LOQ - Limit of quantitation

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

new 5/12/18

Sample ID: W1-A06-RW05P-0218

EPA Method 537

Client Data		Laboratory Data	
Name:	CH2M Hill	Lab Sample:	1800274-12
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Received:	08-Feb-18 09:03
	Matrix: Drinking Water	Column:	BEH C18
	Date Collected: 06-Feb-18 10:08		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	28.9	0.444	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHxA	49.8	0.665	5.02	10.0	B	B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHpA	21.4	0.534	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFHxS	232	0.832	10.0	20.0	D	B8B0104	16-Feb-18	0.249 L	26-Feb-18 11:20	2
PFOA	55.3	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFNA	1.67	1.44	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFOS	63.8	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFDA	ND	1.28	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
EiFOSAA	ND	1.93	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFDoA	ND	0.954	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFTTrDA	ND	0.945	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
PFTeDA	ND	0.779	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	97.3	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1	
13C2-PFDA	SURR	86.1	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1	
d5-EiFOSAA	SURR	97.5	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 19:54	1	

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

see 5/2/18

Sample ID: W1-A06-FB06-0218

EPA Method 537

Client Data		Laboratory Data			
Name:	CH2M Hill	Lab Sample:	1800274-13	Column:	BEH C18
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 10:56	Date Received:	08-Feb-18 09:03

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.444	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHxA	5.02 0.770	0.665	5.02	10.0	1.18	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHpA	ND	0.534	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFHxS	ND	0.416	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFOA	ND	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFNA	ND	1.44	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFOS	ND	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFDA	ND	1.28	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
EtFOSAA	ND	1.94	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFDoA	ND	0.955	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFTrDA	ND	0.946	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
PFTeDA	ND	0.779	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	104	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1	
13C2-PFDA	SURR	90.2	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1	
d5-EtFOSAA	SURR	106	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:06	1	

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

sw sl. 2/18

Sample ID: W1-A06-RW07-0218										EPA Method 537			
Client Data				Laboratory Data									
Name: CH2M Hill		Matrix: Drinking Water		Lab Sample: 1800274-14		Column: BEH C18							
Project: CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected: 06-Feb-18 14:05		Date Received: 08-Feb-18 09:03									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFBS	ND	0.438	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFHxA	ND	0.655	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFHpA	ND	0.527	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFHxS	ND	0.410	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFOA	ND	1.07	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFNA	ND	1.42	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFOS	ND	1.03	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFDA	ND	1.26	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
MeFOSAA	ND	3.00	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
EtFOSAA	ND	1.91	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFUnA	ND	0.252	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFDoA	ND	0.941	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFTrDA	ND	0.932	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
PFTeDA	ND	0.768	4.94	9.88		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1			
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution				
13C2-PFHxA	SURR	104	70 - 130		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1				
13C2-PFDA	SURR	86.2	70 - 130		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1				
d5-EtFOSAA	SURR	91.0	70 - 130		B8B0104	16-Feb-18	0.253 L	23-Feb-18 20:19	1				

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

W 5/12/18

Sample ID: WL-A06-FB07-0218

EPA Method 537

Client Data			Laboratory Data							
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-15	Column:	BEH C18			
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 14:05	Date Received:	08-Feb-18 09:03					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.428	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHxA	4.84	0.641	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHpA	ND	0.516	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFHxS	ND	0.401	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFOA	ND	1.04	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFNA	ND	1.39	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFOS	ND	1.01	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFDA	ND	1.24	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
MeFOSAA	ND	2.94	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
EtFOSAA	ND	1.87	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFUnA	ND	0.247	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFDoA	ND	0.921	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFTTrDA	ND	0.912	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
PFTeDA	ND	0.752	4.84	9.67		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	95.8	70 - 130		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1	
13C2-PFDA	SURR	82.9	70 - 130		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1	
d5-EtFOSAA	SURR	111	70 - 130		B8B0104	16-Feb-18	0.258 L	23-Feb-18 20:31	1	

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

~ 51.2/18

Sample ID: WI-A06-RW08-0218										EPA Method 537			
Client Data				Laboratory Data									
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800274-16	Column:	BEH C18						
Project:	CLEAN CTO-4041 WHIDBEY ISLAND	Date Collected:	06-Feb-18 18:02	Date Received:	08-Feb-18 09:03								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFBS	23.0	0.445	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFHxA	15.1	0.666	5.02	10.0	✗	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFHpA	8.81	0.535	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFHxS	116	0.417	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFOA	25.4	1.08	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFNA	2.51	1.45	5.02	10.0	J	B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFOS	78.2	1.04	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFDA	ND	1.29	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
MeFOSAA	ND	3.05	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
EiFOSAA	ND	1.94	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFUnA	ND	0.256	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFDoA	ND	0.956	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFTrDA	ND	0.947	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
PFTeDA	ND	0.781	5.02	10.0		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1			
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution				
13C2-PFHxA	SURR	92.4	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1				
13C2-PFDA	SURR	74.4	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1				
d5-EiFOSAA	SURR	80.7	70 - 130		B8B0104	16-Feb-18	0.249 L	23-Feb-18 20:44	1				

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

see 51.2.1.8

Sample ID: W1-A06-FB08-0218										EPA Method 537			
Client Data				Laboratory Data									
Name: CH2M Hill		Matrix: Drinking Water		Lab Sample: 1800274-17		Date Received: 08-Feb-18 09:03		Column: BEH C18					
Project: CLEAN CTO-4041 WHIDBEY ISLAND		Date Collected: 06-Feb-18 18:02											
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFBS	ND	0.441	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFHxA	ND	0.661	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFHpA	ND	0.531	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFHxS	ND	0.414	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFOA	ND	1.08	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFNA	ND	1.43	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFOS	ND	1.04	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFDA	ND	1.28	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
MeFOSAA	ND	3.03	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
EiFOSAA	ND	1.92	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFUnA	ND	0.254	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFDoA	ND	0.949	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFTTrDA	ND	0.940	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
PFTeDA	ND	0.774	4.98	9.96		B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
Labeled Standards	Type	% Recovery	Limits	Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution			
13C2-PFHxA	SURR	96.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
13C2-PFDA	SURR	80.8	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			
d5-EiFOSAA	SURR	93.4	70 - 130			B8B0104	16-Feb-18	0.251 L	23-Feb-18 20:56	1			

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

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

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

as 5/12/18

[illegible]

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	SAMPLE_MATRIX_DESC	SAMPLE_NAME	SAMPLE_MATRIX	COLLECT_DATE	ANALYTICAL_METHOD_GRP_DESC
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB02-0218	WQ	05-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB02-0218	WQ	05-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB02-0218	WQ	05-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB02-0218	WQ	05-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB02-0218	WQ	05-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB05-0218	WQ	06-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB03-0218	WQ	05-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB03-0218	WQ	05-Feb-18	Perfluoroalkyl Compounds
		WHIDBEY_ISLAND_NAS			1800274			Water for QC samples	WI-A06-FB03-0218	WQ	05-Feb-18	Perfluoroalkyl Compounds

[illegible]

[illegible]

[illegible]